

DETAILED LETTER OF ACCEPTANCE

DLOA No.: TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25

July 11, 2024

M/s Sterling and Wilson Private Limited,
9th Floor, Universal Majestic,
PL Lokhande Marg, Chembur (West)
Mumbai-400043

Mob. No. : 09163364113

Email ID : bappaditya.mukherjee@sterlingwilson.com

Kind Attn.: Mr. Bappaditya Mukherjee, Head (Sales)

Sub: Detailed Letter of Acceptance (DLOA) for "Construction of 220 KV LILO GIS at Talcher Fertilizers Limited, Talcher, Odisha"

Ref.:

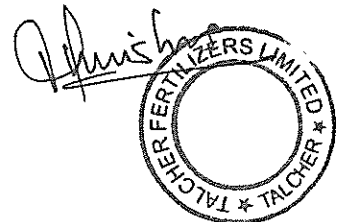
1. NIT / Tender Document No. **PNPM/PC-183/E-4024/NCB Dated 12.01.2024** [E-Tender ID: 2024_PDIL_790308_1] issued by PDIL (on behalf of TFL) and associated Amendment, if any for "Construction of 220 KV LILO GIS on Item Rate Basis at Talcher Fertilizers Limited, Talcher, Odisha" and all Amendments thereof (as listed in Annexure-I of the DLOA attached hereto)."
2. Your Offer No. **SW/T&D/TFL/Angul/220kv/23-24/10 DATED 14.02.2024** (E Bid No. 2965390) and all subsequent Correspondences received against above referred Tender and and all associated Amendment(s) issued against the NIT.
3. Our FOA (Fax of Acceptance) No. **TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/FOA-003 dated 26.04.2024**

Dear Sir / Madam,

Further to our FAX OF ACCEPTANCE (FOA) No. **TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/FOA-003 dated 26.04.2024**, we are pleased to issue this "Detailed Letter of Acceptance (DLOA) for "Construction of 220 KV LILO GIS at Talcher Fertilizers Limited, Talcher, Odisha" The 'Detailed Letter of Acceptance' shall be executed strictly in accordance with the terms and conditions set out below:

1.0 SCOPE OF WORK/TECHNICAL SPECIFICATIONS:

Please refer Section VI of tender document (Tender No. **PNPM/PC-183/E-4024/NCB Dated 12.01.2024** and its associated Amendment, floated by PDIL on behalf of TFL).



2.0 CONTRACT VALUE

The total estimated Contract value shall be **INR 54,33,53,834/- (Indian Rupees Fifty Four Crores Thirty Three Lakhs Fifty Three Thousand Eight Hundred and Thirty Four only)** excluding GST and **INR 64,11,57,524/- (Indian Rupees Sixty Four Crores Eleven Lakhs Fifty Seven Thousand Five Hundred and Twenty Four only)** including GST (presently @ 18%). Detailed SCHEDULE OF RATES (SOR) is attached as **Annexure – C**.

3.0 FIRM PRICE:

The unit rates appearing in the detailed SCHEDULE OF RATES (SOR) [Annexure-C] shall remain FIRM AND FIXED and valid until completion of the Contract and will not be subject to variation on any account, except specifically mentioned elsewhere in the tender document.

Any new taxes & Duties, if imposed by the State/ Govt. of India after due date of bid submission but before the Contractual Delivery Date, shall be reimbursed to the contractor on submission of documentary evidence for proof of payment to State/ Govt. Authorities and after ascertaining it's applicability with respect to the contract. If any new taxes and/or duties are imposed beyond Completion/ Contract period for reasons not due to Owner's default, such taxes and duties shall be to Contractor's account.

If any new taxes and/or duties are imposed beyond Completion/ Contract period for reasons not due to Owner's default, such taxes and duties shall be to Contractor's account. If any new taxes and/or duties are imposed beyond Completion / Contract period for reasons due to Owner's default, such taxes and duties shall be to Owner's account.

Other terms and conditions w.r.t. statutory variation in taxes and duties shall be as per tender document and its associated Amendment(s).

4.0 TERMS & CONDITIONS:

This DLOA is strictly subject to all terms and conditions contained in the tender document No. PNPM/PC-183/E-4024/NCB Dated 12.01.2024 and its associated Amendment, if any, issued against the NIT.

5.0 COMPLETION PERIOD:

Contractor shall be required to complete the WORK under the CONTRACT as mentioned below:

Completion Period / Completion Schedule	12 (Twelve) Months Reckoned from Date of Issuance of this Fax of Acceptance (FOA) i.e. 26.04.2024.
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The basic consideration and essence of the Contract is the strict adherence to the Time schedules for performing the specified works as stipulated in the Contract.

If at any time, the Owner/ Consultant is of opinion that the Contractor has fallen behind the approved construction schedule, the Owner/ Consultant may, without any cost to Owner/ Consultant, require the Contractor to take such steps as may be necessary to improve his progress, especially require him to employ overtime operations, increase the number of shifts, work on holidays and Sundays or increase

the capacity of his construction plant and equipment and require him to submit evidence demonstrating the manner in which the Contractor proposes to comply with the construction schedule. Failure of the Contractor to comply with the above will be considered a failure to execute the work with due diligence.

All other Terms & Conditions related to "Completion Period / Completion Time / Time Schedule" shall be as per tender document and its associated Amendment, if any.

6.0 PRICE REDUCTION SCHEDULE (PRS)

Time is the essence of the CONTRACT. In case the CONTRACTOR fails to complete the WORK within the stipulated period, then, unless such failure is due to Force Majeure as defined in Clause 26 of GCC or due to EMPLOYER's defaults, the Total Contract price shall be reduced by ½ % of the total Contract Price per complete week of delay or part thereof subject to a maximum of 5 % of the Total Contract Price, by way of reduction in price for delay and not as penalty. The said amount will be recovered from amount due to the Contractor/ Contractor's Contract Performance Security payable on demand.

The decision of the OWNER in regard to applicability of Price Reduction Schedule shall be final and binding on the CONTRACTOR.

Please also refer Clause No. 50 of Section-III of Tender document (Provision regarding invoice for reduced value or credit note towards PRS).

All other Terms & Conditions related to "PRS" shall be as per tender document and its associated Amendment(s).



7.0 TAXES AND DUTIES:

Please note that the responsibility of payment of **GST (CGST & SGST or IGST or UTGST)** lies with the Contractor of Goods / Services only. Supplier of Goods / Services (Service Provider) providing taxable service shall issue an Invoice/ Bill/ e-Invoice, as the case may be as per rules/ regulation of GST. Further, returns and details required to be filled under GST laws & rules should be timely filed by Contractor of Goods / Services (Service Provider) with requisite details.

Payments to Service Provider for claiming **GST (CGST & SGST/UTGST or IGST)** amount will be made provided the above formalities are fulfilled. Further, OWNER may seek copies of challan and certificate from Chartered Accountant for deposit of **GST (CGST & SGST/UTGST or IGST)** collected from Owner.

The quoted price includes all taxes, duties, levies etc., as applicable at prevailing rates. In case, contractor has not included any such taxes, duties, levies etc., at all and/or at prevailing rates (deliberately or otherwise) and it becomes leviable during execution of the contract, then contractor has to pay all such taxes, duties, levies etc. and OWNER shall not be liable for payment of such liabilities and/or OWNER shall not reimburse such taxes, duties, levies etc. to the CONTRACTOR.

All other Terms & Conditions related to contract value / price & taxation shall be as per the tender document and its associated Amendment(s).

8.0 CONTRACT AGREEMENT:

A "Contract Agreement" [as per Format F-23 (i.e. "**PROFORMA FOR CONTRACT AGREEMENT**") of Tender document] on Non-Judicial stamp paper (of appropriate value) shall be executed between the OWNER and the CONTRACTOR within fifteen (15) days from the date of issuance of FOA (i.e. 25.04.2024). The cost of stamp paper shall be borne by CONTRACTOR.

CONTRACTOR shall sign the CONTRACT AGREEMENT (in duplicate) and submit to the OWNER. OWNER shall sign both the copies and return one copy to the CONTRACTOR and retain the other copy. The CONTRACT AGREEMENT shall be signed by an authorized officer of the CONTRACTOR.

Note: Contract Agreement has already been executed between TFL and Contractor and a copy of the same is placed at **Annexure-A** of this DLOA.

9.0 TERMS OF PAYMENT:

The 'Terms of Payment' shall be governed by the terms enumerated in Clause No. 40.0 of SCC (Section-V) of the Tender Document and its associated Amendment, if any.

PAYING AUTHORITY

Director (Finance),
Talcher Fertilizers Limited
Administrative Building
Talcher, Post: Vikrampur,
Dist: Angul, Pincode: 759106
Odisha.

Any other provision related to "Terms of Payment / Payment Terms" shall be as per the tender document and its associated Amendment(s).

10.0 COMPENSATION FOR EXTENDED STAY

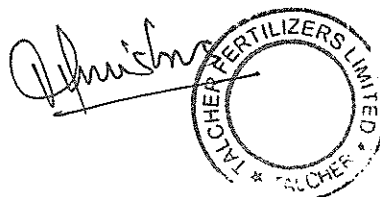
NOT APPLICABLE

11.0 Compliance to DMI & SP (Domestically Manufactured Iron & Steel Products) Policy

The above Policy shall be as per Gazette notification dated 29th May, 2019 and its subsequent Amendment attached as Appendix-I to Section-II (Bid Evaluation Criteria & Evaluation Methodology) of Tender Document and its associated Amendment(s). Contractor shall ensure compliance to the DMI&SP policy.

12.0 Compliance to "Public Procurement (Preference to Make in India) Order 2017"

You have given undertaking in your bid document that you are to be considered as a "Local supplier" under "Public Procurement (Preference to Make in India) Order 2017" by virtue of meeting the mandatory minimum Local Content requirement of 50% specified in the said policy. Accordingly, the provisions of the said policy dated 16.09.2020 as attached with the tender document and its associated Amendment(s) shall be applicable for this contract.

A handwritten signature in black ink is written over a circular stamp. The stamp contains the text "TALCHER FERTILIZERS LIMITED" around the top and "TALCHER" at the bottom, with a star symbol in the center.

13.0 DEFECT LIABILITY PERIOD:

Defect Liability Period shall be 12 months from the date of completion of works in all respects as declared by EIC.

All other Terms & Conditions related to "Defect Liability Period" shall be as per the tender document and its associated Amendment(s), if any.

14.0 CONTRACT PERFORMANCE SECURITY (CPS) / SECURITY DEPOSIT (SD)

The CONTRACTOR shall furnish Contract Performance Security / Security Deposit to the EMPLOYER, within 30 days from the date of issuance of 'Fax of Acceptance'. The Contract Performance Security shall be in the form of either Banker's Cheque or Demand Draft or Insurance Surety Bond or Fixed Deposit Receipt or Letter of Credit or Bank Guarantee as per Form F-4 and shall be in the currency of the Contract.

The value / amount of Contract Performance Security/ Security Deposit shall be as under:

- (a) CPS / SD @ 10% of Total order / contract value (excluding GST) within 30 days issuance of FOA / notification of award.

Or

- (b) Initial Security Deposited (ISD) @ 5% of Total Contract value within 30 days of issuance of FOA / notification of Award and deduction @ 10% of the RA Bill subsequently from RA bills till the total amount of security deposit (including ISD and deducted amount) reaches 10% of total contract value (excluding GST).

The Contract Performance Security shall be towards faithful performance of the contractual obligations and performance of the equipment. For other details, please refer Clause No. 38 of Section – III of Tender i.e. Instructions to Bidders.

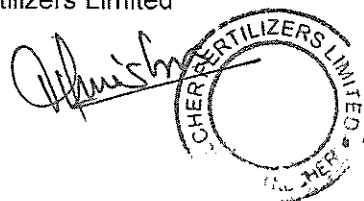
The original "Contract Performance Security (CPS) / Security Deposit (SD)" (by way of Bank Guarantee or Demand Draft or Banker's Cheque or Insurance Surety Bond or Fixed Deposit Receipt or Letter of Credit) shall be sent to following address:

Mr. Vivek Mishra,
Chief Manager (C&P)
Administrative Building
Talcher Fertilizers Limited,
Talcher, Post: Vikrampur,
Dist. Angul, Pin - 759106
Odisha

Note:

- In case CPS is submitted by way of Bank Guarantee, the non-judicial Stamp paper of appropriate value only or equivalent document value shall have to be purchased in the name of the bank executing the bank guarantee and not in the name of the CONTRACTOR.
- In case CPS is submitted by way of Bank Guarantee/IMPS/NEFT/RTGS/SWIFT etc., the bank details of TFL is as under–

Account holder's name: Talcher Fertilizers Limited



Bank Name: State Bank of India
Branch: CAG II, New Delhi
Account Number: 41256023769
Type (Current/Saving): Current
IFSC code: SBIN0017313

All other Terms & Conditions related to Contract Performance Security (CPS) / Security Deposit (SD)" shall be as per the tender document and its associated Amendment(s).

14.1 ADDITIONAL PERFORMANCE BANK GUARANTEE FOR MAJOR EQUIPMENTS

A separate Bank Guarantee (Equipment Performance BG) for 10% of the cost (including GST) of **S/S Automation Equipment, FOTE/OLTE equipment, Cables, CT, PT, Breakers, Structures** shall be submitted by the successful Bidder 01 (One) Month prior to expiry of the '10% Contract Performance Security'. which will be valid for 3 (Three) Months over and above the additional Guarantee Period beyond the guarantee period of such major items i.e. (36 months + 3 Months = 39 months).

Additionally, a separate Bank Guarantee (Equipment Performance BG) for 10% of the supply cost of the **Power Transformers and GIS Equipment** and associated materials (including GST) shall also be submitted 01 (One) Month prior to expiry of the '10% Contract Performance Security', which will be valid for 63 (Sixty-Three) Months over and above the Contract Performance Security.

The validity of Additional Bank Guarantee shall be beyond the Contract Performance Guarantee period of the Project and shall be as hereunder;

- i. **36 Months + 3 Months = 39 months for S/S Automation Equipment, FOTE/OLTE equipment, Cables, CT, PT, Breakers, Structures.**
- ii. **60 Months + 3 Months = 63 months for Power Transformer and GIS Equipment and associated materials**

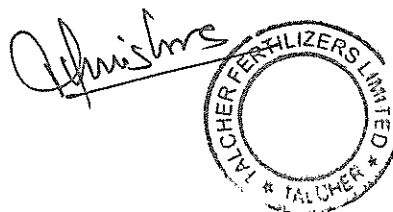
All other Terms & Conditions related to **Additional Performance Bank Guarantee For Major Equipments** shall be as per the tender document and its associated Amendment(s).

15.0 AHR (ABNORMALLY HIGH RATE) ITEMS

The list of AHR items is attached as **Annexure - D**.

The payment of AHR items beyond the SOR stipulated quantities shall be made at the lowest amongst the following rates:

- i) Rates as per SOR, attached with this DLOA.
- ii) Rate of the item, which shall be derived as follows:
 - a. Based on rates of Machine and labour as available from the contract (which includes contractor's supervision, profit, overheads and other expenses).
 - b. In case rates are not available in the contract, rates will be calculated based on prevailing market rates of machine, material and labour plus 15% to cover contractor's supervision profit, overhead & other expenses.



All other Terms & Conditions related to "AHR (Abnormally High Rate) Items" shall be as per the tender document and its associated Amendment(s).

16.0 ENGINEER-IN-CHARGE (EIC):

EIC shall be Mr. Devanand Pandey, PTC, Mobile No. 7054833241, E-mail: devanand.pandey@powertrade.co.in

You are requested to contact above mentioned official for further instructions.

17.0 INTEGRITY PACT AGREEMENT

INTEGRITY PACT shall be applicable for this contract. The Integrity Pact Agreement is placed at **Annexure - E**.

18.0 BANK DETAILS:

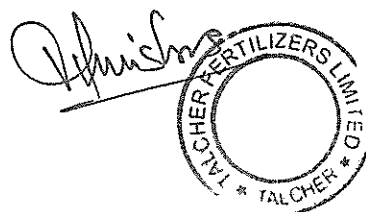
The Bank Detail of M/s Sterling and Wilson Private Limited is attached as **Annexure-F**.

19.0 POST ORDER CORRESPONDENCE

TO,
Mr. Devanand Pandey,
Engineer In-charge (EIC),
M/s PTC India Limited,
2nd Floor, NBCC Tower,
15 Bhikhaji Cama Place,
New Delhi - 110066
E-mail: devanand.pandey@powertrade.co.in

COPY TO:

- (1) Mr. S. Mishra,
COO (U/S)
Administrative Building,
Talcher Fertilizers Limited
Talcher, Post: Vikrampur,
Dist. Angul, Pin – 759106
Odisha
E-Mail: coous@tflonline.co.in
- (2) Mr. S. K. Dash, CM (Electrical) / Mr. S. R. Krishna, SM (Projects),
Administrative Building,
Talcher Fertilizers Limited
Talcher, Post: Vikrampur,
Dist. Angul, Pin – 759106
Odisha
E-Mail: skdash@tflonline.co.in / srkrishna@tflonline.co.in



20.0 OTHERS TERMS & CONDITIONS OF CONTRACT


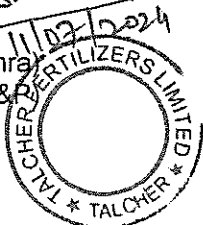
All other terms and conditions of the contract shall be governed by Tender No. PNPM/PC-183/E-4024/NCB Dated 12.01.2024 and all associated Amendment(s) issued against the NIT.

This DLOA is being issued to regularize the FAX OF ACCEPTANCE No. TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/FOA-003 dated 26.04.2024.

This Detailed Letter of Acceptance (DLOA) along with all enclosures is being issued to you in duplicate. You are requested to return to us one copy, duly signed and stamped on each page.

Thanking you,

Yours faithfully,
For M/s Talcher Fertilizers Limited,


(Vivek Mishra)
Chief Mgr. (C&P)


ENCLOSURES:

1. Annexure-A Contract Agreement executed between M/s. Talcher Fertilizers Ltd. and M/s Sterling and Wilson Private Limited (4 Pages, Page No. 1640 to 1643)
2. Annexure-B FOA No. TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/FOA-003 dated 26.04.2024 (2 Pages, Page No. 1637 to 1638)
3. Annexure-C Schedule of Rates (SOR) (30 Pages, Page No. 1606 to 1635)
4. Annexure-D List of AHR items (05 Pages, Page No. 1600 to 1604)
5. Annexure-E Pre-Signed Integrity Pact Agreement (11 Pages, Page No. 1588 to 1598)
6. Annexure-F Bank details of M/s Sterling and Wilson Private Limited (01 Pages, Page No. 1586)
7. Annexure-G Public Procurement (Preference to Make In India) Order 2017 (2 Pages, Page No. 1583 to 1584)
8. Annexure-H Provision for procurement from a bidder which shares a land border with India (01 Pages, Page No. 1581)
9. Annexure-I All Amendment(s) to Tender documents (3 nos. Amendment) [12 Pages, Page No. 1568 to 1579]
10. Annexure-J Complete set of Tender Document No. PNPM/PC-183/E-4025/NCB Dated 29.01.2024 [1566 Pages, Page No. 0001 to 1566]

ANNEXURE-A

CONTRACT AGREEMENT



महाराष्ट्र MAHARASHTRA

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03 MAY 2024

02AB 418227

**CONTRACT AGREEMENT**

(To be executed on non-judicial stamp paper of appropriate value)

DLOA No. TFL/TALCHER/C&P/PROJ/220KV GIS/24-25/FOA-003 dated 26.04.2024.

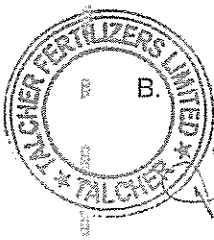
TFL's PAN No. AAFCT8667A

Contract Agreement for the work of Construction of 220kV LILO GIS at Talcher Fertilizer Ltd, Talcher Odisha on Item Rate basis of TALCHER FERTILIZERS LIMITED made on 07th May 2024 between Sterling and Wilson Private Limited, 9th Floor, Universal Majestic, PL Lokhande Marg, Chembur (West), Mumbai, Maharashtra, 400043, hereinafter called the "CONTRACTOR" (which term shall unless excluded by or repugnant to the subject or context include its successors and permitted assignees) of the one part and TALCHER FERTILIZERS LIMITED hereinafter called the "EMPLOYER" (which term shall, unless excluded by or repugnant to the subject or context include its successors and assignees) of the other part.

WHEREAS

A. The EMPLOYER being desirous of having provided and executed certain work mentioned, enumerated or referred to in the Tender Documents including Letter Inviting Tender, General Tender Notice, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, Plans, Time Schedule of completion of jobs, Schedule of Rates, Agreed Variations, other documents has called for Tender.

B. The CONTRACTOR has inspected the SITE and surroundings of WORK specified in the Tender Documents and has satisfied himself by careful examination before submitting his



[Signature]

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जंतिपत्र-१ / Annexure - AA

03 MAY 2024

१. मुद्रांक विक्री नोंदवही अनु. क्रमांक / दिनांक	13159
२. दस्ताचा प्रकार	1999
३. दस्त नोंदणी करणार आहेत का ?	होय / नाही
४. मिळकतीचे थोडक्यात वर्णन	
५. मुद्रांक विक्रीत घेण्यासाठी मालक आहे	STERLING AND WILSON PVT. LTD.
६. हल्ली असाधारण स्थिति आहे कि नाही	Universal Majestic, 9th Floor,
७. दुसऱ्या पक्षाने दिले आहे	P. L. Lokhande Marg, Chembur (W),
८. मुद्रांक मुद्रांक	MUMBAI-400-043.
९. परवानापत्रात मुद्रांक किती आहे	
क्रमांक तसेच मुद्रांक विक्रीचे ठेवणे	को. ए. ए. आर. विराटार
ई. ६/११, सेक्टर-१, जावही, नवी मुंबई	फोन ८५. १२०१०२४
ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्याकडे	
महिन्यात कापरणे बंधनकारक आहे.	

tender as to the nature of the surface, strata, soil, sub-soil and ground, the form and nature of site and local conditions, the quantities, nature and magnitude of the work, the availability of labour and materials necessary for the execution of work, the means of access to SITE, the supply of power and water thereto and the accommodation he may require and has made local and independent enquiries and obtained complete information as to the matters and things referred to, or implied in the tender documents or having any connection therewith and has considered the nature and extent of all probable and possible situations, delays, hindrances or interferences to or with the execution and completion of the work to be carried out under the CONTRACT, and has examined and considered all other matters, conditions and things and probable and possible contingencies, and generally all matters incidental thereto and ancillary thereof affecting the execution and completion of the WORK and which might have influenced him in making his tender.

- C. The Tender Documents including the Notice Letter Inviting Tender, General Conditions of Contract, Special Conditions of Contract, Schedule of Rates, General Obligations, SPECIFICATIONS, DRAWINGS, PLANS, Time Schedule for completion of Jobs, Letter of Acceptance of Tender and any statement of agreed variations with its enclosures copies of which are hereto annexed form part of this CONTRACT though separately set out herein and are included in the expression "CONTRACT" wherever herein used.

AND WHEREAS

The EMPLOYER accepted the Tender of the CONTRACTOR for the provision and the execution of the said WORK at the rates stated in the schedule of quantities of the work and finally approved by EMPLOYER (hereinafter called the "Schedule of Rates") upon the terms and subject to the conditions of CONTRACT.

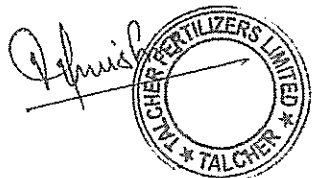
NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:-

1. In consideration of the payment to be made to the CONTRACTOR for the WORK to be executed by him, the CONTRACTOR hereby covenants with EMPLOYER that the CONTRACTOR shall and will duly provide, execute and complete the said work and shall do and perform all other acts and things in the CONTRACT mentioned or described or which are to be implied there from or may be reasonably necessary for the completion of the said WORK and at the said times and in the manner and subject to the terms and conditions or stipulations mentioned in the contract.
2. In consideration of the due provision execution and completion of the said WORK, EMPLOYER does hereby agree with the CONTRACTOR that the EMPLOYER will pay to the CONTRACTOR the respective amounts for the WORK actually done by him and approved by the EMPLOYER at the Schedule of Rates and such other sum payable to the CONTRACTOR under provision of CONTRACT, such payment to be made at such time in such manner as provided for in the CONTRACT.

A N D

3. In consideration of the due provision, execution and completion of the said WORK the CONTRACTOR does hereby agree to pay such sums as may be due to the EMPLOYER for the services rendered by the EMPLOYER to the CONTRACTOR, such as power supply, water supply and others as set for in the said CONTRACT and such other sums as may become payable to the EMPLOYER towards the controlled items of consumable materials or towards loss, damage to the EMPLOYER'S equipment, materials construction plant and machinery, such payments to be made at such time and in such manner as is provided in the CONTRACT.

It is specifically and distinctly understood and agreed between the EMPLOYER and the CONTRACTOR that the CONTRACTOR shall have no right, title or interest in the SITE made available by the EMPLOYER for execution of the works or in the building, structures or work executed on the said SITE by the CONTRACTOR or in the goods, articles, materials etc., brought

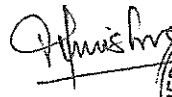



on the said SITE (unless the same specifically belongs to the CONTRACTOR) and the CONTRACTOR shall not have or deemed to have any lien whatsoever charge for unpaid bills will not be entitled to assume or retain possession or control of the SITE or structures and the EMPLOYER shall have an absolute and unfettered right to take full possession of SITE and to remove the CONTRACTOR, their servants, agents and materials belonging to the CONTRACTOR and lying on the SITE.

The CONTRACTOR shall be allowed to enter upon the SITE for execution of the WORK only as a licensee simpliciter and shall not have any claim, right, title or interest in the SITE or the structures erected there on, and the EMPLOYER shall be entitled to terminate such license at any time without assigning any reason.

The materials including sand, gravel, stone, loose, earth, rock etc., dug up or excavated from the said SITE shall, unless otherwise expressly agreed under this CONTRACT, exclusively belong to the EMPLOYER and the CONTRACTOR shall have no right to claim over the same and such excavation and materials should be disposed off on account of the EMPLOYER according to the instruction in writing issued from time to time by the ENGINEER-IN-CHARGE.

In Witness whereof the parties have executed these presents in the day and the year first above written.

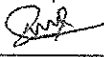
Signed and Delivered for and on behalf of EMPLOYER


TALCHER FERTILIZERS LIMITED

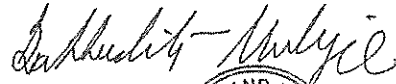

Date : 07.05.2024

Place: Talcher, Odisha

IN PRESENCE OF TWO WITNESSES

1. 

2. 






Signed and Delivered for and on behalf of the CONTRACTOR.

STERLING AND WILSON PVT LTD

Date : 07.05.2024

Place: Talcher, Odisha

1. 
Yashpal Sharma
2. 
RAJAT KUMAR KOLEY

ANNEXURE-B

FAX OF ACCEPTANCE
(FOA)



तालचेर फर्टिलाइजर्स लिमिटेड
TALCHER FERTILIZERS LIMITED

[Erstwhile Rashtriya Coal Gas Fertilizers Limited]

निगमित पहचान क्रमांक /Corporate Identification Number (CIN) : U24120OR2015PLC019575

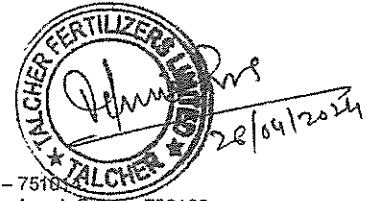
FAX OF ACCEPTANCE (FOA)

FOA No. TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/ FOA-003

April 26th, 2024

TO : M/S STERLING AND WILSON PRIVATE LIMITED, MUMBAI
 ATTN. : MR. BAPPADITYA MUKHERJEE, HEAD (SALES)
 MOB. NO. : 022-25485300/ 09163364113
 E-MAIL : bappaditya.mukherjee@sterlingwilson.com
 FROM : MR. VIVEK MISHRA, CHIEF MANAGER (C&P)

1. PLEASE REFER TO (A) TENDER NO. PNMM/PC-183/E-4024/NCB DATED 12.01.2024 (E-TENDER ID: 2024_PDIL_790308_1) FLOATED BY PDIL (ON BEHALF OF TFL) FOR "CONSTRUCTION OF 220 KV LILO GIS AT TALCHER FERTILIZERS LTD, TALCHER (ODISHA) ON ITEM RATE BASIS" AND ITS SUBSEQUENT AMENDMENTS (B) YOUR OFFER NO. SW/T&D/TFL/ANGUL/220KV/23-24/10 DATED 14.02.2024 [E-BID NO. 2965390] AND (C) ALL SUBSEQUENT CORRESPONDENCES THEREOF.
2. BASED ON ABOVE, WE ARE PLEASED TO ISSUE THIS "FAX OF ACCEPTANCE (FOA)" AT A TOTAL ESTIMATED CONTRACT VALUE OF INR 54,33,53,834/- (INDIAN RUPEES FIFTY-FOUR CRORE THIRTY-THREE LAKH FIFTY-THREE THOUSAND EIGHT HUNDRED AND THIRTY-FOUR ONLY), EXCLUSIVE OF GST AND INR 64,11,57,524/- (INDIAN RUPEES SIXTY-FOUR CRORE ELEVEN LAKH FIFTY-SEVEN THOUSAND FIVE HUNDRED AND TWENTY-FOUR ONLY) INCLUSIVE OF GST, PRESENTLY @18%.
3. COMPLETION PERIOD: COMPLETION PERIOD FOR THE ENTIRE PACKAGE SHALL BE 12 (TWELVE) MONTHS RECKONED FROM DATE OF ISSUANCE OF THIS FAX OF ACCEPTANCE (FOA).
4. CONTRACT PERFORMANCE SECURITY (CPS) / SECURITY DEPOSIT (SD): YOU ARE REQUIRED TO SUBMIT CONTRACT PERFORMANCE SECURITY (CPS) OF 10% (TEN PERCENT) OF CONTRACT VALUE (EXCLUDING GST) WITHIN 30 DAYS FROM THE DATE OF ISSUANCE OF THIS FOA, IN LINE WITH CLAUSE NO. 38.0 OF ITB (INSTRUCTION TO BIDDERS) & BIDDING DATA SHEET (BDS) OF TENDER DOCUMENT AND AMENDMENTS THEREOF, IF ANY.
5. CONTRACT AGREEMENT: YOU ARE REQUIRED TO SUBMIT CONTRACT AGREEMENT WITHIN 15 DAYS FROM THE DATE OF ISSUANCE OF THIS FOA, ON NON-JUDICIAL STAMP PAPER IN LINE WITH CLAUSE NO. 37.0 OF ITB (INSTRUCTION TO BIDDERS) OF TENDER DOCUMENT AND AMENDMENTS THEREOF, IF ANY.



Registered Office: Plot 2/H. Kalpana Area, BJB Nagar, Khordha, Bhubaneswar – 751005
 Site Office: Administrative Building, Talcher Fertilizers Limited, Talcher, Post- Vikrampur, Dist.- Angul, Odisha-759106

FOA NO. TFL/TALCHER/C&P/PROJ/220 KV GIS/24-25/ FOA-003 DATED 26.04.2024

6. **INTEGRITY PACT:** THIS CONTRACT SHALL BE GOVERNED BY INTEGRITY PACT AS ATTACHED WITH TENDER DOCUMENT.
7. **PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) POLICY:** YOU HAVE GIVEN UNDERTAKING IN YOUR BID DOCUMENT THAT YOU ARE TO BE CONSIDERED AS A "LOCAL SUPPLIER" UNDER "PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) ORDER 2017" BY VIRTUE OF MEETING THE MANDATORY MINIMUM LOCAL CONTENT REQUIREMENT OF 50% SPECIFIED IN THE SAID POLICY. ACCORDINGLY, THE PROVISIONS OF THE SAID POLICY DATED 16.09.2020 AS ATTACHED WITH THE TENDER DOCUMENT SHALL BE APPLICABLE FOR THIS CONTRACT.

ALL OTHER TERMS AND CONDITIONS SHALL BE AS PER TENDER NO. PNMM/PC-183/E-4024/NCB DATED 12.01.2024 (E-TENDER ID: 2024_PDIL_790308_1) AND ALL AMENDMENTS ISSUED THEREOF AGAINST THE TENDER. A "DETAILED LETTER OF ACCEPTANCE (DLOA)" SHALL FOLLOW.

YOU ARE REQUESTED TO ACKNOWLEDGE RECEIPT OF THIS FOA.

FOR TALCHER FERTILIZERS LIMITED



Vivek Mishra
28/04/2024
VIVEK MISHRA
CHIEF MANAGER (C&P)

ANNEXURE-C

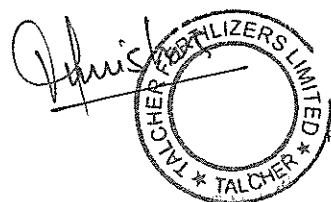
SCHEDULE OF RATES
(SOR)

DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024					
ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
1	SCHEDULE 2A-SS (SUPPLY)				
1.01	220/33kV, 20MVA, YNyn0, 3 phase Power Transformer with complete Accessories including first oil filling with 10% extra oil and RTCC panel Complete in all respect.	1.000	Nos	51702287.22	51702287.22
2.0	245kV GIS EQUIPMENT as per latest IEC standard & type tested equipment as per technical specification, with open future proof & flexible system in line with IEC 61850 & IEC 62271-203. (Circuit breaker shall be C2 - M2 class as per IEC 62271-100).				
2.01	245kV, 3150A, 50kA (3 sec for CB & 1 sec for Disconnecter, Grounding switch, CT, PT), SF6 gas insulated Transformer feeder bay module each comprising of SF6 gas insulated circuit breaker, current transformer, bus-bar dis connectors with common grounding switch, Motorised dis connectors with safety grounding switch(es), high speed fault making motorised grounding switch, Stand alone Local control cubicle, SF6 gas monitoring system for complete bay, SF6 bus duct termination arrangement, PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets, Nuts, Bolts & Washers Absorbent, Limit Switch, SF6 Gas, etc to complete Transformer feeder bay module & its earthing arrangement with earthing strips of adequate size as per the technical specification.	1.000	SET	16250952.26	16250952.26
2.02	245kV, 3150A, 50kA (3 sec for CB & 1 sec for Disconnecter, Grounding switch, CT & PT), SF6 gas insulated Line feeder bay module each comprising of SF6 gas insulated circuit breaker, current transformer, Line Potential Transformer (3 core), bus-bar dis connectors with common grounding switch, Motorised dis connectors with safety grounding switch(es), high speed fault making motorised grounding switch, Stand alone Local control cubicle, SF6 gas monitoring system for complete bay, SF6 bus duct termination arrangement, PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets, Nuts, Bolts & Washers Absorbent, Limit Switch, SF6 Gas, etc to complete line feeder bay module & its earthing arrangement with earthing strips of adequate size as per the technical specification.	4.000	SET	16250952.26	65003809.04
2.03	245kV, 3150A, 50 kA (3 sec for Bus bar, 1 sec for disconnecter, grounding switch & bus P.T), 3- phase Isolated, SF6 gas insulated, Metal enclosed bus bars each enclosed in bus enclosures running along the length of the switchgear to interconnect each of circuit breaker bay module. Each bus bar set shall be complete with bus potential transformer (3 core), dis connectors, bus bar grounding switch, SF6 gas monitoring system PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets, Nuts, Bolts & Washers Absorbent, Limit Switch, SF6 Gas, etc to complete the bus & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification.	2.000	SET	16250952.26	32501904.52
2.04	SF6 gas insulated Bus Coupler Bay Module comprising of SF6 gas insulated circuit breaker, current transformer, dis connectors switches, disconnecter with safety grounding switch(es). Local control cubicle, SF6 gas monitoring system, PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets, Nuts, Bolts & Washers Absorbent, Limit Switch, SF6 Gas, etc to complete Bus Coupler bay module & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification.	1.000	SET	16250952.26	16250952.26

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 THE FERTILIZERS LIMITED

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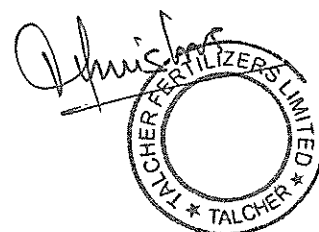
DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024					
ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
2.05	245kV, 3150A, 50kA, 3 sec, single phase, SF6 gas Insulated Bus Duct outside GIS Hall alongwith associated Support structure arrangement bends, joints, accessories, & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification etc.	480.000	RM	76560.59	36749083.20
2.06	245kV, 3150A, 50kA SF6/Air Bushing (Bushing shall be of Polymer / composite insulator type and shall be seamless sheath of a silicone rubber compound. The hollow silicone composite insulators shall comply as per IEC 61462 and the relevant parts of IEC 62217. The design of the composite insulators shall be tested and verified according to IEC 61462).	15.000	Nos	380498.23	5707473.45
2.07	Portable Partial Discharge(PD) monitoring system: 245kV system shall have Portable Partial Discharge(PD) monitoring system & shall be capable for measuring PD in charged GIS environment ,bandwidth in order of 100 MHz-2GHz & provision to select a wide range of intermediate bandwidths and the principle of operation shall be based on UHF principle of detection. The Detection and measurement of PD and bouncing particles having in built large coloured LCD for displaying and storing facility in the instrument for further analysis to locate actual source of PD such as free conducting particles, floating components, voids in spacers, particle on spacer surfaces etc.	1.000	SET	7022406.22	7022406.22
3.00	250kVA , 380BHP, 220kW, Silent AMF Diesel Generator set, 1500 rpm with AMF control panel as per Technical Specification.	1.000	SET	5876267.83	5876267.83
4.0	220kV OUTDOOR EQUIPMENTS:				
4.01	245kV,50kA/1Sec, 1 Core, CL-0.2, 50VA Single Phase Potential Transformer (AIS) for Metering	6.000	Nos	327321.32	1963927.92
4.02	PT Console Box for above PTs as above	2.000	Nos	16366.07	32732.14
4.03	245kV,50kA/1Sec, 5 Core, 1200-600-300/1A, CL-PX,0.2S, 30VA Single Phase Current Transformer (AIS) for Metering	6.000	Nos	388694.07	2332164.42
4.04	CT Console Box for above CTs as above	2.000	Nos	16366.07	32732.14
4.05	245kV,3150A,50kA/1sec, Double Break Isolator (Isolator with earth switch including post insulators for incomer)	2.000	SET	797845.73	1595691.46
4.06	220kV, Cable Sealing End (220kV GIS END)	6.000	Nos	680214.62	4081287.72
4.07	220kV, Cable GIS end termination kit at (MRSS Substation End)	6.000	Nos	440519.95	2643119.70
4.08	216kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III, 10kJ/kV at 216kV as per technical Specification	15.000	Nos	109026.64	1635399.60
5.0	33kV OUTDOOR EQUIPMENTS:				
5.01	33kV, 1250A, 31.5kA/3s, 3 Phase, Outdoor Vacuum Circuit breaker with Supporting Structure	4.000	Nos	467796.72	1871186.88
5.02	33kV Single Phase Current Transformer for 20MVA Power transformer, 5 core, ratio: 800-400-200/1A	3.000	Nos	88649.53	265948.59
5.03	CT Console Box for above CTs	1.000	Nos	10910.71	10910.71
5.04	33kV Single Phase Current Transformer for 33kV Feeder & 33kV Buscoupler, 3 core, ratio: 800-400-200/1A	9.000	Nos	73647.3	662825.70
5.05	CT Console Box for above CTs	3.000	Nos	10910.71	32732.13
5.06	33kV Single Phase, Bus Potential Transformer, 2 core (0.2,3P classes), 33kV/110V/110V	3.000	Nos	43642.84	130928.52
5.07	PT Console Box for above PTs	1.000	Nos	10910.71	10910.71
5.08	33kV Single Phase, Metering Current Transformers for 33kV feeder bays, 1 core, 800-400-200/1A	6.000	Nos	73647.3	441883.80
5.09	CT Console Box for above CTs as above	2.000	Nos	10910.71	21821.42
5.10	33kV Single Phase, Metering Potential Transformers for 33kV feeder bays, 1 core, 33kV/110V	6.000	Nos	43642.84	261857.04
5.11	PT Console Box for above PTs	2.000	Nos	10910.71	21821.42
5.12	33kV, 1250A, 31.5kA/1s, Outdoor Isolator W/O Earth Switch	8.000	Sets	196392.79	1571142.32
5.13	33kV, 1250A, 31.5kA/1s, Outdoor Isolator with Earth Switch	5.000	Sets	218214.22	1091071.10
5.14	33kv, 200A, Horn Gap fuses	2.000	Sets	24549.1	49098.20
5.15	30kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III as per technical Specification.	15.000	Nos	18407.73	276115.95
5.16	33kV Bus Post Insulator	10.000	Nos.	3818.75	38187.50
6.00	Tariff Meter for Main & Check meter for Metering	8.000	Nos	501415.35	4011322.80
7.0	XLPE Power Copper conductor cable for the GIS system (36kV class) and cable termination kit				



DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

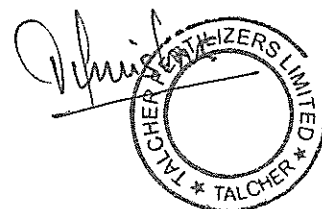
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
7.01	36kV XLPE Cable 300 sq. mm Copper Single Core (from 33kV side TFL feeder End termination to 33kV Double pole structure having each phase one run)	0.850	Kms	3902168.04	3316842.83
7.02	36kV Outdoor type termination Kits (from TFL feeder to 33kV Double pole structure) suitable for 1CX300 Sq.mm	12.000	Nos	6219.11	74629.32
8.0	BUS BAR & CIRCUIT MATERIALS				
8.1	Long Rod Silicon Composite Insulator				
8.11	160kN Long rod Insulator strings for 245kV tension purpose	6.000	Sets	11967.69	71806.14
8.12	160kN Long rod Insulator strings for 245kV Suspension purpose	6.000	Sets	11967.69	71806.14
8.13	120kN Long rod Insulator strings for 33kV tension purpose	36.000	Sets	2393.54	86167.44
8.14	90kN Long rod Insulator strings for 33kV Suspension purpose	30.000	Sets	1684.34	50530.20
8.20	Single ACSR Moose Conductor.	0.950	Km	545535.54	518258.76
8.3	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS				
8.31	220kV Single Tension H/W fitting for single moose ACSR	6.000	Nos	3507.79	21046.74
8.32	220kV Single Suspension H/W fitting for single moose ACSR	6.000	Nos	3245.94	19475.64
8.33	Clamps & Connectors etc: 220kV T- clamp for ACSR ZEBRA to ACSR MOOSE drop, 220kV Isolator pad clamp suitable for ACSR Moose conductor, 3 bolted PG clamp suitable for ACSR Moose conductor, 220kV LA Clamp suitable for ACSR Moose, 30kV LA Clamp suitable for ACSR Moose, etc as required.				
8.331	Terminal connector for power transformer to receive ACSR conductor suitable for horizontal take off	3.000	Nos	2182.14	6546.42
8.332	Terminal connector for Isolator to receive ACSR conductor suitable for horizontal take off	12.000	Nos	1772.99	21275.88
8.333	Terminal connector for LA to receive ACSR conductor suitable for horizontal take off	15.000	Nos	1772.99	26594.85
8.334	Terminal connector for CT to receive ACSR conductor suitable for horizontal take off	6.000	Nos	2182.14	13092.84
8.335	Terminal connector for CVT to receive ACSR conductor suitable for horizontal take off	6.000	Nos	2182.14	13092.84
8.336	Terminal connector for Cable sealing End to receive ACSR conductor suitable for horizontal take off for 220kV GIS End	6.000	Nos	1636.61	9819.66
8.337	Terminal connector for SF6 Air bushing to receive ACSR conductor suitable for horizontal take off	15.000	Nos	2182.14	32732.10
8.34	Clamps & Connectors etc: 33kV Equipments for ACSR MOOSE.				
8.341	Terminal connector for power transformer to receive ACSR conductor suitable for horizontal take off	3.000	Nos	2182.14	6546.42
8.342	Terminal connector for Isolator to receive ACSR conductor suitable for horizontal take off	78.000	Nos	1772.99	138293.22
8.343	Terminal connector for LA to receive ACSR conductor suitable for horizontal take off	15.000	Nos	1772.99	26594.85
8.344	Terminal connector for CT to receive ACSR conductor suitable for horizontal take off	18.000	Nos	2182.14	39278.52
8.345	Terminal connector for CB to receive ACSR conductor suitable for horizontal take off	24.000	Nos	1772.99	42551.76
8.346	Terminal connector for PT to receive ACSR conductor suitable for horizontal take off	9.000	Nos	2182.14	19639.26
8.347	Terminal connector for station transformer to receive ACSR conductor suitable for horizontal take off	6.000	Nos	2182.14	13092.84
8.348	Terminal connector for HG Fuse to receive ACSR conductor suitable for horizontal take off	12.000	Nos	1772.99	21275.88
8.349	Spacer for Twin Bus ACSR 33kV Bus	100.000	Nos	613.73	61373.00
9.0	Substation Earthing Systems:				
9.1	Earthing Conductor for Burial : 75X10mm GI Flat for Earthing conductor for Main Mat and Below Ground Riser	30.100	MT	106379.43	3202020.84
9.2	Earthing Conductor; 75X10mm GI (HDG) Flat for Raiser from the burial earth mat to outdoor equipments, structure, building lightning protection etc)	5.900	MT	106379.43	627638.64
9.3	Earthing Conductor; 50X6mm GI (HDG) Flat for Raiser for Console box, LT Panels, DC Panels, Marshalling boxes etc.	1.080	MT	108425.19	117099.21
9.4	Earthing device & Associated Accessories (50 mm heavy duty GI PERFORATED Pipe 3 mtrs long for treated earth pit)	58.000	Nos	3068.64	177981.12
9.5	Earthing device & Associated Accessories 40 mm MS rod 3 mtrs long for non-treated earth pit	12.000	Nos	2789.05	33468.60
9.6	Earthing Spikes and Its Fittings in all respect.				
9.61	Earthing Spikes of 2 mtr long each GI pipe & other accessories and Its Fittings in all respect. (for 220 & 33kV side column gantry)	3.000	Nos	2454.91	7364.73
9.62	Switchyard building lightning protection (all materials & accessories like Shielding Wire, PG clamp, Test link, D shackle etc) as per IS/National Building code standard				



DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
9.621	20x3mm copper Flat for horizontal and down conductor	310.000	Mtrs	868.77	269318.70
9.622	10mm dia 1000mm Long Air Termination Spike	8.000	Nos	392.79	3142.32
9.623	GS Fixing Clamps for 20x3mm Copper Conductor	210.000	Nos	190.94	40097.40
9.624	Test Joint	6.000	Nos	4091.52	24549.12
10.0	G.I Cable Trays including support GI angle suitable for different sections along with its accessories as per TS. Details of No. of tiers are indicated in the TS-Civil Section accordingly the requirement can be ascertained & High Quality ISI mark PVC-U selfit Pipe, PVC elbow bend, PVC Tee etc suitable for under ground burrial (Hard Conduit Including of adequate tensile strength minimum 7kg/sqmm or better) as per TS.				
10.01	G.I Cable Trays(size: 450x75x2500mm)	138.000	Mtrs	1861.64	256906.32
10.02	G.I Cable Trays(size: 300x75x2500mm)	55.000	Mtrs	1396.57	76811.35
10.03	G.I Cable Trays(size: 150x75x2500mm)	65.000	Mtrs	930.14	60459.10
10.04	Support G. I angle 50x50x6 mm including 6mm MS plate for cable tray	2.600	MT	197756.63	514167.24
10.05	100mm dia PVC Pipe	30.000	Mtrs	6137.27	184118.10
10.06	50mm dia PVC Pipe	20.000	Mtrs	3409.6	68192.00
11.0	Sub Station Switchyard BMK, AC Console & Other MB as per Tech Spec.				
11.01	Switchyard AC Console for Lighting	2.000	Nos	681.92	1363.84
11.02	Switchyard Receptacle Board for TFR Oil Filtration (01 no. near 220/33kV Power transformer)	1.000	Nos	681.92	681.92
11.03	Switchyard Receptacle Board for Welding & Other Emergency Nature Work	1.000	Nos	681.92	681.92
11.04	33kV switchyard Bay Marshalling Kiosk	2.000	Nos	103651.75	207303.50
12.0	Lighting cum Lightning Mast (Including Foundation bolts) for 220/33kV Class				
12.01	Supply of Lighting cum Lightning Mast including LED lighting fixtures (Excluding 30 Mtr. Monopole) with control gear panel etc suitable for wind zone-V , with all other accessories like motor for hoisting/lowering the lighting platform & other switchgear and lighting control panel etc. for 30 Mtrs. height Monopole (HDG)	2.000	Nos	696185.45	1392370.90
12.02	30 Mtrs height Monopole (HDG) for Lighting cum Lightning Mast structure suitable for wind zone-V (2 Nos.)	36.000	MT	124682.15	4488557.40
13.00	General Equipment & Substation Accessories: Supply of Power and control cable including fixing of cable with terminal connections both at equipments and control panels with supply of and fixing of lugs, Ferrules, clamps, connectors, glands, fixing of cable trays, including supply of N&B, Link plates, Cable Markers, Plaster of Paris, M-Seal Compounds etc., for sealing purposes and all neccessary arrangements, Supply of Earthing Flats, Earthing, laying of Cable trench slabs and chequered plate etc., for the cable trench, Cable scheduled and cable diagram to be prepared by the Contractor.				
13.10	Power Cables, 1.1kV, XLPE & PVC Armoured, Aluminium Conductor (As per Specification) including power cable termination, Lugs, Glands & other materials in order to complete the activity.				
13.11	3.5CX185 mm² XLPE	180.000	Mtrs	878.31	158095.80
13.12	3.5CX120 mm² XLPE	100.000	Mtrs	608.27	60827.00
13.13	3.5CX70 mm² PVC	260.000	Mtrs	375.06	97515.60
13.14	3.5CX35 mm² PVC	300.000	Mtrs	215.49	64647.00
13.15	4CX 16 mm² PVC	884.000	Mtrs	130.93	115742.12
13.16	4CX 6 mm² PVC	300.000	Mtrs	92.74	27822.00
13.17	2CX 6 mm² PVC	1569.000	Mtrs	62.74	98439.06
13.20	Control Cables, 1.1kV, PVC Armoured Stranded Copper (As per specification) including control cable termination, Lugs, Glands & other materials in order to complete the activity.				
13.21	5CX 2.5 mm²	6078.000	Mtrs	190.94	1160533.32
13.22	10CX 2.5 mm²	1682.000	Mtrs	355.96	598724.72
13.23	12CX 2.5 mm²	3722.000	Mtrs	420.06	1563463.32
13.24	16CX 2.5 mm²	1180.000	Mtrs	546.9	645342.00
13.25	19CX 2.5 mm²	2130.000	Mtrs	647.82	1379856.60
13.26	1CX 120 mm² Bat to Bat Charger & Charger to DCDB	90.000	Mtrs	1451.12	130600.80
14.0	SUPPLY OF STATION TRANSFORMER& OTHER MATERIALS FOR MEETING THE AUXILIARY SUPPLY OF THE SUBSTATION AS PER TECHNICAL SPECIFICATION				
14.01	STATION TRANSFORMER 33KV/0.43 KV,250 KVA (AS PER SPECIFICATION)	2.000	Nos	1056975.11	2113950.22
15.0	SUB STATION LIGHTING (AS PER SPECIFICATION AND APPROVED DRAWINGS)(includes switchyard street area)				



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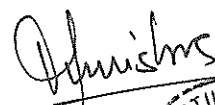
DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024					
ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
15.10	Indoor Lighting:				
15.101	220kV GIS Building Indoor Lighting, it includes supply of fixtures & lamps (LED) of OPTCL approved Make with switchgear, Conduit & other required materials for succesful illumination of the area/rooms. (No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) 150W High bay LED of OPTCL approved make	1.000	LOT	154667.51	154667.51
15.102	Control room building indoor Lighting, it includes supply of fixtures & lamps (LED) of OPTCL approved make with switch gear, Conduit & other required materials for succesful illumination of the area/rooms.(No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) Surface Mounted LED 42W of OPTCL approved make (ii) 34W LED Lights of OPTCL approved make (for control room) (iii)36W LED Corrossion Proof Luminaire with IP65 Protection suitable for dusty & Corrossive atmosphere of OPTCL approved make for battery room.	1.000	LOT	238145.36	238145.36
15.103	Indoor Lighting OF Security Shed cum Visitors room, FFPH Building, Store Shed, Parking shed: It includes supply of fixtures & lamps (LED) of OPTCL approved make with switch gear,Conduit & other required materials for succesful illumination of the area/rooms. (No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) 34W LED Lights of OPTCL approved make (for control room)	1.000	LOT	66773.55	66773.55
15.20	Outdoor Lighting:				
15.201	Sub-Station Switchyard Lighting, it includes Supply of fixtures & lamps (LED) of OPTCL approved Make with switchgear,GI Conduit etc.(Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be achieved).(150 watt each)	12.000	Nos	6180.92	74171.04
15.202	Street Lighting: GI Tubular Pole: (410-SP-24; IS 2713-Part-II-1980 or latest) Length of pole 8.5 mtrs(minimum weight 158 Kgs). & LED light fittings etc. (All the Street Light Pole Shall be of GI Tubular Pole and provision of a GI Junction box with Suitable Covers at a height of 1 Metre from the Ground. The Junction Box shall have Provision of Fuses, Buses, Connectors for cable in and out. (It Includes Supply of LED Lighting Fixtures with Lamps of 100Watts of OPTCL approved make & as per technical specification).	18.000	Nos	25424.68	457644.24
15.203	Outdoor Kiosk for Street Lighting Purpose having 2 Nos. 200Amp Switch Fuse Units and , 6 Nos. outlets of 32Amp MCB For Street Lighting. (Suitable For XLPE Cables (3.5C X 120Sqmm) from Main ACDB from Control Room to the Outdoor Kiosk. XLPE Cable Of 4C X 16Sqmm from Outdoor Kiosk to the Street Light Poles and 4C X 6Sq.mm from Pole to Pole and 2C X 6Sq.mm from Pole to Lighting Fixtures. 1 No. Outdoor Kiosk for Colony Supply Purpose (* Remarks: For Supply of All the Cables As Indicated Are Covered In the Cable Items As Indicated Above)	1.000	Nos	62395.63	62395.63



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ANNEXURE C (SCHEDULE OF RATES)

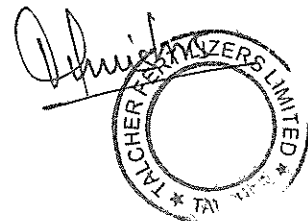
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
16.0	Outdoor Kiosk for Street Lighting Purpose having 2 Nos. 200Amp Switch Fuse Units and , 6 Nos. outlets of 32Amp MCB For Street Lighting. (Suitable For XLPE Cables (3.5C X 120Sqmm) from Main ACDB from Control Room to the Outdoor Kiosk. XLPE Cable Of 4C X 16Sqmm from Outdoor Kiosk to the Street Light Poles and 4C X 6Sqmm from Pole to Pole and 2C X 6Sqmm from Pole to Lighting Fixtures. 1 No. Outdoor Kiosk for Colony Supply Purpose (* Remarks: For Supply of All the Cables As Indicated Are Covered In the Cable Items As Indicated Above)	12.000	Nos	62395.63	748747.56
17.0	220kV GIS hall-ventilation system through ducting (Pressurization type ventilation system) at AHU room as per technical specification	1.000	LS	4637052.08	4637052.08
18.0	Fire Fighting System (Portable /Trolley/ Wheel Mounted Fire Extinguishers sets for Control Room, Equipment like Transformer and other areas as per Tech Spec.				
18.01	Foam Type-9 Ltrs	4.000	Nos	14465.96	57863.84
18.02	Dry Chemical Powder (Trolley Mounted)- 22.5Kgs	4.000	Nos	24529.24	98116.96
18.03	Dry Powder Type - 5Kgs	4.000	Nos	8176.41	32705.64
18.04	CO ₂ - 4.5Kgs	10.000	Nos	10000.38	100003.80
18.05	CO ₂ - 9Kgs	10.000	Nos	15723.87	157238.70
18.06	CO ₂ (Trolley Mounted)- 22.5Kgs	4.000	Nos	34592.51	138370.04
18.07	Fire Bucket (6 Nos in each stand) with stand	5.000	Sets	10692.23	53461.15
18.08	9 litre water type	4.000	Nos	9434.32	37737.28
18.09	4.5 kg DCP type	4.000	Nos	4402.68	17610.72
18.10	50 Litres Mechanical Foam type	2.000	Nos	37108.33	74216.66
18.11	Supply of Smoke & Heat detection system: Addressable optical Smoke & Heat Multi detector(50 Nos) for main control room building including all accessories, Main control panel(Microprocessor based 2 loop fire alarm control panel expandable upto 18 loops fully networkable with each loop capable of taking 99 devices, 8 line x 40 character alpha- numeric liquid crystal display .The panel shall be soft addressable type . The panel shall be able to give pin point location of all fire/fault conditions. Further, the panel must be able to automatically switch off respective control switches when ever any alarm is triggered. The panel shall have in built rectifier, Loop cards,provision for external & internal printer(if required), L C D unit to indicate Fire/Fault Signal with address and analog output, built in printer to log all fire or fault events complete in all respects, integral SMF lead acid batteries with sealed cells of 24 V capable of running for a minimum of 8 hours with integral battery charger complete as required and as per specification. The fire alarm panel shall be suitable for software integration with BMS & PA system ,wall mounting loop powered addressable type hooter with all accessories , addressable manual call box made of polycarbonate with plastic break glass front and complete with monitor module MCB, addressable isolator module with required PVC box, fittings and fixtures, wiring with PVC FRLS wire to cover the required for fire & smoke detection etc. (One control room building & 1 no. GIS hall are to be provided with Heat & smoke detection). Should have facility for integration with SAS.	1.000	Sets	2333422.34	2333422.34
19.0	Fire Fighting (HVW system & hydrant system) system with Detailed Design Suitable for 20MVA, 220/33kV Power Transformer etc., as per the Latest Standard & TS.				
19.01	Fire Fighting Equipment: (Main Pump, Jockey Pump, DG Set cum Pump, Control Panel for Fire Fighting System (HIGH PRESSURE : Hydrant and Mulsifire system) to take care of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, switchyard equipment and buildings. HVW system & hydrant sytsem, complete with all piping, valves, fittings etc inside pump house for Fire protection sytem of substation) as per the technical spec & Latest standard.	1.000	Lot	4736029.7	4736029.70
19.02	Hydrant pipe for Substation fire protection system	0.080	km	119501.41	9560.11



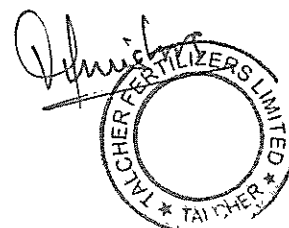

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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
19.03	Hydrant system, complete U/G piping of different sizes, valves and accessories etc outside the Pump House for Fire protection system of 1 Nos. 20 MVA, 220/33 KV POWER TRANSFORMER, switchyard equipment and buildings as per the technical spec & Latest standard.	1.000	Lot	3515857.38	3515857.38
19.04	HVV Spray system, Hydrant System and complete U/G and O/G piping, different type of valves, Fire sensor etc and accessories etc near the Transformer for Fire protection of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, as per the technical spec.	1.000	Lot	1226461.88	1226461.88
20.0	Substation Automation System for 220/33kv Substation on Parallel redundancy protocol (PRP) mode: Design, Engineering, Drawing, Supervision, Installation, Testing & Commissioning of Substation Automation System along with Supply of the following 220 And 33kv level of Protection Panels consisting of Bay Control Units & Numerical Protection Relays and other Auxiliary Relays Suitable for SAS as Per Technical Specification. NOTE: All Protective Relays & BCU Shall Be Numerical Type.				
20.01	Gate way panel for Sub-Station Automation (in PRP as per the specification & indicative drg) system (for All 220 & 33 KV side bays including the future bays), other accessories (comprising servers, engg. Station, works station (Main & standby), Remote station control, Colour Laser jet Printers & dot matrix printer for local station as per requirement and also for remote station, Ethernet Switches , LIU, Red Box, Multimode glass fibre Double jacket armoured optical cables, special cables like F.O patch cord & armoured FO cables of adequate length etc required for the system in all respect as per latest IEC 61850 standard, Inverters of required capacity & rating (Input shall be both A.C & D.C and output shall be A.C) etc as per TS. A large video screen of 60 inches for display including all type of accessories & as per technical specification.	1.000	Sets	7282634.62	7282634.62
20.02	BCU for Substation Auxiliary System (Station AC, Station DC, Lighting, Fire fighting, Diesel generator etc. as per the site requirement)	1.000	Sets	370752.31	370752.31
20.3	220 KV PROTECTION PANELS				
20.31	Feeder Protection panel (Main-I , Main-II & Back-up protection with auto reclosure Distance Protection) with Bay control unit (BCU) for substation automation system. (Simplex with front Glass door)	4.000	Sets	2355270.24	9421080.96
20.32	Transformer Protection Panel (Differential I & II , REF I & II & Back-up Protection for HV & LV side Considering HV & LV side of 220/33kv, 20MVA) with Bay control units (BCU) for HV & LV for substation automation system. (Simplex with front Glass door)	1.000	Sets	1734591.15	1734591.15
20.33	Bus Coupler Protection Panel with Bay control unit (BCU) for substation automation system. (Simplex with front Glass door)	1.000	Nos	1006327.69	1006327.69
20.34	Bus-Bar Protection Panel (Provision of bus bar modules for the future bays and to be integrated with the Automation system) (Simplex with front Glass door).	1.000	Sets	3475802.89	3475802.89
20.35	Main 1 and Main 2 Distance and Line Differential Protection with all necessary modifications for two lines.(OPTCL's remote End Stations)	2.000	Sets	2648230.77	5296461.54
20.4	33 KV PROTECTION PANELS				
20.41	33kV Feeder Protection Panel with Bay control Protection unit (BCPU) for substation automation system	2.000	Nos	728263.46	1456526.92
20.42	33kV Transformer Protection Panel with Bay control Protection unit (BCPU) for substation automation system (33kV side of 220/33kv, 20MVA)	1.000	Nos	867295.58	867295.58
20.43	33kV Transfer Bus Coupler Protection Panel with Bay control Protection unit (BCPU) for substation automation system.	1.000	Nos	642195.96	642195.96
21.0	AC & DC SYSTEM				
21.1	AC SYSTEM				
21.11	Main ACDB, Facilities for integration with SAS as per the site requirement, as per specification	1.000	Sets	681919.42	681919.42
21.12	ACDB as per Technical Specification.	1.000	Sets	2902249.07	2902249.07
21.13	Main Lighting Distribution Board as per Technical Specification	1.000	Sets	225033.41	225033.41
21.14	Indoor Lighting Distribution board as per Technical Specification	1.000	Sets	40915.17	40915.17
21.15	Emergency Lighting Distribution Board	1.000	Sets	47734.36	47734.36
21.16	Indoor Receptacle Board	2.000	Sets	954687.19	1909374.38
21.17	Supply of 2 TR Capacity Split Air Conditioning Units (Inverter type latest model) of OPTCL approved make	12.000	Nos	81830.33	981963.96
21.2	220V & 48V DC System:				



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ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
21.21	220V DC BOARD (Having 100A DC MCCB as Incomer , E/F (Earth Leakage), Under & Over Voltage as per Specification (DCDB-1,DCDB-2 & B/C). Consider Separate Source (DC1 & DC 2) to each panels & accordingly sufficient Nos. of DC output from DB-1 & 2 to be considered. Facilities for integration with SAS as per the site requirement.	1.000	Sets	381874.88	381874.88
21.22	220V DC Emergency Distribution Board	1.000	Sets	51825.88	51825.88
21.23	Battery (350AH PLANTE type) for 220V DC	2.000	Sets	3256008.41	6512016.82
21.24	Battery Charger for 350AH, 220V DC (Float & Float cum Boost) (including provision of series dropper diodes with heat sinks & other protection facility at the DC Load terminal end in order to feed 220V to the load).Facilities for integration with SAS as per the site requirement.	2.000	Sets	115926.3	231852.60
21.25	DE MINERALISED PLANT of 30 L/Hr for making Distilled water for battery banks	1.000	Sets	109107.11	109107.11
21.26	48V DC BOARD (Having 75A DC MCCB as Incomer , E/F (Earth Leakage), Under & Over Voltage as per Specification (DCDB-1,DCDB-2 & B/C). Consider Separate source (DC1 & DC2)to each panels & accordingly sufficient Nos. of DC output from DB-1 & DB-2 to be considered. Facilities for integration with SAS as per the site requirement.	1.000	Sets	368236.49	368236.49
21.27	48V, 300 AH, VRLA type battery set	2.000	Sets	177539.09	355078.18
21.28	SMPS based battery charger for 48V, 75A float cum boost (as recommended by the Battery manufacturer)	2.000	Nos	88649.53	177299.06
22.0	Accessories for FOTE / OPGW System as per technical specification:				
22.01	24 Fibre (DWSM) OPGW fibre optic cable	0.100	Km	199120.47	19912.05
22.02	OPGW hardware set like suspension assembly, Tension Assembly (Dead end assembly, pass through assembly), vibration damper, down lead assemblies for 24/48 fibre (DWSM) OPGW, Joint box	1.000	Km	123937.2	123937.20
22.03	Optical line terminal equipment (OLTE)-STM4 type SDH equipment with integrated MUX & tributary cards for speech & data ports for interfacing of speech & data which should be compatible with existing OPTCL system.	1.000	Nos	3174334.92	3174334.92
22.04	Supply of FODP (Fibre optic Distribution panel) 48 F: Indoor type, rack mounted with FCPC coupling and pigtails (DWSM fibre)	1.000	Nos	213781.74	213781.74
22.05	Digital tele-protection coupler compatible for interfacing with SDHMUX	1.000	Nos	466432.89	466432.89
22.06	Earth flat, cable tray, telephone cable, ACDB, DCDB, foundation rail, Junction Box, Cat 5 cable & Misc items	1.000	Lot	2045758.27	2045758.27
23.00	EOT Crane for GIS building for 220kV GIS station (5T Capacity safe working load & minimum height of crane have shall be 8.0 meters or as per actual requirement whichever is higher. The crane shall have minimum speeds under full load of: Speed (a) Hoisting 2 meters/minute (b) Cross Travel 10 meters/minute (c) Long Travel 20 meters/minute (d) Creep speed shall be of 25% of operating speed. The crane shall be possible to be operated through the cable, through the pendant control and which shall be easily accessible from the floor of GIS building and through remote control device.) including all accessories with control panel.	1.000	Nos	2610933.09	2610933.09
24.0	MANDATORY SPARE: Being Quoted Separately as listed from 117 of this BOQ				
25.00	GENERAL TOOLS & TACKLES - As per Annexure A of Part-36 of Technical Specifications	1.000	Lot	641822.56	641822.56
26.00	MAINTENANCE TESTING EQUIPMENTS - As per Annexure B of Part-36 of Technical Specifications	1.000	Lot	17722998.53	17722998.53
27.00	OFFICE FURNITURE - As per Annexure C of Part-36 of Technical Specifications	1.000	Lot	1289255.96	1289255.96
28.00	Best Quality & approved make Insulating Mat (Confirming to IS:15652:2006) to be kept in front of all Panels, Boards etc., (2000X1000X3)mm Size	40.000	Nos	1363.84	54553.60
29.0	DIFFERENT TYPE OF LATTICE TYPE COLUMNS WITH DETAILS & DIFFERENT TYPE OF BEAMS WITH DETAILS				
29.01	(Tower) 220kV COLUMN: P1S TYPE,- HEIGHT-21.5 MTRS	14.000	MT	108629.76	1520816.64
29.02	(Girder) 220kV BEAM:Q1 TYPE,-LENGTH-18 MTRS	3.000	MT	108629.76	325889.28
29.03	(Tower) 33kV COLUMN, HEIGHT-8 MTRS	9.700	MT	108629.76	1053708.67
29.04	(Girder) 33kV BEAM:G1 TYPE,-LENGTH-5.5 MTRS	4.150	MT	108629.76	450813.50
30.0	SUPPORT STRUCTURES FOR OUDOOR EQUIPMENTS				
30.1	SUPPORT STRUCTURES FOR 220kV EQUIPMENT				
30.11	220kV Isolator	7.000	MT	108629.76	760408.32
30.12	220kV Surge Arrester	4.000	MT	108629.76	434519.04
30.13	220kV Current transformer	1.500	MT	108629.76	162944.64
30.14	220kV Potential transformer	1.200	MT	108629.76	130355.71
30.15	220kV Cable sealing end	1.500	MT	108629.76	162944.64



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
30.16	SF6 Bushing	4.500	MT	108629.76	488833.92
30.20	SUPPORT STRUCTURES FOR 33kv EQUIPMENT				
30.201	33 KV Lightning Arrestor	0.700	MT	108629.76	76040.83
30.202	33 KV Current Transformer	1.500	MT	108629.76	162944.64
30.203	33 KV Bus Potential Transformer	0.300	MT	108629.76	32588.93
30.204	33 KV Metering Current Transformer	0.600	MT	108629.76	65177.86
30.205	33 KV Metering Voltage Transformer	0.600	MT	108629.76	65177.86
30.206	33 KV Bus Post Insulator	3.000	MT	108629.76	325889.28
30.207	33 KV Horn Gap Fuse	0.640	MT	108629.76	69523.05
30.208	33 KV Isolator	2.320	MT	108629.76	252021.04
30.209	33 KV Isolator with ES	1.600	MT	108629.76	173807.62
30.3	Cable End Termination	0.800	MT	108629.76	86903.81
30.4	GI bolts ,Nuts, washers plain & spring etc for the above structures	2.180	MT	153431.87	334481.48
30.5	GI Foundation bolts & nuts with plate & other washers as required	3.950	MT	153431.87	606055.89
30.6	Triple Pole Structure for Double circuit 33kV Line: 3 Nos. Galvanized H-Type 14 Mtr. Structure including Channels, Angles and Flat for Belling, Bracing, mounting and termination of 6 Nos. 33kV Single core cable. This also includes supply of Lightning Arrestors, GO AB Switch, Polymer Pin & Disc Insulators incl. Hardware fittings, Complete Stay Ser, Earthing arrangement, HDPE Pipes from Ground Level to a Suitable Height on the Pole etc. to terminate the 33kV Cable on the structure complete. Note: Stringing of 148 Sq.mm. AAA Conductor from this Gantry to TFL Pump House is not included in above.	1.000	Lot	3068637.41	3068637.41
31.0	220kV XLPE Cable Package (220kV GIS station to MRSS station):				
31.01	24 Fibre (DWDM) OPGW fibre optic cable	1.500	Km	199120.47	298680.71
31.02	installation hardware for 24 fibre optic cable	1.000	Lot	127655.32	127655.32
31.03	50mm DIA PVC PIPE / 40mm DIA PLB DUCT (OPTICAL FIBER CABLE)	1.500	Km	136383.88	204575.82
31.04	Supply of 220kV XLPE cable straight through joint kit complete suitable for cable with Link boxes	6.000	Nos	443975.01	2663850.06
31.05	Supply of Cross bonding & Link Boxes for Earthing	2.000	Nos	541580.41	1083160.82
32.00	SCHEDULE-2B-SS (Erection)				
33.00	220/33kV, 20MVA, YNyn0, 3 phase Power Transformer Complete in all respect.	1.000	Nos	537142.86	537142.86
33.01	Short Circuit Testing of 220/33kV, 20MVA, YNyn0, 3 phase Power Transformer at any Govt. Lab in India	1.000	LS	5080000	5080000.00
34.00	245kV GIS EQUIPMENT as per latest IEC standard & type tested equipment as per technical specification, with open future proof & flexible system in line with IEC 61850 & IEC 62271-203. (Circuit breaker shall be C2 - M2 class as per IEC 62271-100).				
34.01	245kV, 3150A, 50kA (3 sec for CB & 1 sec for Disconnector, Grounding switch, CT, PT), SF6 gas insulated Transformer feeder bay module each comprising of SF6 gas insulated circuit breaker, current transformer, bus-bar dis connectors with common grounding switch, Motorised dis connectors with safety grounding switch(es), high speed fault making motorised grounding switch, Stand alone Local control cubicle, SF6 gas monitoring system for complete bay, SF6 bus duct termination arrangement, PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets, Nuts, Bolts & Washers Absorbent, Limit Switch, SF6 Gas, etc to complete Transformer feeder bay module & its earthing arrangement with earthing strips of adequate size as per the technical specification.	1.000	Sets	125714.29	125714.29



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
34.02	245kV, 3150A,50kA (3 sec for CB & 1 sec for Disconnector,Grounding switch,CT & PT), SF6 gas insulated Line feeder bay module each comprising of SF6 gas insulated circuit breaker, current transformer,Line Potential Transformer (3 core), bus-bar dis connectors with common grounding switch, Motorised dis connectors with safety grounding switch(es), high speed fault making motorised grounding switch, Stand alone Local control cubicle, SF6 gas monitoring system for complete bay, SF6 bus duct termination arrangement,PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets,Nuts, Bolts & Washers Absorbent,Limit Switch ,SF6 Gas , etc to complete line feeder bay module & its earthing arrangement with earthing strips of adequate size as per the technical specification.	4.000	Sets	125714.29	502857.16
34.03	245kV , 3150A, 50 kA (3 sec for Bus bar ,1 sec for disconnector,grounding switch & bus P.T), 3- phase Isolated , SF6 gas insulated , Metal enclosed bus bars each enclosed in bus enclosures running along the length of the switchgear to interconnect each of circuit breaker bay module. Each bus bar set shall be complete with bus potential transformer (3 core), dis connectors , bus bar grounding switch, SF6 gas monitoring system PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets,Nuts, Bolts & Washers Absorbent,Limit Switch ,SF6 Gas , etc to complete the bus & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification.	2.000	Sets	125714.29	251428.58
34.04	SF6 gas insulated Bus Coupler Bay Module comprising of SF6 gas insulated circuit breaker, current transformer, dis connectors switches, disconnector with safety grounding switch(es). Local control cubicle, SF6 gas monitoring system, PD sensor (adequate number of UHF sensors in the offered GIS equipment for detection of Partial discharge (of 5 pC and above) as per IEC 60270 through Partial Discharge (PD) monitoring system), different gas compartment, O- ring & gaskets,Nuts, Bolts & Washers Absorbent,Limit Switch ,SF6 Gas , etc to complete Bus Coupler bay module & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification.	1.000	Sets	125714.29	125714.29
34.05	245kV, 3150A, 50kA, 3 sec, single phase, SF6 gas Insulated Bus Duct outside GIS Hall alongwith associated Support structure arrangement bends, joints,accessories, & its earthing arrangement with earthing strips of adequate size (as per IEEE-80-2000 and CIGRE44 to protect operating staff against any hazardous touch voltages and electro-magnetic interferences) as per the technical specification etc.	480.000	RM	2457.14	1179427.20
34.06	245kV, 3150A, 50kA SF6/Air Bushing (Bushing shall be of Polymer / composite insulator type and shall be seamless sheath of a silicone rubber compound. The hollow silicone composite insulators shall comply as per IEC 61462 and the relevant parts of IEC 62217. The design of the composite insulators shall be tested and verified according to IEC 61462) For Connecting GIS to AIS.	15.000	Nos	9657.14	144857.10

Definitive



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
34.07	Portable Partial Discharge(PD) monitoring system: 245kV system shall have Portable Partial Discharge(PD) monitoring system & shall be capable for measuring PD in charged GIS environment ,bandwidth in order of 100 MHz–2GHz & provision to select a wide range of intermediate bandwidths and the principle of operation shall be based on UHF principle of detection. The Detection and measurement of PD and bouncing particles having in built large coloured LCD for displaying and storing facility in the instrument for further analysis to locate actual source of PD such as free conducting particles, floating components, voids in spacers, particle on spacer surfaces etc.	1.000	Sets	11428.57	11428.57
35.00	250kVA , 380BHP, 220kW, Silent AMF Diesel Generator set, 1500 rpm with AMF control panel as per Technical Specification.	1.000	Sets	118857.14	118857.14
36.00	220kV OUTDOOR EQUIPMENTS:				
36.01	245kV,50kA/1Sec, 1 Core, CL-0.2, 50VA Single Phase Potential Transformer (AIS) for Metering	6.000	Nos	8914.29	53485.74
36.02	PT Console Box for above PTs	2.000	Nos	857.14	1714.28
36.03	245kV,50kA/1Sec, 5 Core, 1200-600-300/1A, CL-PX,0.2S, 30VA Single Phase Current Transformer (AIS) for Metering	6.000	Nos	8914.29	53485.74
36.04	CT Console Box for above CTs	2.000	Nos	857.14	1714.28
36.05	245kV,3150A,50kA/1sec, Double Break Isolator (Isolator with earth switch including post insulators for incomer)	2.000	Sets	18857.14	37714.28
36.06	220kV, Cable Sealing End (220kV GIS END)	6.000	Nos	54628.57	327771.42
36.07	220kV, Cable GIS end termination kit at (MRSS Substation End)	6.000	Nos	54628.57	327771.42
36.08	216kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III, 10kJ/kV at 216kV as per technical Specification	15.000	Nos	7428.57	111428.55
37.0	33kV OUTDOOR EQUIPMENTS:				
37.01	33kV, 1250A, 31.5kA/3s, 3 Phase, Outdoor Vacuum Circuit breaker with Supporting Structure	4.000	Nos	14171.43	56685.72
37.02	33kV Single Phase Current Transformer for 20MVA Power transformer, 5 core, ratio: 800-400-200/1A	3.000	Nos	5142.86	15428.58
37.03	CT Console Box for above CTs	1.000	Nos	457.14	457.14
37.04	33kV Single Phase Current Transformer for 33kV Feeder & 33kV Buscoupler, 3 core, ratio: 800-400-200/1A	9.000	Nos	5142.86	46285.74
37.05	CT Console Box for above CTs	3.000	Nos	457.14	1371.42
37.06	33kV Single Phase, Bus Potential Transformer, 2 core (0.2,3P classes), 33kV/110V/110V	3.000	Nos	5142.86	15428.58
37.07	PT Console Box for above PTs	1.000	Nos	457.14	457.14
37.08	33kV Single Phase, Metering Current Transformers for 33kV feeder bays, 1 core, 800-400-200/1A	6.000	Nos	5142.86	30857.16
37.09	CT Console Box for above CTs	2.000	Nos	457.14	914.28
37.10	33kV Single Phase, Metering Potential Transformers for 33kV feeder bays, 1 core, 33kV/110V	6.000	Nos	5142.86	30857.16
37.11	PT Console Box for above PTs	2.000	Nos	457.14	914.28
37.12	33kV, 1250A, 31.5kA/1s, Outdoor Isolator W/O Earth Switch	8.000	Sets	6628.57	53028.56
37.13	33kV, 1250A, 31.5kA/1s, Outdoor Isolator with Earth Switch	5.000	Sets	6628.57	33142.85
37.14	33kV, 200A, Horn Gap fuses	2.000	Sets	5142.86	10285.72
37.15	30kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III as per technical Specification.	15.000	Nos	1714.29	25714.35
37.16	33kV Bus Post Insulator	10.000	Nos.	1028.57	10285.70
38.00	Tariff Meter for Main & Check meter for Metering	8.000	Nos	1371.43	10971.44
39.00	XLPE Power Copper conductor cable for the GIS system (36kV class) and cable termination kit				
39.01	36kV XLPE Cable 300 sq. mm Copper Single Core (from 33kV side TFL feeder End termination to 33kV Double pole structure having each phase one run)	0.850	Km	154285.71	131142.85
39.02	36kV Outdoor type termination Kits (from TFL feeder to 33kV Double pole structure) suitable for 1CX300 Sq.mm	12.000	Nos	48228.57	578742.84
40.00	BUS BAR & CIRCUIT MATERIALS				
40.10	Long Rod Silicon Composite Insulator				
40.101	160kN Long rod Insulator strings for 245kV tension purpose	6.000	Sets	1371.43	8228.58
40.102	160kN Long rod Insulator strings for 245kV Suspension purpose	6.000	Sets	1028.57	6171.42
40.103	120kN Long rod Insulator strings for 33kV tension purpose	36.000	Sets	685.71	24685.56
40.104	90kN Long rod Insulator strings for 33kV Suspension purpose	30.000	Sets	514.29	15428.70
40.20	Single ACSR Moose Conductor:	0.950	Km	165714.29	157428.58
40.30	HARDWARES & FITTINGS/SPACERS/CLAMP & CONNECTORS				
40.31	220kV Single Tension H/W fitting for single moose ACSR	6.000	Nos	1371.43	8228.58
40.32	220kV Single Suspension H/W fitting for single moose ACSR	6.000	Nos	1028.57	6171.42



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
40.33	Clamps & Connectors etc: 220kV T- clamp for ACSR ZEBRA to ACSR MOOSE drop, 220kV Isolator pad clamp suitable for ACSR Moose conductor, 3 bolted PG clamp suitable for ACSR Moose conductor, 220kV LA Clamp suitable for ACSR Moose, 30kV LA Clamp suitable for ACSR Moose. etc as required.				
40.331	Terminal connector for power transformer to receive ACSR conductor suitable for horizontal take off	3.000	Nos	120	360.00
40.332	Terminal connector for Isolator to receive ACSR conductor suitable for horizontal take off	12.000	Nos	120	1440.00
40.333	Terminal connector for LA to receive ACSR conductor suitable for horizontal take off	15.000	Nos	120	1800.00
40.334	Terminal connector for CT to receive ACSR conductor suitable for horizontal take off	6.000	Nos	120	720.00
40.335	Terminal connector for PT to receive ACSR conductor suitable for horizontal take off	6.000	Nos	120	720.00
40.336	Terminal connector for Cable sealing End to receive ACSR conductor suitable for horizontal take off for 220kV GIS End	6.000	Nos	120	720.00
40.337	Terminal connector for SF6 Air bushing to receive ACSR conductor suitable for horizontal take off	15.000	Nos	120	1800.00
40.34	Clamps & Connectors etc: 33kV Equipments for ACSR MOOSE.				
40.341	Terminal connector for power transformer to receive ACSR conductor suitable for horizontal take off	3.000	Nos	97.14	291.42
40.342	Terminal connector for Isolator to receive ACSR conductor suitable for horizontal take off	78.000	Nos	97.14	7576.92
40.343	Terminal connector for LA to receive ACSR conductor suitable for horizontal take off	15.000	Nos	97.14	1457.10
40.344	Terminal connector for CT to receive ACSR conductor suitable for horizontal take off	18.000	Nos	97.14	1748.52
40.345	Terminal connector for CB to receive ACSR conductor suitable for horizontal take off	24.000	Nos	97.14	2331.36
40.346	Terminal connector for PT to receive ACSR conductor suitable for horizontal take off	9.000	Nos	97.14	874.26
40.347	Terminal connector for station transformer to receive ACSR conductor suitable for horizontal take off	6.000	Nos	97.14	582.84
40.348	Terminal connector for HG Fuse to receive ACSR conductor suitable for horizontal take off	12.000	Nos	97.14	1165.68
40.349	Spacer for Twin Bus ACSR 33kV Bus	100.000	Nos	85.71	8571.00
41.0	Substation Earthing Systems:				
41.1	Earthing Conductor for Burial : 75X10mm GI Flat for Earthing conductor for Main Mat and Below Ground Riser	5100.000	Mtrs	171.43	874293.00
41.2	Earthing Conductor; 75X10mm GI (HDG) Flat for Raiser from the burial earth mat to outdoor equipments, structure, building lightning protection etc)	1000.000	Mtrs	116.57	116570.00
41.3	Earthing Conductor; 50X6mm GI (HDG) Flat for Raiser for Console box, LT Panels, DC Panels, Marshalling boxes etc., (450 Mtrs.)	450.000	Mtrs	100.57	45256.50
41.4	Earthing device & Associated Accessories (50 mm heavy duty GI PERFORATED Pipe 3 mtrs long for treated earth pit)	58.000	Nos	14400	835200.00
41.5	Earthing device & Associated Accessories 40 mm MS rod 3 mtrs long for non-treated earth pit	12.000	Nos	1885.71	22628.52
41.6	Earthing Spikes and Its Fittings in all respect.				
41.61	Earthing Spikes of 2 mtr long each GI pipe & other accessories and Its Fittings in all respect. (for 220 & 33kV side column gantry)	3.000	Nos.	2514.29	7542.87
41.62	Switchyard building lightning protection (all materials & accessories like Shielding Wire, PG clamp, Test link, D shackle etc) as per IS/National Building code standard				
41.621	20x3mm copper Flat for horizontal and down conductor	310.000	Mtrs	182.86	56686.60
41.622	10mm dia 1000mm Long Air Termination Spike	8.000	Nos	971.43	7771.44
41.623	GS Fixing Clamps for 20x3mm Copper Conductor	210.000	Nos	137.14	28799.40
41.624	Test Joint	6.000	Nos	1714.29	10285.74
42.00	G.I Cable Trays including support GI angle suitable for different sections along with its accessories as per TS. Details of No. of tiers are indicated in the TS-Civil Section accordingly the requirement can be ascertained & High Quality ISI mark PVC-U selfit Pipe, PVC elbow bend, PVC Tee etc suitable for under ground burial (Hard Conduit Including of adequate tensile strength minimum 7kg/sqmm or better) as per TS.				
42.01	G.I Cable Trays(size: 450x75x2500mm)	138.000	Mtrs	85.71	11827.98
42.02	G.I Cable Trays(size: 300x75x2500mm)	55.000	Mtrs	74.29	4085.95
42.03	G.I Cable Trays(size: 150x75x2500mm)	65.000	Mtrs	62.86	4085.90
42.04	Support G.I angle 50x50x6 mm including 6mm MS plate for cable tray	2.600	MT	25485.71	66262.85
42.05	100mm dia PVC Pipe	30.000	Mtrs	125.71	3771.30



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
42.06	50mm dia PVC Pipe	20.000	Mtrs	91.43	1828.60
43.00	Sub Station Switchyard BMK, AC Console & Other MB as per Tech Spec.				
43.01	Switchyard AC Console for Lighting	2.000	Nos	11428.57	22857.14
43.02	Switchyard Receptacle Board for TFR Oil Filtration (01 no. near 220/33kV Power transformer)	1.000	Nos	1714.29	1714.29
43.03	Switchyard Receptacle Board for Welding & Other Emergency Nature Work	1.000	Nos	1714.29	1714.29
43.04	33kV switchyard Bay Marshalling Kiosk	2.000	Nos	2114.29	4228.58
44.00	Lighting cum Lightning Mast (Including Foundation bolts) for 220/33kV Class				
44.01	Fixing of Lighting cum Lightning arrangement including LED lighting fixtures (excluding 30 Meter Monopole) with control gear panel etc suitable for wind zone-V , with all other accessories like motor for hoisting/lowering the lighting platform & other switchgear and lighting control panel etc.	2.000	Nos	40000	80000.00
44.02	Erection of 30 Mtrs height Monopole (HDG) Lighting cum Lightning Mast structure suitable for wind zone-V	2.000	Nos	34285.71	68571.42
45.00	General Equipment & Substation Accessories: Supply of Power and control cable including fixing of cable with terminal connections both at equipments and control panels with supply of and fixing of lugs, Ferrules, clamps, connectors, glands, fixing of cable trays, including supply of N&B, Link plates, Cable Markers, Plaster of Paris, M-Seal Compounds etc., for sealing purposes and all necessary arrangements, Supply of Earthing Flats, Earthing, laying of Cable trench slabs and chequered plate etc., for the cable trench, Cable scheduled and cable diagram to be prepared by the Contractor.				
45.10	Power Cables, 1.1kV, XLPE & PVC Armoured, Aluminium Conductor (As per Specification) including power cable termination, Lugs, Glands & other materials in order to complete the activity.				
45.101	3.5CX185 mm² XLPE	180.000	Mtrs	165.71	29827.80
45.102	3.5CX120 mm² XLPE	100.000	Mtrs	137.14	13714.00
45.103	3.5CX70 mm² PVC	260.000	Mtrs	80	20800.00
45.104	3.5CX35 mm² PVC	300.000	Mtrs	43.43	13029.00
45.105	4CX 16 mm² PVC	884.000	Mtrs	28.57	25255.88
45.106	4CX 6 mm² PVC	300.000	Mtrs	25.14	7542.00
45.107	2CX 6 mm² PVC	1569.000	Mtrs	25.14	39444.66
45.20	Control Cables, 1.1kV, PVC Armoured Stranded Copper (As per specification) including control cable termination, Lugs, Glands & other materials in order to complete the activity.				
45.201	5CX 2.5 mm²	6078.000	Mtrs	25.14	152800.92
45.202	10CX 2.5 mm²	1682.000	Mtrs	25.14	42285.48
45.203	12CX 2.5 mm²	3722.000	Mtrs	26.29	97851.38
45.204	16CX 2.5 mm²	1180.000	Mtrs	27.43	32367.40
45.205	19CX 2.5 mm²	2130.000	Mtrs	28.57	60854.10
45.206	1CX 120 mm² Bat to Bat Charger & Charger to DCDB	90.000	Mtrs	34.29	3086.10
46.00	Station Transformer & Other Materials for Meeting the Auxiliary Supply of the Substation As Per Technical Specification				
46.01	STATION TRANSFORMER 33KV/0.43 KV,250 KVA (AS PER SPECIFICATION)	2.000	Nos	25462.86	50925.72
47.00	SUB STATION LIGHTING (AS PER TECHNICAL SPECIFICATION)				
47.10	Indoor Lighting:				
47.101	220kV GIS Building Indoor Lighting, it includes fixtures & lamps (LED) of OPTCL approved Make with switchgear, Conduit & other required materials for succesful illumination of the area/rooms. (No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) 150W High bay LED of OPTCL approved make	1.000	LOT	228571.43	228571.43

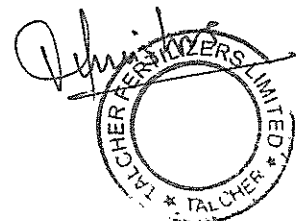
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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
47.102	Control room building indoor Lighting, it includes fixtures & lamps (LED) of OPTCL approved make with switch gear, Conduit & other required materials for succesful illumination of the area/rooms.(No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) Surface Mounted LED 42W of OPTCL approved make (ii) 34W LED Lights of OPTCL approved make (for control room) (iii)36W LED Corrossion Proof Luminaire with IP65 Protection suitable for dusty & Corrossive atmosphere of OPTCL approved make for battery room.	1.000	LOT	342857.14	342857.14
47.103	Indoor Lighting OF Security Shed cum Visitors room, FFPH Building, Store Shed, Parking shed: It includes fixtures & lamps (LED) of OPTCL approved make with switch gear,Conduit & other required materials for succesful illumination of the area/rooms. (No. of LED Lighting fixtures are to be calculated based on the illumination design considering the required lux level indicated in the technical spec & fixing of the same rigidly on the suitable height either ceiling & wall as required.) (i) 34W LED Lights of OPTCL approved make (for control room)	1.000	LOT	114285.71	114285.71
47.20	Outdoor Lighting:				
47.201	Sub-Station Switchyard Lighting, it includes fixtures & lamps (LED) of OPTCL approved Make with switchgear, GI Conduit etc.(Lighting fixtures are to be fixed rigidly on the Column at a suitable height so that the required lux can be achieved),(150 watt each)	12.000	Nos	1714.29	20571.48
47.202	Street Lighting: GI Tubular Pole: (410-SP-24: IS 2713-Part-II-1980 or latest) Length of pole 8.5 mtrs(minimum weight 158 Kgs). & LED light fittings etc. (All the Street Light Pole Shall be of GI Tubular Pole and provision of a GI Junction box with Suitable Covers at a height of 1 Metre from the Ground. The Junction Box shall have Provision of Fuses, Buses, Connectors for cable in and out. (It Includes LED Lighting Fixtures with Lamps of 100Watts of OPTCL approved make & as per technical specification).	18.000	Nos	9142.86	164571.48
47.203	Outdoor Kiosk for Street Lighting Purpose having 2 Nos. 200Amp Switch Fuse Units and , 6 Nos. outlets of 32Amp MCB For Street Lighting. (Suitable For XLPE Cables (3.5C X 120Sqmm) from Main ACDB from Control Room to the Outdoor Kiosk. XLPE Cable Of 4C X 16Sqmm from Outdoor Kiosk to the Street Light Poles and 4C X 6Sq.mm from Pole to Pole and 2C X 6Sq.mm from Pole to Lighting Fixtures. 1 No. Outdoor Kiosk for Colony Supply Purpose (* Remarks: For Supply of All the Cables As Indicated Are Covered In the Cable Items As Indicated Above)	1.000	Nos	8571.43	8571.43
48.0	2 TR Capacity Split Air Conditioning Units (Inverter type latest model) of OPTCL approved make.	12.000	Nos	17142.86	205714.32
49.0	220kV GIS hall-ventilation system through ducting (Pressurization type ventilation system) at AHU room as per technical specification	1.000	LS	914285.71	914285.71
50.00	Fire Fighting System (Portable /Trolley/ Wheel Mounted Fire Extinguishers sets for Control Room, Equipment like Transformer and other areas as per Tech Spec.				
50.01	Foam Type-9 Ltrs	4.000	Nos	285.71	1142.84
50.02	Dry Chemical Powder (Trolley Mounted)- 22.5Kgs	4.000	Nos	571.43	2285.72
50.03	Dry Powder Type - 5Kgs	4.000	Nos	285.71	1142.84
50.04	CO ₂ - 4.5Kgs	10.000	Nos	285.71	2857.10
50.05	CO ₂ - 9Kgs	10.000	Nos	285.71	2857.10
50.06	CO ₂ (Trolley Mounted)- 22.5Kgs	4.000	Nos	571.43	2285.72
50.07	Fire Bucket (6 Nos in each stand) with stand	5.000	Sets	571.43	2857.15
50.08	9 litre water type	4.000	Nos	285.71	1142.84
50.09	4.5 kg DCP type	4.000	Nos	285.71	1142.84
50.10	50 Litres Mechanical Foam type	2.000	Nos	571.43	1142.86



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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
50.11	Smoke & Heat detection system: Addressable optical Smoke & Heat Multi detector(50 Nos) for main control room building including all accessories, Main control panel(Microprocessor based 2 loop fire alarm control panel expandable upto 18 loops fully networkable with each loop capable of taking 99 devices, 8 line x 40 character alpha- numeric liquid crystal display .The panel shall be soft addressable type . The panel shall be able to give pin point location of all fire/fault conditions. Further, the panel must be able to automatically switch off respective control switches when ever any alarm is triggered. The panel shall have in built rectifier, Loop cards,provision for external & internal printer(if required), L C D unit to indicate Fire/Fault Signal with address and analog output, built in printer to log all fire or fault events complete in all respects, integral SMF lead acid batteries with sealed cells of 24 V capable of running for a minimum of 8 hours with integral battery charger complete as required and as per specification. The fire alarm panel shall be suitable for software integration with BMS & PA system ,wall mounting loop powered addressable type hooter with all accessories , addressable manual call box made of polycarbonate with plastic break glass front and complete with monitor module MCB, addressable Isolator module with required PVC box, fittings and fixtures, wiring with PVC FRLS wire to cover the required for fire & smoke detection etc. (One control room building & 1 no. GIS hall are to be provided with Heat & smoke detection). Should have facility for integration with SAS.	1.000	Sets	102285.71	102285.71
51.00	Fire Fighting (HVW system & hydrant system) system with Detailed Design Suitable for 20MVA, 220/33kV Power Transformer etc., as per the Latest Standard & TS.				
51.01	Fire Fighting Equipment: (Main Pump, Jockey Pump, DG Set cum Pump, Control Panel for Fire Fighting System (HIGH PRESSURE : Hydrant and Mulsifire system) to take care of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, switchyard equipment and buildings. HVW system & hydrant sytem, complete with all piping, valves, fittings etc inside pump house for Fire protection sytem of substation) as per the technical spec & Latest standard.	1.000	Lot	177142.86	177142.86
51.02	Hydrant pipe for Substation fire protection system	0.080	km	17142.86	1371.43
51.03	Hydrant sytem, complete U/G piping of different sizes,valves and accessories etc outside the Pump House for Fire protection sytem of 1 Nos. 20 MVA, 220/33 KV POWER TRANSFORMER, switchyard equipment and buildings as per the technical spec & Latest standard.	1.000	Lot	245714.29	245714.29
51.04	HVW Spray sytem, Hydrant System and complete U/G and O/G piping,different type of valves,Fire sensor etc and accessories etc near the Transformer for Fire protection of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, as per the technical spec.	1.000	Lot	74285.71	74285.71
52.00	Substation Automation System for 220/33kv Substation on Parallel redundancy protocol(PRP) mode: Design, Engineering, Drawing, Supervision, Installation, Testing & Commissioning of Substation Automation System along with Supply of the following 220 And 33kV level of Protection Panels consisting of Bay Control Units & Numerical Protection Relays and other Auxiliary Relays Suitable for SAS as Per Technical Specification. NOTE: All Protective Relays & BCU Shall Be Numerical Type.				

Definitive

TALCHER FERTILIZERS LIMITED
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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
52.1	Gate way panel for Sub-Station Automation (in PRP as per the specification & indicative drg) system (for All 220 & 33 KV side bays including the future bays),other accessories (comprising servers, engg. Station, works station (Main & standby), Remote station control, Colour Laser jet Printers & dot matrix printer for local station as per requirement and also for remote station, Ethernet Switches , LIU, Red Box, Multimode glass fibre Double jacket armoured optical cables, special cables like F.O patch cord & armoured FO cables of adequate length etc required for the system in all respect as per latest IEC 61850 standard, Inverters of required capacity & rating (Input shall be both A.C & D.C and output shall be A.C) etc as per TS. A large vedio screen of 60 inches for display including all type of accessories & as per technical specification.	1.000	Sets	57142.86	57142.86
52.2	BCU for Substation Auxilliary System (Station AC, Station DC, Lighting, Fire fighting, Diesel generator etc. as per the site requirement)	1.000	Sets	8571.43	8571.43
52.3	220 KV PROTECTION PANELS				
52.31	Feeder Protection panel (Main-I , Main-II & Back-up protection with auto reclosure Distance Protection) with Bay control unit (BCU) for substation automation system. (Simplex with front Glass door)	4.000	Sets	8571.43	34285.72
52.32	Transformer Protection Panel (Differential I & II , REF I & II & Back-up Protection for HV & LV side Considering HV & LV side of 220/33kV, 20MVA) with Bay control units (BCU) for HV & LV for substation automation system. (Simplex with front Glass door)	1.000	Sets	8571.43	8571.43
52.33	Bus Coupler Protection Panel with Bay control unit (BCU) for substation automation system. (Simplex with front Glass door)	1.000	Nos	8571.43	8571.43
52.34	Bus-Bar Protection Panel (Provision of bus bar modules for the future bays and to be integrated with the Automation system) (Simplex with front Glass door).	1.000	Sets	8571.43	8571.43
52.35	Main 1 and Main 2 Distance and Line Differential Protection with all necessary modifications for two lines.(OPTCL's remote End Stations)	2.000	Sets	8571.43	17142.86
52.4	33 KV PROTECTION PANELS				
52.41	33kV Feeder Protection Panel with Bay control Protection unit (BCPU) for substation automation system	2.000	Nos	8571.43	17142.86
52.42	33kV Transformer Protection Panel with Bay control Protection unit (BCPU) for substation automation system (33kV side of 220/33kV, 20MVA)	1.000	Nos	8571.43	8571.43
52.43	33kV Transfer Bus Coupler Protection Panel with Bay control Protection unit(BCPU) for substation automation system.	1.000	Nos	8571.43	8571.43
53.00	AC & DC SYSTEM				
53.10	AC SYSTEM				
53.101	Main ACDB, Facilities for integration with SAS as per the site requirement, as per specification	1.000	Sets	27428.57	27428.57
53.102	ACDB as per Technical Specification.	1.000	Sets	8571.43	8571.43
53.103	Main Lighting Distribution Board as per Technical Specification	1.000	Sets	3428.57	3428.57
53.104	Indoor Lighting Distribution board as per Technical Specification	1.000	Sets	3428.57	3428.57
53.105	Emergency Lighting Distribution Board	1.000	Sets	3428.57	3428.57
53.106	Indoor Receptacle Board	2.000	Sets	1714.29	3428.58
53.20	220V & 48V DC System:				
53.201	220V DC BOARD (Having 100A DC MCCB as Incomer , E/F (Earth Leakage), Under & Over Voltage as per Specification (DCDB-1,DCDB-2 & B/C). Consider Separate Source (DC1 & DC 2) to each panels & accordingly sufficient Nos. of DC output from DB-1 & 2 to be considered. Facilities for integration with SAS as per the site requirement.	1.000	Sets	20342.86	20342.86
53.202	220V DC Emergency Distribution Board	1.000	Sets	14285.71	14285.71
53.203	Battery (350AH PLANTE type) for 220V DC	2.000	Sets	24000	48000.00
53.204	Battery Charger for 350AH, 220V DC (Float & Float cum Boost) (including provision of series dropper diodes with heat sinks & other protection facility at the DC Load terminal end in order to feed 220V to the load).Facilities for integration with SAS as per the site requirement.	2.000	Sets	6285.71	12571.42
53.205	DE MINERALISED PLANT of 30 L/Hr for making Distilled water for battery banks	1.000	Sets	1142.86	1142.86

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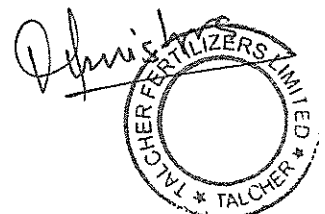
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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
53.206	48V DC BOARD (Having 75A DC MCCB as Incomer , E/F (Earth Leakage), Under & Over Voltage as per Specification (DCDB-1,DCDB-2 & B/C). Consider Seprate source (DC1 & DC2)to each panels & accordingly sufficient Nos. of DC output from DB-1 & DB-2 to be considered. Facilities for integration with SAS as per the site requirement.	1.000	Sets	14285.71	14285.71
53.207	48V, 300 AH, VRLA type battery set	2.000	Sets	13142.86	26285.72
53.208	SMPS based battery charger for 48V, 75A float cum boost (as recommended by the Battery manufacturer)	2.000	Nos	6285.71	12571.42
54.00	Accessories for FOTE / OPGW System as per technical specification:				
54.01	24 Fibre (DWSM) OPGW fibre optic cable	0.100	Km	13714.29	1371.43
54.02	OPGW hardware set like suspension assembly, Tension Assembly (Dead end assembly, pass through assembly), vibration damper, down lead assemblies for 24/48 fibre (DWSM) OPGW, Joint box	1.000	Km	68571.43	68571.43
54.03	Optical line terminal equipment (OLTE)-STM4 type SDH equipment with integrated MUX & tributary cards for speech & data ports for interfacing of speech & data which should be compatible with existing OPTCL system.	1.000	Nos	176914.29	176914.29
54.04	Supply of FODP (Fibre optic Distribution panel) 48 F: Indoor type, rack mounted with FCPC coupling and pigtails (DWSM fibre)	1.000	Nos	177828.57	177828.57
54.05	Digital tele-protection coupler compatible for interfacing with SDHMUX	1.000	Nos	177828.57	177828.57
54.06	Earth flat, cable tray, telephone cable, ACDB, DCDB, foundation rail, Junction Box, Cat 5 cable & Misc items	1.000	Lot	57142.86	57142.86
55.00	EOT Crane for GIS building for 220kV GIS station (5T Capacity safe working load & minimum height of crane have shall be 8.0 meters or as per actual requirement whichever is higher. The crane shall have minimum speeds under full load of: Speed (a) Hoisting 2 meters/minute (b) Cross Travel 10 meters/minute (c) Long Travel 20 meters/minute (d) Creep speed shall be of 25% of operating speed. The crane shall be possible to be operated through the cable, through the pendant control and which shall be easily accessible from the floor of GIS building and through remote control device.) including all accessories with control panel.	1.000	Nos	273714.29	273714.29
56.00	DIFFERENT TYPE OF LATICE TYPE COLUMNS WITH DETAILS & DIFFERENT TYPE OF BEAMS WITH DETAILS				
56.01	(Tower) 220kV COLUMN: P1S TYPE,- HEIGHT-21.5 MTRS	14.000	MT	9142.86	128000.04
56.02	(Girder) 220kV BEAM:Q1 TYPE,-LENGTH-18 MTRS	3.000	MT	9142.86	27428.58
56.03	(Tower) 33kV COLUMN, HEIGHT-8 MTRS	9.700	MT	9142.86	88685.74
56.04	(Girder) 33kV BEAM:G1 TYPE,-LENGTH-5.5 MTRS	4.150	MT	9142.86	37942.87
57.00	SUPPORT STRUCTURES FOR OUDOOR EQUIPMENTS				
57.10	SUPPORT STRUCTURES FOR 220kV EQUIPMENT				
57.101	220kV Isolator	7.000	MT	9142.86	64000.02
57.102	220kV Surge Arrester	4.000	MT	9142.86	36571.44
57.103	220kV Current transformer	1.500	MT	9142.86	13714.29
57.104	220kV Potential transformer	1.200	MT	9142.86	10971.43
57.105	220kV Cable sealing end	1.500	MT	9142.86	13714.29
57.106	SF6 Bushing	4.500	MT	9142.86	41142.87
57.20	SUPPORT STRUCTURES FOR 33kV EQUIPMENT				
57.201	33 KV Lightning Arrestor	0.700	MT	9142.86	6400.00
57.202	33 KV Current Transformer	1.500	MT	9142.86	13714.29
57.203	33 KV Bus Potential Transformer	0.300	MT	9142.86	2742.86
57.204	33 KV Metering Current Transformer	0.600	MT	9142.86	5485.72
57.205	33 KV Metering VoltageTransformer	0.600	MT	9142.86	5485.72
57.206	33 KV Bus Post Insulator	3.000	MT	9142.86	27428.58
57.207	33 KV Horn Gap Fuse	0.640	MT	9142.86	5851.43
57.208	33 KV Isolator	2.320	MT	9142.86	21211.44
57.209	33 KV Isolator with ES	1.600	MT	9142.86	14628.58
57.210	Cable End Termination	0.800	MT	9142.86	7314.29
57.211	GI bolts ,Nuts, washers plain & spring etc for the above structures	2.180	MT	9142.86	19931.43
57.212	GI Foundation bolts & nuts with plate & other washers as required	3.950	MT	13714.29	54171.45
57.213	Triple Pole Structure for Double circuit 33kV Line: 3 Nos. Galvanized H-Type 14 Mtr. Structure including Channels, Angles and Flat for Belling, Bracing, mounting and termination of 6 Nos. 33kV Single core cable. This also includes supply of Lightning Arrestors, GO AB Switch, Polymer Pin & Disc Insulators incl. Hardware fittings, Complete Stay Ser, Earthing arrangement, HDPE Pipes from Ground Level to a Suitable Height on the Pole etc. to terminate the 33kV Cable on the structure complete. Note: Stringing of 148 Sq.mm. AAA Conductor from this Gantry to TFL Pump House is not included in above.	1.000	Lot	51428.57	51428.57
58.00	220kV XLPE Cable Package (220kV GIS station to MRSS station):				

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ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
58.01	24 Fibre (DWSM) OPGW fibre optic cable	1.500	Km	13714.29	20571.44
58.02	Installation hardware for 24 fibre optic cable	1.000	Lot	17142.86	17142.86
58.03	50mm DIA PVC PIPE / 40mm DIA PLB DUCT (OPTICAL FIBER CABLE)	1.500	Km	74285.71	111428.57
58.04	220kV XLPE cable straight through joint kit complete suitable for cable with Link boxes	6.000	Nos	6285.71	37714.26
58.05	Cross bonding & Link Boxes for Earthing	2.000	Nos	4571.43	9142.86
58.06	Laying of 1C 220kV 1000 Sq.mm. Cu XLPE Cable as per the approved laying formation and including all accessories for cable tying & Belling	4832.000	Mtr	365.71	1767110.72
59.00	SCHEDULE-2C-SS (CIVIL-ERECTION)				
60.00	SOIL INVESTIGATION & SITE LEVELLING				
60.01	Contour survey of the entire sub-station area including Supply of all labour & T&P	1.000	Lot	17535.5	17535.50
60.02	Soil investigation: Supply of labour, T&P and other necessary arrangements for Soil investigation/testing of the complete Substation Area, as per the site requirement, Technical specification & instruction of Engineer-in-Charge	1.000	Lot	292000	292000.00
60.03	SITE LEVELLING Providing, neatly dressing up and leveling of substation area to a required level as decided by the Engineer in Charge, the work includes removal, clearing of the entire area from vegetation, trees, bushes, uprooting of plants and disposal of surplus earth and unusable material from the site by means of any mechanical transport, if required as per direction of the Project In charge and as per Site Requirement, approved drawing and specification. This also includes excavation in all type of soils or rocks, back filling and disposal of excess earth or rocks to make the area to a level for construction as per scope and as per approved drawing and specification.				
60.031	Cutting of earth & filling of excavated soil	100.000	CuM	700.8	70080.00
60.032	Filling with borrowed earth beyond 100 mtrs lead	100.000	CuM	1460	146000.00
61.00	220KV AND 33KV TOWERS AND OUTDOOR EQUIPMENT FOUNDATIONS: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering, and construction of PCC & M25 Design Mix RCC, footings of any depth, pedestal, excavation, concreting, shuttering, grouting, underpinning and back filling of foundations etc complete for switch yard gantry/ portal structures and equipment support & others as per the technical specification and approved drawings. This also includes excavation in all types of soil or rocks, back filling and disposal of excess earth as per the direction of Engineer In charge.				
61.01	Excavation & Back filling of excavated Soil	2333.000	Cum	221.92	517739.36
61.02	PCC	74.000	Cum	5517.83	408319.42
61.03	RCC	401.000	Cum	10242.07	4107070.07
61.04	Reinforcement Steel	143.000	MT	84680	12109240.00
62.00	30 Mtr. Lighting cum Lightning Mast: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering, and construction of PCC & M25 Design Mix RCC, footings of any depth, pedestal, excavation, concreting, shuttering, grouting, underpinning and back filling of foundations etc complete for Lighting cum Lightning Mast as per the technical specification and approved drawings. This also includes excavation in all types of soil or rocks, back filling and disposal of excess earth as per the direction of Engineer In charge.				
62.01	Excavation & Back filling of excavated Soil	32.000	Cum	221.92	7101.44
62.02	PCC	2.880	Cum	5517.83	15891.35
62.03	RCC	12.380	Cum	10184.93	126089.43
62.04	Reinforcement Steel	0.339	MT	84680	28706.52

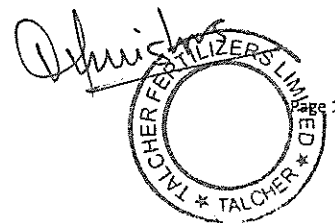


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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
63.00	CABLE TRENCH: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering, and construction of M25 Design Mix RCC cable trenches and all associated works for cable trench and cable trench crossings as per technical specifications and approved drawings and as per direction of the Engineer in Charge. (1) This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. (2) Design, Engineering, Providing and laying of plain cement concrete with approved quality coarse aggregates (Nominal size 12mm to 20mm) , fine aggregates, cement in cable trench as blind layer inclusive of labour charges for concrete mixing & curing. This includes supply of all labourers, T&P and dewatering wherever required as per Technical specification and instruction of Engineer In charge. (3) Open cast foundation for the cable trench with RCC, including supply of Labour all materials like Reinforcement Steel, Cement, coarse and fine aggregates, shuttering, cutting, bending, binding of Reinforcement Steel including supply of binding wire proper curing of the foundations/concrete and T&P in line with the Specification and as per direction of Engineer in Charge. (4) Fly ash Brickwork, plastering & curing, wherever required including the supply of labour, material, cement, etc. (5) Fixing of MS Angle (G.I) for cable tray support (as per specification). The cable tray support frame shall be pre fabricated GI angle as per requirement and to be welded with the plate fixed on the trench wall for better rigidity. The plate (6mm) fixed on the wall are also to be welded with the Reinforcement Steel provided for the trench wall before concreting. (6) Precast of RCC covers and its fixing on the cable trench as per spec and instruction of Engg. In Charge. (7) CABLE TRENCHES INSIDE THE CONTROL ROOM SHALL BE COVERED WITH M.S CHEQUERED PLATE (Duly painted as per instruction of Engg in charge) INCLUDING STANDARD SUPPORT STAND (HD Galvanised (M.S				
63.01	Section 1-1 (1275MM X 1400MM)	35.000	RM	18180.88	636330.80
63.02	Section 2- 2 (1275MM X900MM)	75.000	RM	16870.49	1265286.75
63.03	Section 3-3 (1075MM X900MM)	25.000	RM	14000.66	350016.50
63.04	Section 4-4 (845MM X 250MM)	40.000	RM	6640.84	265633.60
63.05	BURIED CABLE TRENCH: Provision of Buried cable trench for 33kV Power cable, including excavation and backfilling and all relevant civil work as per TS and approved Drawing	135.000	RM	1080	145800.00
64.00	RAIN WATER HARVESTING: Rain water harvesting system as per Technical specification and approved drawing	2.000	Nos	408800	817600.00
65.00	SUBSTATION BUILDINGS:				
65.10	220KV GIS BUILDING (Approx. Area: Approx. 320 Sq.Mtr. & AHU Room Area: Approx. 34 Sq. Mtr.): Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix RCC GIS Building, the cost of material, supply of labour, cement, reinforcement- steel, form work and excavation as per the approved drawing and technical specification. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. As per approved drawings and specification. The area given is for reference only and may vary according to requirement of the equipment to be installed inside. The contractor shall finalize the dimensions according to the equipment offered by them providing enough space & access for erection, operation and maintenance & future expansion.				
65.101	RCC volume including Reinforcement Steel (including column ,Beams and roofs etc) as per technical spec & approved drawings.	1.000	Lot	11885618.46	11885618.46
65.102	Fly ash Brick masonry by using fly ash Brick work in cement sand mortar with Bricks of class designation 75 as per technical spec & approved drawings.	1.000	Lot	757208.47	757208.47
65.103	Flooring of GIS room shall be epoxy paint of adequate thickness & Flooring adjacent panel rooms shall be with vitrified digital tiles with dado as per technical spec & approved drawings.	1.000	Lot	555097.37	555097.37
65.104	External and internal wall (External (18mm thk) and internal (12 mm thk) wall and ceiling plastering as per technical spec mentioned in the civil section & approved drawings.	1.000	Lot	773931.96	773931.96
65.105	Provision of ceiling in the adjacent panel room area as per specification mentioned in the civil section & approved drawings.	1.000	Lot	155344	155344.00



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ANNEXURE C (SCHEDULE OF RATES)					
Sl.No	Description of Work / Item(s)	Quantity	Units	Rate & Amount in Indian Rupees	
				Unit Rate	Total Amount Excluding GST
65.106	Doors and windows shall be of sliding type with locking facility and shall be of aluminium with glaze of 6mm & windows shall have aluminium grills. As per technical spec & approved drawing.	1.000	Lot	1647964.49	1647964.49
65.107	Internal concealed wiring (including flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc, fixing of lighting fixtures & switchgear, Erection of all Lighting FIXTURES & LAMPS (LED), D.C emergency lighting (including supply), cabling for EOT crane including supply and installation of Switch Board panel required for EOT crane as per approved drawing and direction of Engineer In charge.	1.000	Lot	809142.86	809142.86
65.108	Provision of smoke and fire detection & Alarm system of the building.	1.000	Lot	342857.14	342857.14
65.109	Provision of rails & other arrangement including all type of Civil works for EOT crane. This is as per the standard practice adopted in GIS sub-station and as directed by the Engineer in Charge.	1.000	Lot	150409.2	150409.20
65.110	Provision of rain water discharge pipes at different locations and etc as per requirement and approved drawing. It includes supply of all types of materials of reputed make, labour etc to complete the work.	1.000	Lot	292000	292000.00
65.111	External and internal wall painting with primer coat as per technical spec mentioned in the civil section. External: One coat weather coat primer + two coats of weather coat colour paint. Internal: Two coats wall putty+solvent thinable white primer of one coat+two coats colour paint. As per Technical Specification.	1.000	Lot	1199846.69	1199846.69
65.112	Installation of Ventilation system of all equipment and materials as per technical specification (design calculation to be submitted)	1.000	Lot	114285.71	114285.71
66.00	CONTROL ROOM BUILDING (Area: Approx. 382 Sq.Mtr.): Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix RCC Control Room Building, the cost of material, supply of labour, cement, reinforcement- steel, form work and excavation as per the approved drawing and technical specification. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. As per approved drawings and specification. The area given is for reference only and may vary according to requirement of the equipment to be installed inside. The contractor shall finalize the dimensions according to the equipment offered by them providing enough space & access for erection, operation and maintenance & future expansion.				
66.01	RCC volume including Reinforcement Steel (including column, Beams and roofs etc) as per technical spec & approved drawings.	1.000	Lot	5886425.07	5886425.07
66.02	Fly ash Brick masonry by using fly ash Fly ash Brick work in cement sand mortar with Fly ash Bricks of class designation 75 as per technical spec & approved drawings.	1.000	Lot	1153264.51	1153264.51
66.03	Flooring with double charged vitrified digital tiles with dado in all the rooms, Bath and toilets shall be provided with anti skid ceramic digital tiles (wall of the same also to be provided with ceramic digital tiles), Acid proof industrial tiles to be provided on the floor and full wall of the battery room as per technical spec & approved drawings. Stair case & its landing platforms are to be provided with Granite flooring.	1.000	Lot	730113.83	730113.83
66.04	External and internal wall (External 18mm thk and internal 12 mm thk) wall ceiling plastering as per technical spec mentioned in the civil section and Building internal & external & ceiling paintings as per technical spec mentioned in the civil section. The ceiling of Battery room shall be acid proof paints as per specification & approved drawings.	1.000	Lot	799435.9	799435.90
66.05	Provision of ceiling in the control room area as per specification mentioned in the civil section & approved drawings.	1.000	Lot	555909.6	555909.60
66.06	Doors and windows shall be of sliding type with locking facility and shall be of aluminium with glaze of 6 mm & windows shall have aluminium grills. As per technical spec & approved drawing.	1.000	Lot	1700863.79	1700863.79

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ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
66.07	Internal concealed wiring (including flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc), fixing of lighting fixtures & switchgear, ceiling fans of 1400 sweep and regulators (including supply), exhaust fan (including supply), Erection of all Lighting FIXTURES & LAMPS (LED), D.C emergency lighting (including supply), as per approved drawing and direction of Engineer In charge.	1.000	Lot	873142.86	873142.86
66.08	Installation of smoke and fire detection & Alarm system of the building.	1.000	Lot	57142.86	57142.86
66.09	Supply, fitting and fixing of stainless steel pf 304 grade in hand railing using 50mm dia of 2mm thick circular pipe with balustrade of size 32mmx32mmx32mm @0.90mtr C/C and stainless square pipe bracing of size 32mmx32mmx32mm in three rows in staircase as per approved design and specification, buffing, polishing etc with cost, conveyance, taxes of all materials, labour, T&P etc required for the complete in all respect	1.000	Lot	157680	157680.00
66.10	External and internal wall painting with primer coat as per technical spec mentioned in the civil section. External: One coat weather coat primer + two coats of weather coat colour paint. Internal: Two coats wall putty+solvent thinable white primer of one coat+two coats colour paint. Refer the specification.	1.000	Lot	1157918.78	1157918.78
66.11	Provision of PHD and other fittings (in Toilets, wash room, overhead water tank of adequate capacity etc) of reputed make, provision of rain water discharge pipes at different locations and etc as per requirement and approved drawing. There shall be septic tank and soak pit of required capacity including complete sewage system as per approved drawing & technical specification & as per instruction of Engg- in-Charge. It includes supply of all types of materials of reputed make, labour etc to complete the work. Toilets for Gents & Ladies to be provided including all good quality reputed fittings as per technical specification. The toilets & wash room shall have antiskid floor tiles & wall tiles of ceramic upto height of 8 feet.	1.000	Lot	914285.71	914285.71
67.00	SECURITY SHED & CUM VISITOR ROOM (Approx. Area: 17.5 Sq.Mtr.) : Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix RCC Security Shed, the cost of material, supply of labour, cement, reinforcement- steel, form work and excavation as per the approved drawing and technical specification. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. As per approved drawings and specification. The area given is for reference only and may vary according to requirement of the equipment to be installed inside. The contractor shall finalize the dimensions according to the equipment offered by them providing enough space & access for erection, operation and maintenance & future expansion. The height of the building shall be of 3.5mtrs RCC roof, Fly ash Brick masonry works, plastering and painting and fixing of MS doors and windows. Internal concealed wiring (including supply of flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc), fixing of lighting fixtures & switchgear, ceiling fans of 1400 sweep and regulators (including supply) and provision of incoming AC supply from the main ACDB/outdoor kiosks installed for street light. Also includes painting of the building (in side and out side) as per recommended for colony building in the specification.	1.000	Lot	630582.73	630582.73

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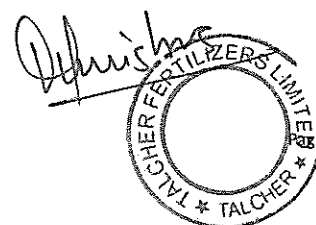
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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
68.00	STORE SHED (Area: Approx. 100 Sq.Mtr.): Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix RCC Store Shed, the cost of material, supply of labour, cement, reinforcement- steel, form work and excavation as per the approved drawing and technical specification. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. As per approved drawings and specification. The area given is for reference only and may vary according to requirement of the equipment to be installed inside. The contractor shall finalize the dimensions according to the equipment offered by them providing enough space & access for erection, operation and maintenance & future expansion. One no store shed of Approx. floor size of 10X10 mtr having Fly ash Brick walls and plastering with RCC roof. The flooring shall be of 75 mm thickness PCC over RR masonry works (as per standard practice of flooring). Provision of adequate nos of MS racks (proper paintings also to be done as per the direction of site in charge) for keeping the spare materials. The height of the shed shall be 4mtrs above the plinth. Internal concealed wiring (including supply of flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc), fixing of lighting fixtures & switchgear, ceiling fans of 1400 sweep and regulators (including supply) and provision of incoming AC supply from the main ACDB/outdoor kiosks installed for street light. Also includes painting of the building (in side and out side) as per recommended for colony building in the specification.	1.000	Lot	1939674.06	1939674.06
69.00	VEHICLE PARKING SHED: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix RCC Vehicle Parking Shed. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. The size of the parking area shall be 15mtrs X 15 mtrs, out of the entire area there shall be provision of shed for 5 mtrs X 15 mtrs and rest of the area shall be without shed. 100 mm thick PCC flooring after the preparing the foundation base & Roof of the parking place shall be RCC & Parking shed shall be as per TS & as per the direction of Engineer in Charge.	1.000	Lot	1911619.34	1911619.34
70.00	FIRE FIGHTING PUMP HOUSE BUILDING & ASSOCIATED RCC WATER TANKS: (Approx. Area of the FFPB Building: 50 Sq. Mtr.): Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of M25 Design Mix FFPB building and allied Water Storage Tanks. This also includes excavation in all types of soil or rocks, backfilling and disposal of excess earth as per the direction of Engineer In charge. As per approved drawings and specification.				
70.01	RCC volume including Reinforcement Steel (including column, Beams and roofs etc) as per technical spec & approved drawings.	1.000	Lot	1846055.17	1846055.17
70.02	Brick masonry work in cement sand mortar with bricks of class designation 75kg/mm2 as per technical spec & approved drawings.	1.000	Lot	476806.86	476806.86
70.03	Concrete Flooring to be provided as per technical spec & approved drawings.	1.000	Lot	123311.25	123311.25
70.04	External and internal wall painting with primer coat as per technical spec mentioned in the civil section. External: One coat weather coat primer + two coats of weather coat colour paint. Internal: Two coats wall putty+solvent thinable white primer of one coat+two coats colour paint. Refer the specification.	1.000	Lot	138243.43	138243.43
70.05	Doors and windows shall be of sliding type with locking facility and shall be of aluminium with glaze of 6mm & windows shall have aluminium grills. As per technical spec & approved drawing.	1.000	Lot	269507.43	269507.43
70.06	Provision of PHD and other fittings of reputed make having ISI mark, provision of rain water discharge pipes at different locations and etc as per requirement and approved drawing & technical specification & as per instruction of Engg- in-Charge. It includes supply of all types of materials of reputed make, labour etc to complete the work.	1.000	Lot	34593.31	34593.31



DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024					
ANNEXURE C (SCHEDULE OF RATES)					
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
70.07	Internal concealed wiring,fixing of lighting fixtures(LED) ,fans and regulators(Electronic regulator) ,exhaust fan,D.C emergency lighting INCLUDING SUPPLY OF ALL ITEMS as per spec & approved drawing.	1.000	Lot	114285.71	114285.71
70.08	Provision of smoke and fire detection system of the building.	1.000	Lot	114285.71	114285.71
70.09	Provision of Water Tank for fire fighting as per TS and approved Drawings	1.000	Lot	1812463.56	1812463.56
71.00	External, internal, ceiling Plastering of Fire fighting as per approved drawing	1.000	Lot	408800	408800.00
72.00	BOUNDARY WALL: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of Boundary Wall. The boundary wall shall be constructed to a height of 2 mtrs above finished ground level of the substation area with 10" wide brick masonry work with M25 Design Mix RCC ground tie beam to be rested on the RCC pillars (pillar to pillar distance @ 3mtrs). Supply & Fixing of Galvanised barbed wire (12 SWG) of 3-rows each on limb of Y shaped frame (Total 6 nos) fencing shall be provided on top of the boundary wall to a height of 0.5 mtr. This also includes excavation in all types of soil or rocks, backfilling and disposal of excess earth as per the direction of Engineer In charge.	405.000	RM	14121.71	5719292.55
73.00	ROADS: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of roads and walkways/ shoulders within sub-station (Switch yard area, approach road, control room building area, main gate to the switch yard gate etc) as per specification, layout and approved drawings complete. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. Provision of drains on both the side of the roads for easy discharge of rain water.				
73.01	7.0 mtrs wide Main RCC road with kerb stones at both the side as per technical specification indicated in the civil section (from the switch yard main gate to power transformer, approach road & Infront of GIS and control room building & Shall have drain on both side of the road.	200.000	Mtrs	21731.88	4346376.00
73.02	3.75 mtrs wide Peripheral RCC with shoulder at both the side & shall have drain on both side of the road as per technical specification indicated in the civil section (Periphery roads outside switch yard fencing)	30.000	Mtrs	16013.34	480400.20
73.03	7.0 Mtrs wide Bituminous Road with shoulder & kerb stones at both sides from nearest Approach Road to the Main Gate of the Switchyard	1.000	Lot	1012459.15	1012459.15
74.00	DRAINAGE SYSTEM: Supply & storage of Material/Raw Material i.e. Cement, water, reinforcement steel, coarse and fine aggregates (Sand and Metal Chips etc), Manpower, Tools & Plants, Machinery along with other required material for Design, engineering and construction of storm water drainage scheme (RCC type), road-culverts as per specification and approved drawing. This also includes excavation in all types of soil or rocks,back filling,and disposal of excess earth as per the direction of Engineer In charge. All the switch yard bays , roads water drainage shall be connected to the main surface drain. As per approved drawing and specification.				
74.01	Storm water drain (RCC type)	460.000	Mtrs	4514.34	2076596.40
74.02	Road-culverts, drain crossings (RCC type) pipe	1.000	Lot	292000	292000.00
74.03	Cable Trench Crossing	1.000	Lot	292000	292000.00

Amichars

TALCHER FERTILIZERS

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DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
75.00	220/33KV POWER TRANSFORMER FOUNDATION-1No Design, engineering, supply of labour, material, equipments for construction of Transformer foundation, all associated works, rail tracks, jacking pads, anchor block RCC and PCC, miscellaneous structural steel including oil collection pits, MS grating (if required), gravel filling, and other items etc. not mentioned herein, but specifically required for the completion of the work as per technical specification and approved drawing. (Rate shall be inclusive of cement, reinforcement steel, angles, flats and form work etc.). Transformer RCC foundation and Rail Track should be extended upto the approaching road (However, the height of RCC foundation beyond transformer main plinth area should be same as height of concrete road). This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge.				
75.01	The rails shall be first quality 52 kg/m medium manganese steel as per Indian Railway specification T-12-64 and its subsequent revision, joined together by fish plates as per Indian Railway specification T-1/57, and 27 mm diameter fish bolts.	30.000	RM	45779.36	1373380.80
75.02	Excavation & Back filling of excavated Soil	80.000	Cum	226.8	18144.00
75.03	PCC	7.500	Cum	5517.83	41383.73
75.04	RCC	35.000	Cum	10184.93	356472.55
75.05	Reinforcement Steel	3.000	MT	82857.14	248571.42
75.06	Other Supply & erection of material in order to complete the Power transformer foundation	1.000	Lot	292000	292000.00
76.00	OIL SUMP PIT-1 No Design, engineering, supply of labour, material, equipments for construction of Oil collection (from transformers) sump pit with provision of pump (5 HP, with auto level control, including cabling, fixing of control gear) & pump house over the oil sump pit (as per CIGRE standard) for the oil collection pit in order to separate oil from the water. Other piping arrangement shall be provisioned to remove water from the oil sump pit. Oil capacity of power transformer in ltrs approx. 20 MVA 220/33KV: 50000 ltrs.				
76.01	Excavation	62.000	Cum	221.92	13759.04
76.02	PCC	0.900	Cum	5639.22	5075.30
76.03	RCC	17.810	Cum	10184.93	181393.60
76.04	Reinforcement Steel	0.800	MT	82857.14	66285.71
76.05	Other Supply & erection of material in order to complete the Oil Sump pit	1.000	Lot	43916.8	43916.80
77.00	PCC BEFORE SITE SURFACING: Design, engineering, supply of labour, material, equipments for Leveling of earth after erection of structures and equipments and proper compaction by using roller of adequate capacity (minimum 3 Ton capacity) with water sprinkling of switch yard area. After proper leveling of the switch yard area (after anti-weed treatment), spreading of plain cement concrete using 20 mm nominal metal over a layer of good quality river sand of 25 mm and maintaining proper sloping for easy discharge of storm water having concrete thickness of 75 mm. including rolling, dressing, compacting the area.	310.000	Cum	7893.65	2447031.50
78.00	METAL SPREADING: Providing supplying and laying two layers of machine crushed metals (gravel) fill, the first layer after compaction shall make minimum 50 mm thickness coarse/ layer of 20 mm nominal size consolidated/ compacted and (by using roller as specified in the specification). A final layer of 50 mm thickness of machine crushed 20 mm nominal size of metals (gravel) above the first layer of 50 mm thickness above the PCC. The total compacted thickness of the metals (20 mm Nominal) 100mm above the PCC.	413.000	Cum	3629.56	1499008.28
79.00	PROVISION OF GARDEN: Provision of gardens as per approved Drawing including supply and planting of decorative plants, garden grass, flowering plants, soil treatment. Provision of water tap with water sprinkler arrangement including water pipe laying with control at different location. Both side of the RCC roads shall be provided with decorative plants as per approved drawing.	1.000	Lot	408800	408800.00

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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
80.00	STONE PITCHING & TOE WALL: Stone pitching including making of toe walls both at top and bottom, including surface drain both at top and bottom and partition wall in every 10 mtrs by using boulders and RR masonry walls respectively. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth and supply of materials and labour as per the direction of Engineer In charge and as per approved drawing and specification.				
80.01	Excavation of Soil	1.000	Lot	18396	18396.00
80.02	P.C.C (1:3:6): Lean Concrete Grade M-10 (Below RR)	1.000	Lot	36135	36135.00
80.03	RR Masonry (1:5)	1.000	Lot	170820	170820.00
80.04	P.C.C (1:2:4): Lean Concrete Grade M-15 (above RR)	1.000	Lot	40734	40734.00
81.00	SWITCHYARD FENCING: Supply and fixing of G.I coat mesh (2.5mm dia) in a (G.I angle 50 X 50 X 6 mm frame having 50 X 6 mm G.I flat bracing corner to corner) fencing (the post and link shall be of HD galvanized) in switchyard and other area of the substation with total fence height complete as per specification and approval drawing and as required under the safety regulation of local, state and central government bodies. This also includes PCC work for grouting the Post and a continuous fly ash brick masonry work and cement point of the joint for the fence upto a height from FGL.	360.000	Mtr	5633.82	2028175.20
82.00	2 x 250KVA STATION TRANSFORMER FOUNDATION: Design, engineering, procurement of labour, material including all associated works for construction of foundation for station transformers as per approved drawing and specification, (other accessories & materials as required need to be supplied for complete installation of transformer as per standard) and instruction of Engineer In charge. As per the specification and approved drawing.				
82.01	Excavation & Back filling of excavated Soil	35.000	Cum	221.92	7767.20
82.02	PCC	0.700	Cum	5517.83	3862.48
82.03	RCC	5.300	Cum	10184.93	53980.13
82.04	Reinforcement Steel	7.000	MT	84680	592760.00
83.00	MAIN GATE & SWITCH YARD GATES: Design, engineering, procurement of labour, material including all associated works for construction and fixing of main gate and switch yard gates as per specification and approved drawing. This also includes excavation in all types of soil or rocks, back filling, and disposal of excess earth as per the direction of Engineer In charge. Provision of gate lights (Post top lantern type) on each pillar of the gate. It includes supply & fixing of light fixtures including LED Gate lamp, LV XLPE cables, switchgear etc required to complete works as per specification and approved drawings				
83.01	6m Wide Boundary wall Main gate	1.000	Nos	292000	292000.00
83.02	1.5m Wide Boundary wall Wicket gate	1.000	Nos	87600	87600.00
83.03	5m Wide Switchyard Fence Gate	2.000	Nos	256960	513920.00
84.00	BOREWELL: Including supply, fixing and commissioning of 1 Nos. 3 HP submersible water pump with starter and other protection.	1.000	Lot	876000	876000.00
85.00	COLOUR CODING AND BAY MARKING: Design, engineering, procurement of labour, material including all associated works for the followings. This should be as per direction of site In charge a) Color coding (red, Yellow & Blue) for equipments, Bus gantry & column of entire switch yard. Good quality weather proof sticker may be used for identification. b) Each bay should be identified with the help of bay marker sign board, suitably grouted. MS sign board with stand to be installed. Proper painting and lettering to be done of the entire switch yard area.	1.000	Lot	114285.71	114285.71
86.00	ANTI WEED TREATMENT: Supply of labour, T&P, Chemicals and other necessary arrangements for anti-weed treat of the switch-yard areas, control room etc. as per the instruction of Engineer-in-Charge. The chemical to be sprayed as per the standard practice adopted for antiweed treatment of sub-station area & as per the technical specification.	3100.000	Sq.Mtr.	58.4	181040.00

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ANNEXURE C (SCHEDULE OF RATES)

Sl.No	Description of Work / Item(s)	Quantity	Units	Rate & Amount in Indian Rupees	
				Unit Rate	Total Amount Excluding GST
87.00	WATER PIPING: Provision of water discharge (PVC) pipe from borewell pump house to different location and etc as per requirement and approved drawing it also includes supply of all type of materials of reputed make	140.000	Mtrs	1693.6	237104.00
88.00	250KVA DG SET FOUNDATION:				
88.01	PCC	1.300	Cum	5517.83	7173.18
88.02	RCC	23.000	Cum	10184.93	234253.39
88.03	Reinforcement Steel	2.800	MT	84680	237104.00
89.00	220 kVCable package, 1CX 1000 sq mm cable(GIS Station to MRSS Station):				
89.01	Cable Trench excavation and backfilling of all types of soil (750 meter Long and 2m deep from GIS Station to MRSS Station).	2550.000	Cum	716.22	1826361.00
89.02	River Sand filling of 300 mm depth on buried area	450.000	Cum	1284.8	578160.00
89.03	Remaining sand filling area to fillup the Trench upto 1.4 depth on buried area	2100.000	Cum	1752	3679200.00
89.04	Cable protection RCC COVER 650X450 on buried area	50.000	Cum	12264	613200.00
89.05	1 Nos. Cable Jointing chamber (Approx. Size 12000 x 3000 x 2500 mm) with cover				
89.06	Excavation & Back filling of excavated Soil	100.000	Cum	731.97	73197.00
89.07	PCC	2.250	Cum	5639.22	12688.25
89.08	RCC	35.000	Cum	10408.99	364314.65
89.09	Reinforcement Steel	1.750	MT	84680	148190.00
90.0	MANDATORY SPARES REQUIRED FOR 220/33KV TFL GIS SUBSTATION AT ANGUL, ODISHA]				
91.00	20MVA 220/33KV TRANSFORMER				
91.01	220kV bushing complete in all respects.	1.000	Nos	1879065.38	1879065.38
91.02	36kV bushing complete in all respects	1.000	Nos	29669.45	29669.45
91.03	HV Neutral Bushing with metal parts and gaskets	1.000	Nos	445041.8	445041.80
91.04	LV Neutral Bushing with metal parts and gaskets	1.000	Nos	29669.45	29669.45
91.05	Local and Remote Winding Temperature Indicator with contact and sensing device	1.000	Sets	69228.72	69228.72
91.06	Oil Temperature Indicator with contact and sensing device (Local and Remote)	1.000	Sets	59338.91	59338.91
91.07	Pressure relief valve	1.000	Nos	12856.76	12856.76
91.08	Magnetic oil level gauge with low oil level alarm contacts	1.000	Nos	13845.74	13845.74
91.09	Cooler fan with motor	1.000	Nos	19779.64	19779.64
91.10	Buchholz relay	1.000	Nos	10878.8	10878.80
91.11	Set of starter, contactor relays and switches(1 No of each type)	1.000	Sets	39559.27	39559.27
91.12	Tap position indicator (local & remote)	1.000	Nos	39559.27	39559.27
91.13	Fuses (complete 100 % replacement for transformer)	1.000	Lot	19779.64	19779.64
91.14	Lamps (complete 100% replacement for transformer)	1.000	Lot	9889.82	9889.82
92.00	SPARES FOR 220kv GIS SWITCHGEAR				
92.10	220KV GIS (GENERAL):				
92.101	Complete GIS modules, along with enclosure, all active parts such as conductor, conductor joints, shields end covers etc., for each type: 1. Bus bar sections (including bus bar interconnection modules) 2. Bus Ducts sections (including compensators/expansionjoints/bellows) 3. Bends 4. SF6/Air Bushing 5. Cable termination kit	1.000	Sets	126236.15	126236.15
92.102	SF6 Gas Pressure Relief Device assembly of each type	1.000	Sets	126236.15	126236.15
92.103	SF6 Pressure Gauge cum switch/Density monitors and pressure switch as applicable, of each type	5.000	Sets	126236.15	631180.75
92.104	Coupling device for pressure gauge cum switch for connecting gas handling plant of each type	2.000	Sets	126236.15	252472.30
92.105	Rubber gasket, 'O' rings and seals of SF6 gas for GIS enclosure type	5.000	Sets	126236.15	631180.75
92.106	Molecular Filter for SF6 Gas with Filter Bags (10% of total weight)	1.000	Sets	126236.15	126236.15
92.107	Control valves for SF6 gas of each type	3.000	Sets	126236.15	378708.45
92.108	SF6 gas (20% of total gas quantity)	1.000	Lot	126236.15	126236.15
92.109	Pipe length(copper or steel as applicable) for SF6 circuit of each type(if applicable)	2.000	Sets	126236.15	252472.30
92.110	Locking device to keep the Disconnectors (isolators) and Earthing/Fast earthing switches in close or open position in cae of removal of the driving mechanism	2.000	Sets	126236.15	252472.30
92.111	UHF PD sensors of each type along with BNC connector	5.000	Sets	126236.15	631180.75
92.112	Support Insulators (gas through) of each type (complete with metal ring etc..)	10.000	Nos	126236.15	1262361.50
92.113	Gas Barriers of each type (complete with metal ring etc..)	10.000	Nos	126236.15	1262361.50
92.114	SF6 to Air bushing of each type complete in all respect	2.000	Nos	126236.15	252472.30
92.20	220KV GIS CIRCUIT BREAKER				

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ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
92.201	Complete circuit breaker(one phase) without PIR with interrupter,main circuit, enclosure and Marshalling Box with operating mechanism to enable one to one replacement of applicable type of CB by spare	2.000	Sets	126236.15	252472.30
92.202	Fixed , moving and arcing contacts including insulating nozzles of each type (for main chamber)	1.000	Sets	126236.15	126236.15
92.203	Trip Coils with Resistor as applicable	3.000	Sets	126236.15	378708.45
92.204	Closing Coils with resistor as applicable	3.000	Sets	126236.15	378708.45
92.205	Relays, Power Contactors, push Buttons, timers & MCB etc.of each type and rating	1.000	Sets	126236.15	126236.15
92.206	Auxiliary Switch Assembly	3.000	Sets	126236.15	378708.45
92.207	Operation Counter	3.000	Sets	126236.15	378708.45
92.208	Windscope, Observing Window of each type)	2.000	Sets	126236.15	252472.30
92.21	For Spring Operated Mechanism				
92.211	Complete Spring operating mechanism, Including charging mechanism etc.of each type	3.000	Sets	126236.15	378708.45
92.212	Spring Charging motor	2.000	Sets	126236.15	252472.30
92.30	220kV GIS CURRENT TRANSFORMER				
92.301	Complete CT of each type and rating as supplied with enclosure and primary conductors to enable one to one replacement of all applicable type/rating of CT by spare.	2.000	Nos	126236.15	252472.30
92.40	220kV GIS VOLTAGE TRANSFORMER				
92.401	Complete PT of each type with enclosure to enable one to one replacement of all applicable type/rating of VT by spare (if applicable)	1.000	Nos.	126236.15	126236.15
92.50	220kV GIS DISCONNECTING/EARTHING SWITCHES				
92.51	Complete set of 3-phase dis-connector of each type including main circuit, enclosure, driving mechanism and support Insulator etc. to enable complete one to one replacement of all applicable type of Isolator by spare	1.000	Sets	126236.15	126236.15
92.52	Complete set of 3-phase Maintenance Earthing switch of each type, including main circuit, enclosure, driving mechanism and support Insulator etc to enable complete one to one replacement of all applicable type of Earth Switch by spare	1.000	Sets	126236.15	126236.15
92.53	Complete set of 3-phase Fast Earthing switch of each type, including main circuit, enclosure, driving mechanism and support Insulator etc. to enable complete one to one replacement of all applicable type of Earth Switch by spare (if applicable)	1.000	Sets	126236.15	126236.15
92.54	Copper Contact fingers & corona shield for disconnector male & female contact-for one complete (3-Phase) disconnector of each type	1.000	Sets	126236.15	126236.15
92.55	Copper Contact fingers & corona shield for Maintenance Earthing switch male & female contact-for one complete (3-Phase) earthing switch of each type	1.000	Sets	126236.15	126236.15
92.56	Open/close contactor assembly, timers, key interlock, interlocking coils, relays,push buttons,indicating lamps,power contactors, resistors, fuses,MCBs & drive control cards etc., one of each type for one complete MOM box				
92.561	For Disconnector	2.000	Sets	126236.15	252472.30
92.562	For Maintenance Earth switch	2.000	Sets	126236.15	252472.30
92.563	For Fast Earthing switch(if applicable)	2.000	Sets	126236.15	252472.30
92.57	Limit Switches and Aux. switches for one complete MOMbox				
92.574	For Disconnector	2.000	Sets	126236.15	252472.30
92.575	For Maintenance Earth switch	2.000	Sets	126236.15	252472.30
92.576	For Fast Earthing switch(if applicable)	2.000	Sets	126236.15	252472.30
92.59	Drive Mechanism of each type				
92.587	For Disconnector	2.000	Sets	126236.15	252472.30
92.588	For Maintenance Earth switch	2.000	Sets	126236.15	252472.30
92.589	For Fast Earthing switch(if applicable)	2.000	Sets	126236.15	252472.30
92.60	Motor for Drive mechanism of each type				
92.600	For Disconnector	2.000	Sets	126236.15	252472.30
92.601	For Maintenance Earth switch	2.000	Sets	126236.15	252472.30
92.602	For Fast Earthing switch(if applicable)	2.000	Sets	126236.15	252472.30
92.61	Local ControlCubicle(LCC)				
92.613	Aux. relays, contactors,Push buttons, switches,Lamps,Annunciation windows.MCB,Fuses, Timers, Terminal Blocks etc., of each type & rating	5.000	Sets	126236.15	631180.75
93.00	SPARES FOR 220kV OUTDOOR EQUIPMENT				
93.10	220kV ISOLATOR AND EARTH SWITCH				
93.11	Complete set of 3 Nos. of single phase/1 Nos. of three phase WITH earthing switch including main circuit enclosure and driving mechanism	1.000	Sets	797845.73	797845.73
93.12	Copper contact fingers for disconnector male and female contact for one complete (3 phase) disconnector of each type and rating	1.000	Sets	60008.91	60008.91
93.13	Copper contact fingers for earthing switch male and female contact for one complete (3 phase) Earth switch of each type and rating	1.000	Sets	35459.81	35459.81
93.14	Limit switches and auxiliary switches for complete three phase equipment				
93.141	a) For isolator	2.000	Sets	4364.28	8728.56

01608

DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
93.142	b) For earth switch	1,000	Sets	4364.28	4364.28
93.15	Rotor housing bearing assembly for complete three phase equipment				
93.153	a) For isolator	1,000	Sets	10228.79	10228.79
93.154	b) For earth switch	1,000	Sets	10228.79	10228.79
93.16	Bearing for three phase equipment				
93.165	a) For isolator	3,000	Sets	3000.45	9001.35
93.166	b) For earth switch	1,000	Sets	3000.45	3000.45
93.18	Interlocking coil with resistor, timers, key interlock for complete three phase	1,000	Sets	34095.97	34095.97
93.19	Relays, Power Contactors, push Buttons, timers & MCB etc. of each type and rating				
93.187	a) For isolator	3,000	Sets	19093.74	57281.22
93.188	b) For earth switch	1,000	Sets	19093.74	19093.74
93.20	Auxiliary Switch Assembly with NO + NC (3 nos. of each type)	1,000	Sets	13638.39	13638.39
93.20	SPARES FOR TARIFF METERING CURRENT TRANSFORMER				
93.21	220kV, single phase current transformer, 5 core, ratio 1200-600-300A/1-1-1-1A, CL- 4-PX & 1-0.2S, 30VA Metering CT complete with mounting hardware	2,000	Nos	388694.07	777388.14
93.30	SPARES FOR TARIFF METERING VOLTAGE TRANSFORMER				
93.31	220kV, single phase voltage transformer ratio 220KV/V ₃ /110V/V ₃ V, CL-0.2, 50VA with mounting hardware	2,000	Nos	327321.32	654642.64
93.40	SPARES FOR SURGE ARRESTOR				
93.41	216kV Zinc Oxide Gapless Surge Arrestor with counter and leakage meter	2,000	Nos	109026.64	218053.28
94.00	SPARES FOR 33kV OUTDOOR EQUIPMENT:				
94.01	33kV Outdoor VCB, 1250A, 31.5kA/3s	1,000	Nos	467796.72	467796.72
94.02	33kV Single phase current transformer, 5 core, ratio 800-400-200/1A	1,000	Nos	88649.53	88649.53
94.03	33kV Single Phase, Potential Transformer, 2 core (0.2,3P classes), 33kV/110V/110V	1,000	Nos	43642.84	43642.84
94.04	33kV, 1250A, 31.5kA/1s, Single phase, Outdoor Isolator with Earth Switch	1,000	Nos	143203.08	143203.08
94.05	30kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III as per technical Specification.	1,000	Nos	18407.73	18407.73
94.06	33kv, 200A, Horn Gap fuses	1,000	Nos	24549.1	24549.10
95.00	SPARES FOR 220V/48V DC BATTERIES				
95.01	Spare battery cell for 220V, 350AH battery w/o electrolyte	5,000	Nos	29599.39	147996.95
95.02	Vent Plugs	10,000	Nos	68.19	681.90
95.03	Float level indicators	10,000	Nos	68.19	681.90
95.04	Terminal connectors with nuts & bolts	10,000	Nos	272.77	2727.70
95.05	Spare battery cell for 48V, 300AH battery w/o electrolyte	5,000	Nos	7427.47	37137.35
95.06	Vent Plugs	10,000	Nos	1363.84	13638.40
95.07	Float Indicators	10,000	Nos	1363.84	13638.40
95.08	Terminal connectors with nuts & bolts	10,000	Nos	272.77	2727.70
95.09	Electrolyte	160,000	Litres	68.19	10910.40
95.10	Battery maintenance log sheet books for two years	1,000	Sets	1363.84	1363.84
96.00	SPARES FOR 220V/48V DC BATTERY CHARGER & DCDB				
96.01	Voltage regulator cards	1,000	Nos	6819.19	6819.19
96.02	Protection card (if any)	1,000	Nos	5455.36	5455.36
96.03	Thyristor(SCR)	2,000	Nos	5845.41	11690.82
96.04	Rectifier Diodes	2,000	Nos	3506.43	7012.86
96.05	Blocking diode	1,000	Nos	3506.43	3506.43
96.06	Filter capacitor	1,000	Sets	3117.74	3117.74
96.07	Auto-manual switch	1,000	Nos	731.02	731.02
96.08	Indicating LED	10,000	Nos	4773.44	47734.40
96.09	Indicating fuse (if any)	10,000	Nos	973.78	9737.80
96.10	Input AC contactor	1,000	Nos	13189.69	13189.69
96.11	Rectifier H.R.C fuses	4,000	Nos	2827.24	11308.96
97.00	SPARES OF LT SWITCHGEAR				
97.01	Auxiliary Relays (1 No. of each type)	1,000	Sets	11668.4	11668.40
97.02	CTs and PTs (1 No. of each type)	1,000	Sets	11668.4	11668.40
97.03	Switches/Push buttons and Meters (1 No. of each type)	1,000	Sets	11668.4	11668.40
97.04	MCCB (1 no. of each type and rating)	1,000	Sets	11668.4	11668.40
97.05	TPN Switches/MCB DP (1 No. of each type and rating)	1,000	Sets	11668.4	11668.40
97.06	Voltmeters	1,000	Nos	11668.4	11668.40
97.07	Ammeter	1,000	Nos	11668.4	11668.40
97.08	TNC switch for breaker	2,000	Nos	11668.4	23336.80
97.09	Hooter	2,000	Nos	11668.4	23336.80
97.10	O/C & E/F relay	1,000	Nos	11668.4	11668.40
97.11	Over Voltage coil	2,000	Nos	11668.4	23336.80
97.12	Auxiliary contactors (1 No. of each type)	1,000	Sets	11668.4	11668.40
97.13	L.T. Breaker Spares				
97.1301	a) Spring charging motor (1 No. of each type)	1,000	Sets	11668.4	11668.40
97.1302	b) Aux. Contact sets (each type)	2,000	Sets	11668.4	23336.80
97.1303	c) Busbar Seal off insulators	5,000	Nos	11668.4	58342.00

01607

DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

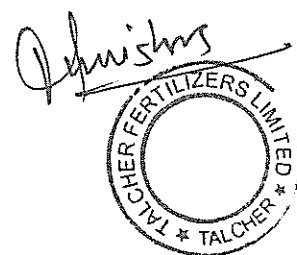
				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
97.1304	d) Arc-chutes	1.000	Sets	11668.4	11668.40
97.1305	e) Moving contacts (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1306	f) Arcing contacts (Fixed/Moving) (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1307	g) Springs (Closing/Opening) (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1308	h) Closing coil	1.000	Nos	11668.4	11668.40
97.1309	i) Tripping coil	1.000	Nos	11668.4	11668.40
97.1310	j) Aux. finger contact (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1311	k) Limit switches (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1312	l) Jaw contacts (1 No. of each type)	1.000	Sets	11668.4	11668.40
97.1313	m) 415V, 800A Air circuit Breaker	1.000	Nos	11668.4	11668.40
97.14	Busbar				
97.142	a) Busbar insulators	5.000	Nos	11668.4	58342.00
97.143	b) Interphase barrier	2.000	Nos	11668.4	23336.80
97.144	c) Busbar strip (Aluminium)	5.000	Mtrs	11668.4	58342.00
98.00	SPARES FOR RELAY AND PROTECTION PANELS 220KV				
98.10	220kV LINE PROTECTION PANEL SPARES				
98.101	Main - 1 Numerical Distance Relay with Software (excluding external Trip Relay)	1.000	Sets	426365.15	426365.15
98.102	Main - 2 Numerical Current Differential Relay with Software (excluding external Trip Relay)	1.000	Sets	741504.62	741504.62
98.20	220kV TRANSFORMER PROTECTION PANEL SPARES				
98.203	Numerical Differential Relay	1.000	Nos	370752.31	370752.31
98.204	Numerical Restricted Earth Fault Relay	1.000	Nos	124202.02	124202.02
98.205	Numerical Over Current Earth Fault Relay	1.000	Nos	120494.5	120494.50
98.206	Numerical Breaker Failure Relay -If used	1.000	Nos	162783.44	162783.44
98.207	Trip Circuit Supervision Relay	2.000	Nos	6488.17	12976.34
98.208	Self Reset Trip Relay (1 No. of each type)	1.000	Sets	12049.45	12049.45
98.209	Hand Reset Trip Relay (1 No. of each type)	1.000	Sets	12049.45	12049.45
98.210	Timer Relay (1 No. of each type) -If used	1.000	Sets	162783.44	162783.44
98.211	DC Supervision Relay	1.000	Nos	4634.4	4634.40
98.212	Auxiliary Relays (1 No. of each type)	1.000	Sets	4634.4	4634.40
98.213	High Speed Tripping relay	1.000	Nos	17610.73	17610.73
98.30	220kV BUSBAR PROTECTION PANEL SPARES				
98.31	Power Supply Modules for Bus Bar Protection (1 No. of each type)	3.000	Sets	688540	2065620.00
98.32	Metrosil (Non - Linear Resistor) (1 No. of each type)	1.000	Sets	162783.44	162783.44
99.00	SPARES FOR SUB STATION AUTOMATION SYSTEM				
99.01	Fan assembly used for Master station, HMI, Printer server (each type)	1.000	Sets	162783.44	162783.44
99.02	Bay Control Unit of each type with configuration software	2.000	Sets	162783.44	325566.88
99.03	Auxiliary relays used in bay control unit for control applications (10% of Total)	1.000	Lot	162783.44	162783.44
99.04	FO patch card of each type	5.000	Sets	19861.73	99308.65
99.05	OFC cable	500.000	Mtrs	119.17	59585.00
99.06	optical loss measuring kit with relevant accessories and visual Fiber Optic cable inspection aid for optical fibre cable	1.000	Sets	162783.44	162783.44
99.07	Industrial Ethernet switch of each type	1.000	Sets	305870.65	305870.65
100.00	SPARES FOR EOT CRANE				
100.10	Spares for 220KV GIS Hall Crane				
100.101	Pair of brake shoe with lining for each size of brake used viz. D.C. operated E.M. or Hydraulic thruster operated.	4.000	Sets	15229.77	60919.08
100.102	Pair of brake linings with rivets for each size of brake used.	4.000	Sets	15229.77	60919.08
100.103	Main springs for each size of brake used.	4.000	Nos	15229.77	60919.08
100.104	Brake coils for each size of brake used.	4.000	Sets	15229.77	60919.08
100.105	Thruster of each size used.	2.000	Nos	15229.77	30459.54
100.106	Pair of oil seals for each gear box used on crane.	4.000	Sets	15229.77	60919.08
100.107	Contactors of each size used.	4.000	Sets	15229.77	60919.08
100.108	Fixed & moving contacts of each size contactor used.	2.000	Sets	15229.77	30459.54
100.109	3 Nos. Coils for each size of contactor used.	2.000	Sets	15229.77	30459.54
100.110	Overload relay for each motor.	2.000	Nos	15229.77	30459.54
100.111	Timers	6.000	Nos	15229.77	91378.62
100.112	3 No. fuse links of each sizes used on crane	4.000	Sets	15229.77	60919.08
100.113	1 Printed circuit breaker of each size and type	1.000	Sets	15229.77	15229.77
100.114	Complete set of lamps for lightning and signals	1.000	Sets	15229.77	15229.77
100.115	Carbon brushes & holdings for each slip ring motor	4.000	Sets	15229.77	60919.08
100.116	Fuse links of each size used	4.000	Sets	15229.77	60919.08
100.117	Resistance element of each size and type	1.000	Sets	15229.77	15229.77
100.118	Communication Card/cable	1.000	Sets	15229.77	15229.77
100.119	I/O Card	1.000	Sets	15229.77	15229.77
100.120	Processors	1.000	Sets	15229.77	15229.77
100.121	Indicating lamps	1.000	Sets	15229.77	15229.77
101.00	SPARES FOR FIRE DETECTION AND FIRE EXTINGUISHING SYSTEM				
101.01	Filled Nitrogen Cylinder	2.000	Nos	38221.1	76442.20
101.02	Pipes with fittings	1.000	Nos	38221.1	38221.10
101.03	Heat Sensor assembly	1.000	Nos	38221.1	38221.10
101.04	Fire Survival cable sufficient for one system	1.000	Nos	38221.1	38221.10

01606

DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/LOA-011/24-25 Dated 11.07.2024

ANNEXURE C (SCHEDULE OF RATES)

Sl.No	Description of Work / Item(s)	Quantity	Units	Rate & Amount in Indian Rupees	
				Unit Rate	Total Amount Excluding GST
101.05	Fire Detectors	6.000	Nos	38221.1	229326.60
101.06	Thermostat	2.000	Nos	38221.1	76442.20
102.00	SPARES FOR FIBER OPTICAL TERMINAL EQUIPMENT (FOTE)				
102.01	Power Supply Card (48 V DC)	1.000	Nos	101060.46	101060.46
102.02	Control Card with alarm cables and terminals	1.000	Nos	421085.24	421085.24
102.03	STM - 1 OLTE - 4 SFP cages excluding SFP	1.000	Nos	114016.93	114016.93
102.04	SFP U1.2 (1550 nm for Distance of 160 km)	1.000	Nos	421085.24	421085.24
102.05	Fibre Patch Cord for OLTE - 10 m	4.000	Nos	5182.59	20730.36
102.06	2/4 wire E & M speech interface card ports	1.000	Nos	80330.11	80330.11
102.07	Integrated teleprotection couler - 4 commands	1.000	Nos	356302.9	356302.90
102.08	Low and High Speed data Interface Card - 4 Ports	1.000	Nos	80330.11	80330.11
103.000	TOTAL CONTRACT VALUE (in INR) EXCLUDING GST (Sum of 1.0 to 102.08)				543353834.00
104.000	RATE OF GST (PRESENTLY @18%) in INR				97803690.00
105.000	TOTAL CONTRACT VALUE (in INR) INCLUDING GST				641157524.00



ANNEXURE-D

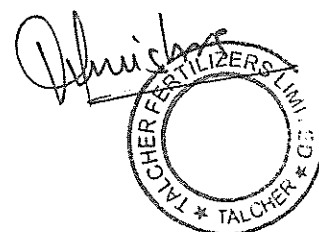
LIST OF AHR ITEMS

01604

ANNEXURE D TO DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25 dated 11.07.2024

LIST OF AHR ITEMS

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
2.07	Portable Partial Discharge(PD) monitoring system: 245kV system shall have Portable Partial Discharge(PD) monitoring system & shall be capable for measuring PD in charged GIS environment ,bandwidth in order of 100 MHz–2GHz & provision to select a wide range of intermediate bandwidths and the principle of operation shall be based on UHF principle of detection. The Detection and measurement of PD and bouncing particles having in built large coloured LCD for displaying and storing facility in the instrument for further analysis to locate actual source of PD such as free conducting particles, floating components, voids in spacers, particle on spacer surfaces etc.	1.000	SET	7022406.22	7022406.22
3.00	250kVA , 380BHP, 220kW, Silent AMF Diesel Generator set, 1500 rpm with AMF control panel as per Technical Specification.	1.000	SET	5876267.83	5876267.83
4.02	PT Console Box for above PTs as above	2.000	Nos	16366.07	32732.14
4.04	CT Console Box for above CTs as above	2.000	Nos	16366.07	32732.14
6.00	Tariff Meter for Main & Check meter for Metering	8.000	Nos	501415.35	4011322.8
8.11	160kN Long rod Insulator strings for 245kV tension purpose	6.000	Sets	11967.69	71806.14
8.12	160kN Long rod Insulator strings for 245kV Suspension purpose	6.000	Sets	11967.69	71806.14
9.624	Test Joint	6.000	Nos	4091.52	24549.12
10.05	100mm dia PVC Pipe	30.000	Mtrs	6137.27	184118.1
10.06	50mm dia PVC Pipe	20.000	Mtrs	3409.6	68192
12.01	Supply of Lighting cum Lightning Mast including LED lighting fixtures (Excluding 30 Mtr. Monopole) with control gear panel etc suitable for wind zone-V , with all other accessories like motor for hoisting/lowering the lighting platform & other switchgear and lighting control panel etc. for 30 Mtrs. height Monopole (HDG)	2.000	Nos	696185.45	1392370.9
17.0	220kV GIS hall-ventilation system through ducting (Pressurization type ventilation system) at AHU room as per technical specification	1.000	LS	4637052.08	4637052.08
18.01	Foam Type-9 Ltrs	4.000	Nos	14465.96	57863.84
18.03	Dry Powder Type - 5Kgs	4.000	Nos	8176.41	32705.64
18.07	Fire Bucket (6 Nos in each stand) with stand	5.000	Sets	10692.23	53461.15
18.08	9 litre water type	4.000	Nos	9434.32	37737.28
18.10	50 Litres Mechanical Foam type	2.000	Nos	37108.33	74216.66
19.03	Hydrant sytem, complete U/G piping of different sizes, valves and accessories etc outside the Pump House for Fire protection sytem of 1 Nos. 20 MVA, 220/33 KV POWER TRANSFORMER, switcyard equipment and buildings as per the technical spec & Latest standard.	1.000	Lot	3515857.38	3515857.38
19.04	HVV Spray sytem, Hydrant System and complete U/G and O/G piping, different type of valves, Fire sensor etc and accessories etc near the Transformer for Fire protection of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, as per the technical spec.	1.000	Lot	1226461.88	1226461.88
20.35	Main 1 and Main 2 Distance and Line Differential Protection with all necessary modifications for two lines.(OPTCL's remote End Stations)	2.000	Sets	2648230.77	5296461.54
21.12	ACDB as per Technical Specification.	1.000	Sets	2902249.07	2902249.07
21.16	Indoor Receptacle Board	2.000	Sets	954687.19	1909374.38
21.22	220V DC Emergency Distribution Board	1.000	Sets	51825.88	51825.88
22.06	Earth flat, cable tray, telephone cable, ACDB, DCDB, foundation rail, Junction Box, Cat 5 cable & Misc items	1.000	Lot	2045758.27	2045758.27
30.6	Triple Pole Structure for Double circuit 33kV Line: 3 Nos. Galvanized H-Type 14 Mtr. Structure including Channels, Angles and Flat for Belting, Bracing, mounting and termination of 6 Nos. 33kV Single core cable. This also includes supply of Lightning Arrestors, GO AB Switch, Polymer Pin & Disc Insulators incl. Hardware fittings, Complete Stay Ser, Earthing arrangement, HDPE Pipes from Ground Level to a Suitable Height on the Pole etc. to terminate the 33kV Cable on the structure complete. Note: Stringing of 148 Sq.mm. AAA Conductor from this Gantry to TFL Pump House is not included in above.	1.000	Lot	3068637.41	3068637.41
31.03	50mm DIA PVC PIPE / 40mm DIA PLB DUCT (OPTICAL FIBER CABLE)	1.500	Km	136383.88	204575.82



01603

ANNEXURE D TO DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25 dated 11.07.2024

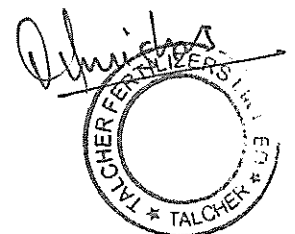
LIST OF AHR ITEMS

Sl.No	Description of Work / Item(s)	Quantity	Units	Rate & Amount in Indian Rupees	
				Unit Rate	Total Amount Excluding GST
31.05	Supply of Cross bonding & Link Boxes for Earthing	2.000	Nos	541580.41	1083160.82
35.00	250kVA , 380BHP, 220kW, Silent AMF Diesel Generator set, 1500 rpm with AMF control panel as per Technical Specification.	1.000	Sets	118857.14	118857.14
36.06	220kV, Cable Sealing End (220kV GIS END)	6.000	Nos	54628.57	327771.42
36.07	220kV, Cable GIS end termination kit at (MRSS Substation End)	6.000	Nos	54628.57	327771.42
36.08	216kV Metal Oxide Surge Arrestor, 10kA, Long duration discharge class III, 10kJ/kV at 216kV as per technical Specification	15.000	Nos	7428.57	111428.55
37.13	33kV, 1250A, 31.5kA/1s, Outdoor Isolator with Earth Switch	5.000	Sets	6628.57	33142.85
37.14	33kv, 200A, Horn Gap fuses	2.000	Sets	5142.86	10285.72
39.02	36kV Outdoor type termination Kits (from TFL feeder to 33kV Double pole structure) suitable for 1CX300 Sq.mm	12.000	Nos	48228.57	578742.84
40.20	Single ACSR Moose Conductor.	0.950	Km	165714.29	157428.5755
40.31	220kV Single Tension H/W fitting for single moose ACSR	6.000	Nos	1371.43	8228.58
40.32	220kV Single Suspension H/W fitting for single moose ACSR	6.000	Nos	1028.57	6171.42
41.624	Test Joint	6.000	Nos	1714.29	10285.74
43.01	Switchyard AC Console for Lighting	2.000	Nos	11428.57	22857.14
43.04	33kV switchyard Bay Marshalling Kiosk	2.000	Nos	2114.29	4228.58
48.0	2 TR Capacity Split Air Conditioning Units (Inverter type latest model) of OPTCL approved make.	12.000	Nos	17142.86	205714.32
49.0	220kV GIS hall-ventilation system through ducting (Pressurization type ventilation system) at AHU room as per technical specification	1.000	LS	914285.71	914285.71
51.03	Hydrant system, complete U/G piping of different sizes, valves and accessories etc outside the Pump House for Fire protection system of 1 Nos. 20 MVA, 220/33 KV POWER TRANSFORMER, switchyard equipment and buildings as per the technical spec & Latest standard.	1.000	Lot	245714.29	245714.29
51.04	HVV Spray system, Hydrant System and complete U/G and O/G piping, different type of valves, Fire sensor etc and accessories etc near the Transformer for Fire protection of 1 No. 20 MVA, 220/33 KV POWER TRANSFORMER, as per the technical spec.	1.000	Lot	74285.71	74285.71
54.02	OPGW hardware set like suspension assembly, Tension Assembly (Dead end assembly, pass through assembly), vibration damper, down lead assemblies for 24/48 fibre (DWSM) OPGW, Joint box	1.000	Km	68571.43	68571.43
54.03	Optical line terminal equipment (OLTE)-STM4 type SDH equipment with integrated MUX & tributary cards for speech & data ports for interfacing of speech & data which should be compatible with existing OPTCL system.	1.000	Nos	176914.29	176914.29
54.04	Supply of FODP (Fibre optic Distribution panel) 48 F: Indoor type, rack mounted with FCPC coupling and pigtails (DWSM fibre)	1.000	Nos	177828.57	177828.57
54.05	Digital tele-protection coupler compatible for interfacing with SDHMUX	1.000	Nos	177828.57	177828.57
54.06	Earth flat, cable tray, telephone cable, ACDB, DCDB, foundation rail, Junction Box, Cat 5 cable & Misc items	1.000	Lot	57142.86	57142.86
56.01	(Tower) 220kV COLUMN: P1S TYPE, - HEIGHT-21.5 MTRS	14.000	MT	9142.86	128000.04
56.02	(Girder) 220kV BEAM: Q1 TYPE, -LENGTH-18 MTRS	3.000	MT	9142.86	27428.58
56.03	(Tower) 33kV COLUMN, HEIGHT-8 MTRS	9.700	MT	9142.86	88685.742
56.04	(Girder) 33kV BEAM: G1 TYPE, -LENGTH-5.5 MTRS	4.150	MT	9142.86	37942.869
57.101	220kV Isolator	7.000	MT	9142.86	64000.02
57.102	220kV Surge Arrestor	4.000	MT	9142.86	36571.44
57.103	220kV Current transformer	1.500	MT	9142.86	13714.29
57.104	220kV Potential transformer	1.200	MT	9142.86	10971.432
57.105	220kV Cable sealing end	1.500	MT	9142.86	13714.29
57.106	SF6 Bushing	4.500	MT	9142.86	41142.87
57.201	33 KV Lightning Arrestor	0.700	MT	9142.86	6400.002
57.202	33 KV Current Transformer	1.500	MT	9142.86	13714.29
57.203	33 KV Bus Potential Transformer	0.300	MT	9142.86	2742.858
57.204	33 KV Metering Current Transformer	0.600	MT	9142.86	5485.716
57.205	33 KV Metering Voltage Transformer	0.600	MT	9142.86	5485.716
57.206	33 KV Bus Post Isolator	3.000	MT	9142.86	27428.58
57.207	33 KV Horn Gap Fuse	0.640	MT	9142.86	5851.4304
57.208	33 KV Isolator	2.320	MT	9142.86	21211.4352
57.209	33 KV Isolator with ES	1.600	MT	9142.86	14628.576
57.210	Cable End Termination	0.800	MT	9142.86	7314.288
57.211	GI bolts, Nuts, washers plain & spring etc for the above structures	2.180	MT	9142.86	19931.4348
57.212	GI Foundation bolts & nuts with plate & other washers as required	3.950	MT	13714.29	54171.4455
58.02	installation hardware for 24 fibre optic cable	1.000	Lot	17142.86	17142.86



ANNEXURE D TO DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25 dated 11.07.2024
LIST OF AHR ITEMS

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
58.03	50mm DIA PVC PIPE / 40mm DIA PLB DUCT (OPTICAL FIBER CABLE)	1.500	Km	74285.71	111428.565
58.04	220kV XLPE cable straight through joint kit complete suitable for cable with Link boxes	6.000	Nos	6285.71	37714.26
65.104	External and internal wall (External (18mm thk) and internal (12 mm thk) wall and ceiling plastering as per technical spec mentioned in the civil section & approved drawings.	1.000	Lot	773931.96	773931.96
65.107	Internal concealed wiring (including flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc, fixing of lighting fixtures & switchgear, Erection of all Lighting FIXTURES & LAMPS (LED), D.C emergency lighting (including supply), cabling for EOT crane including supply and installation of Switch Board panel required for EOT crane as per approved drawing and direction of Engineer In charge.	1.000	Lot	809142.86	809142.86
65.108	Provision of smoke and fire detection & Alarm system of the building.	1.000	Lot	342857.14	342857.14
65.109	Provision of rails & other arrangement including all type of Civil works for EOT crane. This is as per the standard practice adopted in GIS sub-station and as directed by the Engineer in Charge.	1.000	Lot	150409.2	150409.2
66.05	Provision of ceiling in the control room area as per specification mentioned in the civil section & approved drawings.	1.000	Lot	555909.6	555909.6
66.06	Doors and windows shall be of sliding type with locking facility and shall be of aluminium with glaze of 6 mm & windows shall have aluminium grills. As per technical spec & approved drawing.	1.000	Lot	1700863.79	1700863.79
66.07	Internal concealed wiring (including flexible copper FRP 1.1 KV PVC wire, conduits & its accessories, modular type switches & switch board, Junction boxes with required MCB & Earth leakage detector switchgear etc, fixing of lighting fixtures & switchgear, ceiling fans of 1400 sweep and regulators (including supply), exhaust fan (including supply), Erection of all Lighting FIXTURES & LAMPS (LED), D.C emergency lighting (including supply), as per approved drawing and direction of Engineer In charge.	1.000	Lot	873142.86	873142.86
66.08	Installation of smoke and fire detection & Alarm system of the building.	1.000	Lot	57142.86	57142.86
66.10	External and internal wall painting with primer coat as per technical spec mentioned in the civil section. External: One coat weather coat primer + two coats of weather coat colour paint. Internal: Two coats wall putty+solvent thinable white primer of one coat+two coats colour paint. Refer the specification.	1.000	Lot	1157918.78	1157918.78
66.11	Provision of PHD and other fittings (in Toilets, wash room, overhead water tank of adequate capacity etc) of reputed make, provision of rain water discharge pipes at different locations and etc as per requirement and approved drawing. There shall be septic tank and soak pit of required capacity including complete sewage system as per approved drawing & technical specification & as per instruction of Engg- in-Charge. It includes supply of all types of materials of reputed make, labour etc to complete the work. Toilets for Gents & Ladies to be provided including all good quality reputed fittings as per technical specification. The toilets & wash room shall have antiskid floor tiles & wall tiles of ceramic upto height of 8 feet.	1.000	Lot	914285.71	914285.71
70.01	RCC volume including Reinforcement Steel (including column, Beams and roofs etc) as per technical spec & approved drawings.	1.000	Lot	1846055.17	1846055.17
70.03	Concrete Flooring to be provided as per technical spec & approved drawings.	1.000	Lot	123311.25	123311.25
70.05	Doors and windows shall be of sliding type with locking facility and shall be of aluminium with glaze of 6mm & windows shall have aluminium grills. As per technical spec & approved drawing.	1.000	Lot	269507.43	269507.43
70.07	Internal concealed wiring, fixing of lighting fixtures (LED), fans and regulators (Electronic regulator), exhaust fan, D.C emergency lighting INCLUDING SUPPLY OF ALL ITEMS as per spec & approved drawing.	1.000	Lot	114285.71	114285.71
70.08	Provision of smoke and fire detection system of the building.	1.000	Lot	114285.71	114285.71

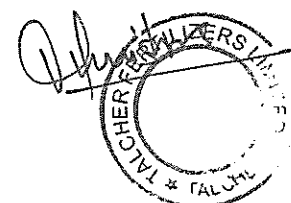


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ANNEXURE D TO DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25 dated 11.07.2024

LIST OF AHR ITEMS

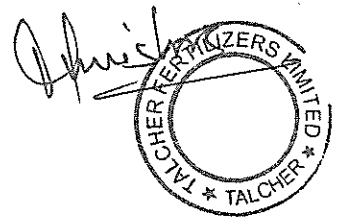
Sl.No	Description of Work / Item(s)	Quantity	Units	Rate & Amount in Indian Rupees	
				Unit Rate	Total Amount Excluding GST
70.09	Provision of Water Tank for fire fighting as per TS and approved Drawings	1.000	Lot	1812463.56	1812463.56
71.00	External, internal, ceiling Plastering of Fire fighting as per approved drawing	1.000	Lot	408800	408800
74.02	Road-culverts, drain crossings (RCC type) pipe	1.000	Lot	292000	292000
75.01	The rails shall be first quality 52 kg/m medium manganese steel as per Indian Railway specification T-12-64 and its subsequent revision, joined together by fish plates as per Indian Railway specification T-1/57, and 27 mm diameter fish bolts.	30.000	RM	45779.36	1373380.8
77.00	PCC BEFORE SITE SURFACING: Design, engineering, supply of labour, material, equipments for Leveling of earth after erection of structures and equipments and proper compaction by using roller of adequate capacity (minimum 3 Ton capacity) with water sprinkling of switch yard area. After proper leveling of the switch yard area (after anti-weed treatment), spreading of plain cement concrete using 20 mm nominal metal over a layer of good quality river sand of 25 mm and maintaining proper sloping for easy discharge of storm water having concrete thickness of 75 mm. including rolling, dressing, compacting the area.	310.000	Cum	7893.65	2447031.5
87.00	WATER PIPING: Provision of water discharge (PVC) pipe from borewell pump house to different location and etc as per requirement and approved drawing it also includes supply of all type of materials of reputed make	140.000	Mtrs	1693.6	237104
89.01	Cable Trench excavation and backfilling of all types of soil (750 meter Long and 2m deep from GIS Station to MRSS Station).	2550.000	Cum	716.22	1826361
89.06	Excavation & Back filling of excavated Soil	100.000	Cum	731.97	73197
91.01	220kV bushing complete in all respects.	1.000	Nos	1879065.38	1879065.38
91.02	36kV bushing complete in all respects	1.000	Nos	29669.45	29669.45
91.03	HV Neutral Bushing with metal parts and gaskets	1.000	Nos	445041.8	445041.8
91.04	LV Neutral Bushing with metal parts and gaskets	1.000	Nos	29669.45	29669.45
91.05	Local and Remote Winding Temperature Indicator with contact and sensing device	1.000	Sets	69228.72	69228.72
91.06	Oil Temperature Indicator with contact and sensing device (Local and Remote)	1.000	Sets	59338.91	59338.91
92.102	SF6 Gas Pressure Relief Device assembly of each type	1.000	Sets	126236.15	126236.15
92.103	SF6 Pressure Gauge cum switch/Density monitors and pressure switch as applicable, of each type	5.000	Sets	126236.15	631180.75
92.104	Coupling device for pressure gauge cum switch for connecting gas handling plant of each type	2.000	Sets	126236.15	252472.3
92.105	Rubber gasket, 'O' rings and seals of SF6 gas for GIS enclosure type	5.000	Sets	126236.15	631180.75
92.106	Molecular Filter for SF6 Gas with Filter Bags (10% of total weight)	1.000	Sets	126236.15	126236.15
92.107	Control valves for SF6 gas of each type	3.000	Sets	126236.15	378708.45
92.109	Pipe length(copper or steel as applicable) for SF6 circuit of each type(if applicable)	2.000	Sets	126236.15	252472.3
92.110	Locking device to keep the Disconnectors (isolators) and Earthing/Fast earthing switches in close or open position in cae of removal of the driving mechanism	2.000	Sets	126236.15	252472.3
92.111	UHF PD sensors of each type along with BNC connector	5.000	Sets	126236.15	631180.75
92.112	Support Insulators (gas through) of each type (complete with metal ring etc..)	10.000	Nos	126236.15	1262361.5
92.113	Gas Barriers of each type (complete with metal ring etc..)	10.000	Nos	126236.15	1262361.5
92.202	Fixed , moving and arcing contacts including insulating nozzles of each type (for main chamber)	1.000	Sets	126236.15	126236.15
92.203	Trip Coils with Resistor as applicable	3.000	Sets	126236.15	378708.45
92.204	Closing Coils with resistor as applicable	3.000	Sets	126236.15	378708.45
92.205	Relays, Power Contactors, push Buttons, timers & MCB etc.of each type and rating	1.000	Sets	126236.15	126236.15
92.206	Auxiliary Switch Assembly	3.000	Sets	126236.15	378708.45
92.207	Operation Counter	3.000	Sets	126236.15	378708.45
92.208	Windscope, Observing Window of each type)	2.000	Sets	126236.15	252472.3
92.212	Spring Charging motor	2.000	Sets	126236.15	252472.3
92.561	For Disconnector	2.000	Sets	126236.15	252472.3
92.562	For Maintenance Earth switch	2.000	Sets	126236.15	252472.3



01600

ANNEXURE D TO DLOA NO. TFL/TAL/C&P/PROJ/220KV GIS/ LOA-011/24-25 dated 11.07.2024
LIST OF AHR ITEMS

				Rate & Amount in Indian Rupees	
Sl.No	Description of Work / Item(s)	Quantity	Units	Unit Rate	Total Amount Excluding GST
92.563	For Fast Earthingswitch(if applicable)	2.000	Sets	126236.15	252472.3
92.574	For Disconnecter	2.000	Sets	126236.15	252472.3
92.575	For Maintenance Earth switch	2.000	Sets	126236.15	252472.3
92.576	For Fast Earthingswitch(if applicable)	2.000	Sets	126236.15	252472.3
92.600	For Disconnecter	2.000	Sets	126236.15	252472.3
92.601	For Maintenance Earth switch	2.000	Sets	126236.15	252472.3
92.602	For Fast Earthingswitch(if applicable)	2.000	Sets	126236.15	252472.3
92.613	Aux. relays, contactors, Push buttons, switches, Lamps, Annunciation windows, MCB, Fuses, Timers, Terminal Blocks etc., of each type & rating	5.000	Sets	126236.15	631180.75
93.18	Interlocking coil with resistor, timers, key interlock for complete three phase	1.000	Sets	34095.97	34095.97
93.20	Auxiliary Switch Assembly with NO + NC (3 nos. of each type)	1.000	Sets	13638.39	13638.39
94.01	33kV Outdoor VCB, 1250A, 31.5kA/3s	1.000	Nos	467796.72	467796.72
94.02	33kV Single phase current transformer, 5 core, ratio 800-400-200/1A	1.000	Nos	88649.53	88649.53
96.03	Thyristor(SCR)	2.000	Nos	5845.41	11690.82
96.08	Indicating LED	10.000	Nos	4773.44	47734.4
96.10	Input AC contactor	1.000	Nos	13189.69	13189.69
96.11	Rectifier H.R.C fuses	4.000	Nos	2827.24	11308.96
97.06	Voltmeters	1.000	Nos	11668.4	11668.4
97.07	Ammeter	1.000	Nos	11668.4	11668.4
97.08	TNC switch for breaker	2.000	Nos	11668.4	23336.8
97.09	Hooter	2.000	Nos	11668.4	23336.8
97.143	b) Interphase barrier	2.000	Nos	11668.4	23336.8
98.102	Main - 2 Numerical Current Differential Relay with Software (excluding external Trip Relay)	1.000	Sets	741504.62	741504.62
98.210	Timer Relay (1 No. of each type) -If used	1.000	Sets	162783.44	162783.44
98.31	Power Supply Modules for Bus Bar Protection (1 No. of each type)	3.000	Sets	888540	2065620
98.32	Metrosil (Non - Linear Resistor) (1 No. of each type)	1.000	Sets	162783.44	162783.44
99.04	FO patch card of each type	5.000	Sets	19861.73	99308.65
100.105	Thruster of each size used.	2.000	Nos	15229.77	30459.54
100.106	Pair of oil seals for each gear box used on crane.	4.000	Sets	15229.77	60919.08
100.107	Contactors of each size used.	4.000	Sets	15229.77	60919.08
100.108	Fixed & moving contacts of each size contactor used.	2.000	Sets	15229.77	30459.54
100.109	3 Nos. Coils for each size of contactor used.	2.000	Sets	15229.77	30459.54
100.110	Overload relay for each motor.	2.000	Nos	15229.77	30459.54
100.111	Timers	6.000	Nos	15229.77	91378.62
100.112	3 No. fuse links of each sizes used on crane	4.000	Sets	15229.77	60919.08
100.114	Complete set of lamps for lightning and signals	1.000	Sets	15229.77	15229.77
100.115	Carbon brushes & holdings for each slip ring motor	4.000	Sets	15229.77	60919.08
100.116	Fuse links of each size used	4.000	Sets	15229.77	60919.08
100.117	Resistance element of each size and type	1.000	Sets	15229.77	15229.77
101.04	Fire Survival cable sufficient for one system	1.000	Nos	38221.1	38221.1
101.05	Fire Detectors	6.000	Nos	38221.1	229326.6
101.06	Thermostat	2.000	Nos	38221.1	76442.2
102.02	Control Card with alarm cables and terminals	1.000	Nos	421085.24	421085.24
102.04	SFP U1.2 (1550 nm for Distance of 160 km)	1.000	Nos	421085.24	421085.24
102.06	2/4 wire E & M speech interface card ports	1.000	Nos	80330.11	80330.11
102.07	Integrated teleprotection couler - 4 commands	1.000	Nos	356302.9	356302.9
102.08	Low and High Speed data Interface Card - 4 Ports	1.000	Nos	80330.11	80330.11



01599

ANNEXURE-E

**SIGNED INTEGRITY PACT
AGREEMENT**

001598



INTEGRITY PACT

INTEGRITY PACT**INTRODUCTION:**

TFL as one of its endeavour to maintain and foster most ethical and corruption free business environment, have decided to adopt the Integrity Pact, a tool developed by the Transparency International, to ensure that all activities and transactions between the Company (TFL) and its Counterparties (Bidders, Contractors, Vendors, Suppliers, Service Providers/Consultants etc.) are handled in a fair and transparent manner, completely free of corruption.

Considering the above, the details mentioned at attached Annexure-1 are applicable as stated in Instruction to Bidders of Bid Document in addition to the existing stipulation regarding Corrupt and Fraudulent Practices.

The attached copy of the Integrity Pact at Annexure - 2 shall be included in the Bid submitted by the bidder (to be executed by the bidder for all tenders of value Rs. 1 (One) crore and above). In case a bidder does not sign the Integrity Pact, his bid shall be liable for rejection.

ANNEXURE-1

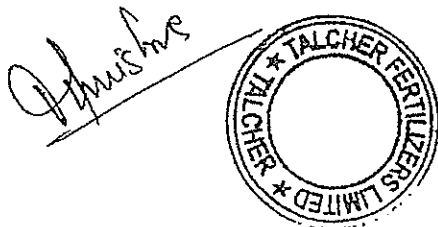
Bidder is required to sign the Integrity Pact with TFL as per format & terms and conditions enclosed with tender. In case a bidder does not sign the Integrity Pact, his bid shall be liable for rejection.

I COMMITMENTS AND OBLIGATIONS OF THE "COUNTERPARTY"

- a) The Counterparty, directly or indirectly (through agent, consultant, advisor, etc.), shall not pay any bribe/ influence or give undue/ unlawful benefit to anyone to gain undue advantage in dealing with TFL.
- b) The Counterparty will not engage in collusion of any kind including price fixation etc. with other Counterparts.
- c) The counterparty will not pass TFL's confidential information to any third party unless specifically authorized by TFL in writing.
- d) The Counterparties shall promote and observe best ethical practices within their respective organizations.
- e) The Counterparty shall inform the Independent External Monitor.
 - i) If it received any demand, directly or indirectly, for a bribe/ favour or any illegal gratification/ payment / benefit;
 - ii) If it comes to know of any unethical or illegal payment / benefit;
 - iii) If it makes any payment to any TFL associate.
- f) The Counterparty shall not make any false or misleading allegations against TFL or its associates.

II VIOLATIONS & CONSEQUENCES:

- a) If a Counterparty commits a violation of its Commitments and Obligations under the Integrity Pact Programme during bidding process, their entire Earnest Money Deposit/ Bid Security, would be forfeited and in addition, action shall be taken as per "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices"
- b) In case of violation of the Integrity pact by Counterparty after award of the Contract, TFL shall be entitled to terminate the Contract. Further, TFL would forfeit the security deposits/ Contract Performance Bank Guarantee and in addition, action shall be taken as per "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices"


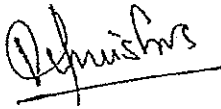
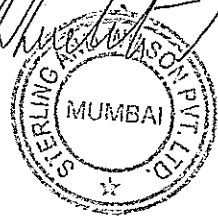


INDEPENDENT EXTERNAL MONITORS (IEMS)

Presently the panel consisting of the following Independent External Monitors (IEMs) have been appointed by TFL, in terms of Integrity Pact (IP) which forms part of TFL Tenders / Contracts.

- i) Shri Sanjeev Prasad Narain Singh (Email ID: spns108@gmail.com)
- ii) Shri Anil Kumar Sharma (Email ID: aksharma1512@gmail.com)

This panel is authorised to examine / consider all references made to it under this tender/ contract. "The bidder(s), in case of any dispute(s) / complaint(s) pertaining to this tender falling under provisions of Integrity Pact may raise the same either directly with the IEMs on the panel viz Shri Sanjeev Prasad Narain Singh (Email ID: spns1C3@gmail.com) & Shri Anil Kumar Sharma (Email ID: aksharma1512@gmail.com) or with CC to them through their Nodal Officer - Sh. Vivek Mishra, Sr. Mgr. (C&P) – Email: vivekmishra@tflonline.co.in, Address: Talcher Fertilizers Limited, Administrative Building, Post – Vikrampur, Dist. Angul, Odisha - 759106. On receipt of such complaints/representations, Nodal Officer shall coordinate with IEM Panel and TFL authorities concerned for their disposal as per extant guidelines."

ANNEXURE-2

INTEGRITY PACT

(To be executed on plain paper)

Between Talcher Fertilizers Limited (TFL) [here-in-after referred to as "Principal"].

ANDSterling & Wilson Pvt Ltd (here-in-after referred to as "The Bidder/ Contractor").

(Principal and the Bidder / Contractor are here-in-after are referred to individually as "Party" or collectively as "Parties").

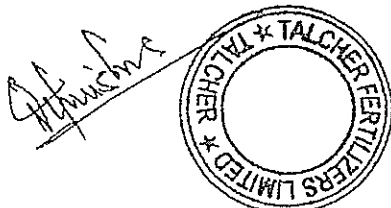
PREAMBLE

The Principal intends to award under laid down organizational procedures, contract/s for PNMM / PC-183 / E-4024 / NCB, Constⁿ of 220KV EIL O GIS at Talchar. The Principal values full compliance with all relevant laws of land rules, regulations, and economic use of resources and of fairness / transparency in its relations with its Bidder (s) and/or Contractor (s).

In order to achieve these goals, the Principal will appoint Independent External Monitors (IEMs) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following Principles:-
 - i) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or for a third person, any material or immaterial benefit which the person is not legally entitled to.
 - ii) The Principal will, during the tender process treat all Bidder(s) with equity and reasons. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.



- iii) The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC) / Prevention of Corruption Act (PC Act), or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officers and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder (s)/Contractor (s)

1. The Bidder(s) / Contractor(s) commits themselves to take all measures necessary to prevent corruption. The Bidder(s) / Contractor(s) commits themselves to observe the following principles during participation in the tender process and during the contract execution:
- i) The Bidder (s) / Contractor (s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - ii) The Bidder (s) / Contractor (s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other action to restrict competitiveness or to introduce cartelisation in the bidding process.
 - iii) The Bidder (s) / Contractor (s) will not commit any offence under the relevant IPC/PC Act; further, the Bidder (s) / Contractor (s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - iv) The Bidder (s)/ Contractor (s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder (s)/ Contractor (s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further, all the payments made to the Indian agent/ representative have to be in India Rupees only.
 - v) The Bidder (s) / Contractor (s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents,

Quishre



Dr. M. V. Wilson



brokers or any other intermediaries in connection with the award of the contract.

- vi) Bidder(s) / Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.
- 2. The Bidder(s)/ Contractor(s) shall not instigate third person to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

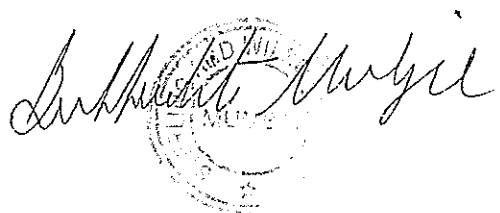
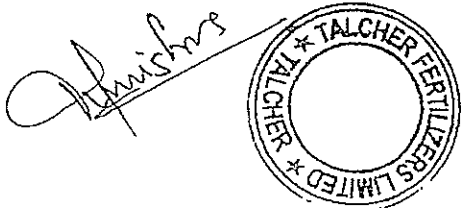
If the Bidder (s) / Contractor (s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder (s) / Contractor (s) from the tender process or take action as per provisions of "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices".

Section 4 – Compensation for Damages

- 1. If the Principal has disqualified the Bidder (s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit / Bid Security.
- 2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equal to the Contract Value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- 1. The Bidder declares that no previous transgression occurred in the last three years, with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or actions can be taken as per provisions of "Procedure for action in case Corrupt /Fraudulent/ Collusive/Coercive Practices"



Section 6 – Equal treatment to all Bidders / Contractors / Subcontractors

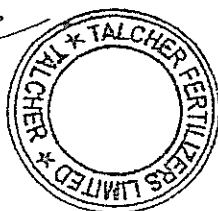
1. In case of sub-contracting, the Principal contractor shall take the responsibility of the adoption of IP by the sub-contractor. It is to be ensured by him that all sub-contractors also sign the IP.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder (s) / Contractor (s) / Sub-contractor (s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 –Independent External Monitor / Monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all documents / records pertaining to the contract for which a complaint or issue is raised before them, as and when warranted. However, the documents / records / information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed. It will be obligatory for him/her to treat the information and documents of the Bidders / Contractors as confidential. He / she reports to MD, TFL.
3. The Bidder (s)/ Contractor (s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an

Prinishrs*Subscribed*

impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Principal and request the Management to discontinue or to take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to MD, TFL within 30 days from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to MD, TFL, a substantiated suspicion of an offence under relevant IPC/PC Act, and MD, TFL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, then, only in case of very serious issue having a specific verifiable Vigilance angle, the matter should be reported directly to the Central Vigilance Commission.
8. The word 'Monitor' would include both singular and plural.
9. In case of any complaints referred under IP Program, the role of IEMs is advisory and would not be legally binding and it is restricted to resolving the issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidder.
10. After award of contract, the IEMs shall look into any issue relating to execution of contract, if specifically raised before them. As an illustrative example, if a contractor who has been awarded the contract, during the execution of contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs.

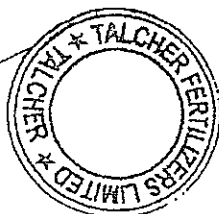
Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded. Any violation to the same would entail disqualification of the bidders and exclusion from future business dealing.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by MD, TFL.

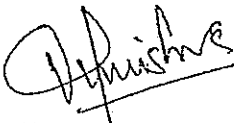
Section 10 – Miscellaneous provisions

Amish



Sanjay Kumar

1. This agreement is subject to Indian Law. Place of performance and exclusive jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices, if any, need to be made in writing. Side agreements have not been made.
3. If the Contractor/Bidder is a Joint Venture or a partnership concern or a consortium, this agreement must be signed by all partners or consortium members.
4. Should one or several of the provisions of this agreement turn out to be invalid, the remainder of this agreement shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions in such a case.
5. Issues like warranty / guarantee, etc. shall be outside the purview of IEMs.
6. In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in Integrity Pact will prevail.


 Vivek Mishra
 Senior Manager (C&P)
 Talcher Fertilizers Limited
 Talcher, Odisha
 (For & on Behalf of Principal)

(Office Seal)



(For & on Behalf of
 Bidder/Contractor)

(Office Seal)




Place _____
 Date _____

Witness 1:
 (Sign, Name & Address)
 [FOR PRINCIPAL]


 B. SUNIL PATRO, DY. MGR.
 TFL, TALCHER, ANGUUL, ODISHA

Witness 2:
 (Sign, Name & Address)
 [FOR BIDDER / CONTRACTOR]


 NANDITA BHAINI
 STERLING & WILSON PVT. LTD, MUMBAI

001588

**INTENTIONALLY
LEFT BLANK**

ANNEXURE-F

BANK DETAILS OF M/s STERLING AND WILSON PVT. LTD.

F-1
F-Banking Mandate Form
 (To be filled in by the customer)

1. Vendor/customer Name and Tax Identification No. (TIN)
2. Vendor/customer Code
3. Vendor/customer Address: Universal Majestic, 9th Floor, P.L. Lokhande Marg, Chembur West, Mumbai-400043
4. Vendor/customer is mandated by a master programme in a system
5. Particulars of bank account:

a. Name of Bank	UNION BANK OF INDIA
b. Name of branch	Industrial Estate Branch
c. Branch code	549584
d. Address	IFB Mumbai, 11 floor, Union Bank Bhavan, 239, Vidhan Bhavan Marg, Kachan Point, Mumbai-400 021
e. Telephone number	022-23420107/2024242
f. Type of account (current/saving etc.)	Cash/Credit Account
g. Account Number	614105010000118
h. RTGS IFSC code of the bank branch	UI080749584
i. NEFT IFSC code of the bank branch	UI080749584
j. 9 digit MICR code (Magnetic Ink)	

We hereby authorize TFL to release any amount due to me/us in the bank account as mentioned above. We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, we would not hold the TFL responsible.

STERLING AND WILSON PRIVATE LIMITED

AUTHORISED SIGNATORY
 (Signature of vendor/customer)

BANK
 CERTIFICATE

We certify that M/s Sterling and Wilson Private Limited has an Account no. 614105010000118 with us and we confirm that the details given above are correct as per our records.
 Bank stamp

Date 11.07.2017

(Signature of authorized officer of bank)

ANNEXURE-G

PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) ORDER 2017

001584

KALYANIWALLA & MISTRY LLP

CHARTERED ACCOUNTANTS

Auditor's Certificate

To,
M/s Talcher Fertilizers Ltd. (TFL),
C/O GAIL Training Institute, PARC Building,
Plot No 24, Sector-16A, Film City, Noida
District - G.B. Nagar, U.P. - 201301

Dear Sir,

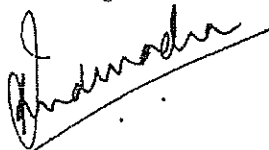
A. We Kalyaniwalla and Mistry LLP, the Statutory Auditors have verified relevant records and certify that M/s Sterling and Wilson. Pvt. Ltd., meets the following:

Sl. No.	Description	Confirmation
a	Bidder meets the mandatory minimum Local content requirement of 20% for participating in the Bidding process under Public Procurement (Preference to Make in India) Policy. (In case bidder does not meet the minimum Local content requirement of 20%, such bidders are not allowed to participate in the Bidding process)	Confirmed
b	The bidder meets mandatory minimum Local content requirement of 50% for claiming purchase preference under Public Procurement (Preference to Make in India) Policy	Confirmed

B. The details of the location at which the local value addition is made as follows:

Sl. No.	Item Description	Details of the Location(s) where the local value addition is made
1	Supply Equipment	As per Approve make, Domestic, India
2	Erection	Domestic, India
3	Civil	Domestic, India

For Kalyaniwalla & Mistry LLP
Chartered Accountants
Firm Reg. No. 104607W/W100166



Jamshed K. Udawadia
Partner

M. No. 124658
UDIN: 23124658BGXLNU8149
Mumbai, July 12, 2023




LLP IN : AAH - 3437

REGISTERED OFFICE : ESPLANADE HOUSE, 29, HAZARIMAL SOMANI MARG, FORT, MUMBAI 400 001
TEL.: (91) (22) 6158 6200, 6158 7200 FAX: (91) (22) 6158 6275

FORM-II of ANNEXURE-V

Salient Points of Public Procurement (Preference to Make in India) Policy

Sr.No	Description	Parameter / Document
1	Minimum Local Content (LC) for Availing Preference under this Policy	50%
2	Margin of Purchase Preference	20%
3	Local Content (LC) % declared by bidder (Documents to be submitted as per Sr. No. 4 below)	[Tick (✓) whichever is applicable] a. LC Equal to or more than 50% ✓ b. LC More than 20% but less than 50%
4	Documents to be submitted by bidder under this Policy	Certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant as per Form-I to be submitted by bidder.
5	Whether tender is divisible or not divisible	Not Divisible; Clause No. 3A (c) of revised Policy dated 16.09.2020 shall be applicable


Sterling and Wilson Private Limited
An Associate of Shapoorji Pallonji Group

Registered Office: Universal Majestic, 9th Floor, P. L. Lokhande Marg, Chembur (W), Mumbai – 400 043
Phone: (91-22) 25485300 | Fax: (91-22) 25485331 | CIN: U31200MH1974PTC017538
Email: mumbai@sterlingwilson.com | www.sterlingandwilson.com

ANNEXURE-H

PROVISION FOR PROCUREMENT FROM A BIDDER WHICH SHARES A LAND BORDER WITH INDIA

Form-I to Annexure-VII

UNDERTAKING ON LETTERHEAD

To,
M/s Talcher Fertilizers Limited
C/O GAIL Training Institute,
Film City, Noida
U.P. – 201301

SUB: CONSTRUCTION OF 220 KV LILO GIS AT TALCHER FERTILIZERS LTD
TENDER NO: PNMM/PC-183/E-4024/NCB

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; we certify that, bidder M/s Sterling & Wilson Private Limited is:

(i) not from such a country ☒ [✓]

(ii) if from such a country, has been registered ☒ [X]
with the Competent Authority.

(Evidence of valid registration by the
Competent Authority shall be attached)

(Bidder is to tick appropriate option (✓ or X) above).

We further certify that bidder M/s Sterling & Wilson Private Limited will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

We hereby certify that bidder M/s Sterling & Wilson Private fulfills all requirements in this regard and is eligible to be considered.

Place: Mumbai
Date: 02.02.2024



[Signature of Authorized Signatory of Bidder]

Name: Bappaditya Mukherjee

Designation: Head, Sales – SS,TL, Metros & Railways, T&D

Seal: