

02nd July 2025

NOTICE INVITING TENDER (NIT)
CORRIGENDUM-1

The Tata Power Company Limited Invites Tenders through E-Tender Two-Part bidding process from interested bidders (with manufacturing / assembling facilities in India) for the following package required for its Transmission Divisions in Mumbai: -

Corrigendum-1 to the Notice inviting tender dated 20th June 2025. Following changes are being effected vide this Corrigendum-1.

- i) Addition and Deletion of Scope
- ii) Change in Type of Contract structure.
- iii) Change in EMD value
- iv) Extension in tender purchase date

I) Change in Scope:

- a) **Addition of Scope:** EPC of 110KV 1CX1600 Sqmm CU XLPE lead sheath along with associated accessories for providing 110KV Supply to new GIS of Central railway's TSS near Kanjurmarg Station in Mumbai.
- b) **Deletion of Scope:** EPC of 220KV 1CX1200 Sqmm CU XLPE lead sheath along with associated accessories for replacement of existing 220KV Salsette-Borivali-1 & 2 cable.

II) Change in Type of Contract structure

- a) There are two lots defined vide this Corrigendum.
 - LOT 1:** EPC of 220KV 1-Core 1200 Sqmm Copper XLPE Lead Sheath cable along with associated accessories for 220KV Trombay-Dharavi-9 Cable diversion project at GTB nagar location.
 - LOT 2:** EPC of 110KV 1CX1600 Sqmm CU XLPE lead sheath along with associated accessories for providing 110KV Supply to new GIS of Central railway's TSS near Kanjurmarg Station in Mumbai.
- b) Technical and Commercial evaluation shall be done individual LOT wise.
- c) Post commercial discussions and evaluation, firm Purchase Order (PO) shall be awarded individual LOT wise.

III) Change in EMD value

Sr No.	Earlier EMD Value	Revised EMD Value
1	12,00,000/-	20,00,000/-

IV) Extension in tender purchased date

Last date for tender purchase stands extended as below

Sr No.	Earlier schedule	Revised schedule
1	1500 Hrs of 20th June 2025	1500 Hrs of 08th July 2025

Please note, above is a Corrigendum to the Tender advertised on 20th June 2025. 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 /.

Updated NIT document (Inclusive of Original Tender and Corrigendum 01) is produced below,

A. Summary of the tendered package:

For the following packages contact person shall be Mr. Naman Patel (naman.patel@tatapower.com) & Mr. Vivek Mittal (vivek.mittal@tatapower.com)

Sr No.	Description	Tender Reference no.	Bid Guarantee Fee / EMD (Rs.)	Tender Fee (Rs.)
1.	EPC of 220KV 1-Core 1200 Sqmm Copper XLPE Lead Sheath cable along with associated accessories for 220KV Trombay-Dharavi-9 Cable diversion project at GTB nagar location and EPC of 110KV 1-Core 1600 Sqmm Copper XLPE Lead Sheath cable along with associated accessories for providing 110KV Supply to new GIS of Central railway's TSS near Kanjurmarg Station.	CC26NP009	20,00,000/-	2000/-

For additional technical details and Pre-Qualification criteria for the subject works please refer **Section C** below.

B. Guidelines for Participating:

Interested bidders having executed similar projects can participate by submitting the following up to **1500 hrs. Tuesday 08th July 2025**: -

1. Non-Refundable Tender Fee, as indicated in table above, in the form of Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number.

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

2. Bidders to also submit duly signed and stamped letter indicating name of authorized person, contact number and e-mail id (mandatory) on Bidder's letterhead. It is mandatory to mention Tender Reference no. in the said letter.

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

It may be please noted that all future correspondence will be strictly done only with **Interested Bidders** who have done the above steps in time with Authorized Person only through Tata Power E-Tender System.

Earnest Money Deposit (EMD) of **INR 20.00 Lakhs** is not to be submitted now and is required at a later stage along with tender submission in the form of Bank Guarantee.

Section C: Pre-Qualification requirement and Bill of Quantity: (Please refer the following pages for details).

LOT-1 220KV Trombay-Dharavi-9 Cable diversion project

Bidders Prequalifying Requirements for 220 kV EHV Cable (Part A-Supply)

Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement
1	2	3	4
1	Infrastructure	<p>Bidder shall be OEM of 220 kV and above voltage class, single core XLPE cables with manufacturing facility / assembly in India, Or, Bidder shall be an EPC Contractor in a JV with OEM of 220 KV and above voltage class with manufacturing facility/assembly in India.</p>	<p>Self-undertaking to be submitted in this regard. Tata Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter. JV agreement copy to be submitted.</p>
2	Supply & Experience	<p>Bidder/OEM partner shall have manufactured and supplied 100 K.Ms. of 110 kV and above voltage grade XLPE Cables in last 5 years as on original bid submission date.</p> <p>Out of above 100 K.Ms. length, minimum 20 K.Ms. cable length supplied shall be of 220 kV class in last 5 years as on original bid submission date.</p> <p>The XLPE cables of 110 kV and higher voltage class supplied by the Bidder should have been in satisfactory commercial operation for a minimum of 25 K.Ms. length, for minimum period of last 2 years as on the original bid submission date. Out of the above 25 K.Ms., minimum 1.5 K.Ms. of 220 kV class cable shall be in service for last two year as on original bid submission date.</p> <p>Indian Subsidiaries / JV of global companies (Parent) registered & having plant in India can be considered provided the Parent supports the bidder to meet the PQR. In such cases, documentary evidences shall be furnished for proving the Parent - Subsidiary / JV relationship and a Backup guarantee of five years for successful operation of the cable shall be furnished by the Parent.</p> <p>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	<p>Supply List / Performance Certificates from the utilities / clients</p> <p>Relevant documentary evidences & a Backup guarantee.</p>
3	Type Test	<p>The bidder/OEM partner shall have conducted PreQualification tests on the cable offered as per IEC 62067. The bidder shall submit Type test reports obtained from third party NABL/ International Accredited Lab as per IEC 62067 for 220kV or higher voltage grade XLPE cable and accessories. The type tests should have been conducted on the equipment / material of the same design.</p> <p>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test may be extended by another 5 years as a special case, if there is no change in design / material of construction (MOC).</p> <p>In case the type test reports furnished are not for the quoted cable but for the cable with different voltage class and/or different conductor size, then type test shall be carried out for the offered cable from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the Cable System.</p>	<p>Type Test Report.</p> <p>Undertaking that there is no change in design / material of construction (MOC) if Type Test Report older than 5 years but less than 10 years prior to date of bid opening has to be considered (if applicable)</p> <p>Undertaking that type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before despatch of the equipment / material, in case type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, (if applicable)</p>

Bidder Shall Qualify Part A & Part B			
Bidders Prequalifying Requirements for 220 kV EHV Cable (Part B-EPC)			
Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement
1	2	3	4
1	Execution Capability	<p>1.0 Bidder should have executed minimum 3 nos of EHV cable system projects or work orders (110 kV & Above) in Tier 1 Cities (Category "X") (viz. Delhi, Mumbai, Kolkata, Chennai, Bangalore, Hyderabad, Ahmedabad & Pune) with following scope:-</p> <p>a) Supply of EHV cable system from OEM. b) Liasoning for obtaining statutory approvals required for EHV cable laying. c) Civil works for cable trench, joint bays. d) Laying, Jointing / Termination of cable system. e) Backfilling and reinstatement of cable trench and commissioning of cable system.</p> <p>2.0 Bidder should have commissioned not less than 10.00 K.Ms. in last 5 Yrs as any Single Order.</p> <p>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	List of Projects executed and certificates from utilities / clients.
2	Projects in Service	Out of the 3 projects or work orders executed by the bidder, at least one project executed by the bidder shall be in service satisfactorily for minimum of three years as on date of bid submission.	Performance Certificates from the utilities / clients
3	Commercial Capability	Average Annual turnover of the bidder for last three years shall not be less than INR 100 Crores.	<p>Profit and Loss Statements, Balance Sheet, Cash Flow Statements for the Three (3) preceding financial years duly audited and approved by Authorized Audit Firm / CA.</p> <p>In case of JV, bidder to submit statement from Chartered Accountant (CA) certifying:-</p> <p>(a) Equity stake of the partners in the Joint Venture and (b) Sum of Each Partners turnover multiplied by their respective equity stake in JV for last 3 years should exceed the Tata Power requirement (c) JV to have positive Network for preceding year. In case JV does not have positive Network then all partners to have positive Network for preceding year.</p> <p>Backup guarantee document to be submitted by JV Partners to support the JV till execution of the project till completion of execution and completion of Latent Defect Liability Period.</p>
4	Supply	Bidder or its OEM partner shall meet the qualifying requirement as mentioned in Part A .	Bidders confirmation.
5	Warranty	Bidder shall provide 5 years warranty for the supplied and installed Cable System. In case Bidder is an EPC Contractor, the warranty and gurantee on cable system shall be provided by the OEM. The OEM shall stand gurantee on the project and shall furnish authorization cum undertaking (As per format given in tender)	Bidders confirmation. Authorization cum Undertaking by OEM.
6	Other	One OEM shall submit only 01 bid (either directly or in partnetship with an EPC contrator).	

LOT-1 Bill of Quantity for 220KV Trombay-Dharavi-9 Cable diversion work at GTB nagar location at Mumbai

Design, Engineering, Manufacturing, Factory Acceptance Test, Transportation to site, Installation and Commissioning of 220 kV Trombay Dharavi 9 cable diversion project at GTB with 1Cx1200 mm2 Cu Conductor XLPE lead sheath cables of 220 kV

SUPPLY PART

Sr. No.	Item Description	Total Quantity (Including Spares)	Spare	UoM	Remarks
1	Supply of 1C x 1200 Sqmm CU conductor XLPE, lead sheath cables of 220 kV	2700		Mtrs.	
2	Supply of cross bonded/straight joints for 220 kV 1C 1200 Sqmm Cu. XLPE Cable	14	2	Nos	
3	Supply of Three Phase link box with/without SVL for cross bonding	2		Nos	
4	Supply of Coaxial Cable along with Lugs and Connectors	200	0	Mtrs.	
5	Supply of HDPE pipes for EHV cable (OD 250 mm & 6 mtr length)	500	0	Nos	
6	Supply of Fibre optic cable along with patch cord (Quantity considered 2 no. 96 Core FO cable per circuit)	2000	0	Mtrs.	
7	Supply of HDPE pipes for FO cable (dia 40 mm)	2000		Mtrs.	
8	No. of FO joint boxes for 96F cable	3	0	Nos	
9	No. of termination kits (96F)	3		Nos	
10	Supply of cable tiles	7200		Nos	9 tiles per meter

SERVICE PART

PART A - For EHV Cable

Sr. No.	Item Description	Total Quantity (Including Spares)	Spare	UoM	Remarks
1	Detailed surveying of the cable route along the alignment fixed by the owner, preparation of profile drawings for cable laying, and preparation of the final cable route in 6 sets of hard and soft copies at a scale of 1:10. The drawings should indicate the positions of cable jointing chambers, earthing details, positions of cable route markers, landmarks, etc. After completing the work and energizing for permanent record use, GPS mapping of utilities should be included in the final drawings.	900		Mtrs.	
2	Excavation of cable trenches as per approved drawings, with proper wooden shoring, de-watering arrangements, and sufficient clearances from all sites. Excavation in all types of soil, except hard murrum, earth rock/debris, and backfilled earth, where underground service lines are likely to be present. Shoring the trenches, demolition of PCC, brickwork, and rubble masonry encountered while making the trenches. Disposal of excavated earth within 24 hours. Laying of PCC bed and erecting side tiles. Warning tape as per approved trench drawing. Backfilling with STB up to 660 mm as per trench drawing. Backfilling above RCC tiles up to road level with excavated earth as per the approved trench drawing, with compaction and obtaining NOC from the concerned authority/agency, complete (for one circuit). Trench cross-section drawings shall be prepared by the bidder as per specifications and approved by the owner.	450		RMtr	
3	Excavation for Major road crossing as per approved drawings, with proper de-watering arrangements and sufficient clearances from all sites. Excavation in all types of soil, including hard murrum, earth rock, debris, and backfilled earth, where underground service lines are likely to be present. Demolition of PCC, brickwork, or rubble masonry encountered while making the trenches, with disposal of excavated earth within 24 hours. Laying of PCC bed and HDPE pipes, and erecting side tiles as per the approved trench drawing. Backfilling with a sand-metal mix, warning tape, and reinstating the top with soling, compaction, asphalt, and PCC M20 or as per statutory requirements on top of the crossing. (For one circuit). Trench cross-section drawings shall be prepared by the bidder as per specifications and approved by the owner.	450		RMtr	
4	Services for laying of tiles 660x500x60 mm complete (including shifting, transportation and laying in trench).	7200		Nos	
5	Services for un-coiling & laying 220 kV, 1600 Sq.mm XLPE insulated cable as per approved drawing & specification in open trench & through HDPE pipe laid along the route, including Loading from store, transportation, unloading at site, returning cable drum to tata power warehouse, permits from concern authority, trefoil formation, phase marking complete.	2700		Mtrs	
6	Services for uncoiling and laying 96-core optical fiber cable of the specified type along the cable trench through HDPE pipe, as per the approved drawing and specification, including loading from the store, transportation, unloading at the site, returning the cable drum to Tata Power warehouse, obtaining permits from the concerned authorities, labor charges, and testing.	2000		Mtrs	
7	Services for OFC splicing	3		Nos	
8	Construction of FO cable hand hole	3		Each	
9	Services for the construction of a cable jointing chamber (RCC type) along with a below-ground earth mat (including supply of material as per specification) for the joint bay of suitable dimensions, as mutually agreed, for 1 circuit (i.e., 3 cables) with link boxes and earthing as per site requirements and specifications. This includes the supply and filling of submerged material (including supply and filling of STB) [10.0 meters]. (The final number of joint bays will be decided based on site conditions.)	4		Nos	
10	Services for installation of straight joint/cross bonding joint of 220 kV UG cable.	12		Nos	
11	Services for 40 mm dia duct for 96F optical fibre cable complete	2000		Mtrs	
12	Services for Joint box for FO cable	3		Sets	
13	Installation of Link Box in Termination/Joints including earthing	2		Nos	
14	Trial Pits	20		Nos	
15	Testing & Commissioning (Per Circuit)	1		Lot	

16 Engineering, taking permissions from Railway Authority, laying of 1200 mm diameter ID MS pipe by Jack pushing method, Laying of HDPE pipes with STB encasing, facilitating cable laying through these pipes and all other associated works as per tender enquiry and subsequent clarifications issued till date

1

Lot

Bidder Shall Qualify Part A & Part B					
Bidders Prequalifying Requirements for 110kV EHV Cable (Part B)					
To be filled up by Vendor					
Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement	Vendor Submission against Tata Power PQR Requirement	Documents submitted by Vendor to ascertain meeting of Pre-Qualification Requirement
1	2	3	4	5	6
1	Execution Capability	<p>1.0 EPC Bidder should have executed minimum 3 nos of EHV cable system projects (110 kV & Above) in Tier 1 Cities (Category "X") (viz. Delhi, Mumbai, Kolkata, Chennai, Bangalore, Hyderabad, Ahmedabad & Pune) with following scope:-</p> <p>a) Supply of EHV cable system from OEM. b) Liasoning for obtaining statutory approvals required for EHV cable laying. c) Civil works for cable trench, joint bays. d) Laying, Jointing / Termination of cable system. e) Backfilling and reinstatement of cable trench and commissioning of cable system.</p> <p>2.0 EPC bidder should have commissioned not less than 10.00 K.Ms. in last 5 Yrs as a Single Order.</p> <p>In case the bidder has a previous association with any of Tata Power Group companies for similar products and services, the performance feedback of the bidder by the Tata Power Group companies shall only be considered for evaluation purpose, irrespective of performance certificates issued by any third organization.</p>	List of Projects executed and certificates from utilities / clients.		
2	Projects in Service	Out of the 3 projects executed by the bidder, at least one project executed by the bidder shall be in service satisfactorily for minimum of three years as on date of bid submission.	Performance Certificates from the utilities / clients		
3	Commercial Capability	Average Annual turnover of the bidder for last three years shall not be less than INR 100 Crore	<p>Profit and Loss Statements, Balance Sheet, Cash Flow Statements for the Three (3) preceding financial years duly audited and approved by Authorized Audit Firm / CA.</p> <p>In case of JV, bidder to submit statement from Chartered Accountant (CA) certifying:-</p> <p>(a) Equity stake of the partners in the Joint Venture and (b) Sum of Each Partners turnover multiplied by their respective equity stake in JV for last 3 years should exceed the Tata Power requirement (c) JV to have positive Networth for preceding year. Incase JV does not have positive Networth then all partners to have positive Networth for preceding year.</p> <p>Backup guarantee document to be submitted by JV Partners to support the JV till execution of the project till completion of execution and completion of Latent Defect Liability Period.</p>		
4	Supply	Bidder or its OEM partner shall meet the qualifying requirement as mentioned in Part A.	Bidders confirmation.		
5	Warranty	<p>Bidder shall provide 5 years warranty for the supplied and installed Cable System.</p> <p>In case Bidder is an EPC Contractor, the warranty and gurantee on cable system shall be provided by the OEM. The OEM shall stand gurantee on the project and shall furnish authorization cum undertaking (As per format given in tender)</p>	<p>Bidders confirmation.</p> <p>Authorization cum Undertaking by OEM.</p>		
6	Other	One OEM shall submit only 01 bid (either directly or in partnetship with an EPC contractor).			

Lot-2 BOQ-110KV Cable for Central Railway

Design, Engineering, Manufacturing, Factory Acceptance Test, Transportation to site, Installation and Commissioning of 110 kV Kanjurmarg Project with 1Cx1600 mm² Cu Conductor XLPE lead sheath cables of 110kV

SUPPLY PART

Sr. No.	Item Description	Quantity	Spare	UoM	Remarks
1	Supply of 1C x 1600 Sqmm CU con XLPE, lead sheath cables of 110 kV	6900	0	Mtrs.	
2	Sealing End for GIS termination with Cable 110 kV 1C XLPE Copper 1600 sq mm as per specifications	7	1	Nos	
3	Sealing End for O/D termination with Cable 110 kV 1C XLPE Copper 1600 sq mm as per specifications	7	1		
4	Supply of cross bonded/straight joints for 110 kV 1C 1600 Sqmm Cu. XLPE Cable	14	2	Nos	
5	Supply of Three Phase link box with SVL for cross bonding	3	0	Nos	
6	Supply of Three Phase link box without SVL for cross bonding	1	0	Nos	
7	Supply of Coaxial Cable along with Lugs and Connectors	200	80	Mtrs.	3 cable/Joint Bay of 10m
8	Supply of Single Phase link box for sheath bonding	12	0	Nos	GIS sealing end
9	Sheath Bonding Cable	300	60	Mtrs.	20m
10	Earth Continuity Cable (300SQMM)	500	0	Mtrs.	
11	Supply of HDPE pipes for EHV cable (OD 250 mm & 6 mtr length)	330	0	Nos	HDPE pipe = 0.30*3*route length/6
12	Supply of Fibre optic cable along with patch cord (Quantity considered 2 no. 96 Core FO cable per circuit)	4900	500	Mtrs.	2 FO Cable+500m additional
13	Cable Cleats	100		Nos	
14	Galvanised Steel structure for cable Cleating arrangement	12		Set	1 Set/GIS sealing end
15	Terminal connector for Outdoor termination	6		EA	
16	Supply of Fiber termination Rack	4		Nos	
17	Supply of HDPE pipes for FO cable (dia 40 mm)	4900		Mtrs.	
18	Supply of FOP joint boxes	3	0	Nos	
19	Supply of cable tiles	9900		Nos	9 tiles per meter
20	PATCH CORD FOR 96F OPTIC FIBER CABLE	100		Nos	
21	Supply of FO termination kit	8	0	Nos	

SERVICE PART

PART A - For EHV Cable

Sr. No.	Item Description	Qty.	Spare	UoM	Remarks
1	Detailed surveying of the Cable route along the alignment fixed by the owner & preparation of profile drawing for cable laying and preparation of final cable route in 6 sets of hard & soft copy in a scale of 1:10 indicating the position of cable jointing chambers, earthing details, position of cable route marker, land marks etc., after completing the work & energizing for the use of permanent record, GPS mapping of utilities to be indicated in the drawing complete.	1100		Mtrs	
2	Excavation of Cable trenches as per approved drawings with proper wooden shoring, de-watering arrangement & with sufficient clearances from all sites. Excavation in all types of soil - except hard murrum, earth rock/debris, backfilled earth, where underground service lines are likely to be present, shoring the trenches, demolishing PCC, Brick work, Rubble masonry encountered while making the trenches, disposal of excavated earth within 24 hours. Laying of PCC bed & erecting side tiles, Warning tape refer Approved trench drawing. Backfilling with STB upto 660 mm as per drawing of trench. Backfilling above RCC tiles upto road level with excavated earth as per approved trench drawing with Compaction and NOC from Concern Authority/Agency complete (For one Circuits). Trench Cross-section Drawings shall be prepared by Bidder as per Specifications and approved by Owner.	770		RMtr	
3	Excavation for Major Road crossing as per approved drawings with proper, de-watering arrangement & sufficient clearances from all sites. Excavation in all types of soil - hard murrum, earth rock, debris, backfilled earth, where underground service lines are likely to be present, demolishing PCC/brick work/rubble masonry encountered while making the trenches, disposal of excavated earth within 24 hours. Laying of PCC bed and HDPE pipes & erecting side tiles approved trench drawing. Backfilling with (sand metal mix). Warning tape, Top will be Reinstated with Soling & Compaction, Asphalt, & PCC M 20 or Satutory requirement on Top Crossing drawing complete. (For one Circuits) Trench Cross section Drawings shall be prepared by Bidder as per Specifications and approved by Owner.	220		RMtr	
4	Excavation for Minor Road crossing as per approved drawings with proper, de-watering arrangement & sufficient clearances from all sites. Excavation in all types of soil - hard murrum, earth rock, debris, backfilled earth, where underground service lines are likely to be present, demolishing PCC/brick work/rubble masonry encountered while making the trenches, disposal of excavated earth within 24 hours. Laying of PCC bed and HDPE pipes & erecting side tiles approved trench drawing. Backfilling with (sand metal mix). Warning tape, Top will be Reinstated with Soling & Compaction, Asphalt, & PCC M 20 or Satutory requirement on Top Crossing drawing complete. (For one Circuits) Trench Cross section Drawings shall be prepared by Bidder as per Specifications and approved by Owner.	110		RMtr	
5	Services for laying of tiles 660x500x60 mm complete (including shifting, transportation and laying in trench).	9900		Nos	
6	Services for un-coiling & laying 110 kV, 1600 Sq.mm XLPE insulated cable as per approved drawing & specification in open trench & through HDPE pipe laid along the route, including Loading from store, transportation, unloading at site, returning cable drum to tata power warehouse, permits from concern authority, trefoil formation, phase marking complete.	6900		Mtrs	
7	Services for un-coiling & laying optical fibre cable 96 Fibre of specified type along the cable trench through HDPE pipe as per approved drawing & specification including Loading from store, transportation, unloading at site, returning cable drum to tata power warehouse, permits from concern authority, labour charge complete, Tests.	4900		Mtrs	
8	Services for OFC splicing & termination	8		Nos	
9	Construction of FO cable hand hole	4		Each	
10	Services for construction of cable jointing chamber (RCC types) along with Below ground Earth mat (along with supply of material as per specification) for Joint bay of suitable dimensions as mutually agreed for 1 circuits i.e., 3 no of cable with link boxes, earthing as per site requirement as per specifications. Including supply & filling submerged (Including supply and filling of STB) [10.0 mtr] (As per Site conditions, final number of joint bays will be decided)	4		Nos	
11	Services for installation of straight joint/cross bonding joint of 110 kV UG cable.	12		Nos	
12	Services for installation of GIS & Outdoor termination of 110 kV UG cable	12		Nos	
13	Services for 40 mm dia duct for 96F optical fibre cable complete	4900		Mtr	
14	Services for termination rack for 96F optic fibre cable complete	4		Nos	
15	Services for FO Termination box	8		Sets	
16	Services for Joint box for FO cable	3		Sets	
17	Installation of Link Box in Termination/Joints including earthing	16		Nos	
18	Installation of Terminal connector for Outdoor termination	6		EA	
19	Fabrication of Structural Steel for cable cleating arrangement	12		Set	
20	Services for integration with the existing DAS system	1		Each	
21	Services for PATCH CORD FOR 96F OPTIC FIBER CABLE	100		Nos	
22	Trial Pits	10		Nos	
23	Testing & Commissioning (Per Circuit)	2		Lot	
24	Reinstatement Charges Inside Railway premises	450		Mtrs	
25	HDD for Major Road Crossing	250		Mtrs	