

Petition to
JHARKHAND STATE ELECTRICITY REGULATORY
COMMISSION,

Ranchi



True up for FY 2023-24, Annual Performance Review of
FY 2024-25, and ARR & Tariff of FY 2025-26

Submitted By
SAIL, BOKARO

**BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY
COMMISSION, RANCHI**

Filing No.....

Case No.....

IN THE MATTER OF:

Approval under Section 86 of the Electricity Act, 2003 and JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2020 for filing of the True up Petition for FY 2023-24, Annual Performance Review of FY 2024-25, and ARR & Tariff of FY 2025-26

AND

IN THE MATTER OF Steel Authority of India, Bokaro (hereinafter referred to as "SAIL-BSL" which shall mean for the purpose of this Petition, the Licensee), a company incorporated under Section 617 of the Companies Act, 1956 and having its main office at Bokaro.

Details of Enclosures:

1. Certified Audited Accounts of SAIL BSL for FY 2023-24.
2. SAP Data of Energy Sales, No. of Consumers and connected load for FY 2023-24.
3. Energy Meter data from bills raised by DVC and energy exported to township from steel plant FY 2023-24.
4. Electricity Bills raised by DVC to SAIL BSL for FY 2023-24.
5. SAP Data of Energy Sales, No. of Consumers and connected load for FY 2024-25.
6. Energy Meter data from bills raised by DVC and energy exported to township from steel plant FY 2024-25.
7. Electricity Bills raised by DVC to SAIL BSL for FY 2024-25.
8. Supporting for CAPEX and Capitalisation in FY 2023-24, FY 2024-25 and FY 2025-26
9. Petition forms and formats of truing up years for FY 2023-24, APR from FY 2024-25 and Tariff from FY 2025-26



SL. No. 65
Date 03/04/2025

AFFIDAVIT VERIFYING THE PETITION

BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY

COMMISSION, RANCHI

Case No. _____ of _____ (year)

IN THE MATTER OF:

Approval under Section 86 of the Electricity Act, 2003 and JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2020 for filing of the True up Petition for FY 2023-24, Annual Performance Review of FY 2024-25, and ARR & Tariff of FY 2025-26 for the Licensee.

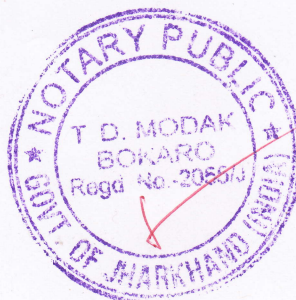
AND

IN THE MATTER OF:

Steel Authority of India, Bokaro (hereinafter referred to as "SAIL-BSL"; which shall mean for the purpose of this Petition, the Licensee), a company incorporated under Section 617 of the Companies Act, 1956 and having its main office at Bokaro.

I, Rajul Harkerni, Son of Shri. Jagdish Narain Harkerni, residing at Q. No. 44, Sector-I-C, Bokaro Steel City, Jharkhand -827001 do hereby solemnly affirm, and state as follow that.

1. I am working as General Manager I/c (TA - Electrical) in the office of the petitioner and am duly authorized by the petitioner to swear this affidavit.
2. That I solemnly affirm at Bokaro onday of2025 that
 - i. The contents of the above petition are true to my knowledge, and I believe that no part of it is false, and no material has been concealed there from.
 - ii. That the statements made in Chapter 01 to 09 of the petition are true to my knowledge and those made in Chapter 01 to 09 are based on information derived from the records of the case which I believe to be true, and rest of the paragraphs are by way of submissions.



Identified before me by:

SL. No. 65
Date 03/04/2025

213m Esan
DEPONENT

VERIFICATION

I, Amarnath Singh, do hereby solemnly affirm that the contents of above affidavit are true to the best of my knowledge, and nothing has been concealed there from.

Verified at Bokaro on 203 day of April, 2025.

213m Esan
DEPONENT



Deponent Identified by
Sri. A. B. Thakur
Advocate, Civil Court, Bokaro

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Esan
03/04/2025
T. D. Modak
NOTARY PUBLIC
Bokaro (Jharkhand)
Regd. No.-2055/J

Idinthy
A. P. Thakur
on
3.4.25

**BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY
COMMISSION, RANCHI**

Filing No.....

Case No.....

IN THE MATTER OF:

Approval under Section 86 of the Electricity Act, 2003 and JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2020 for filing of the True up Petition for FY 2023-24, Annual Performance Review of FY 2024-25, ARR & Tariff of FY 2025-26 for the Licensee.

AND

IN THE MATTER of Steel Authority of India, Bokaro (hereinafter referred to as "SAIL-BSL" which shall mean for the purpose of this Petition the Licensee), a company incorporated under Section 617 of the Companies Act, 1956 and having its main office at Bokaro.

The Petitioner most respectfully submits as under: -

1. That Steel Authority of India, Bokaro is a company incorporated in the year 1964 under Section 617 of the Companies Act, 1956 and is a wholly owned unit of Steel Authority of India, New Delhi. Bokaro Steel City in the district of Bokaro, Jharkhand is contiguous to Bokaro Steel City service area of SAIL-BSL.
2. That with the Electricity Act 2003 opening the sector for power distribution, as per the provisions of Section 14 of Electricity Act 2003, Distribution License has been granted by Hon'ble Jharkhand state Electricity Regulatory Commission (hereinafter "JSERC" or "Hon'ble Commission" or "State Commission") to SAIL-BSL
3. That the Hon'ble Commission has granted Power Distribution License (No. 01 of 2005-06) to SAIL-BSL w.e.f. 28.7.2004 for the aforementioned area. Prior to date 28.07.2004, SAIL-BSL was a sanction holder under section 28 of the Electricity Act 1910, granted by the then

undivided State of Bihar and accordingly it began the activity related to the distribution of power in the said area.

4. That pursuant to the enactment of the Electricity Act, 2003, SAIL-BSL is required to submit its ARR and Tariff Petitions as per procedures outlined in Section 61, 62 and 64, of Electricity Act 2003, and the governing regulations thereof.
5. That the present Petition is being filed before the Hon'ble Commission for approval of the True up for FY 2023-2024 for the Licensee as per the Electricity Act 2003.
6. That the present Petition is being filed before the Hon'ble Commission for approval of the Annual Performance Review of FY 2024-25 and ARR & Tariff of FY 2025-26 for the Licensee as per the Electricity Act 2003.
7. That this application has been prepared in accordance with Section 86 of the Electricity Act 2003 and has taken into consideration the provisions of the JSERC (Terms and conditions for determination of Distribution Tariff) Regulation, 2020 for True Up of FY 2023-24, Annual Performance Review of year FY 2024-25 and for ARR and Tariff Schedule for FY 2025-26 notified by the Hon'ble Commission.

Prayers to the Commission:

The Petitioner SAIL- BSL respectfully prays to the Hon'ble Commission:

1. To admit the Petition for truing up of FY 2023-24 in accordance with Regulation 13.3 of JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2020.
2. To admit in Petition for Annual Performance Review of year FY 2024-25 based on unaudited account in accordance with Regulation 13.2 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.
3. To approve ARR & category wise Tariff proposed for FY 2025-26 in accordance with Regulation 8.2 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.
4. To approve the deviation from the norms for certain parameters prescribed in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, and provisions thereof, as sought in this True up Petition for FY 2023-24, Annual Performance Review of FY 2024-25, and ARR & Tariff of FY 2025-26 for the Petitioner.
5. To approve True up Petition for FY 2023-24, Annual Performance Review of FY 2024-25 and ARR & Tariff for FY 2025-26 for Petitioner in accordance with the JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2020.
6. To approve the Regulatory assets worth Rs. 266.90 Crores against the revenue gap of FY 2023-24, FY 2024-26 and FY 2025-26 and provide an appropriate recovery mechanism to recover the Regulatory Assets as per the provisions of Tariff Regulations and guidelines of Tariff Policy.
7. To condone the delay in filing the present Petition on account of reasons beyond the control of Petitioner.
8. To treat Steel Plant of SAIL as consumer of SAIL-BSL from next control period subject to approval from SAIL Management.
9. To condone any error/omission and to give opportunity to rectify the same.
10. To permit SAIL- BSL to make further submissions, addition and alteration to this Petition as may be necessary from time to time.
11. To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Petitioner

SAIL- BSL Bokaro

Dated:

TABLE OF CONTENTS

| | | |
|----------|--|-----------|
| 1 | INTRODUCTION..... | 15 |
| 1.1 | Background..... | 15 |
| 2 | APPROACH FOR THE PRESENT FILING | 17 |
| 2.1 | Regulation on Terms and Conditions of Tariff:..... | 17 |
| 2.2 | Data/Information for True up, APR and ARR..... | 17 |
| 2.3 | Allocation of Assets and Costs | 17 |
| 3 | TRUING UP FOR FY 2023-24 | 19 |
| 3.2 | Treatment of the Steel Plant..... | 20 |
| 3.3 | Energy Sales | 22 |
| 3.4 | Distribution Loss..... | 25 |
| 3.5 | Energy Balance | 27 |
| 3.6 | Power Procurement Plan..... | 28 |
| 3.7 | Operation and Maintenance Costs | 29 |
| 3.8 | Sharing of Gain/Losses..... | 30 |
| 3.9 | Gross Fixed Assets..... | 31 |
| 3.10 | Consumer Contribution, Grants and Subsidies | 33 |
| 3.11 | Depreciation..... | 33 |
| 3.12 | Interest on Loan | 34 |
| 3.13 | Interest on Working Capital..... | 36 |
| 3.14 | Return on Equity | 37 |
| 3.15 | Summary of ARR for FY 2023-24 | 38 |
| 3.16 | Revenue at Existing Tariff for FY 2023-24..... | 40 |
| 3.17 | Average rAverage Billing Rate (ABR) at Existing Revenue for FY 2023-24 (Rs. Crores)..... | 40 |
| 3.18 | Summary of Revenue Surplus/Gap..... | 41 |
| 4 | ANNUAL PERFORMANCE REVIEW OF FY 2024-25 | 42 |
| 4.1 | Background..... | 42 |
| 4.2 | Energy Sales | 43 |
| 4.3 | Distribution Loss..... | 45 |
| 4.4 | Energy Balance | 45 |
| 4.5 | Power Purchase Cost..... | 46 |

| | | |
|----------|---|-----------|
| 4.6 | Operation and Maintenance Costs | 47 |
| 4.7 | Gross Fixed Assets..... | 50 |
| 4.8 | Consumer Contribution, Grants and Subsidies | 51 |
| 4.9 | Depreciation..... | 52 |
| 4.10 | Interest on Loan | 53 |
| 4.11 | Interest on Working Capital..... | 53 |
| 4.12 | Return on Equity | 54 |
| 4.13 | Summary for ARR of FY 2024-25 | 55 |
| 4.14 | Revenue at Existing Tariff..... | 56 |
| 4.15 | Summary of Revenue Surplus/Gap..... | 56 |
| 5 | REVISED ARR PROJECTION FOR FY 2025-26..... | 57 |
| 5.2 | Energy sales | 57 |
| 5.3 | Distribution loss..... | 59 |
| 5.4 | Energy Balance | 60 |
| 5.5 | Power Procurement Plan..... | 60 |
| 5.6 | Operation and Maintenance Costs | 61 |
| 5.7 | Gross Fixed Assets..... | 62 |
| 5.8 | Consumer Contribution, Grants and subsidies..... | 64 |
| 5.9 | Depreciation..... | 64 |
| 5.10 | Interest on Loan | 65 |
| 5.11 | Interest on Working Capital..... | 66 |
| 5.12 | Return on Equity | 68 |
| 5.13 | Summary for ARR of FY 2025-26 | 68 |
| 5.14 | Revenue at Existing and Proposed Tariff | 69 |
| 5.15 | Summary of Revenue Surplus/Gap..... | 70 |
| 6 | REVENUE GAP AND ITS TREATMENT..... | 71 |
| 6.1 | Treatment of Revenue Gap | 71 |
| 6.2 | Creation of Regulatory Assets | 72 |
| 7 | TARIFF PHILOSOPHY | 74 |
| 7.1 | ARR for Retail and Wheeling Supply..... | 74 |
| 7.2 | Wheeling Charges..... | 75 |

| | | |
|----------|---|-----------|
| 7.3 | Cross Subsidy Surcharge | 76 |
| 8 | TARIFF SCHEDULE FOR FY 2025-26..... | 78 |
| 8.1 | Domestic Service (DS-LT and DS-HT)..... | 78 |
| 8.2 | Commercial Service (CS) | 79 |
| 8.3 | Low Tension Industrial Services (LTIS) | 80 |
| 8.4 | High Tension Voltage Supply Services (HTS) | 81 |
| 8.5 | Additional Clauses applicable across all Tariff Category..... | 83 |
| 9 | COMPLIANCE OF DIRECTIVES | 85 |
| | Earlier Directives | 85 |
| 9.1 | Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts: | 85 |
| 9.2 | Employee Details | 85 |
| 9.3 | Maintenance of Fixed Asset Register | 86 |
| 9.4 | Cost of supply | 86 |
| 9.5 | Energy Audit & T&D Loss Reduction Plan | 86 |
| 9.6 | Voltage-wise Cost of Supply | 87 |
| 9.7 | Meter separation for Commercial-cum-Residential Consumer Premises | 87 |
| 9.8 | Legal Action against Theft of Electricity..... | 89 |
| 9.9 | Consumer Awareness Programs | 90 |
| 9.10 | Trajectory for reduction of Cross-subsidy | 90 |
| | Current Directives | 91 |
| 9.11 | Timeliness and Data Adequacy in the Next Tariff Petition | 91 |
| 9.12 | Establishment of Customer Care helpline..... | 91 |

LIST OF TABLES

| | |
|---|-----------|
| Table 1: Category-wise No. of Consumers for FY 2023-24..... | 23 |
| Table 2:Category-wise Connected Load for FY 2023-24..... | 23 |
| Table 3: Category-wise Energy Sales for FY 2023-24 (MUs) | 24 |
| Table 4: Approved Distribution Loss for FY 2021-22 to FY 2025-26 | 25 |
| Table 5: Distribution loss for SAIL-BSL for the FY 2023-24..... | 27 |
| Table 6: Energy Balance for FY 2023-24..... | 27 |
| Table 7: Power Procurement Cost for FY 2023-24 | 28 |
| Table 8: O&M Expense for FY 2023-24 (Rs. Crore) | 30 |
| Table 9: Sharing of gain/loss for O&M Expense for FY 2023-24 (Rs. Crore)..... | 31 |
| Table 10: Gross Fixed Asset (GFA) for FY 2023-24 (Rs. Crore) | 33 |
| Table 11: Depreciation for FY 2023-24 (Rs. Crore)..... | 34 |
| Table 12: Interest on Loan for FY 2023-24 (Rs. Crore) | 36 |
| Table 13: Interest on Working Capital for FY 2023-24 (Rs. Crore)..... | 37 |
| Table 14: Return on Equity for FY 2023-24 (Rs. Crore)..... | 38 |
| Table 15: Summary of ARR components for FY 2023-24 (Rs. Crore) | 38 |
| Table 16: Segregation of Distribution Assets | 39 |
| Table 17: Summary of ARR for Retail Supply and Wheeling for FY 2023-24 (Rs. Crore)..... | 39 |
| Table 18: Total revenue at existing tariff for FY 2023-24 (Rs. Crores) | 40 |
| Table 19: ARR and ABR at Existing Revenue for FY 2023-24 (Rs. Crores)..... | 41 |
| Table 20: Summary of revenue (Surplus)/Gap for FY 2023-24 (Rs. Crore) | 41 |
| Table 21: Category-wise No. of Consumers for FY 2024-25..... | 43 |
| Table 22: Category-wise Connected Load for FY 2024-25..... | 44 |
| Table 23: Category-wise Energy Sales for FY 2024-25 (MUs) | 44 |
| Table 24: Distribution loss for SAIL-BSL for the FY 2024-25 | 45 |
| Table 25: Energy Balance for FY 2024-25..... | 46 |
| Table 26: Power Procurement Cost for FY 2024-25 | 47 |
| Table 27: O&M Expense for FY 2024-25 (Rs. Crore) | 50 |
| Table 28: Gross Fixed Asset (GFA) for FY 2024-25 (Rs. Crore) | 51 |
| Table 29: Depreciation for FY 2024-25 (Rs. Crore)..... | 52 |
| Table 30: Interest on Loan for FY 2024-25 (Rs. Crore) | 53 |
| Table 31: Interest on Working Capital for FY 2024-25 (Rs. Crore)..... | 54 |
| Table 32: Return on Equity for FY 2024-25 (Rs. Crore)..... | 55 |
| Table 33: Summary of estimated ARR for the FY 2024-25 (Rs. Crore) | 55 |
| Table 34: Total revenue at existing tariff for FY 2024-25 (Rs. Crores) | 56 |
| Table 35: Summary of revenue (Surplus)/Gap for FY 2024-25 (Rs. Crore) | 56 |
| Table 36: Category-wise CAGR assumed for projections of Energy sales, No. of Consumers & Connected Load..... | 57 |
| Table 37: Projected category-wise No. of Consumers for the FY 2025-26..... | 58 |
| Table 38: Projected Category-wise Energy Sales for the FY 2025-26 (MUs)..... | 58 |
| Table 39: Projected Category-wise Connected Load for the FY 2025-26..... | 59 |
| Table 40: Projected Distribution loss for SAIL-BSL FY 2025-26 | 59 |
| Table 41: Projected Energy Balance for FY 2025-26..... | 60 |
| Table 42: Projected Power Procurement Plan for FY 2025-26..... | 61 |
| Table 43: Projected O&M Expense for FY2025-26(Rs. Crore) | 62 |
| Table 44: Projected Gross Fixed Asset (GFA) for FY 2025-26 (Rs. Crore) | 63 |
| Table 45: Projected Depreciation for FY 2025-26 (Rs. Crore)..... | 64 |
| Table 46: Projected Interest on Loan for FY 2025-26 (Rs. Crore) | 66 |
| Table 47: Projected Interest on Working Capital for FY 2025-26 (Rs. Crore)..... | 67 |
| Table 48: Projected Return on Equity for FY 2025-26 (Rs. Crore)..... | 68 |

| | |
|---|----|
| Table 49: Summary of Projected ARR for FY 2025-26 (Rs. Crore) | 68 |
| Table 50: Revenue for FY 2025-26 at existing tariff..... | 69 |
| Table 51: Revenue (Surplus)/Gap for FY 2025-26 (Rs. Crore)..... | 70 |
| Table 52: Revenue (Surplus)/Gap for FY 2023-24, FY 2024-25 & FY 2025-26 (Rs. Crore) | 71 |
| Table 53: Revenue for FY 2025-26 at Proposed tariff..... | 72 |
| Table 54: Proposed Regulatory Assets (Rs. Crores)..... | 73 |
| Table 55: Segregation of assets as per tariff regulation, 2020 | 74 |
| Table 56: Summary of Projected ARR for Retail Supply and Wheeling for FY 2025 –26 (Rs. Crore) | 74 |
| Table 57: Proposed Wheeling Charge for FY 2025-26 | 75 |
| Table 58: Cross subsidy Surcharge for FY 2025-26..... | 76 |
| Table 59: Proposed Tariff for Domestic Services Consumer Category for FY 2025-26..... | 78 |
| Table 60: Proposed Tariff for Commercial Consumer Category for FY 2025-26..... | 79 |
| Table 61: Proposed Tariff for Low Tension Industrial Consumer Category for FY 2025-26 | 80 |
| Table 62: Proposed Tariff for High Tension Services Consumer Category for FY 2025-26 | 81 |

LIST OF ABBREVIATIONS

| | |
|-------|---|
| A&G | Administrative and General |
| ATE | Hon'ble Appellate Tribunal of Electricity |
| ARR | Annual Revenue Requirement |
| APR | Annual Performance Review |
| CAGR | Compound Annual Growth Rate |
| CAIFI | Customer Average Interruption Frequency Index |
| CWIP | Capital Work in Progress |
| CPI | Consumer Price Index |
| DPS | Delayed Payment Surcharge |
| DNW | Distribution Network |
| DS | Domestic Service |
| DS HT | Domestic Service High Tension |
| DVC | Damodar Valley Corporation |
| ERP | Enterprise Resource Planning |
| ETL | Electro-Technical laboratory |
| FAS | Financial Accounting System |
| FY | Financial Year |
| GFA | Gross Fixed Assets |
| GoI | Government of India |
| HT | High Tension |
| JSEB | Jharkhand State Electricity Board |
| JSERC | Jharkhand State Electricity Regulatory Commission |
| LT | Low Tension |
| kV | Kilovolt |
| kVA | Kilovolt-ampere |
| kW | Kilowatt |
| kWh | Kilowatt-hour |
| MU | Million Units |
| NTI | Non-Tariff Income |
| MoM | Minutes of Meeting |
| O&M | Operations and Maintenance |
| PLR | Prime Lending Rate |
| PPA | Power Purchase Agreement |
| R&M | Repair and Maintenance |
| RoE | Return on Equity |
| RPO | Renewable Purchase Obligation |
| SAIDI | System Average Interruption Duration Index |
| SAIFI | System Average Interruption Frequency Index |
| SAIL | Steel Authority of India Limited |
| SBI | State Bank of India |

| | |
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| SERC | State Electricity Regulatory Commission |
| SLM | Straight Line Method |
| TA | Town Administration |
| WPI | Wholesale Price Index |

1 INTRODUCTION

1.1 Background

- 1.1.1 The Steel Authority of India Limited, Bokaro Steel Plant (hereinafter referred to as “SAIL-BSL” or “the Petitioner”) is a company incorporated in the year 1964 under the provisions of the Companies Act, 1956 and is a wholly owned subsidiary of Steel Authority of India Limited, New Delhi.
- 1.1.2 SAIL-BSL is the sanction holder of power supply in Bokaro Steel City under Section 28(1) of the erstwhile Indian Electricity Act 1910 and has been managing the power distribution in Bokaro steel city since its inception. Post the enactment of the Electricity Act, 2003, as per the provisions of Section 14 of the Act, SAIL-BSL has been granted Distribution Licensee status by the State Commission (No. 01 of 2005-06) w.e.f. July 28, 2004.
- 1.1.3 The area of supply of the Petitioner, including the Bokaro Steel Plant and the Bokaro township, is the whole of the area bounded at North: River Damodar, South: River Garga, East: River Garga and West: Bokaro Steel City Railway Station
- 1.1.4 The Town Administration department of SAIL-BSL is responsible for providing various municipal services to Bokaro Steel City, including horticulture, water supply, construction and maintenance of roads etc. Under this, the Town Administration Electrical Department (TA-Electrical) manages the power distribution system of the licensed area.
- 1.1.5 SAIL-BSL is buying power from Damodar Valley Corporation (DVC), another Government of India Undertaking, under power purchase agreement (PPA). The Power received from DVC is at 220 kV at 220/132 kV main receiving substation at Bokaro Steel plant from where it is further distributed for end-use in plant and township.
- 1.1.6 The licensed electricity distribution business is a part of the overall integrated steel production business. Therefore, all the expenses for the complete electrical distribution business have been accounted in the accounts of the Steel Plant right from the inception, which is audited by Statutory Auditors and thereafter by C&AG of India.
- 1.1.7 As per the provisions of Section 62 of the Electricity Act, 2003 the distribution licensee requires to furnish details as may be specified by the State Commission for determination of distribution tariff.
- 1.1.8 As per Regulation 13.3 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 (herein referred to as “Tariff Regulations, 2020”) provides that a distribution licensee shall file the

True up of Aggregate Revenue Requirement and corresponding tariff adjustments as per the timelines specified in the Section A 24 of the Regulations.

- 1.1.9 As per Regulation 13.2 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 (herein referred to as “Tariff Regulations, 2020”) provides that a distribution licensee shall file Annual Performance Review report as part of annual review on actual performance as per the timelines specified in the Section A24 of these Regulations.
- 1.1.10 As per Regulation 8.2 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 (herein referred to as “Tariff Regulations, 2020”) provides that along with Annual Performance Review Filing, the Licensee shall also claim revised ARR for the following year based on the truing up and annual performance review of previous year/s.
- 1.1.11 Based on the above premise, this Petition presents the True up for FY 2023-24 depicting the actual cost incurred in FY 2023-24 and the calculation of revenue Surplus/Gap from existing tariff that should pass on to the consumers.
- 1.1.12 Based on the above premise, this Petition presents the Annual Performance Review for FY 2024-25 depicting the actual cost of Power purchase incurred in first half of FY 2024-25 and the estimated cost for second half of FY 2024-25 and the calculation of expected revenue Surplus/Gap from existing tariff that should pass on to the consumers.
- 1.1.13 Based on the above premise, this Petition presents the Revised ARR for FY 2025-26 depicting the revised cost estimation FY 2025-26 and the calculation of expected revenue Surplus/Gap from existing tariff that should pass on to the consumers.
- 1.1.14 It is submitted that, the existing legacy of high distribution losses in several pockets of the licensed area and regulatory disallowances have led to the poor financial condition of SAIL-BSL. SAIL-BSL is committed towards improving the electricity availability in its area of operation while achieving the operational turnaround for a sustained business model in future. Some of the measures are being undertaken and activities are being carried out at a considerable level to achieve the goal of becoming a utility with sustainable operations.

2 APPROACH FOR THE PRESENT FILING

2.1 Regulation on Terms and Conditions of Tariff:

2.1.1 The True-up Petition for FY 2023-24, Annual Performance Review for FY 2024-25 and ARR & Tariff for FY 2025-26 are based on the provisions of the following Acts and Policies of the Government of India and principles outlined in the relevant regulations notified by the Jharkhand State Electricity Regulatory Commission:

1. Provisions of Electricity Act 2003;
2. Provisions of the National Electricity Policy;
3. Provisions of the National Tariff Policy;
4. Principles laid down in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020;

2.1.2 The Hon'ble Commission has issued the Tariff Regulations, 2020 which lays down the principles of filing the Periodic Review by the Utility. Regulation A13 of Tariff Regulations, 2020 provides principles of filing of the True up Petition for FY 2023-2, and APR for FY 2024-25.

2.1.3 Further, Regulation A10 of the Tariff Regulations, 2020 provides the principle for the determination of ARR *inter-alia* containing the Operation and Maintenance cost, gross fixed assets, depreciation, interest on loans, interest on working capital, return on equity and bad debts. Accordingly, the present Petition is being filed in respect to ARR in Tariff Regulations, 2020.

2.2 Data/Information for True up, APR and ARR

2.2.1 The True up Petition for FY 2023-24 is based on the audited accounts for FY 2023-24, by taking into consideration of the provision of JSERC Distribution Tariff Regulation 2020.

2.2.2 The APR and revised ARR for FY 2024-25 and FY 2025-26 respectively are based on the approved forecast of ARR and expected revenue from tariff and charges, if additional information not previously known or available to it at the time the forecast was developed may result in significant over/under recovery as per the provision of Tariff Regulation 2020.

2.3 Allocation of Assets and Costs

2.3.1 The SAIL-BSL in compliance to the directives of the Hon'ble Commission has prepared accounts for its Electricity Business, being duly verified and audited by a Chartered Accountant. The segregation and allocation of costs are based on audited accounts of the Petitioner for its Electricity Business. The cost data

is captured through the Financial Accounting System maintained on the SAP platform and separate cost centers that have been created through which identification of directly allocable expenditures has been provided.

3 TRUING UP FOR FY 2023-24

- 3.1.1 The Hon'ble Commission notified the Tariff Regulations, 2020 on 12th November 2020 for the Control Period from FY 2021-22 to FY 2025-26. Regulation 13.3 of Tariff Regulations, 2020 specifies the provision for True up of Aggregate Revenue Requirement and corresponding tariff adjustments as per the timelines specified in the Section A 24 of these Regulations.
- 3.1.2 In this Chapter, SAIL-BSL has submitted the actual expenditure occurred for Truing up for Controllable and Uncontrollable items for the FY 2023-24, as per provisions under Regulation A7 of Tariff Regulations, 2020. The relevant extract from the Regulation specified below:

7.1 The Licensee shall submit along with the application for truing up, category-wise and voltage-wise sales, contracted demand and number of consumers, source-wise power purchase quantum and cost, details of capital expenditure, additional capitalization, sources of financing, operation and maintenance expenditure, actual loan portfolio with the interest paid along with other components of ARR, for each year of the Control Period, on the basis of annual Audited Accounts as per the Timelines stipulated in Section A 24.

7.2 Where after the truing up, the revenue recovered exceeds the trued-up value approved by the Commission under these Regulations, the surplus amount shall be treated as specified in Clause 7.4 of these Regulations.

7.3 Where after the truing up, the revenue recovered is less than the trued-up value approved by the Commission under these Regulations, the gap amount shall be treated as specified in Clause 7.4 of these Regulations.

7.4 The amount under-recovered or over-recovered, along with simple interest at the rate equal to Bank Rate as on April 01 of the respective year plus 350 basis points, shall be carried forward to the Tariff approved for the subsequent years:

The Provided that no carrying cost on the duration of delay shall be allowed on unrecovered gap if the Licensee fails to submit the Petitions as per the timelines stipulated in Section A 24

Provided further that if such gap is large, and it is not feasible to recover the same in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in Clause 8.2.2 of the Tariff Policy, 2016:

Provided further that any adverse financial impact on account of variation in uncontrollable items due to lapse on part of the Licensee or its suppliers/contractors shall not be allowed in truing up.

7.5 The Commission, to ensure tariff stability, may include the trued-up costs in the subsequent Control Period's ARR instead of including in the year succeeding the relevant year of the Control Period.

- 3.1.3 SAIL-BSL humbly submits that the True up Petition for FY 2023-24 has been prepared based on the certified audited accounts annexed as **Annexure A** by taking into consideration of the provisions of Tariff Regulations, 2020.

3.2 Treatment of the Steel Plant

- 3.2.1 SAIL- BSL is having a power purchase agreement with Damodar Valley Corporation (DVC) for the supply of power for its distribution business at 220 kV level. SAIL-BSL humbly submits that till December 2016 power was drawn at 132 kV and thereafter the power is being drawn at 220 kV level. The 220/132 kV sub-station is maintained by the Distribution network (DNW) team of SAIL-BSL.

- 3.2.2 In the past, SAIL-BSL in its provisional Tariff Order dated September 2011 has submitted, only the energy sales of township under the power purchase expense. Further, the Hon'ble Commission has approved the same citing that previous methodology was followed for the power purchase computation. The relevant extract from the order is below:

"5.33 With regards to availability of power, as was mentioned in the previous Tariff Order, the Petitioner has submitted that it has only one source of power purchase - Damodar Valley Corporation (DVC). The Power Purchase Agreement (PPA) has been entered into with DVC in April, 2001 with a contract demand of 200 MVA. A portion of the power procured from DVC is used to meet the energy requirement of the Bokaro township while the rest of power is consumed in the Bokaro Steel Plant. In line with the approach adopted in its previous Tariff Order, the Commission has only considered the quantum of power sent to the township for calculating the power purchase cost of the Petitioner."

- 3.2.3 However, in the Tariff Order dated 3rd August 2012, SAIL-BSL has submitted the energy sales of Steel plant as a consumer of licensed business. Further, the tariff for Steel Plant was proposed to charge as the Average Power Purchase cost (APPC) of DVC. The relevant extract from the order is below:

5.126 The Petitioner, in its tariff petition, has considered the Steel Plant as a consumer of the licensed business

5.127 With respect to the categorization and tariff applicability of the Steel Plant, the Petitioner has proposed to charge a tariff equal to the average power purchase cost for electricity supplied to the Steel Plant.

- 3.2.4 Accordingly, the Hon'ble Commission has considered the Steel Plant as the consumer of SAIL-BSL and included energy sales of Steel plant in its sales and power procurement. However, the Hon'ble Commission has considered the tariff for Steel Plant as the HTS tariff of SAIL-BSL. The relevant extract from the order dated 3rd August 2012 is below:

5.128 The total power procured by the Petitioner from DVC is utilised not only for meeting the power requirements of the Bokaro township, but also the energy requirement of the Steel Plant owned by the Petitioner. Hitherto, the Steel Plant is not being considered a consumer of the electricity distribution business and the power purchase cost of the pooled power is apportioned on the basis of unit share for Steel Plant and power distribution business of the Petitioner.

5.129 However, considering the treatment of the sales to the Steel Plant by the Petitioner, the Commission agrees that the Steel Works of the Petitioner shall henceforth be treated as a consumer of the electricity distribution business.

*5.130 With respect to the categorization and tariff applicability of the Steel Plant, the Commission observes that power to Steel Plant is being supplied at 132 kV from the Petitioner's network. Therefore, **the Steel Plant is to be treated as an HTS consumer of the Petitioner and the tariff applicable to it shall be the tariff applicable to the HTS category. This is also in line with the treatment of other steel works of other distribution licensees in the State.***

- 3.2.5 In view of above, the Hon'ble Commission has used the similar methodology for computation of revenue from Steel plant in the Tariff Orders dated 03.09.2014, 07.06.2018, 08.01.2021 and 22.06.2023. Also, in the recent Tariff Order dated 20.08.2024, the Hon'ble Commission has adopted similar methodology of considering steel plant as HTS consumer at 132 KV for calculating its normative revenue. The relevant extract from the latest Tariff Order dated 20th August 2024 is as below:

Commission's Analysis

..... 5.10 The Commission continued the methodology of considering steel plant as HTS consumer in the truing up of FY 2016-17 to FY 2018-19 and Suo-Motu Order on ARR of FY 2020-21 dated January 08, 2021, which has been continued in the order on True-up for FY 2019-20 & FY 2020-21, Multi Year Tariff and Business Plan for Control Period FY 2021-22 to FY 2025-26, Order on True up for FY 2021-22, APR for FY 2022-23 & ARR and Retail Supply Tariff for FY FY 2023-24 vide order dated February 22, 2024.

*5.11 In accordance with the above, **the Commission finds no merit in the claims made by the Petitioner, and as per the precedent, the Steel Plant has***

been considered as HT consumer of Electricity Distribution Business of the Petitioner.

- 3.2.6 Accordingly, the Hon'ble Commission has approved a revenue surplus against a revenue Gap as claimed by SAIL-BSL for the period of FY 2022-23. In view of such surplus, the Hon'ble Commission has disapproved the tariff hike as claimed by SAIL-BSL for FY 2024-25.
- 3.2.7 In this petition, SAIL-BSL humbly submits that, the determination of the ARR by the Hon'ble Commission including the revenue from steel plant at HTS tariff has notionally created surplus with SAIL-BSL, while in actual there was no surplus on account of sale of power to the steel plant.
- 3.2.8 SAIL-BSL further submits that, it is not raising any bill to steel plant and steel plant is not paying any electricity charges at tariff under HTS category. Further, it is also submitted that, SAIL-BSL Steel plant is consumer of DVC distribution Licensee and DVC-Distribution Licensee is billing to BSL Steel Plant and the Hon'ble Commission also approving the power procurement and revenue of DVC-Distribution Licensee including SAIL-BSL Steel Plant. Hence, it is humbly submitted that, treating Steel Plant as the consumer of SAIL-BSL would not be appropriate.
- 3.2.9 SAIL-BSL also humbly submits that the above matter has been taken up at SAIL-BSL management level. SAIL-BSL would come up with the separate proposal on the above issue in the next control period subject to the approval of the SAIL-BSL management. Till that time, it is humbly submitted that SAIL-BSL Steel Plant shall not be considered as consumer of SAIL-BSL during this control period.
- 3.2.10 Further, the parameters approved by the Hon'ble Commission under MYT Order dated 22nd June 2023 are considering steel plant as a consumer of SAIL-BSL and hence, overall ARR is on higher side. Whereas SAIL-BSL in the present petition is submitting the truing up, APR and Tariff Petition based on energy sales for township only and not of steel plant and accordingly, overall ARR components are computed and submitted herewith for the consideration of the Hon'ble Commission.

3.3 Energy Sales

Past Energy Sales/Consumption

- 3.3.1 SAIL-BSL humbly submits, the No. of Consumers, Energy Sales and Connected load, for Township and Steel Plant for FY 2023-24 based on duly verified audited report of SAIL-BSL annexed as **Annexure B**. The Category-wise approved No. of consumer for FY 2023-24 in MYT Order and actual No. of Consumer for FY 2023-24 are as under Table 1:

Table 1: Category-wise No. of Consumers for FY 2023-24

| Category | FY 23-24 | |
|-----------------------|--------------|--------------|
| | MYT Order | Actual |
| DS-LT | 28652 | 31497 |
| DS-HT | 5 | 7 |
| CS | 1959 | 1918 |
| LTIS | 34 | 37 |
| HTS | 23 | 27 |
| HT/LT | 656 | 656 |
| Township Total | 31329 | 34142 |
| Steel Plant | 1 | 1 |
| GRAND TOTAL | 31330 | 34143 |

3.3.2 The Category-wise approved Connected Load for FY 2023-24 in MYT Order and actual connected load for FY 2023-24 is as under Table 2:

Table 2:Category-wise Connected Load for FY 2023-24

| Category | Unit | FY 2023-24 | |
|-----------------|------|------------|-----------|
| | | MYT Order | Actual |
| DS-LT | kW | 97,952.00 | 90,054.00 |
| DS-HT | kVA | 4,815.00 | 5,003.00 |
| CS | kW | 25,453.00 | 23,447.00 |
| LTIS | HP | 1,023.00 | 928.00 |
| HTS-11 KV | kVA | 7,721.00 | 10,933.00 |
| HT/LT Utilities | KW | 35,358.61 | 35,358.61 |
| Steel Plant | MVA | 45.00 | 45.00 |

3.3.3 The Hon'ble Commission has adopted the methodology for the classification of HT/LT categories in its True-up Order for FY 2016-17 to FY 2018-19 and Suo-Motu Order on ARR of FY 2020-21, dated 08th January 2021. The relevant extracts from the Order are as follow:

“For the purpose of comparison sales to HT/LT Utilities have been shown separately. However, no such category has been approved by the

Commission and the sales under this head have been reclassified into NDS & SS for the purpose of calculation of revenue.”

- 3.3.4 Accordingly, SAIL-BSL submits the information of Category-wise approved energy sales in MYT Order and actual Energy sales for FY 2023-24 as under Table 3:

Table 3: Category-wise Energy Sales for FY 2023-24 (MUs)

| Category | FY 2023-24 | |
|-----------------------|----------------|----------------|
| | MYT Order | Actual |
| DS-LT | 105.27 | 92.25 |
| DS-HT | 6.20 | 8.31 |
| CS | 17.66 | 27.45 |
| LTIS | 0.45 | 0.60 |
| HTS | 11.86 | 10.77 |
| HT/LT | 65.23 | 29.72 |
| Township Total | 206.68 | 169.11 |
| Steel Plant | 1373.17 | 1135.19 |
| Grand Total | 1579.85 | 1304.30 |

- 3.3.5 With regards to Energy Sales for the FY 2023-24, the Petitioner submits as below:

1. The energy sales in the DS-LT category have a 12.37% decrement against the MYT projections,
2. Further, in the CS category the energy sales have increased by approx. 55% which is majorly due to opening of economic activities post COVID period.
3. The Consumption of HT/LT utility has reduced by 54% compared to the sales approved by Hon’ble Commission in MYT Order. The major reason for reduction is change in usage of pumping operations at pump house for supply of water in SAIL-BSL township, which was twice a day, but now it has come down to ones a day. The reduction is also due to replacement of old appliances and old conventional lights with new efficient version.
4. Overall, the total billed consumption for the township is consistent with the projections of MYT Order.

3.3.6 **SAIL-BSL requests the Hon’ble Commission to approve the actual energy sales for FY 2023-24, as shown in the Table 3 above.**

3.4 Distribution Loss

3.4.1 Distribution Loss for FY 2021-22 to FY 2025-26 approved by the Commission vide the MYT Order dated 22.06.2023 as shown in the Table 4 below:

Table 4: Approved Distribution Loss for FY 2021-22 to FY 2025-26

| Consumer Category | FY 21-22 | FY 22-23 | FY 23-24 | FY 24-25 | FY 25-26 |
|--|----------|----------|----------|----------|----------|
| Distribution Loss to Township (%) | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% |

3.4.2 SAIL-BSL humbly submits that the actual distribution loss for FY 2023-24 as 45.24%. The key reason for further increase in loss is the issues of electricity usage by non-consumers through unauthorized means in the rural areas. SAIL-BSL has made several efforts to control such unauthorized usage of electricity, and the issues encountered, steps undertaken have been summarized below:

3.4.3 It is observed that, there are some areas which do not come under the Licensed area of SAIL- BSL, are consuming electricity by hooking from SAIL- BSL’s distribution system. These consumers are expected to use the supply of DVC distribution licensee, however, due to the contiguous area of supply with DVC, these consumers are illegally consuming the supply from SAIL- BSL distribution network.

3.4.4 The officials of SAIL-BSL are in the process of disconnecting these illegal connections and discussing with DVC Distribution Licensee to provide connections to such consumers falling their area of supply.

3.4.5 SAIL-BSL has also formed groups consisting of senior officials along with CISF team and visiting the local areas to check illegal connections and hooking. These officials are conducting time-bound raids in the township for illegal connections. Details of the roster and photographs are annexed as **Annexure G.**

3.4.6 Further, as a permanent solution, SAIL-BSL is planning to take concrete measures for distribution loss reduction as discussed below:

Smart metering for reduction in losses.

3.4.7 SAIL-BSL is committed for reduction of the distribution losses in the township. At present, the consumers of SAIL-BSL are connected with the analog meters and SAIL-BSL has appointed meter readers for meter readings. Few of the challenges in the existing meters are listed below:

- a) Insufficient manpower for meter reading, causing average billing for some of the consumers.
 - b) Electricity theft by bypassing the energy meter.
 - c) Delay in billing leading to outstanding dues.
- 3.4.8 Hence, SAIL-BSL has proposed for smart meters which would help in overcoming the above-mentioned challenges. It is submitted that SAIL-BSL is planning to install smart meters for all the consumers.
- 3.4.9 The SAIL-BSL's proposal for implementation of smart meters in its supply area is of Rs. 45 crores, which has been submitted to SAIL's board for approval. The approval is required considering the internal guidelines that mandate approval of board for any proposal of expense above Rs. 30 crores.
- 3.4.10 A copy of E note sheet on approval of Implementation of Smart meter/ Advance Metering Infrastructure in BSL Township dated 28th July 2022, is enclosed as **Annexure H**.
- 3.4.11 SAIL-BSL humbly pray before Hon'ble Commission to allow SAIL-BSL to approach separately to the Hon'ble Commission in next tariff petition for the CAPEX approval of Installation of Smart Meters, after the Stage I approval.

Planning of underground cabling of LT network along with laying of Aerial Bunch Cable.

- 3.4.12 In this view, an internal meeting was held at TA Electrical department level with the concerned officials to know their opinion on the matter. It was highlighted in the meeting that to reduce the non-technical distribution loss because of illegal connection/theft of power /pilferage, SAIL-BSL may propose to install underground cables which is one of the prevailing practices followed in India as suggested in the Forum of Regulators Report on "Best practices and strategies for distribution loss reduction".
- 3.4.13 Further, Central Electricity Authority has also acknowledged the fact that in the underground cabling system, it is generally impossible to have illegal connection by tapping the conductor for theft of power.
- 3.4.14 Hence, it was decided in the meeting that the concerned officials would prepare a detailed plan for implementation of Underground of LT Network along with the tentative timelines and cost estimate for Stage I approval from the SAIL-BSL Management.
- 3.4.15 The SAIL-BSL had also formed internal committee to review the proposal and discuss various challenges of implementing underground network. The copy of the committee report is attached as an **Annexure I** of this petition.

- 3.4.16 Accordingly, SAIL-BSL humbly pray before Hon'ble Commission to allow SAIL-BSL to approach separately to the Hon'ble Commission in next tariff petition for the CAPEX approval of Installation of Smart Meters, after the Stage I approval.
- 3.4.17 Further, SAIL-BSL is striving hard to reduce distribution losses and has been timely introducing new initiatives to check the same, but on an overall basis the situation is largely uncontrollable due to legacy issues.
- 3.4.18 However, SAIL-BSL is committed to reduce the distribution loss level under the specified level determined by the Hon'ble Commission and believe that the actual loss level would come down only upon implementation of such initiatives.
- 3.4.19 Hence, in view of above where situation is largely uncontrollable, SAIL-BSL request Hon'ble Commission to approve a higher distribution loss as provided below:

Table 5: Distribution loss for SAIL-BSL for the FY 2023-24

| Particulars | FY 2023-24 | |
|--------------------------------------|------------|--------|
| | MYT Order | Actual |
| Distribution Loss of Township | 10.00% | 45.24% |

- 3.4.20 SAIL-BSL requests the Hon'ble Commission to approve the actual distribution loss of 45.24% for Township for FY 2023-24, as shown in the Table 5 above.

3.5 Energy Balance

- 3.5.1 The Hon'ble Commission had approved the distribution loss for the Steel plant as negligible in the MYT Order dated 07th June 2018, because the energy is supplied to the Steel Plant is primarily at 220 kV voltage level after December 2016.
- 3.5.2 SAIL-BSL humbly submits that energy requirement for Steel Plant has been taken as the actual energy consumption of the Steel Plant. Further, for the township, the actual a distribution loss based on actual energy sales, as discussed in the earlier section & the energy purchased at the township periphery for FY 2023-24 annexed as **Annexure F1 and F2**.
- 3.5.3 Accordingly, SAIL-BSL has computed the Energy Balance for FY 2023-24 and, as under Table 6:

Table 6: Energy Balance for FY 2023-24

| Particulars | Unit | FY 2023-24 | |
|---|------------|----------------|----------------|
| | | MYT Order | Actual |
| Energy Sales –Township | MUs | 206.68 | 169.11 |
| Distribution Losses (Township) | % | 10.00% | 45.24% |
| Energy required at township periphery | MUs | 229.65 | 308.84 |
| Steel Plant consumption | MUs | 1373.17 | 1135.19 |
| Total Energy Required at SAIL- BSL Periphery | MUs | 1602.82 | 1444.04 |

3.5.4 SAIL-BSL requests the Hon’ble Commission to approve the Energy Balance for FY 2023-24, as shown in the Table 6 above.

3.6 Power Procurement Plan

3.6.1 SAIL-BSL is in the power purchase agreement with the Damodar Valley Corporation (DVC) as annexed in **Annexure D**, which is a power generating company under the aegis of the Government of India and supplies power to them in accordance with the tariff approved in the MYT Order by the Commission for FY 2023-24.

3.6.2 As per the Order dated 20th June 2018 of this Hon’ble Commission in Case No. 07 of 2016, SAIL-BSL is exempted from Renewable Purchase Obligation (RPO) for the energy procured from DVC vide of JSERC dated. The relevant extracts are as follow:

“ ...The petitioner (SAIL, Bokaro Steel Plant), Bokaro Steel City is exempted from complying with the Renewable Purchase Obligation for the part of the power consumption which the petitioner is purchasing from DVC to the extent that it has to be complied by the DVC.”

3.6.3 SAIL-BSL has computed final power purchase cost based the average power purchase rate (Rs/kWh) of the monthly power purchase bills of DVC that is charged to the Steel Plant annexed as **Annexure C1** for FY 2023-24

3.6.4 Accordingly, SAIL-BSL has computed actual Power Procurement Cost for FY 2023-24, as under Table 7:

Table 7: Power Procurement Cost for FY 2023-24

| Particulars | Unit | FY 2023-24 | |
|-------------|------|------------|--------|
| | | MYT Order | Actual |

| | | | |
|---------------------------------------|------------------|---------------|---------------|
| Total Power Purchase | MUs | 1602.82 | 1444.04 |
| Power Purchase - Township | MUs | 229.65 | 308.84 |
| Power Purchase - Plant | MUs | 1373.17 | 1135.19 |
| Per Unit power purchase cost | Rs/kWh | 4.70 | 5.19 |
| Power Purchase Cost - Township | Rs. Crore | 107.93 | 160.30 |
| Power Purchase Cost -Plant | Rs. Crore | 645.39 | 589.21 |
| Total Power Purchase Cost | Rs. Crore | 753.32 | 749.52 |

3.6.5 **SAIL-BSL requests the Hon’ble Commission to approve the actual Power Purchase cost for township for FY 2023-24, as shown in the above Table 7.**

3.7 Operation and Maintenance Costs

3.7.1 The O&M expenses for FY 2023-24 is calculated by considering the actual O&M expenses incurred by TA-Electrical department based on the Clause 10.5 of Tariff Regulations, 2020. The relevant extract from the Regulations is detailed as below:

“10.5. The O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal Liabilities}$$

Where, R&M_n – Repair and Maintenance Costs of the Licensee for the nth year; EMP_n – Employee Costs of the Licensee for the nth year excluding terminal liabilities;

A&G_n – Administrative and General Costs of the Licensee for the nth year.”

3.7.2 The O&M expense incurred by DNW and ETL and are based on the ratio of energy transferred to the TA-Electrical to the total energy received (distribution capacity ratio).

Employee Expenses:

3.7.3 SAIL-BSL submits that amount to wages and salaries for officers and staff who are directly engaged in the electricity distribution business and employee expenses incurred on DNW and of ETL proportionately in the ratio of distribution capacity of TA-Electrical Department to the total capacity. The actual employee expenses have been less as the pay revision has not been implemented.

R&M expenditure:

- 3.7.4 SAIL-BSL submits that for distribution network, R&M expenses include expenditure on repairs and maintenance of distribution lines, power and distribution transformers, substation equipment, civil maintenance, spares, consumables, service contracts, complaints management etc. The expenditure has been considered on the basis of purchase orders identified by TA-Electrical. Similarly, expenses with regard to DNW and ETL have been considered based on distribution capacity ratio.

A&G expenses:

- 3.7.5 SAIL-BSL submits that, A&G expenses include items of expenditure incurred directly for managing the distribution business in licensed area. A&G expenses include regulatory and legal charges, consultancy charges, travel expenses, printing and stationery, press advertisement, telephone and mobile expenses, insurance premium, training, hired vehicle expenses, rent rates and taxes etc.
- 3.7.6 SAIL-BSL submits that the O&M costs are taken duly verified and audited report and these expenses have been computed after considering total expenses on this account for TA-Electrical. Similarly, expenses with regard to DNW and ETL have been considered based on distribution capacity ratio.
- 3.7.7 Accordingly, SAIL-BSL submits the Operating and Maintenance cost for FY 2023-24, as under Table 8:

Table 8: O&M Expense for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|---------------|------------|--------|
| | MYT Order | Actual |
| Emp. Expenses | 9.35 | 11.24 |
| R&M Expenses | 4.55 | 5.71 |
| A&G Expenses | 2.79 | 1.89 |
| O&M Expenses | 16.69 | 18.84 |

- 3.7.8 **SAIL-BSL requests the Hon'ble Commission to consider the actual O&M cost for township for FY 2023-24, as shown in the Table 8 above.**

3.8 Sharing of Gain/Losses

O&M Expenses

- 3.8.1 The relevant provisions of JSERC Regulations, 2020 stipulating the incentive and penalty framework with the overall aim to incentivise better performance

and penalise poor performance, compared to the performance norms/benchmarks specified by the Commission.

6.49. The gains/losses shall be computed on aggregate basis for controllable items such as Operation & Maintenance Expenses (excluding Terminal Liabilities), Distribution Losses and Collection Efficiency considered collectively on annual basis. The computations shall be based on the data submitted by the Licensee in the Annual Performance Review and audited annual accounts and shall be subject to prudence check by the Commission.

6.50 In case of aggregate gains, the aggregate gain shall be shared between the Licensee and the consumers in the ratio of 50:50 respectively.

6.51 The gains to be shared shall be passed on to the consumers through Tariff during the Annual Performance Review for each year of the Control Period.

6.52 In case of any loss on account of underperformance with respect to the controllable parameters, the Licensee shall bear the entire losses and no proportion of losses shall be passed on to the consumers.

- 3.8.2 The O & M expense of SAIL-BSL is higher than the norms specified for SAIL-BSL in the MYT Order dated 23rd June 2022. SAIL-BSL submits that the expenditure incurred for O & M expenses were controllable in nature which is not shared with the beneficiaries in line with the Regulation 6.52 of Tariff Regulations, 2020.

Table 9: Sharing of gain/loss for O&M Expense for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | | |
|-------------------------|------------|--------|----------------------|
| | MYT Order | Actual | Aggregate loss Share |
| O&M Expenses | 16.69 | 18.84 | -2.15 |

3.9 Gross Fixed Assets

- 3.9.1 The Hon'ble Commission has approved the installation of Arterial lights (Main Road Lights) in the Tariff Order dated 22.06.2023. It is submitted that the Hon'ble Commission has approved the CAPEX of Rs. 2.12 Crore for FY 2023-24 after scrutinising the supporting documents submitted by SAIL-BSL during the MYT petition filing.
- 3.9.2 SAIL-BSL humbly submits that in actual it has made a payment of Rs. 2.16 Crore during FY 2023-24. A payment advice from the contractor along with the cost benefit analysis regarding the Arterial lights is annexed as **Annexure K** of this petition.

- 3.9.3 The Hon'ble Commission has also approved the CAPEX for the feeder augmentation in the Tariff Order dated 22.06.2023. It is submitted that at the time of MYT Order the Hon'ble Commission has approved the CAPEX of Rs. 7.80 Crore for FY 2023-24 after scrutinising the supporting documents submitted by SAIL-BSL during the MYT petition filling.
- 3.9.4 SAIL-BSL humbly submits that in actual it has made a payment of Rs. 5.02 Crore during FY 2032-24. A payment advice from the contractor regarding the feeder augmentation is annexed as **Annexure L** of this petition.
- 3.9.5 The Hon'ble Commission has also approved Rs. 0.57 Crore. for 30 No's of High Mast Towers with LED Fixture in BSL township in FY 2024-25. Further, SAIL-BSL has finalised the contract agreement with the vendor. The Contract agreement copy is annexed as **Annexure M** of this Petition.
- 3.9.6 SAIL-BSL humbly submits that in actual it has made a payment of Rs. 1.14 Crore during FY 2023-24. A payment advice from the contractor along with the cost benefit analysis regarding the 30 high mast is annexed as **Annexure M** of this petition.
- 3.9.7 SAIL-BSL intends to capitalise the left-over project in FY 2024-25 and FY 2025-26 ensuring the timely completion as per the tentative project schedule.
- 3.9.8 SAIL- BSL humbly submits that the capitalisation of Rs. 0.61 Crore and Rs. 0.86 Crore in FY 2024-25 regarding schemes "Procurement of 8 nos. of Squirrel cage Induction Motors" and "Procurement of 60 nos. of LT Distribution Panel" respectively. Further, SAIL-BSL has submits the relevant documents **in Annexure M2 and M3** of this petition.
- 3.9.9 Further, SAIL-BSL requests the Hon'ble Commission to approve the capitalisation for FY 2024-25.
- 3.9.10 SAIL-BSL humbly submits that it has claimed the CAPEX for procurement of wires and cables under R&M expense duly certified by the auditors as Annexed in **Annexure A**.
- 3.9.11 SAIL-BSL humbly submits the additional capitalisation of Rs. 17.35 Crore in a year FY 2023-24 for the schemes under arterial light by Octagonal Pole with LED Fixture, provision of 30 nos of High Mast Tower with LED, augmentation of 11kV Power Distribution System.
- 3.9.12 Accordingly, SAIL-BSL has provided Gross Fixed Assets for FY 2023-24 has detailed below:

Table 10: Gross Fixed Asset (GFA) for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|-----------------------------------|------------|--------|
| | MYT Order | Actual |
| Opening GFA | 59.73 | 45.04 |
| Capitalization during the Year | 11.49 | 17.35 |
| De-Capitalization during the Year | 0.00 | 0.00 |
| Closing GFA | 71.22 | 62.39 |

3.9.13 SAIL-BSL requests the Hon'ble Commission to approve the actual GFA for township for FY 2023-24, as shown in the Table 10 above.

3.10 Consumer Contribution, Grants and Subsidies

3.10.1 Regulation 10.11, 10.28 and 10.34 of the Tariff Regulations, 2020, specifies the methodology to deal with Consumer Contribution, Grants and Subsidies for FY 2023-24. The relevant extracts are as follow:

"10.11 The amount funded through Consumer Contribution, Grants or Deposit Works for connection to the distribution system of the Licensee shall be deducted from the original cost of the scheme for the purpose of calculating the amount under debt and equity under these Regulations.

10.28 The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Grants or Deposit Works carried out by Distribution Licensee

10.34 Depreciation shall be calculated every year on the amount of original cost of the fixed assets as admitted by the Commission:

Provided that depreciation shall not be allowed on assets funded by Consumer Contribution and Capital Subsidies/Grants. Provision for replacement of such assets shall be made in the Capital Investment Plan."

3.10.2 SAIL-BSL humbly submits that there are no consumer contributions/grants towards GFA creation and accordingly the same has not been considered for computation of GFA and depreciation thereon.

3.10.3 Accordingly, SAIL-BSL submits the Hon'ble Commission that there is not any Consumer Contribution, Grants or Subsidies for FY 2023-24.

3.11 Depreciation

3.11.1 Regulations 10.36 to 10.39 of the Tariff Regulations, 2020, specifies the determination of depreciation for the FY 2021-22. The relevant extracts are as follow:

10.36 Depreciation shall be calculated annually, based on the straight-line method at the rates specified at Appendix-I. The base value for the purpose of depreciation shall be original cost of the asset: Provided that the Distribution Licensee shall ensure that once the individual asset is depreciated to the extent of seventy (70) percent of the Book Value of that asset, remaining depreciable value as on March 31 of the year closing shall be spread over the balance useful life of the asset.

10.39 The Commission may, in the absence of the Fixed Assets Register, calculate Depreciation (%) arrived by dividing the Depreciation and the Average Gross Fixed Assets as per the latest available Audited Accounts of the Distribution Licensee. The Depreciation (%) so arrived shall be multiplied by the Average GFA approved by the Commission for the relevant Financial Year to arrive at the Depreciation for that Financial Year.

- 3.11.2 SAIL-BSL has computed the depreciation as per the Straight-Line Method and has considered depreciation rates as specified in Tariff Regulation, 2020.
- 3.11.3 Accordingly, SAIL-BSL has computed Depreciation for FY 2023-24, as under:

Table 11: Depreciation for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|---------------------------|-------------|-------------|
| | MYT Order | Actual |
| Opening Gross Block | 59.73 | 45.04 |
| Additional Capitalization | 11.49 | 17.35 |
| Closing Gross Block | 71.22 | 62.39 |
| Average Gross Block | 65.48 | 53.72 |
| Rate of Depreciation | 4.22% | 4.22% |
| Depreciation | 2.76 | 2.27 |

- 3.11.4 SAIL-BSL requests the Hon'ble Commission to approve the actual Depreciation for township for FY 2023-24, as shown in the Table 11 above.

3.12 Interest on Loan

- 3.12.1 Regulation 10.16 and 10.17 of the Tariff Regulations, 2020, specify the Debt: Equity ratio for determination of Interest on Loan and Return on Equity for the FY 2021-22. The relevant extracts are as follow:

"10.16. Existing Schemes - In case of capital expenditure schemes capitalised prior to April 01, 2021, the debt-equity ratio as allowed by the Commission

for determination of tariff for the period ending March 31, 2021 shall be considered.

10.17 New Schemes – For capital expenditure schemes capitalised after April 01, 2021:

- a) A normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff;*
- b) In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;*
- c) In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered;*
- d) The premium, if any raised by the Licensee while issuing share capital and investment of internal accruals created out of free reserve, shall also be reckoned as paid-up capital for the purpose of computing return on equity, provided such premium amount and internal accruals are actually utilized for meeting capital expenditure.”*

3.12.2 Regulation 10.26 of the Tariff Regulations 2020 specifies the rate of interest on loan capital. The relevant extracts are as follow:

“10.26. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Licensee:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, then the rate of interest shall be considered on normative basis and shall be equal to the Bank Rate as on April 01 of the respective year of the Control Period plus 200 basis points”.

3.12.3 SAIL-BSL humbly submits that, it has not availed any loan from external agencies and financing to distribution operation of SAIL-BSL licensee is done through its own equity funding. Accordingly, it has considered the normative debt 70% for computation. SAIL-BSL has prepared the debt schedule by considering the figure of closing debt as per the schedule of FY 2023-24.

3.12.4 The base rate of SBI, applicable for FY 2023-24 as 8.50%. Further, for the purpose of considering interest on loan, a rate of interest of 10.50%, has been computed considering SBI base rate dated 15th March 2023 plus 200 basis points.

3.12.5 Accordingly, SAIL-BSL has computed the Interest on Loan for FY 2023-24, as under:

Table 12: Interest on Loan for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|---------------------------|-------------|-------------|
| | MYT Order | Actual |
| Net Loan-Opening | 24.11 | 14.25 |
| Additions during the year | 8.04 | 12.15 |
| Repayment during the Year | 2.76 | 2.27 |
| Net Loan- closing | 29.39 | 24.13 |
| Average Loan | 26.75 | 19.19 |
| Interest on Loan (%) | 9.00% | 10.50% |
| Interest on Loan | 2.41 | 2.01 |

3.12.6 SAIL-BSL requests the Hon'ble Commission to approve the actual Interest on Loan for township for FY 2023-24, as shown in the Table 12 above.

3.13 Interest on Working Capital

3.13.1 Regulation 10.31 of the Tariff Regulations, 2020, specifies the methodology to calculate the Interest on Working Capital. The relevant extracts are as follow:

“6.30. Working capital for Retail Supply of Electricity for the Control Period shall consist of:

a) Maintenance spares at 1% of Opening GFA for Retail Supply Business; plus

b) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus

c) Amount held as security deposits under Clause (a) and Clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users net of any security held for Wheeling Business; minus

d) One-month equivalent of cost of power purchased including the Inter-State and Intra-State Transmission Charges and Load Despatch Charges, based on the annual power procurement plan.

3.13.2 Further, Regulation 10.32 of the Tariff Regulations 2020, specifies the rate of Interest on Working capital. The relevant extracts are as follow:

“10.32 Rate of interest on working capital shall be equal to the Bank Rate as on September 30 of the financial year in which the MYT Petition is filed plus

350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on April 01 of the financial year for which truing up exercise has been undertaken.”

3.13.3 As per the above provisions of Tariff Regulations 2020, SAIL-BSL has considered the working capital requirement for FY 2023-24. The base rate of SBI, applicable for FY 2023-24 as 8.50%. Further, for the purpose of considering interest on working capital, a rate of interest of 12.00%, has been computed considering SBI base rate dated 15th March 2023 plus 350 basis points. Accordingly, SAIL-BSL has considered the Interest on Working capital for FY 2023-24 as under:

Table 13: Interest on Working Capital for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|--|-------------|--------------|
| | MYT Order | Actual |
| Maintenance spares 1% of opening GFA | 0.60 | 0.45 |
| 2 Months Revenue | 134.49 | 11.87 |
| Less: 1 month of power purchase cost | -62.83 | -13.36 |
| Total Working Capital | 72.26 | -1.04 |
| S.B.I. base rate | 10.50% | 12.00% |
| Interest in Working Capital in Rs. Core | 7.59 | -0.12 |

3.13.4 SAIL-BSL requests the Hon’ble Commission to approve the actual Interest on Working Capital for township for FY 2023-24, as shown in the Table 13 above.

3.14 Return on Equity

3.14.1 Regulation 10.19 of the Tariff Regulation 2020 specifies the methodology to calculate the Return on Equity. The relevant extracts are as follow:

“10.19. The rate of return on equity shall be 14.50% (post-tax) for the Control Period.”

10.20. Return on equity shall be allowed on equity employed in assets in use considering the following:

- Equity employed in accordance with Clause 10.16 of these Regulations on assets (in use) capitalised as on the beginning of the year; and*
- Average 50% of the equity projected to be employed in accordance with Clause 10.17 of these Regulations on assets (in use) commissioned during the year.*

3.14.2 SAIL-BSL has considered the opening of equity for FY 2023-24 as the closing equity of FY 2022-23. Further, the average rate of return of 14.50 % has been applied to arrive at the return on equity.

3.14.3 Accordingly, SAIL-BSL has computed the Return on Equity for FY 2023-24, as under:

Table 14: Return on Equity for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | |
|-------------------------|-------------|-------------|
| | MYT Order | Actual |
| Opening Equity | 17.91 | 13.50 |
| Additions | 3.45 | 5.21 |
| Closing Equity | 21.36 | 18.71 |
| Average Equity | 19.64 | 16.10 |
| Rate of Return | 14.50% | 14.50% |
| Return on Equity | 2.85 | 2.33 |

3.14.4 SAIL-BSL requests the Hon'ble Commission to approve the actual Return on Equity for township for FY 2023-24, as shown in the above Table 14 above.

3.15 Summary of ARR for FY 2023-24

3.15.1 SAIL-BSL submits the actual ARR for FY 2023-24 based on the certified audited report and is summarized in the table below:

Table 15: Summary of ARR components for FY 2023-24 (Rs. Crore)

| Particulars | | FY 2023-24 | |
|---|---|-------------|-------------|
| | | MYT Order | Actual |
| Power Purchase Cost (Township Only) | 1 | 107.93 | 160.30 |
| Power Purchase Cost (including Steel Plant) | 2 | 753.32 | 749.52 |
| Employee Cost | 3 | 9.35 | 11.24 |
| R&M Expenses | | 4.55 | 5.71 |
| A&G Expenses | | 2.79 | 1.89 |
| Depreciation | | 2.76 | 2.27 |
| Interest on Loan | | 2.41 | 2.01 |

| Particulars | | FY 2023-24 | |
|--|------------------|---------------|---------------|
| | | MYT Order | Actual |
| Return on Equity | | 2.85 | 2.33 |
| Interest on Working Capital | | 7.59 | -0.12 |
| Sharing of Gain& Losses | | | -2.15 |
| Total Annual Revenue Requirement (Township Only) | 4 = (1+3) | 140.23 | 183.48 |
| Total Annual Revenue Requirement (including Steel Plant also) | 5= (4+2) | 785.62 | 772.70 |

3.15.2 Further, as per Regulation 6.8 of the JSERC (Power Regulatory Accounting) Regulations, 2020. The allocation ratios considered as per the Regulations is tabulated below:

Table 16: Segregation of Distribution Assets

| Particulars | Share of Supply Business | Share of Wire Business |
|---|--------------------------|------------------------|
| Power Purchase (Including PGCIL & RLDC Charges) | 100% | 0% |
| Employee Expenses | 40% | 60% |
| A&G Expenses | 50% | 50% |
| R&M Expenses | 10% | 90% |
| Depreciation | 10% | 90% |
| Interest Cost | 10% | 90% |
| Interest on Working Capital | 90% | 10% |
| Return on Equity | 10% | 90% |
| Interest on Security Deposit | 100% | 0% |
| Non-Tariff Income | 90% | 10% |
| Taxes on Income | 10% | 90% |

3.15.3 Considering the general principle of segregation of assets as specified in the above table, SAIL-BSL has computed the Wheeling ARR and Retail Supply ARR for FY 2023-24 are summarized in the table below:

Table 17: Summary of ARR for Retail Supply and Wheeling for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 | | | |
|--------------------------------------|---------------|---------------|--------------|--------------|
| | MYT Order | Actual | MYT Order | Actual |
| | Retail | | Wheeling | |
| PPC (Township Only) | 107.93 | 160.30 | 0.00 | 0.00 |
| PPC (including Steel Plant) | 753.32 | 749.52 | 0.00 | 0.00 |
| Employee Cost | 3.74 | 4.50 | 5.61 | 6.74 |
| R&M Expenses | 0.46 | 0.57 | 4.10 | 5.14 |
| A&G Expenses | 1.40 | 0.95 | 1.40 | 0.95 |
| Depreciation | 0.28 | 0.23 | 2.49 | 2.04 |
| Interest on Loan | 0.24 | 0.20 | 2.17 | 1.81 |
| Return on Equity | 0.28 | 0.23 | 2.56 | 2.10 |
| Interest on Working Capital | 6.83 | -0.11 | 0.76 | -0.01 |
| Sharing of Gains/losses | | -2.15 | 0.00 | 0.00 |
| Total ARR (Excl. Steel Plant) | 121.15 | 164.71 | 19.07 | 18.77 |

3.15.4 SAIL-BSL requests the Hon'ble Commission to approve the actual ARR for township for FY 2023-24, as shown in the Table 17 above.

3.16 Revenue at Existing Tariff for FY 2023-24

3.16.1 Based on the duly verified audited account the revenue from sale of power at existing tariff for FY 2022-23 is as under:

Table 18: Total revenue at existing tariff for FY 2023-24 (Rs. Crores)

| Category | FY 2023-24 |
|----------------------|--------------|
| Total Revenue | 71.23 |

3.17 Average Billing Rate (ABR) and Average Revenue Realization (ARR) at Existing Revenue for FY 2023-24 (Rs. Crores)

3.17.1 The ABR has been calculated by taking actual consumption of 169.11 MUs and by taking actual billed revenue of Rs. 87.07 crores. The ARR has been calculated by removing the 29.72 MUs of HT/LT category consumption (it has been normalized using a 45.24% loss) from total input energy of 308.84 MUs of energy consumption, since the HT/LT category revenue is not being considered as revenue in the audited accounts. Hence, to normalize, the HT/LT

category's energy consumption, a total of 43 MUs has been reduced from total input energy of 308.84 for calculating ARR.

Table 19: ARR and ABR at Existing Revenue for FY 2023-24 (Rs. Crores)

| Category | Consumption-Slab-wise (MU) | Revenues in Cr. | ABR (Rs./Unit) |
|----------|----------------------------|-----------------|----------------|
| ABR | 169.11 | 87.07 | 5.15 |
| ARR | 265.67 | 71.23 | 2.68 |

3.18 Summary of Revenue Surplus/Gap

3.18.1 Based on the actual revenue from sale of power at existing tariff, the revenue (surplus)/gap are calculated as under:

Table 20: Summary of revenue (Surplus)/Gap for FY 2023-24 (Rs. Crore)

| Particulars | FY 2023-24 |
|--|------------|
| Annual Revenue Requirement | 183.48 |
| Revenue from Distribution of Electricity | 71.23 |
| Revenue (Surplus)/Gap for the year | 112.25 |

4 ANNUAL PERFORMANCE REVIEW OF FY 2024-25

4.1 Background

- 4.1.1 The provision of Regulation A8 of Tariff Regulations, 2020 for Annual Performance Review detailed as below:

“8.1. The Licensee shall submit along with the application for Annual Performance Review, details of category-wise and voltage-wise sales, contracted demand and number of consumers, source-wise power purchase quantum and cost, details of capital expenditure, additional capitalization, sources of financing, operation and maintenance expenditure, actual loan portfolio with the interest paid along with other components of ARR incurred/projected to be incurred for the year under review, as per the timelines stipulated in Section A 24.

.....

8.3. The Scope of the Annual Performance Review shall be comparison of the approved expenses vis-à-vis revised estimates for the year(s) and shall comprise the following:

a) Comparison of Approved Capital Expenditure and Capitalisation vis-à-vis revised estimates by the Licensee based on the latest actual data available.

b) Comparison of Sales and Power Purchase required to meet the requisite Sales approved by the Commission vis-à-vis the revised estimates by the Licensee based on the latest actual data available.

c) Comparison of Other Expenses such as Interest on Loan, Interest on Working Capital, Return on Equity, Depreciation and O&M Expenses approved by the Commission vis-à-vis the revised estimates by the Licensee based on the latest actual data available.

d) Computation of the sharing of gains and losses on account of controllable factors for the previous year.

e) Approved Revenue vis-à-vis revised estimates based on the latest actual data available.

f) Any other Expenses/Revenues impacting ARR.”

- 4.1.2 Accordingly, SAIL-BSL submits its APR for FY 2024-25 in this section of the present petition.

- 4.1.3 For the purpose of present petition, SAIL-BSL has considered the actual available data to first half of FY 2024-25, the energy sales, Connected Load and No. of Consumers the data for 6 months was available at the time of petition filling.
- 4.1.4 Also, the power purchase cost is computed based on the DVC bills issued during FY 2024-25 for April to September month and the energy sales at township periphery taking actual distribution loss for April to September month in consideration.
- 4.1.5 In view of the above SAIL BSL humbly prays before Hon'ble Commission to approve the APR of FY 2024-25 as submitted in this section and allow SAIL BSL to file truing up petition of FY 2024-25 before Hon'ble Commission as per the schedule of Tariff Regulations, 2020.

4.2 Energy Sales

- 4.2.1 SAIL-BSL humbly submits, the actual No. of Consumers, Energy Sales, and Connected load, for Township and Steel Plant for FY 2024-25 based on the data available in the SAP. The Category-wise No. of consumer for FY 2024-25 are as under in Table 21:

Table 2121: Category-wise No. of Consumers for FY 2024-25

| Category | FY 2024-25 | |
|-----------------------|--------------|---------------------|
| | MYT Order | Estimated (Apr-Mar) |
| DS-LT | 28939 | 32127 |
| DS-HT | 5 | 7 |
| CS | 1979 | 1937 |
| LTIS | 34 | 38 |
| HTS | 24 | 28 |
| HT/LT | 656 | 656 |
| Township Total | 31637 | 34794 |
| Steel Plant | 1 | 1 |
| GRAND TOTAL | 31638 | 34795 |

- 4.2.2 The category-wise actual connected load for FY 2024-25 is as under in Table 22:

Table 2222: Category-wise Connected Load for FY 2024-25

| Category | FY 2024-25 | |
|--------------------|------------|---------------------|
| | MYT Order | Estimated (Apr-Mar) |
| DS-LT | 98,932 | 90,054 |
| DS-HT | 4,815 | 5,053 |
| CS | 25,963 | 24,854 |
| LTIS | 1,034 | 928 |
| HTS | 8,108 | 11,589 |
| HT/LT | 35,359 | 36,596 |
| Steel Plant | 45 | 45 |

4.2.3 The actual category-wise Energy Sales for FY 2024-25 is as under in Table 23:

Table 2323: Category-wise Energy Sales for FY 2024-25 (MUs)

| Category | FY 2024-25 | |
|-----------------------|----------------|---------------------|
| | MYT Order | Estimated (Apr-Mar) |
| DS-LT | 108.83 | 93.17 |
| DS-HT | 6.27 | 8.72 |
| CS | 19.12 | 28.83 |
| LTIS | 0.45 | 0.60 |
| HTS | 12.45 | 10.77 |
| HT/LT | 67.19 | 29.72 |
| Township Total | 214.31 | 171.82 |
| Steel Plant | 1510.49 | 1347.89 |
| GRAND TOTAL | 1724.80 | 1519.70 |

4.2.4 SAIL-BSL submits that, the No. of Consumers, energy sales and Connected Load for the period of April 2024 to September 2024 is based on the unaudited accounts.

4.2.5 Further, the No. of Consumers, energy sales and Connected Load for the period of October 2024 to March 2025 is projected based on the 5 Year CAGR from FY 2019 to FY 2024, taking base as FY 2023-24.

4.2.6 **SAIL-BSL requests the Hon'ble Commission to approve the projected energy sales for FY 2023-24 based on the unaudited report, as shown in the Table 23 above.**

4.3 Distribution Loss

4.3.1 In the above section, SAIL-BSL submits unaudited billed energy in the township and the power purchase at township periphery up to Sep 2024 as annexed in **Annexure E and F2**. Further, for the period of October 2024 to March 2025, SAIL-BSL has estimated the billed energy in the township and the power purchase at township periphery to tune the distribution loss as 10% for the period of FY 2024-25.

4.3.2 SAIL-BSL submits that it is committed to reduce the distribution loss level under the specified level determined by the Hon'ble Commission. Accordingly, it has taken concrete steps in this regard such as smart meter and laying LT underground cables as discussed in Para 3.4.7 to 3.4.14.

4.3.3 At present both of these initiatives are under discussion stage at higher management level. SAIL-BSL humbly prays before Hon'ble Commission to allow SAIL-BSL to approach separately to the Hon'ble Commission in next tariff petition for the CAPEX approval, after the Stage I approval.

4.3.4 SAIL-BSL humbly submits that the actual loss level would come down only upon implementation of such initiatives. Hence, SAIL-BSL request Hon'ble Commission to approve the actual distribution loss for FY 2024-25 as provided below:

Table 2424: Distribution loss for SAIL-BSL for the FY 2024-25

| Particulars | FY 2023-24 | |
|--------------------------------------|------------|-------------------------------|
| | MYT Order | Estimated (April. - March) |
| Distribution Loss of Township | 10.00% | 45.17% |

4.3.5 **SAIL-BSL requests the Hon'ble Commission to approve the distribution loss for the FY 2024-25, as shown in the above Table 24. Any deviation shall be claimed at the time of Truing-up.**

4.4 Energy Balance

4.4.1 SAIL-BSL has arrived at the Energy Balance for FY 2024-25 based on the actual unaudited sales and distribution loss as discussed in the above Sections.

- 4.4.2 Further, SAIL-BSL considered the distribution loss only on the Township and not on the steel plant consumption.
- 4.4.3 Accordingly, SAIL-BSL has submitted the Energy Requirement for the FY 2024-25, as under:

Table 2525: Energy Balance for FY 2024-25

| Particulars | Unit | FY 2024-25 | |
|---|------------|----------------|---------------------------|
| | | MYT Order | Estimated (April. -March) |
| Energy Sales –Township | Mus | 214.31 | 171.82 |
| Distribution Losses (Township) | % | 10.00% | 45.17% |
| Energy required at township periphery | Mus | 238.12 | 313.35 |
| Steel Plant consumption | Mus | 1510.49 | 1347.89 |
| Total Energy Required at SAIL- BSL Periphery | Mus | 1748.61 | 1661.24 |

- 4.4.4 **SAIL-BSL requests the Hon’ble Commission to approve the Energy Balance for FY 2024-25, as shown in the Table 25 above. Any deviation shall be claimed at the time of Truing-up.**

4.5 Power Purchase Cost

- 4.5.1 As discussed in the Para 3.6.1 that SAIL-BSL is in the power purchase agreement with the DVC and intends to continue the same during the FY 2024-25 for procurement of power.
- 4.5.2 SAIL-BSL is exempted from RPO for the energy procured from DVC vide Case No. 07 of 2016 of JSERC dated 20.06.2018. The relevant extracts are as follow:

“The petitioner (SAIL, Bokaro Steel Plant), Bokaro Steel City is exempted from complying with the Renewable Purchase Obligation for the part of the power consumption which the petitioner is purchasing from DVC to the extent that it has to be complied by the DVC.”

- 4.5.3 Based on the actual energy bills of DVC to SAIL-BSL up to September 2024 based on the actual Energy bills as Annexed as **Annexure C1 and C2**, the rate of Rs. 4.71 /kWh is computed. Further, the per unit power purchase rate for the next 6 month i.e. October 2024 to March 2025 is considered as an average power purchase rate of the last 6 months, i.e. April 2024 to September 2024.

- 4.5.4 Accordingly, SAIL-BSL has submitted the Power Purchase Cost for the FY 2024-25 based on the projected energy received at the township Periphery, as under:

Table 2626: Power Procurement Cost for FY 2024-25

| Particulars | Unit | FY 2024-25 | |
|---------------------------------------|------------------|---------------|-----------------------|
| | | MYT Order | Estimated (Apr-March) |
| Total Power Purchase | MUs | 1748.61 | 1661.24 |
| Power Purchase - Township | MUs | 238.12 | 313.35 |
| Power Purchase - Plant | MUs | 1510.49 | 1347.89 |
| Per Unit power purchase cost | Rs/kWh | 4.89 | 4.64 |
| Power Purchase Cost - Township | Rs. Crore | 116.44 | 145.48 |
| Power Purchase Cost- Plant | Rs. Crore | 738.63 | 625.78 |
| Total Power Purchase Cost | Rs. Crore | 855.07 | 771.26 |

- 4.5.5 SAIL-BSL requests the Hon'ble Commission to approve the estimated Power Purchase cost for township for FY 2024-25, as shown in the above Table 26. Any deviation shall be claimed at the time of Truing-up.

4.6 Operation and Maintenance Costs

- 4.6.1 The Regulation 10.3 to 10.7 of the Tariff Regulations 2020 specifies the methodology for the determination of O&M expenses for the Control Period from FY 2021-22 to FY 2025-26. The relevant extract from the Regulation is as below:

“10.3 Operation and Maintenance (O&M) Expenses shall include:

- a) Salaries, wages, pension contribution and other employee costs;*
- b) Administrative and General Expenses;*
- c) Repairs and Maintenance Expenses.*

10.4 The O&M Expenses for the Base Year of the Control Period shall be approved by the Commission taking into account the audited accounts of FY 2015-16 to FY 2019-20, Business Plan filed by the Licensee, estimates of the actual for the Base Year, prudence check and any other factor considered appropriate by the Commission;

10.5 The O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal Liabilities}$$

Where,

R&M_n – Repair and Maintenance Costs of the Licensee for the nth year;

EMP_n – Employee Costs of the Licensee for the nth year excluding terminal

liabilities;

A&G_n – Administrative and General Costs of the Licensee for the nth year.

10.6: The above components shall be computed in the manner specified below:

$$\mathbf{R\&M_n = K * GFA * (INDX_n / INDX_{n-1})}$$

Where,

‘K’ is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and shall be calculated based on the % of R&M to GFA of the preceding year of the Base Year in the MYT Order after normalising any abnormal expenses ‘GFA’ is the opening value of the gross fixed asset of the nth year;

$$\mathbf{EMP_n + A\&G_n = [(EMP_{n-1}) * (1 + G_n) + (A\&G_{n-1})] * (INDX_n / INDX_{n-1})}$$

Where,

EMP_{n-1} – Employee Costs of the Licensee for the (n-1)th year excluding terminal liabilities;

A&G_{n-1} – Administrative and General Costs of the Licensee for the (n-1)th year excluding legal/litigation expenses;

INDX_n – Inflation factor to be used for indexing the employee cost and A&G cost.

This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

G_n – is a growth factor for the nth year and it can be greater than or lesser than zero based on the actual performance. Value of G_n shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Distribution Licensee’s Filing, benchmarking and any other factor that the Commission feels appropriate;

$$\mathbf{INDX_n = 0.55 * CPI_n + 0.45 * WPI_n;}$$

10.7 The Distribution Licensee, in addition to the above details shall also submit the detailed break-up of the Legal/Litigation Expenses for the previous Years (FY 2015-16 to FY 2019-20) along with the details and documentary evidence of incurring such expenses. The Commission shall approve the legal expenses as per the relevant provisions of the Jharkhand State Litigation Policy based on the necessary documentary evidence submitted for the Control Period and shall carry out due prudence check of legal expenses at the time of truing up.”

- 4.6.2 SAIL- BSL has integrated its various processes relating to inventory management, procurement and contracts, project management, Human Resources viz. payroll, leave management, performance management and finance & accounts through implementation of Enterprise Resource Planning (ERP) Software which has brought about a positive paradigm shift in the manner in which business is conducted.

All transactions related to the above processes are conducted online thus bringing about a quantum improvement in efficiency and eliminating time consuming manual or repetitive transactions while enhancing the checks and balances that are so necessary now a days.

- 4.6.3 It is submitted that the employee costs are dependent upon many factors, such as the growth in economy in general and the sector in particular, requirement and availability of personnel with the requisite skill sets, etc. It may be further appreciated that in order to obtain commitment from the personnel, outstanding performance, loyalty, etc., which are a critical pre-requisite for any organization, especially a service utility, the organization must meet the rational needs of the personnel. Market equivalent salaries and growth are hygiene factors for retaining the employees and it is imperative to meet these as a first step towards building a committed, loyal and performing workforce.
- 4.6.4 SAIL-BSL has made its projections for the FY 2024-25 based on Regulation 10.6 of the Tariff Regulations, 2020. The escalation factor has been estimated in line with Regulation 10.6 whereby the Wholesale Price Index (WPI) and Consumer Price Index (CPI) for FY 2023-24 have been computed and a weighted average rate has been arrived at by giving 45% weightage to WPI and 55% weightage to CPI. Inflation factor has been computed as per applicable rates of WPI and CPI and is arrived at 5.30%.
- 4.6.5 The R&M expenditure incurred by the distribution licensee is a function of the network condition of the licensee. The network condition would depend on the condition of the assets and subsequent augmentation/ strengthening/ capex undertaken by the Licensee. Benchmarking with other utilities in other State jurisdictions for the R&M expenditure therefore may not provide an appropriate indication. The K factor need to be customized for each distribution licensee considering the above and may vary across years based on the capital expenditure in the previous years together with expenditure incurred during the year. Accordingly, the K factor if computed as 7.17% as per Regulation 10.6 of Tariff Regulation 2020.
- 4.6.6 The estimated Operating and Maintenance cost for FY 2024-25, as under:

Table 2727: O&M Expense for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|-------------------------|--------------|-----------------------|
| | MYT Order | Estimated (Apr-March) |
| Emp. Expenses | 9.92 | 11.04 |
| R&M Expenses | 5.42 | 4.40 |
| A&G Expenses | 2.96 | 1.88 |
| O&M Expenses | 18.30 | 17.32 |

4.6.7 **SAIL-BSL requests the Hon'ble Commission to approve estimated Operations & Maintenance for the FY 2024-25, as shown in the above Table 27. Any deviation from the estimated sales shall be claimed at the time of final Truing-up.**

4.7 Gross Fixed Assets

4.7.1 SAIL-BSL humbly prays before the Hon'ble Commission the current earthing infrastructure in the substations is antiquated and significantly depleted, resulting in damages to transformers and consumer equipment.

4.7.2 Accordingly, to address these issues, SAIL BSL intends to adopt new technology in the form of chemical earthing, known for its extended lifespan and minimal maintenance requirements

4.7.3 SAIL-BSL humbly submits that the Commission has approved Rs. 4.49 Crore for chemical earthing in order dated 20 August 2024. And in actual it has made a payment of Rs. 2.05 Crore during FY 2024-25. A payment advice from the contractor along with the cost benefit analysis regarding the Chemical earthing is annexed as **Annexure CE** of this petition.

4.7.4 **Thus, SAIL-BSL submits that the capitalisation of whole scheme of Rs. 2.05 Crore in FY 2024-25 only.**

4.7.5 Further, Hon'ble Commission in the Tariff Order dated 22.06.2023, also acknowledged the CAPEX for Underground LT Network development, Installation of Smart meter, and Installation of Energy saving dimmable LED streetlights (Smart Street light Solution) and allowed SAIL-BSL for approval of these schemes in the subsequent tariff petition.

4.7.6 Accordingly, SAIL-BSL submits the CAPEX and Capitalisation for Smart Street light Solution for the digital transformation in SAIL-BSL for harnessing the potential of latest advances in the field of IoT/AI/ML.

- 4.7.7 In this regard, an Expression of Interest was floated to capture relevant projects across different areas. Further, multiple projects were selected on the basis of cost, quality and benefits.
- 4.7.8 In order dated 20 August 2024, the Commission has approved Capex of Rs. 0.50 Crore for the Smart Street Lightning Solution.
- 4.7.9 **SAIL-BSL submits no capitalisation of whole scheme in FY 2024-25, however proposed the approved capitalisation of the scheme in FY 2025-26.**
- 4.7.10 SAIL- BSL humbly submits that the capex of Rs. 8.10 Crore, Rs. 3.60 Crore and Rs. 0.02 Crore in FY 2024-25 regarding schemes “Procurement of 60 nos. of 800 KVA Distribution transformer”, “Procurement of 60 nos. of LT Distribution Panel” and “Procurement of LT Motors” respectively. Further, SAIL-BSL has submits the relevant documents **in Annexure G3** of this petition.
- 4.7.11 Further, SAIL-BSL requests the Hon’ble Commission to approve the capitalisation for FY 2025-26.
- 4.7.12 Accordingly, SAIL-BSL has claimed capitalisation of the above scheme in FY 2024-25 as detailed below:

Table 2828: Gross Fixed Asset (GFA) for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|--------------------------------|------------|-----------|
| | MYT Order | Estimated |
| Opening GFA | 71.22 | 62.39 |
| Capitalization during the Year | 1.00 | 23.56 |
| Closing GFA | 72.22 | 85.95 |

- 4.7.13 Also, SAIL-BSL humbly submits before the Hon’ble Commission that SAIL-BSL has not capitalised any amount for Procurement of cables, wiring and other materials.
- 4.7.14 **SAIL-BSL requests the Hon'ble Commission to approve GFA for the FY 2024-25, as shown in the above Table 28. Any deviation shall be claimed at the time of Truing-up based on the audited report.**

4.8 Consumer Contribution, Grants and Subsidies

- 4.8.1 Regulation 10.11, 10.28 and 10.34 of the Tariff Regulations, 2020, specifies the methodology to deal with Consumer Contribution, Grants and Subsidies for FY 2024-25.

4.8.2 SAIL-BSL humbly submits that there are no consumer contributions/grants towards GFA creation and accordingly the same has not been considered for computation of GFA and depreciation thereon.

4.8.3 **SAIL-BSL submits the Hon'ble Commission that there is no Consumer Contribution, Grants or Subsidies for FY 2024-25.**

4.9 Depreciation

4.9.1 Regulations 10.36 to 10.39 of the Tariff Regulations, 2020, specifies the determination of depreciation for Control Period from FY 2021-22 to FY 2025-26.

4.9.2 SAIL-BSL has considered the opening Gross Fixed Assets of FY 2024-25 as the closing balance of FY 2023-24. Based on the Opening GFA of FY 2023-24, the additions in GFA for FY 2023-24 has been added to arrive at the closing GFA figures for the FY 2024-25 Further, the depreciation rate of 4.22 % has been considered as approved by the Commission in MYT Order.

4.9.3 The computation of depreciation is based on the Straight-Line Method as prescribed in the Tariff Regulations, 2020 issued by the Hon'ble Commission.

4.9.4 Accordingly, SAIL-BSL has projected the Depreciation for the FY 2024-25, as under:

Table 2929: Depreciation for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|---------------------------|-------------|-----------------------------|
| | MYT Order | Estimated (April -March) |
| Opening Gross Block | 71.22 | 62.39 |
| Additional Capitalization | 1.00 | 23.56 |
| Closing Gross Block | 72.22 | 85.95 |
| Average Gross Block | 71.72 | 74.17 |
| Rate of Depreciation | 4.22% | 4.22% |
| Depreciation | 3.03 | 3.13 |

4.9.5 **SAIL-BSL requests the Hon'ble Commission to approve the Depreciation for township for FY 2024-25, as shown in the above Table 29. Any deviation shall be claimed at the time of Truing-up.**

4.10 Interest on Loan

- 4.10.1 Regulation 10.26 of the Tariff Regulations 2020 specifies the rate of interest on loan capital.
- 4.10.2 SAIL-BSL has prepared the debt schedule by considering the figure of closing debt as per the schedule of FY 2024-25. The base rate of SBI after 15.03.2024 was 8.65%. Further, for the purpose of estimating interest on loan capital, a rate of interest of 10.65% which is 8.65% as on 01.04.2024 plus 200 basis points has been considered.
- 4.10.3 Accordingly, SAIL-BSL has projected the Interest on Loan for the FY 2024-25, as under:

Table 3030: Interest on Loan for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|---------------------------|-------------|------------------------------|
| | MYT Order | Estimated (April. -March) |
| Net Loan-Opening | 29.39 | 24.13 |
| Additions during the year | 0.70 | 16.49 |
| Repayment during the Year | 3.03 | 3.13 |
| Net Loan- closing | 27.06 | 37.49 |
| Average Loan | 28.23 | 30.81 |
| Interest on Loan (%) | 9.00% | 10.65% |
| Interest on Loan | 2.54 | 3.28 |

- 4.10.4 **SAIL-BSL requests the Hon'ble Commission to approve the Interest on Loan for township for FY 2024-25, as shown in the Table 30 above. Any deviation shall be claimed at the time of Truing-up.**

4.11 Interest on Working Capital

- 4.11.1 Regulation 10.32 of the Tariff Regulations 2020 specifies the rate of Interest on Working capital. The Rate of interest on working capital shall be equal to the Bank Rates on September 30 of the financial year in which the MYT Petition is filed plus 350 basis points.
- 4.11.2 In view of above, as the MYT Petition was filed on 30.03.2022. Hence, the base rate of SBI as on 30.09.2021 is considered for computation of interest on working capital. The base rate of SBI after 30.09.2021 was 7.00 %. Further,

for the purpose of estimating interest on loan capital, a rate of interest of 10.50% which is 7.00% plus 350 basis points has been considered.

4.11.3 SAIL-BSL has considered for the purpose of estimating interest on working capital, a rate of interest of 12.15% which is 8.65% as on 01.04.2024 plus 350 basis points.

4.11.4 Accordingly, SAIL-BSL has estimated the Interest on Working capital for the FY 2024-25, as under:

Table 3131: Interest on Working Capital for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|--|-------------|------------------------------|
| | MYT Order | Estimated (April. -March) |
| Maintenance spares 1% of opening GFA | 0.71 | 0.62 |
| 2 Months Revenue | 146.57 | 14.83 |
| Less: 1 month of power purchase cost | -71.29 | -12.12 |
| Total Working Capital | 75.99 | 3.33 |
| S.B.I. base rate | 10.50% | 12.15% |
| Interest on Working Capital in Rs. Core | 7.98 | 0.40 |

4.11.5 SAIL-BSL requests the Hon'ble Commission to approve Interest on Working Capital for township for FY 2024-25, as shown in the above Table 31. Any deviation shall be claimed at the time of Truing-up.

4.12 Return on Equity

4.12.1 Regulation 10.19 of the Tariff Regulation 2020 specifies the methodology to calculate the Return on Equity.

4.12.2 SAIL-BSL considered the opening of equity for FY 2024-25 as the closing equity of FY 2023-24. Further, the average rate of return of 14.50 % has been applied to arrive at the return on equity. Accordingly, SAIL-BSL has estimated RoE for the FY 2024-25, as under in Table 32:

Table 3232: Return on Equity for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|-------------------------|-------------|---------------------------|
| | MYT Order | Estimated (April. -March) |
| Opening Equity | 21.36 | 18.71 |
| Additions | 0.30 | 7.07 |
| Closing Equity | 21.66 | 25.77 |
| Average Equity | 21.51 | 22.24 |
| Rate of Return | 14.50% | 14.50% |
| Return on Equity | 3.12 | 3.22 |

4.13 Summary for ARR of FY 2024-25

4.13.1 The estimated ARR for FY 2024-25 is summarized in Table 33 below:

Table 3333: Summary of estimated ARR for the FY 2024-25 (Rs. Crore)

| Particulars | | FY 2024-25 | |
|---|------------------|---------------|--------------------------|
| | | MYT Order | Estimated (April.-March) |
| Power Purchase Cost (Township Only) | 1 | 116.44 | 145.48 |
| Power Purchase Cost (including Steel Plant) | 2 | 855.07 | 771.26 |
| Employee Cost | 3 | 9.92 | 11.04 |
| R&M Expenses | | 5.42 | 4.40 |
| A&G Expenses | | 2.96 | 1.88 |
| Depreciation | | 3.03 | 3.13 |
| Interest on Loan | | 2.54 | 3.28 |
| Return on Equity | | 3.12 | 3.22 |
| Interest on Working Capital | | 7.98 | 0.40 |
| Total Annual Revenue Requirement (Township Only) | 4 = (1+3) | 151.41 | 172.84 |
| Total Annual Revenue Requirement (including Steel Plant) | 5= (2+4) | 890.04 | 798.62 |

4.13.2 **SAIL-BSL requests the Hon'ble Commission to approve Annual Revenue Requirement for the FY 2024-25, as shown in the above Table 33. Any deviation shall be claimed at the time of Truing-up.**

4.14 Revenue at Existing Tariff

4.14.1 Based on the actual revenue from sale of power of FY 2024-25 at existing tariff of SAIL-BSL for township is as under:

Table 3434: Total revenue at existing tariff for FY 2024-25 (Rs. Crores)

| Particulars | FY 2024-25 | |
|---------------|------------|---------------------------|
| | MYT Order | Estimated (April. -March) |
| Total Revenue | 879.40 | 88.96 |

4.15 Summary of Revenue Surplus/Gap

4.15.1 Based on the actual proposed revenue from sale of power at existing tariff of FY 2024-25, the revenue (surplus)/gap are estimated as under for FY 2024-25:

Table 3535: Summary of revenue (Surplus)/Gap for FY 2024-25 (Rs. Crore)

| Particulars | FY 2024-25 | |
|--|------------|---------------------------|
| | MYT | Estimated (April. -March) |
| Annual Revenue Requirement | 890.04 | 172.84 |
| Revenue from Distribution of Electricity | 879.40 | 88.96 |
| Revenue (Surplus)/Gap for the year | 10.64 | 83.88 |

5 REVISED ARR PROJECTION FOR FY 2025-26

5.1.1 The Regulation 6.2 (b) of Tariff Regulations, 2020 provides for projection of Annual Revenue Requirement (ARR) for each year of the Control Period. In this Chapter, SAIL-BSL has projected the ARR for FY 2025-26.

5.2 Energy sales

5.2.1 The methodology adopted by the Petitioner to project the sales during FY 2025-26 is outlined below:

1. CAGR of energy sales of past 5 years from FY 2019-20 to FY 2023-24 are the most recent data for projecting sales for FY 2025-26.
2. Hence, 5-year CAGR based on consumer categories from FY 2019-20 to FY 2022-23 is considered for projection of sales for all the categories.
3. CAGR is applied on category-wise sales projection of FY 2025-26.
4. Where the CAGR is (+), the same is considered for the purpose of projection.
5. Where the CAGR is (-), no increase is considered for projections.
6. For Steel Plant and HT/LT utility, the energy sale is considered as same as actual HT/LT utility sales in FY 2023-24.
7. With the enhanced efforts of the SAIL-BSL towards theft reduction and improvement in the quality of supply, the sales are not projected to reduce during FY 2025-26.
8. The impact of externalities is captured through appropriate reduction/increase in the CAGR rate, as necessary.

5.2.2 Assumed category wise CAGR for projection is outlined below:

Table 3636: Category-wise CAGR assumed for projections of Energy sales, No. of Consumers & Connected Load

| Category | Energy Sales | | No. of Consumers | | Connected Load | |
|----------|-------------------------------|----------------|-------------------------------|----------------|-------------------------------|----------------|
| | 5 Year CAGR from FY20 to FY24 | Assumed growth | 5 Year CAGR from FY20 to FY24 | Assumed growth | 5 Year CAGR from FY20 to FY24 | Assumed growth |
| DS-LT | 1.04% | 1% | 2.56% | 2% | -1.35% | 0% |
| DS-HT | 9.14% | 5% | 8.78% | 4% | 0.96% | 1% |
| CS | 6.11% | 5% | 0.91% | 1% | 13.40% | 6% |
| LTIS | -0.58% | 0% | 2.90% | 3% | -1.63% | 0% |
| HTS | -0.84% | 0% | 7.79% | 4% | 13.16% | 6% |
| HT/LT | -15.58% | 0% | - | As per MYT | - | As per MYT |

5.2.3 It is submitted that based on the data available with SAIL-BSL, the aforesaid approach to project sales may be the best possible approach yielding the closest possible results. Any deviation in the actual numbers shall be considered while truing up for the respective years.

5.2.4 The projected category-wise No. of Consumer for FY 2025-26 is as under:

Table 3737: Projected category-wise No. of Consumers for the FY 2025-26

| Consumer Category | FY 2025-26 | |
|-----------------------|--------------|--------------|
| | MYT Order | Estimated |
| DS-LT | 29,229 | 32770 |
| DS-HT | 5 | 8 |
| CS | 1999 | 1957 |
| LTIS | 34 | 40 |
| HTS | 25 | 30 |
| HT/LT | 656 | 656 |
| Township Total | 31948 | 35461 |
| Steel Plant | 1 | 1 |
| GRAND TOTAL | 31949 | 35462 |

5.2.5 The projected category-wise Energy Sales for FY 2025-26 is as under:

Table 3838: Projected Category-wise Energy Sales for the FY 2025-26 (MUs)

| Consumer Category | FY 2025-26 | |
|-----------------------|----------------|----------------|
| | MYT Order | Estimated |
| DS-LT | 112.50 | 94.11 |
| DS-HT | 6.34 | 9.16 |
| CS | 20.70 | 30.27 |
| LTIS | 0.45 | 0.60 |
| HTS | 13.08 | 10.77 |
| HT/LT | 69.21 | 29.72 |
| Township Total | 222.28 | 174.63 |
| Steel Plant | 1661.54 | 1428.76 |

| Consumer Category | FY 2025-26 | |
|--------------------|----------------|----------------|
| | MYT Order | Estimated |
| GRAND TOTAL | 1883.82 | 1603.39 |

5.2.6 The projected category-wise connected load for the FY 2025-26 is as under:

Table 3939: Projected Category-wise Connected Load for the FY 2025-26

| Consumer Category | Units | FY 2025-26 | |
|-------------------|-------|------------|-----------|
| | | MYT Order | Estimated |
| DS-LT | kW | 99,922 | 90,054 |
| DS-HT | kVA | 4,815 | 5,104 |
| CS | kW | 26,483 | 26,346 |
| LTIS | HP | 1,045 | 928 |
| HTS | kVA | 8,514 | 12,285 |
| HT/LT | kW | 37,877 | 37,877 |
| Steel Plant | MVA | 45 | 45 |

5.2.7 SAIL-BSL requests the Hon'ble Commission to approve the No. of Consumers, Energy Sales and Connected load, for Township and Steel Plant for the FY 2025-26, as shown in the Tables 39 above. Any deviation shall be claimed at the time of Truing-up of the FY 2025-26.

5.3 Distribution loss

5.3.1 SAIL-BSL has projected distribution loss for the entire for FY 2025-26 in line with the estimated loss for the township as approved by the Hon'ble Commission in MYT Order for FY 2025-26. Accordingly, the projected distribution loss for FY 2025-26 is as under:

Table 4040: Projected Distribution loss for SAIL-BSL FY 2025-26

| Consumer Category | FY 2025-26 | |
|-------------------|------------|-----------|
| | MYT Order | Estimated |
| Distribution loss | 10.00% | 35.00% |

- 5.3.2 **SAIL-BSL requests the Hon'ble Commission to approve the distribution loss for the entire control period, as shown in the Table 40 above. Any deviation shall be claimed at the time of Truing-up of the respective year.**

5.4 Energy Balance

- 5.4.1 SAIL-BSL has arrived at the Energy Balance for FY 2025-26 based on the projected sales and Distribution Loss as discussed in the above section. SAIL-BSL considered the distribution loss only on the Township.
- 5.4.2 SAIL-BSL humbly submits that the energy requirement for Steel Plant has been taken as the projected energy consumption of the Steel Plant in the MYT Order. Further, for the township, a distribution loss discussed in the earlier section is added to the projected energy sales of the township for FY 2025-26.
- 5.4.3 Accordingly, SAIL-BSL has projected the Energy Requirement for FY 2025-26, as under:

Table 4141: Projected Energy Balance for FY 2025-26

| Consumer Category | Units | FY 2025-26 | |
|---|------------|----------------|----------------|
| | | MYT Order | Estimated |
| Energy Sales –Township | MUs | 222.28 | 174.63 |
| Distribution Losses (Township) | % | 10.00% | 35.00% |
| Energy required at township periphery | MUs | 246.98 | 268.66 |
| Energy required for Steel Plant consumption | MUs | 1661.54 | 1428.76 |
| Total Energy Required at SAIL- BSL Periphery | MUs | 1908.52 | 1697.42 |

- 5.4.4 **SAIL-BSL requests the Hon'ble Commission to approve Energy Balance for FY 2025-26, as shown in the Table 41 above. Any deviation shall be claimed at the time of Truing-up of the respective year.**

5.5 Power Procurement Plan

- 5.5.1 As discussed in the earlier chapter that SAIL-BSL is in the power purchase agreement with the DVC which is a power generating company under the aegis of the Government of India and supplies power to them in accordance with the tariff fixed by the State Commission. Further, SAIL-BSL intends to continue the same during FY 2025-26 for procurement of power and it has initiated the process for the same.

5.5.2 SAIL-BSL is exempted from RPO for the energy procured from DVC vide Case No. 07 of 2016 of JSERC dated 20.06.2018. The relevant extracts are as follow:

“ ...The petitioner (SAIL, Bokaro Steel Plant), Bokaro Steel City is exempted from complying with the Renewable Purchase Obligation for the part of the power consumption which the petitioner is purchasing from DVC to the extent that it has to be complied by the DVC.”

5.5.3 Accordingly, SAIL-BSL has projected the Power Procurement Cost by escalating the per unit power purchase of FY 2024-25 with 4% CAGR as approved by the Hon'ble Commission in the MYT Order dated 22.06.2023, as under:

Table 4242: Projected Power Procurement Plan for FY 2025-26

| Particulars | Unit | FY 2025-26 | |
|---|------------------|---------------|---------------|
| | | MYT Order | Estimated |
| Total Power Purchase | MUs | 1908.52 | 1697.42 |
| Power Purchase - Township | MUs | 246.98 | 268.66 |
| Power Purchase - Plant | MUs | 1661.54 | 1428.76 |
| Per unit power purchase cost | Rs. /kWh | 5.09 | 4.83 |
| Power Purchase Cost - Township | Rs. Crore | 125.71 | 129.72 |
| Power Purchase Cost - Plant consumption | Rs. Crore | 845.72 | 689.86 |
| Total Power Purchase Cost | Rs. Crore | 971.44 | 819.58 |

5.5.4 **SAIL-BSL requests the Hon'ble Commission to approve Power Procurement Plan for FY 2025-26, as shown in the Table 42 above. Any deviation shall be claimed at the time of Truing-up of the respective year.**

5.6 Operation and Maintenance Costs

5.6.1 Regulations 10.3 to 10.7 of the Tariff Regulations 2020 specifies the methodology for the determination of O&M expenses for the Control Period from FY 2021-22 to FY 2025-26 as discussed in Para 4.6.1 of this Petition.

5.6.2 Accordingly, employee expenses are projected based on Regulation 10.6 of the Tariff Regulations, 2020. For the projection years, the escalation factor has been taken as computed for FY 2023-24 in Para 4.6.4. Further, the Growth

factor is considered as 0% as it was not determined by the Commission in MYT Order, as per the Regulation 10.6 b) of Tariff Regulation, 2020.

- 5.6.3 The R&M expenditure incurred by the distribution licensee is a function of the network condition of the licensee. The network condition would depend on the condition of the assets and subsequent augmentation/ strengthening/ capex undertaken by the Licensee. Benchmarking with other utilities in other State jurisdictions for the R&M expenditure therefore may not provide an appropriate indication. The K factor need to be customized for each distribution licensee considering the above and may vary across years based on the capital expenditure in the previous years together with expenditure incurred during the year. Accordingly, the K factor if computed as 7.17% as per Regulation 10.6 of Tariff Regulation 2020.
- 5.6.4 Accordingly, SAIL-BSL has projected the O & M cost for the FY 2025-26, as under:

Table 4343: Projected O&M Expense for FY2025-26(Rs. Crore)

| Particulars | FY 2025-26 | |
|-------------------------------|--------------|--------------|
| | MYT Order | Estimated |
| R&M Expenses | 10.52 | 11.04 |
| Employee Expenses | 5.50 | 6.17 |
| A & G Expenses | 3.14 | 1.88 |
| Total O&M Expenses | 19.16 | 19.09 |

- 5.6.5 **SAIL-BSL requests the Hon'ble Commission to approve Operations & Maintenance for the entire control period, as shown in the Table 43 above. Any deviation from the projected sales shall be claimed at the time of Truing-up of the respective year.**

5.7 Gross Fixed Assets

- 5.7.1 SAIL-BSL has submitted the CAPEX and Capitalisation for the Smart Street Lightning Solution for FY 2025-26 in the Para 04.7.5 to 4.7.9 of this Petition.
- 5.7.2 **Accordingly, SAIL-BSL humbly submits before the Hon'ble Commission to approve the CAPEX and Capitalisation of Rs. 0.50 Crore during FY 2025-26 as funded through SAIL-BSL internal funds.**
- 5.7.3 SAIL-BSL humbly submits that the Hon'ble Commission in the MYT Order dated 22.06.2023, has approved a minor CAPEX for Procurement of cables, wiring and other materials. Accordingly, SAIL-BSL has considered the

procurement of cables, wiring and other materials as approved by the Hon'ble Commission in the MYT Order.

- 5.7.4 SAIL-BSL humbly prays before the Hon'ble Commission the current earthing infrastructure in the substations is antiquated and significantly depleted, resulting in damages to transformers and consumer equipment.
- 5.7.5 Accordingly, to address these issues, SAIL BSL intends to adopt new technology in the form of chemical earthing, known for its extended lifespan and minimal maintenance requirements.
- 5.7.6 SAIL-BSL humbly submits that the Commission has approved Rs. 4.49 Crore for chemical earthing in order dated 20 August 2024. And in actual it has made a payment of Rs. 2.05 Crore during FY 2024-25 and proposed Rs. 2.44 Crore for FY 2025-26.
- 5.7.7 The SAIL-BSL has also proposed additional Capital Procurement for FY 2025-26. For procurement of Aerial Working Platform 1.42 crores is proposed, for Supply and installation of 15 nos of High mast and 49 nos of Mini mast 2.51crores is proposed, for Replacement of complete electrics of 04 pump houses 10 crores is proposed, and for Procurement of 600 nos of AC 3.15 crores is proposed. For additional capitalisation SAIL- BSL has submitted relevant documents for each schemes in Annexure A1, A2, A3 and A4.
- 5.7.8 **Thus, SAIL-BSL submits that the capitalisation of whole scheme of Rs. 2.44 Crore in FY 2025-26 only.**
- 5.7.9 Accordingly, SAIL BSL has projected GFA for FY 2025-26 as shown in table below:

Table 4444: Projected Gross Fixed Asset (GFA) for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|--------------------------------|------------|-----------|
| | MYT Order | Estimated |
| Opening GFA | 72.22 | 85.95 |
| Additional Capital expenditure | 1.00 | 21.02 |
| Closing GFA | 73.22 | 106.97 |

- 5.7.10 **SAIL-BSL requests the Hon'ble Commission to approve GFA for the entire control period, as shown in the Table 44 above. Any deviation shall be claimed at the time of Truing-up of the respective year.**

5.8 Consumer Contribution, Grants and subsidies

- 5.8.1 Regulation 10.11, 10.28 and 10.34 of the Tariff Regulations, 2020, specifies the methodology to deal with Consumer Contribution, Grants and Subsidies for FY 2025-26.
- 5.8.2 SAIL-BSL humbly submits that there are no consumer contributions/grants towards GFA creation and accordingly the same has not been considered for computation of GFA and depreciation thereon.
- 5.8.3 **SAIL-BSL requests the Hon'ble Commission to consider that, there is no Consumer Contribution, Grants and Subsidies for FY 2025-26. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.**

5.9 Depreciation

- 5.9.1 Regulations 10.34 to 10.40 of the Tariff Regulations, 2020, specifies the determination of depreciation for FY 2025-26. The relevant extracts are as follow:

*“10.36 Depreciation shall be calculated annually, based on the straight-line method at the rates specified at **Appendix-I** of the regulation. The base value for the purpose of depreciation shall be original cost of the asset...*

10.39 The Commission may, in the absence of the Fixed Assets Register, calculate Depreciation (%) arrived by dividing the Depreciation and the Average Gross Fixed Assets as per the latest available Audited Accounts of the Distribution Licensee. The Depreciation (%) so arrived shall be multiplied by the Average GFA approved by the Commission for the relevant Financial Year to arrive at the Depreciation for that Financial Year.”

- 5.9.2 SAIL-BSL has considered the Gross Fixed Assets of FY 2025-26 as the closing balance of FY 2024-25. Based on the Opening GFA of FY 2023-24, the additions in GFA for the FY 2025-26 has been added to arrive at the closing GFA figures for the FY2025-26. Further, the depreciation rate of 4.22 % has been considered as per the rates provided in Appendix 1 of the Tariff Regulations, 2020.
- 5.9.3 The computation of depreciation is based on the Straight-Line Method as prescribed in the Tariff Regulations, 2020 issued by the Hon'ble Commission.
- 5.9.4 Accordingly, SAIL-BSL has projected the Depreciation for the Control Period, as under:

Table 4545: Projected Depreciation for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|---------------------------|-------------|-------------|
| | MYT Order | Estimated |
| Opening Gross Block | 72.22 | 85.95 |
| Additional Capitalisation | 1.00 | 21.02 |
| Closing Gross Block | 73.22 | 106.97 |
| Average Gross Block | 72.22 | 96.46 |
| Rate of depreciation | 4.22% | 4.22% |
| Depreciation | 3.07 | 4.07 |

5.9.5 **SAIL-BSL requests the Hon'ble Commission to approve depreciation for FY 2025-26, as shown in the table 45 above. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.**

5.10 Interest on Loan

5.10.1 Regulation 10.16 and 10.17 of the Tariff Regulations, 2020, specify the debt-to-equity ratio for determination of Interest on Loan and Return on Equity for FY 2025-26. The relevant extracts are as follow:

“10.16 Existing Schemes - In case of capital expenditure schemes capitalised prior to April 01, 2021, the debt-equity ratio as allowed by the Commission for determination of tariff for the period ending March 31, 2021 shall be considered.

10.17 New Schemes – For capital expenditure schemes capitalised after April 01, 2021:

a) A normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff;

b) In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;

c) In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered...”

“10.26. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Licensee:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, then the rate of interest shall be considered on normative basis and shall be equal to the Bank Rate as on April 01 of the respective year of the Control Period plus 200 basis points...”

5.10.2 SAIL-BSL has prepared the debt schedule by considering the figure of closing debt as per the schedule of FY 2024-25. The base rate of SBI on 15.04.2024 was 8.65%. Further, for the purpose of estimating interest on loan capital, a rate of interest of 10.65% which is 8.65% plus 200 basis points has been considered.

5.10.3 Accordingly, SAIL-BSL has projected the Interest on Loan for FY 2025-26, as under:

Table 4646: Projected Interest on Loan for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|---|-------------|-------------|
| | MYT Order | Estimated |
| Net Loan-Opening | 27.06 | 37.49 |
| Additions during the year | 0.70 | 14.72 |
| Repayment during the year | 3.07 | 4.07 |
| Net Loan-Closing | 24.69 | 48.14 |
| Average Loan | 25.88 | 42.81 |
| Weighted Average Rate of Interest on Loan (%) | 9.00% | 10.65% |
| Interest on Loan | 2.33 | 4.56 |

5.10.4 SAIL-BSL requests the Hon'ble Commission to approve Interest on Loan Capital for FY 2025-26, as shown in the table 46 above. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.

5.11 Interest on Working Capital

5.11.1 Regulation 10.31 of the Tariff Regulations, 2020, specifies the methodology to calculate the Interest on Working Capital. The relevant extracts are as follow:

“10.31: Working capital for the Retail Supply of Electricity for the Control Period shall comprise:

- Maintenance spares at 1% of Opening GFA for Retail Supply Business; plus*
- Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus*
- Amount held as security deposits under Clause (a) and Clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users net of any security held for Wheeling Business; minus*

d) *One-month equivalent of cost of power purchased including the Inter-State and Intra-State Transmission Charges and Load Despatch Charges, based on the annual power procurement plan.*”

5.11.2 Further, regulation 10.32 of the Tariff Regulations 2020, specifies the rate of Interest on Working capital. The relevant extracts are as follow:

“10.32 Rate of interest on working capital shall be equal to the Bank Rate as on September 30 of the financial year in which the MYT Petition is filed plus 350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on April 01 of the financial year for which truing up exercise has been undertaken.”

5.11.3 In view of above, as the MYT Petition was filed on 30.03.2022. Hence, the base rate of SBI as on 30.09.2021 is considered for computation of interest on working capital. The base rate of SBI after 30.09.2021 was 7.00 %. Further, for the purpose of estimating interest on loan capital, a rate of interest of 10.50% which is 7.00% plus 350 basis points has been considered.

5.11.4 The base rate of SBI after 15.03.2024 was 8.65%, accordingly in this petition for FY 2025-26, SAIL-BSL has considered a rate of interest of 12.15% which is 8.65% plus 350 basis points.

5.11.5 Accordingly, SAIL-BSL has projected the Interest on Working capital for FY 2025-26, as under:

Table 4747: Projected Interest on Working Capital for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|--------------------------------------|-------------|-------------|
| | MYT Order | Estimated |
| Maintenance spares 1% of GFA | 0.72 | 0.86 |
| 2 Months Revenue | 159.82 | 15.16 |
| Less: 1 month of power purchase cost | (80.92) | (10.81) |
| Working capital | 79.62 | 5.21 |
| Interest rate | 10.50% | 12.15% |
| Interest on working capital | 8.36 | 0.63 |

5.11.6 SAIL-BSL requests the Hon'ble Commission to approve Interest on Working Capital for FY 2025-26, as shown in the table 47 above. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.

5.12 Return on Equity

5.12.1 Regulation 10.19 of the Tariff Regulation 2020 specifies the methodology to calculate the Return on Equity. The relevant extracts are as follow:

“10.19: The rate of return on equity shall be 14.50% (post-tax) for the Control Period.

10.20: Return on equity for each year shall be allowed on equity employed in assets in use considering the following:

*Equity employed in accordance with **Clause 10.16** of these Regulations on assets (in use) capitalised as on the beginning of the year; and 50% of the equity projected to be employed in accordance with **Clause 10.17** of these Regulations on assets (in use) commissioned during the year.”*

5.12.2 SAIL-BSL considered the opening of equity for FY 2025-26 as the closing equity of FY 2024-25. Further, the average rate of return of 14.50 % has been applied to arrive at the return on equity. Accordingly, SAIL-BSL has projected RoE for FY 2025-26, as under:

Table 4848: Projected Return on Equity for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|-------------------------|-------------|-------------|
| | MYT Order | Estimated |
| Opening Equity | 21.66 | 21.96 |
| Additions during year | 0.30 | 6.31 |
| Closing equity | 21.96 | 28.27 |
| Average Equity | 21.81 | 25.11 |
| Rate of Return | 14.50% | 14.50% |
| Return on Equity | 3.16 | 3.64 |

5.12.3 SAIL-BSL requests the Hon'ble Commission to approve Return on Equity for FY 2025-26, as shown in the table 48 above. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.

5.13 Summary for ARR of FY 2025-26

5.13.1 The projected ARR for each year of FY 2025-26 is summarized in the table below:

Table 4949: Summary of Projected ARR for FY 2025-26 (Rs. Crore)

| Particulars | | FY 2025-26 | |
|--|-----------|----------------|---------------|
| | | MYT Order | Actual |
| Power Purchase Cost (Township Only) | 1 | 125.71 | 129.72 |
| Power Purchase Cost (including Steel Plant) | 2 | 971.44 | 819.58 |
| Employee Cost | 3 | 10.52 | 11.04 |
| R&M Expenses | | 5.50 | 6.17 |
| A&G Expenses | | 3.14 | 1.88 |
| Depreciation | | 3.07 | 4.07 |
| Interest on Loan | | 2.33 | 4.56 |
| Return on Equity | | 3.16 | 3.64 |
| Interest on Working Capital | | 8.36 | 0.63 |
| Total Annual Revenue Requirement (Township Only) | 4 = (1+3) | 161.79 | 161.71 |
| Total Annual Revenue Requirement (including Steel Plant) | 5= (2+4) | 1007.52 | 851.57 |

5.13.2 SAIL-BSL requests the Hon'ble Commission to approve Annual Revenue Requirement for FY 2025-26, as shown in the table 49 above. Any deviation shall be claimed at the time of Truing-up of FY 2025-26.

5.14 Revenue at Existing and Proposed Tariff

5.14.1 The Revenue from sale of power for FY 2025-26 at existing tariff is depicted below:

Table 5050: Revenue for FY 2025-26 at existing tariff

| Consumer Category | Total billed amount at existing tariff (in Crore) | Average Billing Rate (Rs/kWh) | Existing cross subsidy |
|-------------------|---|-------------------------------|------------------------|
| DS-LT | 33.73 | 3.58 | 39% |
| DS-HT | 3.02 | 3.30 | 36% |
| CS | 21.20 | 7.01 | 76% |
| LTIS | 0.45 | 7.36 | 80% |
| HTS | 9.91 | 9.21 | 99% |
| HT/LT | 22.62 | 7.61 | 82% |

| Consumer Category | Total billed amount at existing tariff (in Crore) | Average Billing Rate (Rs/kWh) | Existing cross subsidy |
|-----------------------|---|-------------------------------|------------------------|
| Township Total | 90.94 | 5.21 | |

5.15 Summary of Revenue Surplus/Gap

5.15.1 Based on the projected aggregate revenue requirement (ARR) computed in the previous section for FY 2025-26 and the revenue from sale of power at existing tariff, the revenue (surplus)/gap are calculated:

Table 5151: Revenue (Surplus)/Gap for FY 2025-26 (Rs. Crore)

| Particulars | FY 2025-26 | |
|--|--------------|--------------|
| | MYT Order | Estimated |
| Annual Revenue Requirement | 1007.52 | 161.71 |
| Revenue from Retail sales at Existing Tariff | 958.92 | 90.94 |
| Revenue (Surplus)/Gap for year | 48.60 | 70.77 |

5.15.2 The above revenue gap has been estimated at the current tariffs prevailing in the SAIL-BSL's area of supply. It is however submitted that the computed revenue at existing tariff is inadequate to meet the projected annual revenue requirement of the Petitioner for the said period.

6 REVENUE GAP AND ITS TREATMENT

6.1 Treatment of Revenue Gap

6.1.1 The Revenue Gap/ Surplus of SAIL-BSL for FY 2023-24, FY 2024-25, FY 2025-26 is summarised in table below:

Table 5252: Revenue (Surplus)/Gap for FY 2023-24, FY 2024-25 & FY 2025-26 (Rs. Crore)

| Particulars | FY 2023-24 | FY 2024-25 | FY 2025-26 |
|--|---------------|--------------|--------------|
| Annual Revenue Requirement | 183.48 | 172.84 | 161.71 |
| Revenue from Retail sales at Existing Tariff | 71.23 | 88.96 | 90.94 |
| Revenue (Surplus)/Gap for year | 112.25 | 83.88 | 70.77 |

6.1.2 The above revenue gap has been estimated at the current tariffs prevailing in the SAIL BSL's area of supply. It is however submitted that the computed revenue at existing tariff is inadequate to meet the projected annual revenue requirement of the Petitioner for the said period. This is because, the existing tariff is based on FY 2017- 18 ARR projections and practically there is no tariff increase during last 8 years. Hence, SAIL-BSL is proposing upward revision of Tariff for FY 2025-26.

6.1.3 Considering there has been no tariff hike and SAIL-BSL's costs have increased exponentially with the inflation rates. Also, the power purchase costs have increased parallelly.

6.1.4 The Per unit cost of power for FY 23-24 has increase to Rs 5.19/kWh. Given that the costs have changed significantly from last tariff hike and SAIL-BSL has faced considerable revenue shortfalls in past years, Hon'ble Commission is requested to consider a tariff hike for FY 25-26 as proposed in upcoming paragraphs.

6.1.5 SAIL-BSL proposes a Tariff Hike of 15% on Fixed Charge and 30% of Energy Charge. SAIL-BSL has also compared its proposed tariff with other DISCOMs of Jharkhand. It is observed that for the Domestic category the tariff is in comparable with other utilities.

6.1.6 Considering, SAIL-BSL is a PSU, almost 90% of the consumers are under Domestic category which includes the employees of SAIL-BSL. Hence, it is important to provide reasonable tariff to these consumers. And at the same time the present revenue gap at existing tariff should also be considered while determination of the Tariff.

6.1.7 In absence of a tariff hike, licensee's financial loss from supplying power to SAIL-BSL Township would increase further, which already Rs. 112.25 Crores for FY 23-24, as shown in Table 52.

6.1.8 The Revenue from sale of power for FY 2025-26 at proposed tariff is depicted below:

Table 5353: Revenue for FY 2025-26 at Proposed tariff

| Consumer Category | Total billed amount at proposed tariff (in Crore) | Average Billing Rate (Rs/kWh) | Cross subsidy |
|-----------------------|---|-------------------------------|---------------|
| DS-LT | 43.30 | 4.60 | 50% |
| DS-HT | 3.88 | 4.24 | 46% |
| CS | 27.17 | 8.98 | 97% |
| LTIS | 0.56 | 9.20 | 99% |
| HTS | 12.23 | 11.35 | 123% |
| HT/LT | 28.84 | 9.70 | 105% |
| Township Total | 115.98 | 6.64 | |

6.1.9 Considering the unique consumer mix of SAIL-BSL compared to other similar utilities in Jharkhand. SAIL-BSL humbly prays to commission to approve the proposed tariff hike in FY 2025-26 in the view of present financial condition of SAIL-BSL.

6.2 Creation of Regulatory Assets

6.2.1 As per JSERC Tariff Regulation, 2020:

“7.4 The amount under-recovered or over-recovered, along with simple interest at the rate equal to Bank Rate as on April 01 of the respective year plus 350 basis points, shall be carried forward to the Tariff approved for the subsequent years: Provided that no carrying cost on the duration of delay shall be allowed on unrecovered gap if the Licensee fails to submit the Petitions as per the timelines stipulated in Section A 24: Provided further that if such gap is large, and it is not feasible to recover the same in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in Clause 8.2.2 of the Tariff Policy, 2016:”

6.2.2 In the present petition, petitioner proposed a tariff hike of around 30% in energy charge and 15% in fixed charge for all the consumer categories in FY 2025-26 to recover the past and expected Revenue Gap till FY 2024-25.

6.2.3 Further, SAIL-BSL submits that, there is still a considerable revenue gap after incorporating tariff hike for FY 2025-26. Therefore, SAIL-BSL humbly submits the Hon'ble Commission to allow creation of Regulatory Asset for the revenue gap in line with provisions under Tariff Regulation 2020 as shown in the table below.

Table 5454: Proposed Regulatory Assets (Rs. Crores)

| Particulars | | Rs. Crore |
|---|--------------|---------------|
| Revenue Gap/(Surplus) in FY 2023-24 | a | 112.25 |
| Expected Revenue Gap/(Surplus) during FY 2024-25 | b | 83.88 |
| Expected Revenue Gap/(Surplus) at Proposed Tariff during FY 2025-26 | c | 70.77 |
| Proposed Regulatory Asset | a+b+c | 266.90 |

6.2.4 Accordingly, the Petitioner requests the Hon'ble Commission to approve the Regulatory assets worth Rs. 266.90 Crores as shown in the Table 54 above and provide an appropriate recovery mechanism to recover the Regulatory Assets as per the provisions of Tariff Regulations and guidelines of Tariff Policy.

7 TARIFF PHILOSOPHY

7.1 ARR for Retail and Wheeling Supply

7.1.1 Regulation 6.8 of Tariff Regulations, 2020 specifies the methodology for allocation of its assets for wheeling and retail supply tariff. SAIL BSL has used the approved segregation as specified in the tariff regulation, 2020 for calculation of wheeling and retail supply of tariff. The relevant segregation is as follow:

Table 5555: Segregation of assets as per tariff regulation, 2020

| Particulars | Share of Supply Business | Share of Wires Business |
|---|--------------------------|-------------------------|
| O&M Cost | | |
| Employee cost | 40% | 60% |
| A&G Expense | 50% | 50% |
| R&M Cost | 10% | 90% |
| Power purchase (Including PGCIL & RLDC Charges) | 100% | 0% |
| Interest on security deposit | 100% | 0% |
| Interest Cost | 10% | 90% |
| Interest on working capital | 90% | 10% |
| Taxes on Income | 10% | 90% |
| Depreciation | 10% | 90% |
| Return on Equity | 10% | 90% |
| Less: Non-Tariff/Other Income | 90% | 10% |

7.1.2 Considering the general principle of segregation of assets as specified in the above table, SAIL-BSL has projected the Wheeling ARR and Retail Supply ARR for FY 2025-26 are summarized in the Table below:

Table 5656: Summary of Projected ARR for Retail Supply and Wheeling for FY 2025-26 (Rs. Crore)

| Particulars | Retail Supply | | Wheeling | |
|--------------------------------|---------------|-----------|----------|-----------|
| | MYT | Estimated | MYT | Estimated |
| Power purchase cost (Township) | 125.71 | 129.72 | 0.00 | 0.00 |

| Particulars | Retail Supply | | Wheeling | |
|---|---------------|---------------|--------------|--------------|
| | MYT | Estimated | MYT | Estimated |
| Power purchase cost (including Steel Plant) | 971.44 | 819.58 | 0.00 | 0.00 |
| Employee cost | 4.21 | 4.42 | 6.31 | 6.63 |
| R&M Cost | 0.55 | 0.62 | 4.95 | 5.55 |
| A&G Expense | 1.57 | 0.94 | 1.57 | 0.94 |
| Depreciation | 0.31 | 0.41 | 2.76 | 3.66 |
| Interest on Loan | 0.23 | 0.46 | 2.10 | 4.10 |
| Return on Equity | 0.32 | 0.36 | 2.85 | 3.28 |
| Interest on working capital | 7.52 | 0.57 | 0.84 | 0.06 |
| Total ARR (Township Only) | 140.42 | 137.49 | 21.37 | 24.22 |

7.1.3 SAIL-BSL requests the Hon'ble Commission to approve the Annual Revenue Requirement for the Retail Supply and Wheeling for FY 2025-26 as shown in the Table 56 above.

7.2 Wheeling Charges

7.2.1 As per Regulation 6.2. b) of the Tariff Regulations, 2020, SAIL-BSL is required to compute the Wheeling Tariff for the first year of the ensuing Control Period. The relevant extracts are as follow:

6.2 b) Licensees' forecast of expected wheeling tariff and retail supply tariff for each year of the Control Period, based on reasonable assumptions of the underlying financial and operational parameters, as submitted in the Business plan;

7.2.2 The existing wheeling charge is Rs. 0.24/kWh. Considering the input energy for Township for FY 2025-26 as 268.66 MUs and Wheeling ARR as Rs.24.22 Crores for FY 2025-26, the SAIL-BSL has computed Wheeling Charge for FY 2025-26 as below:

Table 5757: Proposed Wheeling Charge for FY 2025-26

| Financial Year | Existing Wheeling Charge | Proposed Wheeling Charge |
|-------------------|--------------------------|--------------------------|
| FY 2025-26 | 0.24 | 0.90 |

7.2.3 SAIL-BSL requests the Hon'ble Commission to approve the Wheeling Charge for the for FY 2025-26 as shown in the Table 57 above.

7.3 Cross Subsidy Surcharge

7.3.1 Regulation 10.62 of Tariff Regulations, 2020 specifies the methodology for computation of cross subsidy surcharge. The relevant extract is shown below:

“The surcharge payable by consumers opting for open access on the network of the Licensee will be determined by the Commission as per the following formula:

$$S = T - [C / (1 - (L / 100)) + D + R]$$

Where,

S is the surcharge;

T is the Tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation;

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level;

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level;

R is the per unit cost of carrying regulatory assets:

Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.”

7.3.2 SAIL-BSL has considered the Voltage wise losses at 10.00% for LT Category & 3% for the HT Category for the FY 2025-26 for the computation of voltage wise cost of supply, as SAIL-BSL has not implemented the voltage wise cost of Supply.

7.3.3 Accordingly, petitioner has computed the Cross-subsidy surcharge for various consumer categories as tabulated below:

Table 58: Cross subsidy Surcharge for FY 2025-26

| Consumer Category | Voltage Level | T Tariff payable (ABR) | C Power Purchase cost | L System losses for applicable voltage | D Wheeling charge (Incl. transmission charges) | S Cross subsidy surcharge (Rs/kWh) | Proposed CSS 20% of T (ABR) in (Rs./kWh) |
|-------------------|---------------|---------------------------|--------------------------|---|---|---------------------------------------|--|
| DS-LT | LT | 4.60 | 4.83 | 35.00% | 0.90 | 2.06 | 0.92 |
| DS-HT | HT | 4.24 | 4.83 | 3% | 0.90 | 1.70 | 0.85 |
| CS | LT | 8.98 | 4.83 | 35.00% | 0.90 | 6.43 | 1.80 |

| Consumer Category | Voltage Level | T Tariff payable (ABR) | C Power Purchase cost | L System losses for applicable voltage | D Wheeling charge (Incl. transmission charges) | S Cross subsidy surcharge (Rs/kWh) | Proposed CSS 20% of T (ABR) in (Rs./kWh) |
|-------------------|---------------|---------------------------|--------------------------|---|---|---------------------------------------|--|
| LTIS | LT | 9.20 | 4.83 | 35.00% | 0.90 | 6.66 | 1.84 |
| HTS | HT | 11.35 | 4.83 | 3% | 0.90 | 8.81 | 2.27 |
| HT/LT | LT | 9.70 | 4.83 | 35.00% | 0.90 | 7.16 | 1.94 |

7.3.4 From the above table, it can be seen that, the CSS is higher than 20% of T i.e., ABR for respective category. Hence as per the proviso of Regulation 10.62 of the Tariff Regulations 2020, the CSS limited to 20% of the ABR is proposed as shown in the last column of the above Table 58 for FY 2025-26.

7.3.5 **SAIL-BSL requests the Hon'ble Commission to approve the CSS for the for FY 2025-26 as shown in the Tables 58 above.**

8 TARIFF SCHEDULE FOR FY 2025-26

8.1 Domestic Service (DS-LT and DS-HT)

Applicability

- 8.1.1 This Tariff schedule shall apply to all residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule.
- 8.1.2 This rate is also applicable for supply to religious institutions such as Temples, Gurudwaras, Mosques, Church and Burial/Crematorium grounds and other recognised charitable institutions, where no rental or fees are charged whatsoever. If any fee or rentals are charged, such institution will be charged under Commercial services category.

Category of Services

- (a) Domestic Service – LT(DS-LT): For Urban areas covered by notified Area Committee /municipality / Municipal Corporation / All District Town / All sub-divisional Town /All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load upto 85.044 kW.
- (b) Domestic service – HT (DS-HT): This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 11 kV voltage level and load above 85.044 kW.

Service Character

- (i) For DS-LT: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 kW upto 85.044 kW.
- (ii) For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW

Tariff

Table 5958: Proposed Tariff for Domestic Services Consumer Category for FY 2025-26

| Consumer Category | Fixed Charge/Demand Charge | | Energy Charge | |
|-------------------|----------------------------|------|---------------|------|
| | Unit | Rate | Unit | Rate |
| DS-LT | Rs. /Connection /Month | 90 | Rs. / kWh | 4.23 |
| DS-HT | Rs. /kVA/Month | 90 | Rs. /kVAh | 3.64 |

Delayed Payment Surcharge:

- 8.1.3 For Domestic Service category, the delayed payment surcharge will be at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days aware from the date of serving of bill.

8.2 Commercial Service (CS)

Applicability

- 8.2.1 This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (govt. or private), commercial establishments, cinemas, X-ray plants, schools and colleges (govt. or private), boarding/lodging houses, libraries (govt. or private), research institutes (govt. or private), railway stations, fuel – oil stations, service stations (including vehicle service stations), All India Radio / T.V. installations, printing presses, commercial trusts / societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied commercial office/buildings, Dharmshalas, and such other installations not covered under any other tariff schedule.

Service Category:

- 8.2.2 Commercial Service CS, Urban: For Urban Areas covered by Notified Areas Committee / municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. /Industrial Area & Contiguous Sub-urban area, marketplace rural or urban & connected load up to 85.044 kW.

Service Character:

- 8.2.3 CS: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for load upto 85.044 kW

Tariff:

Table 6059: Proposed Tariff for Commercial Consumer Category for FY 2025-26

| Consumer Category | Demand Charge | | Energy Charge |
|-------------------|---------------|------|----------------|
| | Unit | Rate | Rate (Rs./kWh) |
| CS | Rs. /kW/Month | 150 | 7.41 |

Delayed Payment Surcharge

- 8.2.4 For Commercial Category, the Delayed Payment Surcharge will at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill.

8.3 Low Tension Industrial Services (LTIS)

Applicability:

- 8.3.1 This schedule shall apply to all industrial units applying for a load of less than or equal to 100 kVA (or equivalent in terms of HP or kW). The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85.044 kW.

Service Character:

- 8.3.2 AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff/Installation based tariff for sanctioned load upto 85.044 kW.

Tariff:

Table 6160: Proposed Tariff for Low Tension Industrial Consumer Category for FY 2025-26

| Consumer Category | Demand Charge | | Energy Charge |
|-------------------------|---------------|------|-----------------|
| | Unit | Rate | Rate (Rs./kVAh) |
| LTIS-Installation Based | Rs./HP/Month | 175 | 5.98 |

- 8.3.3 **Installation Based Tariff:** All consumers under this category and opting for Installation based tariff shall be required to pay fixed charges per HP as per the applicable tariff rates for this category. If the inspecting officer during the inspection of premises finds excess load (more than 114 HP) then the inspecting officer has to serve one month notice to the consumer for regularization of excess load (above 114 HP). After the expiry of the said one month, the inspecting officer will inspect the premises again and if he still finds un-regularized load in the premises, action may be taken as per law.

Delayed Payment Surcharge

- 8.3.4 For Low tension industrial and medium power category, the Delayed Payment Surcharge will at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill.

Power Factor Penalty

- 8.3.5 Power Factor Penalty will be applicable in case of maximum demand meters. In case average power factor in a month for a consumer falls below 0.85, a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on both demand and energy charges; plus 3% for every 0.01 fall below 0.30.

Power Factor Rebate

- 8.3.6 Power Factor rebate will be applicable in case of maximum demand meters. In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

8.4 High Tension Voltage Supply Services (HTS)

Applicability:

- 8.4.1 The schedule shall apply for consumers having contract demand above 100 kVA.

Service Character:

- 8.4.2 50 Cycles, 3 Phase at 6.6 kV / 11 kV / 33 kV / 132 kV / 220 kV / 400 kV
- 8.4.3 The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand, whichever is higher. In case higher actual demand is recorded for three continuous months, the same shall be considered as the basis for new contract demand of future months provided consumer gets into a new Agreement for the revised contracted demand after payment of necessary charges as applicable. The penalty on exceeding contract demand shall be 1.5 times the normal charges for actual demand exceeding 110% of the contracted demand both on energy commensurate to exceeded demand and exceeded demand; For the purpose of calculating the penal charges exceed demand shall be the difference of the actual demand and Contract Demand.

Tariff:

Table 6261: Proposed Tariff for High Tension Services Consumer Category for FY 2025-26

| Consumer Category | Demand Charge | | Energy Charge |
|-------------------|---------------|------|-----------------|
| | Unit | Rate | Rate (Rs./kVAh) |
| HTS | Rs./kVA/Month | 345 | 6.63 |

Voltage Rebate

| Consumer Category | Voltage Rebate |
|-------------------|----------------|
| HT - 33 kV | 3.00% |
| HTS - 132 kV | 5.00% |
| HTS - 220 kV | 5.50% |
| HTS - 400 kV | 6.00% |

Load Factor Rebate

| Load Factor | Load Factor Rebate |
|-------------|--------------------|
| 40 - 60% | Nil |
| 60 - 70% | 7.5% |
| 70 - 100% | 10% |

Delayed Payment Surcharge

8.4.4 For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Power Factor Penalty

8.4.5 Power Factor Penalty will be applicable in case of maximum demand meters. In case average power factor in a month for a consumer falls below 0.85, a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on both demand and energy charges; plus 3% for every 0.01 fall below 0.30.

Power Factor Rebate

8.4.6 Power Factor rebate will be applicable in case of maximum demand meters. In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

TOD Tariff for HTS Consumers

8.4.7 TOD tariff proposed for HTS Consumers is given below-

Off Peak Hours: 00: 00 Hrs to 08:00 Hrs and 20:00 Hrs to 24:00 Hrs. 85% of normal rate of energy charge. Peak Hours: 08:00 Hours to 20:00 Hours: 120% of normal rate of energy charge.

8.5 Additional Clauses applicable across all Tariff Category

Statutory Levy

- 8.5.1 Electricity Duty and any other duty shall be levied as per the Electricity Duty Act, 1948 (amended upto date) and other prevailing regulations as made applicable from time to time.

Billing Maximum Demand for HT Consumers

- 8.5.2 The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand, whichever is higher. In case higher actual demand is recorded for three continuous months, the same shall be considered as the basis for new contract demand of future months provided consumer gets into a new Agreement for the revised contracted demand after payment of necessary charges as applicable.
- 8.5.3 The penalty on exceeding contract demand shall be 1.5 times the normal charges for actual demand exceeding 110% of the contracted demand both on energy commensurate to exceeded demand and exceeded demand;. For the purpose of calculating the penal charges exceed demand shall be the difference of the actual demand and Contract Demand.

Installation of Shunt capacitors

- 8.5.4 All consumers having aggregate inductive load greater than 3 HP (2.2 kW) and above (except domestic and streetlights), shall install capacitors of required kVAR rating provided in the following table:

| Rating of individual inductive load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 3 to 5 | 1 |
| 5 to 7.5 | 2 |
| 7.5 to 10 | 3 |
| 10 to 15 | 4 |
| 15 to 20 | 6 |
| 20 to 30 | 7 |
| 30 to 40 | 10 |

| Rating of individual inductive load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 40 to 50 | `10-15 |
| 50 to 100 | 20-30 |

- 8.5.5 For existing consumer, the Petitioner should first serve one month's notice to all such consumers who do not have or have defective shunt capacitors. In case the consumers do not get the capacitor installed/replaced within the notice period, the consumer shall be levied a surcharge at 5% on the total billed amount charge, till they have installed the required capacitors. No new connection shall be released for any consumer having aggregate inductive load greater than 3 HP (2.2 kW) unless the capacitors of suitable rating are installed.

Dishonoured Cheque

- 8.5.6 In the event of dishonoured cheque for payment against a particular bill, the Licensee shall charge a minimum of 300 Rs or 0.5% of the billed amount, whichever is higher. The DPS shall be levied extra as per the applicable terms and conditions of DPS for the respective category.

Sale of energy

- 8.5.7 No consumer shall be allowed to sell the electricity purchased from the Licensee to any other person/ entity.

Conversion factors

- 8.5.8 The following shall be the conversion factors, as and where applicable: (PF=0.85):

1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)

1 Kilowatt (KW) = 1 / 0.746 Horsepower (HP)

Horsepower (1 HP) = 0.878 Kilovolt ampere (KVA)

9 COMPLIANCE OF DIRECTIVES

Earlier Directives

9.1 Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts:

- 9.1.1 **The Petitioner is directed to undertake an exercise for full and final segregation of accounts and get it certified.**

Compliance

- 9.1.2 SAIL has an integrated Steel Production Business, and the Company has been incorporated under the Companies Act. It prepares the Audited Annual Accounts as a statutory requirement since inception. Further, the licensed Electricity Distribution Business i.e., SAIL- BSL is a part of this overall integrated Steel Production business.
- 9.1.3 The standalone audited accounts submitted by SAIL-BSL include all the details of revenues, costs, assets, liabilities, reserves, and provisions pertaining to SAIL-BSL electricity distribution business only. SAIL-BSL submits that the majority of expenses for distribution business has been booked on actual basis as incurred for the electricity distribution segment.
- 9.1.4 As directed by the Hon'ble Commission, SAIL-BSL has prepared accounts for its Electricity Business duly certified by the statutory auditors while claiming truing up of completed years. The copy of the Audited Accounts is enclosed as **Annexure A** of this Petition. Further, SAIL-BSL has requested for approval from the management of SAIL for Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts, and the proposal is in under consideration by the SAIL-Management.

9.2 Employee Details

- 9.2.1 The Petitioner is directed to maintain and submit to the Commission separate lists of all the employees who are partially and wholly engaged in the electricity distribution business, along with their role and responsibility and salary drawn during the past financial year as on March 31, 2021 with the next tariff petition.

Compliance

- 9.2.2 As directed by the Hon'ble Commission, SAIL-BSL has submitted the total employee expense pertaining to electricity distribution business duly certified by the Auditor in the Audited Accounts is enclosed as **Annexure A** of this Petition. Further, SAIL-BSL is in preparation of providing detailed breakup of

all its employee (TA Electrical) and their expense for FY 2023-24 duly verified and audited by a Chartered Accountant and same shall be submitted during the Regulatory proceedings of the current Petition.

9.3 Maintenance of Fixed Asset Register

Compliance

- 9.3.1 As per the directive of the Commission, SAIL-BSL has prepared the Fixed Assets Register for the township which encompasses all the assets of SAIL-BSL pertains to electricity distribution business with certain allocation matrix. The copy of the Audited Accounts is enclosed as **Annexure A** of this Petition.

9.4 Cost of supply

- 9.4.1 The Commission directs the Petitioner to conduct a CoS study for each category of consumers and submit it to the Commission along with the next Tariff Petition.

Compliance

- 9.4.2 In order to calculate losses at various voltage levels to determine the category wise cost of supply, SAIL-BSL has taken an initiative to install smart meters and CT/PT sets at strategic points within substation network. The Smart meter initiative is under the advance stage of technical specification finalisation. Further, upon technical specification finalisation, the Stage I approval of the scheme shall happen. Accordingly, SAIL-BSL will be in a position to calculate the category wise cost of supply only after installation of such CTs /PTs and smart meters.
- 9.4.3 SAIL-BSL acknowledge the directive of Hon'ble Commission for submission of detailed plan for the cost of study. However, SAIL BSL humbly submits that the cost of supply study can only be done upon implementation of Smart meter initiative.

9.5 Energy Audit & T&D Loss Reduction Plan

- 9.5.1 The Commission directs the Petitioner to conduct Energy Audit & prepare T&D loss Reduction Plan.

Compliance

- 9.5.2 SAIL-BSL acknowledges the directive of Hon'ble Commission and notes that a detailed feeder wise the energy audit is required to assess the high loss pockets and feeder wise/cluster wise loss reduction.

9.5.3 However, before initiation of energy audit for the township, the installation of feeder level energy meters is necessary. Furthermore, in this regard SAIL-BSL is planning to install smart meters on each of the feeders Substation as envisaged in the measures undertaken for the loss reduction plan. The Smart meter initiative is under the advance stage of technical specification finalisation. Further, upon technical specification finalisation, the Stage I approval of the scheme shall happen.

9.5.4 SAIL-BSL requests Hon'ble Commission to allow them to submit the detailed plan regarding energy audit in upcoming years upon finalisation of Smart meter scheme.

9.6 Voltage-wise Cost of Supply

9.6.1 The Commission directs the Petitioner to carry out a detailed technical study on voltage wise losses on Distribution network and furnish a report along with the next Tariff Petition.

Compliance

9.6.2 In order to calculate losses at various voltage levels to determine the category wise cost of supply, SAIL-BSL has taken an initiative to install smart meters and CT/PT sets at strategic points within substation network. The Smart meter initiative is under the advance stage of technical specification finalisation. Further, upon technical specification finalisation, the Stage I approval of the scheme shall happen. Accordingly, SAIL-BSL will be in a position to calculate the category wise cost of supply only after installation of such CTs /PTs and smart meters.

9.6.3 SAIL-BSL acknowledge the directive of Hon'ble Commission for submission of detailed plan for the cost of study. However, SAIL BSL humbly submits that the cost of supply study can only be done upon implementation of Smart meter initiative.

9.6.4 SAIL-BSL requests Hon'ble Commission to allow them to submit the detailed plan regarding voltage wise cost of supply in upcoming years upon finalisation of Smart meter scheme.

9.7 Meter separation for Commercial-cum-Residential Consumer Premises

9.7.1 The Commission directs the licensee to identify and segregate all Commercial-cum Residential Consumer Premises, and issue separate bills for each type of usage. The licensee is directed to submit a report on such compliance of directive within three (3) months of issuance of this Order.

Status

- 9.7.2 SAIL-BSL submits that plots in the City Centre and Sector markets have been allocated for commercial purposes. For the allocation of the plots, SAIL-BSL has invited a public advertisement application in the year 1987 for the transaction of business i.e. on purely commercial plots. A sample lease agreement is annexed as **Annexure P** of this Petition.
- 9.7.3 Further, SAIL-BSL has taken a step forward in this regard and raised a query note sheet to Town Administration Department, SAIL-BSL dated 3rd February 2024, immediately after the public hearing held at Bokaro dated 02nd February 2024, to substantiate that the plots in SAIL-BSL Township have been allotted on commercial terms only.
- 9.7.4 In reply to this, the Town Administration department has clarified that the Plots had been allotted by SAIL-BSL on purely commercial basis and all the lessees are using the said premises as commercial uses. The relevant extract of the reply is as below:

*Kindly refer attached Advertisement inviting application for allotment of plot in the year 1987 wherein **applications were invited for the transaction of business i.e. on purely commercial plots.** (Attachment-1).*

*Thereafter, lessee applied for a particular trade in the application form i.e. also commercial. (Attachment-2). **There was no provision for residential use.***

*After accepting terms and conditions and depositing requisite charges mentioned in Proposal letter, Allotment order was issued mentioning the trade allotted for. It is clearly mentioned in the allotted trade in Allotment letter **i.e. purely commercial** which can be seen in Attached allotment letter (Attachment-3).*

The allotted trade which is purely commercial has also reflected in the subsequent Agreement for Lease Agreement executed by and between the Lessee and SAIL/BSL, there is no provision in residential in lease agreement. A copy of Lease Agreement is also attached herewith as (Annexure-4). Hence, it is ample clear that Plots had been allotted by SAIL/BSL on purely commercial basis and all the lessees are using the said premises as commercial uses. (emphasis added)

- 9.7.5 In view of above, SAIL-BSL submits that it is making all efforts to ensure that consumers are put in appropriate categories with appropriate tariff is charged to them. Further, in this case plots in City Centre and Sector markets have been allotted for the commercial purposes, as per the lease agreement executed between the lessee and SAIL-BSL.

- 9.7.6 **Further, there is no residential demarcation in the lease terms. Hence, such bifurcation of electricity tariff on the basis of residential and commercial use cannot be allowed in this case.**
- 9.7.7 However, SAIL-BSL acknowledge the directive of Hon'ble Commission to put consumer in appropriate categories and accordingly, appropriate tariff is charged to them.
- 9.7.8 In this regard, as a next step in the benefit of the Consumers, SAIL-BSL is planning to hold a meeting with the concerned consumers only having contract lease agreement of Commercial cum Residential to discuss their grievance to the concerned officer appointed by SAIL-BSL through a public notice in the newspaper.
- 9.7.9 Further, the grievances and suggestions in the meeting would be forwarded to the concerned department of Town Administration for verification and necessary actions. Accordingly, based on the Town Administration recommendation, SAIL-BSL would ensure that consumers are put in appropriate categories with appropriate tariff is charged to them.
- 9.7.10 **The SAIL-BSL request Hon'ble Commission to allow SAIL-BSL to charge these consumers on commercial tariff as per the agreement between commercial plot holders and SAIL-BSL.**

9.8 Legal Action against Theft of Electricity

- 9.8.1 The licensee is directed to identify and take legal action against all cases of Electricity Theft including theft due to encroachment of unregistered commercial establishments. In all cases if identified theft, the consumer shall be offered a load appropriate metered connection. The licensee shall submit bi-annual reports to the Commission in such regard.

Compliance

- 9.8.2 SAIL- BSL is striving hard for disconnection of unauthorized power tapping across its Township & performs various measures to minimize power theft.
- 9.8.3 SAIL-BSL is addressing theft by taking certain initiatives as discussed in Para 3.4.7 to 3.4.11 of this Petition. Further, SAIL-BSL has also formed groups consisting of senior officials along with CISF team and visiting the local areas to check illegal connections and hooking. These officials are conducting time-bound raids in the township for illegal connections. Details of the roster are annexed as **Annexure G** of this Petition.

9.9 Consumer Awareness Programs

9.9.1 The Commission directs the Petitioner to conduct a minimum of two (2) Consumer Awareness Programs per year to enhance awareness of the consumers about Consumer Grievance Redressal Mechanism, Electricity Tariffs, Standards of Performance and Other Regulations as applicable. These programs shall also be used to redress the grievances of consumers, as the case may be.

Compliance

9.9.2 In compliance to the directive given by the Hon'ble Commission, SAIL-BSL is in discussion with the internal team regarding the Customer Interaction Meeting (CIM) for the redressal of consumer complaints at General Manager level. A MoM of the discussion is annexed as an **Annexure R** of this Petition.

9.9.3 Further, in this regards, SAIL BSL is in process of publishing the advertisement in the newspaper through public relation office. Once the approval is in place, SAIL-BSL would submit the newspaper advertisement to Hon'ble Commission.

9.9.4 The meeting in regard to the grievance of consumer complaints are brought under the notice & resolved on regular basis in the office of GM I/C TA-Electrical.

9.10 Trajectory for reduction of Cross-subsidy

9.10.1 The Petitioner is directed to submit a proposal with regard to the category/sub category wise trajectory for cross-subsidy reduction and take steps to reduce such subsidy to (+/-) 20% of the Average Cost of Supply (ACoS) in compliance with the provisions of the Electricity (Amendment) Rules, 2022.

Compliance

9.10.2 The Consumer Mix of SAIL-BSL is quite different from other utilities in the Jharkhand as ~90% consumers come under highly subsidized residential category.

9.10.3 However, SAIL-BSL acknowledge the directive of the Commission and proposes the cross-subsidy trajectory to (+/-) 20% of the Average Cost of Supply (ACoS) with the provisions of the Electricity (Amendment) Rules, 2022 as below:

| CSS | FY 2025-26 | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 |
|-------|------------|------------|------------|------------|------------|
| DS-LT | 50% | 57% | 65% | 72% | 80% |
| DS-HT | 46% | 54% | 63% | 71% | 80% |
| CS | 97% | 103% | 108% | 114% | 120% |

| | | | | | |
|-------|------|------|------|------|------|
| LTIS | 99% | 105% | 110% | 115% | 120% |
| HTS | 123% | 122% | 121% | 121% | 120% |
| HT/LT | 105% | 109% | 112% | 116% | 120% |

9.10.4 Further, in this regards, SAIL-BSL has assumed that the ACoS would increase by 4% Y-o-Y.

Current Directives

9.11 Timeliness and Data Adequacy in the Next Tariff Petition

9.11.1 The Commission directs the licensee to file the next tariff petition, after removing deficiencies highlighted in this Tariff Order. The Petitioner should ensure that the data submitted to the Commission is accurate and justified with adequate certification. The Commission also directs the licensee to ensure submission of the next tariff petition within the time frame as stipulated in Section A 24 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.

Compliance

9.11.2 SAIL-BSL submits that the delay in the submission of the present petition was due to the finalization of audited accounts and the issuance of the MYT order. SAIL-BSL humbly requests the Hon'ble Commission to condone this delay. Moving forward, SAIL-BSL is committed to ensuring strict adherence to the timelines stipulated in Section A 24 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 and will take necessary measures to enhance the accuracy and adequacy of data submission with proper certification.

9.12 Establishment of Customer Care helpline

9.12.1 The Commission directs the licensee to establish customer care helpdesk (both online and offline) which shall act as support system designed to assist customers with their inquiries, issues, and requests. It shall act as the frontline of customer service, offering solutions to problems, providing information about queries, and ensuring customer satisfaction. The customer care should be equipped with knowledgeable agents and efficient tools such that helpdesk can handle a wide range of customer interactions, from technical issues to addressing billing concerns. The details of the helpline numbers should also be mentioned in electricity bills and should also have wide circulation in all offices of the licensee.

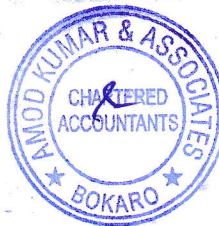
Compliance

9.12.2 In compliance with the directive for the establishment of a Customer Care Helpline, SAIL-BSL has established a centralized Call Centre to address all

electrical complaints related to TA – Electrical. This facility operates round the clock, including holidays, allowing consumers to lodge complaints and track their resolution status. The helpline numbers (06542-286111, 06542-286222) are widely circulated, including on electricity bills and in all offices of the licensee. Additionally, an online complaint portal has been introduced, enabling consumers to register complaints and receive feedback upon resolution. The helpdesk is equipped with trained personnel and efficient tools to handle technical issues, billing concerns, and general inquiries, ensuring prompt and effective customer service.

Auditor's Report**To SAIL/ Bokaro Steel plant for its Electricity distribution business.**

1. We have audited the attached Balance Sheet of **SAIL / BOKARO STEEL PLANT (ELECTRICITY ACCOUNTS)** as at **31st March, 2024** along with the Profit and Loss Statement for the year ended on that date annexed thereto. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We have conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting - principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. Annual accounts pertaining to electricity distribution business have been extracted from the main audited books of accounts of SAIL/Bokaro steel plant for the financial year 2023-24. Further no separate books of accounts are being maintained for its electricity distribution business and financial statement i.e balance sheet and profit & loss account of electricity distribution business has been prepared on the basis of such accounting policies and assumptions as annexed to these financial statements.
4. Since no separate company has been formed for electricity distribution business and the entire operation of electricity distribution business is being taken care by SAIL/Bokaro steel plant, observations on Companies audit report order, 2003 has not been commented upon and we have limited our observation to the extent of true & fair view of balance sheet and profit & loss account prepared on the basis as mentioned above.





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AMOD KUMAR & ASSOCIATES
CHARTERED ACCOUNTANTS

ADDRESS : PLOT NO.-107, BARI CO-OPERATIVE
BOKARO, JHARKHAND-827014

5. The directives given by the Jharkhand state electricity regulatory commission has not been complied in totality. However, in our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view in conformity with the accounting principles generally accepted in India.
- a) In the case of the Balance Sheet, of the state of affairs of the Company as at 31st March, 2024; and
b) In the case of the Profit & Loss Statement of the Profit for the year ended on that date.

For Amod Kumar & Associates
Firm Regn. No. 012502C
Chartered Accountants

Awadhesh


Awadhesh Kumar
Proprietor
(Membership No: 507082)
Date: 25/03/2025
Place: Bokaro
UDIN: 25507082BMJQJA7647

BOKARO STEEL PLANT (ELECTRICITY ACCOUNTS)**Balance Sheet as at 31st March, 2024**

| | Note No. | As at 31st 31st March, 2024 | As at 31st 31st March, 2023 |
|---|-------------|--------------------------------|--------------------------------|
| | | (₹ in Crores) | (₹ in Crores) |
| SOURCES OF FUNDS | | | |
| Shareholders' Fund | | | |
| Share Capital | | 0.00 | 0.00 |
| Reserves and Surplus | | 0.00 | 0.00 |
| | | 0.00 | 0.00 |
| Loan Funds | | | |
| Funds Provided by BSL | | 1309.08 | 1190.94 |
| Unsecured Loans | | 0.00 | 0.00 |
| | | 1309.08 | 1190.94 |
| | | 1309.08 | 1190.94 |
| APPLICATION OF FUNDS | | | |
| Fixed Assets | | | |
| Gross Block | | 62.39 | 45.04 |
| Less: Depreciation | | 24.27 | 24.16 |
| Net Block | | 38.12 | 20.88 |
| Capital Work-in-Progress | | 0.00 | 0.00 |
| | | 38.12 | 20.88 |
| Current Assets, Loans & Advances | | | |
| Inventories | | 0.00 | 0.00 |
| Sundry Debtors | | 95.68 | 90.95 |
| Cash & Bank Balances | | 0.00 | 0.00 |
| Interest Receivable/Accrued | | 0.00 | 0.00 |
| Loans & Advances | | 4.77 | 5.39 |
| | | 100.45 | 96.34 |
| Less: Current Liabilities & Provisions | | | |
| Current Liabilities | | 10.51 | 15.17 |
| Provisions | | 1.52 | 2.22 |
| | | 12.03 | 17.39 |
| Net Current Assets | | 88.42 | 78.95 |
| Miscellaneous Expenditure | | 0.00 | 0.00 |
| (to the extent not written off or adjusted) | | | |
| Profit & Loss Account Debit Balance | | 1182.54 | 1091.10 |
| Inter Unit Current Account | | 0.00 | 0.00 |
| | | 1309.08 | 1190.94 |

Material Accounting Policy Information and assumptions
Schedules 1 and 3 annexed hereto, form part of the Balance Sheet.

Amod Kumar & Associates
Chartered Accountants

Awadhesh Kumar
Proprietor

Date: 25/03/2024
Place : Bokaro



[Rajul Harkerni]
GM:TE-Electricals

[RAMESH CHANDRA]
GM:F&A

रमेश चन्द्र
Ramesh Chandra
महाप्रबन्धक (वित्त एवं लेखा)
General Manager (F&A)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

BOKARO STEEL PLANT (ELECTRICITY ACCOUNTS)**Profit & Loss Account for the period ended 31st March, 2024**

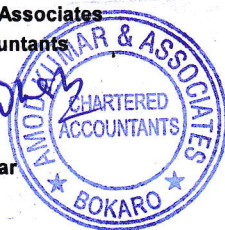
| | Note No. | Year ended 31st March, 2024 (₹ in Crores) | Year ended 31st March, 2023 (₹ in Crores) |
|---|-------------|---|---|
| INCOME | | | |
| Income from distribution of electricity | | 71.23 | 85.68 |
| | | <u>71.23</u> | <u>85.68</u> |
| EXPENDITURE | | | |
| Employees' Remuneration & Benefits | 11.24 | | 9.51 |
| Stores & Spares Consumed | 0.58 | | 4.01 |
| Power & Fuel | 139.60 | | 136.82 |
| Repairs & Maintenance | 5.71 | | 4.19 |
| Freight outward | 0.00 | | 0.00 |
| Other expenses | 0.58 | | 0.81 |
| Share of expenditure over income | | | |
| - Corporate Office | 0.42 | | 0.47 |
| - CMO | 0.35 | | 0.42 |
| - CCSO | -0.04 | | -0.05 |
| Interest & finance charges | 1.70 | | 1.19 |
| Depreciation | 2.53 | | 1.78 |
| Total | 162.67 | | 159.15 |
| Less : Inter Account Adjustments | 0.00 | 162.67 | 0.00 |
| | | <u>-91.44</u> | <u>-73.46</u> |
| Adjustments pertaining to earlier years | | 0.00 | 0.00 |
| Profit /Loss(-) for the period | | <u>-91.44</u> | <u>-73.46</u> |
| Less : Provision for Taxation | | 0.00 | 0.00 |
| Earlier years adjustments | | 0.00 | 0.00 |
| Profit/Loss(-) after tax | | <u>-91.44</u> | <u>-73.46</u> |
| Balance brought Forward | | -1091.10 | -1017.64 |
| | | <u>-1182.54</u> | <u>-1091.10</u> |
| Amount available for appropriation | | | |
| | | -1182.54 | -1091.10 |
| Balance carried over to BalanceSheet | | -1182.54 | -1091.10 |

Material Accounting Policy Information and assumptions
Schedules 2 and 3 annexed hereto, form part of the Profit & Loss Account.

Amod Kumar & Associates
Chartered Accountants

Awadhesh Kumar
Proprietor

Date: 25/03/2024
Place : Bokaro

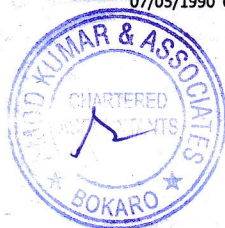


25/03/24
[Rajul Harkerni]
GM:TE-Electricals

[RAMESH CHANDRA]
GM:F&A

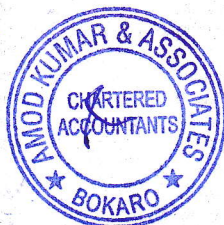
रमेश चन्द्र
Ramesh Chandra
महाप्रबन्धक (वित्त एवं लेखा)
General Manager (F&A)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

| | | | | | | |
|---------|---|---------|---|---------------|----------------|------------------|
| 1500481 | 0 | 1133400 | 01/08/2008 PROV. OF ALTERNATE POWER SUPPL | 2,768,637.00 | -1,426,743.53 | 1,341,893.47 INR |
| 1500532 | 0 | 1133400 | 15/07/2014 TRFR, POWER, 3PH, 11KV, 0.433KV | 4,526,970.15 | -2,041,836.40 | 2,485,133.75 INR |
| 1500533 | 0 | 1133400 | 15/07/2014 TRFR, POWER, 3PH, 11KV, 0.433KV | 2,263,485.14 | -1,020,918.22 | 1,242,566.92 INR |
| 1700256 | 0 | 1160100 | 18/09/1968 NIF MARK ENGG EQUIP | 1,239.71 | -1,239.71 | 0.00 INR |
| 1703482 | 0 | 1162500 | 21/07/1968 HOHP MOTOR DULY REPAIRS | 11,073.23 | -10,519.57 | 553.66 INR |
| 1703513 | 0 | 1162500 | 02/08/1968 CHAIN PULLY BLOCK | 399.96 | -399.96 | 0.00 INR |
| 1703515 | 0 | 1162500 | 24/11/1969 CHAIN PULLY BLOCK | 704.80 | -704.80 | 0.00 INR |
| 1704270 | 0 | 1162500 | 07/08/1973 MOTOR 250 HP 300 KM K W | 58,592.28 | -55,662.67 | 2,929.61 INR |
| 1708578 | 0 | 1164300 | 19/09/1989 CHAIN PULLY | 3,022.05 | -3,022.05 | 0.00 INR |
| 1708585 | 0 | 1164300 | 29/01/1989 CHAIN PULLY | 4,161.25 | -4,161.25 | 0.00 INR |
| 1708589 | 0 | 1164300 | 16/06/1989 MAN PULLEY | 8,460.19 | -8,460.19 | 0.00 INR |
| 1708590 | 0 | 1164300 | 05/06/1989 MAN PULLY | 2,500.00 | -2,500.00 | 0.00 INR |
| 1709135 | 0 | 1164300 | 13/06/1987 132 | 43,884.10 | -43,884.10 | 0.00 INR |
| 1709139 | 0 | 1164300 | 26/08/1987 STEPDOWN TRANSFORMER | 1,490.00 | -1,490.00 | 0.00 INR |
| 1709431 | 0 | 1169700 | 02/08/1985 CHAIN PULLY | 2,519.30 | -2,519.30 | 0.00 INR |
| 1712082 | 0 | 1169700 | 31/03/1990 GEC LT INDOOR SWITCH | 68,391.92 | -64,972.32 | 3,419.60 INR |
| 1712210 | 0 | 1169700 | 10/11/1990 LT PANNEL BOARD FOR 500KVA TRAI | 68,391.93 | -65,183.79 | 3,208.14 INR |
| 1712211 | 0 | 1169700 | 20/02/1993 LT PANEL BOARD FOR 500 KVA TRAN | 68,391.93 | -64,972.33 | 3,419.60 INR |
| 1713075 | 0 | 1169700 | 24/12/2021 PROVISION OF 40 NOS HIGH MAST TC | 4,716,788.00 | -697,036.46 | 4,019,751.54 INR |
| 1713075 | 1 | 1169700 | 24/12/2021 PROVISION OF 40 NOS HIGH MAST TC | 4,180,789.36 | -617,827.77 | 3,562,961.59 INR |
| 1713075 | 2 | 1169700 | 24/12/2021 PROVISION OF 40 NOS HIGH MAST TC | 1,822,395.36 | -161,585.71 | 1,660,809.65 INR |
| 2300472 | 0 | 1220700 | 30/04/2005 UPS 0.5KVA. | 34,064.85 | -34,064.85 | 0.00 INR |
| 2300507 | 0 | 1220700 | 09/05/2005 UPS 0.5KVA. | 6,813.00 | -6,813.00 | 0.00 INR |
| 2301333 | 0 | 1229700 | 17/04/2012 COMPUTER FOR TOWNSHIP ELECTRIC | 61,717.11 | -58,631.25 | 3,085.86 INR |
| 2301334 | 0 | 1229700 | 17/04/2012 UPS FOR TOWNSHIP ELECTRICAL MAI | 8,400.00 | -8,400.00 | 0.00 INR |
| 2302005 | 0 | 1229700 | 25/01/2014 COMPUTER | 30,858.56 | -29,315.63 | 1,542.93 INR |
| 2302006 | 0 | 1229700 | 25/01/2014 UPS | 4,200.00 | -4,200.00 | 0.00 INR |
| 2302066 | 0 | 1229700 | 27/06/2014 COMPUTER | 41,780.09 | -39,691.09 | 2,089.00 INR |
| 2302067 | 0 | 1229700 | 27/06/2014 UPS | 2,541.00 | -2,541.00 | 0.00 INR |
| 2400038 | 0 | 1231000 | 17/10/1969 ELECT EQUIPT & APPL INSULATOR | 1,609.50 | -1,609.50 | 0.00 INR |
| 2400050 | 0 | 1231000 | 19/11/1969 ELECT EQUIPT & APPL 15INCH ELECT | 276.64 | -276.64 | 0.00 INR |
| 2400085 | 0 | 1231000 | 07/08/1968 EMI MAKE A/C TRANSFORMER | 3,563.25 | -3,563.25 | 0.00 INR |
| 2400103 | 0 | 1231000 | 14/05/1968 AUTO TRANSFORMER MAX LOAD 8 A | 1,076.04 | -1,076.04 | 0.00 INR |
| 2400104 | 0 | 1231000 | 14/05/1968 286 K V A TRANSFORM | 458.29 | -458.29 | 0.00 INR |
| 2400129 | 0 | 1231000 | 02/12/1967 SUNPSAN MULTIMETER | 1,964.70 | -1,964.70 | 0.00 INR |
| 2400130 | 0 | 1231000 | 02/12/1967 MULTIMETER WITH LEATHER CASE | 1,309.80 | -1,309.80 | 0.00 INR |
| 2400131 | 0 | 1231000 | 23/11/1967 MULTIMETER | 654.90 | -654.90 | 0.00 INR |
| 2400132 | 0 | 1231000 | 01/01/1968 SEIMPSON MULTIMETER WITH LEATH- | 654.90 | -654.90 | 0.00 INR |
| 2400887 | 0 | 1231000 | 10/05/1972 48 SWEEP A/C CEILING COMPLETE W | 24,181.31 | -24,181.31 | 0.00 INR |
| 2402852 | 0 | 1231000 | 29/11/1975 CEILING FAN | 2,529.98 | -2,529.98 | 0.00 INR |
| 2402853 | 0 | 1231000 | 21/11/1975 1200 MM SINGLE PHASE A C CEILING | 3,035.97 | -3,035.97 | 0.00 INR |
| 2402854 | 0 | 1231000 | 11/11/1975 A C CEILING FANS 48 INCH | 50,599.53 | -50,599.53 | 0.00 INR |
| 2402878 | 0 | 1231000 | 02/03/1976 18 INCH SWEEP EXHAUST FAN | 1,060.00 | -1,060.00 | 0.00 INR |
| 2405452 | 0 | 1231000 | 24/04/1974 TRANSFORMER 500KVA NO | 32,042.71 | -30,440.57 | 1,602.14 INR |
| 2405453 | 0 | 1231000 | 24/04/1974 TRANSFORMER | 5,554.56 | -5,276.83 | 277.73 INR |
| 2405454 | 0 | 1231000 | 24/04/1974 TRANSFORMER | 13,691.54 | -13,006.96 | 684.58 INR |
| 2405455 | 0 | 1231000 | 24/04/1974 TRANSFORMER | 44,969.30 | -42,720.84 | 2,248.46 INR |
| 2405620 | 0 | 1231000 | 19/04/1991 50 KVA OUTDOOR TRANSFORMER | 17,789.13 | -16,899.65 | 889.48 INR |
| 2405621 | 0 | 1231000 | 10/09/1991 250 KVA I/D PENAL | 31,209.00 | -29,648.57 | 1,560.43 INR |
| 2406472 | 0 | 1231000 | 01/08/1985 50MV TRANSFORMER | 21,086.18 | -20,031.87 | 1,054.31 INR |
| 2406513 | 0 | 1231000 | 02/11/1983 CEILING FAN | 12,004.97 | -12,004.97 | 0.00 INR |
| 2406520 | 0 | 1231000 | 02/11/1983 CEILING FAN | 12,683.85 | -12,683.85 | 0.00 INR |
| 2406538 | 0 | 1231000 | 08/08/1983 1200 MM 48 A C CEILING FAN WITH F | 17,193.28 | -17,193.28 | 0.00 INR |
| 2406539 | 0 | 1231000 | 10/05/1983 CEILING FAN | 39,984.37 | -39,984.37 | 0.00 INR |
| 2406540 | 0 | 1231000 | 15/07/1983 48 SWEEP AC CEILING FAN COMPLETI | 72,371.72 | -72,371.72 | 0.00 INR |
| 2407040 | 0 | 1231000 | 03/08/1995 ceiling fans 56inch | 117,563.16 | -117,563.16 | 0.00 INR |
| 2407041 | 0 | 1231000 | 26/07/1995 ceiling fans 48inch | 115,097.37 | -115,097.37 | 0.00 INR |
| 5400001 | 0 | 1300100 | 01/10/1984 ELECTRICAL INSTALLATION T/SHIP(8 | 1,350,500.00 | -1,282,974.00 | 67,526.00 INR |
| 5400002 | 0 | 1300100 | 01/10/1985 ELECTRICAL INSTALLATION T/SHIP(8 | 88,000.00 | -83,600.00 | 4,400.00 INR |
| 5400003 | 0 | 1300100 | 01/10/1986 ELECTRICAL INSTALLATION T/SHIP(8 | 4,451,000.00 | -4,228,450.00 | 222,550.00 INR |
| 5400004 | 0 | 1300100 | 01/10/1987 ELECTRICAL INSTALLATION T/SHIP(8 | 2,124,000.00 | -2,017,800.00 | 106,200.00 INR |
| 5400005 | 0 | 1302500 | 01/10/1988 ELECTRICAL INSTALLATION T/SHIP(8 | 551,000.00 | -523,450.00 | 27,550.00 INR |
| 5400006 | 0 | 1304500 | 01/10/1989 ELECTRICAL INSTALLATION T/SHIP(8 | 1,549,000.00 | -1,471,550.00 | 77,450.00 INR |
| 5400009 | 0 | 1304500 | 01/10/1990 ELECTRICAL INSTALLATION T/SHIP(9 | 1,981,000.00 | -1,881,950.00 | 99,050.00 INR |
| 5400010 | 0 | 1304500 | 01/10/1991 ELECTRICAL INSTALLATION T/SHIP(9 | 33,825,000.00 | -32,133,750.00 | 1,691,250.00 INR |
| 5400015 | 0 | 1304500 | 29/02/1992 PROV. OF ELECTRICAL WORKS FOR2 | 160,734.15 | -153,504.61 | 7,229.54 INR |
| 5400016 | 0 | 1304500 | 30/09/1991 ADDL. 11 KV CABLE OF FEEDER NO.2 F | 148,335.40 | -141,548.32 | 6,787.08 INR |
| 5400018 | 0 | 1304500 | 31/01/1995 PROV. OF STREET LIGHT ALONGSEI | 133,001.34 | -126,351.27 | 6,650.07 INR |
| 5400053 | 0 | 1304500 | 24/04/1976 SYATI MOTORS 400 HP | 123,087.50 | -116,933.13 | 6,154.37 INR |
| 5400071 | 0 | 1304500 | 21/02/1991 CHAIN PULLY | 7,798.46 | -7,798.46 | 0.00 INR |
| 5400138 | 0 | 1304500 | 02/07/1992 "MAX PULLER 1.6 TONS CAP" | 3,224.00 | -3,224.00 | 0.00 INR |
| 5400139 | 0 | 1304500 | 03/09/1992 MAX PULLER | 4,920.03 | -4,920.03 | 0.00 INR |
| 5400148 | 0 | 1304500 | 10/04/1990 INDOOR SWITCH | 68,391.93 | -64,972.34 | 3,419.59 INR |
| 5400150 | 0 | 1304500 | 07/05/1990 G E C LT INDOOR SWITCH | 68,391.93 | -64,972.35 | 3,419.58 INR |



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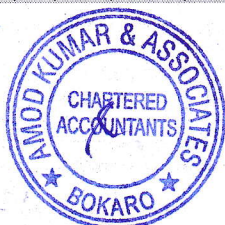
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|---------|---|---------|---|----------------|----------------|--------------------|
| 5400151 | 0 | 1304500 | 15/05/1990 G E C LT INDOOR SWITCH | 205,175.79 | -194,917.00 | 10,258.79 INR |
| 5400158 | 0 | 1304500 | 31/03/1991 ELECT. INSTALLATION | 470,549.51 | -447,022.03 | 23,527.48 INR |
| 5400159 | 0 | 1304500 | 14/04/1988 ELECT. INSTALLATION | 63,600.00 | -60,420.00 | 3,180.00 INR |
| 5400163 | 0 | 1304500 | 16/03/1990 ELECT. INSTLN | 85,200.00 | -80,940.00 | 4,260.00 INR |
| 5400178 | 0 | 1304500 | 06/05/1995 Electrification in Block B Bokaro Hote | 76,525.25 | -72,698.99 | 3,826.26 INR |
| 5400236 | 0 | 1304500 | 01/04/1995 ELECTRICAL INSTALLATION | 20,037,275.12 | -19,035,411.36 | 1,001,863.76 INR |
| 5400252 | 0 | 1304500 | 01/12/1999 distribution transformer | 1,291,005.00 | -1,226,454.75 | 64,550.25 INR |
| 5400253 | 0 | 1304500 | 17/05/2000 OIL CIRCUIT BREAKER | 26,556.80 | -25,228.96 | 1,327.84 INR |
| 5400255 | 0 | 1304500 | 31/08/1998 6 NOS. OF ADDL.DISTRIBUTION TRAN | 305,579.25 | -290,300.29 | 15,278.96 INR |
| 5400257 | 0 | 1304500 | 31/05/2000 PROVISION OF 2 NOS OF ADDL.DISTR | 470,476.66 | -446,952.83 | 23,523.83 INR |
| 5400269 | 0 | 1304500 | 01/05/2006 DISTRIBUTION TRASFORMER-500 KV/ | 480,941.32 | -266,892.46 | 214,048.86 INR |
| 5400270 | 0 | 1304500 | 03/05/2006 DISTRIBUTION TRASFORMER-500 KV/ | 480,941.32 | -266,892.46 | 214,048.86 INR |
| 5400271 | 0 | 1304500 | 10/05/2006 DISTRIBUTION TRASFORMER-500 KV/ | 480,941.32 | -266,892.46 | 214,048.86 INR |
| 5400272 | 0 | 1304500 | 02/06/2006 DISTRIBUTION TRASFORMER-500 KV/ | 478,583.75 | -264,056.95 | 214,526.80 INR |
| 5400273 | 0 | 1304500 | 05/06/2006 DISTRIBUTION TRASFORMER-500 KV/ | 239,291.89 | -132,028.48 | 107,263.41 INR |
| 5400274 | 0 | 1304500 | 03/07/2006 DISTRIBUTION TRASFORMER-500 KV/ | 239,291.88 | -131,263.89 | 108,027.99 INR |
| 5400280 | 0 | 1304500 | 04/02/2007 PROVISION OF HIGH MAST TOWER LI | 2,274,876.00 | -2,161,132.20 | 113,743.80 INR |
| 5400282 | 0 | 1304500 | 24/08/2006 PROVISION OF EMERGENCY POWER | 1,003,184.00 | -953,024.80 | 50,159.20 INR |
| 5400287 | 0 | 1304500 | 02/04/2007 PROVN. OF 04 NOS 20MTR HIGH MA | 1,619,146.20 | -1,538,188.89 | 80,957.31 INR |
| 5400289 | 0 | 1304500 | 15/11/2007 PROV/ INSTALLATION OF 7 NOS. OF 2 | 2,840,265.75 | -2,698,252.46 | 142,013.29 INR |
| 5400303 | 0 | 1304500 | 20/07/2010 RAILWAY LINE 52KG USED AS ELECTR | 2.90 | -2.90 | 0.00 INR |
| 5400310 | 0 | 1304500 | 28/02/2011 PERIMETER SECURITY SYSTEM FOR 1: | 12,990,152.70 | -8,124,257.98 | 4,865,894.72 INR |
| 5400315 | 0 | 1304500 | 30/01/2017 PROVISION OF 20 NOS HIGH MAST LI | 4,800,839.62 | -1,653,289.13 | 3,147,550.49 INR |
| 5400315 | 1 | 1304500 | 30/01/2017 PROVISION OF 20 NOS HIGH MAST LI | 1,898,820.22 | -326,953.11 | 1,571,867.11 INR |
| 5400315 | 2 | 1304900 | 30/01/2017 PROVISION OF 20 NOS HIGH MAST LI | 6,261,570.24 | -1,725,062.61 | 4,536,507.63 INR |
| 5400317 | 0 | 1304900 | 16/11/2017 Augmentation of 132kV/ 11kV Towns | 52,246,623.47 | -7,962,167.74 | 44,284,455.73 INR |
| 5400317 | 1 | 1309700 | 16/11/2017 Augmentation of 132kV/ 11kV Towns | 156,739,870.40 | -47,773,006.32 | 108,966,864.08 INR |
| 5500254 | 0 | 1310100 | 01/03/1983 CALCUTTA OFFICE | 1,166,597.90 | -1,108,268.01 | 58,329.89 INR |
| 5800224 | 0 | 1340700 | 24/08/2004 UPS 0.5KVA. | 18,243.05 | -18,243.05 | 0.00 INR |
| 5800278 | 0 | 1340700 | 29/09/2006 UPS 0.5KVA. | 1,939.60 | -1,939.60 | 0.00 INR |
| 5800279 | 0 | 1340700 | 29/09/2006 UPS 0.5KVA. | 1,939.60 | -1,939.60 | 0.00 INR |
| 5800283 | 0 | 1340700 | 16/10/2006 UPS 0.5KVA. | 1,939.59 | -1,939.59 | 0.00 INR |
| 5800525 | 0 | 1340700 | 28/03/2008 UPS 0.5KVA. | 2,634.47 | -2,634.47 | 0.00 INR |
| 5800528 | 0 | 1340700 | 28/03/2008 UPS 0.5KVA. | 2,634.47 | -2,634.47 | 0.00 INR |
| 5800552 | 0 | 1340700 | 15/06/2007 UPS 0.5KVA. | 1,704.39 | -1,704.39 | 0.00 INR |
| 5800553 | 0 | 1340700 | 15/06/2007 UPS 0.5KVA. | 35,792.24 | -35,792.24 | 0.00 INR |
| 5801402 | 0 | 1340700 | 05/07/2010 BUSINESS PC MODEL | 30,481.95 | -28,957.84 | 1,524.11 INR |
| 5801402 | 1 | 1340700 | 05/07/2010 LASER PRINTER & ACCESSORIES | 0.01 | 0.00 | 0.01 INR |
| 5900848 | 0 | 1350700 | 23/04/1975 CEILING FAN | 50,416.71 | -50,416.71 | 0.00 INR |
| 5900849 | 0 | 1351000 | 12/04/1975 CEILING FAN | 75,625.07 | -75,625.07 | 0.00 INR |
| 5900850 | 0 | 1351000 | 07/04/1975 CEILING FAN | 8,570.84 | -8,570.84 | 0.00 INR |
| 5900851 | 0 | 1351000 | 26/07/1975 CEILING FAN | 50,416.71 | -50,416.71 | 0.00 INR |
| 5900852 | 0 | 1351000 | 20/03/1976 CEILING FAN | 27,021.56 | -27,021.56 | 0.00 INR |
| 5901135 | 0 | 1351000 | 02/06/1990 250 K V A RATDOOR | 75,525.78 | -71,749.47 | 3,776.31 INR |
| 5901143 | 0 | 1351000 | 01/01/1991 ELECT TOWNSHIP | 46,400.00 | -44,080.00 | 2,320.00 INR |
| 5901145 | 0 | 1351000 | 31/03/1990 G ECLTINDOORSWICH BOARD | 57,101.12 | -54,246.06 | 2,855.06 INR |
| 5901155 | 0 | 1351000 | 01/11/1990 PROVISION OF 7 NOS 1.0TR ROOM | 183,000.00 | -173,850.00 | 9,150.00 INR |
| 5901161 | 0 | 1351000 | 24/04/1974 TRANSFORMER 250 KVA | 19,259.62 | -18,296.64 | 962.98 INR |
| 5901162 | 0 | 1351000 | 21/03/1975 CEILING FAN 48 INCH | 2,771.67 | -2,771.67 | 0.00 INR |
| 5901163 | 0 | 1351000 | 12/04/1974 48 SWEEP A C CEILING FAN & REGCOI | 1,272.89 | -1,272.89 | 0.00 INR |
| 5901164 | 0 | 1351000 | 12/04/1974 EXHAUST FAN 16 SWEEP COMPLTE | 1,297.63 | -1,297.63 | 0.00 INR |
| 5901212 | 0 | 1351000 | 13/07/1991 PADESTAL FAN | 13,246.51 | -13,246.51 | 0.00 INR |
| 5901216 | 0 | 1351000 | 11/02/1989 500 KVA O/D TRANSFORMER | 86,284.26 | -81,970.05 | 4,314.21 INR |
| 5901217 | 0 | 1351000 | 30/05/1988 INDOOR PANEL FOR 500 KVA TRANSF | 46,676.25 | -44,342.44 | 2,333.81 INR |
| 5901218 | 0 | 1351000 | 27/04/1988 TRANSFORMER OUTDOOR 100 KVA | 61,730.46 | -58,643.94 | 3,086.52 INR |
| 5901219 | 0 | 1351000 | 30/05/1988 TRANSFORMER OUTDOOR 100 KVA | 97,999.57 | -93,099.59 | 4,899.98 INR |
| 5901220 | 0 | 1351000 | 28/11/1988 OLD 500KVA TRANSFORMER | 97,999.57 | -93,099.59 | 4,899.98 INR |
| 5901221 | 0 | 1351000 | 28/11/1988 INDOOR PANEL FOR 500 KVA O/D TR | 50,042.07 | -47,539.97 | 2,502.10 INR |
| 5901234 | 0 | 1351000 | 06/06/1980 PEDESTAL FAN 16 INCH RONGEN | 271.67 | -271.67 | 0.00 INR |
| 5901242 | 0 | 1351000 | 26/08/1987 400A OCB | 12,375.46 | -11,756.69 | 618.77 INR |
| 5901243 | 0 | 1351000 | 26/08/1987 OCB 600 A | 12,375.45 | -11,756.68 | 618.77 INR |
| 5901248 | 0 | 1351000 | 05/09/1987 500KVA OUT-DOOR TRANSFORMER E | 97,999.57 | -93,099.59 | 4,899.98 INR |
| 5901249 | 0 | 1351000 | 28/09/1987 OUT DOOR 500KVA TRANSFORMER | 97,999.57 | -93,099.59 | 4,899.98 INR |
| 5901250 | 0 | 1351000 | 15/10/1987 250KVA 11/0.433 KVA INDOOR TYPE | 346,960.15 | -329,612.14 | 17,348.01 INR |
| 5901251 | 0 | 1351000 | 30/12/1987 250KVA OUT DOOR TRANSFORMER | 57,932.40 | -55,035.78 | 2,896.62 INR |
| 5901252 | 0 | 1351000 | 03/11/1987 250KVA TRANSFORMER | 57,932.40 | -55,035.78 | 2,896.62 INR |
| 5901253 | 0 | 1351000 | 03/11/1987 250MVA SWITCH BOARD | 94,000.00 | -89,300.00 | 4,700.00 INR |
| 5901254 | 0 | 1351000 | 28/09/1987 500KVA LT PANEL BOARD | 46,676.25 | -44,342.44 | 2,333.81 INR |
| 5901255 | 0 | 1351000 | 15/10/1987 ELETTRICAL EQPT CONTROL PANEL | 21,500.00 | -20,425.00 | 1,075.00 INR |
| 5901446 | 0 | 1351000 | 17/02/1990 LT PANEL BOARD FOR 500 KVA TRAI | 70,636.37 | -67,104.55 | 3,531.82 INR |
| 5901447 | 0 | 1351000 | 21/03/1990 TRANSFORMER 250 KVA | 226,577.34 | -215,248.47 | 11,328.87 INR |
| 5901449 | 0 | 1351000 | 17/02/1990 500 KVA OUT DOOR TRANSFORMER | 108,264.34 | -102,851.12 | 5,413.22 INR |
| 5901450 | 0 | 1351000 | 17/02/1990 500 KVA OUT DOOR TRANSFORMER | 216,528.68 | -205,702.25 | 10,826.43 INR |
| 5901451 | 0 | 1351000 | 31/08/1989 500 KVA OUT DOOR TRANSFORMER | 86,284.27 | -81,970.06 | 4,314.21 INR |



रमेश चन्द्र
Ramesh Chandra
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General Manager (F&A)
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SAIL, Bokaro Steel Plant

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|---------|---|---------|------------|-----------------------------------|----------------|-----------------|----------------|-----|
| 5901452 | 0 | 1351000 | 17/02/1990 | 500 KVA OUT DOOR TRANSFORMER | 108,264.34 | -102,851.12 | 5,413.22 | INR |
| 5901455 | 0 | 1351000 | 10/08/1989 | 250 KVA INDOOR PENEL BOARD | 31,209.00 | -29,648.55 | 1,560.45 | INR |
| 5901457 | 0 | 1351000 | 31/05/1989 | INDOOR PANEL FOR 250 KVA TRANSF | 31,209.00 | -29,648.55 | 1,560.45 | INR |
| 5901458 | 0 | 1351000 | 21/07/1989 | OUTDOOR TRANSFORMER 500 KVA | 195,999.15 | -186,199.19 | 9,799.96 | INR |
| 5901459 | 0 | 1351000 | 13/04/1989 | 500 KVA SWITCH BOARD COMPLETE | 56,558.12 | -53,730.21 | 2,827.91 | INR |
| 5901656 | 0 | 1351000 | 24/04/1976 | CUTING FAN | 50,767.45 | -50,767.45 | 0.00 | INR |
| 5901657 | 0 | 1351000 | 12/11/1976 | CEILING FAN | 50,767.45 | -50,767.45 | 0.00 | INR |
| 5901744 | 0 | 1351000 | 23/04/1972 | MEGGER INSULATION | 1,529.00 | -1,529.00 | 0.00 | INR |
| 5901789 | 0 | 1351000 | 05/12/1986 | GROUNDING TRANSFORMER | 61,730.45 | -58,643.93 | 3,086.52 | INR |
| 5901790 | 0 | 1351000 | 30/01/1987 | OUTDOOR TRANSFORMER | 59,597.00 | -56,617.15 | 2,979.85 | INR |
| 5901791 | 0 | 1351000 | 26/12/1986 | OUTDOOR TRANSFORMER | 37,578.90 | -35,699.96 | 1,878.94 | INR |
| 5901794 | 0 | 1351000 | 16/10/1986 | 132 KVCT | 133,056.00 | -126,403.20 | 6,652.80 | INR |
| 5901796 | 0 | 1351000 | 31/07/1986 | POWER TRANSFORMER | 1,452,080.00 | -1,379,476.00 | 72,604.00 | INR |
| 5901797 | 0 | 1351000 | 16/01/1986 | SWITCH BOARD UNIT | 199,178.46 | -189,219.54 | 9,958.92 | INR |
| 5901798 | 0 | 1351000 | 27/03/1987 | 500KVA TRANSFORMER | 46,676.25 | -44,342.44 | 2,333.81 | INR |
| 5901802 | 0 | 1351000 | 06/03/1987 | LT SHEET OUTDOOR | 10,500.00 | -9,975.00 | 525.00 | INR |
| 5901803 | 0 | 1351000 | 27/03/1987 | 500 KVA OUTDOOR TRANSFORMER | 59,597.00 | -56,617.15 | 2,979.85 | INR |
| 5901804 | 0 | 1351000 | 06/03/1987 | 250 KV OUTDOOR | 57,932.40 | -55,035.78 | 2,896.62 | INR |
| 5901809 | 0 | 1351000 | 13/08/1983 | CEILING FAN 48 INCHS | 1,999.21 | -1,999.21 | 0.00 | INR |
| 5901810 | 0 | 1351000 | 26/09/1983 | CEILING FAN 56 INCHS | 2,113.97 | -2,113.97 | 0.00 | INR |
| 5901811 | 0 | 1351000 | 14/07/1983 | EXHUST FAN 15 SWEEP | 2,527.15 | -2,527.15 | 0.00 | INR |
| 5901836 | 0 | 1351000 | 09/08/1977 | 56 INCH SWEEP A/C CEILING FAN | 2,500.63 | -2,500.63 | 0.00 | INR |
| 5901837 | 0 | 1351000 | 09/08/1977 | 56 INCH SWEEP A/C CEILING FAN | 4,445.56 | -4,445.56 | 0.00 | INR |
| 5901912 | 0 | 1351000 | 31/03/1993 | ELECTRL APPLIANCES | 642,933.82 | -610,787.13 | 32,146.69 | INR |
| 5901914 | 0 | 1351000 | 21/01/1994 | 100 KVA.OIL DOOR TRANF | 36,202.44 | -34,392.32 | 1,810.12 | INR |
| 5901940 | 0 | 1351000 | 24/05/1994 | EXHAUST FAN | 10,149.79 | -10,149.79 | 0.00 | INR |
| 5901941 | 0 | 1351000 | 30/06/1994 | PEDESTAL FAN | 8,593.19 | -8,593.19 | 0.00 | INR |
| 5902084 | 0 | 1351000 | 31/08/2000 | PROVISION OF 1500 NOS. CEILING FA | 1,352,322.50 | -1,352,322.50 | 0.00 | INR |
| 5902085 | 0 | 1351000 | 16/08/2001 | "EXHAUST FAN 9"" | 1,450.00 | -1,450.00 | 0.00 | INR |
| 5902159 | 0 | 1351000 | 31/05/2005 | W/O&REPL OF 2000 NO.CELLING FAN | 1,629,549.00 | -1,629,549.00 | 0.00 | INR |
| 5902210 | 0 | 1351000 | 04/10/2007 | W/R OF 600 NO CELLING FAN -IPU | 533,696.00 | -533,696.00 | 0.00 | INR |
| 5902211 | 0 | 1351000 | 04/10/2007 | W/R OF 400 NO CELLING FAN -IPU | 366,350.00 | -366,350.00 | 0.00 | INR |
| 5902334 | 0 | 1351600 | 11/07/2009 | "BATTERY, CVT,MDF, INSTALLATION8 | 50,920.00 | -48,374.00 | 2,546.00 | INR |
| 5902338 | 0 | 1351600 | 15/07/2009 | DIGITAL MULTIMETER | 884.00 | -884.00 | 0.00 | INR |
| 5902342 | 0 | 1359700 | 08/08/2009 | FOUNTAIN LIGHT | 5,500.00 | -5,225.00 | 275.00 | INR |
| 5400320 | 0 | 1304500 | 31/05/2023 | ARTERIAL LIGHT BY OCTAGONAL POL | 20,387,546.00 | -887,707.73 | 19,499,838.27 | INR |
| 5400320 | 1 | 1304500 | 31/05/2023 | ARTERIAL LIGHT BY OCTAGONAL POL | 19,057,923.43 | -1,106,418.33 | 17,951,505.10 | INR |
| 5400320 | 2 | 1304500 | 31/05/2023 | ARTERIAL LIGHT BY OCTAGONAL POL | 4,875,282.74 | -169,822.35 | 4,705,460.39 | INR |
| 5400342 | 0 | 1304500 | 24/08/2023 | PROVISION OF 30 NOS OF HIGH MAS | 5,977,034.23 | -378,545.50 | 5,598,488.73 | INR |
| 5400342 | 1 | 1304500 | 24/08/2023 | PROVISION OF 30 NOS OF HIGH MAS | 5,214,008.59 | -330,220.54 | 4,883,788.05 | INR |
| 5400342 | 2 | 1304500 | 24/08/2023 | PROVISION OF 30 NOS OF HIGH MAS | 1,526,051.29 | -96,649.92 | 1,429,401.37 | INR |
| 5400321 | 0 | 1304500 | 14/09/2023 | AUGUMENTATION OF 11 KV POWER | 137,842,390.16 | -5,092,510.53 | 132,749,879.63 | INR |
| 5400321 | 1 | 1304500 | 14/09/2023 | AUGUMENTATION OF 11 KV POWER | 2,813,110.01 | -62,357.27 | 2,750,752.74 | INR |
| | | | | | 545,064,142.48 | -168,497,641.03 | 376,566,501.45 | INR |

| F/Y | PO date | Material description | Order value | WDV-31/03/23 | Dep-23-24 | WDV-31/03/24 | Prov for Depr |
|---------|---------|---------------------------------------|-------------|--------------|-----------|--------------|---------------|
| 2013-14 | 41698 | LT INDOOR PANEL BOARD,415V,3PH,4WIRE | 3706693.20 | 404647.34 | 370669.32 | 33978.02 | 3,672,715 |
| 2013-14 | 41698 | LT INDOOR PANEL BOARD,415V,3PH,4WIRE | 1562616.52 | 170585.64 | 156261.65 | 14323.98 | 1,548,293 |
| 2013-14 | 41468 | MTR,SC,415V,A355M,1475RPM,315KW | 1024617.70 | 55073.20 | 55073.20 | 0.00 | 1,024,618 |
| 2013-14 | 41607 | TRFR,POWER,3PH,11KV,0.433KV | 4688290.01 | 400458.11 | 400458.11 | 0.00 | 4,688,290 |
| 2013-14 | 41375 | COMPLT REWINDNG OF TRANSFORMERS (5C | 1310511.72 | 39315.35 | 39315.35 | 0.00 | 1,310,512 |
| 2013-14 | 41375 | COMPLT REWINDNG OF TRANSFORMERS (5C | 3057860.70 | 91735.82 | 91735.82 | 0.00 | 3,057,861 |
| 2013-14 | 41411 | REP/MAINT OF ARTERIAL LIGHTS | 7075013.84 | 268260.94 | 268260.94 | 0.00 | 7,075,014 |
| 2013-14 | 41437 | COMP REWINDING OF DIFF CAPACITY T/F | 5884681.54 | 269714.57 | 269714.57 | 0.00 | 5,884,682 |
| 2013-14 | 41632 | COMPL REWINDING OF DIFF CAP.DIST.T/F | 4652373.40 | 434221.52 | 434221.52 | 0.00 | 4,652,373 |
| 2013-14 | 41647 | REP/MAINT OF ARTERIAL LIGHTS | 5483723.89 | 555227.04 | 548372.39 | 6854.65 | 5,476,869 |
| 2013-14 | 41696 | REP.ORD.OF COMPL.REWINDING OF DIFF T/ | 1296381.07 | 141521.60 | 129638.11 | 11883.49 | 1,284,498 |
| 2013-14 | 41759 | MTR,SC,415VAC,D100LB,700RPM,1.1KW | 24692.97 | 3086.62 | 2469.30 | 617.32 | 24,076 |
| 2013-14 | 42053 | MTR,SC,415VAC,D310,1486RPM,200KW | 662670.57 | 135295.24 | 66267.06 | 69028.18 | 593,642 |
| 2014-15 | 41979 | TRFR,POWER,3PH,11KV,0.433KV | 4688290.01 | 882961.29 | 468829.00 | 414132.28 | 4,274,158 |
| 2014-15 | 41975 | COMP.REWDG. OF TRANSFORMERS | 230514.74 | 43413.61 | 23051.47 | 20362.14 | 210,153 |
| 2014-15 | 42066 | REPAIR OF DISTRIBUTION TRANSFORMER | 2806046.54 | 595115.70 | 280604.65 | 314511.05 | 2,491,535 |
| 2015-16 | 42294 | MTR,SC,415VAC,D100LB,700RPM,1.1KW | 25813.01 | 8131.10 | 2581.30 | 5549.80 | 20,263 |
| 2014-15 | 42306 | LT OUTDOOR PANEL BOARD,415V,3PH,4WII | 2391674.42 | 753377.44 | 239167.44 | 514210.00 | 1,877,464 |
| 2015-16 | 42185 | REPAIR OF DISTRIBUTION TRANSFORMER | 972870.02 | 244838.96 | 97287.00 | 147551.95 | 825,318 |
| 2015-16 | 42271 | REPAIR /MAINTENANCE OF ARTERIAL LIGHT | 8644131.25 | 2586035.93 | 864413.13 | 1721622.81 | 6,922,508 |
| 2015-16 | 42276 | COMP.REWDG. OF TRANSFORMERS | 136367.20 | 40796.52 | 13636.72 | 27159.80 | 109,207 |
| 2015-16 | 42335 | REPAIR /MAINTENANCE OF ARTERIAL LIGHT | 5538328.57 | 1832263.70 | 553832.86 | 1278430.84 | 4,259,898 |
| 2015-16 | 42373 | COMP.REWDG. OF TRANSFORMERS | 144788.40 | 52485.80 | 14478.84 | 38006.96 | 106,781 |
| 2016-17 | 42794 | AB CABLE,3X95SQMM+1X70SQMM+1X16SC | 2199974.38 | 0.00 | 0.00 | 0.00 | 2199974.38 |
| 2016-17 | 42643 | MTR,SC,415V,A355M,1475RPM,315KW | 1205073.45 | 0.00 | 0.00 | 0.00 | 1205073.45 |



रमेश चन्द्र
Ramesh Chandra
महाप्रबन्धक (वित्त एवं लेखा)
General Manager (F&A)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

| | | | | | | |
|---------|---|------------|-----------|-----------|------|------------|
| 2016-17 | 42825 CABLE,ARM,1.1KV,AL,3.5C,300MM2 | 1099997.30 | 0.00 | 0.00 | 0.00 | 1099997.30 |
| 2016-17 | 42825 ACB,415V,1250A,3P,50KA | 768547.67 | 0.00 | 0.00 | 0.00 | 768547.67 |
| 2016-17 | 42735 CONTACTOR,220-240VAC,75A | 729799.04 | 0.00 | 0.00 | 0.00 | 729799.04 |
| 2016-17 | 42704 CABLE,ARM,1.1KV,AL,3.5C,185MM2 | 421832.81 | 0.00 | 0.00 | 0.00 | 421832.81 |
| 2016-17 | 42674 CABLE,ARM,1.1KV,AL,4C,16MM2 | 38632.50 | 0.00 | 0.00 | 0.00 | 38632.50 |
| 2016-17 | 42674 CABLE,ARM,1.1KV,AL,4C,25MM2 | 293152.50 | 0.00 | 0.00 | 0.00 | 293152.50 |
| 2016-17 | 42613 SWITCH FUSE UNIT,HEAVY DUTY,3P,100A,4 | 230520.00 | 0.00 | 0.00 | 0.00 | 230520.00 |
| 2016-17 | 42582 ACSR CONDUCTOR, 40 SQ. MM | 180600.00 | 0.00 | 0.00 | 0.00 | 180600.00 |
| 2016-17 | 42766 ACSR CONDUCTOR,65MM2 | 180600.00 | 0.00 | 0.00 | 0.00 | 180600.00 |
| | | | | 0.00 | 0.00 | 0.00 |
| 2017-18 | 43311 TRFR,POWER,3PH,11KV,0.433KV | 2578555.00 | 0.00 | 0.00 | 0.00 | 2578555.00 |
| 2017-18 | 43220 AB CABLE,3X95SQMM+1X70SQMM+1X16SC | 2360000.00 | 0.00 | 0.00 | 0.00 | 2360000.00 |
| 2017-18 | 43100 MTR,SC,415V,A355M,1475RPM,315KW | 1881775.50 | 0.00 | 0.00 | 0.00 | 1881775.50 |
| 2017-18 | 43434 ACSR CONDUCTOR, 40 SQ. MM | 1525917.00 | 0.00 | 0.00 | 0.00 | 1525917.00 |
| 2017-18 | 43434 ACSR CONDUCTOR,65MM2 | 1525917.00 | 0.00 | 0.00 | 0.00 | 1525917.00 |
| 2017-18 | 42916 S-D STARTER PANEL FOR 315KW MOTOR | 1463432.71 | 0.00 | 0.00 | 0.00 | 1463432.71 |
| 2017-18 | 42916 S-D STARTER PANEL FOR 200KW MOTOR | 1463432.71 | 0.00 | 0.00 | 0.00 | 1463432.71 |
| 2017-18 | 43190 MTR,SC,220KW,415VAC,315LM,1486RPM | 1005142.22 | 0.00 | 0.00 | 0.00 | 1005142.22 |
| 2017-18 | 43190 CABLE,ARM,1.1KV,AL,4C,16MM2 | 909190.00 | 0.00 | 0.00 | 0.00 | 909190.00 |
| 2017-18 | 43190 CABLE,ARM,1.1KV,AL,4C,25MM2 | 909190.00 | 0.00 | 0.00 | 0.00 | 909190.00 |
| 2017-18 | 43190 CABLE,ARM,1.1KV,AL,2C,2X25MM2 | 255360.00 | 0.00 | 0.00 | 0.00 | 255360.00 |
| 2017-18 | 43039 END JOINTING KIT,XLPE 3X240 MMSQ,CABL | 213285.00 | 0.00 | 0.00 | 0.00 | 213285.00 |
| 2017-18 | 43281 CABLE,UNARM,1.1KV,AL,1,1X1.5MM2 | 207762.60 | 0.00 | 0.00 | 0.00 | 207762.60 |
| 2017-18 | 43281 CABLE,UNARM,1.1KV,AL,2,2X10MM2 | 207762.60 | 0.00 | 0.00 | 0.00 | 207762.60 |
| 2017-18 | 43281 CABLE,UNARM,1.1KV,AL,1,6MM2 | 207762.60 | 0.00 | 0.00 | 0.00 | 207762.60 |
| 2017-18 | 43281 CABLE,UNARM,1.1KV,AL,2C,6MM2 | 207762.60 | 0.00 | 0.00 | 0.00 | 207762.60 |
| | | | | | | - |
| 2018-19 | 43404 CABLE,ARM,1.1KV,AL,3.5C,300MM2 | 2206600.00 | 231693.00 | 231693.00 | 0.00 | 2,206,600 |
| 2018-19 | 43231 LT OUTDOOR PANEL BOARD,415V,3PH,4WII | 2009150.01 | 51903.04 | 51903.04 | 0.00 | 2,009,150 |
| 2018-19 | 43231 LT INDOOR PANEL BOARD,415V,3PH,4WIRE | 2009150.01 | 51903.04 | 51903.04 | 0.00 | 2,009,150 |
| 2018-19 | 43488 MINIMUM 35W LED STREET LIGHT | 1500800.00 | 228872.00 | 228872.00 | 0.00 | 1,500,800 |
| 2018-19 | 43318 TRANSFORMER OIL W/O OXIDATION INHIBI | 1454704.00 | 106678.29 | 106678.29 | 0.00 | 1,454,704 |
| 2018-19 | 43386 ACB,415V,1000A,3P,50KA | 1310847.86 | 137639.03 | 137639.03 | 0.00 | 1,310,848 |
| 2018-19 | 43260 LED TUBE LIGHT WITH FIXTURE | 1020768.00 | 42532.00 | 42532.00 | 0.00 | 1,020,768 |
| 2018-19 | 43343 CONTACTOR,220-240VAC,75A | 857364.40 | 62873.39 | 62873.39 | 0.00 | 857,364 |
| 2018-19 | 43404 CONTACTOR,220-240V,400A | 428480.18 | 44990.42 | 44990.42 | 0.00 | 428,480 |
| | | | | | | - |
| 2021-22 | | | | | | - |

| | | | | |
|-------------|------------|-----------|-----------|------------|
| 103,077,793 | 10,967,647 | 6,349,424 | 4,618,223 | 98,459,570 |
|-------------|------------|-----------|-----------|------------|

6,349,423.96

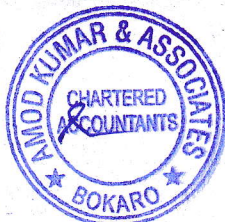
| | |
|----------------|-------------|
| OB 01.04.23 | 450,448,589 |
| Add - Addition | 197,693,346 |
| Less - S&A | 24,270,977 |
| Gross 31.03.24 | 623,870,958 |
| Depr 23-24 | 25,329,224 |

-168,497,641.03 Prov for Dep 23-24

-149,517,841.13 Prov for Dep 22-23

-18,979,799.90 Depr 23-24 only

| | |
|--------------------------|-------------|
| Prov for Depr 31.03.23 | 241,627,987 |
| Add - Depr 23-24 | 25,329,224 |
| Less - Sales & Adj 23-24 | 24,270,977 |
| Prov for Depr 31.03.24 | 242,686,233 |
| Net Block 31.03.24 | 381,184,725 |



रमेश चन्द्र

Ramesh Chandra

महाप्रबन्धक (वित्त एवं लेखा)
General Manager (F&A)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

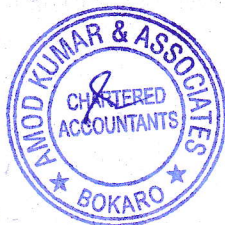
SCHEDULE 3: MATERIAL ACCOUNTING POLICY INFORMATION & ASSUMPTIONS.

Balance Sheet Items:

1. Loan Funds: This is the balancing figure in the balance sheet.
2. Fixed Assets: The figures appearing here only pertains to TA-Electrical as DNW is not in a position to segregate the assets from the consolidated sheet. However any additions during the year, directly identifiable, has been considered in the accounts.
3. Sundry debtors: Taken from Separate GL code as exists for electricity revenue recoverable in BSL.
4. Current liabilities: Taken on the basis of pro rata basis w.r.t BSL.
5. Provisions:
 - A) Provision related to employees have been calculated in the ratio of Employee remuneration of electricity business versus total employee remuneration of BSL during the year.
 - B) Provisions in respect of debtors is based on proportion of total debtors of Township revenue (excluding employee) versus total provisions for township revenue(excluding employee)for the same in BSL books.
6. Loan funds are the losses in distribution business from year to year.
7. Advance has been considered on the basis of Total advances to DVC versus DVC power purchase expenditure booked by BSL.
8. Hon'ble Supreme Court dismissed the SLP by the Company in respect of dispute with Damodar Valley Corporation(DVC) related to provisional tariff petition of electricity charges for 2009-14 vide order dated 18th January, 2017, keeping the question of law open. The Order of Central Electricity Regulatory Commission (CERC) dt.7/8/2013 related to Tariff of 2009-14 against Petition No.275/GT/2012 has been challenged before Appellate Tribunal for Electricity (APTEL) (Appeal No.18 of 2014) in which the Company has also intervened and the order of APTEL is pending. The appeal filed by DVC pertaining to tariff of 2004-09 is yet to be decided by the Hon'ble Supreme Court of India. As per legal opinion received by the Company, the decision of Hon'ble Supreme Court of India on determination of the tariff of 2004-09 may have an effect on the subsequent periods. Pending final decision in this regard, the claim of DVC of Rs. 587.72 crores has been considered as contingent liability and also appearing in Loans & Advances. Against the said claim, the entire amount has been paid to DVC against bills raised by them and retained as advance. Further from 01st April,2017 onwards full invoice value is being paid and charged to revenue.
9. Figures have been regrouped & rearranged wherever considered necessary

Profit & Loss Account Items:

1. Income from distribution of electricity: This constitutes of bills raised in electricity business, unbilled units consumed by BSL itself for Township purposes.



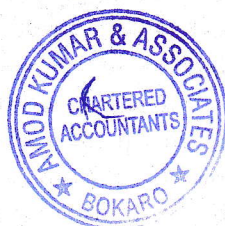
21/5/2018

Ramesh Chandra
महाप्रबन्धक (वित्त एवं लेखा)
General Manager (F&A)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

2. Employee Remuneration & Benefits: This has been taken from the cost center of TE-Electrical & 12.55% of ETL & DNW.
3. Stores & spares consumed: The expenditure has been considered on the basis of purchase orders identified by TS-Electrical.
4. Power & Fuel: This consists of expenditure of DVC plus electricity duty paid.
5. Repair & Maintenance: The expenditure has been considered on the basis of purchase orders identified by TS-Electrical.
6. Other Expenses: This has been calculated after considering total expenses on this account for TA-Electrical.
7. Deficit of Corporate Office/CMO/CCSO: This has been calculated based on the ratio of Income from Electricity business vis a vis Sales of Bokaro Steel Plant.
8. Interest & finance charges: Total interest & finance charges of BSL has been allocated in ratio of Income from Electricity business vis a vis Sales of Bokaro Steel Plant.
9. Depreciation: Assets earmarked by TA-Electrical for electricity distribution has only been considered. As regards DNW & ETL, it is not possible to clearly identify the assets related to electricity distribution of township.
10. Figures have been regrouped & rearranged wherever considered necessary

General Issues:

1. Taxation Matters: Taxation matters have not been considered as the same is being dealt at corporate level. TDS liability, VAT/GST etc has also not been shown as it is difficult to identify the same.
2. Stores & spares inventory: Since separate records for electricity business has not been maintained, it is difficult to identify the inventory lying with BSL for electricity distribution business.
3. Cash & Bank balances: Since separate records for electricity business has not been maintained, it is difficult to identify the cash & bank balances lying with BSL for electricity distribution business.
4. Share capital: Bokaro Steel plant does not have a share capital of its own as it is a unit of SAIL, therefore share capital of electricity distribution business cannot be determined, however, debt-equity has been identified in line with the guidelines prescribed by JSERC.
5. Reserves & Surplus: Since separate records for electricity business has not been maintained, it is difficult to identify the reserves & surplus balances lying with BSL for electricity distribution business.



25/5/2020

Ramesh Chandra
 रमेश चन्द्र
 Ramesh Chandra
 महाप्रबन्धक (वित्त एवं लेखा)
 General Manager (F&A)
 सेल, बोकारो इस्पात संयंत्र
 SAIL, Bokaro Steel Plant

Energy Sales data retrived from

| MONTH | DS-LT(units) | DS-HT(units) | CS(units) | LTIS(units) | HTS(units) |
|--------|----------------|--------------|----------------|-------------|------------|
| Apr-23 | 16,42,561.15 | 6,24,318.80 | 47,80,333.00 | 31,923.20 | 844989.3 |
| May-23 | 15,48,621.00 | 6,31,839.60 | 52,22,630.00 | 33,934.00 | 834792.6 |
| Jun-23 | 8,79,647.75 | 13,22,125.60 | 24,16,212.00 | 52,409.00 | 996218.7 |
| Jul-23 | 8,85,391.25 | 6,36,336.00 | 21,07,207.00 | 52,075.00 | 900097.7 |
| Aug-23 | 8,92,354.75 | 6,15,736.00 | 18,85,237.00 | 42,258.00 | 1037681.1 |
| Sep-23 | 9,17,546.75 | 6,19,156.00 | 16,86,559.90 | 41,052.00 | 813143.7 |
| Oct-23 | 8,15,177.75 | 5,98,596.00 | 16,15,879.00 | 40,367.00 | 892463.5 |
| Nov-23 | 8,42,472.75 | 6,42,756.00 | 19,12,445.00 | 66,393.00 | 703695 |
| Dec-23 | 8,38,444.75 | 6,32,516.00 | 16,26,253.40 | 69,579.00 | 786093.2 |
| Jan-24 | 8,37,805.75 | 6,25,536.00 | 14,31,403.00 | 63,132.00 | 1402594 |
| Feb-24 | 9,19,484.75 | 7,06,076.00 | 15,82,319.00 | 80,414.00 | 923916.2 |
| Mar-24 | 8,75,429.00 | 6,50,732.00 | 11,87,497.00 | 30,894.00 | 633655.8 |
| TOTAL | 1,18,94,937.40 | 83,05,724.00 | 2,74,53,975.30 | 6,04,430.20 | 10769340.8 |

For APR FY 2024-25

| MONTH | DS-LT(units) | DS-HT(units) | CS(units) | LTIS(units) | HTS(units) |
|--------|--------------|--------------|----------------|-------------|--------------|
| Apr-24 | 9,07,130.00 | 6,47,096.00 | 28,58,535.40 | 69,772.00 | 10,85,885.40 |
| May-24 | 9,30,828.00 | 6,88,534.00 | 24,51,666.00 | 96,147.28 | 9,35,660.60 |
| Jun-24 | 9,32,871.00 | 6,86,864.00 | 28,56,818.00 | 53,142.57 | 10,88,530.00 |
| Jul-24 | 8,17,208.00 | 1,13,658.00 | 23,81,327.00 | 38,121.99 | 7,65,830.00 |
| Aug-24 | 8,67,887.00 | 1,54,300.00 | 18,81,423.70 | 67,326.26 | 9,95,116.00 |
| Sep-24 | 8,54,091.00 | 6,57,356.00 | 21,31,151.00 | 89,718.30 | 13,66,897.60 |
| TOTAL | 53,10,015.00 | 29,47,808.00 | 1,45,60,921.10 | 4,14,228.40 | 62,37,919.60 |

Lease Quarter

| Category | Consumption | No of consumer |
|----------|-------------|----------------|
| DS-LT | 17100720 | 4774 |

License Quarter

| Category | Consumption | No of consumer |
|----------|-------------|----------------|
| DS-LT | 32033600 | 10618 |

On Roll Employee

| Category | Consumption | No of consumer |
|----------|-------------|----------------|
| DS-LT | 30082047.5 | 11000 |

Retention / Non retention

| Category | Consumption | No of consumer |
|----------|-------------|----------------|
| DS-LT | 1139760 | 305 |

Compiled data for FY 2023-24

| SI No | All Unit | No. of consumer | Electrical load |
|-------|----------------|-----------------|-----------------|
| DS-LT | 9,22,51,064.90 | 31497 | 90054 |
| DS-HT | 83,05,724.00 | 7 | 5003 |
| CS | 2,74,53,975.30 | 1918 | 23447 |
| LTIS | 6,04,430.20 | 37 | 928 |
| HTS | 10769340.8 | 27 | 10933 |

18/2/25
राजेश हरकरनी
महाप्रबंधक (न. प्र.-विद्युत)
सेल. बोकरो स्टील प्लांट

| Energy input data based on bills raised by DVC to SAIL BSL | | | | | | |
|--|--|--------------------------|-------------|--|--------------------------|-------------|
| Month | FY 2023-24 | | | FY 2024-25 | | |
| | Net Energy consumed as per bills(kWh)) | PPC(Rs.) | Rs./KWh | Net Energy consumed as per bills(kWh)) | PPC(Rs.) | Rs./KWh |
| Apr | 11,84,82,000 | 70,46,19,537 | 5.95 | 10,78,99,028 | 55,29,92,548 | 5.13 |
| May | 11,79,20,000 | 62,06,11,469 | 5.26 | 13,65,72,960 | 63,28,35,764 | 4.63 |
| Jun | 11,89,65,000 | 58,95,88,898 | 4.96 | 13,98,12,012 | 64,82,21,385 | 4.64 |
| Jul | 10,37,03,000 | 60,11,70,039 | 5.80 | 15,51,87,020 | 71,95,03,420 | 4.64 |
| Aug | 12,27,65,810 | 60,90,51,449 | 4.96 | 15,02,72,016 | 69,83,27,571 | 4.65 |
| Sep | 11,95,16,000 | 57,02,60,565 | 4.77 | 14,84,03,913 | 69,13,87,243 | 4.66 |
| Oct | 11,84,35,000 | 64,93,39,135 | 5.48 | 14,89,55,071 | 70,78,96,567 | 4.72 |
| Nov | 11,81,20,000 | 56,78,51,393 | 4.81 | 13,83,61,962 | 67,11,93,364 | 4.72 |
| Dec | 13,00,31,946 | 62,61,94,809 | 4.82 | 15,12,97,983 | 76,27,06,785 | 4.72 |
| Jan | 12,95,22,000 | 74,78,77,163 | 5.77 | 14,65,42,035 | 63,98,34,647 | 4.72 |
| Feb | 11,97,87,995 | 62,06,68,344 | 5.18 | 11,14,07,005 | 46,33,69,735 | 4.72 |
| Mar | 12,67,88,993 | 58,79,29,166 | 4.64 | 12,65,29,045 | 52,43,36,257 | 4.72 |
| Total | 1,44,40,37,744.00 | 7,49,51,61,967.00 | 5.19 | 1,66,12,40,050.00 | 7,71,26,05,286.00 | 4.64 |
| (Rs. Crore) | 1,444.04 | 749.52 | | 1,661.24 | 771.26 | |

27/11/24
01/11/24

राजुल हार्कनी
RAJUL HARKERNI
RAJUL HARKERNI (TA-Electrical)
महोपायुक्त (ता-विद्युत)
General Manager (TA-Electrical)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 04'2024

| | | | |
|---|-------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202404/330058 |
| Previous Meter Reading Date | 01/04/2024 | Bill Date | 01/05/2024 |
| Present Meter Reading Date | 30/04/2024 | Due Date of | 22/05/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |

| | | | |
|---|-----------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 444340994 | Net Max Demand(KVA) | 213091 |
| Present Meter Reading (KVAH) | 552905998 | P. F. | 0.994 |
| Gross Energy Consumption(KVAH) | 108565004 | L.F.(%) | 68.54 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 108566004 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 107899028 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 85236400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 15180784 |
| Total Demand Charge | 85236400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 428835716 | Rental Charges | 0 |
| | | Gross Bill Amount | 498891332 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 64325357 | Prompt Payment Rebate | 10223890 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 64325357 | Adjustment | 0 |
| | | Advance Paid | 1 |
| | | Net Amount(Rs.) | 552992548 |

| | |
|-----------------------|---|
| Bill No. | MFN/202404/330058 |
| Total Bill Amount (in | 552992548 |
| Amount in Words : | Rs. Fifty-Five Crore Twenty-Nine Lakh Ninety-Two Thousand Five Hundred Forty-Eight only |

Applicable TDS Amount for this bill is Rs.552992 and Net amount payable to DVC is Rs.552439556.

Message to Customer

The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at samrat.bhowmik@dvc.gov.in & sourish.mukherjee@dvc.gov.in.

To avoid any last minute technical glitch, please pay well before due date

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 04 | Billing | 2024 |

Total Dues as on 22.04.2024 for the consumption month from May 2010 to Mar 2024. 0
Error, if any will be rectified subsequently.

DPS is due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 15180784 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 10223890 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1580936000 |
| Deposited SD Value (in | 1482086000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 2 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 3 | BG | 939995000 | 08/08/2018 | 08/08/2024 | 1731318BG0000657 of State Bank of India |
| Total | | 1482086000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024250235 Date of Issue: 01/05/2024
Billing Month : 04
Billing Year : 2024
Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant
GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 107899028 | 552992548 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 587346237
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 02/04/2024 | 1 |
| 2 | 05/04/2024 | 587346236 |
| Total Payment Received : | | 587346237 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 05'2024

| | | | |
|---|----------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202405/330058 |
| Previous Meter Reading Date | 01/05/2024 | Bill Date | 01/06/2024 |
| Present Meter Reading Date | 31/05/2024 | Due Date of | 22/06/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | Supply Voltage | | 220000 |
| | SupplyPoint | | Marafari |
| | E-Mail Id | | sanjayk.singh@sail.in |
| | Mobile No | | 8986871613 |

| | | | |
|---|-----------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 552905998 | Net Max Demand(KVA) | 233606 |
| Present Meter Reading (KVAH) | 691879018 | P. F. | 0.983 |
| Gross Energy Consumption(KVAH) | 138973020 | L.F.(%) | 79.96 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 138974020 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 136572960 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 93442400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 82122528 |
| Total Demand Charge | 93442400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 548947379 | Rental Charges | 0 |
| | | Gross Bill Amount | 560267251 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 82342107 | Prompt Payment Rebate | 9773344 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 82342107 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 632835764 |

| | |
|-----------------------|--|
| Bill No. | MFN/202405/330058 |
| Total Bill Amount (in | 632835764 |
| Amount in Words : | Rs. Sixty-Three Crore Twenty-Eight Lakh Thirty-Five Thousand Seven Hundred Sixty-Four only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.632836 and Net amount payable to DVC is Rs.632202928.

Message to Customer

The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at samrat.bhowmik@dvc.gov.in & sourish.mukherjee@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.



Outstanding Dues and DPS Statement

| | | | |
|---------------|-------------------------|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | Supply | Marafari |
| Consumer No. | 330058 | Biling | 05 |
| | | Billing | 2024 |

Total Dues as on 22.05.2024 for the consumption month from May 2010 to Apr 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 82122528 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 9773344 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1580936000 |
| Deposited SD Value (in | 1482086000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 2 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 3 | BG | 939995000 | 08/08/2018 | 08/08/2024 | 1731318BG0000657 of State Bank of India |
| Total | | 1482086000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024250462 Date of Issue: 01/06/2024

Biling Month : 05
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 136572960 | 632835764 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 552439556
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/05/2024 | 552439556 |
| Total Payment Received : | | 552439556 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 06'2024

| | | | |
|---|-------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202406/330058 |
| Previous Meter Reading Date | 01/06/2024 | Bill Date | 01/07/2024 |
| Present Meter Reading Date | 30/06/2024 | Due Date of | 22/07/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |

| | | | |
|---|-----------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 691879018 | Net Max Demand(KVA) | 237939 |
| Present Meter Reading (KVAH) | 834676982 | P. F. | 0.979 |
| Gross Energy Consumption(KVAH) | 142797964 | L.F.(%) | 83.35 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 142798964 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 139812012 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 95175600 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 84608386 |
| Total Demand Charge | 95175600 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 564055908 | Rental Charges | 0 |
| | | Gross Bill Amount | 574623122 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 84608386 | Prompt Payment Rebate | 11009873 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 84608386 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 648221385 |

| | |
|-----------------------|---|
| Bill No. | MFN/202406/330058 |
| Total Bill Amount (in | 648221385 |
| Amount in Words : | Rs. Sixty-Four Crore Eighty-Two Lakh Twenty-One Thousand Three Hundred Eighty-Five only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.648221 and Net amount payable to DVC is Rs.647573164.

Message to Customer

The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 06 | Billing | 2024 |

Total Dues as on 22.06.2024 for the consumption month from May 2010 to May 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 84608386 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 11009873 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1580936000 |
| Deposited SD Value (in | 1580936000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 2 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 3 | BG | 939995000 | 08/08/2018 | 08/08/2024 | 1731318BG0000657 of State Bank of India |
| 4 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1580936000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024250707 Date of Issue: 01/07/2024

Biling Month : 06
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 139812012 | 648221385 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 632202928
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/06/2024 | 432202928 |
| 2 | 06/06/2024 | 200000000 |
| Total Payment Received : | | 632202928 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 07'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202407/330058 |
| Previous Meter Reading Date | 01/07/2024 | Bill Date | 01/08/2024 |
| Present Meter Reading Date | 31/07/2024 | Due Date of | 22/08/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|-----------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 834676982 | Net Max Demand(KVA) | 249744 |
| Present Meter Reading (KVAH) | 994392015 | P. F. | 0.972 |
| Gross Energy Consumption(KVAH) | 159715033 | L.F.(%) | 85.96 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 159716033 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 155187020 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 99897600 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 94631750 |
| Total Demand Charge | 99897600 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 630878330 | Rental Charges | 0 |
| | | Gross Bill Amount | 636144180 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 94631750 | Prompt Payment Rebate | 11272260 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 94631750 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 719503420 |

| | |
|-----------------------|--|
| Bill No. | MFN/202407/330058 |
| Total Bill Amount (in | 719503420 |
| Amount in Words : | Rs. Seventy-One Crore Ninety-Five Lakh Three Thousand Four Hundred Twenty only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.


Applicable TDS Amount for this bill is Rs.719504 and Net amount payable to DVC is Rs.718783916.

| Message to Customer |
|---|
| <p>The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.</p> <p>**To avoid any last minute technical glitch, please pay well before due date**</p> <p>Please visit https://www.dvc.gov.in/cms-web/tariff_petition_to_cerc for certificates of commissioning of Emission Control System.</p> |

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

| DVC Consultancy Services Details |
|---|
| <p>DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "https://www.dvc.gov.in/cms-web/details-pages/103" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.</p> |

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 07 | Billing | 2024 |

Total Dues as on 22.07.2024 for the consumption month from May 2010 to Jun 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 94631750 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 11272260 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1580936000 |
| Deposited SD Value (in | 1580936000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 2 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 3 | BG | 939995000 | 08/08/2018 | 08/08/2024 | 1731318BG0000657 of State Bank of India |
| 4 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1580936000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024250939 Date of Issue: 01/08/2024
Biling Month : 07
Billing Year : 2024
Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant
GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 155187020 | 719503420 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 647573164
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/07/2024 | 200000000 |
| 2 | 05/07/2024 | 47573164 |
| 3 | 05/07/2024 | 200000000 |
| 4 | 05/07/2024 | 200000000 |
| Total Payment Received : | | 647573164 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 08'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202408/330058 |
| Previous Meter Reading Date | 01/08/2024 | Bill Date | 01/09/2024 |
| Present Meter Reading Date | 31/08/2024 | Due Date of | 22/09/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 994392015 | Net Max Demand(KVA) | 254852 |
| Present Meter Reading (KVAH) | 1148538978 | P. F. | 0.975 |
| Gross Energy Consumption(KVAH) | 154146963 | L.F.(%) | 81.3 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 154147963 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 150272016 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 101940800 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 91332668 |
| Total Demand Charge | 101940800 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 608884454 | Rental Charges | 0 |
| | | Gross Bill Amount | 619492586 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 91332668 | Prompt Payment Rebate | 12497433 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 91332668 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 698327571 |

| | |
|-----------------------|--|
| Bill No. | MFN/202408/330058 |
| Total Bill Amount (in | 698327571 |
| Amount in Words : | Rs. Sixty-Nine Crore Eighty-Three Lakh Twenty-Seven Thousand Five Hundred Seventy-One only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.698328 and Net amount payable to DVC is Rs.697629243.

Message to Customer

The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

It is requested to apply for CD enhancement/reduction through consumer portal only w.e.f. September, 2024 onwards.

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 08 | Billing | 2024 |

Total Dues as on 22.08.2024 for the consumption month from May 2010 to Jul 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 91332668 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 12497433 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1767466000 |
| Deposited SD Value (in | 804471000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|--|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 2101271BGP00653 of IDBI BANK LTD. |
| 4 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 804471000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024251184 Date of Issue: 01/09/2024

Biling Month : 08
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 150272016 | 698327571 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 718783916
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/08/2024 | 200000000 |
| 2 | 05/08/2024 | 200000000 |
| 3 | 05/08/2024 | 200000000 |
| 4 | 05/08/2024 | 118783916 |
| Total Payment Received : | | 718783916 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 09'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202409/330058 |
| Previous Meter Reading Date | 01/09/2024 | Bill Date | 01/10/2024 |
| Present Meter Reading Date | 30/09/2024 | Due Date of | 22/10/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1148538978 | Net Max Demand(KVA) | 255537 |
| Present Meter Reading (KVAH) | 1300769014 | P. F. | 0.975 |
| Gross Energy Consumption(KVAH) | 152230036 | L.F.(%) | 82.74 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 152231036 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 148403913 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 102214800 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 90196889 |
| Total Demand Charge | 102214800 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 601312592 | Rental Charges | 0 |
| | | Gross Bill Amount | 613330503 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 90196889 | Prompt Payment Rebate | 12139899 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 90196889 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 691387243 |

| | |
|-----------------------|---|
| Bill No. | MFN/202409/330058 |
| Total Bill Amount (in | 691387243 |
| Amount in Words : | Rs. Sixty-Nine Crore Thirteen Lakh Eighty-Seven Thousand Two Hundred Forty-Three only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.691388 and Net amount payable to DVC is Rs.690695855.

Message to Customer

The present bill has been raised in terms of the order dated 22.01.2024 read with corrigendum dated 19.02.2024 passed by the Honourable JSERC. New Tariff is effective from 01.02.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | |
|---------------|-------------------------|-----------|--------------|
| Consumer Name | SAIL,Bokaro Steel Plant | Supply | Marafari |
| Consumer No. | 330058 | Biling 09 | Billing 2024 |

Total Dues as on 22.09.2024 for the consumption month from May 2010 to Aug 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 90196889 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 12139899 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1767466000 |
| Deposited SD Value (in | 804471000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|--|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 2101271BGP00653 of IDBI BANK LTD. |
| 4 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 804471000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024251436 Date of Issue: 01/10/2024

Biling Month : 09
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 148403913 | 691387243 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 697629243
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/09/2024 | 200000000 |
| 2 | 05/09/2024 | 200000000 |
| 3 | 05/09/2024 | 200000000 |
| 4 | 05/09/2024 | 97629243 |
| Total Payment Received : | | 697629243 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 10'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202410/330058 |
| Previous Meter Reading Date | 01/10/2024 | Bill Date | 01/11/2024 |
| Present Meter Reading Date | 31/10/2024 | Due Date of | 22/11/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1300769014 | Net Max Demand(KVA) | 252286 |
| Present Meter Reading (KVAH) | 1453609058 | P. F. | 0.975 |
| Gross Energy Consumption(KVAH) | 152840044 | L.F.(%) | 81.43 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 152841044 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 148955071 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 100914400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 92850934 |
| Total Demand Charge | 100914400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 619006228 | Rental Charges | 0 |
| | | Gross Bill Amount | 627069694 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 92850934 | Prompt Payment Rebate | 12023807 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 92850934 | Adjustment | 0 |
| | | Advance Paid | 4 |
| | | Net Amount(Rs.) | 707896567 |

| | |
|-----------------------|--|
| Bill No. | MFN/202410/330058 |
| Total Bill Amount (in | 707896567 |
| Amount in Words : | Rs. Seventy Crore Seventy-Eight Lakh Ninety-Six Thousand Five Hundred Sixty-Seven only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.707897 and Net amount payable to DVC is Rs.707188670.

Message to Customer

The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 10 | Billing | 2024 |

Total Dues as on 22.10.2024 for the consumption month from May 2010 to Sep 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 92850934 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 12023807 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1767466000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024251669 Date of Issue: 01/11/2024

Biling Month : 10
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 148955071 | 707896567 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 690695855
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/10/2024 | 200000000 |
| 2 | 05/10/2024 | 200000000 |
| 3 | 05/10/2024 | 200000000 |
| 4 | 05/10/2024 | 90695855 |
| Total Payment Received : | | 690695855 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 11'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202411/330058 |
| Previous Meter Reading Date | 01/11/2024 | Bill Date | 01/12/2024 |
| Present Meter Reading Date | 30/11/2024 | Due Date of | 22/12/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1453609058 | Net Max Demand(KVA) | 250890 |
| Present Meter Reading (KVAH) | 1595660960 | P. F. | 0.974 |
| Gross Energy Consumption(KVAH) | 142051902 | L.F.(%) | 78.64 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 142052902 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 138361962 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 100356000 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 78472864 |
| Total Demand Charge | 100356000 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 575314253 | Rental Charges | 0 |
| | | Gross Bill Amount | 597197389 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 86297138 | Prompt Payment Rebate | 12300913 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 86297138 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 671193364 |

| | |
|-----------------------|---|
| Bill No. | MFN/202411/330058 |
| Total Bill Amount (in | 671193364 |
| Amount in Words : | Rs. Sixty-Seven Crore Eleven Lakh Ninety-Three Thousand Three Hundred Sixty-Four only |

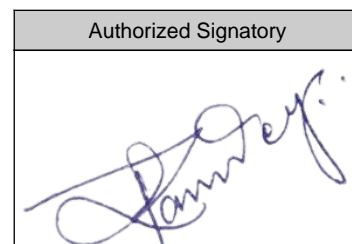
Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.671194 and Net amount payable to DVC is Rs.670522170.

| Message to Customer |
|--|
| <p>The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.</p> <p>**To avoid any last minute technical glitch, please pay well before due date**</p> |

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |



For and on behalf of DVC

| DVC Consultancy Services Details |
|---|
| <p>DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "https://www.dvc.gov.in/cms-web/details-pages/103" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.</p> |

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 11 | Billing | 2024 |

Total Dues as on 22.11.2024 for the consumption month from May 2010 to Oct 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 78472864 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 12300913 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1748606000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024251965 Date of Issue: 01/12/2024

Biling Month : 11
Billing Year : 2024

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 138361962 | 671193364 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 707188671
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 03/11/2024 | 1 |
| 2 | 05/11/2024 | 200000000 |
| 3 | 05/11/2024 | 200000000 |
| 4 | 05/11/2024 | 107188670 |
| 5 | 05/11/2024 | 200000000 |
| Total Payment Received : | | 707188671 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 12'2024

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202412/330058 |
| Previous Meter Reading Date | 01/12/2024 | Bill Date | 01/01/2025 |
| Present Meter Reading Date | 31/12/2024 | Due Date of | 22/01/2025 |
| Meter No | M1-Q0781494 | Contract Demand | 270000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1595660960 | Net Max Demand(KVA) | 278493 |
| Present Meter Reading (KVAH) | 1752918000 | P. F. | 0.962 |
| Gross Energy Consumption(KVAH) | 157257040 | L.F.(%) | 75.9 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 157258040 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 151297983 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 111397200 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 69421562 |
| Total Demand Charge | 111397200 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 636895062 | Rental Charges | 0 |
| | | Gross Bill Amount | 678870700 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 95534259 | Prompt Payment Rebate | 11697924 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 95534259 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 762706785 |

| | |
|-----------------------|---|
| Bill No. | MFN/202412/330058 |
| Total Bill Amount (in | 762706785 |
| Amount in Words : | Rs. Seventy-Six Crore Twenty-Seven Lakh Six Thousand Seven Hundred Eighty-Five only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.762707 and Net amount payable to DVC is Rs.761944078.

Message to Customer

The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 12 | Billing | 2024 |

Total Dues as on 22.12.2024 for the consumption month from May 2010 to Nov 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill.

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 69421562 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 11697924 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1748606000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024252134 Date of Issue: 01/01/2025
Billing Month : 12
Billing Year : 2024
Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant
GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 151297983 | 762706785 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 670522170
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/12/2024 | 200000000 |
| 2 | 05/12/2024 | 70522170 |
| 3 | 05/12/2024 | 200000000 |
| 4 | 05/12/2024 | 200000000 |
| Total Payment Received : | | 670522170 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 01'2025

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202501/330058 |
| Previous Meter Reading Date | 01/01/2025 | Bill Date | 01/02/2025 |
| Present Meter Reading Date | 31/01/2025 | Due Date of | 22/02/2025 |
| Meter No | M1-Q0781494 | Contract Demand | 270000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1752918000 | Net Max Demand(KVA) | 284921 |
| Present Meter Reading (KVAH) | 1905415029 | P. F. | 0.961 |
| Gross Energy Consumption(KVAH) | 152497029 | L.F.(%) | 71.94 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 152498029 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 146542035 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 113968400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 42862621 |
| Total Demand Charge | 113968400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 617617017 | Rental Charges | 0 |
| | | Gross Bill Amount | 688722796 |

| | | | |
|------------------------------|------------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 92642553 | Prompt Payment Rebate | 13343451 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 92642553 | Adjustment | 0 |
| Arrear(JH_0612) Instalment 1 | -128187001 | Advance Paid | 0 |
| | | Net Amount(Rs.) | 639834647 |

| | |
|-----------------------|---|
| Bill No. | MFN/202501/330058 |
| Total Bill Amount (in | 639834647 |
| Amount in Words : | Rs. Sixty-Three Crore Ninety-Eight Lakh Thirty-Four Thousand Six Hundred Forty-Seven only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.639835 and Net amount payable to DVC is Rs.639194812.

Message to Customer

The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

Consumer Name SAIL, Bokaro Steel Plant Supply Marafari
Consumer No. 330058 Billing 01 Billing 2025

Total Dues as on 22.01.2025 for the consumption month from May 2010 to Dec 2024. 0
Error, if any will be rectified subsequently.

DPS due since May 2010. The actual DPS bill will be raised only after receipt of the actual payment and will be reflected in subsequent monthly bill. 0

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within) |
|-----------------------|---|--|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 42862621 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 13343451 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1748606000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024252544 Date of Issue: 01/02/2025

Biling Month : 01
Billing Year : 2025

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 146542035 | 639834647 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 761944078
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 04/01/2025 | 161944078 |
| 2 | 04/01/2025 | 200000000 |
| 3 | 04/01/2025 | 200000000 |
| 4 | 04/01/2025 | 200000000 |
| Total Payment Received : | | 761944078 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 02'2025

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202502/330058 |
| Previous Meter Reading Date | 01/02/2025 | Bill Date | 01/03/2025 |
| Present Meter Reading Date | 28/02/2025 | Due Date of | 22/03/2025 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 1905415029 | Net Max Demand(KVA) | 237805 |
| Present Meter Reading (KVAH) | 2021177033 | P. F. | 0.962 |
| Gross Energy Consumption(KVAH) | 115762004 | L.F.(%) | 71.78 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 672 |
| Net Consumption (in KVAH) | 115763004 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 111407005 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 95122000 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 31787363 |
| Total Demand Charge | 95122000 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 468840166 | Rental Charges | 0 |
| | | Gross Bill Amount | 532174803 |

| | | | |
|------------------------------|------------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 70326025 | Prompt Payment Rebate | 10943842 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 70326025 | Adjustment | 0 |
| Arrear(JH_0612) Instalment 2 | -128187001 | Advance Paid | 0 |
| | | Net Amount(Rs.) | 463369735 |

| | |
|-----------------------|--|
| Bill No. | MFN/202502/330058 |
| Total Bill Amount (in | 463369735 |
| Amount in Words : | Rs. Forty-Six Crore Thirty-Three Lakh Sixty-Nine Thousand Seven Hundred Thirty-Five only |

Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.463370 and Net amount payable to DVC is Rs.462906365.

Message to Customer

The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.

****To avoid any last minute technical glitch, please pay well before due date****

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |

Authorized Signatory



For and on behalf of DVC

DVC Consultancy Services Details

DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "<https://www.dvc.gov.in/cms-web/details-pages/103>" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 02 | Billing | 2025 |

Total Dues as on 22.02.2025 for the consumption month from May 2010 to Jan 2025. 0
Error, if any will be rectified subsequently.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 4 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 31787363 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 10943842 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1748606000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2024252621 Date of Issue: 01/03/2025

Biling Month : 02
Billing Year : 2025

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 111407005 | 463369735 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 639194812
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/02/2025 | 200000000 |
| 2 | 05/02/2025 | 39194812 |
| 3 | 05/02/2025 | 200000000 |
| 4 | 05/02/2025 | 200000000 |
| Total Payment Received : | | 639194812 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.



Commercial Department,DVC Towers,VIP Road,Kolkata-700054
Monthly Bill for the consumption month of 03'2025

| | | | |
|---|----------------------------|-----------------|-----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202503/330058 |
| Previous Meter Reading Date | 01/03/2025 | Bill Date | 01/04/2025 |
| Present Meter Reading Date | 31/03/2025 | Due Date of | 22/04/2025 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | | Supply Voltage | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | sanjayk.singh@sail.in |
| | | Mobile No | 8986871613 |
| Tariff | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|------------|--------------------------------|--------|
| Previous Meter Reading (KVAH) | 2021177033 | Net Max Demand(KVA) | 237938 |
| Present Meter Reading (KVAH) | 2151787004 | P. F. | 0.969 |
| Gross Energy Consumption(KVAH) | 130609971 | L.F.(%) | 73.15 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 130610971 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 126529045 | Total Unplanned Interruption | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 95175200 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 43111416 |
| Total Demand Charge | 95175200 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 4.05 Rs./KVAH | 528974433 | Rental Charges | 0 |
| | | Gross Bill Amount | 581038217 |

| | | | |
|------------------------------|------------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 79346165 | Prompt Payment Rebate | 7860874 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 79346165 | Adjustment | 0 |
| Arrear(JH_0612) Instalment 3 | -128187001 | Advance Paid | 0 |
| | | Net Amount(Rs.) | 524336257 |

| | |
|-----------------------|---|
| Bill No. | MFN/202503/330058 |
| Total Bill Amount (in | 524336257 |
| Amount in Words : | Rs. Fifty-Two Crore Forty-Three Lakh Thirty-Six Thousand Two Hundred Fifty-Seven only |

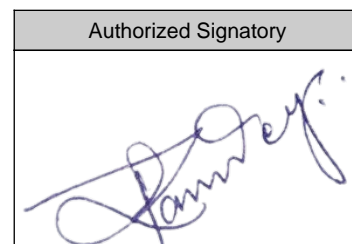
Note :- As per provision of the section 194Q of the Income Tax Act 1961, you are required to deposit the applicable TDS amount (as mentioned in the bill) against the PAN of DVC i.e. AABCD0541M.

Applicable TDS Amount for this bill is Rs.519337 and Net amount payable to DVC is Rs.523816920.

| Message to Customer |
|--|
| <p>The present bill has been raised in terms of the order dated 30.09.2024 passed by the Honourable JSERC. New Tariff is effective from 01.10.2024. Please note that as per clause no. 10.76 under Prompt Payment Rebate of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Consumers are eligible to get a rebate of 2% if the payment is received by Distribution licensee within 05 days of presentation of bills. For any query, please mail us at dvcetailbilling@dvc.gov.in.</p> <p>**To avoid any last minute technical glitch, please pay well before due date**</p> |

PAYMENT TO BE MADE IN YOUR EXCLUSIVE A/C DETAILS GIVEN BELOW

| | |
|--------------------------|---|
| NAME OF BANK | PUNJAB NATIONAL BANK |
| DVC A/C TITLE | DAMODAR VALLEY CORPORATION |
| A/C No for Energy Bill | DVCPNB0501DVC330058 |
| A/C No for Cash Security | DVCPNB0502DVC330058 |
| IFS CODE | PUNB0008220 |
| MICR No | 700024261 |
| BRANCH | NEW MANICKTALA BRANCH |
| BANK ADDRESS | P-41, CIT SCHEME VII(M), KAKURGACHI, KOLKATA-54 |



For and on behalf of DVC

| DVC Consultancy Services Details |
|---|
| <p>DVC has three numbers state of art NABL accredited laboratories at Maithon, Dhanbad, Jharkhand - 828207 as per IS/ISO/IEC/17025:2017 and are providing various testing services at very reasonable rates. Consumer may avail these testing services as per their need. For details please visit "https://www.dvc.gov.in/cms-web/details-pages/103" or contact Shri Sudipta Maiti, Senior Manager (CTC), Mobile: 8986824841, E-mail: sudipta.maiti@dvc.gov.in or Shri Arup Ghosh Dastidar, Mobile: 8210984437.</p> |

Copy to : ES-II, CTPS(O&M), DVC. Please verify and inform us if there is any error in meter and restriction data.

Consumer Relationship Manager Details :- (Transmission - Abhishek Raj,Dy. Manager, Email - abhishek.raj@dvc.gov.in, Mob - 7991163113) and (Commercial - Aftab Alam,Dy. Manager, Email - aftab.alam@dvc.gov.in, Mob - 9955492890).



Outstanding Dues and DPS Statement

| | | | | | |
|---------------|-------------------------|--------|----|---------|----------|
| Consumer Name | SAIL,Bokaro Steel Plant | | | Supply | Marafari |
| Consumer No. | 330058 | Biling | 03 | Billing | 2025 |

Total Dues as on 22.03.2025 for the consumption month from May 2010 to Feb 2025. 0
Error, if any will be rectified subsequently.

| | |
|--|---|
| | 0 |
|--|---|

| Rebate Type Name | Current Rebate (Rebate included in this bill) | Withheld Rebate (Rebate to be passed in next bill if TDS paid and uploaded within |
|-----------------------|---|---|
| Voltage Rebate | 0 | 0 |
| L.F. Rebate | 43111416 | 0 |
| Online Payment Rebate | 250 | 0 |
| Prompt Payment Rebate | 7860874 | 0 |

SD Data Details

| | |
|----------------------------|------------|
| Required SD Value (in Rs.) | 1748606000 |
| Deposited SD Value (in | 1744466000 |

Details of Existing Deposited SDs.

| Sl. No. | SD Deposited Type | Deposit Value (in | Execution Date | Expiry Date | Reference No. |
|---------|-------------------|-------------------|----------------|-------------|---|
| 1 | BG | 163530000 | 06/08/2024 | 06/08/2026 | 003BG09242190001 of Yes Bank Ltd. |
| 2 | BG | 210116000 | 08/02/2018 | 11/02/2026 | OGT0005180018430 of IndusInd Bank Ltd. |
| 3 | BG | 331975000 | 08/07/2021 | 07/07/2025 | 210127IBGP00653 of IDBI BANK LTD. |
| 4 | BG | 939995000 | 08/08/2018 | 08/08/2026 | 1731318BG0000657 of State Bank of India |
| 5 | BG | 98850000 | 24/05/2024 | 31/05/2026 | 003BG09241450001 of Yes Bank Ltd. |
| Total | | 1744466000 | | | |

Disclaimer :- Error, if any will be rectified subsequently.



Bill of Supply

GSTIN of DVC : 20AABCD0541M1Z5

Serial No : DVCJH2025260004 Date of Issue: 01/04/2025

Biling Month : 03
Billing Year : 2025

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

GSTIN : 20AAACS7062FAZJ Place of Supply Jharkhand

Billing Address
The Deputy General Manager,Distribution
Network Department,Vidyut Bhawan,Welfare
Building No.14,Bokaro Steel Plant,B.S.City. Pin-
827001.

Shipping Address
Marafari

| Item Description | Item Type | HSN | Qty (in Kwh) | Bill Value (in Rs.) |
|-------------------|-----------|------|--------------|---------------------|
| Electrical Energy | GOODS | 2716 | 126529045 | 524336257 |



TCS Details

Commercial Department, DVC Towers, VIP Road, Kolkata-700054

PAN No of DVC : AABCD0541M GSTIN of Consumer : 20AAACS7062FAZJ
TAN No of DVC : CALD00829D PAN No of Consumer : AAACS7062F

Consumer No. : 330058
Consumer Name : SAIL,Bokaro Steel Plant

Total Payment Recieved on which TCS is being calculated (in 462906365
Net TCS Payable (in Rs.) : 0

| Details of Payment Received : | | |
|-------------------------------|---------------------|--------------------|
| SI No. | Payment Credit Date | Payment Amount (in |
| 1 | 05/03/2025 | 200000000 |
| 2 | 05/03/2025 | 62906365 |
| 3 | 05/03/2025 | 200000000 |
| Total Payment Received : | | 462906365 |

Note :- The amount of Tax Collected at Source(TCS) has been calculated as per the applicable rate notified in the Section 206C(1H) of the Income Tax Act, w.e.f. 01/10/2020, based on the collection as detailed above.

DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department, DVC Towers, VIP Road, Kolkata-700054

Monthly Bill for the consumption month of 03'2024

| | | | |
|--|----------------------|---------------------|----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202403/330058 |
| Previous Meter Reading Date | 01/03/2024 | Bill Date | 01/04/2024 |
| Present Meter Reading Date | 31/03/2024 | Due Date of Payment | 22/04/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S. City. Pin-827001. | Supply Voltage(Volt) | | 220000 |
| | Supply Point | | Marafari |
| | E-Mail Id | | niraj.bhatia@sail.in |
| | Mobile No | | 8986871605 |

| | | | |
|---|-----------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 314831995 | Net Max Demand(KVA) | 221728 |
| Present Meter Reading (KVAH) | 444340994 | P. F. | 0.979 |
| Gross Energy Consumption(KVAH) | 129508999 | L.F.(%) | 78.51 |
| Avg Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 129509999 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 126788993 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 88691200 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 69112363 |
| Total Demand Charge | 88691200 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 511564496 | Rental Charges | 0 |
| | | Gross Bill Amount | 531143333 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 76734674 | Prompt Payment Rebate | 19948591 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 76734674 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 587929166 |

DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department, DVC Towers, VIP Road, Kolkata-700054

Monthly Bill for the consumption month of 04'2024.

| | | | |
|---|----------------------|---------------------|----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202404/330058 |
| Previous Meter Reading Date | 01/04/2024 | Bill Date | 01/05/2024 |
| Present Meter Reading Date | 30/04/2024 | Due Date of Payment | 22/05/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S.City. Pin-827001. | Supply Voltage(Volt) | | 220000 |
| | Supply Point | | Marafari |
| | E-Mail Id | | niraj.bhatia@sail.in |
| | Mobile No | | 8986871605 |

| | | | |
|---|-----------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 444340994 | Net Max Demand(KVA) | 213091 |
| Present Meter Reading (KVAH) | 552905998 | P. F. | 0.994 |
| Gross Energy Consumption(KVAH) | 108565004 | L.F.(%) | 68.54 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 108566004 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 107899028 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 85236400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 15180784 |
| Total Demand Charge | 85236400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 428835716 | Rental Charges | 0 |
| | | Gross Bill Amount | 498891332 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 64325357 | Prompt Payment Rebate | 10223890 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 64325357 | Adjustment | 0 |
| | | Advance Paid | 1 |
| | | Net Amount(Rs.) | 552992548 |

[Signature]
02/05/2024



DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department, DVC Towers, VIP Road, Kolkata-700054
Monthly Bill for the consumption month of 05'2024

| | | | |
|--|----------------------|---------------------|----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202405/330058 |
| Previous Meter Reading Date | 01/05/2024 | Bill Date | 01/06/2024 |
| Present Meter Reading Date | 31/05/2024 | Due Date of Payment | 22/06/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S. City. Pin-827001. | Supply Voltage(Volt) | | 220000 |
| | Supply Point | | Marafari |
| | E-Mail Id | | niraj.bhatia@sail.in |
| | Mobile No | | 8986871605 |

| | | | |
|---|-----------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 552905998 | Net Max Demand(KVA) | 233606 |
| Present Meter Reading (KVAH) | 691879018 | P. F. | 0.983 |
| Gross Energy Consumption(KVAH) | 138973020 | L.F.(%) | 79.96 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 138974020 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 136572960 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 93442400 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 82122528 |
| Total Demand Charge | 93442400 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 548947379 | Rental Charges | 0 |
| | | Gross Bill Amount | 560267251 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 82342107 | Prompt Payment Rebate | 9773344 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 82342107 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 632835764 |

[Signature]
03/06/2024



DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department,DVC Towers,VIP Road,Kolkata-700054

Monthly Bill for the consumption month of 06'2024

| | | | |
|---|----------------------|---------------------|----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202406/330058 |
| Previous Meter Reading Date | 01/06/2024 | Bill Date | 01/07/2024 |
| Present Meter Reading Date | 30/06/2024 | Due Date of Payment | 22/07/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 220000 |
| SAIL,Bokaro Steel Plant, The Deputy General Manager,Distribution Network Department,Vidyut Bhawan,Welfare Building No.14,Bokaro Steel Plant,B.S.City. Pin-827001. | Supply Voltage(Volt) | | 220000 |
| | SupplyPoint | | Marafari |
| | E-Mail Id | | niraj.bhatia@sail.in |
| | Mobile No | | 8986871605 |

| | | | |
|---|-----------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 691879018 | Net Max Demand(KVA) | 237939 |
| Present Meter Reading (KVAH) | 834676982 | P. F. | 0.979 |
| Gross Energy Consumption(KVAH) | 142797964 | L.F.(%) | 83.35 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 142798964 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 139812012 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 95175600 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 84608386 |
| Total Demand Charge | 95175600 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 564055908 | Rental Charges | 0 |
| | | Gross Bill Amount | 574623122 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 84608386 | Prompt Payment Rebate | 11009873 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 84608386 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 648221385 |

DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department, DVC Towers, VIP Road, Kolkata-700054
Monthly Bill for the consumption month of 07'2024

| | | | |
|--|----------------------------|----------------------|----------------------|
| Consumer ID | 330058 | Bill No. | MFN/202407/330058 |
| Previous Meter Reading Date | 01/07/2024 | Bill Date | 01/08/2024 |
| Present Meter Reading Date | 31/07/2024 | Due Date of Payment | 22/08/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S. City. Pin-827001. | | Supply Voltage(Volt) | 220000 |
| | | SupplyPoint | Marafari |
| | | E-Mail Id | niraj.bhatia@sail.in |
| | | Mobile No | 8986871605 |
| Tariff Category | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|---|-----------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 834676982 | Net Max Demand(KVA) | 249744 |
| Present Meter Reading (KVAH) | 994392015 | P. F. | 0.972 |
| Gross Energy Consumption(KVAH) | 159715033 | L.F.(%) | 85.96 |
| Avg/Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 159716033 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 155187020 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 99897600 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 94631750 |
| Total Demand Charge | 99897600 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 630878330 | Rental Charges | 0 |
| Gross Bill Amount | | | 636144180 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 94631750 | Prompt Payment Rebate | 11272260 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 94631750 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 719503420 |



DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम



Commercial Department, DVC Towers, VIP Road, Kolkata-700054
Monthly Bill for the consumption month of 08'2024

| | | | |
|--|----------------------------|----------------------|-------------------------|
| Consumer ID | 330058 | Bill No. | MFN/202408/330058 |
| Previous Meter Reading Date | 01/08/2024 | Bill Date | 01/09/2024 |
| Present Meter Reading Date | 31/08/2024 | Due Date of Payment | 22/09/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S. City. Pin-827001. | | Supply Voltage(Volt) | 220000 |
| | | Supply Point | Marafari |
| | | E-Mail Id | sanjiv.bhartiya@sail.in |
| | | Mobile No | 8986871606 |
| Tariff Category | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|--|------------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 994392015 | Net Max Demand(KVA) | 254852 |
| Present Meter Reading (KVAH) | 1148538978 | P. F. | 0.975 |
| Gross Energy Consumption(KVAH) | 154146963 | L.F.(%) | 81.3 |
| /Meter Replacement Adjustment(in KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (in KVAH) | 1000 | Total Supply Hours | 744 |
| Net Consumption (in KVAH) | 154147963 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 150272016 | Total Unplanned Interruption Hrs | 0 |

Details of Bill(Figures in rupees)

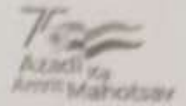
| | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 101940800 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 91332668 |
| Total Demand Charge | 101940800 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 608884454 | Rental Charges | 0 |
| | | Gross Bill Amount | 619492586 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 91332668 | Prompt Payment Rebate | 12497433 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 91332668 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 698327571 |

8/9

DAMODAR VALLEY CORPORATION

दामोदर घाटी निगम

Commercial Department, DVC Towers, VIP Road, Kolkata-700054
Monthly Bill for the consumption month of 09/2024

| | | | |
|--|----------------------------|---------------------|-------------------------|
| Consumer ID | 330058 | Bill No. | MFN/202409/330058 |
| Previous Meter Reading Date | 01/09/2024 | Bill Date | 01/10/2024 |
| Present Meter Reading Date | 30/09/2024 | Due Date of Payment | 22/10/2024 |
| Meter No | M1-Q0781494 | Contract Demand | 240000 |
| SAIL, Bokaro Steel Plant, The Deputy General Manager, Distribution Network Department, Vidyut Bhawan, Welfare Building No.14, Bokaro Steel Plant, B.S. City, Pin-827001. | Supply Voltage(Volt) | | 220000 |
| | Supply Point | | Marafari |
| | E-Mail Id | | sanjiv.bhartiya@sail.in |
| | Mobile No | | 8986871606 |
| Tariff Category | High Tension Service (HTS) | Tariff Scheme | Non-TOD |

| | | | |
|--|------------|----------------------------------|--------|
| Previous Meter Reading (KVAH) | 1148538978 | Net Max Demand(KVA) | 255537 |
| Present Meter Reading (KVAH) | 1300769014 | P. F. | 0.975 |
| Gross Energy Consumption(KVAH) | 152230036 | L.F.(%) | 82.74 |
| LT/Meter Replacement Adjustment(In KVAH) | 0 | | |
| LT Adjustment/Other Adjustment (In KVAH) | 1000 | Total Supply Hours | 720 |
| Net Consumption (in KVAH) | 152231036 | Total Planned Interruption Hrs | 0 |
| Net Consumption (in KWH) | 148403913 | Total Unplanned Interruption Hrs | 0 |

| Details of Bill(Figures in rupees) | | | |
|---|-----------|-------------------|-----------|
| 220KV Normal Demand Chg @Rs. 400/KVA/Month | 102214800 | Voltage Rebate(-) | 0 |
| Penal Demand Chg 1.5 times of Normal Demand Chg over and above CD | 0 | L.F. Rebate(-) | 90196889 |
| Total Demand Charge | 102214800 | Other Charges | 0 |
| Total Energy Charge: 220KV Energy Chg@ 3.95 Rs./KVAH | 601312592 | Rental Charges | 0 |
| Gross Bill Amount | | | 613330503 |

| | | | |
|--------------------|----------|-------------------------|-----------|
| ED Rate (in %) | 15 | Online Payment Rebate | 250 |
| ED Amount (in Rs.) | 90196889 | Prompt Payment Rebate | 12139899 |
| ED Adjustment | 0 | Delay Payment Surcharge | 0 |
| Net ED | 90196889 | Adjustment | 0 |
| | | Advance Paid | 0 |
| | | Net Amount(Rs.) | 691387243 |

DAMODAR VALLEY CORPORATION

CONSUMER NO. 330058

AGREEMENT

**FOR SUPPLY OF ELECTRICAL ENERGY
AT 220 KILO VOLTAGE**

EXECUTED ON 25.05.2022

BETWEEN

DAMODAR VALLEY CORPORATION

AND

**M/S BOKARO STEEL LIMITED
[STEEL AUTHORITY OF INDIA LIMITED]**

FOR

SUPPLY OF ELECTRICAL ENERGY**FOR INDUSTRIAL PURPOSE**

AT

BOKARO STEEL CITY, BOKARO, JHARKHAND**FOR STEEL LOAD**

WITH

EXISTING CONTRACT DEMAND - 220MVA AT 220KV

28.02.2024

अमर नाथ सिंह
महाप्रबन्धक (नं० प्रो-विद्युत)
सेल, बोकारो स्टील प्लांट



21/5/22

राजुल हर्करनी मुख्य महाप्रबन्धक (वितरण तंत्र)
RAJUL HARKERNI
महाप्रबन्धक (नगर सेवा-विद्युत)
General Manager (TA - Electrical)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

नरेश भाटिया

Space for non-jud.
Adhesive stamp of pre



AGREEMENT

For Supply of Electrical Energy
At
220 Kilo Voltage

An agreement, made this 25th day of May, Two
thousand and twenty two

BETWEEN

DAMODAR VALLEY CORPORATION, a Corporation constituted under the Damodar Valley Corporation Act, being Act No. XIV of 1948 and having its headquarters at D.V.C Towers, VIP Road, Kolkata- 700054 in the State of West Bengal (hereinunder called the '**Corporation**' which expression shall unless excluded by or repugnant to the context includes its successors or assigns) of the one part

AND

M/s. STEEL AUTHORITY OF INDIA LIMITED, a company under the Companies Act, 1956 and having its registered office at ISPAT BHAWAN, LODI ROAD, NEW DELHI-110003, INDIA, and having one of its Steel Plant as **BOKARO STEEL PLANT** located at Bokaro Steel City, hereinafter referred to as '**Consumer**' which term or expression shall unless excluded by our repugnant to the context or the meaning thereof shall be deemed to include its successors and permitted assigns, of the other part;

WHEREAS the Consumer has requested the Corporation to supply electrical energy for use in the consumer's / customer's premises at **Bokaro Steel City, Dist. Bokaro, Jharkhand** to be fed from **CTPS Sub Station** of the Corporation as an extension of the power supply from the Corporation at the aforesaid point of supply.

AND WHEREAS the Corporation has agreed subject to availability of power to supply such energy and continue to supply such energy to the Consumer for a period of **3 (three) years** as the first block from the date of commencement of power supply.

AND WHEREAS the Corporation is deemed licensee under the Electricity Act, 2003 but shall not be required to obtain a license under this act and the provisions of Damodar Valley Corporation Act, 1948, in so far as they are **not** inconsistent with the provisions of this Act, shall apply to the Corporation.

AND WHEREAS the Consumer agreed to accept the liabilities which might accrue due to the execution of this **Agreement** for supply of power unless otherwise specified in the terms and conditions of this Agreement.

Nanapriya
मुख्य महाप्रबन्धक (वितरण क्षेत्र)
सेल, बोकारो स्टील प्लांट



The terms and conditions of disconnection under this clause will be guided by relevant Clauses of JSERC [Electricity Supply Code] Regulation, 2015 vide its Notification no.-45 dt. 7th September, 2015 and its amendment from time to time

6. In case of reconnection after disconnection for non-payment of dues, reconnection charge will be payable by the consumer as per JSERC Regulation.

7. In case of reconnection whose supply has been disconnected for theft/tampering etc., reconnection will be done on payment of reconnection charge and on fulfillment of the penal action as prescribed in Electricity Supply Code of JSERC and as amended from time to time.

Clause 21

1. In the event of a Consumer desiring to increase the 'contract demand' mentioned in Schedule-I from a specified month during the continuance of the Agreement, the Consumer will approach the Corporation in writing for the same.

Provided that the application for enhancement of Contract Demand will be outright rejected by the Corporation if the Consumer is in arrears of Corporation's dues and the same has not been stayed by a court of law or the commission.

Enhancement of security deposit will commensurate with the increased Contract Demand.

However, Enhancement of Contract Demand will be subject to availability of power and system constraints.

2. In the event of the Licensee/Consumer desiring reduction of 'contract demand' mentioned in Schedule-I, the Consumer shall give the Corporation notice in advance in writing stating the quantity of power required along with time frame.

The terms and conditions of reduction of 'contract demand' will be guided by relevant Clauses of JSERC [Electricity Supply Code] Regulation, 2015 vide its Notification no.- 45 dt. 7th September, 2015 and its amendment from time to time.

Clause 22

This agreement shall subject as hereinbefore provided remain in force from the date of commencement of power supply for a period of **3 (three) years** and may continue thereafter if so mutually agreed upon between the Consumer and the Corporation on such terms and conditions as may be specified by the Corporation provided however continuance of the agreement after the initial **3 (three) years** will be only for a block of **1(one) year** at a time. Provided however either party shall be at liberty to terminate this agreement at the end of this stipulated period of initial block of **3 (three) years** or the subsequent block of **1(one) year** as applicable by giving 30 days' notice in advance in writing of such intention and on the expiration of such notice period this Agreement shall absolutely cease and determine but without prejudice to the rights and remedies, if any, of either party which may have accrued or arisen hereunder in the meantime.

However, if the agreement is to be terminated before expiry of initial period of agreement, the consumer shall be liable to pay Demand charge [for the balance period of initial period of agreement] as to be declared by JSERC in its tariff order or any amendment thereof by JSERC.

In case supply is continued after expiry of agreement without formal extension, this agreement shall continue to be effective on same terms & conditions as provided in Agreement, Act, Rules/regulation.

If any consumer is willing to sell its property to another person who intends to retain the power supply from the Corporation, the existing consumer/ new owner has to clear all its dues against power supply bills, if any and the new owner will be deemed as new consumer and shall complete all the formalities including signing of PPA. It is to be noted that point of power supply to a consumer is for use in a specific property area as declared by the consumer and claim for outstanding dues on that

नीरज भाटिया
प्रमुख प्रबंधक (वितरण तंत्र)
संल. बांकाशी स्टोल प्लान्ट



property will debar new owner's electricity connection by DVC till all outstanding dues on old consumer for supply in that property is cleared either by old consumer or new owner.

Clause 23

If the power supply to any Consumer remains disconnected continuously for a period of 180 (one hundred and eighty) days where the disconnection has been effected in compliance with any of the provisions of Electricity Act,2003 and clauses of this Agreement , The Agreement with the Consumer for the supply of electricity shall be deemed to have been terminated with consequential effect on expiry of the said period of 180 (one hundred and eighty) days or after expiry of the initial period of power purchase agreement, whichever is later. This will be without prejudice to such other action or the claim that may arise from the disconnection of supply or related issues therefor. On termination of the Agreement, the Corporation shall have the right to remove the service line and other installations through which electricity is supplied to the Consumer.

Clause 24

The above agreement is subject to provisions of Electricity Act, 2003 and the Regulations and Consumer agrees to pay for all charges payable in accordance with the Regulations and schedule of charges of the Corporation.

This agreement supersedes all the agreement executed between DVC and Bokaro Steel Limited in regard to power supply at Marafari , Bokaro Steel City.

IN WITNESS WHEREOF the parties hereto have executed or caused to be executed these presents the day and year first written.

CONSUMER:

(Full Name & Address)

WITNESS

संजय कुमार सिंह
महाप्रबंधक (वितरण तंत्र)
सेल, बोकारो स्टील प्लान्ट

(Full Name & Address with Seal)

SIGNED FOR AND ON BEHALF OF
M/s STEEL AUTHORITY OF INDIA LIMITED
BOKARO STEEL LIMITED

Registered Office:

CORPORATION:

(WITNESS)

उप मुख्य अभियंता (बाणि.)
Dy. Chief Engineer (Comm.)
दा.घा.नि., कोलकाता - 54
DVC, Kolkata - 54

SIGNED FOR AND ON BEHALF OF

मुख्य अभियंता (वाणिज्यिक)
Chief Engineer (Commercial)
दामोदर घाटी निगम/D.V.O.
कोलकाता-54/Kolkata-54

| Month | Day | FY 2023-24 | | FY 2024-25 | | | FY 2025-26 | | |
|-----------|-----|------------------|-------------------------|------------------|-------------------------|-----------------------|------------------|-------------------------|-----------------------|
| | | DVC Import (KWH) | Export to Township(KWH) | DVC Import (KWH) | Export to Township(KWH) | Export to steel Plant | DVC Import (KWH) | Export to Township(KWH) | Export to steel Plant |
| Apr | 30 | 11,84,82,000 | 2,59,12,512 | 10,78,99,028 | 2,17,12,963 | 8,61,86,065 | 11,02,48,710 | 1,86,15,818 | 9,16,32,892 |
| May | 31 | 11,79,20,000 | 2,84,82,398 | 13,65,72,960 | 3,04,19,044 | 10,61,53,916 | 13,95,47,065 | 2,60,80,060 | 11,34,67,005 |
| June | 30 | 11,89,65,000 | 3,21,89,371 | 13,98,12,012 | 3,34,51,343 | 10,63,60,669 | 14,28,56,653 | 2,86,79,831 | 11,41,76,822 |
| July | 31 | 10,37,03,000 | 3,02,24,746 | 15,51,87,020 | 2,89,96,561 | 12,61,90,459 | 15,85,66,477 | 2,48,60,481 | 13,37,05,996 |
| Aug | 31 | 12,27,65,810 | 2,66,27,182 | 15,02,72,016 | 2,87,17,986 | 12,15,54,030 | 15,35,44,441 | 2,46,21,642 | 12,89,22,799 |
| Sept | 30 | 11,95,16,000 | 2,66,87,472 | 14,84,03,913 | 2,75,90,812 | 12,08,13,101 | 15,16,35,657 | 2,36,55,248 | 12,79,80,408 |
| Oct | 31 | 11,84,35,000 | 2,38,62,897 | 14,89,55,071 | 2,64,36,697 | 12,25,18,374 | 15,21,98,817 | 2,26,65,757 | 12,95,33,060 |
| Nov | 30 | 11,81,20,000 | 2,05,30,604 | 13,83,61,962 | 2,11,97,649 | 11,71,64,313 | 14,13,75,025 | 1,81,74,008 | 12,32,01,017 |
| Dec | 31 | 13,00,31,946 | 2,36,79,909 | 15,12,97,983 | 2,42,23,232 | 12,70,74,751 | 15,47,92,750 | 2,07,68,021 | 13,38,24,229 |
| Jan | 30 | 12,95,22,000 | 2,68,07,945 | 14,65,42,035 | 2,69,66,173 | 11,95,75,862 | 14,97,33,233 | 2,31,19,708 | 12,66,13,525 |
| Feb | 28 | 11,97,87,995 | 2,21,25,082 | 11,14,07,005 | 2,01,07,026 | 9,12,99,979 | 11,38,33,079 | 1,72,38,952 | 9,65,94,127 |
| Mar | 30 | 12,67,88,993 | 2,17,12,963 | 12,65,29,045 | 2,35,34,256 | 10,29,94,789 | 12,92,84,427 | 2,01,77,321 | 10,91,07,106 |
| Upto | 365 | 1444037744 | 308843081 | 1,66,12,40,050 | 31,33,53,742 | 1,34,78,86,308 | 1,69,74,16,334 | 26,86,56,847 | 1,42,87,59,486 |
| Total MUS | | 1444.04 | 308.84 | 1661.24 | 313.35 | 1347.89 | 1697.42 | 268.66 | 1428.76 |

राजुल हर्करनी
RAJUL HARKERNI
General Manager (TA-Electrical)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

21/3/25
01/4/25

SAIL AUTHORITY OF INDIA LIMITED**BOKARO STEEL PLANT**
TOWNSHIP ELECTRICAL

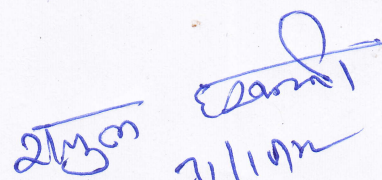
Annexure G

Date: 31.10.2022

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | Area | Name of Officer and Supervisors |
|------------|------|---|
| 02.11.2022 | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 04.11.2022 | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 07.11.2022 | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 09.11.2022 | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11.11.2022 | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 14.11.2022 | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 16.11.2022 | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 18.11.2022 | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 21.11.2022 | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 23.11.2022 | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 25.11.2022 | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 28.11.2022 | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 30.11.2022 | M | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |


Rajul harkerni
GM-I/C (TA-Elect.)

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SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 01.01.2024

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|------------|-----------|------|---|
| 03.01.2024 | WEDNESDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 05.01.2024 | FRIDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 08.01.2024 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 10.01.2024 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 12.01.2024 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 15.01.2024 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 17.01.2024 | WEDNESDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 19.01.2024 | FRIDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 22.01.2024 | MONDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 29.01.2024 | MONDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 31.01.2024 | WEDNESDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

Signature
11/1/24

Rajul harkerni
GM-I/C (TA-Elect.)

राजुल हार्करनी
महानिरीक्षक (न. प्र.-विद्युत)
सेल, बोकारो स्टील प्लांट

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SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 02.03.2024

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|------------|-----------|------|---|
| 04.03.2024 | MONDAY | A | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 06.03.2024 | WEDNESDAY | B | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 11.03.2024 | MONDAY | C | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 13.03.2024 | WEDNESDAY | D | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 15.03.2024 | FRIDAY | E | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 18.03.2024 | MONDAY | F | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 20.03.2024 | WEDNESDAY | G | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 22.03.2024 | FRIDAY | H | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |
| 27.03.2024 | WEDNESDAY | I | Shri. P K Paswan, Dy. Mgr (TE-E), and supervisors of respective sector |

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Genah 02.03.2024

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अमर नाथ सिंह
महाप्रबन्धक (न० प्र०-विद्युत)
सेल, बोकासे स्टील प्लांट



SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 31.01.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|------------|-----------|------|---|
| 01.02.2023 | WEDNESDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 03.02.2023 | FRIDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 06.02.2023 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 08.02.2023 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 10.02.2023 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13.02.2023 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 15.02.2023 | WEDNESDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 17.02.2023 | FRIDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20.02.2023 | MONDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 22.02.2023 | WEDNESDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 24.02.2023 | FRIDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 27.02.2023 | MONDAY | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

24/01/23
21/1/23

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SAIL AUTHORITY OF INDIA LIMITED

BOKARO STEEL PLANT

TOWNSHIP ELECTRICAL

Date: 01.04.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 03.04.2023 | MONDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 05. 04.2023 | WEDNESDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 10. 04.2023 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 12. 04.2023 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 14. 04.2023 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 17. 04.2023 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 19. 04.2023 | WEDNESDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 24. 04.2023 | MONDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 26. 04.2023 | WEDNESDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 28. 04.2023 | FRIDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

Rajul harkerni
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Sr. Mgr. Security

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राजुल हर्करनी
01/4/23
महामन्त्रालय (न. प्र.-विद्युत)
सेल, बोकारो स्टील प्लांट



SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 31.12.2022

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | Area | Name of Officer and Supervisors |
|------------|------|---|
| 03.01.2023 | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 05.01.2023 | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 07.01.2023 | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 09.01.2023 | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11.01.2023 | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13.01.2023 | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 16.01.2023 | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 18.01.2023 | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20.01.2023 | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 23.01.2023 | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 25.01.2023 | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 27.01.2023 | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 30.01.2023 | M | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

21/12/22
31/12/22

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SAIL AUTHORITY OF INDIA LIMITED

BOKARO STEEL PLANT

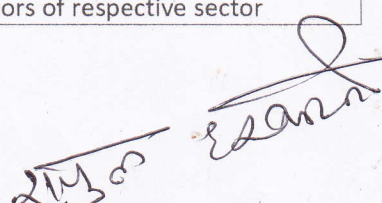
TOWNSHIP ELECTRICAL

Date: 31.05.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 02.06.2023 | FRIDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 05. 06.2023 | MONDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 07. 06.2023 | WEDNESDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P.K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 09. 06.2023 | FRIDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 12. 06.2023 | MONDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 14. 06.2023 | WEDNESDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 16. 06.2023 | FRIDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 19. 06.2023 | MONDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 21. 06.2023 | WEDNESDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 23. 06.2023 | FRIDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 26. 06.2023 | MONDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 28. 06.2023 | WEDNESDAY | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 30. 06.2023 | FRIDAY | M | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |


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BOKARO STEEL PLANT

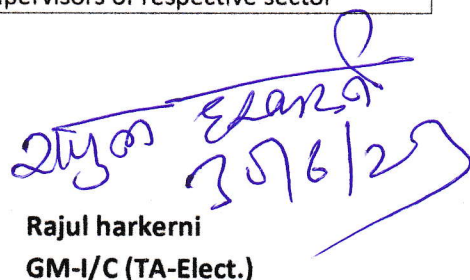
TOWNSHIP ELECTRICAL

Date: 30.06.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 03.07.2023 | MONDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 05. 07.2023 | WEDNESDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 07. 07.2023 | FRIDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 10. 07.2023 | MONDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 12. 07.2023 | WEDNESDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 14. 07.2023 | FRIDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 17. 07.2023 | MONDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 19. 07.2023 | WEDNESDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 21. 07.2023 | FRIDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 24. 07.2023 | MONDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 26. 07.2023 | WEDNESDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 28. 07.2023 | FRIDAY | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 31. 07.2023 | MONDAY | M | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |


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SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 30.11.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 01.12.2023 | FRIDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 04. 12.2023 | MONDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 06. 12.2023 | WEDNESDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 08. 12.2023 | FRIDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11. 12.2023 | MONDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13. 12.2023 | WEDNESDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 15. 12.2023 | FRIDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 18. 12.2023 | MONDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20. 12.2023 | WEDNESDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 22. 12.2023 | FRIDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 27. 12.2023 | WEDNESDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 29. 12.2023 | FRIDAY | L | Shri. T.K. Das, Mgr.(TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

Rajul Harkerni
25/11/23

Rajul harkerni
GM-I/C (TA-Elect.)

राजुल हरकरनी
महाप्रबन्धक (न. प्र.-विद्युत)
सेल, बोकारो स्टील प्लांट

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Sr. Mgr. Security
All Concerned

SAIL AUTHORITY OF INDIA LIMITED

BOKARO STEEL PLANT

TOWNSHIP ELECTRICAL

Date: 31.08.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 01.09.2023 | FRIDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 04. 09.2023 | MONDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 06. 09.2023 | WEDNESDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 08. 09.2023 | FRIDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11. 09.2023 | MONDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13. 09.2023 | WEDNESDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 15. 09.2023 | FRIDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20. 09.2023 | WEDNESDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 22. 09.2023 | FRIDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 27. 09.2023 | WEDNESDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 29. 09.2023 | FRIDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

For
31.08.23

Rajul harkerni

GM-I/C (TA-Elect.)

अमर नाथ सिंह
महाप्रबन्धक (न० प्र०-विद्युत)
सेल, बोकारो स्टील प्लांट

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Sr. Mgr. Security

All Concerned

SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 30.09.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 04.10.2023 | WEDNESDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 06. 10.2023 | FRIDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 09. 10.2023 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11. 10.2023 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13. 10.2023 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 16. 10.2023 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 18. 10.2023 | WEDNESDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20. 10.2023 | FRIDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 25. 10.2023 | WEDNESDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 27. 10.2023 | FRIDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 30. 10.2023 | MONDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

for *diya*
30.09.2023
Rajul harkerni
GM-I/C (TA-Elect.)

दिनेश कुमार सिंह
उप महाप्रबन्धक (नं० प्र०-विद्युत)
सेल, बोकारो स्टील प्लांट

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Sr. Mgr. Security
All Concerned

SAIL AUTHORITY OF INDIA LIMITED

BOKARO STEEL PLANT

TOWNSHIP ELECTRICAL

Date: 31.07.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 02.08.2023 | WEDNESDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 04. 08.2023 | FRIDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 07. 08.2023 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 09. 08.2023 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 11. 08.2023 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 14. 08.2023 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 16. 08.2023 | WEDNESDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 18. 08.2023 | FRIDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 21. 08.2023 | MONDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 23. 08.2023 | WEDNESDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 25. 08.2023 | FRIDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 28. 08.2023 | MONDAY | L | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

21/50 31/7/23
Rajul harkerni
GM-I/C (TA-Elect.)

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Sr. Mgr. Security
All Concerned



SAIL AUTHORITY OF INDIA LIMITED
BOKARO STEEL PLANT
TOWNSHIP ELECTRICAL

Date: 31.10.2023

Sub: Unauthorized hooking removal team

The officers and supervisors named below along with security person shall go for inspection of the Township to take action for the removal/ hooking of unauthorized power connection. The scheduled time for this activity will be from 3:00 PM onwards. The plan for the visit will be under:

| Date | DAYS | Area | Name of Officer and Supervisors |
|-------------|-----------|------|---|
| 01.11.2023 | WEDNESDAY | A | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 03. 11.2023 | FRIDAY | B | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 06. 11.2023 | MONDAY | C | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 08. 11.2023 | WEDNESDAY | D | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 10. 11.2023 | FRIDAY | E | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 13. 11.2023 | MONDAY | F | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 17. 11.2023 | FRIDAY | G | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 20. 11.2023 | MONDAY | H | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 22. 11.2023 | WEDNESDAY | I | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 24. 11.2023 | FRIDAY | J | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |
| 29. 11.2023 | WEDNESDAY | K | Shri. T.K. Das, Mgr.(TE-E), Shri. T. Soren, Asst Mgr (TE-E), Shri. P K Paswan, Asst Mgr (TE-E), and supervisors of respective sector |

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Sr. Mgr. Security
All Concerned

Rajul harkerni
GM-I/C (TA-Elect.)

राजुल हार्करनी
महाप्रबन्धक (न. प्र.-विद्युत)
सेल. बोकारो स्टील प्लांट

करने की
दोपहर बाद
होगी। यह
भयंता
कि बीते
केवल में

री
लिस ने
मार की
है।
वह
अपनी
-2111 से
शाद
बाइक
बाहर
(संस)

कर्मल
र साह की
अभिषेक
पाद के पास
यल करने का
पास)

दिसंबर मंगलवार से उन्हें प्रारंभिक
चरण में कुछेक सुविधाओं का लाभ

अधिकारियों को ही मिलेगी, जो
संयंत्रकमी बीएसएल की सेवा से

कर्मचारियों के समय
की भी आर्थिक बच
समय में बोकारो

बोकारो शहर में की जाएंगी दो हजार रासायनिक अर्थिंग स्थापित

जासं, बोकारो : बीएसएल टाउनशिप
के लिए रासायनिक अर्थिंग परियोजना
का उद्घाटन अधिशासी निदेशक-
प्रभारी (मानव संसाधन) राजन
प्रसाद के द्वारा किया गया। बोकारो
स्टील सिटी में लगभग 250 से
अधिक विद्युत सबस्टेशन हैं, जहां पर
2000 रासायनिक अर्थिंग स्थापित की
जाएंगी। बीएसएल में पहली बार
उन्नत प्रकार की रासायनिक अर्थिंग
प्रतिस्थापित किया जा रहा है।
रासायनिक अर्थिंग प्रणाली, विद्युत
लाइन और उपकरण के अर्थिंग का
बहुत ही प्रभावी तरीका है, क्योंकि
यह चालकता को बढ़ाता है और
विद्युत प्रणालियों के लिए लंबे समय
तक चलने वाली सुरक्षा प्रदान करता
है। रासायनिक अर्थिंग प्रणाली कम
खरखाव में स्थिर और लंबे समय
तक काम करने वाला, अत्यधिक



उद्घाटन करते अधिशासी निदेशक-
प्रभारी राजन प्रसाद व अन्य • जागरण

टिकाऊ, जंग रोधी प्रकृति के साथ
पर्यावरण के लिए भी अनुकूल होता
है। इस मौके पर मुख्य महाप्रबंधक
कुंदन कुमार, जीएम प्रभारी राजुल
हरकरनी, जीएम एन सिंह, डीजीएम
डीके सिंह, वरीय प्रबंधक आशुतोष
कुमार, परियोजना डिवीजन के
उपमहाप्रबंधक आरएल मीणा, वरीय
प्रबंधक अभिषेक आदित्य सहित
अन्य अधिशासी एवं कर्मचारीगण
उपस्थित थे।

शंकर खानी

जागरण संवाददाता
रावानी हत्याकांड
जेल से रिमांड पर
लाए गए विकास
पुलिस ने बयान
में इससे हत्या
महत्वपूर्ण जान
हाथ लगी है।
बयान के बाद
भेजने की तैयारी



असकी हॉस्पिटल



Electroph

(92644330



Flexible &
Airy Upper



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
बोकारो स्टील प्लांट

बोकारो, स्टील सिटी-827001, झारखण्ड, भारत

आवश्यक सूचना

टीए-इलेक्ट्रिकल से संबंधित सभी विद्युत शिकायतों के लिए एक केंद्रीकृत शिकायत-निवारण दूरभाष केंद्र की सुविधा स्थापित की गई है, जिसमें हमारे उपभोक्ता अपनी शिकायतें दर्ज कर सकते हैं और फोन के माध्यम से ही शिकायत की वर्तमान स्थिति भी प्राप्त कर सकते हैं। इस शिकायत-निवारण दूरभाष केंद्र (calling centre) की सुविधा साल के सभी दिन (छुट्टियों समेत) 24 घंटे उपलब्ध रहेगी। दूरभाष - केंद्र के नंबर इस प्रकार हैं:
06542-286111 एवं 06542-286222

जारीकर्ता

नगर प्रशासन/बोकारो इस्पात संयंत्र

पंजीकृत कार्यालय: इस्पात भवन, लोदी रोड, नई दिल्ली-110003
कॉर्पोरेट आइडेंटिटी नम्बर: L27109DL1973GOI006454, वेबसाइट: www.sail.co.in

हर किसी की जिन्दगी से जुड़ा हुआ है सेल

NDRA INSTITUTE OF MEDICAL SCIENCES
(Autonomous Institute under Govt. of Jharkhand)
Ranchi-834009 (Jharkhand)

RIMS/Legal/1499/Date 21-12-2024
Applications for empanelment of Advocates in RIMS, Ranchi
Ranchi Institute of Medical Sciences (RIMS) Ranchi invited application for empanelment of Advocates to handle cases before Supreme Court of India, High Court of Jharkhand, District Court and other judicial/quasi-judicial bodies. Advocate so empanelled would be required to give legal opinion as and when requested for.



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड

बोकारो स्टील प्लांट

बोकारो स्टील सिटी-827001, झारखण्ड, भारत

महत्वपूर्ण सूचना: लाइसेंसधारी क्वार्टरों के विद्युत बिल भुगतान (2023-24)

वित्तीय वर्ष 2023-24 के लिए अधिकांश लाइसेंसधारी क्वार्टरों के बिजली बिल ऑनलाइन भुगतान पोर्टल (<https://bslcollect.sailbsl.in/>) पर उपलब्ध करा दिए गए हैं। सभी लाइसेंसधारी क्वार्टरों के निवासियों से निवेदन है कि वे अपने लंबित बिजली बिलों का भुगतान जल्द से जल्द इस पोर्टल के माध्यम से करें।

आपके लाइसेंस क्वार्टर से संबंधित बिजली बिल उस ईमेल आईडी पर भेज दिए गए हैं, जो नगर सेवा विभाग में उस क्वार्टर के आवंटन के समय पंजीकृत की गई थी। इसके अतिरिक्त, आवासधारी अपने बिजली बिल को नगर सेवा की वेबसाइट (<https://ta.sailbsl.in/>) से भी डाउनलोड कर सकते हैं।

**आदेशानुसार,
नगर प्रशासन विभाग**

पंजीकृत कार्यालय: इस्पात भवन, लोदी रोड, नई दिल्ली-110003
कॉर्पोरेट आइडेंटिटी नम्बर: L27109DL1973GOI006454, वेबसाइट: www.sail.co.in

हर किसी की ज़िन्दगी से जुड़ा हुआ है सेल

अवैध निर्माण किया ध्वस्त, बिजली का अवैध कनेक्शन काटा

- बीएसएल की जमीन पर किया गया था अतिक्रमण
- नगर सेवा के सिविल इंजीनियरिंग विभाग ने सेक्टर नौ व पांच में चलाया अभियान

वरीय संवाददाता, बोकारो

सेक्टर नौ में किये जा रहे अवैध निर्माण को ध्वस्त कर दिया गया। अवैध ढंग से खुल रहे दुकान को गिरा दिया गया। सेक्टर पांच में बिजली का अवैध कनेक्शन काटा गया। तार बरामद किया गया। बीएसएल की जमीन पर अतिक्रमण व अवैध बिजली कनेक्शन के खिलाफ नगर सेवा विभाग



अवैध दुकान व निर्माण हटाते सुरक्षा विभाग के अधिकारी व कर्मी.

सक्रिय है. गुरुवार को नगर सेवा के सिविल इंजीनियरिंग विभाग ने अतिक्रमण व अवैध

कनेक्शन के खिलाफ अभियान चलाया. सेक्टर नौ बी स्ट्रीट 15 क्वार्टर नंबर 1076 के सामने अवैध दुकान को हटाया गया. यहां बड़ी दुकान बिना अनुमति के लगा दी गयी थी. सेक्टर नौ स्ट्रीट 06 क्वार्टर नंबर 194 में अवैध निर्माण को सुरक्षा विभाग की टीम ने ध्वस्त कर दिया. यहां बिना अनुमति के क्वार्टर के निकट अवैध निर्माण कराया जा रहा था. बोकारो निवास सेक्टर 05 के पीछे बिजली का अवैध कनेक्शन काटा गया. यहां झाड़ियों के बीच से अवैध कनेक्शन लिया गया था. सुरक्षा विभाग की टीम ने कनेक्शन काट कर बिजली का तार जब्त किया.

Friday, September 13, 2024

Bokaro

<https://epaper.prabhatkhabar.com/clip/66e34494bce7ffbbba4acc2b>





STEEL AUTHORITY OF INDIA LIMITED

Bokaro Steel Plant

Bokaro - 827001, Jharkhand, India

आवश्यक सूचना

ऐसा देखा गया है कि, बोकारो स्टील सिटी टाउनशिप क्षेत्र में बिजली के खंभों पर कतिपय संस्थानों द्वारा अनाधिकृत रूप से विज्ञापन और प्रचार बोर्ड लगाए गए हैं। इनमें मुख्य रूप से कोचिंग संस्थान, होटल / रेस्तरां, अन्य वाणिज्यिक प्रतिष्ठान आदि शामिल हैं। बिजली के खंभों पर बीएसएल की पूर्व अनुमति के बिना लगाए गए ऐसे सभी विज्ञापन और प्रचार बोर्ड अवैध हैं।

पूर्व में भी बीएसएल द्वारा कई बार ऐसी संस्थाओं / प्रतिष्ठानों द्वारा अवैध रूप से लगाए गए विज्ञापन के बोर्ड को हटाया गया है, इसके बावजूद इन संस्थाओं द्वारा जबरन अवैध रूप से विज्ञापन बोर्ड लगाया जा रहा है। अवैध गतिविधि में संलिप्त ऐसे संस्थाओं और प्रतिष्ठानों को चिन्हित कर उनकी सूची तैयार कर ली गई है और उन्हें सख्त चेतावनी दी जाती है कि बिजली के खंभों में उनके द्वारा लगाए गए बोर्ड बैनर अविलम्ब हटा लें और सुनिश्चित करें कि भविष्य में इसकी पुनरावृत्ति न हो। यह भी ध्यान दें कि अवैध विज्ञापन बोर्ड के कारण उत्पन्न होने वाली किसी भी तरह की समस्या के लिए सम्बंधित संस्थानों और प्रतिष्ठानों को जिम्मेदार माना जाएगा और उनके खिलाफ कानूनी कार्रवाई की जाएगी।

आदेशानुसार
नगर प्रसाशन विभाग

Registered Office : Ispat Bhawan, Lodhi Road, New Delhi 110 003

Corporate Identity Number : L27109DL1973GOI006454, Website : www.sail.co.in

There's a little bit of SAIL in everybody's life



REDMI NOTE 6 PRO
MI DUAL CAMERA

2024/4/10 16:14



REDMI NOTE 6 PRO
MI DUAL CAMERA

2024/4/10 16:14





BSL CUTS ILLEGAL POWER LINES

Divy Khanna



The Bokaro Steel Plant (BSL) disconnected over 100 illegal connections from footpath shops in City Center Market under Sector 4 Police Station area on Friday. "The BSL team seized more than 3,000 metres of cables and wires. Crane was used in the drive to cut wires," said D K Singh, acting chief of communication, BSL





डीह दामोदर पुल से र दे दी जान

श्यामी : भोजडीह में दामोदर नदी
फुटकर एक अवैध व्यक्ति ने
जान दे दी। घटना शुक्रवार शाम
घटना की सूचना मिलने पर
एडुवी भोजडीह औपी पुलिस
को कब्जे में ले लिया है। पुलिस
प्रवास के बाद भी देर शाम
की शिनाख्त नहीं हो पाई थी।
श्यामी के अनुसार वनवाड़ जिले
डीह की ओर से पुल से कुल
भोजडीह की ओर आ रहा था।
ही पुल से नदी में उसने
गा दी। मौके पर ही उसकी
ई। (सस)

र छोड़ने के पहले ने जानकारी

या मुख्यालय ने आदर्श
ता लगा होने के बाद छुट्टी
लिए नियम बना दिए हैं।
यान को स्टेट पुलिस का
पर बनाया गया है। विधि
इसकी में लगे पुलिस
किमोरेटों के लिए यह
गया है कि यह मुख्यालय
ने इसकी सूचना स्टेट
र को दी। (सस)

नी में कुते ने



तारों का जाल बना जी का जंजाल

बीएसएल प्रकशन की ओर से शहर के विभिन्न सेक्टरों में शुक्रवार को अवैध बिजली के
कनेक्शन काटा गया। बांकासो के नया मोड़ में बिजली के पोल से अवैध कनेक्शन को
काटने में मिस्त्री को पसीना छुट गया। उलझे तारों को देख समाज में ही नहीं आ रहा था
कि कौन सा तार काटें और कौन सा छोड़ें • बनीष गुजरा

बांकासो आसपास जागरण

सेक्टरों में छापेमारी कर बीएसएल ने अवैध बिजली कनेक्शन काटा

सिटी सेंटर व लक्ष्मी मार्केट में भी चलाया गया अभियान

संवाद, सहयोगी, बांकासो : बीएसएल
सिक्वेटिटी विभाग के डीजीएम कर्नल
राजेंद्र सिंह शेखावत के नेतृत्व में
शुक्रवार को सेक्टर दो, सेक्टर चार
सिटी सेंटर व लक्ष्मी मार्केट में
छापेमारी अभियान चलाया गया।
लक्ष्मी मार्केट सेक्टर चार के फल
दुकान, कोआपरेटिव मोड़ के पास
सेक्टर दो जानेवाली सड़क के पास
दुकान व झोपड़ाट्टी अवैध बिजली
कनेक्शन काट दिया गया। शराब
दुकान का भी बिजली कनेक्शन को
काटा गया। केन्सा बैंक के सामने
मैदान में खड़े पुराने वाहनों को हटाने
का निर्देश दिया गया। शौम गाई के
जवानों ने पोल में अवैध तरीके से
लगाए गए वेपर लाइट को खोल कर
हटा दिया गया। डीजीएम कर्नल राजेंद्र
सिंह शेखावत ने कहा कि सिटी सेंटर,
लक्ष्मी मार्केट के दुकानदार अवैध
बिजली से बचें, ट्यूबलाइट जला रहे
हैं। अवैध तरीके से पेखा व बिजली के
अन्य उपकरण चलाए जा रहे हैं।
दिखावे के लिए कभी-कभी जेनेरेटर



नया मोड़ से अवैध बिजली कनेक्शन को हटाने बीएसएल के अधिकारी व जवान • ऊबछा
चलाया जाता है। सिटी सेंटर व केन्सा
बैंक के पास मैदान में पुराने वाहनों को
हटाने का निर्देश दिया गया।
एक गुमटी में जलाए जा रहे दस बल्ब :
बांकासो इस्पात नगर के सेक्टर एक
श्रीराम मॉडर मार्केट, सेक्टर दो काली
मंदिर के निकट, को-आपरेटिव मोड़
के निकट, नया मोड़, दुंदीबाद बाजार,
सेक्टर चार सिटी सेंटर, सेक्टर पांच,
का नुकसान हो रहा है।

एक्सपर्ट पैनल में विश्ववि

जागरण संवाददाता, धनबाद : विनोद
बिहारी मकली कोयलाचल
विश्वविद्यालय में 130 मीड वेड
शिक्षकों की नियुक्ति जस्ट होगी।
विधि के स्तर से इसकी तैयारी की
जा रही है। 27 विधियों के लिए 1,800
आवेदन आए हैं। अभी विश्वविद्यालय
प्रशासन प्राप्त आवेदनों को विश्वविद्यालय
शांतिनिकट कर रहा है। यह कार्य
अगले सप्ताह में पूर्ण कर लिया
जाएगा। इसके बाद सबसे पहले ऐसे
अभ्यर्थियों से आपत्ति आमंत्रित की
जाएगी, जिनका आवेदन शांतिनिकट
नहीं हो पाएगा। ऐसे सभी आपत्ति पर
विचार करने के बाद ही साक्षात्कार
प्रक्रिया शुरू होगी। यह जानकारी

डा सरिता वर्मा वाद्यमारा कलेज की विधि प्रतिनिधि

जस, धनबाद : गोपिया डिग्री कलेज
की प्राचार्या डा. सरिता श्रीवास्तव को
वाद्यमारा डिग्री कलेज का
विश्वविद्यालय प्रतिनिधि नियुक्त किया
गया है। इस संवर्ध में बीबीएमकेयू
प्रशासन की ओर से नॉटिफिकेशन
जारी किया गया है। डा. सरिता को
डा. जितेंद्र आर्षा के स्थान पर इस
कार्य के पुनरा (युनिवर्सिटी
एजुकेशन) बनाया गया है। डा.
अर्पण ने वाद्यमारा कलेज के विश्व
प्रतिनिधि के रूप से इस्तीफा दे दिया
था। (सस)

Sub: Implementation of Smart Meter/ Advanced Metering Infrastructure in BSL Township

Existing System:

At present conventional Meters are installed in Plots, shops, quarters of the electrical consumers in BSL Township. These conventional set up has been technologically out graded and brings lot of challenges in our day to day activities. Few of them have been listed below:

1. Due to insufficient nos. of meter readers the meter reading is not possible, so average billing is done.
2. Maximum demand control is not available in present meter.
3. Chances of energy theft by bypassing the meter.
4. Lack in real time billing leads to outstanding dues.
5. Unsatisfied consumers

Proposed:

Advanced Metering Infrastructure(AMI),is also referred as Smart Metering is the combination of the electronic meters with two-way communications technology for information, monitor, and control. Smart Meters are advanced electronic energy measurement devices having the capacity to collect information about energy usage at various intervals and transmitting the data through a communication network to utility and receiving instructions from utility as well. In addition to conventional electronic metering functionality smart meters through its built-in communication module can undertake load switch activities for disconnecting/ connecting the load remotely. Smart metering system aims to deliver multiple benefits by:-

- Providing a platform for improved customer service, e.g. timely and accurate readings support billing without need for estimation.
- Detailed and in time information of energy usage for identifying opportunities for energy savings.
- Building a platform for future smart grids.
- Allow remote connection/disconnection of supply.
- Measurement of electricity exported.
- Increase energy efficiency by keeping track of peak usage timings.
- Manage personal energy consumption.

- Reduce utility problems associated with regular breakdown, no lights in quarters, plots etc.
- Rise in revenue collection

This proposal includes-

- Replacement of Service Cable including erection of junction boxes, PVC conduit and flexible conduit.
- Replacement of Load side cable up to main switch including erection of junction boxes, PVC conduit and flexible conduit.
- Implementation of Smart Meter/ Advanced Metering Infrastructure including Design, Engineering and Operation & Maintenance for 10 years (1.5 years for Roll out and 8.5 years for comprehensive O&M)

It is proposed to cover Entire Township under this proposal. We have approximately 36231 consumer's points of different category. These categories are: LTIS (3 phase – CT meter), LTIS (3 phase Direct), HTS, CS (1 phase), CS (3 phase – CT meter), DS – LT, DS – HT, Lease Quarter, License Quarter, BSL Employee Quarter, Pool quarters.

The details of the 36231 consumers are mentioned in the table shown below-

| Sl. No | Type of meter | Numbers |
|--|---|------------------|
| 1 | Single Phase Prepaid Smart Energy Meter | 35787 |
| 2 | Three Phase Prepaid Smart Energy meter | 169 |
| 3 | HT Prepaid Meters | 20 |
| 4 | 11 KV Substation LTCT Meters for transformers incomer points | 255 |
| Total consumer | | 36231 |
| Deviation expected in total consumer list | | 36231±10% |

In view of above TC-DB is requested to prepare Technical Specification and cost estimate for above IPU proposal.

Noting:

Note # 1 ASHUTOSH KUMAR , (B036475), Manager, TOWN ADMN

Date:- 28.07.2022 16:34:29

May please process further.

Note # 2 RAJUL HARKERNI , (C003382),GM,TOWN ADMN

Date:- 28.07.2022 16:47:04

We may please request TC-DB
to prepare TS and cost estimate.

Note # 3 BHUPINDER SINGH POPLI , (C001413),CGM,TOWN ADMN

Date:- 29.07.2022 10:43:01

For further processing on priority please

Note # 4 AJAY KUMAR , (C001387),CGM,TECHNICAL CELL

Date:- 30.07.2022 17:44:43

May kindly be taken up.

Note # 5 JYOTI , (C003555),AGM,TECHNICAL CELL

Date:- 06.08.2022 12:43:01

Meeting held with officers of TA (Electrical) on 04-08-22. As discussed a Technological Selection committee meeting may be organized by department as per AMR procedure to deliberate mode of tendering, mode of implementation etc.

Note # 6 AJAY KUMAR , (C001387),CGM,TECHNICAL CELL

Date:- 06.08.2022 16:21:13

Shri R.L.Meena, Sr. Mgr., shall be member from TC-DB TSC meeting.

Note # 7 BHUPINDER SINGH POPLI , (C001413),CGM,TOWN ADMN

Date:- 06.08.2022 18:04:22

Please process further

Note # 8 RAJUL HARKERNI , (C003382),GM,TOWN ADMN

Date:- 23.08.2022 17:01:51

TSC meeting was organized in the Office of CGM (I/C) TA on 10/8/2022 Minutes of the meeting has been recorded.

Note # 9 JYOTI , (C003555),AGM,TECHNICAL CELL

Date:- 24.08.2022 15:33:20

Please examine and prepare.

Note # 10 SNEHLATA , (C029097),Sr. Manager,TECHNICAL CELL

Date:- 07.09.2022 17:17:17

As discussed.

Installation of Smart meter

a) **Detailed Project Report:** E note sheet on approval of Implementation of Smart meter/ Advance Metering Infrastructure in BSL Township dated 28th July 2022, is enclosed as Annexure H.

b) **Cost benefit analysis:** SAIL-BSL is committed for reduction of the distribution losses in the township. At present, the consumers of SAIL-BSL are connected with the analog meters and SAIL-BSL has appointed meter readers for meter readings. Few of the challenges in the existing meters are listed below:

A) Insufficient manpower for meter reading, causing average billing for some of the consumers.

B) Electricity theft by bypassing the energy meter.

C) Delay in billing leading to outstanding dues.

Hence, SAIL-BSL has proposed for smart meters which would help in overcoming the above-mentioned challenges. Further, it is submitted that SAIL-BSL is planning to install smart meters for all the consumers.

SAIL-BSL humbly pray before Hon'ble Commission to allow SAIL-BSL to approach separately to the Hon'ble Commission in next tariff petition for the CAPEX approval of Installation of Smart Meters, **after the Stage I approval.**

c) **Cost of financing:** To be estimated

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SAIL

Annexure I



सेल / SAIL
बी एस एल / BSL
टिप्पणी पत्र

Proposal for Underground of LT Network

SAIL-BSL is committed for reduction of the distribution losses in the township. Every year SAIL-BSL is having a financial impact of ~30 Crores in regard to distribution loss in township because of non-technical reasons such as illegal tapping and hooking.

Thus, considering the seriousness of the matter, General Manager, SAIL-BSL has discussed this issue with the concerned officials of TA Electrical department level with the concerned officials to know their opinion on the matter.

It was discussed during the meeting that the Sectors 01, 04 and 09 are the high loss pockets of the Township majorly due to its location at the border area of the township.

Thus, as a concrete measure to reduce the non-technical distribution loss because of illegal connection/theft of power /pilferage, SAIL-BSL may propose to install underground cables which is one of the prevailing practices followed in India. It was highlighted in the meeting that the Forum of Regulators Report on "Best practices and strategies for distribution loss reduction" has also suggested underground of LT network as one of the measures for the non-technical distribution loss reduction. Further, Central Electricity Authority has also acknowledged the fact that in the underground cabling system, it is generally impossible to have illegal connection by tapping the conductor for theft of power.

In view of above discussion, General Manager, TA Electrical Department has directed the concerned officials to prepare a detailed plan for implementation of Underground of LT Network along with the tentative timelines and cost estimate for Stage I approval from the SAIL-BSL Management.

Spindh

28.02.2024

अमर नाथ सिंह
महाप्रबन्धक (नगर राया-विद्युत)

21/3/24 *Spindh*

ME

21/3/24 *Spindh*

राजुल हर्करनी
RAJUL HARKERNI
महाप्रबन्धक (नगर राया-विद्युत)
General Manager (TA - Electrical)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

Introduction

The power infrastructure of Bokaro Steel Limited (BSL) Township plays a critical role in supporting the daily life of residents. As BSL continues to expand its capabilities and modernize its facilities, the demand for reliable, efficient, and sustainable power supply systems has become increasingly important. This report, prepared by the committee, examines the necessity of undergrounding High Tension (HT) cables across the township, along with the feasibility of similar initiatives for Low Tension (LT) cables. Additionally, it addresses the implementation of redundancy measures and the introduction of Supervisory Control and Data Acquisition (SCADA) systems to enhance the reliability and monitoring of the power network.

The decision to transition from traditional overhead HT and LT lines to underground cabling is motivated by several factors, including the need for improved power reliability, enhanced safety, reduced environmental impact, and greater energy efficiency. Overhead lines, though cost-effective in the short term, are vulnerable to weather disruptions, vandalism, and theft, and contribute to power outages that can severely impact daily life in the township. Underground cables, while initially more expensive, offer long-term benefits such as reduced transmission losses, improved power quality, and lower maintenance costs due to their insulation from external elements.

Furthermore, the committee recognizes that BSL Township's unique environmental and industrial setting presents both challenges and opportunities for undergrounding initiatives. The presence of vital natural landscapes within the township underscores the need for infrastructure solutions that minimize environmental disruption. Undergrounding power lines not only preserves the local ecosystem but also aligns with BSL's commitment to sustainable development. At the same time, the township's dependence on consistent and stable power supply necessitates a more resilient and robust electrical infrastructure.

To achieve this, the committee has explored various redundancy measures designed to safeguard critical services in the event of power disruptions. In parallel, the introduction of SCADA technology promises to revolutionize the management of the township's power network, enabling real-time monitoring, fault detection, and predictive maintenance. These initiatives together form a comprehensive strategy to future-proof BSL Township's power infrastructure while enhancing safety, reliability, and operational efficiency.

Requirement of under grounding of HT cables in the township.

The benefits of undergrounding HT overhead lines and providing dedicated power supply, specifically in the context of Bokaro Steel Limited (BSL) township:

1. **Enhanced Reliability:** BSL's operations rely heavily on uninterrupted power supply. Underground cables offer increased reliability by protecting against weather-related disruptions, ensuring continuous power supply to the steel plant and other critical facilities within the township, thus minimizing downtime and maximizing productivity.
2. **Reduced Environmental Impact:** BSL township is situated amidst natural surroundings. Underground cables would minimize the environmental impact by eliminating the need for extensive tree

Yashj Kumar
21/08/2024

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trimming and reducing the risk of wildlife interference, thereby preserving the local ecosystem and promoting sustainable development practices.

3. **Improved Safety:** Safety is paramount in an industrial setting like BSL township. Underground cables eliminate the risk of accidental contact with live wires, reducing the possibility of electrocution and enhancing overall safety for residents, workers, and wildlife within the township
4. **Better power quality:** BSL's industrial processes require consistent and stable power supply. Underground cables offer lower voltage drops compared to overhead lines, ensuring more reliable and efficient power distribution throughout the township, which is crucial for maintaining smooth operations and maximizing production output.
5. **Reduced Transmission Losses:** Underground cables have lower resistance, resulting in reduced transmission losses compared to overhead lines. This translates to greater energy efficiency and cost savings for BSL, contributing to the company's overall profitability and sustainability efforts.
6. **Protection Against Vandalism and Theft:** Industrial facilities like BSL are susceptible to vandalism and theft, which can disrupt operations and compromise security. Underground cables are less vulnerable to such incidents, providing enhanced protection for the power infrastructure and ensuring uninterrupted service for the steel plant and associated facilities.

Feasibility of LT Undergrounding

Undergrounding the LT (Low Tension) power lines in the sectors of BSL Township will provide several electrical advantages, including:

1. **Improved Reliability:** Underground cables are far less prone to interruptions caused by weather conditions such as lightning, wind, or ice, leading to fewer power outages.
2. **Enhanced Power Quality:** Underground systems minimize electrical interference and voltage fluctuations, ensuring a more stable and consistent power supply.
3. **Reduced Tapping and Power Theft:** With underground lines, illegal tapping is significantly harder, resulting in reduced power theft and better overall system integrity.
4. **Increased System Efficiency:** Underground lines experience less electrical loss, reducing energy wastage and improving system efficiency.
5. **Reduced Risk of Electrical Faults:** Underground cables are protected from external damage, decreasing the likelihood of electrical faults and short circuits.
6. **Longer Lifespan of Cables:** The underground environment shields cables from environmental wear, extending the lifespan of the infrastructure.
7. **Better Load Management:** Underground systems allow for more efficient load distribution, reducing circuit overloading and improving grid performance.
8. **Enhanced Safety for Electrical Workers:** The absence of elevated, high-risk work environments provides safer conditions during maintenance and repairs.

In conclusion, undergrounding LT power lines in BSL Township offers significant electrical benefits, including improved reliability, enhanced power quality, reduced power theft, and increased system efficiency. These advantages, coupled with a longer infrastructure lifespan and safer working conditions, make underground systems a valuable investment for a more resilient and efficient electrical network.

Redundancy of HT Lines in BSL Township

Yanji Kumar
21/08/2024

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1. **Separate 11 KV Feeder Source from Plant:** A new 11 KV feeder will be established, originating from the plant and connecting directly to the 132 KV township substation. This will serve as an emergency power source for critical areas such as ADM (Administrative Block), HRD (Human Resources Department), BGH (Bokaro General Hospital), WTP (Water Treatment Plant), and others. This setup is designed to provide backup power in the event of a breakdown or failure of the 132 KV lines feeding power to the 132 KV township substation, ensuring continuity of service in crucial locations.
2. **Underground Power Cabling to BGH:** An additional power supply will be provided to Bokaro General Hospital (BGH) through underground cabling. This backup ensures that the hospital can continue operations uninterrupted during any power failures affecting the primary supply
3. **Underground Power Cabling to ADM:** A separate power feed will be provided to the Administrative Block (ADM) via underground cabling. This redundancy ensures that the administrative functions of the township remain operational even during outages.
4. **Underground Power Cabling to Airport:** An additional underground power supply will be extended to the airport. This measure ensures that the airport remains operational and can handle emergencies, even in the event of a major power disruption to the primary grid.
5. **Underground Power Cabling to DIC Bungalow:** An underground power line will be installed to supply additional power to the DIC bungalow. This ensures the uninterrupted operation of key personnel accommodations during power disruptions.
6. **Underground Power Cabling to CMO:** Additional power will be fed to SAIL's Centre Marketing Office (CMO) and stockyards via underground cables ensures uninterrupted electricity supply to CMO and stockyards, safeguarding against disruptions.
7. **Underground Power Cabling to WTP:** The Water Treatment Plant (WTP) will also be supplied with additional power through underground cabling, ensuring that the township's water supply is unaffected during power interruptions.
8. **Changeover provision:-** A changeover system will be implemented among the feeders to facilitate the seamless transition of loads from one feeder to another in the event of a breakdown. This ensures uninterrupted power supply and minimizes downtime during feeder failures.

Conclusion: These redundancy measures, involving the creation of alternate power supply routes through underground cabling to key areas of the BSL township, significantly enhance the reliability and resilience of the power distribution system. By establishing a separate 11 KV feeder, essential services and critical infrastructure will continue to function smoothly even in the event of major power failures, ensuring minimal disruption to the township's operations.

Selection of area for under grounding:

The areas to be undergrounded has been attached as Annexure-I.

Provision of SCADA for monitoring the system.

The provision of SCADA (Supervisory Control and Data Acquisition) for the monitoring of the HT (High Tension) undergrounding system is a critical step towards improving the reliability, efficiency, and management of the power distribution network in BSL township. SCADA enables real-time data acquisition, remote control, and monitoring of the underground HT infrastructure, offering several advantages:

Ylangi Kumar
21/08/24

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1. **Real-Time Monitoring and Control:** SCADA systems allow for continuous, real-time monitoring of the HT underground network. Operators can track the status of power flow, voltage levels, current, and other critical parameters, ensuring that the network remains stable and within safe operating limits. Any anomalies such as voltage drops, overloads, or faults can be detected instantly.
2. **Fault Detection and Isolation:** With SCADA in place, any faults within the HT underground system, such as cable breakdowns, short circuits, or insulation failures, can be quickly identified and localized. This allows for faster isolation of the faulty section, minimizing the area affected by power outages and reducing downtime.
3. **Improved Maintenance and Response:** SCADA provides valuable insights into the health of the HT underground infrastructure by constantly monitoring its condition. This data can be used for predictive maintenance, allowing maintenance teams to address potential issues before they lead to failures. The system also helps streamline response times by providing precise information on fault locations, reducing the time taken for troubleshooting and repair.
4. **Data Logging and Analysis:** SCADA systems collect vast amounts of data that can be used for historical analysis. This data helps in understanding the performance trends of the HT underground network, identifying weak points, and optimizing the overall efficiency of the power distribution system. It also aids in planning future upgrades or expansions based on usage patterns and network performance.
5. **Enhanced Operational Efficiency:** By automating many aspects of monitoring and control, SCADA reduces the need for manual intervention, leading to faster decision-making and more efficient operation of the HT underground system. This automation helps in maintaining a high level of service reliability and operational transparency.
6. **Security and Alarm Management:** SCADA systems are equipped with advanced security features that protect the HT underground network from unauthorized access or tampering. Additionally, the system can be programmed to trigger alarms and notifications in case of abnormal conditions, ensuring that the operational team is immediately informed and can take corrective actions swiftly.
7. **Energy Auditing:** One of the significant advantages of integrating SCADA is its ability to facilitate energy auditing. SCADA enables precise measurement and monitoring of energy usage across different parts of the network. This data can be analyzed to identify inefficiencies, losses, and unauthorized energy consumption. By auditing energy usage in real-time, SCADA helps in optimizing energy distribution, reducing waste, and ensuring that energy consumption is both transparent and accountable.

Conclusion: The implementation of SCADA for the HT undergrounding system in BSL township will bring significant benefits in terms of network reliability, fault management, and operational efficiency. By providing real-time monitoring, predictive maintenance capabilities, and enhanced control, SCADA will play a vital role in ensuring the robustness of the underground power distribution network and contribute to improved power quality and service continuity across the township.

Load Study:-

The loads on each HT feeder to be undergrounded has been mentioned in Annexure-I.

Further to ensure uninterrupted illumination during nighttime, critical emergency loads, such as arterial road lights and high mast lighting, will be connected to the emergency power feeders. This measure is being implemented to prevent outages in these essential lighting systems during load shedding in

Yashoj Kumar
21/08/2024

[Signature]
21.8.2024

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21/08/2024

sector areas. By grouping these emergency loads with the dedicated feeders, we can ensure that these critical infrastructure elements remain operational, enhancing safety and visibility.

Additionally, for the township's electrical network, the fault level is required to be maintained at STR-40 kA for duration of 3 seconds. This specification ensures that the system can handle short circuit conditions without compromising stability or safety, protecting the infrastructure from potential damage caused by faults or power surges.

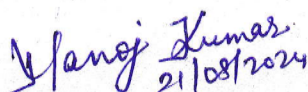
Recommendation

The committee's thorough assessment concludes that undergrounding both HT and LT cables in BSL Township is not only a feasible solution but also a highly advantageous one in the long term. The benefits of transitioning to underground cables far outweigh the initial investment, providing enhanced reliability, improved safety, and reduced environmental impact. By shielding the power lines from external hazards such as weather, vandalism, and wildlife interference, undergrounding ensures a more consistent and stable power supply—an essential requirement for the daily needs of township residents.

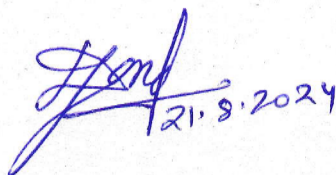
In addition to the undergrounding of power lines, the introduction of redundancy measures will ensure that critical infrastructure such as Bokaro General Hospital, administrative buildings, the airport, and the water treatment plant continue to receive uninterrupted power, even in the event of an outage or breakdown in the main supply. Further to ensure uninterrupted illumination during nighttime, critical emergency loads, such as arterial road lights and high mast lighting, will be connected to the emergency power feeders. This measure is being implemented to prevent outages in these essential lighting systems during load shedding in sector areas. These redundancy systems, backed by the implementation of a changeover provision, will ensure that any failure in the power distribution network can be swiftly mitigated with minimal disruption.

The deployment of SCADA technology further enhances the township's power infrastructure by allowing for real-time monitoring, fault detection, and improved maintenance planning. SCADA systems provide vital data that can be used to optimize energy distribution, reduce transmission losses, and prevent outages before they occur, significantly improving the overall efficiency and resilience of the electrical network. This technology, combined with the undergrounding of power cables and the establishment of redundancy systems, will help secure BSL Township's power infrastructure for the future.

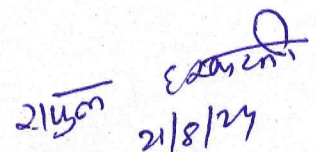
In conclusion, the committee strongly recommends that BSL Township pursue the undergrounding of HT and LT power lines alongside the proposed redundancy measures and SCADA integration. These steps are critical to ensuring the long-term stability, safety, and efficiency of the township's power distribution system.


21/08/2024

Manoj Kumar
(Sr. Mgr/TE-Elect)


21.8.2024

D.K.Gond
(GM/DNW)


21/8/24

Rajul Harkerni
(GM I/c / TE-Elect)

HT Underground Proposal

Annexure-I

| Sl. No. | Stretch to be Underground | Tentative load (MW) |
|---------|-------------------------------|---------------------|
| 1 | CMO stockyard to 132 KV | 1 |
| 2 | CRM-3 (Plant) to 132 KV | 3 |
| 3 | Patharkatta to Bokaro Niwas . | 1 |
| 4 | KV No.-1 To 4G | 4.75 |
| 5 | 132 KV to Sector-12 | 5.5 |
| 6 | 132 KV to Sector-2 | 4.25 |
| 7 | 132 KV to Ram Mandir Sec-1 | 5.5 |
| 8 | 132 KV to Sector-5 | 5 |
| 9 | Sector-4 B to Sector-4 F | 3.5 |
| 10 | Sector-4 B to Russian Club | 0.5 |
| 11 | 132 KV to Pump House-9 | 2.5 |
| 12 | 132 KV to Sector-9 B & C | 6 |
| 13 | 132 KV to Sector-9 A & D | 5.75 |
| 14 | 132 KV to Sector-8 | 5.5 |
| 15 | Sector-4G to Sector-11 | 2.5 |
| 16 | 132 KV to Sector-4 | 4.25 |
| 17 | 132 KV to City Centre | 6 |
| 18 | 132 KV to Sector-3 to Airport | 4.5 |
| 19 | 132 KV to ADM | 2.5 |
| 20 | 132 KV to BGH | 4.5 |
| 21 | 132 KV to Airport | 1 |
| 22 | 132 KV to DIC Bungalow | 0.75 |
| 23 | Within 24 MGD | 5.5 |
| 24 | 132 KV to Nagar Seva Bhawan | 0.5 |
| 25 | 7A to various S/S | 4.5 |
| 26 | 132 KV to cooperative | 5 |
| | | |

Y. Langji Kumar
21/08/2024

21.8.2024

21/8/24



सिस् SAIL

STEEL AUTHORITY OF INDIA LIMITED

(A Govt. of India Enterprise)

BOKARO STEEL PLANT

TENDER & CLAIMS DEPARTMENT (PROJECTS DIVISION)

ISPAT BHAWAN, BOKARO STEEL CITY - 827001

BOKARO, JHARKHAND (INDIA)

Telephone: +91 6542-240375, Fax: +91 6542-240375/163

Email: bs1.proj.tenders@sail.in

LETTER OF ACCEPTANCE

Ref No: T&C(E)/A6328/SA/595- 1041/841

Date: 10th October, 2022

To

M/s Surya Roshni Ltd. (VC: 1000006413),

Padma Tower 1,

Rajendra Place,

New Delhi-110008

Ph No.: 011-25810093-96, 47108000

e-Mail: abhishek.anand@surya.in

Contact Person: Shri Abhishek Anand, Assistant Manager, Mob: 8697707512

Subject : Replacement of Arterial Lights by Octagonal Poles with LED fixtures at Township Area of Bokaro Steel City.

Ref : 1. Our Notice Inviting Tender (NIT) vide No. T&C(E)/A6328/SA/595 dated 27.04.2022 with RFX No. in SRM Portal as 7000016248.
2. Your tender opened on 08.06.2022 and all correspondences ending with your mail dtd. 26.09.2022.

Dear Sir,

With reference to above, we are pleased to issue our Letter of Acceptance (LOA) for the subject project as per agreed terms & conditions:

Price:

| Sl. | Description | Amount |
|-----|------------------------------------|--------------------|
| 1. | Total Contract Price | ₹ 4,23,70,000.00/- |
| 2. | Basic Price | ₹ 3,59,06,779.66/- |
| 3. | GST | ₹ 64,63,220.34/- |
| 4. | Input Tax Credit on Account of GST | NIL |
| 5. | Contract Price (Net of ITC on GST) | ₹ 4,23,70,000.00/- |

Time for Completion: 12 (Twelve) Months from the Effective Date of Contract i.e., from the date of signing of the contract or 30 days from the date of placement of LOA, whichever is earlier.

You are requested to contact our AGM (Projects)/ E&P, PNW for start of work.

Please send a copy of this LOA duly signed and stamped as acknowledgement and acceptance.

In case of any discrepancy, SAIL/ BSL reserves the right to issue amendment to LOA.

Thanking you,

(Signature)

Yours faithfully,
For SAIL/ Bokaro Steel Plant

(Signature)
10/10/22
M. Tirumal Rao
CGM (Projects)/ Commercial





Government of Jharkhand

Receipt of Online Payment of Stamp Duty

NON JUDICIAL

Receipt Number : 454022f599d7528a874f

Receipt Date : 31-Oct-2022 02:10:58 pm

Receipt Amount : 100/-

Amount In Words : One Hundred Rupees Only

Document Type : Agreement or Memorandum of an Agreement

District Name : Bokaro

Stamp Duty Paid By : ESSEL PROJECTS PVT LTD

Purpose of stamp duty paid : CONTRACT AGREEMENT

First Party Name : SAIL BOKARO STEEL PLANT

Second Party Name : ESSEL PROJECTS PVT LTD

GRN Number : 2214098655

-: This stamp paper can be verified in the jharnibandhan site through receipt number :-

CONTRACT AGREEMENT

THIS CONTRACT NO. T&C(E)/A6158/SA/585 made this Thirty first Day of October, Two Thousand Twenty Two (31.10.2022) at Bokaro Steel Plant, Bokaro Steel City, Jharkhand (India)

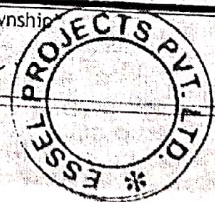


This Receipt is to be used as proof of payment of stamp duty only for one document. The use of the same receipt as proof of payment of stamp duty in another document through reprint, photo copy or other means is penal offence under section-62 of Indian Stamp Act, 1899

इस रसीद का उपयोग केवल एक ही दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु ही किया जा सकता है। पुनः प्रिन्ट कर अथवा फोटो कॉपी आदि द्वारा इसी रसीद का दूसरे दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु उपयोग भारतीय मुद्रांक अधिनियम, 1899 की धारा 62 अन्तर्गत दण्डनीय अपराध है।

"Augmentation of 11KV power distribution system of Bokaro Steel Township"

Contract No: T&C(E)/A6158/SA/585



1.1 of 1.6



1.3. **Order of Precedence** (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.2 (Contract Documents) above.

Article 2 Contract Price and Terms of Payment

2.1. **Contract Price** (Reference GCC Clause 11 & Appendix-1)

The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder.

The Contract price shall be ₹15,60,90,000.00/- [Rupees Fifteen Crore Sixty Lakh Ninety Thousand and Paisa Zero only] inclusive of GST as applicable as on date of signing of agreement, or such other sums as may be determined in accordance with the terms and conditions of the Contract.

The GST amount for the contract is ₹2,38,10,338.98/- [Rupees Two Crore Thirty Eight Lakh Ten Thousand Three Hundred Thirty Eight and Paisa Ninety Eight only]. The amount of ITC on GST to be passed on to the Employer is NIL.

The Contract Price net of ITC on GST is ₹15,60,90,000.00/- [Rupees Fifteen Crore Sixty Lakh Ninety Thousand and Paisa Zero only].

2.2. **Terms of Payment** (Reference Appendix-3)

The terms of payment are given in Appendix-3.

2.3. **Price Adjustment due to Variation in Price Indices**

Not applicable.

Article 3 Effective Date

3.1. The Effective Date of Contract shall be 27.10.2022.

Article 4 Scope of Facilities (Reference GCC Clause 7 & Technical Specifications)

4.1. The Contract is for the execution of Scope of Facilities as specified in the GCC Clause 7 and Technical Specifications, on divisible turnkey basis. The quantities/ weights of any item are indicative only for the purpose of making progress payments on pro-rata basis as per Sub-Clause 2.3 of Appendix-3.

4.2. Should the actual quantities/ weights differ from the indicated ones, neither the Contractor shall be entitled to get any additional price from the Employer nor is the Employer entitled to deduct any amount from the Contract Price due to variation in physical quantities/ weight.

Article 5 Time for Completion (Reference GCC Clause 8 & Appendix-2)

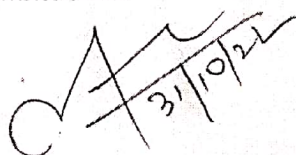
5.1. The Facilities will be commissioned in 11 (Eleven) Months from the Effective Date of Contract.

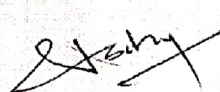
The Performance Bank Guarantee (PBG) in amount equivalent to 03 (Three) % of the Contract Price (including taxes and duties) shall be submitted by the Contractor within 30 days of signing of Contract.

"Augmentation of 11KV power distribution system of Bokaro Steel Township"

Contract No: T&C(E)/A6158/SA/585

1. 3 of 1. 6


31/10/22







Government of Jharkhand

Receipt of Online Payment of Stamp Duty

NON JUDICIAL

Receipt Number : 3c5def70c66ed4e4e8bf

Receipt Date : 24-Feb-2023 05:12:08 pm

Receipt Amount : 100/-

Amount In Words : One Hundred Rupees Only

Document Type : Agreement or Memorandum of an Agreement

District Name : Bokaro

Stamp Duty Paid By : SURYA ROSHNI LTD

Purpose of stamp duty paid : AGREEMENT

First Party Name : SAIL BOKARO STEEL PLANT

Second Party Name : SURYA ROSHNI LTD

GRN Number : 2315950518

Handwritten: 28.02.2024
अमर नाथ सिंह
महाप्रबन्धक (नगर रावा-विद्युत)
सेल, बोकारो इस्पात संयंत्र

This stamp paper can be verified in the jharnibandhan site through receipt number :-

CONTRACT AGREEMENT

THIS CONTRACT NO. T&C(E)/A6313/SA/597 made this Twenty_Seven Day of February, Two Thousand Twenty-Three (27.02.2023) at Bokaro Steel Plant, Bokaro Steel City, Jharkhand (India).

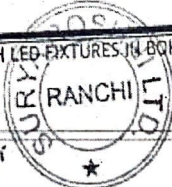


This Receipt is to be used as proof of payment of stamp duty only for one document. The use of the same receipt as proof of payment of stamp duty in another document through reprint, photo copy or other means is penal offence under section-62 of Indian Stamp Act, 1899

इस रसीद का उपयोग केवल एक ही दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु ही किया जा सकता है। पुनः प्रिन्ट कर अथवा फोटो कॉपी आदि द्वारा इसी रसीद का दूसरे दस्तावेज पर मुद्रांक शुल्क का भुगतान के प्रमाण हेतु उपयोग भारतीय मुद्रांक अधिनियम, 1899 की धारा 62 अन्तर्गत दण्डनीय अपराध है।

PROVISION OF 30 NOS OF HIGH RISE TOWER WITH LED FIXTURES IN BOKARO STEEL CITY TOWNSHIP
Contract No: T&C(E)/A6313/SA/597

P. H. BHARMA
Chief General Manager (Prol. Comm.)
सेल, बोकारो इस्पात संयंत्र
SAIL, BOKARO STEEL PLANT



Handwritten: 21/02/2023
Signature: Anand Singh

राजुल हरकरनी
RAJUL HARKERNI
महाप्रबन्धक (नगर रावा-विद्युत)
General Manager (TA - Electrical)
सेल, बोकारो इस्पात संयंत्र
SAIL, Bokaro Steel Plant

BETWEEN

STEEL AUTHORITY OF INDIA LIMITED, a Company incorporated under the Companies Act, 1956, and having its registered office at Ispat Bhavan, Lodi Road, New Delhi 110 003, India, having one of its plants **Bokaro Steel Plant** at Bokaro Steel City, Jharkhand (India) (hereinafter referred to as the "Employer") which term or expression unless excluded by or repugnant to the context or the meaning thereof, shall be deemed to include its successors and permitted assigns, **OF THE ONE PART,**

AND

M/s SURYA ROSHNI LIMITED, a Company organised and existing under the laws of India and having its Registered Office at **Padma Tower 1, Rajendra Place, New Delhi-110008** (hereinafter referred to as "Contractor"), which term or expression unless excluded by or repugnant to the context or meaning thereof, shall be deemed to include its successors and permitted assigns, **OF THE OTHER PART**

AND WHEREAS

- The Employer has decided for 'PROVISION OF 30 NOS OF HIGH MAST TOWER WITH LED FIXTURES IN BOKARO STEEL CITY OF BOKARO STEEL CITY TOWNSHIP' (hereinafter referred to as the "Facilities") on Turnkey Basis, and
- The Contractor has declared that the Contractor has valuable and specialized knowledge and expertise for providing and executing the above Facilities and
- The Contractor has declared that the Contractor is in a position to disclose, impart, deliver and transfer the requisite engineering data, drawings and documents of those items which are in the scope of the Contractor in this Contract, to the Employer for the engineering of the Facilities and for erection, start-up and commissioning of the Facilities with the aim to manufacture product as specified in the Contract, and
- The Contractor has obtained clarifications on technical and commercial aspects, inspected the site and surroundings of Facilities and has examined and considered all other matters, conditions and things, probable contingencies and generally all matters incidental thereto and ancillary thereof, affecting the execution and completion of the Facilities, and
- The Contractor has agreed to undertake design & engineering, civil engineering work, dismantling of buildings, structures & equipment, fabrication & supply of steel structures, manufacture & supply of plant and equipment, manufacture & supply of refractories, intermediate storage, insurance & handling, erection work, testing, pre-commissioning, start-up & commissioning, and demonstration & establishment of performance guarantee parameters of the Facilities.

NOW IT IS HEREBY AGREED as follows:

Article 1 Contract Documents

- 1.1. Definitions** (Reference GCC Clause 1)
- 1.2. Contract Documents** (Reference GCC Clause 2)

The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:

- 1) This Contract Agreement and Appendices hereto
- 2) Special Conditions of Contract and Annexure hereto
- 3) General Conditions of Contract and Annexure hereto
- 4) Contract Technical Specifications
- 5) General Technical Specifications
- 6) Safety code for Contractors
- 7) Guidelines on Banning of Business Dealings

PROVISION OF 30 NOS OF HIGH MAST TOWER WITH LED FIXTURES IN BOKARO STEEL CITY OF BOKARO STEEL CITY TOWNSHIP
Contract No: T&C(E)/A6313/SA/597

1.2 of 1.6

प्री० एच० शर्मा
P. H. SHARMA
मुख्य महाप्रबन्धक (परि-वाणिज्यिक)
Chief General Manager (Proj.-Comm.)
बोकारो इस्पात संयंत्र
BOKARO STEEL PLANT



Amal Sagar

1.3. **Order of Precedence** (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.2 (Contract Documents) above.

Article 2 **Contract Price and Terms of Payment**

2.1. **Contract Price** (Reference GCC Clause 11 & Appendix-1)

The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder.

The Contract price shall be ₹1,22,40,000/- [Rupees One Crore Twenty Two Lakh Forty Thousand only] inclusive of GST as applicable as on date of signing of agreement, or such other sums as may be determined in accordance with the terms and conditions of the Contract.

The GST amount for the contract is ₹18,67,118.64/- [Rupees Eighteen Lakh Sixty-Seven Thousand One Hundred Eighteen and Paise Sixty-Four only]. The amount of ITC on GST to be passed on to the Employer is NIL.

2.2. **Terms of Payment** (Reference Appendix-3)

The terms of payment are given in Appendix-3.

2.3. **Price Adjustment due to Variation in Price Indices**

Base date for price adjustment is 01.09.2022. Price adjustment shall be governed by Appendix 4.

Article 3 **Effective Date**

3.1. The Effective Date of Contract shall be 27.02.2023.

Article 4 **Scope of Facilities** (Reference GCC Clause 7 & Technical Specifications)

4.1. The Contract is for the execution of Scope of Facilities as specified in the GCC Clause 7 and Technical Specifications, on divisible turnkey basis. The quantities/ weights of any item are indicative only for the purpose of making progress payments on pro-rata basis as per Sub-Clause 2.3 of Appendix-3.

4.2. Should the actual quantities/ weights differ from the indicated ones, neither the Contractor shall be entitled to get any additional price from the Employer nor is the Employer entitled to deduct any amount from the Contract Price due to variation in physical quantities/ weight.

Article 5 **Time for Completion** (Reference GCC Clause 8 & Appendix-2)

5.1. The Facilities will be commissioned in 06 (Six) Months from the Effective Date of Contract.

The Performance Bank Guarantee (PBG) in amount equivalent to 03 (Three) % of the Contract Price (including taxes and duties) shall be submitted by the Contractor within 30 days of signing of Contract.



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510082828

PO DATE: 17.02.2024

No. of Items: 1

To:
MIRC ELECTRO TRADE PVT LTD
OPP: KULDIP TALKIES
CHAS

BOKARO STEEL CITY- 827013
Jharkhand,India
Ph.-06542234488

Copy To :
SIEMENS LTD
ROSHAN TOWER
JAMSHEDPUR
JAMSHEDPUR
831001
India
0333052201
03324428630

Ship To Address

DEPUTY GENERAL MANAGER (STORES)
STORES DEPARTMENT,
STEEL GATE, GATE NO 9, BOKARO STEEL PLANT,
BOKARO STEEL CITY, JHARKHAND, INDIA - 827001

Reference of Quotation

RFQ No.-

Reference Of Contract :
Contract Date. :

Pur Grp / File:
P35 /

Contact Person:
RAJIV GAUTAM

Mob:

Phone:

Email:

PO Value: 5.208.992,00

Currency: INR (Indian Rupee)

PO Value Text:Rupee FIVE MILLION TWO HUNDRED EIGHT THOUSAND NINE HUNDRED NINETY-TWO

Dear Sir,

Please arrange to supply the material detailed below in accordance with your offer, subject to the terms and conditions, instructions specified here in read along with general conditions of contract SAIL/P1.

Important: Timely delivery is essence of the contract.

Terms and Conditions

Foreign Curr. Pay Value :INR 5208992
Price Term :Fixed
Payment Term :GR 100% - GeM Orders
Incoterm :FBS BSL STORE,BS CITY
Load Port :
Discharge Port in India :
Country of Origin :
Unloading Responsibility :BSL
Pre Shipment :
Part Shipment :
Trans Shipment :
Transport arranged by :VENDOR
LD Applicability :YES
LD Period Steps :7-Days
LD Period Percentage :0.50%
LD Ceiling :10.00%

Inspection Handled by :PDI Waived & FRI at BSL
Inspection Place :AT BSL STORE,BS CITY
Security Deposit Amount :0,00
SD Validity up to :
Insurance Term :ARRANGED BY VENDOR
PBG Amount :0,00
PBG Validity up to :
Ultimate Consignee: Deputy General Manager (Store),
SAIL/BOKARO Steel Plant,
Bokaro Steel City - 827001,
Jharkhand, INDIA.
Consignee at port: Assistant General Manager (S & T),
SAIL/Bokaro Steel Plant,
SAIL House, 50, Chowringhee Road,
Kolkata-700071.
West Bengal. INDIA.
Phone : +913322832833

Document to be submitted along with material supply:
GUARANTEE CERTIFICATE
MANUFACTURER TEST CERTIFICATE

Document to be submitted along with bill of payment:

Other Charges:

Not Applicable

Invoicing Party / Payment to be made to- 1000028133
MIRC ELECTRO TRADE PVT LTD

Your Vendor Code with us : 1000028133

ANNEXURE:

General Terms and conditions.
Inspection Plan

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510082828

PO DATE: 17.02.2024

No. of Items: 1

| ItemSI | Material | Quantity | Unit | Basic Rate | Curr | Discount | Net Value |
|--------|----------------|----------|------|------------|------|----------|------------|
| 10 | 50110101150692 | 8.000 | EACH | 651124.00 | INR | 0.00 | 5208992.00 |

Material Description : MTR,SC,4P,415V,355ML,315KW,IMB3,IE3
Vendor Material Number :

Terms and Conditions (Item):

Inspection Plan Version : 00002

Material Specification:

TECHNICAL SPECIFICATION FOR SQUIRREL CAGE INDUCTION MOTOR 315 KW

TYPE :# SQUIRREL CAGE

Power Output#:#315 KW (422 HP)

Nominal Current#:#493 A # 531 A

Power Output#:#Delta connected (All six leads to be brought out)

No of leads at the terminal box#:#6

Power Input# :#3 phase, 415V AC $\pm 10\%$, 50 Hz $\pm 5\%$

PF# :# 0.86 lag To 0.72 lag range from F.L. Speed to HFL speed range

Duty#:#Continuous duty S1

Insulation Class #F' (VPI) Temperature rise limited to Class B.

Frame Size # :## 355ML

Energy Efficiency class#:#IE3

Efficiency # :# 95 - 96 %

Speed#Appox. :#1500 RPM

No of poles# :# 4

SHAFT :##SSE(P)

Degree Of Protection# :# IP 55

Degree of protection against external mechanical impacts #:#IK 08

Withstand to Overloads#:#shall be capable of withstanding overload # 1.6 times the rated torque

Cooling Method# :#TEFC

Cooling Standards #:# IC 411

Ambient Temperature# :#50°C

Direction of Rotation#:#Bi-directional

Mounting# :## Foot mounting (IM B3)

Constructional details:-

##Stator and end shields of Cast iron Corrosion class C3 medium material shall be used as per applicable IS standard for normal duty application. Eye bolt shall be of cast iron material.

##The motor feet shall be an integral part of the stator body.

##The cooling fans shall be of mild steel/ Industrial nylon grade material. A positive locking system shall be adopted to lock the fan, both radially and axially. Fan Cover material shall be of Sheet steel.

##The nameplate shall be of non rusting metal with relevant information marked indelibly on it.

##Bearings - Bearings shall be selected so as to take care of the thrust to which the motor is likely to be subjected. Cylindrical Roller / ball Bearing to be provided.

##Space Heaters :- 2 nos. of space heaters with each heater of suitable rating shall be used.

##Thermistor :- Three (3) nos. of PTC thermistors equally spaced in stator winding as per winding standards.

##Lubrication and maintenance of bearings :- Re-Greasable

##Terminal boxes: - Separate terminal boxes shall be provided of cast iron material for Stator leads, Space heaters, Winding temperature detectors. It shall be provided with suitable neoprene gasket on the covers to make it moisture proof, shall be filled with glands suitable for PVC insulated, PVC sheathed, armoured and overall PVC served aluminum / copper conductor cables.

##Earthing :- Two independent grounding points shall be provided on each motor frame on opposite sides near the bottom.

##Limits of Noise and vibration :- The motor vibration shall be within the limits as per applicable IS standards

##Painting and finish: - The equipment shall be thoroughly degreased, rusting, sharp edges and scale removed and treated with one coat of primer and finished with two coats of paint.

##Lifting facility :- Separately screwed eye bolts or lifting lugs of suitable size shall be provided on the motor frame as per applicable IS standard.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510082828

PO DATE: 17.02.2024

No. of Items: 1

Reference Standards: -#IS 12615 , IEC 60034

Tests:

Routine Tests :- The following routine tests shall be done as per applicable IS standard.

- 1) Dimension measurement
- 2) Insulation resistance and polarization index test
- 3) Measurement of resistance of stator windings
- 4) No load test
- 5) Locked rotor test
- 6) Reduced voltage running up test (75% voltage for 40 secs)
- 7) High voltage test
- 8) Over speed test

Type Tests:- The following type tests shall be done as per applicable IS Standard

- 1) Dimensions checking
- 2) Measurement of resistance of stator winding
- 3) No load test at rated voltage
- 4) Reduced voltage running up test at no load (75 % of voltage for 40 sec)
- 5) Locked rotor test.
- 6) Full load test
- 7) Momentary overload test
- 8) Insulation resistance and polarization index test
- 9) High voltage test
- 10) Vibration test Carried out as per applicable IS standard.
- 11) Noise level of the motors measured as per applicable IS standards.
- 12) Temperature rise test
- 13) Dynamic balancing test report shall also to be submitted.

In addition to the above Routine Tests and Type Tests, Torque speed/current time curve test and efficiency tests to be carried Out.

Test reports for all the above mentioned tests have to be submitted conforming to IS/IEC Standards stated above from manufacturers owned lab or NABL accredited labs .

Packing: -#The motor shall be packed in strong wooden crates to preserve the quality defined by the specifications in spite of jerk, vibrations, exposure to environment, etc

OtherTerms and Condition Applicable To all Items

HEADER TEXT :

This is a covering PO of GEM contract no-GEMC-511687784732043-17.02.2024

The firm will submit drawing & data sheet approval before manufacturing within 30 days of order placement.

Delivery will be in staggered manner as given below:

1st Lot 02 nos will be supplied 04 months from the date of PO placement

2nd lot 02 nos will be supplied 06 months from the date of PO placement

3rd Lot 04 nos will be supplied 08 months from the date of PO placement

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO NO: 4510082828

PO DATE: 17.02.2024

No. of Items: 1

INSPECTION PLAN

Inspection Plan Version : 00002

SI Indigenous Text waived

:

PDI Import Text waived

:

PDI Indigenous Text RECEIPT INSPECTION1. VISUAL INSPECTION2. VERIFIATION OF DOCS

:

Receipt Inspection Text : RECEIPT INSPECTION1. VISUAL INSPECTION2. VERIFIATION OF DOCS

Certificate Required Text Documents to be submitted:1.GC

:

Inspection Text6

:

1. BSL RESERVES THE RIGHT TO CONDUCT INSPECTION AT ANY STAGE
PRIORTODESPATCH OR AFTER RECEIPT INCLUDING TESTING OF MATERIALS
IRRESPECTIVE OFINSPECTION CLAUSE GIVEN IN THE PO.2. ALL TEST REPORTS /
DOCUMENTS MENTIONED IN PO HAVE TO BE SUBMITTED INADDITION T

Mandatory instructions for delivery of goods by vendor :

1. Copy of Invoice duly pasted on the parcel with details like SAP PO number, Invoice no and Invoice date, material and it's quantity clearly legible on the document. Without this information, parcel shall not be accepted.
2. Arrangement for delivery of goods to be made by the vendor as per route card given to vendor at the time of gate entry.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

| | | | | | |
|---|---|--|---|--|--|
| PO No: P32 / 1010070840 / 4510081729 | | PO DATE: 09.12.2023 | | No. of Items: 1 | |
| AMENDMENT NO: 1 | | AMENDMENT DATE : 03.10.2024 | | | |
| TO: SINGH ELECTRICAL & ENGG WORKS INDUSTRIAL AREA 1/E-50B BOKARO STEEL CITY-827014 Jharkhand,India Ph.-06542360021 Your MSME Status: MICRO Enterprise | | | Copy To : Ph: | | |
| Ship to Address : (unless in Header Text) DGM(Stores) Stores Department Steel Gate, GateNo-9, Bokaro Steel Plant Bokaro Steel City-827001, Jharkhand, India | | | GeM Purchase Order : GEMC-511687716646814 Contract Number: N/A Date: N/A | | |
| Pur Grp / File: P32 / | Contact Person: RANCHAK KUMAR PANDEY | Mob: 8986875437 | Phone: 8986875437 | Email: rk.pandey@sail.in | |
| PO Value: 7,279,661.00 | | Currency: INR (Indian Rupee) | | | |
| PO Value Text: SEVENTY TWO LAKH SEVENTY NINE THOUSAND SIX HUNDRED SIXTY ONE Rupees | | | | | |
| Dear Sir, Please arrange to supply the material detailed below in accordance with your offer, subject to the terms and conditions, instructions specified here in read along with general conditions of contract SAIL/P1 . Important: Timely delivery is essence of the contract. | | | | | |
| Terms and Conditions | | | | | |
| Price Term :Fixed Payment Term :GR 80% ; PCert 20% Misc Charges :0.00 Paying Authority :PURCHASE /STORES A/CS Delivery/Incoterm :FBS FBS BSL STORES LD Applicability :YES LD Period Steps :7-Days LD Period Percentage :0.50% LD Ceiling :10.00% | | Mode of Transport :RDV Road-Vendor Transport Unloading Responsibility :BSL Inspection Handled by :PDI Waived & FRI at BSL Inspection Place :FOR BSL STORES Security deposit Amount :0.00 SD Validity up to : PBG Amount :0.00 PBG Validity up to : Transport arranged by :VENDOR Insurance Term :ARRANGED BY VENDOR | | | |
| Document to submitted along with material supply: GUARANTEE CERTIFICATE | | Document to be submitted along with bill of payment | | | |
| Other Charges: Not Applicable | | | | | |
| Invoicing Party / Payment to be made to- 1000025603 SINGH ELECTRICAL & ENGG WORKS | | | Your Vendor Code/GST No : 1000025603/20ADMPD9454G1ZO | | |
| ANNEXURE: General Terms and conditions. Inspection Plan | | | | | |
| Abbreviations : Inspection : PDI-Pre-dispatch Inspection, FRI-Final Receipt Inspection. STI-Stage Inspection. Payment : POD-Proof of Dispatch, GR-Goods Receipt, LC-Letter of Credit,CAD-cash against Document, LSC-Letter of Short Credit. (Where not mentioned, Payment will be by Cheque or electronic transfer.) Delivery Term: FBS-Free Delivery to BSL Store at BSCity. FDS - For Dispatching Station FDE - FOR DESTINATION. (Other delivery terms as per Incoterms) | | | | For SAIL/Bokaro Steel Plant RANCHAK KUMAR PANDEY | |



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

| | | | | | | | |
|--------------------------------------|----------------|----------|-----------------------------|------------|------|-----------------|--------------|
| PO No: P32 / 1010070840 / 4510081729 | | | PO DATE: 09.12.2023 | | | No. of Items: 1 | |
| AMENDMENT NO: 1 | | | AMENDMENT DATE : 03.10.2024 | | | | |
| SL.NO. | Material | Quantity | Unit | Rate/MRP | Curr | Discount | Net Value |
| 00010 | 51110601000531 | 25.000 | EA | 291,186.44 | INR | 0.00 | 7,279,661.00 |

Material Description: LT OUTDOOR PANEL BOARD,415V,3PH,4WIRE
Tax Description:CGST 9% SGST 9% - NON-ITC
Delivery Quantity : 25.000 BY Date : 10.08.2024
Vendor Material Number:

Terms and Conditions (Item):

Inspection Plan Number : 1 Inspection Plan Version:00002

Material Specification:

LT OUTDOOR PANEL BOARD,415V,3PH,4WIRE 50HZ AC SYSTEM SUITABLE FOR 750KVA/KVA500 TRANSFORMER WITH INCOMER 415V,1250A ACB OF MAKE L&T/GE/ABB/SIEMENS .ACB SHOULD HAVE MICROPROCESSOR BASED PROTECTION CIRCUIT FOR OVERLOAD, SHORT CIRCUIT & EARTH FAULT. ACB SHOULD HAVE OVERCURRENT SETTING FROM 50% TO 100% OF RATED CURRENT, BUSBAR ELECTROLYTIC 98.5% PURE AL,OUT GOING 630A TPN SWITCH (4NOS)&300A TPN SWITCH (1NO),BOTH WITH HRC FUSE MAKE OF TPN SWITCHES -L&T/ABB/SIEMENS/GE

CONSTRUCTION OF OUTDOOR PANEL:-

THE PANEL SHALL BE OUTDOOR TYPE WITH CUBICAL DESIGN CONFIRMING DEGREE OF PROTECTION IP 55.THE ENCLOSURE SHALL BE MADE OF 2.00 MM THICK CRCA SHEET. THE INCOMING AND OUTGOING FEEDERS CONTROL UNIT SHALL BE MOUNTED BELOW AND ABOVE THE BUS BAR CHAMBER. THE PANEL SHALL BE OUTDOOR, INDUSTRIAL TYPE METAL CLAD, TOTALLY ENCLOSED DUST TIGHT WEATHER AND VERMIN PROOF TYPE AND EXTENSIBLE AT BOTH ENDS. THE PANEL SHALL HAVE THE PROVISION OF HANDLE LOCK. THE PANEL SHALL BE OF OUTDOOR AND PLINTH MOUNTED TYPE WITH RIGID STEEL ANGLE FRAME SUPPORT AND WHERE THE SWITCH FUSE UNITS ARE MOUNTED ABOVE THE BUS BAR CHAMBER AND REVERSE ENTRY CABLE END BOX SHALL BE PROVIDED. ALL EXPOSED METAL PARTS SHALL BE PROPERLY TESTED AND THEN PAINTED WITH POWDER COATED PAINT OF SIEMENS GREY COLOUR. THE BUS BAR CHAMBER ALONG WITH THE CIRCUIT BREAKER, SWITCH FUSE UNITS FOR THE VARIOUS INCOMING AND OUTGOING FEEDERS SHALL BE SO ARRANGED ON THE SUPPORT FRAME THAT A NEAT COMPACT PANEL SHALL BE FRAMED. ALL THE CONNECTION BETWEEN THE BUSBAR AND DIFFERENT FEEDERS SHALL MAKE DIRECT LINK OF ALUMUNIUUM STRIPS . THE BUS BAR CHAMBER AND THE DIFFERENT SWITCH FUSE UNITS SHALL HAVE EASILY REMOVABLE FRONT COVER. THE BUS BAR CHAMBER IN ADDITION SHALL HAVE DETACHABLE END COVER AT BOTH ENDS. THE FEEDER CABLE OF DIFFERENT SIZE SHALL BE PROPERLY LUGGED/ CRIMPED AS REQUIRED AND CONNECTION SHALL BE MADE IN PROPER WAY.

INSTRUMENT COMPARTMENTS:

SEPARATE ADEQUATE COMPARTMENT SHALL BE PROVIDED FOR ACCOMMODATING INSTRUMENTS, INDICATING LAMPS, CONTROL CONTACTORS / RELAYS AND CONTROL FUSES ETC. THESE COMPONENTS SHALL BE ACCESSIBLE FOR TESTING AND MAINTENANCE WITHOUT ANY DANGER OF ACCIDENTAL CONTACT WITH LIVE PARTS OF THE CIRCUIT BREAKER / SWITCH FUSE UNIT, BUSBAR AND CONNECTIONS.

BUSBARS:

THE BUSBARS SHALL BE AIR INSULATED AND MADE OF HIGH QUALITY, HIGH CONDUCTIVITY, HIGH STRENGTH ALUMINIUM. THE BUSBAR SHALL BE OF 3 PHASES

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

AND NEUTRAL SYSTEM WITH SEPARATE NEUTRAL AND EARTH BAR. THE BUSBARS AND INTERCONNECTION BETWEEN BUSBARS AND VARIOUS COMPONENTS SHALL BE OF HIGH CONDUCTIVITY ALUMINIUM. THE BUSBAR SHALL BE OF RECTANGULAR CROSS-SECTION DESIGNED TO WITHSTAND FULL LOAD CURRENT FOR PHASE BUS BARS AND HALF RATED CURRENT FOR NEUTRAL BUS BARS AND SHALL BE EXTENSIBLE ON EITHER SIDE. THE BUS BARS SHALL HAVE CONTINUOUS CURRENT RATING OF 2300A FOR THE PHASE BUS BARS AND 1200A FOR THE NEUTRAL BUSBARS AND HAVE UNIFORM CROSS-SECTION THROUGHOUT THE LENGTH. MINIMUM CROSS SECTION NEEDED WOULD BE 500MM² SO THE WIDTH AND THICKNESS TO BE 120MM AND 10MM RESPECTIVELY.

THE BUSBARS AND INTERCONNECTIONS SHALL BE INSULATED WITH HEAT SHRINKABLE PVC SLEEVE AND BE COLOUR CODED IN RED, YELLOW, BLUE AND BLACK TO IDENTIFY THE 3 PHASES AND NEUTRAL OF THE SYSTEM. THE BUSBARS SHALL BE SUPPORTED ON UNBREAKABLE, NON-HYGROSCOPIC SMC INSULATED SUPPORTS AT SUFFICIENTLY CLOSE INTERVALS TO PREVENT BUS BARS SAG AND SHALL EFFECTIVELY WITHSTAND ELECTROMAGNETIC STRESSES IN THE EVENT OF FAULT LEVEL OF 40KA.

THE BUSBARS SHALL BE HOUSED IN A SEPARATE COMPARTMENT. THE BUSBARS SHALL BE ISOLATED WITH 3 MM. THICK BAKELITE SHEET TO AVOID ANY ACCIDENTAL CONTACT. THE BUSBARS SHALL BE ARRANGED SUCH THAT MINIMUM CLEARANCE BETWEEN THE BUS BARS TO BE MAINTAINED AS BELOW:

BETWEEN PHASES : 25 MM. MINIMUM BETWEEN PHASES AND NEUTRAL : 25 MM.

BETWEEN PHASES AND EARTH : 25 MM.

BETWEEN NEUTRAL AND EARTH : 20 MM. MINIMUM

ALL BUSBARS CONNECTIONS SHALL BE DONE BY DRILLING HOLES IN BUS BARS AND CONNECTING BY CHROMIUM PLATED OR TINNED PLATED BRASS BOLTS AND NUTS. ADDITIONAL CROSS-SECTION OF BUS BARS SHALL BE PROVIDED IN ALL PANELS TO COVER UP THE HOLES DRILLED IN THE BUS BAR. SPRING AND FLAT WASHERS SHALL BE USED FOR TIGHTENING THE BOLTS.

ALL CONNECTIONS BETWEEN BUS BARS AND CIRCUIT BREAKERS / SWITCHES AND CABLE TERMINALS SHALL BE THROUGH ALUMINIUM STRIPS OF PROPER SIZE TO CARRY FULL RATED CURRENT. THESE STRIPS SHALL BE INSULATED WITH INSULATING TAPES.

ELECTRICAL POWER AND CONTROL WIRING CONNECTION:

I. TERMINAL FOR BOTH INCOMING AND OUTGOING CABLE CONNECTIONS SHALL BE SUITABLE FOR 1100 V GRADE, ALUMINIUM / COPPER CONDUCTOR PVC INSULATED AND SHEATHED, ARMOURED CABLE AND SHALL BE SUITABLE FOR CONNECTIONS OF SOLDER LESS SOCKETS FOR THE CABLE SIZE AS INDICATED ON THE RELEVANT DRAWINGS OF THE PANELS.

II. POWER CONNECTIONS FOR INCOMING FEEDERS OF THE MAIN PANELS SHALL BE SUITABLE FOR 1100 V GRADE ALUMINUM CONDUCTOR (LT XLPE/PVC) CABLES.

III. BOTH CONTROL AND POWER WIRING SHALL BE BROUGHT OUT IN CABLE ALLEY FOR EASE OF EXTERNAL CONNECTIONS, OPERATION AND MAINTENANCE.

IV. BOTH CONTROL AND POWER TERMINALS SHALL BE PROPERLY SHROUDED.

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

V. 10% SPARE TERMINALS SHALL BE PROVIDED ON EACH TERMINAL BLOCK. SUFFICIENT TERMINALS SHALL BE PROVIDED ON EACH TERMINAL BLOCK, SO THAT NOT MORE THAN ONE OUTGOING WIRE IS CONNECTED PER TERMINAL.

TERMINAL STRIPS FOR POWER AND CONTROL SHALL PREFERABLY BE SEPARATED FROM EACH OTHER BY SUITABLE BARRIERS OF ENCLOSURES.

VI. WIRING INSIDE THE MODULES FOR POWER, CONTROL, PROTECTION AND INSTRUMENTS ETC. SHALL BE DONE WITH USE OF 660 / 1100 V GRADE, PVC INSULATED COPPER CONDUCTOR CABLES CONFORMING TO IS : 694 AND IS : 8130. POWER WIRING INSIDE THE STARTER MODULE SHALL BE RATED FOR FULL CURRENT RATING OF RESPECTIVE CONTACTOR, BUT NOT LESS THAN 4.0 SQ.MM. CROSS-SECTION AREA. FOR CURRENT TRANSFORMER CIRCUITS, 2.5 SQ.MM. COPPER CONDUCTOR WIRE SHALL BE USED. OTHER CONTROL WIRING SHALL BE DONE WITH 1.5 SQ.MM. COPPER CONDUCTOR WIRES. WIRES FOR CONNECTIONS TO THE DOOR SHALL BE FLEXIBLE. ALL CONDUCTORS SHALL BE CRIMPED WITH SOLDERLESS SOCKETS AT THE ENDS BEFORE CONNECTIONS ARE MADE TO THE TERMINALS.

VII. CONTROL POWER FOR THE MOTOR STARTER MODULE SHALL BE TAKEN FROM THE RESPECTIVE MODULE SWITCHGEAR OUTGOING. CONTROL POWER WIRING SHALL HAVE CONTROL FUSES, (HRC FUSE TYPE) FOR CIRCUIT PROTECTION. ALL INDICATING LAMPS SHALL BE PROTECTED BY HRC FUSES.

VIII. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE LAYOUT OF WIRING IS NEAT AND ORDERLY. IDENTIFICATION FERRULES SHALL BE FITTED TO ALL THE WIRE TERMINATION FOR EASE OF IDENTIFICATION AND TO FACILITATE CHECKING AND TESTING.

IX. SPRING TYPE WASHERS SHALL BE USED FOR ALL COPPER AND ALUMINIUM CONNECTIONS.

TERMINALS:

THE OUTGOING TERMINALS AND NEUTRAL LINK SHALL BE BROUGHT OUT TO A CABLE ALLEY SUITABLY LOCATED AND ACCESSIBLE FROM THE PANEL FRONT. THE CURRENT TRANSFORMERS FOR INSTRUMENTS METERING SHALL BE MOUNTED ON THE DISCONNECTING TYPE TERMINAL BLOCKS. NO DIRECT CONNECTION OF INCOMING OR OUTGOING CABLES TO INTERNAL COMPONENTS OF THE DISTRIBUTION BOARD IS PERMITTED; ONLY ONE CONDUCTOR MAY BE CONNECTED IN ONE TERMINAL.

WIREWAYS:

HORIZONTAL PVC WIRE WAY WITH SCREWED COVERS SHALL BE PROVIDED AT THE BOTTOM/TOP TO TAKE INTERCONNECTING CONTROL WIRING BETWEEN DIFFERENT VERTICAL SECTIONS.

CABLE COMPARTMENTS:

CABLE COMPARTMENTS OF ADEQUATE SIZE SHALL BE PROVIDED IN THE PANELS FOR EASY TERMINATION OF ALL INCOMING AND OUTGOING CABLES ENTERING FROM BOTTOM OR TOP. ADEQUATE SUPPORTS SHALL BE PROVIDED IN THE CABLE COMPARTMENTS TO SUPPORT CABLES. ALL OUTGOING AND INCOMING FEEDER TERMINALS SHALL BE BROUGHT OUT TO TERMINAL BLOCKS IN THE CABLE COMPARTMENT. THERE SHOULD BE ONE STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH 4 (FOUR) GLANDS SUITABLE FOR 4(FOUR) NOS. 3.5X300 SQ. MM PVC

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

ARMOURED CABLE.
EARTHING:

I) GI EARTH BUS OF ADEQUATE SIZE SHALL BE PROVIDED IN THE PANELS FOR THE ENTIRE LENGTH OF THE PANEL. THE FRAMEWORK OF THE PANELS SHALL BE CONNECTED TO THIS EARTH BAR. PROVISIONS SHALL BE MADE FOR CONNECTION FROM THIS EARTH BAR ON BOTH SIDES OF THE PANELS TO THE MAIN EARTHING BAR COMING FROM THE EARTH PIT. DOOR EARTHING SHALL BE PROVIDED FOR ALL THE COMPARTMENTS.

II) THE EARTH CONTINUITY CONDUCTOR OF EACH INCOMING AND OUTGOING FEEDER SHALL BE CONNECTED TO THIS EARTH BAR. THE ARMOUR SHALL BE PROPERLY CONNECTED WITH EARTHING CLAMP, AND THE CLAMP SHALL BE MADE FOR CONNECTION FROM THIS EARTH PIT ON BOTH SIDES OF THE PANELS.

III) THE EARTH CONTINUITY CONDUCTOR OF EACH INCOMING AND OUTGOING FEEDER SHALL BE CONNECTED TO THIS EARTH BAR. THE ARMOUR SHALL BE PROPERLY CONNECTED WITH EARTHING CLAMP, AND THE CLAMP SHALL BE ULTIMATELY BONDED WITH THE EARTH BAR.

COMPONENTS:

1. AIR CIRCUIT BREAKER

THE PANEL WILL CONSIST 1(ONE) NO. 415V,1250A CONTINUOUS RATED TP METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY AIR CIRCUIT BREAKER WITH SYMMETRICAL BREAKING CAPACITY 50KA, MAKING CAPACITY PEAK 125 KA AND ICU=ICS=ICW (FOR 1 SECOND).

2. SWITCH FUSE UNIT

(I) THE LT PANEL WILL HAVE 4(FOUR) NOS. 630A RATED TRIPLE POLE AND NEUTRAL METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY FULLY INTER-LOCKED COMBINATION SWITCH FUSE UNIT, ON-LOAD BREAK TYPE, WITH 630A HRC FUSE IN EACH SWITCH.

EACH OF THE SWITCH FUSE UNIT WILL CONSIST ONE NO. STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH ONE GLAND FOR ONE NO. 3.5X300 SQ. MM PVC ARMOURED ALUMINIUM CABLE.

(II) THE LT PANEL WILL HAVE 1(ONE) NOS. 300A RATED TRIPLE POLE AND NEUTRAL METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY FULLY INTER-LOCKED COMBINATION SWITCH FUSE UNIT, ON-LOAD BREAK TYPE, WITH 300A HRC FUSE.. THE SWITCH FUSE UNIT WILL CONSIST ONE NO. STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH ONE GLAND FOR ONE NO. 3.5X300 SQ.MM PVC ARMOURED CABLE.

(III) THE PANEL WILL HAVE PROVISION OF SPACE FOR SWITCH FUSE UNIT OF 630A.

MEASURING INSTRUMENTS

1. THERE SHALL BE 03(THREE) NOS. AIR INSULATED CT, RATIO 1250/5A, COMPLYING WITH IEC 60044-1; WITH ADEQUATE BURDEN CAPACITY, CONFORMING TO CLASS 1.5 OF IS 1248 FOR ACCURACY.

INDICATING INSTRUMENTS :-

THERE SHALL BE ONE MULTIFUNCTION DIGITAL TYPE METER SHOWING THREE ELECTRICAL PARAMETERS VIZ. INPUT VOLTAGE, CURRENT AND PF..

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
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PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

INDICATING LAMPS AND BOARDS :-

NAMEPLATES AND DANGER NOTICE BOARD SHALL BE PROVIDED ON THE PANEL AS PER IS 2551-1982.

ON ALL THE INCOMERS OF OUTDOOR PANEL, ON/OFF INDICATING LED LAMPS SHALL BE PROVIDED AND SHALL BE SUITABLE FOR OPERATION ON AC SUPPLY. PHASE INDICATING LED LAMPS SHALL BE ASSOCIATED WITH NECESSARY ON/OFF TOGGLE SWITCH COMPLYING WITH IEC 947-5-1, CLASS # 2 WITH IP 65 PROTECTION.

CONFIRMATION TO STANDARDS :-

IS 3072 -1975, OR LATEST AMENDMENTS TO DATE
IS 4237-1967 OR LATEST AMENDMENTS TO DATE
IS 8084, IS 8623, IS 11353, IS 694, IS 8130

TEST REPORTS TO BE PROVIDED IN CONFORMITY WITH THE ABOVE STANDARDS FROM NABL ACCREDITED LABORATORY ONLY.

Other Terms and Condition Applicable To all Items

HEADER TEXT :

THIS PO IS BEING PLACED TO REGULARISE GEM CONTRACT GEMC-511687716646814 DTD 09.12.2023. ALL TERMS AND CONDITIONS AS PER AFOREMENTIONED CONTRACT.

PAYMENT TERMS - 80 % AGAINST GRN AND 20 % ON SUCCESSFUL INSTALLATION & COMMISSIONING CERTIFICATE FROM TE-ELECTRICAL.

PREFERRED MAKE OF ACB AND OTHER SWITCHGEAR ITEMS SHALL BE READ AS :
L&T/GE/ABB/SIEMENS/SCHNIEDER ELECTRIC.

The vendor must submit detailed drawings of the items for our approval before manufacturing/ supplying the items.

Important Information of Bokaro Steel Plant :

Billing Address : AGM(PURCHASE /STORES A/CS),
SAIL/Bokaro Steel Plant, Bokaro Steel City - 827001, Jharkhand, India
PAN NO : AAACS7062F GST No : 20AAACS7062FAZJ

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

INSPECTION PLAN

Inspection Plan No : 1

Inspection Plan Version : 00002

Stage Inspection Indigenous Text :

waived

PreDispatch Inspection Indigenous Text :

waived

PreDispatch Inspection Import Text :

waived

Final Receipt Inspection Text :

RECEIPT INSPECTION

1. VISUAL INSPECTION

2. VERIFIATION OF DOCS

QAP and Documents to be Submitted :

Documents to be submitted:

1.GC

Inspection Other Text:

1. BSL RESERVES THE RIGHT TO CONDUCT INSPECTION AT ANY STAGE PRIORTO DESPATCH OR AFTER RECEIPT INCLUDING TESTING OF MATERIALS IRRESPECTIVE OF INSPECTION CLAUSE GIVEN IN THE PO.

2. ALL TEST REPORTS / DOCUMENTS MENTIONED IN PO HAVE TO BE SUBMITTED IN ADDITION TO THE DOCUMENTS MENTIONED IN INSPECTION PLAN ALONG WITH THE MATERIAL OR WHENEVER ASKED FOR.

3. CLEAR, VISIBLE IDENTIFICATION MARK (IM) OF THE SUPPLIER / MANUFACTURER HAS TO BE GIVEN ON THE MATERIAL AND IT HAS TO BE ENCIRCLED, FAILING WHICH THE MATERIAL MAY BE REJECTED. THE DETAILS OF THE "IM" <(>&<)> ITS LOCATION ON THE MATERIAL HAS TO BE CLEARLY MENTIONED IN THE INVOICE / CHALLAN / PACKING LIST.

General Text :

GST related Terms & Conditions:

1. Vendor/Supplier/Contractor is required to pass on the benefit arising out of introduction of GST, including seamless flow of Input Tax Credit, reduction in Tax Rate on inputs as well as final goods by way of reduction of price. Accordingly, for supplies made under GST, the Vendor/Supplier/Contractor should confirm that benefit of lower costs has been passed on to SAIL-BSL by way of lower prices/taxes and also provide details of the same - as applicable. SAIL-BSL reserves the right to examine such details about costs of inputs/input services of the Vendor/Supplier/Contractor to ensure that the intended benefits of GST have been passed on to SAIL-BSL.

2. Vendor/Supplier/Contractor shall avail and pass on the benefits and concessions provided in the transitional provisions of the Goods and Services Tax Law with respect to the supplies.

3. Vendor/Supplier/Contractor shall avail the most beneficial notifications, abatements, exemptions etc., if any, as applicable for the supplies under the Goods and Service Tax.

4. For the purpose of the above mentioned requirements, the Vendor shall provide necessary documents as may be necessary and shall allow inspection of the same to SAIL-BSL.

5. For the purpose of contracts/agreement having prices inclusive of taxes & duties, it is agreed between the parties that if there are any new taxes, duties or levies including but not limited to proposed Goods and Service Tax introduced during the tenure of this contract/agreement by the Central/State Government & Local Authorities, and such new taxes, duties or levies become payable then an equitable adjustment on account of increase/decrease in the net amount of such duties, taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/input/capital goods) in the contract sum shall be made which shall be subject to the production of documentary proof by the Vendor/Supplier/Contractor. Vendor/Supplier/Contractor agrees to do all things not limited to providing GST invoices or other documentation as per GST law relating to the above supply, payment of taxes, timely filing of valid statutory returns for the tax period and on the Goods and Service Tax Portal etc. that may be necessary to match the invoice on GSTN common portal and enable SAIL-BSL to claim input tax credit in relation to any ST payable under this Agreement or in respect of any supply under this Agreement. Vendor/Supplier/Contractor shall maintain high GST compliance rating track record at any given point of time.

Mandatory instructions for delivery of goods by vendors :

1. Copy of Invoice duly pasted on the parcel with details like SAP PO number, Invoice no and Invoice date, material and

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
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PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

it's quantity clearly legible on the document. Without this information, parcel shall not be accepted.

2. Arrangement for delivery of goods to be made by the vendor as per route card given to vendor at the time of Gate Entry.

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



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इस्पात भवन, बोकारो स्टील सिटी – 827 001,झारखण्ड
कार्यालय आदेश

1st Stage Approval of AMR Scheme

No: AMR/STG-1/ TE-Electrical/6499/686

Date: 02.11.2023

SUBJECT: Installation of Electrical grounding system in 11 Kv substation and lightning protection system for township at Bokaro Steel Plant (AMR/TE-Electrical/6499)

Management (Director I/c) has accorded "***in-principle (Stage-1) approval***" on the subject proposal of TE-Electrical Department at an estimated cost of INR 448.73 Lakh (Inclusive of GST). (Note :Scanned copies of relevant docs are attached herewith for reference and necessary information/ action).

The details of the Scheme are as follows :

1. **Scheme No.** : AMR/ TE-Electrical/6499
2. **Estimated Cost** : INR 448.73 Lakh(Inclusive of GST)
3. **Date of 1st Stage Approval** : 30.10.2023
4. **Executing Agency** : TE-Electrical
5. **Tendering Agency** : Tender & Claim (Projects Division)
6. **Mode of Implementation** : Turnkey
7. **Mode of Tendering** : OTE
8. **Implementation Schedule:**
 - a) Submission of firmed-up cost proposal for Stage-2 approval : **04 Months**
 - b) Implementation Schedule from the effective date of contract : **12 Months**
9. Following are to be complied with as per AMR procedures dtd Sept 2014:
 - a) Action for **tendering / Purchase** activities may be initiated immediately.
 - b) The **firmed-up cost** of the proposal, prepared by Consultant (Internal or External) may be forwarded to TIC & IPU enclosing the duly approved (Stage-2) Purchase Committee/Tender Committee recommendations for issuance of Stage-2 Office Order.
 - c) **Financial commitment can be made only after getting the regular sanction (i.e. Stage-2 approval).**

Budget Provision: Suitable budget provision has been made for the subject proposal in BE (Budgeted Estimate) for 2023-24 under provisions for schemes to be sanctioned in future.

10. **Project Owner** : Shri Kundan Kumar, CGM (TA)
11. **Project Manager** : Shri M. Kumar, Sr. Mgr(TE-Electrical)
12. **Project Key Driver** : Shri D.K. Singh, DGM(TE-Electrical)
13. **Project Coordinator** : Shri Rajul Harkarni, GM(TE-Electrical)



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इस्पात भवन, बोकारो स्टील सिटी – 827 001,झारखण्ड
कार्यालय आदेश

1st Stage Approval of AMR Scheme

No: AMR/STG-1/ TE-Electrical/6499/686

Date: 02.11.2023

- **Project Owner** will be responsible for availability of site clearance, utility resources, raw materials, placement of manpower well in advance for commissioning, required shut down/plan for commissioning, PG Test and timely Handing -Taking Over of the Unit.
- **Project Key Driver/ Coordinator** will be the single nodal agency for execution, shut down availability, pre-acceptance quality control, PG Test, Handing Over- Taking Over, preparation of Post Completion Report (PCR), Closure of Contract, Manpower arrangement well in advance to operate and maintain the unit and others as mentioned in AMR Procedure Order.
- **Project Manager** will be held responsible for time or cost overrun and delay in Handing -Taking Over subject to availability of Shut Down, site clearance, Pre-acceptance Quality Control, PG test, placement of manpower for commissioning etc apart from his functions as mentioned in Responsibility Matrix.
- **User Dept/Indenting Deptt in coordination with Executing Agency to ensure that all documents are in order for issuance of NIT in line with CI 8.1 of AMR Procedure.**
- Necessary information/data required for **Post Completion Audit** may be maintained in a proper manner.
- Progress **on tendering / cost firming-up activities** of the scheme may please be communicated to TIC&IPU on monthly basis along with the progress of other sanctioned AMR Schemes.

NB: The above Office Order must be read along with the Stage-1 (in-principle) Approval of the Competent Authority, Cost Estimate, Technical Specifications , Eligibility Criteria (as the case may be). Clarifications or Discrepancy, if any, must be immediately brought to the notice of TIC&IPU/Project Dept.

(Posted by TIC & IPU Deptt.)

Name of the proposal: Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant.



AMR Scheme# : AMR/ TE /6499
Proposing Deptt. : TE-Electrical
Proposed Amount : **Rs. 448.73 Lakh** including GST

Objective of Proposal: The objective of the proposal is to install electrical grounding system in township 11 KV substations and lightning protection system for public buildings for Safety and uninterrupted power supply to BSL Township.

Background:

TA Electrical has over 250 substations across the township. These substations were installed when BSL Township was being constructed. Every substation (Transformer) needs 08 earthings. Earthing also needs for ESS lightning arrestors. The earthing in these substations is old and very much depleted state. This is causing damage to our transformers and equipment installed at consumer premises. The existing earthing was done using conventional methods which need regular maintenance. It is due to lack of proper maintenance and long time span that the pit has lost their electrical useful life. A new technology of chemical earthing has come up, which is having longer life and requires minimum maintenance. Being situated in plateau region new technology of chemical earthing would be best.

Further there are many public buildings in township like ADM, HRD, Trainees Hostels, Nagar Seva Bhawan, Maitree Bhawan, BGH, Bokaro Library, BSL School, Bokaro Niwas, Bokaro club, Director In-charge Bunglow, City Park Hutment, BSL Hanger in ariport, TA HT Section in sector 1, there is no lightening arrestor in functional state and in most of the buildings it is not installed.

In view of above, it is proposed to install grounding system in township 11 KV substation and lightening protection system in public buildings in township.

Present Proposal

- i) There are total 250nos of 11kv substations in Township. It is proposed to install 8 pits in each substation (2 nos for AB switch, 2 nos for LT Panel and 4 nos for Transformer) using Chemical Earthing technology.
- ii) This Chemical Earthing system shall be based on ready capsule type, Pipe-in-Pipe technology concept in which, One Galvanized hollow pipe (Electrode) is kept inside another galvanized hollow pipe. The space between the two pipes shall be filled with a specially developed Electrically Conductive Mixture (graphite mould) Solid in set form to reduce earth resistivity. There shall be no requirement to add any other chemical or water at any time after initial installation because of hygroscopic characteristic of Earth Enhancement Compound (EEC).
- iii) The Earth Resistance of Chemical Earthing System should be less than 01 ohm in the grid two earth pits in a system, which ensures a low-impedance path for electrical currents to flow to the earth.



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Technical Specification (TS) and Cost Estimate: TC-DB has prepared TS vide DB/BSL/40/TS/012/R1, Sept '23(modified October 2023) and Cost Estimate vide DB/BSL/40/CE/012/R1 dated 06.09.2023 based on inputs data provided by user deptt. TS & CE have been examined and accepted by representative of User Deptt and TSC committee.

Capital Cost Estimates:

The capital cost of the proposal "**Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant**" is estimated at **Rs. 448.73 Lakh** including GST.

Advantages & Benefits:

The subject proposal is a necessity for safety. This project will provide Safety of electrical equipment in township substations and human live from unwanted thundering and lightning. Power fluctuation can be avoided by implementation of proper earthing.

| | |
|----------------------------------|---|
| Executing Agency | : TE-Electrical |
| Tendering Agency | : Tender & Claims Deptt (Projects Division) |
| Project Owner | : Sri Kundan Kumar, CGM(TA) |
| Project Coordinator | : Sri Rajul Harkarni GM(TE-Electrical) |
| Representative of project | : Sri M.K. Singh, AGM(P)/E & P |
| Project Key Driver | : Sri. D.K.Singh, DGM (TE-Electrical) |
| Project Manager | : Sri M. Kumar, Sr. Mgr(TE-Electrical) |

Mode of Implementation: Turnkey

Mode of Tendering: OTE (Eligibility Criteria duly signed by IPC Attached as Annexure-1)

SBD 2020 Bid Data sheet compliance

- a) Part PAC/ Part commissioning/Part PG- shall encompass a total of parts, as follows:
- Part 1 to Part 10:** Each part covers Installation of Electrical Grounding Systems in 25 individual 11kV substations as per the TS.
 - Part 11:** This part covers Installation of 45 nos of Lightning Protection Systems in the township as per the TS.
- b) Surrounding Value- referred to Procedure Order # -22 vide office order ED (Proj.)/02/6(i)/82 dtd 20.07.2021.
- c) Mandatory % towards "Erection and Site Activities"- Minimum 15 % (The cost against erection & commissioning work is approx. 16 % of basic cost as per cost estimate sheet prepared by consultant TC-DB).
- d) Defect liability period shall be the warranty period i.e 5 year from the date of commissioning.
- e) PBG shall remain valid upto the defect liability period i.e 5 year from the date of commissioning.

This may be included as Special Condition of the Contract during Tendering.

Budget Provision: Capital Budget of 2023-24 and subsequent years as per need.
Manpower: No additional manpower is required.

Implementation Schedule

- a) Submission of firmed-up cost proposal for stage-2 approval : 04 Months.
b) Implementation Schedule from the effective date of contract : 12 Months.

IPC recommendation:

After due deliberation and screening, the Investment Planning Committee (IPC) recommended the proposal for "Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant." to be tendered out on OTE basis at Capital Cost Estimate of estimated at Rs. 448.73 Lakh including GST.

The proposal for "Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant." to be tendered out on OTE basis at Capital Cost Estimate of estimated at Rs. 448.73 Lakh including GST as recommended by IPC, requires in-principle (Stage-1) approval of Director-in- Charge, BSL.

Submitted please.

(24)

Rachee
(Rachee)
14/10/23

AM(P)/TIC-IPU

GM(P)/PPM, TIC & IPU

As per note n/17 and compliance at note n/20.
TS has been modified incorporating
Part PAC / Part Commissioning / Part PG.
IPC conducted on 12/10/2023, MOM is placed
opposite:

The proposal at note n/23 requires kind
approval of Director /c - BSL.

(25)

M. Barua
14/10/2023

CGM (Proj)/PPM, TIC & IPU

The proposal requires
kind approval of Dir &c.
Submitted pl.

Aniso Kishore
14.10.2023
Page 3 of 3

~~ED(Proj)~~

~~14/10/2023~~ (96)



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~~ED(F&A)~~

Gm(F&A) / AW AG

Plac Examine

17/10/23 (97)

DSM (Proj Rini - MU)



(28)

Sub: Installation of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel Plant



The objective of the proposal is to install of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel Plant

In compliance with N/17 TS has been modified incorporating Part PAC/Part Commissioning/Part PG by the TC-DB vide DB/BSL/40/TS/012/R1 Dt.12.10.2023 without having any financial implication due to the same. which has been examined and accepted by the user department and IPC.

The proposal for "Installation of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel" to be tendered out on OTE basis at an estimated cost of ₹448.73 lakh (inclusive of GST) as per Revised TS, Cost estimate and eligibility criteria prepared by TC-DB and examined and accepted by user department and duly recommended by IPC in its meeting Dt.12.10.2023 for Stage -I " in principle approval" as proposed vide N/23 may be considered.

This requires kind approval of Director I/c .

(M. Kumar)
DGM (Project Fin)
18/10/23

(29)

GM/F&A (Proj Fin)

20/10/23

(30)

(31)

282
20/10/23
EOC (Proj Fin)

CGM (F&A)

20/10/23

Director I/c may kindly accord "in principle" stage I approval to the proposal at 10/23 having a capital cost estimate of Rs 448.73 lakhs including GST. The proposal has been recommended by IPC as per the by EOC (Project). 26/10/23

(32)

EOC (F&A)

26/10/23

DDE

(28)

Sub: Installation of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel Plant



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The objective of the proposal is to install of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel Plant

In compliance with N/17 TS has been modified incorporating Part PAC/Part Commissioning/Part PG by the TC-DB vide DB/BSL/40/TS/012/R1 Dt.12.10.2023 without having any financial implication due to the same, which has been examined and accepted by the user department and IPC.

The proposal for "Installation of Electrical grounding system in 11KV substation and Lightning protection system for township at Bokaro Steel" to be tendered out on OTE basis at an estimated cost of ₹448.73 lakh (inclusive of GST) as per Revised TS. Cost estimate and eligibility criteria prepared by TC-DB and examined and accepted by user department and duly recommended by IPC in its meeting Dt.12.10.2023 for Stage -I " in principle approval" as proposed vide N/23 may be considered.

This requires kind approval of Director I/c .

(29)

(M. Kumar)
DGM (Proj. & Fin)

GM/F&A (Proj Fin)

20/10/23

30

31

282

20/10/23

EOC (P&M)

CGM (P&A)

20/10/23

Director I/c may kindly accord "in principle" stage I approval to the proposal at 10/23 having a capital cost estimate of Rs 448.73 lakhs including GST. The proposal has been recommended by IPC at agreed to by EOC (Projects). 25/10/23

32

EOC (P&A)

26/10/23

DRC

30.10.23

ED (Projects)

02/11/2023

CGM (P) / PPM, TIC-IPU

Anand Kumar
2.11.2023



SM(hoj) - MB

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20/11/00

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20/11/00

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ED/10/00

20/11/00

Name of the proposal: Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant.

AMR Scheme# : AMR/ TE /6499
Proposing Deptt. : TE-Electrical
Proposed Amount : **Rs. 448.73 Lakh** including GST

Objective of Proposal: The objective of the proposal is to install electrical grounding system in township 11 KV substations and lightning protection system for public buildings for Safety and uninterrupted power supply to BSL Township.

Background:

TA Electrical has over 250 substations across the township. These substations were installed when BSL Township was being constructed. Every substation (Transformer) needs 08 earthings. Earthing also needs for ESS lightning arrestors. The earthing in these substations is old and very much depleted state. This is causing damage to our transformers and equipment installed at consumer premises. The existing earthing was done using conventional methods which need regular maintenance. It is due to lack of proper maintenance and long time span that the pit has lost their electrical useful life. A new technology of chemical earthing has come up, which is having longer life and requires minimum maintenance. Being situated in plateau region new technology of chemical earthing would be best.

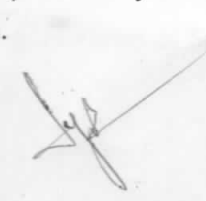

Further there are many public buildings in township like ADM, HRD, Trainees Hostels, Nagar Seva Bhawan, Maitree Bhawan, BGH, Bokaro Library, BSL School, Bokaro Niwas, Bokaro club, Director In-charge Bungalow, City Park Hutment, BSL Hanger in ariport, TA HT Section in sector 1, there is no lightening arrestor in functional state and in most of the buildings it is not installed.

In view of above, it is proposed to install grounding system in township 11 KV substation and lightening protection system in public buildings in township.

Present Proposal

- i) There are total 250nos of 11kv substations in Township. It is proposed to install 8 pits in each substation (2 nos for AB switch, 2 nos for LT Panel and 4 nos for Transformer) using Chemical Earthing technology.
- ii) This Chemical Earthing system shall be based on ready capsule type, Pipe-in-Pipe technology concept in which, One Galvanized hollow pipe (Electrode) is kept inside another galvanized hollow pipe. The space between the two pipes shall be filled with a specially developed Electrically Conductive Mixture (graphite mould) Solid in set form to reduce earth resistivity. There shall be no requirement to add any other chemical or water at any time after initial installation because of hygroscopic characteristic of Earth Enhancement Compound (EEC).
- iii) The Earth Resistance of Chemical Earthing System should be less than 01 ohm in the grid two earth pits in a system, which ensures a low-impedance path for electrical currents to flow to the earth.

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12.10.2023

(46)

MOM of Investment Planning Committee (IPC)

held in the Office of CGM (TA) , on 12.10.2023

Technical Specification (TS) and Cost Estimate: TC-DB has prepared TS vide DB/BSL/40/TS/012/R1, Sept '23 (modified October 2023) and Cost Estimate vide DB/BSL/40/CE/012/R1 dated 06.09.2023 based on inputs data provided by user deptt. TS & CE have been examined and accepted by representative of User Deptt and TSC committee.

Capital Cost Estimates:

The capital cost of the proposal **"Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant"** is estimated at **Rs. 448.73 Lakh** including GST.

Advantages & Benefits:

The subject proposal is a necessity for safety. This project will provide Safety of electrical equipment in township substations and human live from unwanted thundering and lightning. Power fluctuation can be avoided by implementation of proper earthing.

| | |
|----------------------------------|---|
| Executing Agency | : TE-Electrical |
| Tendering Agency | : Tender & Claims Deptt (Projects Division) |
| Project Owner | : Sri Kundan Kumar, CGM(TA) |
| Project Coordinator | : Sri Rajul Harkarni GM(TE-Electrical) |
| <i>Representative of Project</i> | : Sri M.K. Singh, AGM(P)/E & P |
| Project Key Driver | : Sri. D.K.Singh, DGM (TE-Electrical) |
| Project Manager | : Sri M. Kumar, Sr. Mgr (TA-Elect) |

Mode of Implementation: Turnkey

Mode of Tendering: OTE (Eligibility Criteria duly signed by IPC Attached as Annexure-1)

SBD 2020 Bid Data sheet compliance

a) Part PAC/ Part commissioning/ Part PG – shall encompass a total of 11 parts, as follows:

Part 1 to Part 10: Each part covers Installation of Electrical Grounding Systems in 25 individual 11kV substations as per the TS.

Part 11: This part covers Installation of 45 nos of Lightning Protection Systems in the township as per the TS.

- b) Surrounding Value- referred to Procedure Order # -22 vide office order ED (Proj.)/02/6(i)/82 dtd 20.07.2021.
- c) Mandatory % towards "Erection and Site Activities"- Minimum 15 % (The cost against erection & commissioning work is approx. 16 % of basic cost as per cost estimate sheet prepared by consultant TC-DB).
- d) Defect liability period shall be the warranty period i.e 5 year from the date of commissioning.
- e) PBG shall remain valid upto the defect liability period i.e 5 year from the date of commissioning.
- f) Pre-Bid meeting to be held after 10 days of issuance of NIT.

This may be included as Special Condition of the Contract during Tendering.

MOM of Investment Planning Committee (IPC)

held in the Office of CGM (TA) , on 12.10.2023

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Budget Provision: Capital Budget of 2023-24 and subsequent years as per need.

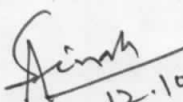
Manpower: No additional manpower is required.

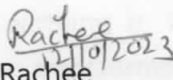
Implementation Schedule

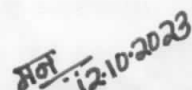
- a) Submission of firmed-up cost proposal for stage-2 approval : **04 Months.**
b) Implementation Schedule from the effective date of contract : **12 Months.**

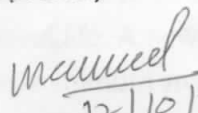
IPC recommendation:

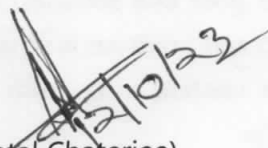
After due deliberation and screening, Investment Planning Committee (IPC) recommends the proposal **"Installation of electrical grounding system in 11 KV substations and lightning protection system for township at Bokaro Steel Plant."** to be tendered out on **OTE basis** at Capital Cost Estimate of estimated at **Rs. 448.73 Lakh including GST.**



(A N Singh)
GM/ TE-Elect.
(Convener)

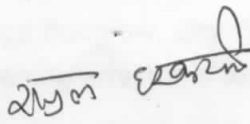

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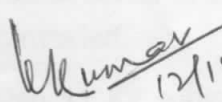

(Manoj Kumar)
AGM (P) /T&C


(M K Singh)
AGM (P) / E&P-NW


(Kuntal Chaterjee)
DGM/(Proj Fin)


(Jyoti)
AGM/TC-DB


(Rajul Harkarni)
GM/TE-Elect.


(Kundan Kumar)
CGM(TA)
(Chairperson)

Eligibility Criteria

**PROJECT: INSTALLATION ELECTRICAL GROUNDING SYSTEM IN 11kV
SUBSTATION AND LIGHTNING PROTECTION SYSTEM IN TOWNSHIP**

(Ref TS NO: DB/BSL/40/TS/012/R1, OCT'2023)

1. The bidder should be Original Equipment Manufacturer (OEM) of Chemical Earthing Electrode & ESE Type Lighting Arrestor or their authorized dealer. If the bidder is authorized dealer of OEM, the bidder has to submit Manufacturer Authorization Certificate (MAF) (Form-1 of TS Document) signed by authorized representative of the OEM.
2. If OEM, the bidder shall submit ISO certificate/ certificate from any Govt./Govt. authorized agency to show that it is manufacturer of Chemical Earthing Electrode & ESE Type Lighting Arrestor. If the bidder is not OEM, it shall submit manufacturer certificate from the OEM.
3. The bidder should have carried out supply, erection/supervision of erection and commissioning/supervision of commissioning of minimum 1200 nos of Electrical Grounding Systems (Chemical Earthing Type) and minimum 25nos of ESE type Lightning Arrestor systems during last 07 (Seven) years to any of the following Organization from the date of NIT;
 - Government Organization
 - PSU
 - Public Limited Company
 - Joint Venture Company, where at least one partner is Government Organization/ PSU.
4. Self attested Copies of following documents shall be submitted by the bidder in support of Clause- 3:
 - a. Work Order/any other Letter of Award of Work/ Contract Document/ Purchase Order placed by the client.
 - b. Commissioning Certificate/Completion Certificate/Final Acceptance Certificate corresponding to Clause 4(a), by the respective client, where the date of commissioning/completion shall be during last 07 years from the date of NIT.
5. Consortium bidding is not allowed.
6. The average annual financial turnover of the bidder during any three of the last four financial years ending Mar'2023 shall be at least 2 Crores (INR Two Crores).

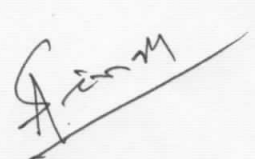
The bidder shall submit audited annual financial reports of the corresponding three financial years in support of the above.
7. Net worth of the Bidder should be positive in the financial year ending 31st March 2023 as per the audited annual accounts.
8. Documents submitted in support of financial eligibility wherever certified by the CA members of ICAI from 01.07.19 onwards, shall contain the Unique Document Identification Number.
9. The bidder should submit an affidavit stating that the eligibility documents furnished by them are genuine.

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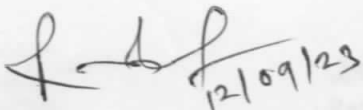


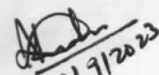
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|  | | TC-DB |
| | COST ESTIMATE | |
| | DB/BSL/40/CE/012/R1 Dated 06.09.2023 | |
| Proposal | SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL GROUNDING SYSTEM IN TOWNSHIP 11kv SUBSTATIONS AND LIGHTNING PROTECTION SYSTEM FOR PUBLIC BUILDINGS AT BSL. | |
| Ref: | TS No: DB/BSL/40/TS/012/R1, SEPT'23 | |
| | INR in lakhs | Capital cost |
| | Description | 12 Months |
| A | Design/engineering, development, manufacturing/procurement, inspection, testing & supply, handling & storage at site, erection, testing & commissioning, completion of all related facilities, performance guarantee testing and standard warranty for 05 years of New Generation Grounding pits for 11kv substations and Lightning Protection System on public buildings in BSL township area as per ref TS. | |
| A1 | Design & Engineering | 0.85 |
| A2 | Supply of equipments, items and technological structures | 278.82 |
| A3 | Storage, Handling, Erection & Installation of items & Equipments including commissioning and PG Tests of the facilities | 58.10 |
| A4 | Freight & Insurance | Included |
| B | | 337.77 |
| C | Taxes & Duties | |
| C1 | GST @18% on capital cost | 60.80 |
| D | B+C1 | 398.57 |
| E | Engineering & Construction | |
| E1 | Owner's @2.5% on capital cost | 8.44 |
| E2 | Contractor's | Included |
| F | D+E1 | 407.01 |
| G | Contingency(@5%) | 20.35 |
| H | F+G | 427.36 |
| I | Interest during construction (IDC) for 12 (@) 100 % debt, 10% bank rate) | 21.37 |
| J | Total Capital Cost including GST (H+I) | 448.73 |
| K | Total Project Cost including GST (J+M) | 448.73 |
| L | Package cost estimate for tendering (K-E-G-I) | 398.57 |

Note:- Estimate is done on the basis of BQ received from M/S Earthing Solutions Pvt Ltd with ref no: ES/JR/PRO/23-24/101, Dt-06/09/2023.


 12/09/23
 R.L. Meena
 ADM/TC-DB


 12/9/2023
 कार्यकारी मुख्य महाप्रबंधक/न० ५०
 सेल, बेंगलूरु स्टील प्लांट

STEEL AUTHORITY OF INDIA LTD
BOKARO STEEL PLANT
BOKARO STEEL CITY



TECHNICAL SPECIFICATION NO- DB/BSL/40/TS/012/R1

FOR

INSTALLATION OF ELECTRICAL GROUNDING SYSTEM IN 11kV SUBSTATIONS AND
LIGHTNING PROTECTION SYSTEM IN TOWNSHIP

AT

BOKARO STEEL PLANT

OCTOBER'2023

Signature
12/10/23

Signature
12/10/23

Signature
12/10/2023

Signature
12/10/23

1.0 INTRODUCTION

1.1 General

Bokaro Steel Plant (BSL) is one of the Integrated Steel Plants of Steel Authority of India Limited (SAIL). The township area in Bokaro Steel Plant has over 250 nos of 11kv rating substations across the township. These substations are very old and the electrical grounding in them is in general in a very depleted state. This sometimes causes damage to the transformers and equipments at the consumer level. The grounding was done using conventional methods which need regular maintenance and have lost their electrical useful life. So it is proposed to adopt the new technology of Chemical Earthing.

Further there are many public buildings in the township in which there are no lightning Protection System in working condition. So it is proposed to install lightning Protection System on these buildings to make them safe.

1.2 Intent of the Specification

The intent of this Tender Specification is to furnish required details for enabling the Bidders to submit their best offers (technical & techno-commercial) for "Supply, erection, installation, testing and commissioning of Electrical Groundings in 11kv substations of township and lightning Protection System on public buildings" in BSL on "turnkey basis" within the stipulated time frame.

2.0 SCOPE OF WORK FOR ELECTRICAL GROUNDING SYSTEM

2.1 The Scope of Work of Electrical Grounding system shall include but not limited to the following:-

Design & engineering, manufacturing/procurement, inspection, testing & supply, handling & storage at site, erection, installation, testing & commissioning, completion of all related facilities, performance guarantee testing and handing over to BSL of New Generation Maintenance Free Electrical Grounding pits for 11kv substations in township area on "Turnkey Basis" to the satisfaction of the purchaser as per specifications and scope defined in this technical documents complete with all accessories including any item or job, which are not mentioned specifically but are required for the efficient and trouble free operation of the equipment/system.

2.2 GENERAL REQUIREMENTS:

- 2.1.1 There are total 250nos of 11kv substations in Township. It is proposed to install 8 pits in each substation (2 nos for AB switch, 2 nos for LT Panel and 4 nos for Transformer) using Chemical Earthing technology.
- 2.1.2 Distance between two consecutive earth pit should be approx 10 ft.
- 2.1.3 The bidder has to identify a suitable new pit digging location and has to erect the new pits at the identified locations.
- 2.1.4 This Chemical Earthing system shall be based on ready capsule type, Pipe-in-Pipe technology concept in which, One Galvanized hollow pipe (Electrode) is kept inside another galvanized hollow pipe. The space between the two pipes shall be filled with a specially developed Electrically Conductive Mixture (graphite mould) Solid in set form to reduce earth resistivity. There shall be no requirement to add any other chemical or water

at any time after initial installation because of hygroscopic characteristic of Earth Enhancement Compound (EEC).

2.1.5 The materials offered shall conform to relevant Indian Standards having high quality and workmanship and capable to perform continuous and satisfactory operations in the actual service conditions at site.

2.1.6 The Earth Resistance of Chemical Earthing System should be less than 01 ohm in the grid two earth pits in a system, which ensures a low-impedance path for electrical currents to flow to the earth.

2.3 APPLICABLE STANDARDS:

The earthing system shall conform to the relevant Indian Standard specifications unless otherwise specified.

| | | |
|----|-----------------------------|---|
| 1. | IS 3043:2018 | Code of practice for Earthing |
| 2. | IEC 62561-7 | Requirement for earth enhancing compound |
| 3. | IEEE-80-2000 | IEEE guide for safety in AC Substation grounding |
| 4. | IS 2629:2021 & IS 4736:2021 | For hot dip galvanizing for Iron and steel |
| 5. | IS 13229-2023 | Zinc for galvanizing |
| 6. | IS 1161:2019 | Steel tube for structural purposes: specification |

(Latest revisions and amendments are applicable).

2.4 TESTS

All these tests shall be carried out at any government approved or NABL accredited laboratory. The certificate regarding these tests shall be submitted before supply of materials. Dispatch clearance for supply of materials shall be given only when all these certificates are checked and found ok. The issue date of these type tests/tests certificates should not be older than 4(four) years as on scheduled date of opening of the Technical bid. The bidder is required to submit the test certificates consisting parameters/values as mentioned below:

2.4.1 Type Tests/Tests

The Earth Enhancing Compound (BFC), Electrically Conductive Mixture and Earthing Electrode Pipes in the tender should have been successfully type tested/tested for the parameters/values in line with the relevant standards and technical specifications. Following type tests shall be carried out and relevant certificates shall be submitted

- Current carrying capacity test shall be carried out on the concentric pipe electrode as per relevant IS & it shall withstand capacity rating as mentioned in the specifications (i. e. more than 65 KA for 1 sec.)
- Test for the resistivity value of the Earth Enhancing Compound (BFC).
- The GI pipe used for the electrodes shall be confirming to the relevant standard. Test Certificate of the manufacturer should be provided along with the bid.
- Toxic Content test on Conductive materials & earth enhancement material as per standard.
- pH Value Test.
- Measurement of zinc Coating of the Earth Electrodes.
- Leaching Test of heavy metals in the soil.

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- h) Chemical Composition Test on electrically conductive material used in earth electrode & Earth Enhancement material (BFC) shall be checked.

2.4.2 Acceptance Test for the materials supplied

The following shall be inspected before or after supply of the material at site:

- i. Inspection of dimensions, finish surface defects, thickness & uniformity of zinc coating, SS Grade as per provisions of IS 2062, 2629, 2633 as applicable on date of enquiry.
- ii. Physical check for concentric pipe type earth electrode and physical dimensions check of the earth electrode i.e wall thickness test, diameter, length and other physical parameters.
- iii. Inspection of inner material of inner and outer pipe shall be physically checked by dismantling any one electrode at the site.
- iv. Electrical properties test on conductive materials (Electrically Conductive Mixture) as specified in the specifications.

If the material has been type tested/tested earlier, the purchaser reserves the right to demand repetition of one or more type tests/tests included in the list of type test/tests on requisite number of samples from any of the lots during the tenure of the supply, in the presence of purchaser's representatives. If the material does not withstand the type test/tests, then the material supplied till then will be liable for rejection.

Apart from the points mentioned above, the inspecting officer may carry out the acceptance tests on the materials as specified in the relevant Indian Standards with latest amendments and in this TS document.

3.0 TECHNICAL SPECIFICATION OF ELECTRICAL GROUNDING SYSTEM

3.1 Basic Design and Site/Ambient Condition

- i. Ambient Indoor temperature : 45⁰C (average)
: 50⁰C (maximum)
Ambient Outdoor temperature: 55⁰C
- ii. Maximum Humidity: 100%
However, maximum temperature and maximum humidity may not occur simultaneously.

3.2 Technical Parameters of New Generation Grounding system

Design Parameters

- Low resistance/ impedance.
- Excellent electrical conductivity.
- Should require minimum maintenance.
- High corrosion resistance.
- Conductors of sufficient mechanical strength withstanding high fault currents with no evidence of the fusing or deterioration.
- Lower earth resistance which ensures that energy is dissipated into the ground in less time.
- The selected material for grounding conductors should be suitable to sustain without erosion/corrosion/decay inside the earth for many years.

- Mechanically robust and reliable high hot dipped galvanized electrodes should be used for this purpose.
- Dry sand, limestone, granite and any stony ground should be avoided
- Grounding electrodes should not be installed on high banks or made-up soil.
- The earthing pit should be cylindrical in shape with approx diameter of 300mm and approx depth of 3000mm.

3.3 GI Grounding Electrodes

- a) The earth electrode is the main component of the grounding system which is in direct contact with the ground and thus provides a means of releasing or collecting earth leakage currents. The material should have good electrical conductivity & should not corrode in a wide range of soil conditions. For effective grounding system the earth electrode shall be manufactured with pipe-in-pipe technology.
- b) Pipe-in-pipe technology concept involves two galvanized steel pipes one inserted inside the other. Both the pipes are subjected to Hot dip galvanization of 80-100 microns. The zinc used for galvanizing should follow Zn 98.0 Grade as per IS: 13229-2023 and process and measurement of hot dip galvanizing should be as per IS: 2629-2-21. The empty space in the pipes shall be filled with a specially developed electrically conductive mixture (graphite mould) solid in set form. For uniform distribution of fault currents an earth electrode must be cylindrical in shape.
- c) Electrically conductive mixture is a graphite based mould along with the required quantity of bonding materials. The mixture is forced (Pressurized) inside the earth electrode in empty space of inner pipe & in empty space between the inner & outer pipe of the earth electrode, in paste form and after solidification of the same the bottom end cap as well as top end cap is provided. The graphite helps in conducting the current. The bonding material helps in keeping all the above bonded together and gives the required strength to the mixture. The top end of the inner pipe is pressed to have flat surface at the top end for connecting to the equipment using the GI strip. Necessary precaution shall be taken as to have no air gap inside the pipe while pressing. The electrically conductive mixture which is machine pressed in the pipes should not disintegrate or collapse when the outer pipe corrodes. Resistivity of the material shall be less than 0.1 ohm meter. Resistivity shall be tested by making a 20cm cube of the material & checking the resistance across the opposite faces of the cube.
- d) Concentric pipe grounding electrode shall consist of inner GI pipe of 40mm diameter & outer GI pipe of 80mm diameter having ISI mark. GI pipes shall be of class B as per IS 1239.

Technical Specifications of Grounding Electrode:-

In adherence to the parameters specified in IS 3043, the grounding system shall incorporate the advanced technology of Conductive & Anti Corrosive (CAC) material, ensuring optimal performance and durability. Rigorously tested, **the bidder has to submit certificate of its ability to withstand a tested current exceeding 65 KA/Sec RMS**, highlighting its robust electrical capabilities. The material of electrodes shall be HDGI (Hot Dip Galvanised Iron), renowned for its exceptional conductivity and resistance to corrosion. The design of the system shall feature a Pipe in Pipe (PIP) configuration, maximizing structural integrity and facilitating efficient current dissipation. To validate its quality and compliance, the system shall undergo a comprehensive Short Circuit Test conducted by reputed testing institutions such as CPRI, ERDA, any government-approved test house or NABL accredited laboratories. The electrode length shall measure 3000 mm, guaranteeing sufficient coverage and effective

grounding. The inner pipe diameter shall be 40 mm, accompanied by an inner pipe wall thickness of 2.6 mm, ensuring robustness and stability. Complementing the inner pipe, the outer pipe shall possess a diameter of 80 mm, with a wall thickness of 3.6 mm, enhancing overall structural resilience. The electrode pipe shall be sourced from trusted manufacturers for ensuring quality and reliability. The hot-dip galvanization process shall yield a protective coating of (80 - 100) microns, effectively shielding against corrosion. The inner space of the system shall incorporate an Electrically Conductive Mixture (Graphite Mould) in solid form, guaranteeing optimal electrical conductivity.

Terminal specifications:- terminal shall encompass a minimum length of 100 mm, a width of 40 mm, a thickness of 5 mm, and two terminal hole diameter of 10 mm. The terminal should be formed by hydraulic pressing the inner electrode pipe without joint or welding. The pipe shall be pressed by hydraulic press only. No hammered pressed/welding shall be acceptable.

3.4 Earth Enhancement Material

Earth enhancement material (Back fill compound) shall be a superior conductive material that improves grounding effectiveness especially in areas of poor conductivity. It shall be placed around grounding electrode in the earth pit to improve the conductivity of earth electrode & ground contact area. The material shall be supplied in sealed moisture proof bags. These bags shall be marked with the name of the manufacturer or trade name, quantity, batch no., date of manufacture etc. It shall have following characteristics.

- a. It should have low resistivity preferably below 0.1 Ohm-meter. (Resistivity shall be tested by making a 20cm cube of the material & checking the resistance across the opposite faces of the cube. Test certificate for the resistivity of the compound shall be carried out at any NABL accredited laboratory and the same shall be submitted along with the bid.
- b. Shall be suitable for installation in dry form or in a slurry form.
- c. Shall have high conductivity, improves earth's absorbing power and humidity retention capability.
- d. Shall be non-corrosive in nature having low water solubility but highly hygroscopic.
- e. It shall not depend on the continuous presence of water to maintain its conductivity.
- f. It should be a little alkaline in nature with pH value of > 7 & < 8 . Test certificate for the same from NABL accredited laboratory to be provided for the compound so designed.
- g. It should have better hygroscopic properties to absorb moisture. It should absorb & release the moisture in the dry weather condition and help in maintaining the moisture around the earth electrode.
- h. It should have capacity to retain more than 10% moisture at 105°C for 03 hours or more and water solubility of less than 01. Test certificate for the same from NABL approved laboratory shall be submitted.
- i. Material shall be in granular form of size 0.1mm to 3mm. Specific gravity of BFC material shall be between 2.5 to 2.7.
- j. Material shall be non-toxic, non-reactive, non-explosive & non-corrosive.
- k. Material shall be thermally stable between temperature range of -10°C to 60°C.
- l. Material shall not decompose or leach out with time.
- m. It shall not pollute the soil or local water table & shall meet environmental friendly requirement for landfill.

- n. It should expand & swell considerably & remove entrapped air to create strong connection between earth electrode & soil.
- o. It should diffuse in to the soil pores & create conductive roots enlarging conductive zone of the earth pit.
- p. It shall neither require periodic charging treatment nor replacement and maintenance. It shall not cause burns, irritation to eye, skin etc.
- q. Minimum quantity requirement for 300mm bore type and 3000mm deep pit shall be 50 Kg.

Earth Enhancing Material Specifications

In accordance with the parameters outlined in IS 3043, the technology utilized shall be CAC (Conductive & Anti-corrosive) harnessing its unique properties for optimal performance. The physical form of the material shall be in the powdered state, allowing for convenient handling and application. The material shall undergo rigorous testing and receive certification from NABL accredited laboratory, ensuring its adherence to recognized quality standards. It shall have compliance with industry standards, including IEEE-80 and IEC 62561-7. The chemical composition of the material shall consist of graphite powder comprising approx 30%, bentonite powder accounting for approx 40%, activated carbon constituting approx 20% and aluminum silicate making up approx 10%. The resistivity of the material shall be less than 0.1 Ohms per meter, indicating its efficient conductive properties. The pH level shall fall within the range of 7 to 8, ensuring a neutral to slightly alkaline environment. With a moisture holding capacity of more than 10% at 105°C for duration of 3 hours, the material shall demonstrate excellent moisture management capabilities. Its solubility in water shall be less than 0.1, indicating a moderate level of dissolution. As a hygroscopic substance, the material shall exhibit the chemical property of absorbing and retaining moisture from its surroundings.

3.5 Grounding Display Board

The Grounding display board shall be constructed with ACP Board (Aluminum Composite Panel) material. The size of the board shall measure 6-8 inches, ensuring clear visibility of the information displayed. The board shall include essential details such as the Earth Pit Number, Connected equipments details, Ohmic Value Individual, Ohmic Value Grid, Date of Testing, Next Due Date, and Earth Pit Type etc. A comprehensive good contrast colour theme preferably of blue and white shall be employed, enhancing the readability and visual appeal of the display board. Adhering to these specifications, the grounding display board shall serve as an essential tool for effectively communicating critical grounding information in a concise and visually appealing manner.

3.6 Earth Pit Cover

The Earth Pit Cover shall be designed from HDPE material. The cover shall exhibit precise dimensions, with a top diameter ranging from 180 to 200 mm and a bottom diameter ranging from 260 to 300 mm. The height of the cover shall measure approx 242 mm, ensuring optimal coverage and protection. With a weight of approx 2.5 kg, the cover shall possess a sturdy construction while remaining lightweight for ease of handling. The loading capacity of the cover shall be min 3 tons, highlighting its robustness and ability to withstand heavy loads. The material selected for the cover shall be Heavy Duty Polyethylene (or better), chosen for its exceptional durability and longevity. By incorporating this high-quality material, the HDPE Earth Pit Cover shall provide long-

lasting and reliable performance, effectively safeguarding the earth pit and ensuring the integrity of the grounding system.

3.7 GI Strip

Galvanized Iron (GI) strip of size 50 × 6mm for system earthing and GI strip of size 25 × 6mm for equipment earthing shall be used for connection from grounding electrode to instrument/equipment. Galvanized Iron strip shall conform to IS 2629-1966 or latest amendment/revisions. GI strip of 50mm wide, 06mm thick and GI strip of 25mm wide, 06mm thick shall be of hot dip galvanized zinc coating of 80-100 microns. All galvanized material shall withstand test as per IS: 2633 (1986). The connection of GI strip from grounding electrode to the equipment shall be in the scope of the bidder. The average length of GI strip per grounding system shall be taken as 10 meter.

4.0 SCOPE OF WORK OF LIGHTNING PROTECTION SYSTEM:

- 4.1** The Scope of Work of ESEAT (Early Streamer Emission Air Terminal) Smart Lightning Protection System and Conventional Lightning Rod (CLR) Air Terminal shall include but not limited to the following:-

Design and/or engineering, manufacturing/procurement, inspection, testing & supply, handling & storage at site, erection, testing & commissioning, completion of all related facilities, performance guarantee testing and handing over to BSL, of ESE Smart Lightning Protection System at the mentioned locations on "Turnkey Basis" to the satisfaction of the purchaser as per specifications and scope defined in tender documents complete with all accessories including any item or job, which are not mentioned specifically but are required for erection, commissioning and efficient & trouble free operation of the equipment/system.

1. Total 41nos of ESE (Early Streamer Emission) Smart Lightning Protection System and 04nos of Conventional Lightning Rod (CLR) Air Terminal are to be installed at the tentative mentioned locations along with its grounding requirements.
2. The successful bidder shall rationalize the installation of ESE system so as to cover maximum area and a calculation/layout of the same shall be submitted to purchaser before installation for their agreement. In case any area is not covered under the radius of protection of ESE Smart Lightning Arrestors at the mentioned locations, in that case only CLR (Conventional Lightning Rod) can be installed along with ESE Air Terminal for the area not covered by ESE Smart Lightning Arrestors. However nos of such conventional lightning rods shall be kept minimum.

4.1.1 APPLICABLE STADARDS:

The Lightning Protection System shall be conformed to the relevant standard specification unless otherwise specified, in line with the requirement of any of the latest applicable standard. The applicable amendments as and when imposed shall be applicable.

75

| | | |
|----|-------------------|--|
| 1. | IS:3043/2018 | Code of practice for Earthing |
| 2. | IEC 62561-7 | Requirement for earth enhancing compound |
| 3. | IS:2629 & IS:4736 | For hot dip galvanizing for Iron and steel |
| 4. | IS:13229-1991 | Zinc for galvanizing |
| 5. | IS:1161/1979 | Steel tube for structural purposes: specification |
| 6. | NFC 17-102 | Protection against Lightning (Early Streamer Emission Lightning Protection System) |
| 7. | IEC 62305 | Protection against lightning |

(Latest revisions and amendments are applicable).

4.1.2 Technical Parameters of Lightning Protection System

Vendor shall supply ESE Smart Type & Conventional type Lightning Protection System along with New Generation Grounding System as per NFC 17-102 & IEC-62305 Code and IEC 62561 and accessories as per the followings:

- a. ESE Type Air Terminal shall be as per NFC 17-102 (latest amendment). It shall have the following parameters:
 - i. Δt : Early Streamer Advance Triggering Time shall be $60\mu\text{-sec}$.
 - ii. Protection Radius shall be as per NFC 17-102 (relevant clause).
- b. Grounding requirement shall be fulfilled as per clause 2.0 & 3.0 of this TS document.

4.1.3 Technical Parameters of CLR as per IEC-62305 Code

In accordance with the design parameters outlined in the IEC 62305 Code, the conventional lightning rod, specified as the CLR (Conventional Lightning Rod) of the Franklyn Type, shall conform to stringent requirements. The crown, crafted from 99.9% pure copper, shall exhibit exceptional conductivity properties. The crown shall feature a prescribed arrangement of five spikes, strategically positioned for optimal lightning capture. The body of the lightning rod shall consist of a robust molecular copper-bonded solid rod of low carbon mild steel with a copper-bonding of 250 or more microns. The solid rod diameter shall measure 16 mm, ensuring structural integrity and lightning dissipation capabilities. Furthermore, the lightning rod shall possess a length of 1.5 meters with mounting mast of 03 meters length along with mounting accessories, facilitating effective coverage and proper placement. Adhering to these specifications and standards, the conventional lightning rod shall serve as a reliable and efficient means of lightning protection, successfully mitigating the risks associated with atmospheric electrical discharges.

4.1.4 Technical Parameters of ESEAT as per NFC 17-102

The design parameters, as stipulated in NFC 17-102, shall dictate the specifications of the Early Streamer Emission Smart Arrester system, recognized for its advanced technology known as Spark Gap Ion Generation Technology. The system shall exhibit an impressive Radius of Protection, extending up to min 79 meters at Level 1, effectively shielding against potential lightning strikes. Furthermore, the system shall incorporate two or more triggering units. In case one triggering unit malfunctions the other units ensure reliable and

prompt discharge when required. To ensure utmost safety and reliability, the system shall feature an electrically and thermally insulated electronics circuit, guaranteeing optimal performance under various conditions. The receiver element of the system shall comprise a robust SS 304 Rod with a diameter of 20mm, securely capturing lightning discharges. The lightning arrestor shall be tested for minimum 70 KA (8/20 microsecond) current. Certification for the same from CPRI shall be submitted along with the bid. The lightning arrestor shall have triggering advance (Δt) of 60 microseconds to have swift response capabilities. Constructed from resilient SS 304 material, the system shall embody both strength and durability, adhering strictly to the NFC 17-102 compliance standards.

4.1.5 Lightning Strike Counter:-

Lighting stroke counter shall be provided with each Lightning Protection System to count the number of lightning strikes. The device shall comply with the IEC 62561-6 standard, which governs the requirements for lightning protection components. The electrical characteristics of the device shall include a minimum current sensibility (I_{tc}) of 0.5 kA, indicating its ability to detect lightning currents of at least this magnitude. It shall also have a maximum admissible impulse current (I_{mcw}) of 100 kA, which denotes the highest surge current it can withstand without damage. Power for the device shall be provided internally by a battery, offering a long life expectancy of over 10 years before requiring battery replacement. The housing material of the device shall be made of thermoplastic with a UL94 V-0 rating, indicating a high level of fire resistance. Its protection rating shall be of IP67, suggesting excellent resistance to dust and water ingress. The device shall be equipped with an LCD display to provide information and feedback.

It shall handle a minimum of 999,999 events, allowing for comprehensive event logging and tracking. The device is compliant with the IEC 62561-6 standard, ensuring it meets the necessary requirements for lightning protection components. Lightning counter should have been pre-tested in the factory and it shall have more than one count on the display.

4.1.6 Down Conductor

Two down conductors shall be provided with each ESE/CLR type Smart Lighting Arrestor to Earth Pit. For each down conductor two earth pits shall be provided. Down conductor shall be of minimum 70 sq. mm single core Al armored Cable. Down conductor shall be in a single length. No joints are allowed in between. Conductor insulation shall be black in color. Powder coated 40mm (W) \times 15mm (H) GI trunking 0.8 mm thick with cover to be used for running the wire / cable near Smart LPS drop to earth pit. Trucking to be fixed on wall or flooring with suitable size of GI clamp. Test clamp to be provided as well.

4.1.7 Elevation (Mounting) Mast

Elevation Mast of Hot Dip Galvanized Iron shall be installed such that ESE / Conventional Type Air terminal tip shall be minimum 5/4.5 meters respectively above the tip of the building being protected. It shall be designed to have adequate strength for wind speed. It shall be bolted with base plate which shall be fixed in concrete, supported by guy wire from four sides. Detailed drawing shall be submitted to purchaser for review and approval.

The Elevation Mast have following specifications:

GI Pipe-40mm diameter with 11KV insulation.

Pipe wall thickness- 2.6 mm

Length-3 meter for CLR & 5 meter for ESE above the tip of the building being protected.

Accessories like GI Base Plate, Guy wire, CC bolts, Copper lugs clamps, D-Cycle and other required accessories shall also be supplied by the bidder.

4.1.8 Inspection and Tests

A. Tests:

All these tests shall be carried out at any government approved or NABL accredited laboratory. The certificate regarding these tests shall be submitted before supply of materials. Dispatch clearance for supply of materials shall be given only when all these certificates are checked and found ok. The issue date of these type tests should not be older than 4(four) years as on scheduled date of opening of the Technical bid. The bidder is required to submit the test certificates consisting parameters/values as mentioned below:

a. Type Tests/Tests

The Earth Enhancing Compound (BFC) for earthing and Lightning Arrestor in the tender should have been successfully type tested for the parameters/values in line with the relevant standards and technical specifications.

Following type tests/tests shall be carried out:

- i. The bidder shall submit the complete test reports of lightning arrestor (including Short Circuit Test Report) & reports of Type Tests as stipulated in latest relevant IS/IEC with complete Identification, Date & Sl. No., carried out within 04(Four) years from the date of bid invitation from CPRI/ NABL accredited/Govt.
- ii. Lightning Impulse Current Test (tested for 70KA (8/20 microseconds)) for the Lightning Arrestor.
- iii. Test for resistance of the earth enhancing compound (BFC) used for earthing being provided as per IEC -62561.
- iv. Test certificates for chemical & physical properties of Raw materials i.e. Steel Flats/Rods as per IS -2062.
- v. Bidder shall produce Factory Certificate along with Serial No. for each ESE type Smart Lightning Arrestor from Original Equipment Manufacturer during inspection.
- vi. Certificates of CLR (Conventional Lightning Rods) spikes of 99.9 percent purity copper and SS 304 grade of ESE terminal shall be submitted.

b. Acceptance Test for the materials to be supplied

The following shall be inspected before or after supply of the material at site. Purchaser/purchaser representative may visit the testing place at their own cost to witness such tests which is to be arranged by the bidder:

- i. Inspection of dimensions, finish surface defects, thickness & uniformity of zinc coating, SS Grade, adhesion test as per provisions of IS 2062, 2629, 2633 as applicable on date of enquiry.
- ii. Physical inspection / verification of the triggering units shall be performed by dismantling any one of the devices. The lightning arrestor should have two or more triggering units.

73

If the material has been type tested/tested earlier, the purchaser reserves the right to demand repetition of one or more type tests/tests included in the list of type test/tests on requisite number of samples from any of the lots during the tenure of the supply, in the presence of purchaser's representatives. If the material does not withstand the type test/tests, then the material supplied till then will be liable for rejection.

Apart from the points mentioned above, the inspecting officer may carry out the acceptance tests on the materials as specified in the relevant Indian Standards with latest amendments and in this TS document.

5.0 SPECIAL TERMS AND STANDARD WARRANTY

- a. Supplier will give a declaration of availability of spares for at least 10 years from the date of commissioning to run the system. The bidder shall also give a declaration against obsolescence of equipments and spares under their scope of supply for minimum period of 10 years.
- b. The bidder shall provide standard warranty of the complete grounding and lightning protection systems for a period of 05 (Five) years from the date of commissioning of the complete system. If the resistance value of the earth pit is found more than 01 Ohms or continuity from earth pit to the equipment is found broken during the warranty period, it shall be rectified by the bidder free of charge or at no additional cost to BSL.

6.0 PENALTY CLAUSE: TIMELY SERVICING/ RECTIFICATION OF DEFECTS DURING WARRANTY PERIOD:

- a. a. The bidder has to rectify the defects mentioned in clause 5(b) during the warranty period within 07 days of notification by BSL. In case the bidder fails to rectify the defect within 07 days of notification by BSL, a penalty of Rs 1000/day of delay will be charged on the bidder.
- b. Bidder can deposit the penalty amount to BSL within 30 days directly else BSL shall have the right to recover any such penalty amount from the Performance Bank Guarantee (PBG). Cumulative Penalty cannot exceed more than 05% of the total contract value after which BSL shall have the right to get the service /rectification done from alternate sources at the risk and cost of the bidder besides forfeiture of PBG. Bidder shall be liable to reimburse the cost of such service / rectification to BSL. The penalty will be calculated every quarter.

7.0 SPARES, CONSUMABLES, TOOLS & TACKLES

The scope of work shall include supply of consumables and commissioning spares for the supplied system for execution:

1) Spare Parts

i) Commissioning spares

The successful bidder shall supply commissioning spares as may be required for tests and initial operation of installed system till successful completion of commissioning and also as required during performance guarantee test (PGT). The list of commissioning spares (minimum), along with their technical specifications and make, shall be submitted along with the offer as per Format-1.3.

ii) **Imported spares**

A list of imported spares (if any), along with their technical specifications and make, shall be furnished by the bidder.

2) **Consumables**

All consumables required to install the system shall be in the scope of work of the bidder. Such consumables are defined as but not limited to conduit pipes, cables, bolt, nuts, rivets, welding electrodes, seals, packing components etc. for erection of the proposed equipment shall be in the scope of work. The bidder shall furnish the list, along with their technical specifications and make as per Format-1.5.

3) **Special Tools, Tackles and Instruments**

The scope of work shall include supply of 10 nos of Digital Earth Resistance Tester. The bidder shall furnish a complete list of all special tools, tackles and instruments required for operation and maintenance of the installed system as per Format-1.4. The supply of these items shall be under the scope of the successful bidder.

8.0 QUALITY ASSURANCE

The successful bidder shall furnish a plan of quality assurance in respect of site works as well as supplies proposed to be followed for the purpose of assuring the quality of equipment and workmanship at various stages. The Quality Assurance Plan shall be mutually discussed and approved by BSL.

9.0 HAZARD/RISKS

The bidder shall identify any hazard / risks which may result in fatal accidents/ severe damage to human health and safety, damage to equipment, and material resulting in loss of time, and having cost implication. The bidder will carry out the above assessment and formulate appropriate action plan to prevent such incidents. This action plan shall be submitted to the SAIL/BSL before start of the work.

10.0 STORAGE & MATERIAL HANDLING

- a. The storage and material handling will be the bidders responsibility.
- b. All equipments shall be packed properly for prevention of damage during transit & storage. The bidder shall have to arrange for safe & secured storing of the materials in a space provided by BSL inside the plant premises.
- c. The bidder shall arrange to transport, unload and store at site all the equipment and materials. The equipment shall be suitably packed and protected before transporting. Supplier shall bear the sole responsibility for any damage/theft before installations of items.
- d. To transport and/or remove the materials/equipment from their respective storage areas/ space to the respective erection/work site/location shall be successful bidder's responsibility.
- e. All arrangements and equipments for smooth erection and commissioning works like crane etc., if required, shall be arranged by the bidder.

(71)

11.0 COMPLETION TIME AND PROJECT IMPLEMENTATION SCHEDULE

1. The project shall be commissioned within 12 months from the effective date of contract.
2. The Bidder/Supplier shall submit a Time Bar Chart in consultation with BSL indicating starting and completion of dates of each activity, i.e. inspection, supply, installation, erection, testing & commissioning of the system along with their offer. The work shall be completed as per bar chart of implementation schedule.

12.0 COMPLETENESS OF PROJECT

All the ratings of equipments /items mentioned in this Technical Specification shall be considered minimum and indicative. However, actual ratings shall be decided mutually during detail engineering, for which no extra claim on price by the bidder shall be entertained.

Any equipment/work specifically not mentioned but considered essential to make the specific work complete in all respect shall be deemed to be included in scope of the bidder and for which no extra payment beyond the rate quoted shall be payable.

13.0 EXCLUSION & DEVIATION:

The bidder shall clearly specify the exclusion and deviations, if any in the offer from the scope of work specified in the TS as per Schedules Format-1.1 and Format-1.2.

14.0 DRAWINGS / DOCUMENTS / DATA TO BE FURNISHED

- A. The Bidder shall furnish the tender in three copies. Following drawings/documents shall essentially be furnished in the technical part along with the bid:-
 - i. Make, Model of each item and complete BOQ for Grounding/Earthing System and Lightning Protection System (ESE & Conventional system).
 - ii. Technical specification, literature, catalogues etc. of offered equipments.
 - iii. List of deviations and exclusions, if any (in Format#1.1 and Format#1.2).
 - iv. Implementation schedule in the form of Bar chart.
 - v. Site visit and assessment declaration (Annexure-II).
 - vi. Manufacturer Authorization Form (MAF) from the OEM if the bidder is not an OEM (in Form#1)
 - vii. All the documents required as per Eligibility Criteria.
- B. The bidder shall submit the following drawings/documents for approval and reference in 03 sets after placement of Purchase Order/Work Order:-
 - i. Data Sheet for each equipments/items.
 - ii. GA and schematic drawings for complete system.
 - iii. Installation drawing for equipment/item.
 - iv. Quality Assurance plan of each item of the project.
 - v. Operation and Maintenance Manual: These manuals shall include the complete specification of the offered system, sub assemblies, configuration details, and explanation of each and every parameter, fault details with possible reasons, troubleshooting steps, diagnostic procedures and detailed commissioning procedures.
 - vi. Any drawing/documents/catalogue/Manual/Calculation, which are specifically not mentioned above but found essential for approval/reference during basic and detail engineering stage, will also be submitted by the Bidder.

vii. The bidder shall submit all the relevant drawings & documents for purchaser's approval prior to commencement of any manufacturing/project implementation/ordering activities.

C. The bidder shall submit 03 sets of all final approved drawing and 03 sets of as built drawings/documents in folders after commissioning of complete system along with pen drive.

15.0 EMPLOYER'S OBLIGATION

- a. Employer shall provide a site for storage of the equipment/ material. However, construction of temporary sheds/barricades for the temporary stores premises as well as safety & security of equipment shall be in the Bidder's scope. The Bidder shall transport to site and store all the equipment / materials under his scope of supply properly and cover the equipment / spares which are necessary for insurance. No risk shall lie with the Employer for any damage or theft either during transportation, handling, storage and erection.
- b. The purchaser shall provide power from the nearest source available in the township from the individual site location wherever necessary.

16.0 SAFETY

- a. All statutory safety rules and regulations prevailing in the area and as prescribed by the company shall be observed by the bidder. The bidder shall acquaint himself with the guidelines set forth by Bokaro Steel Plant in this regard in their SBD for adherence to the same during the progress of work at site.
- b. The bidder shall be responsible for paying strict attention to statutory regulations for prevention of accidents and to other safety rules. The regulation for prevention of accidents shall be displayed by the bidder at appropriate places. Notices and danger boards and proper barricading shall also be provided and displayed, prominently at appropriate places if required.
- c. The bidder shall acquaint himself with all the relevant statutory regulations such as Indian Electricity Rules and other statutory rules.
- d. All working personnel must have insurance of ESIC (Employees State Insurance Corporation)
- e. Work at height certificate/permit of all workmen working on height.
- f. Supervisor for job must hold Safety Supervisor Certificate.
- g. The bidder must have a valid Electrical Contractor License at the time of execution of the job.
- h. Prior to commencing any work at site, the bidder shall obtain clearance from the Purchaser's Engineer/Safety Department and shall abide by all the safety rules and regulations of the plant.
- i. The bidder shall enforce necessary safety measures for all personnel working at site and must have electrical supervisory license for the person supervising the electrical equipment.
- j. The bidder shall plan and execute his work in such a way that any other work executed or under progress by other agencies is not interfered with or damaged.
- k. All other safety requirements as per SBD.

69

17.0 FIRE PREVENTION

- i. Adequate fire prevention precautions shall be taken and other safety appliances including first Aid Box shall be provided during execution, testing & commissioning work.
- ii. The storage area for the equipment and other construction material shall be essentially well protected from all probable causes of fire and the area shall be well equipped with necessary firefighting equipment to extinguish the fire caused by reasons beyond one's control.

18.0 SITE VISIT AND OTHER REQUIREMENTS

The bidder shall visit the site and discuss with the employer, if required, regarding any technical clarification and satisfy himself with respect to the nature and extent of work involved. The bidder shall also obtain first-hand information regarding location, work terrain, climate condition, railways, roads, airports and communication etc. before offering the bid for the job. Site visit declaration (in Annexure-II) is to be submitted along with the offer .

19.0 SPECIAL INSTRUCTION TO THE TENDERER

- 1) The specifications forms a part of the overall document and shall be read in conjunction with SAIL/BSL's General Conditions of Contract (GCC), available for download at SAIL Tender Website, for supply, erection, and commissioning of all such items and equipment. However, wherever the clauses stipulated in GCC are in contradiction with those stated herein, the clauses mentioned in this document shall prevail.
- 2) It shall be deemed that the tenderer has clearly understood the content and meaning of the specification, requirement and scope of work.
- 3) The tenderer may inspect the site at his own cost prior to quoting to make themselves aware of the nature and scope of work and site condition prevailing. The tenderer shall declare in the tender that he has visited the existing substations and Lightning Arrestor locations of BSL and specifically studied the site and concerned plant, equipment and components.
- 4) If the tenderer needs any clarification from the purchaser, the same shall be sought in writing from the purchaser in advance so that the quotation can be submitted in time on receipt of clarifications.
- 5) The tenderer shall do all the enabling works required for the said package such as temporary shed, construction of site office, equipment storage shed, adequate illumination during construction, erection and fencing etc. at his own cost.
- 6) The equipment offered should be complete with all the components and accessories, which are normally required for completion of the installation, its efficient performance and ease of maintenance.
- 7) This tender specification shall be taken for the purpose of tendering and design concept, and shall not be taken as final and firm for completion of the project. The successful tenderer shall be responsible for the successful and satisfactory completion of the system from concept stage till operation stage.
- 8) The installation of all equipment, laying of cables and pipes & wiring shall conform to the application codes and practices as per the Indian standards & shall be executed to comply with latest Indian Electricity rules as regards safety, earthing of equipment & other essential provisions specified therein. All installation shall be done in an approved manner & acceptable to the employer.

- 9) The tenderer shall be responsible for the quality of workmanship/material and any defect as pointed out by the purchaser during or after execution of work, shall be made good as directed by the purchaser without any extra cost to the purchaser.
- 10) The purchaser intends that all the equipment shall be procured indigenously. However, if the tenderer feels that the equipment or part thereof will have to be imported by him, a detailed list of such equipment shall be furnished in the technical bid of their offer for review by the purchaser.
- 11) All items of equipment in the specification shall be complete in all respects & any equipment, device, components not covered in this specification but essential for completeness of the project shall be included in the bidder's scope without any extra cost to the purchaser.
- 12) All equipment shall be packaged properly for prevention of damage during transit and storage.
- 13) Supply and installation of loose erection accessories, erection consumables and other materials shall be in the scope of bidder.
- 14) Testing and commissioning of all the equipment. The equipment shall be commissioned unit by unit as per the site conditions and instructions of Engineer-in-charge.
- 15) All necessary cabling work for successful installation of entire equipment shall be in the scope of work.
- 16) All civil work needed for installation of all equipment is in the scope of bidder.
- 17) All relevant tools and tackles for erection jobs are to be arranged by bidder.
- 18) All accessories like wires, cables, electrodes, lightning arrestor rods, nuts and bolts etc. shall be supplied by bidder.
- 19) **Language and Units:** All name plates, drawing, operating and maintenance instructions shall be in English language. Calibration of all instruments, dimensions, technical data, weights and quantities shall be in Metric Units.

The Quantities taken into consideration are Minimum Indicative Quantity required to complete the job as per the Tender Technical Specification on Turnkey basis. The Bidder must include all items in their scope, required to render the System complete in all respects as per site requirement / condition on turnkey basis, even though every individual item(s) may not be mentioned specifically, for which, no extra payment shall be payable by BSL.

20.0 PAC, CC, PG & FAC

There is provision of Part Certificate for Preliminary Acceptance, Commissioning & Performance Guarantee. The Part Certificate shall encompass a total of 11 parts, as follows:

Part 1 to Part 10: Each part covers Installation of Electrical Grounding Systems in 25 individual 11kV substations as per the TS.

Part 11: This part covers Installation of 45 nos of Lightning Protection Systems in the township as per the TS.

1. PRELIMINARY ACCEPTANCE CERTIFICATE (PAC)

On completion of the facilities by the bidder, the facilities shall be checked to prove that the facilities have been supplied and installed as per contract and after installation, facilities are fit for start-up and commissioning. The Successful Bidder shall carry out PAT in presence of BSL according to the test procedures, to be prepared by the Bidder and approved by BSL. After liquidation of all the defects and after fulfilling all the provision of clause 24 of GCC of Standard Bidding Document (SBD), BSL shall issue Preliminary Acceptance Certificate (PAC) for the subsequent commissioning of facilities.

2. COMMISSIONING CERTIFICATE (CC)

After successful erection of the Earth Pit:-

1. Continuity from earth pit to equipment shall be checked.
2. Resistance value of the earth pits shall be measured. It should be less than or equal to 01 Ohms in the grid of two earth pits. Calibration certificate of the test instrument by which the resistance is to be measured shall be submitted at the time of resistance measurement.

The system shall be considered commissioned after fulfilling of above parameters and all the provisions of clause 25 of GCC of Standard Bidding Document (SBD). After that BSL shall issue Commissioning Certificate (CC).

3. PERFORMANCE GUARANTEE CERTIFICATE (PGC)

Three months after commissioning, the bidder shall submit the facilities for Performance Guarantee test.

PG Parameters for Electrical Grounding and Lightning Protection System:-

1. Continuity from earth pit to equipment shall be checked.
2. Resistance value of the earth pits shall be measured. The resistance value of the grid of two earth pits shall be less than or equal to 01 Ohms. Calibration certificate of the test instrument by which the resistance is to be measured shall be submitted at the time of resistance measurement.

On successful completion of Performance Guarantee Test and all the provisions of clause 27 of GCC of Standard Bidding Document (SBD), Performance Guarantee Certificate shall be issued by BSL.

4. FINAL ACCEPTANCE (FAC)

Final acceptance shall be given for the complete facility after the completion of warranty period of 05 years as per the provisions of clause 28 of GCC of Standard Bidding Document (SBD)

Annexure-I

Tentative Bill of Material (BOM)

| SN | Item | Qty |
|----|-------------------------------------|-----------|
| 1 | GI grounding electrode | 2180 Nos |
| 2 | BFC soil enhancing compound bags | 4360 Nos |
| 3 | Earthing display board | 2180 Nos |
| 4 | Earth Pit cover | 2180 Nos |
| 5 | GI strip 50x6 mm | 5000 Mtr |
| 6 | GI strip 25x6 mm | 15000 Mtr |
| 7 | Digital Earth Resistance tester | 10 Nos |
| 8 | ESE Air Terminal | 41Nos |
| 9 | CLR Air Terminal | 04 Nos |
| 10 | Lightning Stroke Counter | 45 Nos |
| 11 | Mounting Mast 5 mtr and accessories | 45 Nos |
| 12 | Down conductor 70 sq mm Al cable | 3000 mtr |

65

Annexure-II

DECLARATION OF SITE VISIT

(To be filled up by the Bidder)

I, hereby, declare that I have visited the site to understand the site conditions, and acquainted myself with atmosphere prevalent therein. I have also understood the extent of total works involved for this package.

Signature of the Bidder:

Seal of company Name:

Designation:

DETAILS OF AUTHORISED PERSON OF BIDDER DURING TENDER EVALUATION

1. Name of Project: _____
2. Tender No. : _____
3. Name & Address of Bidder : _____
4. Name of authorized person (TECHNICAL) : _____
5. Email address : _____
6. Mobile No. : _____
7. Aadhaar No : _____
8. Name of alternate authorized person (TECH) : _____
9. Email address : _____
10. Mobile No. : _____
11. Aadhaar No : _____
12. Name,of authorized person (COMMERCIAL) : _____
13. Email address : _____
14. Mobile No. : _____
15. Aadhaar No : _____
16. Name of alternate authorized person (COMM) : _____
17. Email address : _____
18. Mobile No. : _____
19. Aadhaar No : _____

Authorised Signatory

(63)

FORM # 1

[Sample Manufacturer Authorization Form (MAF) from the OEM]

Ref. No.: _____

Date _____

To,
Chief General Manager (Projects) Commercial, Tender & Claims
Steel Authority of India Limited
Bokaro Steel Plant, Ispat Bhawan
Bokaro Steel City – 827001,
BOKARO, JHARKHAND (India)

Subject: Authorization / Undertaking for extending Service & Spares Support

Ref.: Bid Reference No.: _____ Dated: _____

Sir, I/We, M/s _____ [name & address of the OEM] who are Original Equipment Manufacturer (OEM) of the _____ as listed in the BOM do hereby authorize M/s _____ [name and address of the bidder] to quote for the Contract with you as per the above referenced tender for the equipment(s) as mentioned above and manufactured by us. I/We also take full responsibility for both replacement of original Spare Parts & SLAs as per the content & Scope of Work of the reference Tender for the entire period of the Contract.

Yours truly/faithfully,

For [type name of the firm here]

Signature of Authorized Signatory

Name: _____

Designation: _____

Phone No.: _____

Place: _____

Date: _____

[Affix Seal of the Organization here]

[Note: The Bidder shall require the Original Equipment Manufacturer (OEM) to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Original Equipment Manufacturer (OEM) and should be duly signed by the person who has proper authority to sign documents that are binding on the Original Equipment Manufacturer (OEM). SAIL/BSL has all the right to verify for the same from the OEM. The Bidder must include it in its bid]

Format-1.1**LIST OF EXCLUSIONS**

| Sl. No. | Reference clause of TS | Details of Exclusions | Reasons |
|---------|------------------------|-----------------------|---------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Signature of the Bidder

Seal of company

Name

Designation

Format-1.2

LIST OF DEVIATIONS

| Sl. No. | Reference clause of TS | Details of Deviations | Reasons |
|---------|------------------------|-----------------------|---------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Seal of company

Signature of the Bidder

Name

Designation

Format-1.3**LIST OF COMMISSIONING SPARES**

(To be filled by the Bidder)

Bidder shall tabulate below item wise the list of commissioning spares necessary for the equipment offered. Additional sheet of like format may be used if necessary.

| Sl.No. | Description of items | Quantity recommended | Make |
|--------|----------------------|----------------------|------|
| | | | |
| | | | |
| | | | |
| | | | |

Signature of the Bidder

Seal of company

Name

Designation

Format-1.4**LISTS OF SPECIAL TOOLS AND TACKLES**

| Sl. No. | Description | Quantity | Make |
|---------|-------------|----------|------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Signature of the Bidder

Seal of company

Name

Designation



सेल SAIL

STEEL AUTHORITY OF INDIA LIMITED
(A Govt. of India Enterprise)
BOKARO STEEL PLANT

TENDER & CLAIMS DEPARTMENT (PROJECTS DIVISION)
ISPAT BHAWAN, BOKARO STEEL CITY - 827001
BOKARO, JHARKHAND (INDIA)
Telephone: +91 6542-240375
Email: bs1.proj.tenders@sail.in

LETTER OF ACCEPTANCE

Ref No: T&C(E)/A6499/BKD/679R/1127/359

Date: 30th November 2024

To,
M/s Earthing Solutions Private Limited
46 A N Path Opp A N College
Patna, Bihar PIN 800013
e-Mail: jsr@earthingsolutions.in
Contact Person: Shri Priyank Verma Mob: 8578000448

Subject : Installation of Electrical grounding system in 11 kV Substation and lightning protection system for Township at Bokaro Steel Plant.

- Ref : 1. Our Tender Notice No: T&C(E)/A6499/BKD/679R, dtd-07.06.24
Also Tender#1110 on <https://eproc.sail.co.in/>
2. Your offer against above tender submitted on 29.07.2024
3. All your correspondences ending with email dated 12.11.2024

Dear Sir,

In reference to above, BSL is pleased to issue our Letter of Acceptance (LOA) for the subject project as per agreed terms & conditions:

Price:

| Sl. | Description | Implementation Cost |
|-----|-------------------------------------|---|
| 1. | Basic price(INR) | INR 1,73,44,237/= |
| 2. | GST @18% | INR 31,21,963/= |
| 3. | Total Project Cost inclusive of GST | INR 2,04,66,200/= |
| | | (INR Two Crore Four Lakh Sixty Six Thousand Two Hundred Only) |

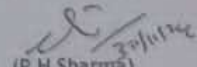
Time for Completion: 12 (Twelve) Months from the effective date of contract.

Draft contract agreement will be sent to you shortly. Please depute your authorized representative along with valid Power of Attorney and non-judicial stamp paper (TWO (02) Nos) of INR 100/- (INR One Hundred Only) of Jharkhand Government for signing the agreement within 30-days from date of LOA.

You are requested to contact GM (TE-Electrical)/Sh Rajul Harkerni, email-rajul.harkerni@sail.in for start of work. Please send a copy of this LOA duly signed and stamped as acknowledgement and acceptance.

Thanking you,

Yours faithfully,
For SAIL/ Bokaro Steel Plant


(P H Sharma)
CGM (Projects)/ Commercial



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

TO:
SINGH ELECTRICAL & ENGG WORKS
INDUSTRIAL AREA
1/E-50B

BOKARO STEEL CITY-827014

Jharkhand, India

Ph.-06542360021

Your MSME Status: MICRO Enterprise

Copy To :

Ph:

Ship to Address : (unless in Header Text)

DGM(Stores)

Stores Department

Steel Gate, GateNo-9, Bokaro Steel Plant

Bokaro Steel City-827001, Jharkhand, India

GeM Purchase Order :

GEMC-511687716646814

Contract Number: N/A Date: N/A

Pur Grp / File:

P32 /

Contact Person:

RANCHAK KUMAR PANDEY

Mob:

8986875437

Phone:

8986875437

Email:

rk.pandey@sail.in

PO Value: 7,279,661.00

Currency: INR (Indian Rupee)

PO Value Text: SEVENTY TWO LAKH SEVENTY NINE THOUSAND SIX HUNDRED SIXTY ONE Rupees

Dear Sir,

Please arrange to supply the material detailed below in accordance with your offer, subject to the terms and conditions, instructions specified here in read along with general conditions of contract SAIL/P1 .

Important: Timely delivery is essence of the contract.

Terms and Conditions

Price Term :Fixed
Payment Term :GR 80% ; PCert 20%

Misc Charges :0.00
Paying Authority :PURCHASE /STORES A/CS
Delivery/Incoterm :FBS FBS BSL STORES
LD Applicability :YES
LD Period Steps :7-Days
LD Period Percentage :0.50%
LD Ceiling :10.00%

Mode of Transport :RDV Road-Vendor Transport
Unloading Responsibility :BSL
Inspection Handled by :PDI Waived & FRI at BSL
Inspection Place :FOR BSL STORES
Security deposit Amount :0.00
SD Validity up to :
PBG Amount :0.00
PBG Validity up to :
Transport arranged by :VENDOR
Insurance Term :ARRANGED BY VENDOR

Document to submitted along with material supply:
GUARANTEE CERTIFICATE

Document to be submitted along with bill of payment

Other Charges:

Not Applicable

Invoicing Party / Payment to be made to- 1000025603
SINGH ELECTRICAL & ENGG WORKS

Your Vendor Code/GST No : 1000025603/20ADMPD9454G1ZO

ANNEXURE:

General Terms and conditions.

Inspection Plan

Abbreviations :

Inspection : PDI-Pre-dispatch Inspection, FRI-Final Receipt Inspection, STI-Stage Inspection.
Payment : POD-Proof of Dispatch, GR-Goods Receipt, LC-Letter of Credit, CAD-cash against Document, LSC-Letter of Short Credit. (Where not mentioned, Payment will be by Cheque or electronic transfer.)
Delivery Term: FBS-Free Delivery to BSL Store at BSCity. FDS - For Dispatching Station FDE - FOR DESTINATION.
(Other delivery terms as per Incoterms)

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

| | | | | | | | |
|--------------------------------------|----------------|----------|-----------------------------|------------|------|-----------------|--------------|
| PO No: P32 / 1010070840 / 4510081729 | | | PO DATE: 09.12.2023 | | | No. of Items: 1 | |
| AMENDMENT NO: 1 | | | AMENDMENT DATE : 03.10.2024 | | | | |
| SL.NO. | Material | Quantity | Unit | Rate/MRP | Curr | Discount | Net Value |
| 00010 | 51110601000531 | 25.000 | EA | 291,186.44 | INR | 0.00 | 7,279,661.00 |

Material Description: LT OUTDOOR PANEL BOARD,415V,3PH,4WIRE
Tax Description:CGST 9% SGST 9% - NON-ITC
Delivery Quantity : 25.000 BY Date : 10.08.2024
Vendor Material Number:

Terms and Conditions (Item):

Inspection Plan Number : 1 Inspection Plan Version:00002

Material Specification:

LT OUTDOOR PANEL BOARD,415V,3PH,4WIRE 50HZ AC SYSTEM SUITABLE FOR 750KVA/KVA500 TRANSFORMER WITH INCOMER 415V,1250A ACB OF MAKE L&T/GE/ABB/SIEMENS .ACB SHOULD HAVE MICROPROCESSOR BASED PROTECTION CIRCUIT FOR OVERLOAD, SHORT CIRCUIT & EARTH FAULT. ACB SHOULD HAVE OVERCURRENT SETTING FROM 50% TO 100% OF RATED CURRENT, BUSBAR ELECTROLYTIC 98.5% PURE AL,OUT GOING 630A TPN SWITCH (4NOS)&300A TPN SWITCH (1NO),BOTH WITH HRC FUSE MAKE OF TPN SWITCHES -L&T/ABB/SIEMENS/GE

CONSTRUCTION OF OUTDOOR PANEL:-

THE PANEL SHALL BE OUTDOOR TYPE WITH CUBICAL DESIGN CONFIRMING DEGREE OF PROTECTION IP 55.THE ENCLOSURE SHALL BE MADE OF 2.00 MM THICK CRCA SHEET. THE INCOMING AND OUTGOING FEEDERS CONTROL UNIT SHALL BE MOUNTED BELOW AND ABOVE THE BUS BAR CHAMBER. THE PANEL SHALL BE OUTDOOR, INDUSTRIAL TYPE METAL CLAD, TOTALLY ENCLOSED DUST TIGHT WEATHER AND VERMIN PROOF TYPE AND EXTENSIBLE AT BOTH ENDS. THE PANEL SHALL HAVE THE PROVISION OF HANDLE LOCK. THE PANEL SHALL BE OF OUTDOOR AND PLINTH MOUNTED TYPE WITH RIGID STEEL ANGLE FRAME SUPPORT AND WHERE THE SWITCH FUSE UNITS ARE MOUNTED ABOVE THE BUS BAR CHAMBER AND REVERSE ENTRY CABLE END BOX SHALL BE PROVIDED. ALL EXPOSED METAL PARTS SHALL BE PROPERLY TESTED AND THEN PAINTED WITH POWDER COATED PAINT OF SIEMENS GREY COLOUR. THE BUS BAR CHAMBER ALONG WITH THE CIRCUIT BREAKER, SWITCH FUSE UNITS FOR THE VARIOUS INCOMING AND OUTGOING FEEDERS SHALL BE SO ARRANGED ON THE SUPPORT FRAME THAT A NEAT COMPACT PANEL SHALL BE FRAMED. ALL THE CONNECTION BETWEEN THE BUSBAR AND DIFFERENT FEEDERS SHALL MAKE DIRECT LINK OF ALUMUNIUUM STRIPS . THE BUS BAR CHAMBER AND THE DIFFERENT SWITCH FUSE UNITS SHALL HAVE EASILY REMOVABLE FRONT COVER. THE BUS BAR CHAMBER IN ADDITION SHALL HAVE DETACHABLE END COVER AT BOTH ENDS. THE FEEDER CABLE OF DIFFERENT SIZE SHALL BE PROPERLY LUGGED/ CRIMPED AS REQUIRED AND CONNECTION SHALL BE MADE IN PROPER WAY.

INSTRUMENT COMPARTMENTS:

SEPARATE ADEQUATE COMPARTMENT SHALL BE PROVIDED FOR ACCOMMODATING INSTRUMENTS, INDICATING LAMPS, CONTROL CONTACTORS / RELAYS AND CONTROL FUSES ETC. THESE COMPONENTS SHALL BE ACCESSIBLE FOR TESTING AND MAINTENANCE WITHOUT ANY DANGER OF ACCIDENTAL CONTACT WITH LIVE PARTS OF THE CIRCUIT BREAKER / SWITCH FUSE UNIT, BUSBAR AND CONNECTIONS.

BUSBARS:

THE BUSBARS SHALL BE AIR INSULATED AND MADE OF HIGH QUALITY, HIGH CONDUCTIVITY, HIGH STRENGTH ALUMINIUM. THE BUSBAR SHALL BE OF 3 PHASES

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

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AND NEUTRAL SYSTEM WITH SEPARATE NEUTRAL AND EARTH BAR. THE BUSBARS AND INTERCONNECTION BETWEEN BUSBARS AND VARIOUS COMPONENTS SHALL BE OF HIGH CONDUCTIVITY ALUMINIUM. THE BUSBAR SHALL BE OF RECTANGULAR CROSS-SECTION DESIGNED TO WITHSTAND FULL LOAD CURRENT FOR PHASE BUS BARS AND HALF RATED CURRENT FOR NEUTRAL BUS BARS AND SHALL BE EXTENSIBLE ON EITHER SIDE. THE BUS BARS SHALL HAVE CONTINUOUS CURRENT RATING OF 2300A FOR THE PHASE BUS BARS AND 1200A FOR THE NEUTRAL BUSBARS AND HAVE UNIFORM CROSS-SECTION THROUGHOUT THE LENGTH. MINIMUM CROSS SECTION NEEDED WOULD BE 500MM² SO THE WIDTH AND THICKNESS TO BE 120MM AND 10MM RESPECTIVELY.

THE BUSBARS AND INTERCONNECTIONS SHALL BE INSULATED WITH HEAT SHRINKABLE PVC SLEEVE AND BE COLOUR CODED IN RED, YELLOW, BLUE AND BLACK TO IDENTIFY THE 3 PHASES AND NEUTRAL OF THE SYSTEM. THE BUSBARS SHALL BE SUPPORTED ON UNBREAKABLE, NON-HYGROSCOPIC SMC INSULATED SUPPORTS AT SUFFICIENTLY CLOSE INTERVALS TO PREVENT BUS BARS SAG AND SHALL EFFECTIVELY WITHSTAND ELECTROMAGNETIC STRESSES IN THE EVENT OF FAULT LEVEL OF 40KA.

THE BUSBARS SHALL BE HOUSED IN A SEPARATE COMPARTMENT. THE BUSBARS SHALL BE ISOLATED WITH 3 MM. THICK BAKELITE SHEET TO AVOID ANY ACCIDENTAL CONTACT. THE BUSBARS SHALL BE ARRANGED SUCH THAT MINIMUM CLEARANCE BETWEEN THE BUS BARS TO BE MAINTAINED AS BELOW:

BETWEEN PHASES : 25 MM. MINIMUM BETWEEN PHASES AND NEUTRAL : 25 MM.

BETWEEN PHASES AND EARTH : 25 MM.

BETWEEN NEUTRAL AND EARTH : 20 MM. MINIMUM

ALL BUSBARS CONNECTIONS SHALL BE DONE BY DRILLING HOLES IN BUS BARS AND CONNECTING BY CHROMIUM PLATED OR TINNED PLATED BRASS BOLTS AND NUTS. ADDITIONAL CROSS-SECTION OF BUS BARS SHALL BE PROVIDED IN ALL PANELS TO COVER UP THE HOLES DRILLED IN THE BUS BAR. SPRING AND FLAT WASHERS SHALL BE USED FOR TIGHTENING THE BOLTS.

ALL CONNECTIONS BETWEEN BUS BARS AND CIRCUIT BREAKERS / SWITCHES AND CABLE TERMINALS SHALL BE THROUGH ALUMINIUM STRIPS OF PROPER SIZE TO CARRY FULL RATED CURRENT. THESE STRIPS SHALL BE INSULATED WITH INSULATING TAPES.

ELECTRICAL POWER AND CONTROL WIRING CONNECTION:

I. TERMINAL FOR BOTH INCOMING AND OUTGOING CABLE CONNECTIONS SHALL BE SUITABLE FOR 1100 V GRADE, ALUMINIUM / COPPER CONDUCTOR PVC INSULATED AND SHEATHED, ARMOURED CABLE AND SHALL BE SUITABLE FOR CONNECTIONS OF SOLDER LESS SOCKETS FOR THE CABLE SIZE AS INDICATED ON THE RELEVANT DRAWINGS OF THE PANELS.

II. POWER CONNECTIONS FOR INCOMING FEEDERS OF THE MAIN PANELS SHALL BE SUITABLE FOR 1100 V GRADE ALUMINUM CONDUCTOR (LT XLPE/PVC) CABLES.

III. BOTH CONTROL AND POWER WIRING SHALL BE BROUGHT OUT IN CABLE ALLEY FOR EASE OF EXTERNAL CONNECTIONS, OPERATION AND MAINTENANCE.

IV. BOTH CONTROL AND POWER TERMINALS SHALL BE PROPERLY SHROUDED.

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



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(Domestic)

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V. 10% SPARE TERMINALS SHALL BE PROVIDED ON EACH TERMINAL BLOCK. SUFFICIENT TERMINALS SHALL BE PROVIDED ON EACH TERMINAL BLOCK, SO THAT NOT MORE THAN ONE OUTGOING WIRE IS CONNECTED PER TERMINAL.

TERMINAL STRIPS FOR POWER AND CONTROL SHALL PREFERABLY BE SEPARATED FROM EACH OTHER BY SUITABLE BARRIERS OF ENCLOSURES.

VI. WIRING INSIDE THE MODULES FOR POWER, CONTROL, PROTECTION AND INSTRUMENTS ETC. SHALL BE DONE WITH USE OF 660 / 1100 V GRADE, PVC INSULATED COPPER CONDUCTOR CABLES CONFORMING TO IS : 694 AND IS : 8130. POWER WIRING INSIDE THE STARTER MODULE SHALL BE RATED FOR FULL CURRENT RATING OF RESPECTIVE CONTACTOR, BUT NOT LESS THAN 4.0 SQ.MM. CROSS-SECTION AREA. FOR CURRENT TRANSFORMER CIRCUITS, 2.5 SQ.MM. COPPER CONDUCTOR WIRE SHALL BE USED. OTHER CONTROL WIRING SHALL BE DONE WITH 1.5 SQ.MM. COPPER CONDUCTOR WIRES. WIRES FOR CONNECTIONS TO THE DOOR SHALL BE FLEXIBLE. ALL CONDUCTORS SHALL BE CRIMPED WITH SOLDERLESS SOCKETS AT THE ENDS BEFORE CONNECTIONS ARE MADE TO THE TERMINALS.

VII. CONTROL POWER FOR THE MOTOR STARTER MODULE SHALL BE TAKEN FROM THE RESPECTIVE MODULE SWITCHGEAR OUTGOING. CONTROL POWER WIRING SHALL HAVE CONTROL FUSES, (HRC FUSE TYPE) FOR CIRCUIT PROTECTION. ALL INDICATING LAMPS SHALL BE PROTECTED BY HRC FUSES.

VIII. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE LAYOUT OF WIRING IS NEAT AND ORDERLY. IDENTIFICATION FERRULES SHALL BE FITTED TO ALL THE WIRE TERMINATION FOR EASE OF IDENTIFICATION AND TO FACILITATE CHECKING AND TESTING.

IX. SPRING TYPE WASHERS SHALL BE USED FOR ALL COPPER AND ALUMINIUM CONNECTIONS.

TERMINALS:

THE OUTGOING TERMINALS AND NEUTRAL LINK SHALL BE BROUGHT OUT TO A CABLE ALLEY SUITABLY LOCATED AND ACCESSIBLE FROM THE PANEL FRONT. THE CURRENT TRANSFORMERS FOR INSTRUMENTS METERING SHALL BE MOUNTED ON THE DISCONNECTING TYPE TERMINAL BLOCKS. NO DIRECT CONNECTION OF INCOMING OR OUTGOING CABLES TO INTERNAL COMPONENTS OF THE DISTRIBUTION BOARD IS PERMITTED; ONLY ONE CONDUCTOR MAY BE CONNECTED IN ONE TERMINAL.

WIREWAYS:

HORIZONTAL PVC WIRE WAY WITH SCREWED COVERS SHALL BE PROVIDED AT THE BOTTOM/TOP TO TAKE INTERCONNECTING CONTROL WIRING BETWEEN DIFFERENT VERTICAL SECTIONS.

CABLE COMPARTMENTS:

CABLE COMPARTMENTS OF ADEQUATE SIZE SHALL BE PROVIDED IN THE PANELS FOR EASY TERMINATION OF ALL INCOMING AND OUTGOING CABLES ENTERING FROM BOTTOM OR TOP. ADEQUATE SUPPORTS SHALL BE PROVIDED IN THE CABLE COMPARTMENTS TO SUPPORT CABLES. ALL OUTGOING AND INCOMING FEEDER TERMINALS SHALL BE BROUGHT OUT TO TERMINAL BLOCKS IN THE CABLE COMPARTMENT. THERE SHOULD BE ONE STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH 4 (FOUR) GLANDS SUITABLE FOR 4(FOUR) NOS. 3.5X300 SQ. MM PVC

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

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AMENDMENT DATE : 03.10.2024

ARMOURED CABLE.
EARTHING:

I) GI EARTH BUS OF ADEQUATE SIZE SHALL BE PROVIDED IN THE PANELS FOR THE ENTIRE LENGTH OF THE PANEL. THE FRAMEWORK OF THE PANELS SHALL BE CONNECTED TO THIS EARTH BAR. PROVISIONS SHALL BE MADE FOR CONNECTION FROM THIS EARTH BAR ON BOTH SIDES OF THE PANELS TO THE MAIN EARTHING BAR COMING FROM THE EARTH PIT. DOOR EARTHING SHALL BE PROVIDED FOR ALL THE COMPARTMENTS.

II) THE EARTH CONTINUITY CONDUCTOR OF EACH INCOMING AND OUTGOING FEEDER SHALL BE CONNECTED TO THIS EARTH BAR. THE ARMOUR SHALL BE PROPERLY CONNECTED WITH EARTHING CLAMP, AND THE CLAMP SHALL BE MADE FOR CONNECTION FROM THIS EARTH PIT ON BOTH SIDES OF THE PANELS.

III) THE EARTH CONTINUITY CONDUCTOR OF EACH INCOMING AND OUTGOING FEEDER SHALL BE CONNECTED TO THIS EARTH BAR. THE ARMOUR SHALL BE PROPERLY CONNECTED WITH EARTHING CLAMP, AND THE CLAMP SHALL BE ULTIMATELY BONDED WITH THE EARTH BAR.

COMPONENTS:

1. AIR CIRCUIT BREAKER

THE PANEL WILL CONSIST 1(ONE) NO. 415V,1250A CONTINUOUS RATED TP METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY AIR CIRCUIT BREAKER WITH SYMMETRICAL BREAKING CAPACITY 50KA, MAKING CAPACITY PEAK 125 KA AND ICU=ICS=ICW (FOR 1 SECOND).

2. SWITCH FUSE UNIT

(I) THE LT PANEL WILL HAVE 4(FOUR) NOS. 630A RATED TRIPLE POLE AND NEUTRAL METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY FULLY INTER-LOCKED COMBINATION SWITCH FUSE UNIT, ON-LOAD BREAK TYPE, WITH 630A HRC FUSE IN EACH SWITCH.

EACH OF THE SWITCH FUSE UNIT WILL CONSIST ONE NO. STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH ONE GLAND FOR ONE NO. 3.5X300 SQ. MM PVC ARMOURED ALUMINIUM CABLE.

(II) THE LT PANEL WILL HAVE 1(ONE) NOS. 300A RATED TRIPLE POLE AND NEUTRAL METAL CLAD INDUSTRIAL PATTERN HEAVY DUTY FULLY INTER-LOCKED COMBINATION SWITCH FUSE UNIT, ON-LOAD BREAK TYPE, WITH 300A HRC FUSE.. THE SWITCH FUSE UNIT WILL CONSIST ONE NO. STRAIGHT/REVERSE ENTRY TYPE CABLE END BOX WITH ONE GLAND FOR ONE NO. 3.5X300 SQ.MM PVC ARMOURED CABLE.

(III) THE PANEL WILL HAVE PROVISION OF SPACE FOR SWITCH FUSE UNIT OF 630A.

MEASURING INSTRUMENTS

1. THERE SHALL BE 03(THREE) NOS. AIR INSULATED CT, RATIO 1250/5A, COMPLYING WITH IEC 60044-1; WITH ADEQUATE BURDEN CAPACITY, CONFORMING TO CLASS 1.5 OF IS 1248 FOR ACCURACY.

INDICATING INSTRUMENTS :-

THERE SHALL BE ONE MULTIFUNCTION DIGITAL TYPE METER SHOWING THREE ELECTRICAL PARAMETERS VIZ. INPUT VOLTAGE, CURRENT AND PF..

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
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PO No: P32 / 1010070840 / 4510081729

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INDICATING LAMPS AND BOARDS :-

NAMEPLATES AND DANGER NOTICE BOARD SHALL BE PROVIDED ON THE PANEL AS PER IS 2551-1982.

ON ALL THE INCOMERS OF OUTDOOR PANEL, ON/OFF INDICATING LED LAMPS SHALL BE PROVIDED AND SHALL BE SUITABLE FOR OPERATION ON AC SUPPLY. PHASE INDICATING LED LAMPS SHALL BE ASSOCIATED WITH NECESSARY ON/OFF TOGGLE SWITCH COMPLYING WITH IEC 947-5-1, CLASS # 2 WITH IP 65 PROTECTION.

CONFIRMATION TO STANDARDS :-

IS 3072 -1975, OR LATEST AMENDMENTS TO DATE
IS 4237-1967 OR LATEST AMENDMENTS TO DATE
IS 8084, IS 8623, IS 11353, IS 694, IS 8130

TEST REPORTS TO BE PROVIDED IN CONFORMITY WITH THE ABOVE STANDARDS FROM NABL ACCREDITED LABORATORY ONLY.

Other Terms and Condition Applicable To all Items

HEADER TEXT :

THIS PO IS BEING PLACED TO REGULARISE GEM CONTRACT GEMC-511687716646814 DTD 09.12.2023. ALL TERMS AND CONDITIONS AS PER AFOREMENTIONED CONTRACT.

PAYMENT TERMS - 80 % AGAINST GRN AND 20 % ON SUCCESSFUL INSTALLATION & COMMISSIONING CERTIFICATE FROM TE-ELECTRICAL.

PREFERRED MAKE OF ACB AND OTHER SWITCHGEAR ITEMS SHALL BE READ AS :
L&T/GE/ABB/SIEMENS/SCHNIEDER ELECTRIC.

The vendor must submit detailed drawings of the items for our approval before manufacturing/ supplying the items.

Important Information of Bokaro Steel Plant :

Billing Address : AGM(PURCHASE /STORES A/CS),
SAIL/Bokaro Steel Plant, Bokaro Steel City - 827001, Jharkhand, India
PAN NO : AAACS7062F GST No : 20AAACS7062FAZJ

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

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INSPECTION PLAN

Inspection Plan No : 1

Inspection Plan Version : 00002

Stage Inspection Indigenous Text :

waived

PreDispatch Inspection Indigenous Text :

waived

PreDispatch Inspection Import Text :

waived

Final Receipt Inspection Text :

RECEIPT INSPECTION

1. VISUAL INSPECTION

2. VERIFIATION OF DOCS

QAP and Documents to be Submitted :

Documents to be submitted:

1.GC

Inspection Other Text:

1. BSL RESERVES THE RIGHT TO CONDUCT INSPECTION AT ANY STAGE PRIORTO DESPATCH OR AFTER RECEIPT INCLUDING TESTING OF MATERIALS IRRESPECTIVE OF INSPECTION CLAUSE GIVEN IN THE PO.
2. ALL TEST REPORTS / DOCUMENTS MENTIONED IN PO HAVE TO BE SUBMITTED IN ADDITION TO THE DOCUMENTS MENTIONED IN INSPECTION PLAN ALONG WITH THE MATERIAL OR WHENEVER ASKED FOR.
3. CLEAR, VISIBLE IDENTIFICATION MARK (IM) OF THE SUPPLIER / MANUFACTURER HAS TO BE GIVEN ON THE MATERIAL AND IT HAS TO BE ENCIRCLED, FAILING WHICH THE MATERIAL MAY BE REJECTED. THE DETAILS OF THE "IM" <(>&<)> ITS LOCATION ON THE MATERIAL HAS TO BE CLEARLY MENTIONED IN THE INVOICE / CHALLAN / PACKING LIST.

General Text :

GST related Terms & Conditions:

1. Vendor/Supplier/Contractor is required to pass on the benefit arising out of introduction of GST, including seamless flow of Input Tax Credit, reduction in Tax Rate on inputs as well as final goods by way of reduction of price. Accordingly, for supplies made under GST, the Vendor/Supplier/Contractor should confirm that benefit of lower costs has been passed on to SAIL-BSL by way of lower prices/taxes and also provide details of the same - as applicable. SAIL-BSL reserves the right to examine such details about costs of inputs/input services of the Vendor/Supplier/Contractor to ensure that the intended benefits of GST have been passed on to SAIL-BSL.
2. Vendor/Supplier/Contractor shall avail and pass on the benefits and concessions provided in the transitional provisions of the Goods and Services Tax Law with respect to the supplies.
3. Vendor/Supplier/Contractor shall avail the most beneficial notifications, abatements, exemptions etc., if any, as applicable for the supplies under the Goods and Service Tax.
4. For the purpose of the above mentioned requirements, the Vendor shall provide necessary documents as may be necessary and shall allow inspection of the same to SAIL-BSL.
5. For the purpose of contracts/agreement having prices inclusive of taxes & duties, it is agreed between the parties that if there are any new taxes, duties or levies including but not limited to proposed Goods and Service Tax introduced during the tenure of this contract/agreement by the Central/State Government & Local Authorities, and such new taxes, duties or levies become payable then an equitable adjustment on account of increase/decrease in the net amount of such duties, taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/input/capital goods) in the contract sum shall be made which shall be subject to the production of documentary proof by the Vendor/Supplier/Contractor. Vendor/Supplier/Contractor agrees to do all things not limited to providing GST invoices or other documentation as per GST law relating to the above supply, payment of taxes, timely filing of valid statutory returns for the tax period and on the Goods and Service Tax Portal etc. that may be necessary to match the invoice on GSTN common portal and enable SAIL-BSL to claim input tax credit in relation to any ST payable under this Agreement or in respect of any supply under this Agreement. Vendor/Supplier/Contractor shall maintain high GST compliance rating track record at any given point of time.

Mandatory instructions for delivery of goods by vendors :

1. Copy of Invoice duly pasted on the parcel with details like SAP PO number, Invoice no and Invoice date, material and

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



GeM Purchase Order

(Domestic)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PO No: P32 / 1010070840 / 4510081729

PO DATE: 09.12.2023

No. of Items: 1

AMENDMENT NO: 1

AMENDMENT DATE : 03.10.2024

it's quantity clearly legible on the document. Without this information, parcel shall not be accepted.

2. Arrangement for delivery of goods to be made by the vendor as per route card given to vendor at the time of Gate Entry.

For SAIL/Bokaro Steel Plant

RANCHAK KUMAR PANDEY



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

PO DATE: 21.09.2024

No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

To:

MIRZAPUR ELECTRICAL INDUSTRIES LTD.
DANKEENGANJ

MIRZAPUR- 231001
Uttar Pradesh, India
Ph.-05442221784

Copy To :

Ship To Address

DEPUTY GENERAL MANAGER (STORES)
STORES DEPARTMENT,
STEEL GATE, GATE NO 9, BOKARO STEEL PLANT,
BOKARO STEEL CITY, JHARKHAND, INDIA - 827001

Reference of Quotation

RFQ No.-

Reference Of Contract :
Contract Date. :

Pur Grp / File:
P35 /

Contact Person:
RAJIV GAUTAM

Mob:

Phone:

Email:

PO Value: 68.640.000,00

Currency: INR (Indian Rupee)

PO Value Text: Rupee SIXTY-EIGHT MILLION SIX HUNDRED FORTY THOUSAND

Dear Sir,

Please arrange to supply the material detailed below in accordance with your offer, subject to the terms and conditions, instructions specified here in read along with general conditions of contract SAIL/P1.

Important: Timely delivery is essence of the contract.

Terms and Conditions

Foreign Curr. Pay Value : INR 68640000
Price Term : Fixed
Payment Term : GR 90% ; Performance Certificate 10%
Incoterm : FBS BSL STORE, BS CITY
Load Port :
Discharge Port in India :
Country of Origin :
Unloading Responsibility : N/A
Pre Shipment :
Part Shipment :
Trans Shipment :
Transport arranged by : VENDOR
LD Applicability : YES
LD Period Steps : 7-Days
LD Period Percentage : 0.50%
LD Ceiling : 10.00%

Inspection Handled by : PDI-BSL Third Party & FRI at BSL
Inspection Place : AT FIRMS PREMISES
Security Deposit Amount : 0,00
SD Validity up to :
Insurance Term : ARRANGED BY VENDOR
PBG Amount : 0,00
PBG Validity up to :
Ultimate Consignee: Deputy General Manager (Store),
SAIL/BOKARO Steel Plant,
Bokaro Steel City - 827001,
Jharkhand, INDIA.
Consignee at port: Assistant General Manager (S & T),
SAIL/Bokaro Steel Plant,
SAIL House, 50, Chowringhee Road,
Kolkata-700071.
West Bengal. INDIA.
Phone : +913322832833

Document to be submitted along with material supply:

WARRANTY CERTIFICATE
GUARANTEE/WARRANTY CERTIFICATE
MANUFACTURER TEST CERTIFICATE

Document to be submitted along with bill of payment:

Other Charges:

Not Applicable

Invoicing Party / Payment to be made to-

Your Vendor Code with us : 1000070066

ANNEXURE:

General Terms and conditions.
Inspection Plan

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

PO DATE: 21.09.2024

No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

| ItemSl | Material | Quantity | Unit | Basic Rate | Curr | Discount | Net Value |
|--------|----------------|----------|------|------------|------|----------|-------------|
| 10 | 88999900000950 | 60.000 | EACH | 1144000.00 | INR | 0.00 | 68640000.00 |

Material Description : 800KVA Distribution Transformer
Delivery Quantity : 60,000 BY Date : 17.09.2025
Vendor Material Number :

Terms and Conditions (Item):

Inspection Plan Version : 00002

Material Specification:

TYPE#####:Outdoor plinth mounted
type, step down type
PHASE#####:3 phase
VOLTAGE,INPUT#####:11 KV (unearthed)
VOLTAGE,OUTPUT#####:433 V
POWER, RATED#####:800 KVA
FREQUENCY#####:50 HZ +/- 5%
ENERGY EFFICIENCY LEVEL#####:Level # 1 specified in
IS 1180 (part-1):2014
AMENDMENT NO. 4, 2021.
FLUCTUATIONS IN SUPPLY VOLTAGE#####:As Per IS
MAXIMUM SYSTEM VOLTAGE (HV SIDE)#####:12 KV
MAXIMUM SYSTEM VOLTAGE (LV SIDE)#####:476 V
INSULATION LEVEL#####:1.2/50µsec
IMPULSE WITHSTAND#####:75 KV peak
POWER FREQUENCY#####:1 min.
WITHSTAND (WET & DRY)#####:28KV RMS(HV side) ; 3KV
RMS(LV side)
OVER VOLTAGE OPERATING CAPABILITY AND DURATION#####:As per IS
TYPE OF COOLING#####:ONAN
NEUTRAL EARTHING#####:Solidly earthed
OPERATING TEMPERATURE#####:5°C to 55°C
TOP OIL TEMPERATURE#####:Shall not exceed 40
degree celcius.
WINDING TEMPERATURE#####:Shall not exceed 45 degree
celcius
INSULATION CLASS#####:Class A
PERCENTAGE IMPEDANCE#####:5 % as per is 2026 and latest
amendments there of
HV TAPPING RANGE (OFF-CIRCUIT)#####:5% to -10% of HV in steps of
2.5 percent in 6 steps , 7 positions
VECTOR GROUP#####:DYN-11 (delta, star
neutral brought out)
AUDIBLE SOUND LEVEL#####:58 db
MAXIMUM FLUX DENSITY IN ANY PART#####:1.9 Tesla

TECHNICAL SPECIFICATIONS FOR DIFFERENT PARTS OF THE TRANSFORMER:-

a.#CORE MATERIAL#:#The core shall be stack / wound type of high
grade cold rolled grain oriented annealed steel lamination having low
loss and good grain properties, coated with hot oil proof insulation,
bolted together and to the frames firmly to prevent vibration or noise.
The transformers core shall be suitable for over fluxing (due to
combined effect of voltage and frequency) up to 12.5% without injurious
heating at full load conditions and shall not get saturated. No-load
current shall not exceed 3% of full load current.
b.#INSULATING MATERIAL#:#Insulating materials shall comply with
these standards: - IS # 9335/IEC 554, is # 1576/IEC641. All spacers,
axial wedges / runners used in windings shall be made of pre compressed
pressboard-solid, conforming to type b 3.1 of IEC 641-3-2. In case of
cross-over coil winding of HV all spacers shall be properly sheared and
dovetail punched to ensure proper locking. All axial wedges / runners
shall be properly milled to dovetail shape so that they pass through the
designed spacers freely. Insulation shearing, cutting, milling and
punching operations shall be carried out in such a way, that there
should not be any burr and dimensional variations. Electrical grade
insulation epoxy dotted kraft paper/nomex and pressboard of standard
make or any other superior material subject to approval of the purchaser
shall be used.
c.#WINDINGS#:#Materials:- HV and LV windings shall be

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
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PONO: 4510087373

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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

wound from super enamel covered/ double paper covered copper conductor.

Joints in the winding shall be avoided. However, if jointing is necessary the Joints shall be properly brazed and the resistance of the joints shall be less than that of parent conductor. Current density for HV and LV winding should not be more than 2.8 ampere per sq mm. LV winding shall be such that neutral formation will be at top. Inter layer insulation shall be nomex /epoxy dotted kraft paper. Proper bonding of inter layer insulation with the conductor shall be ensured. Test for bonding strength shall be conducted. Dimensions of winding coils are very critical. Dimensional tolerances for winding coils shall be within limits as specified in guaranteed technical particulars. The core/coil assembly shall be securely held in position to avoid any movement under short circuit conditions.

d.#TAPS#:#Tapping shall be provided on the higher voltage winding for variation of HV voltage within range of (-) 5.0 % to 10% in steps of 2.5%. Tap changing shall be carried out by means of an externally operated self-position switch and when the transformer is in de-energised condition. Switch position no.1 shall correspond to the maximum plus tapping. Each tap change shall result in variation of 2.5% in voltage. Arrangement for pad locking shall be provided.

e.#TANK#:#The transformer tank shall be of robust construction corrugated in shape. The tank shall further be capable of withstanding a Pressure of 0.8 kg/ sq.cm (G) and a vacuum of 0.7 kg/sq.cm (G) without any deformation. The radiators can be tube type or fin type or pressed Steel type. Transformer tank construction shall conform in all respect to clause 15 of IS 1180(part-1):2014. The internal clearance of tank shall be such, that it shall facilitate easy lifting of core with coils from the tank without dismantling LV bushings. All joints of tank and fittings shall be oil tight and no bulging should occur during service. Inside of tank shall be painted with varnish/hot oil resistant paint. The top cover of the tank shall be slightly sloping to drain rain water. The tank plate and the lifting lugs shall be of such strength that the complete transformer filled with oil may be lifted by means of lifting shackle/hook type. Manufacturer should carry out all welding operations as per the relevant ASME standards and submit a copy of the welding procedure and welder performance qualification certificates to the customer.

f.#BUSHINGS#:#The bushings shall be fixed to the transformers on side with straight pockets and in the same plane or the top cover. Arcing horns shall be provided on the HV side. Bushing materials shall be as per IS 2099, IS 3347. Dimensions of the bushings of the voltage Class shall conform to the standards specified and dimension of clamping. Arrangement shall be as per IS 4257. The bushings shall conform to the relevant standards specified and shall be of outdoor type. The bushing rods and nuts shall be made of brass/copper material as IS 3347-part- 1 sec2. Bushings can be of porcelain/epoxy material. Dimensions of the bushings of the voltage class shall conform to the standards specified.

g.#TERMINAL CONNECTORS #:#The LV and HV bushing stems shall be provided with suitable terminal connectors and cable boxes as per IS 5082.

h.#TERMINAL MARKINGS#:#High voltage phase windings shall be marked both in the terminal boards inside the tank and on the outside with capital letter 1u, 1v, 1w and low voltage winding for the same phase marked by corresponding small letter 2u, 2v, 2w. The neutral point terminal shall be indicated by the letter 2n.

28.#OIL#:#The insulation oil shall comply with the requirements of IS 335 or BS 148. Oil shall be filtered and tested for break down Voltage (BDV) and moisture content before filling. The oil shall be filled under vacuum. The design and all materials and processes used in the manufacture of the transformer, shall be such as to reduce to a minimum the risk of the development of acidity in the oil.

INSPECTION AND TESTING OF TRANSFORMER OIL#:#To ascertain the quality of the transformer oil, the original manufacturer's tests report should be submitted at the time of inspection. Arrangements should also be made for testing of transformer oil as per IS: 335 , after taking out the sample from the manufactured transformers and tested in the presence of purchaser's representative.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Bokaro Steel Plant
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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

To ensure about the quality of transformers, the inspection shall be carried out by the purchaser's representative at following two stages:-
##Anytime during receipt of raw material and manufacture/assembly whenever the purchaser desires.
##At finished stage i.e. transformers are fully assembled and are ready for dispatch.
After the main raw-material i.e. core and coil material and tanks are arranged and transformers are taken for production on shop floor and a few assembly have been completed, the firm shall intimate the purchaser in this regard, so that an officer for carrying out such inspection could be deputed, as far as possible within seven days from the date of intimation. During the stage inspection a few assembled core shall be dismantled to ensure that the laminations used are of good quality. Further, as and when the transformers are ready for dispatch, an offer intimating about the readiness of transformers, for final inspection for carrying out tests as per relevant IS shall be sent by the firm along with Routine Test Certificates. The inspection shall normally be arranged by the purchaser at the earliest after receipt of offer for pre-delivery inspection.
In case of any defect/defective workmanship observed at any stage by the purchaser's Inspecting Officer, the same shall be pointed out to the firm in writing for taking remedial measures. Further processing should only be done after clearance from the Inspecting officer/ purchaser. All tests and inspection shall be carried out at the place of manufacture unless otherwise specifically agreed upon by the manufacturer and purchaser at the time of purchase.
The manufacturer shall provide all services to establish and maintain quality of workmanship in his works and that of his sub-contractors to ensure the mechanical /electrical performance of components, compliance with drawings, identification and acceptability of all materials, parts and equipment as per latest quality standards of ISO 9000. Purchaser shall have every right to appoint a third party inspection to carry out the inspection process.
CONSERVATOR#:#The conservator shall be provided on Transformers. When a conservator is provided, oil gauge and the plain or dehydrating breathing device shall be fitted to the conservator which shall also be provided with a drain plug and a filling hole [32 mm (1¼")] normal size thread with cover. In addition, the cover of the main Tank shall be provided with an air release plug. Volume of breather Shall be suitable for 1 kg of silica gel.
The capacity of a conservator tank shall be designed keeping in view the total quantity of oil and its contraction and expansion due to temperature variations. The total volume of conservator shall be such as to contain 10% quantity of the oil. Normally 3% quantity the oil shall be contained in the conservator.
The cover of main tank shall be provided with an air release plug to enable air trapped within to be released, unless the conservator is so located as to eliminate the possibility of air being trapped within the main tank.
The inside diameter of the pipe connecting the conservator to the main tank should be within 20 to 50 mm and it should be projected into the conservator so that its end is approximately 20 mm above the bottom of the conservator so as to create a sump for collection of impurities. The minimum oil level (corresponding to -5 Degree C) should be above the sump level.
31.#BUCCHOLZ RELAY#:#A double float buchholz relay shall be provided between main tank and conservator.
32.#MINIMUM PHASE TO PHASE AND PHASE TO EARTH CLEARANCE OF BUSHING TERMINALS :#Bushing terminal ##phase to phase#
#phase to earth
HV side####255 mm##140 mm
LV side####75 mm##40 mm
33.#OVERLOAD CAPACITY#: The transformers shall be suitable for loading as per IS 6600.
34.#SURFACE PREPARATION AND PAINTING#: After all machining, forming and welding has been completed, all steel work surfaces shall be thoroughly cleaned of rust, scale, welding slag or spatter and other

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

contamination prior to any painting. After that all parts shall be given suitable anti-corrosion protection coating. Painting shall be done as per IS 5 and IS 104. All paints, when applied in a normal full coat, shall be free from runs, sags, wrinkles, patchiness, brush marks or other defects.

35.#PAINT MATERIAL#:#Heat resistant paint (hot oil proof) for inside surface

For external surfaces one coat of thermo setting powder paint or one coat of epoxy primer followed by two coats of polyurethane base paint. These paints can be either air drying or stoving.

The colour of the finishing coats shall be dark admiral gray conforming to no.632 of IS 5 of 1961 colours for ready mixed paints.

36.#PAINTING PROCEDURE#:#All prepared steel surfaces should be primed before visible re-rusting occurs or within 4 hours, whichever is sooner. Chemical treated steel surfaces shall be primed as soon as the surface is dry and while the surface is still warm. Where the quality of film is impaired by excess film thickness (wrinkling, mud cracking or general softness) the supplier shall remove the unsatisfactory paint coating and apply another coating. As a general rule, dry film thickness should not exceed the specified minimum dry film thickness by more than 100%.

37.#TERMINAL MARKINGS#:#Terminal marking shall be done as per relevant IS Standards

38.#LOSSES#:#Losses shall not exceed 2287 W at 50% loading and 6402 W at 100% loading. No positive tolerance shall be allowed on the maximum losses.

39.#FITTINGS#:

1.#Oil filter valve: 2 nos air tight

2.#Drain off valves: 2 nos

3.#Oil conservator: with drain valve and fitting pole with cap

4.#Thermometer:2 nos with stem type with slot

5.#Dial type thermometer for oil temperature 144 mm with maximum Reading

6.#Pointer and alarm and trip contacts

7.#Magnetic oil level gauge with low oil level alarm contacts

8.#Silica gel dehydrating breather with oil seal and connecting pipe

9.#Explosion vent single diaphragm of standard design

10.#Air release plug one top cover of standard design

11.#Rating and diagram plate standard size

12.#Rollers:4 nos plain bi-directional roller for longitudinal and Transverse motion

13.#Lifting hooks as required

14.#Radiator cooling tubes one detachable

15.#Main connection:11 KV side bending type and connection with overhead ACSR conductor & 1.1 KV Aluminium armoured cable of size upto 300sq. mm on LV side.

16.#neutral busing one no

17.#Rating and terminal marking plates, non-detachable.

18.#Earthing terminals with lugs - 2 nos.

19.#2 no-lifting lugs for main tank and top cover

20.#Terminal connectors on the HV/LV bushings.

21.#HV bushings - 3 nos.

22.#LV bushings - 4 nos.

23.#Pulling lugs

24.#Stiffener

25.#Arcing horns for HV bushings

26.#Prismatic oil level gauge.

27.#One filter valve on upper side of the transformer

28.#Oil filling hole having p. 1- 1/4 " thread with plug and drain plug on the conservator.

29.#Pressure relief device or explosion vent.

30.#Oil level gauge

31.#-5 #C, 30 #C and 90#C marking

32.#Bucholtz relay.

FASTENERS#:#All bolts, studs, screw threads, pipe threads, bolt heads and nuts shall comply with the appropriate Indian standards for metric threads, or the technical equivalent.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

Bolts or studs shall not be less than 6 mm in diameter except when used for small wiring terminals.

All nuts and pins shall be adequately locked.

Wherever possible bolts shall be fitted in such a manner that in the event of failure of locking resulting in the nuts working loose and falling off, the bolt will remain in position.

All bolts/nuts/washers exposed to atmosphere should be as follows.

A)#size 12 mm or below # stainless steel

B)#Above 12 mm- steel with suitable finish like electro galvanized with passivation or hot dip galvanized.

Each bolt or stud shall project at least one thread but not more than three threads through the nut, except when otherwise approved for terminal board studs or relay stems. If bolts and nuts are placed so that they are inaccessible by means of ordinary spanners, special spanners shall be provided.

The length of the screwed portion of the bolts shall be such that no screw thread may form part of a shear plane between members. Taper washers shall be provided where necessary. Protective washers of suitable material shall be provided front and back of the securing screws.

TESTS#:#All the test certificates shall be submitted for supplied 800KVA transformers. The test certificates for all routine and type tests for the transformers and also for the bushings and transformer oil shall be submitted after the receipt of order.

The procedure for testing shall be in accordance with IS 1180 (part-1): 2014 /2026 as the case may be. The Bidder must have his own NABL accredited laboratory for all types of testing of the transformer or the transformer may be tested at NABL accredited laboratory without any financial liability to the purchaser in the event of order placed on him.

a. TYPE TESTS AS PER IS 1180 (Part 3) : 2021#:#The bidder must supply a transformer that has undergone type testing as per IS 1180 (Pt 1)/3/April 2021 standards. The bidder will conduct these tests at their own expense in an NABL accredited laboratory. The bidder is responsible for all costs of type testing and should notify the Purchaser before conducting the tests. Purchaser reserves the right to visit and witness the type tests.

b. ROUTINE TESTS#:#Before dispatch each of the completely assembled transformers shall be subjected to the routine tests at NABL accredited lab. Bidder shall intimate the Purchaser before carrying out these tests. Tests shall be as per IS 1180 (Pt 1)/ 3/ April 2021

c. SPECIAL TESTS#:#Before dispatch one no of transformer shall be subjected to these tests at NABL accredited lab. Tests shall be as per IS 1180 (Pt 1)/ 3/ April 2021.

##

PRE-DISPATCH#INSPECTION#The pre-dispatch inspection should be conducted during fabrication and testing, and it should be carried out by third-party inspecting agency M/s Rites. If M/s Rites is unavailable, the inspecting agency will be decided through discussion between the bidder and BSL. The cost of the inspection shall be borne by bidder.

ACCEPTANCE TESTS#:#At least 10% transformers of the offered lot (minimum of one) shall be subjected to the following routine/ acceptance test in presence of purchaser's representative at the place of manufacture before dispatch without any extra charges. The testing shall be carried out in accordance with relevant IS. Checking of weights, dimensions, fitting and accessories, tank sheet thickness, oil quality, material, finish and workmanship as per GTP and contract drawings on one transformer in every inspection.

Physical verification of core coil assembly and measurement of flux density of one unit of each rating, in every inspection with reference to short circuit test report.

Guarantee:

a. The manufacturers of the transformer shall provide a guarantee of 24 months from the date of receipt of transformer at the stores of the TE Department. All the parts of the machines should be covered during warranty period i.e. 02 (Two) years from receipt of transformer at the stores of the TE Department. All the cost of new components and parts required to be replaced or installed during warranty period shall be

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

borne by the Bidder.#
b .In case the transformer fails within the guarantee period the transformer will be replaced/ repaired by the supplier within 45 days from date of intimation of the failure. The cost incurred in repair/replacement including transporting charges etc will be borne by supplier.#
c.The outage period i.e. period from the date of intimation of failure till unit is repaired/ replaced shall not be counted for arriving at the guarantee period.#
d. In the event of the supplier's inability to adhere to the aforesaid provisions, suitable penal action will be taken against the supplier which may include blacklisting of the firm for future business with the purchaser for a certain period.#

STANDARDS: The offered transformers shall comply to the following standards or its latest amendment/revision.

S.N#Indian Standards###Title##
#International Standards
1.#IS -2026##Specification for Power Transformers#
###IEC 76
2.#IS 1180 # (Pt##Outdoor Type Oil Immersed Distribution Transformers
1)/ 3/ April 2021#upto and including 2500kVA, 33kV-Specification#
3.#IS 12444#Specification for Copper wire rod###
#ASTM B-49
4.#IS-335##Specification for Transformer/Mineral Oil##
#IEC PUB 296
5.#IS-5##Specification for colors for ready mixed paints#
6.#IS -104##Ready mixed paint, brushing zinc chromate, priming#
7.#IS-2099##Specification for high voltage porcelain bushing#
8.#IS-649##Testing for steel sheets and strips and magnetic circuits#
9.#IS- 3024##Cold rolled grain oriented electrical sheets and strips#
10.#IS-3401##Silica Gel#
11.#IS - 4257#Dimensions for clamping arrangements for bushings #
12.#IS - 7421#Specification for Low Voltage bushings#
13.#IS - 3347#Specification for Outdoor Bushings###
#DIN 42531 to 33
14.#IS - 5484#Specification for Al Wire rods###
##ASTM B - 233
15.#IS - 9335#Specification for Insulating Kraft Paper##
##IEC 554
16.#IS - 1576#Specification for Insulating Press Board##
##IEC 641
17.#IS - 6600#Guide for loading of oil Immersed Transformers#
##IEC 76
18.#IS - 2362#Determination of water content in oil for porcelain bushing of transformer#
19.#IS 191, IS1897, #IS 7404,IS 13730#Copper Conductor
20.#IS - 5561#Electrical power connector#
21.#IS - 6103#Testing of specific resistance of electrical insulating liquids#
22.#IS - 6262#Method of test for power factor and dielectric constant of electrical insulating liquids

23.#IS - 6792#Determination of electrical strength of insulating oil#

PLEASE NOTE:

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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

Other Terms and Condition Applicable To all Items

HEADER TEXT :

ALL the terms and conditions are as per terms and conditions mentioned in GEM specification.

This is a covering PO of GEM contract no. GEM/511687796419485 dtd. 18.09.2024.

* Payment Terms: 90% of payment will be paid against GRN and balance 10

% will be paid after completion of warranty period.

Note:

i. Delivery of the transformers shall be staggered and commence within 4 months from the date of order placement. The entire delivery shall be completed within a maximum period of 12 months from the date of order placement. The transformers shall be supplied in four separate lots, with each lot consisting of

15 nos. of transformers. The Contractor shall ensure that each lot of transformers meets the required specifications and quality standards as stipulated as per GEM contract no. GEMC-511687796419485 dtd. 18.09.2024

ii. Payment Terms: 90% of payment will be paid against GRN and balance 10 % will be paid after completion of warranty period.

iii. Warranty: All the parts of machine should be covered during warranty period i.e 02 (two) years from the receipt of transformers at the store of user deptt.

1. GENERAL INSTRUCTION

a. The specification shall be read in conjunction with the "General Conditions of the Contract" of the Purchaser and other tender documents.

b. The Purchaser reserves the right to increase cancel any or all the tendered items without assigning any reason.

c. Tender furnished with incomplete information shall be liable for rejection.

d. It shall be presumed that the tenderer has gone through the technical specification carefully and is fully aware of his scope of supply, which shall strictly conform to this specification. Unless specifically mentioned by the tenderers, it shall be presumed that the offered transformers and accessories shall have no deviations from this specification

e. The tenderers shall furnish complete details and technical description of the quoted Transformers and their accessories in their offer and shall point wise confirm/comment on all the clauses of the Technical Specification and each specification/ feature shall be corroborated with the clause/page of bidder's product data sheet.

f. The components shall be designed, assembled and tested in accordance with the latest IS/IPSS/Bureau of Indian Standards, wherever applicable. In case suitable IS are not available, the equipment shall conform to generally accepted codes and practices to ensure excellent workmanship, sufficient strength, longevity and reliable and safe functioning.

g. All electrical equipment/components parts shall also conform to the latest Indian Electricity Regulations as regards safety, earthing and other provisions specified.

h. All name plates, instructions, manuals and documents shall be in English language and all weights and dimensions shall be in metric units.

2. SCOPE OF WORK

a. This scope of work covers design, engineering, manufacture, assembly, inspection and testing before supply, packaging & forwarding, freight & insurance & delivery at store of TE electrical, of 800KVA distribution transformers for outdoor use.

b. The equipment shall conform in all respects to high standards of engineering, design and workmanship and shall be capable of performing in continuous commercial operation, in a manner acceptable to the purchaser.

c. The offered equipment shall be complete with all components necessary for their effective and trouble free operation. Such components shall be deemed to be within the scope of bidder's supply irrespective of whether those are specifically brought out in this specification and / or the commercial order or not.

d. The transformer and accessories shall be designed to facilitate operation, inspection, maintenance and repairs. The design shall incorporate every precaution and provision for the safety of equipment as well as staff engaged in operation and maintenance of equipment.

e. All outdoor apparatus, including bushing insulators with their mountings, shall be designed so as to avoid any accumulation of water.

f. Transformers shall be supplied along with the supply of the following.

a) All standard accessories/fittings for use on transformers at Annexure II

b) Special tools for maintenance of transformers i.e. 2 sets each of spanner set with torque wrench & digital Megger 2.5KV with each lot (one lot comprising of 15 nos. of transformers) of FLUKE/METRAVI/KAKKU/WACO make.

g. Manufacturer has to emboss his company monogram and the word "BOKARO STEEL PLANT," (2 Inches size) on side sheet of the Tank.

h. The following information shall also be embossed on a separate MS sheet of thickness 2mm and firmly welded (No Tack welding) on one side of the transformer. The size of the word is of 1" inch.

a. P.O. No. & Date,

b. Year of manufacture

c. Make and Serial No.

d. Two years Guarantee period.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

PO DATE: 21.09.2024

No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

i. Bidder shall have valid IS 1180(Part-1)/2014 at the time of tendering. Relevant document supporting the same to be submitted along with the bid.

j. Bidder shall submit Type tests report from NABL or NABL accredit laboratory on any 800 KVA or above Transformer of OEM along with the bid. Tests shall be as per IS 1180 (Pt 1)/ 3/ April 2021.

k. BIS Standard mark: As per the Gazette of India published on 7th May of 2015 sample of any electrical transformer should bear the standard mark obtained from Bureau of Indian Standards. Expenses incurred towards BIS Standard Mark are solely on the account of suppliers only. The certificate issued by BIS for Standard Mark shall be submitted.

3. DRAWINGS & DOCUMENTS:

The successful tenderer shall submit three (03) sets of the following drgs/documents in hard copy as well as in soft copy along with the delivery of the equipment.

a. Dimensional drawings of the items offered indicating all the fittings.

b. Dimensional tolerances.

c. Weight of individual components and total weight.

d. An outline drawing front (both primary and secondary sides) and end-elevation and plan of the tank and terminal gear, wherein the principal dimensions shall be given.

e. Typical general arrangement drawings of the windings with the details of the insulation at each point and core construction of transformer.

f. Typical general arrangement drawing showing both primary and secondary sides and end- elevation and plan of the transformer.

g. Data Sheets, User and Service Manuals in English

h. Maintenance manuals to be supplied in English/Hindi language.

i. Type tests reports on 800 KVA Transformer supplied as per IS 1180 (Pt 1)/ 3/ April 2021.

j. List to be provided of important spares and accessories, with their part numbers and cost.

k. Contact details of manufacturer, supplier and local service agent to be provided

l. List of replaceable spares and consumables with quantity and frequency of replacement, if not covered in the user manual.

m. Any drawing/documents/catalogue/Manual/Calculation, if felt necessary by tenderer for efficient operation and maintenance of the equipments.

4. PACKING AND FORWARDING :

a. The packing shall be done as per the manufacturer's standard practice. However, it should be ensured that the packing is such that, the material would not get damaged during transit by Rail / Road / Sea.

b. The marking on each package shall be as per the relevant IS.

5 Warranty: All the parts of machine should be covered during warranty period i.e 02 (two) years from the receipt of transformers at the store of TE Electrical.

6. Payment Terms: 90% of payment will be paid against GRN and balance 10 % will be paid after completion of warranty period.

7. Completion Schedule: Delivery of the transformers shall be staggered and commence within 4 months from the date of order placement. The entire delivery shall be completed within a maximum period of 12 months from the aforementioned order placement date. The transformers shall be supplied in four separate lots, with each lot consisting of 15 transformers. The Contractor shall ensure that each lot of transformers meets the required specifications and quality standards as stipulated in the agreement.

8. After Sales Service Support:

a. Spare parts should remain available for atleast 10 years from the date of supply.

b. Service support must be provided for at least 10 years from the date of supply.

9. PRE-DISPATCH INSPECTION :

The pre-dispatch inspection should be conducted during fabrication and testing, and it should be carried out by third-party inspecting agency M/s Rites. If M/s Rites is unavailable, the inspecting agency will be decided through discussion between the bidder and BSL. The cost of the inspection shall be borne by bidder.

10. Guarantee:

a. The manufacturers of the transformer shall provide a guarantee of 24 months from the date of receipt of transformer at the stores of the TE Department. All the parts of the machines should be covered during warranty period i.e. 02 (Two) years from receipt of transformer at the stores of the TE Department. All the cost of new components and parts required to be replaced or installed during warranty period shall be borne by the Bidder.

b. In case the transformer fails within the guarantee period the transformer will be replaced/ repaired by the supplier within 45 days from date of intimation of the failure. The cost incurred in repair/replacement including transporting charges etc will be borne by supplier.

c. The outage period i.e. period from the date of intimation of failure till unit is repaired/ replaced shall not be counted for arriving at the guarantee period.

d. In the event of the supplier's inability to adhere to the aforesaid provisions, suitable penal action will be taken against the supplier which may include blacklisting of the firm for future business with the purchaser for a certain period.

11. GUARANTEED TECHNICAL & OTHER PARTICULARS FOR DISTRIBUTION TRANSFORMERS (TO BE FILLED IN BY BIDDER)(ANNEXURE-I)

Sl. No. Description

1 Make & Manufacturer

2 Place of Manufacture

3 Voltage Ratio

4 Rating in KVA

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

PO DATE: 21.09.2024

No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

1. Core Details:

- 1 Core Grade
- 2 Thickness of core plates
- 3 Flux density (Max) - TESLA
- 4 Over fluxing without saturation
- 5 Core Details.
 - 1) No. of Core steps.
 - 2) Max. width of first step lamination.
 - 3) Stacking factor
 - 4) Core building factor.
- 6 Core diameter - cm
- 7 Gross Core area - cm
- 8 Net Core area - cm
- 9 Wt. Core - Kg.
- 10 Loss per Kg. of core at the specified Flux Density- Watts/kg
- 11 Core loss in watts

- a) Normal Voltage b) Maximum Voltage
- 12 Power factor magnetizing current (lag max)
- 13 Magnetizing (No load) current at

a) Normal Voltage

b) Maximum Voltage

- 14 Core window height - mm
- 15 Center to center distance of the core - mm
- 16 Maximum temperature rise of Core by Thermometer

2. Winding Details

- 1 Maximum temperature rise of Windings by resistance method
- 2 Winding material : LV & HV
- 3 Resistance of windings at 20 Deg. C (with 5% tolerance for LV)
- a) HV Winding (ohms), b) LV winding (ohms)

4 No. of LV Turns

5 No. of HV Turns

6 Size of LV conductor bare/covered - mm

7 Rounding Factor for LV

8 No. of parallels

9 Area of LV cross section (sq.mm) - sq.mm

10 Size of HV conductor bare/covered - mm

11 Area of HV cross section (sq.mm) - sq.mm

12 Current density of LV winding - Amp/sq.mm

13 Current density of HV winding - Amp/sq.mm

14 Wt. Of the HV winding for transformers - Kg.

15 Wt. Of the LV winding for transformers - Kg.

16 No. of LV Coils/Phase

17 No. of HV Coils/Phase

18 ID/OD of LV winding - mm

19 ID/OD of HV winding - mm

20 Height of LV winding - mm

21 Height of HV winding - mm

22 Axial height of HV coil - mm

23 Axial height of LV coil - mm

24 Radial depth of LV coil - mm

25 Radial depth of HV coil - mm

26 Full load current HV - Amps

27 Full load current LV - Amps

28 Full load losses (watts) at 75 De - Watts

29 Estimated stray losses - Watts

30 Estimated Breaker Losses - Watts

31 Total Losses(Full load losses+ stray losses+ Breaker Losses) - Watts

32 Calculated Impedance - %

33 Edge strip size on LV coil (top & Bottom) - mm

3. Clearances

- 1 Size of the duct in HV winding - mm
- 2 Size of the duct in LV winding - mm
- 3 Size of the duct between HV & LV - mm
- 4 HV winding to LV clearance - mm
- 5 HV winding to tank clearance - mm
- 6 HV to earth creepage distance - mm
- 7 LV to earth creepage distance - mm
- 8 Clearances (minimum) - mm

a) Core & LV

b) LV & HV

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

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Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

- c) HV Phase to phase
d) End insulation clearance to Earth
e) Any point of winding to tank
4.Heat Dissipation Calculations
1 Maximum temperature rise of Oil by Thermometer
2 Transformer (minimum)
1) Overall length x breadth x height
2) Tank length x breath x height
3) Height of Oil level in tank
4) Thickness of plates
a) Side walls (min.)
b) Top & bottom plate (min.)
3 Radiation:
1) Heat dissipation by tank walls exclusive top & bottom
2) Heat dissipation by cooling tube
3) Dia & thickness of cooling tube
4) Whether calculation sheet for selecting cooling area to ensure to ensure that the transformer is capable of giving continuous rated output without exceeding temperature rise & also transformer tank size is sufficient is enclosed.
5) Minimum free space available above oil level.
4 Weight content of
a) Core lamination (min.)
b) Windings (min.)
c) Tank & Fittings
d) Oil
e) Oil Qty in liters (min.)
f) Core channels, rods, bolts, etc
g) Insulation material inside tank.
h) Total Weight
5 Oil Data
1) Qty. for first filling (min.)
2) Grade of oil used
3) Maker's name
4) BDV at the time of filling
5.Efficiency,Regulation, and other particulars
1 Efficiency at 75 Deg. C
a) Unity P.F. &
b) 0.8 P.F.
125% load 100% load 75% load 50% load
25% load
2 Regulation at
a) Unity P.F.
b) 0.8 P.F at 75 Deg. C
3 Percentage Impedance at 75 Deg. C
4 Flash Test
HV 28 KV/50Hz for 1 minute
LV 3 KV/50 Hz for 1 minute
5 Over potential Test Double Voltage & Double frequency for 1 minute
6 Impulse test
7 Inter layer insulation provided in design for
1) Top & Bottom layer
2) In between all layer
3) Details of end insulation
4) Whether wedges are provided at 50% turn of the HV coil.
8 Insulation materials provided
a) For Conductors (1) HV (2) LV b) For Core
9 Is the name plate gives all particulars are required In tender
10 Particulars of Bushing HV/LV
1) Maker's name
2) Type IS-3347/IS-1180
3) Rating as per I.S.
4) Dry power frequency voltage withstand test
5) Wet power frequency voltage withstand test
11 Particulars of Lightning arrestor
12 Medium of free space above oil level Transformer

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
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No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

13 Details of type tests conducted (indicating rating,
Year of testing, details of tests)

NOTE: The following shall be specifically confirmed.

1. Whether the offer conforms to the limits of impedance mentioned in the specification
2. Whether the offer conforms to the limits of temperature rise mentioned in the specification
3. Whether the losses of the transformers offered are within the limits specified
4. Whether the transformer offered is already type tested for the design and test reports enclosed.
5. The tenderer shall furnish the design details of the core construction such as number of steps, thickness of core sheet, stacking factor, core building factor, core length, width stack height per step, core diameter, gross and net areas of core, etc. along with their offer with references to the full load and no load losses quoted and calculation sheets for heat dissipation calculation ,minimum available free space, oil quantity calculation

LIST OF FITTINGS AND PARTICULARS TO BE FURNISHED IN THE DRAWING (ANNEXURE-II)

1. Rating and terminal marking plate (non detachable)
 2. Earthing terminal with lugs 2 Nos.
 3. Lifting lugs 4 Nos. for main tank and 2Nos. for top cover
 4. pulling lugs 4Nos
 5. HV bushings 3Nos. with bimetallic terminal connector
 6. LV Bushings 4Nos. with bimetallic terminal connector
 7. Thermometer pocket with cap
 8. Arcing horns to be provided as per latest IS 1180 (Part-1) :2014.
 9. Stiffner angle (40x40x5mm)
 10. U shaped pressure relief vent with copper diaphragm / Bakelite sheet pressure relief vent on the top cover of the tank.
 11. Cooling tubes if required (length of the cooling tubes is to be furnished along with heat dissipation calculation)
 12. LV Epoxy bushings 4 Nos.
 13. Base channels : suitable size
 14. Tank and over all dimensions
 15. Two years guarantee embossed plate welded below name plate.
 16. Weights of (a) Core (b) windings (c) Tank and fitting (d) Weight Qty. of oil (e) over all weight
 17. Die cast oil level gauge indicating three positions of oil marked as minimum 5 degrees, 30degrees and maximum as 98 degrees.
- NOTE:
- a. The top cover shall be fitted with nut and bolt and continuous neoprene gasket arrangement.
 - b. Corner bolts are to be welded to prevent the top cover being removed in the field
 - c. All bolts shall have spring washers

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM



Purchase Order

(IMPORT)

Purchase Department
Materials Management Division
Bokaro Steel Plant
Bokaro Steel City-827001
Jharkhand, INDIA.

PONO: 4510087373

PO DATE: 21.09.2024

No. of Items: 1

AMENDMENT NO: 2

AMENDMENT DATE : 07.12.2024

INSPECTION PLAN

Inspection Plan Version : 00002

SI Indigenous Text waived

⋮

PDI Import Text waived

⋮

PDI Indigenous Text RECEIPT INSPECTION1. VISUAL INSPECTION2. VERIFIATION OF DOCS

⋮

Receipt Inspection Text : RECEIPT INSPECTION1. VISUAL INSPECTION2. VERIFIATION OF DOCS

Certificate Required Text Documents to be submitted:1.GC

⋮

Inspection Text6

⋮

1. BSL RESERVES THE RIGHT TO CONDUCT INSPECTION AT ANY STAGE
PRIORTODESPATCH OR AFTER RECEIPT INCLUDING TESTING OF MATERIALS
IRRESPECTIVE OFINSPECTION CLAUSE GIVEN IN THE PO.2. ALL TEST REPORTS /
DOCUMENTS MENTIONED IN PO HAVE TO BE SUBMITTED INADDITION T

Mandatory instructions for delivery of goods by vendor :

1. Copy of Invoice duly pasted on the parcel with details like SAP PO number, Invoice no and Invoice date, material and it's quantity clearly legible on the document. Without this information, parcel shall not be accepted.
2. Arrangement for delivery of goods to be made by the vendor as per route card given to vendor at the time of gate entry.

PLEASE NOTE:

For SAIL/Bokaro Steel Plant

RAJIV GAUTAM

Annexure R

Consumer Awareness Program

As per the direction of the Hon'ble Commission in the Tariff Order dated 22.06.2023, for better consumer service and timely redressal of consumer complaints, SAIL-BSL would like to conduct a quarterly Customer Interaction Meeting (CIM) for the redressal of consumer complaints at General Manager level at TA Electrical, Nagar Sewa Bhawan, Bokaro Steel City.

CIM is a consumer participatory. Here consumers can address their grievance. The same will be heard by the General Manager, TA Electrical. CIM proceedings will be recorded and photographed. Further, the Consumer will be issued with an acknowledgement indicating time to resolve the problem.

In CIM, once consumer registers complaint, complaint will be heard at the General Manager level. If the complaint is not addressed within the stipulated time by the concerned, the complaint will be escalated to next authority.

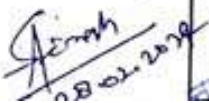
In case, if the consumer is not satisfied with the service, consumer can appeal to Consumer Grievance Redressal Forum (CGRF), which is a quasi judicial body. The appointment of CGRF-Chairman has already been initiated and upon taking charge the contact details would be published in the newspaper and SAIL-BSL TA website.

Following are the tentative list of activities but not limited to for the consumer awareness program:

1. Procedure for obtaining a new connection, disconnection, reconnection, change in load/name/tariff category.
2. Procedure for payment of electricity bills including the online mode.
3. Awareness on tariff schedule and Schedule of General Charges approved by the State Electricity Regulatory Commission.
4. Issues related to installation of meters/maintenance/replacement.
5. Standards of Performance including quality to be maintained and services to be provided by SAIL-BSL.
6. Complaint handling procedure and GrievanceRedressal Mechanism at CGRF.

Date and Venue of the CIM would be decided 2 weeks prior to such meeting based on the availability of the concerned officials and shall be intimated to the consumers via newspaper advertisement, notice board and SAIL-BSL TA website.




28.01.2024

साथ लिखें
(विद्युत)



SAIL/Bokaro Steel Plant
Project Division
ISO 9001:2015 Quality Management System

INVESTMENT PROPOSAL FORMAT FOR AMR SCHEMES

| | | |
|----|---|---|
| 1 | Name of Scheme | Procurement of aerial working platform for TA deptt of bokaro steel plant. |
| 2 | Department | T.A. |
| 3 | Section | Town Engineering Electrical |
| 4 | Total Estimated Cost (Cost Estimate signed by HOD to be placed) | 163.84 Lakhs |
| 5 | Basis of the estimate: (Copy of the basis of estimate to be enclosed. The basis of estimate must not be more than six months old) | Estimate is based on budgetary offer(L-1) Provided by M/S Liftmak Udyog. |
| 6 | Foreign exchange component of the estimated cost (in Rupees), if any. | NIL |
| 7 | Objective/ Purpose of scheme | It is a technical necessity, since it is an addition for maintaining arterial lights/electrical maintenance activities of BSL Township. |
| 8 | Category (Addition / Modification / Replacement) | Addition |
| 9 | Brief description of scheme justifying the proposal. | Hydraulic Access Platform vehicle which is necessary for maintaining arterial lights/electrical maintenance in BSL Township. |
| 10 | Indicate / enclose the basic Technical Specification required | Enclosed (Technical Specification). |
| 11 | No. of proposed equipment provided as per DPR | One. |
| 12 | No. of equipment available at present | Not Available. |
| 13 | Whether the proposed equipment shall work in all the three shifts or in "G" shift only. | G shifts. |
| 14 | Expected life of the Proposed equipment | Twenty (20) years on an average. |
| 15 | Pay Back Period | N.A. as it is only a technical necessity. |
| 16 | Any other techno-economic parameter worth mentioning | NO. |
| 17 | Tentative Implementation Schedule enclosed (Yes/No) | Yes (enclosed). |
| 18 | Mode of Implementation (Turnkey/ Non Turnkey) | Non Turnkey |
| 19 | Name & Designation of Project Owner (Generally HOD) | Sri Kundan Kumar, CGM(TA). |
| 20 | Name, Designation, Department, Contact No, E Mail ID of Project Coordinator | Sri. Rajul Harkerni, GM (TE-Elect), Deptt-T.E-Elect. 8986871488, rajul.harkerni@sail.in |



SAIL/Bokaro Steel Plant
Project Division
ISO 9001:2015 Quality Management System

| | | | | | |
|------|---|---|------------------------|-----------------------------|--------------------|
| 21 | Name & Designation of Project Key Driver | Sri A.N.Singh GM (TE-Electrical) | | | |
| 22 | Whether the scheme is to be executed by agency other than the proposing deptt. Yes/No | No. | | | |
| 23 | Name of Executing Agency | TE- Electrical. | | | |
| 24 | Name & Designation of Project Manager (Executing Agency) | Shri Manoj Kumar Sr. Manager (TE- Electrical). | | | |
| 25 | Environment aspects (Poll Level) | Norm | Existing: | Proposed: | |
| 25.1 | Air | As per standard norms. | As per standard norms. | As per standard norms. | |
| 25.2 | Water | As per standard norms. | As per standard norms. | As per standard norms. | |
| 25.3 | Noise | As per standard norms. | As per standard norms. | As per standard norms. | |
| 26 | Energy consumption | As per standard norms. | | | |
| 26.1 | Type of energy required (Electric, Steam, Air Pressure etc.) | Diesel. | | | |
| 26.2 | Present level and Proposed level of consumption | 100 litres. | | | |
| 27 | Likely modifications / changes required in the area where the equipment is to be installed. If Yes, use additional sheet. | NA | | | |
| 28 | Benefits expected (Tangible / Non-tangible) | Both | | | |
| 29 | If tangible, Likely benefits of the scheme (please specify) | Man Power | Production Cost | Material Consumption | Energy consumption |
| | | ✓ | — | — | ✓ |
| | | Easy operation | Less maintenance | Improved Quality of out put | |
| | | ✓ | ✓ | ✓ | |
| 30 | If intangible, (please specify likely benefits of the scheme) | — | | | |
| 31 | Whether additional manpower required - Yes/No | No. | | | |
| 32 | If Yes, please give details | N.A. | | | |
| 33 | Is technical know how to operate and maintain the equipment is available in the shop/deptt - Yes/No. | Yes. | | | |
| 34 | If no, please specify how it is going to be met | N.A. | | | |



SAIL/Bokaro Steel Plant
Project Division
ISO 9001:2015 Quality Management System

| | | |
|------|--|------|
| 35 | Whether shutdown of the plant/ unit is required during erection/commissioning of the proposed equipment. | No |
| 36 | Has the equipment been recommended for writing off Yes/No | N.A. |
| 36.1 | If Yes, please enclose the recommendation of the Survey Committee. | N.A. |
| 37 | Type of replacement Like/Unlike | N.A. |
| 37.1 | For unlike replacement the following details are to be given: | N.A. |
| 37.2 | Does the dept. have requisite expertise to operate / maintain the new type of equipment - Yes/No | NA |
| 37.3 | Is the unlike equipment being used elsewhere? | NA |
| 37.4 | If yes, please give details | NA |
| 37.5 | Will the new equipment replace more than one equipment? | NA |
| 38 | Whether space and other balancing facilities are available to install the new equipment | Yes. |
| 39 | Details of new services required for the new equipment are to be given | N.A. |
| 40 | Any other details, if any | N.A. |

M Kumar
24/09/2024

(Signature of HOD of Proposal Department)
मुख्य महाप्रबन्धक (नगर.प्रशासन)
सेल, बोकारो स्टील प्लांट



INVESTMENT PROPOSAL FORMAT FOR AMR SCHEMES

| | | |
|----|---|---|
| 1 | Name of Scheme | Installation of High masts & mini masts with led fixtures in Bokaro steel city of Bokaro steel plant. |
| 2 | Department | T.A. |
| 3 | Section | Town Engineering Electrical |
| 4 | Total Estimated Cost (Cost Estimate signed by HOD to be placed) | Rs. 250.74 Lakhs inclusive of GST |
| 5 | Basis of the estimate: (Copy of the basis of estimate to be enclosed. The basis of estimate must not be more than six months old) | Estimate is based on Budgetary Quotations considering 12% discount factor prepared by TC-DB. Ref: Cost Estimate DB/BSL/40/CE/017/R0 Dated: 19.07.2024 |
| 6 | Foreign exchange component of the estimated cost (in Rupees), if any. | NIL |
| 7 | Objective/ Purpose of scheme | Proper illumination of township. |
| 8 | Category (Addition / Modification / Replacement) | Addition. |
| 9 | Brief description of scheme justifying the proposal. | Improve the lighting arrangement in BSL Township. |
| 10 | Indicate / enclose the basic Technical Specification required | Enclosed (Tender Specification). |
| 11 | No. of proposed equipment provided as per DPR | Detailed in the enclosed tender specification. |
| 12 | No. of equipment available at present | NA. |
| 13 | Whether the proposed equipment shall work in all the three shifts or in "G" shift only. | From evening (6 pm) to morning(6 am). |
| 14 | Expected life of the Proposed equipment | Twenty (20) years on an average. |
| 15 | Pay Back Period | N.A. |
| 16 | Any other techno-economic parameter worth mentioning | NO. |
| 17 | Tentative Implementation Schedule enclosed (Yes/No) | Yes (enclosed). |
| 18 | Mode of Implementation (Turnkey/ Non Turnkey) | Item Rate |
| 19 | Name & Designation of Project Owner (Generally HOD) | Sri Kundan Kumar, CGM(TA). |
| 20 | Name, Designation, Department, Contact No, E Mail ID of Project Coordinator | Sri. Rajul Harkerni, GM (TE-Elect), Deptt-T.E-Elect. 8986871488, rajul.harkerni@sail.in |
| 21 | Name & Designation of Project Key Driver | Sri A.N.Singh GM (TE-Electrical) |



SAIL/Bokaro Steel Plant
Project Division
ISO 9001:2008 Quality Management System

Doc. No.
Edition .: :Date: :: Page 2 of 3

| | | | | | |
|------|---|---|------------------|-----------------------------|--------------------|
| 22 | Whether the scheme is to be executed by agency other than the proposing deptt. Yes/No | No | | | |
| 23 | Name of Executing Agency | TE-Electrical. | | | |
| 24 | Name & Designation of Project Manager (Executing Agency) | Shri Manoj Kumar Sr. Manager (TE- Electrical). | | | |
| 25 | Environment aspects (Poll Level) | Norm | Existing: | Proposed: | |
| 25.1 | Air | N.A. | N.A. | N.A. | |
| 25.2 | Water | N.A. | N.A. | N.A. | |
| 25.3 | Noise | N.A. | N.A. | N.A. | |
| 26 | Energy consumption | As per standard norms. | | | |
| 26.1 | Type of energy required (Electric, Steam, Air Pressure etc.) | Electrical. | | | |
| 26.2 | Present level and Proposed level of consumption | 33.21 KW. | | | |
| 27 | Likely modifications / changes required in the area where the equipment is to be installed. If Yes, use additional sheet. | N.A. | | | |
| 28 | Benefits expected (Tangible / Non-tangible) | Non tangible. Illumination in township. | | | |
| 29 | If tangible, Likely benefits of the scheme (please specify) | Man Power | Production Cost | Material Consumption | Energy consumption |
| | | N.A | N.A | N.A | N.A |
| | | Easy operation | Less maintenance | Improved Quality of out put | |
| | | N.A | N.A | N.A | |
| 30 | If intangible, (please specify likely benefits of the scheme) | N.A. | | | |
| 31 | Whether additional manpower required - Yes/No | No. | | | |
| 32 | If Yes, please give details | N.A. | | | |
| 33 | Is technical know how to operate and maintain the equipment is available in the shop/deptt - Yes/No. | Yes. | | | |
| 34 | If no, please specify how it is going to be met | N.A. | | | |
| 35 | Whether shutdown of the plant/ unit is required during erection/commissioning of the proposed equipment. | No. | | | |
| 36 | Has the equipment been recommended for writing off Yes/No | N.A. | | | |
| 36.1 | If Yes, please enclose the recommendation of the Survey | N.A. | | | |



SAIL/Bokaro Steel Plant
Project Division
ISO 9001:2008 Quality Management System

Doc. No.
Edition .: :Date: :: Page 3 of 3

| | | |
|------|--|------|
| | Committee. | |
| 37 | Type of replacement Like/Unlike | N.A. |
| 37.1 | For unlike replacement the following details are to be given: | N.A. |
| 37.2 | Does the dept. have requisite expertise to operate / maintain the new type of equipment - Yes/No | YES. |
| 37.3 | Is the unlike equipment being used elsewhere? | N.A. |
| 37.4 | If yes, please give details | N.A. |
| 37.5 | Will the new equipment replace more than one equipment? | N.A. |
| 38 | Whether space and other balancing facilities are available to install the new equipment | YES. |
| 39 | Details of new services required for the new equipment are to be given | N.A. |
| 40 | Any other details, if any | N.A. |

Munim
24/9/24

(Signature of HOD of Proposing Department)

कुंदन कुमार
मुख्य महाप्रबन्धक (नगर प्रशासन)
सेल, बोकारो स्टील प्लान्ट

| | COST ESTIMATE NO: DB/BSL/10/TS/015/R1 dated 24.3.25 | |
|---|--|------------------------|
| Proposal | REPLACEMENT OF COMPLETE ELECTRICS AT 04 PUMP HOUSE STATION OF TOWNSHIP IN BOKARO STEEL CITY | |
| Reference: | TS No.: DB/BSL/10/TS/015/R1 JAN 2025 | |
| Sr. No. | Description | Amount (in INR) |
| A | The scope of work shall cover design/manufacture/supply,testing and inspection of transformer and LT MCC and other auxiliary equipments, packaging, insurance, transportation, unloading, storage at site, erection, testing and commissioning of complete electrics as per the TS | |
| 1 | Design & Engineering | 30,00,000 |
| 2 | Supply of Plant & Equipment incl.Technological Structures | 6,20,00,000 |
| 3 | Supply of Building Steel Structures including Sheeting and Glazing | NA |
| 4 | Supply of Refractories | NA |
| 5 | Civil Engineering work including all related supplies - for equipment foundation | 55,00,000 |
| 6 | Civil Engineering work including all related supplies - others | 30,00,000 |
| 7 | Storage, Handling, Erection of Plant & Equipments & Refractories including Commissioning and PG Tests of the Facilities | 80,00,000 |
| 8 | Storage, Handling and Erection of Building Steel Structures | included |
| 9 | Foreign Supervision charges in India during erection, startup, commissioning and PG test for _____mandays | NA |
| 10 | Training charges: For Foreign mandays For Indian mandays | NA |
| 11 | Customs, Port clearance (excluding duties & cess to be paid by Employer) and Inland transportation (for all items quoted in foreign currency) | 3,00,000.00 |
| 12 | Comprehensive/ Transit, Storage cum erection insurance | included |
| 13 | Supply of 2 year O&M spares | NA |
| 14 | Total Price (Sum of Sr. 1 to Sr. 13) | 8,18,00,000.00 |
| 15 | GST (@ 18% on Sr. 14) | 1,47,24,000.00 |
| 16 | SUB TOTAL (Sr. 14 and Sr. 15) | 9,65,24,000.00 |
| 17 | Engineering & Construction (@2.5% of Sr. 14) | |
| 18 | Owner | 20,45,000.00 |
| 19 | Contractor | Included |
| 20 | SUB TOTAL (Sr. 16 and Sr. 18) | 9,85,69,000.00 |
| 21 | Contingency (@ 5% of Sr. 20) | 49,28,450.00 |
| 22 | SUB TOTAL (Sr. 20 and Sr. 21) | 10,34,97,450.00 |
| 23 | Interest during Construction (IDC) for 16 months (@100% debt and 10% bank interest rate) | 69,21,392.07 |
| 24 | SUB TOTAL (Sr. 22 and Sr. 23) | 11,04,18,842.07 |
| 25 | Fee for e-Buying/ RA(0.5% of Sr.14) | 4,09,000.00 |
| 26 | Input Tax Credit | NA |
| 27 | Total Project Cost inclusive of GST(Sr. 24+ Sr.25 - Sr. 26) (in Lakhs) | 1,108.28 |
| Initial cost for Tendering (Sr.27- Sr.18-Sr.21-Sr.23- Sr.25) (in Lakhs) | | 965.24 |
| <i>Note: Cost Estimate is based on the Budgetary Quotations.</i> | | |

Subject: Procurement of 880 nos. of Split & Window Type Room Air Conditioners for Bokaro Steel Plant and BSL Township.

Proposer Deptt. : ACVS
AMR Ref no : AMR/ACVS/6533
Proposed Amount : Rs. 439.8 Lakh (net of ITC of Rs 35.2 Lakhs)

| SN | Package | Item | Proposed qty | Project cost Rs. in lakh | ITC in lakh |
|---------------------------|-------------|--|--------------|-----------------------------|----------------|
| | | | No. | | |
| 1 | Package - 1 | Window Mounted Type Room AC, Capacity 1.5 TR | 619 | 261.74 | 17.8 |
| 2 | Package - 2 | Split type Room Air conditioner, Capacity 1.5 TR | 98 | 66.07 | 0 |
| 3 | Package - 3 | Split type Room Air conditioner, Capacity 2 TR | 163 | 111.99 | 17.4 |
| Total Project Cost | | | 880 | 439.8 | 35.2 |

Objective of Proposal:

The objective of the proposal is procurement of Window Mounted Type Room AC Units of capacity 1.5 TR and Split Type Room AC Units of capacity 1.5 TR & 2TR (Qty considered for proposal on the basis of write-off of 250nos. of AC Units for works & 542 nos. of AC Units for Non works and additional around 10% of write-off qty to meet the future requirement) of the for Bokaro Steel Plant and BSL Township, in three Packages (Package 1 – 1.5 TR Window AC, Package 2 - 1.5 TR Split type AC and Package 3 – 2TR Split AC). To provide suitable ambient temperature at various electrical and process control rooms and sophisticated equipments at hard production shops involved in the process of production of steel.

And to the satisfaction of the employer to maintain inside temperature of the proposed locations at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and RH $50\% \pm 10\%$. The refrigerant used in the system shall be R32 or equivalent as per global warming potential (GWP) (It shall be the same for the complete ordered quantity). BEE star rating shall be of 5-star rating. Eco-friendly disposal of any waste generated in this project will be as per the latest environmental norm.

Background:

- 1) Committee constituted vide Office No:3579/AO dated: 01.06.2023 for procurement of Air Conditioner for Works & Non-work Division BSL recommended that the a)Nodal agency for procurement of above AC Units shall be ACVS and b)Mode of procurement shall be through OTE and c) Number of sources for procurement of items shall be minimum two (02). The copy of Office order & MOM of committee recommendation are attached.
- 2) A total of 1372 nos. AC Units, 1.5 TR Window AC 880 nos. (replacement 589 nos. and additional 291 nos.), 1.5 TR Split AC 310 nos. (replacement 98 nos. and additional 212 nos.), 2 TR Split AC 182 nos. (replacement 105 nos. and additional 77 nos.) have been recommended by committee constituted vide Office No:3579/AO dated: 01.06.2023.
- 3) Accordingly, The IPU proposal was initialed for “in-principle” (Stage-1) approval of Director I/c, BSL/SAIL on OTE basis at an estimated cost of Rs.701.70 Lakhs (net of ITC of Rs 49.1 Lakhs).
- 4) The proposal was suggested by Director I/c to review the quantity as per the requirement.

- 5) A meeting was held in the office of CGM (U) with L&A, TE, ACVS& BGH planning for review of the proposed quantity. **The Committee has reviewed the proposed quantity from 1372 nos. of AC units to 880 nos. of AC Units (on the basis of write-off of 250nos. of AC**

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6) Following is the detail of revised proposed qty.

Proposal :

| SN | Package | Item | Quantity | Location wise quantity | |
|----|-------------|--|----------|---|--|
| | | | | Works | Non- Works |
| 1 | Package - 1 | Window Mounted Type Room AC, Capacity 1.5 TR | 619 Nos. | 180 Nos. (Replacement 150 nos. + additional 30 nos) | 439 Nos. (Replacement 439 nos.) |
| 2 | Package - 2 | Split type Room Air conditioner, Capacity 1.5 TR | 98 Nos. | NIL | 98 Nos. (Replacement 98 nos.) |
| 3 | Package - 3 | Split type Room Air conditioner, Capacity 2 TR | 163 Nos. | 100 Nos. (Replacement 100 nos.) | 63 Nos. (Replacement 5 nos. + additional 58 nos) |
| | TOTAL | | 880 Nos. | 280 Nos. | 600 Nos. |

Financial accounting of Assets:

The Survey Committee recommended for Write-off of existing 439 nos. and 05 nos. of 1.5 TR and 2TR Window AC Units respectively and 98 nos. of 1.5 TR Split type AC Units from non - works division. As per Survey Committee Report, the present WDV of asset is Rs. 548119.00 and scrap value is Rs. 41.15 lakh. Control No vide S-17(4)/2024/86, dt. 20.01.2024 has been issued by F&A Main Accounts.

Krishna Gargi
14/01/2015

Technical Specification (TS) & Cost Estimate (CE): Following TS & CE has been prepared separately for three packages and issued by **TC-DB**. TS & CE have been examined and accepted by Indenting Deptt.

| Package | TS no./Date | CE/Date | Estimated Cost |
|-------------|-----------------------------------|---|---|
| Package - 1 | DB/BSL/41/TS/013/R1/PK1, Dec'2024 | DB/BSL/41/CE/013/R1/PK1, Dated – 26.12.2024 | Rs. 261.74 Lakh (net of ITC of Rs 17.8 Lakhs) |
| Package - 2 | DB/BSL/41/TS/013/R1/PK2, Dec'2024 | DB/BSL/41/CE/013/R1/PK2, Dated – 26.12.2024 | Rs. 66.07 Lakh (net of ITC of NA) |
| Package - 3 | DB/BSL/41/TS/013/R1/PK3, Dec'2024 | DB/BSL/41/CE/013/R1/PK3, Dated – 26.12.2024 | Rs. 111.99 Lakh (net of ITC of Rs 17.4 Lakhs) |

Advantages & Benefits: To provide suitable ambient temperature at various electrical and process control rooms and sophisticated equipments at hard production shops involved in the process of production of steel.

Executing Agency : ACVS

Tendering Agency : Purchase MM

Project Owner : Sri D Madhukar, GM (ACVS)/HOD

Project Key Driver : Smt. Archana Lakra, AGM (ACVS)

Project Coordinator : Smt. Archana Lakra, AGM (ACVS)

Project Manager : Sri Rajesh Pilot, Manager (ACVS)

Mode of Implementation: NON-TURNKEY

Mode of Tendering: LTE

Justification for processing on LTE mode: CET approved preferred make list has been considered. Total ten reputed vendors are in the list. Therefore the Committee recommends the proposal on LTE basis with the CET approved Preferred Make List.

The Cost estimate of the proposal is more than 50lakhs.

CET approved preferred make list: Blue Star, Carrier, Daikin, Fedders, Llyod, Hitachi, Mitsubishi, Samsung, Voltas, Zamil.

Budget Provision: Capital Budget of 2024-25 and subsequent years as per need.

Manpower: No additional man-power is envisaged for the proposed scheme.

Shutdown Requirement: No Shutdown required for implementation.

Special condition for NIT:

Number of sources for procurement of PO Shall be minimum two (02)

Implementation Strategy: The proposal is to be implemented through three packages.

Implementation Schedule:

- a) Submission of firmed-up cost proposal for Stage-2 approval : **02 Months**
b) Implementation Schedule from the effective date of contract : **06 Months**

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14.01.25
Kishore Gargi 14/01/2025

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MOM of Investment Planning Committee (IPC)
held in the office of CGM (Utilities) on 14/01/2025

IPC RECOMMENDATIONS:

After due deliberation and screening, Investment Planning Committee (IPC) recommends the proposal for **“Supply of 880 nos.(280 nos. for works & 600 nos. for non-works) of Split & Window Type Room Air Conditioners to Bokaro Steel Plant and BSL Township”** to be tendered out on **LTE basis** at an estimated cost of **Rs. 439.8 Lakhs (net of ITC of Rs 35.2 Lakhs).**

M. C Raj
14/01/25

M. C Raj
AM (ECS)
Member from ECS

R. Pilot
14.01.25

Rajesh Pilot
Manager (ACVS)
Project Manager

Archana Lakra
14/01/25

Archana Lakra
AGM (ACVS)
Project Key Driver

K C Gagrai
14/01/2025

K C Gagrai
AGM (F&A)
Project Finance

M Bakhla
14/01/2025

M Bakhla
GM (Project)
Member from IPU

Leena Dey
14/1/25

Leena Dey
GM (Purchase)
Project Purchase

A. N. Singh
14.01.25

A. N. Singh
GM (TE)
Any member from
other dept.

D. Madhukar
14.1.25

D. Madhukar
GM (ACVS)
Project Owner

S. R. Singh
14/01/25

for S. R. Singh
CGM (Utilities)
Chairman

Annexure: S,T and U

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Projection of Sales, Customers & Connected load

Form No: F1a

Sales

| A) Projection of sales | | | | | | | | | | | | | | | | | | | |
|------------------------|----------------|------------------|----------|----------|----------|---------------------------|----------|---------------------------|----------|---------------------------|----------|---------------------------|------------------|---------------------|---------------------|---------------------------|-----------|------------------------------|------------------------------|
| S. No. | Category | In Million Units | | | | | | | | | | | | | | | | | |
| | | FY 17-18 | | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | | FY 22-23 | | FY 23-24 | | CY FY 24-25 | | | Control Period FY 25-26 | | 2Year CAGR from FY22 to FY24 | Assumed growth (as per CAGR |
| | | Trued Up | Trued Up | Trued Up | Trued Up | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual (Apr-Sep) | Estimated (Oct-Mar) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated | | |
| | | | | | | | | | | | | | | | | | | | |
| 1 | DS-LT | 101.63 | 119.46 | 88.52 | 95.30 | 98.51 | 103.00 | 101.84 | 101.88 | 105.27 | 92.25 | 108.83 | 45.48 | 47.69 | 93.17 | 112.50 | 94.11 | -5.36% | 1% |
| 2 | DS-HT | 8.35 | 6.41 | 5.85 | 6.00 | 6.07 | 4.63 | 6.13 | 6.52 | 6.20 | 8.31 | 6.27 | 2.95 | 5.77 | 8.72 | 6.34 | 9.16 | 33.90% | 5% |
| 3 | CS | 18.18 | 18.44 | 21.65 | 13.92 | 15.07 | 15.14 | 16.31 | 16.67 | 17.66 | 27.45 | 19.12 | 14.56 | 14.27 | 28.83 | 20.70 | 30.27 | 34.67% | 5% |
| 4 | LTS | 0.48 | 0.45 | 0.62 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.60 | 0.45 | 0.41 | 0.19 | 0.60 | 0.45 | 0.60 | 15.43% | 0% |
| 5 | HTS | 7.93 | 8.54 | 11.14 | 10.25 | 10.76 | 7.78 | 11.30 | 9.78 | 11.84 | 10.77 | 12.45 | 6.24 | 4.53 | 10.77 | 13.08 | 10.77 | 17.64% | 0% |
| 6 | HT/LT | 52.04 | 56.27 | 58.52 | 60.86 | 61.49 | 61.49 | 63.33 | 61.16 | 65.32 | 29.72 | 67.19 | 33.60 | 33.60 | 29.72 | 69.21 | 29.72 | -30.47% | 0% |
| | Township Total | 188.61 | 209.57 | 186.31 | 186.77 | 192.34 | 192.49 | 199.36 | 196.47 | 206.68 | 169.11 | 214.31 | 103.24 | 106.64 | 171.82 | 222.28 | 174.63 | -6.27% | |
| 7 | Steel Plant | 897.17 | 1,116.54 | 913.42 | 1,031.68 | 1,134.85 | 1,448.41 | 1,248.34 | 1,444.04 | 1,373.17 | 1,135.19 | 1,510.49 | 667.26 | 680.63 | 1347.89 | 1,661.54 | 1,428.76 | -6.27% | 6.00% |
| | GRAND TOTAL | 1085.78 | 1,326.11 | 1,099.73 | 1,218.46 | 1,327.20 | 1,640.90 | 1,447.70 | 1,640.51 | 1,579.85 | 1,304.30 | 1,724.80 | 770.50 | 786.67 | 1,519.70 | 1,883.82 | 1,603.39 | | |

Number of Customers

| S. No. | Category | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | | FY 22-23 | | FY 23-24 | | CY | FY 24-25 | | Control Period | | |
|--------|----------------|----------|----------|----------|----------|---------------------------------|--------|---------------------------------|--------|---------------------------------|--------|---------------------------------|---------------------|---------------------|------------------------------|-----------|--------|
| | | | | | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | FY 24-25 | | FY 25-26 | | |
| | | Trued Up | Trued Up | Trued Up | Trued Up | | | | | | | Actual (Apr-Sep.) | Estimated (Oct-Mar) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated | |
| 1 | LT | 32,893 | 33,608 | 28,471 | 27808 | 28087 | 30847 | 28368 | 29,326 | 28,652 | 31,497 | 28,939 | 31,497 | 32,127 | 32,127 | 29,229 | 32770 |
| 2 | HT | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 5 | 7 | 7 | 7 | 5 | 8 |
| 3 | CS | 1,802 | 1,828 | 1,850 | 1900 | 1919 | 1911 | 1939 | 1914 | 1,959 | 1,918 | 1,979 | 1,918 | 1,937 | 1,937 | 1,999 | 1957 |
| 4 | LTS | 33 | 33 | 33 | 34 | 34 | 34 | 34 | 37 | 34 | 37 | 34 | 37 | 38 | 38 | 34 | 40 |
| 5 | HTS | 16 | 16 | 20 | 20 | 21 | 25 | 22 | 24 | 23 | 27 | 24 | 27 | 28 | 28 | 25 | 30 |
| 6 | HT/LT | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 | 656 |
| | Township Total | 35,405 | 36,146 | 31,035 | 30,423 | 30,722 | 33,478 | 31,024 | 31,962 | 31,329 | 34,142 | 31,637 | 34,142 | 34,794 | 34,794 | 31,948 | 35,461 |
| | Steel Plant | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | GRAND TOTAL | 35,406 | 36,147 | 31,036 | 30,424 | 30,723 | 33,479 | 31,025 | 31,963 | 31,330 | 34,143 | 31,638 | 34,143 | 34,795 | 34,795 | 31,949 | 35,462 |

Connected Load

| S. No. | Category | Unit | | | | | | | PY | | CY | | | | Control Period | | |
|--------|----------------|------|----------|----------|----------|------------------------------|---------------------------------|----------|------------------------------|----------|------------------------------|---------------------|---------------------|---------------------|---------------------------|-----------|----------|
| | | | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | | FY 23-24 | | FY 24-25 | | | | FY 25-26 | | |
| | | | Trued Up | Trued Up | Trued Up | MYT (Case no. 13 of 2022) | Actual (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual (Apr-Sep) | Estimated (Oct-Mar) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated | |
| 1 | DS-LT | kW | 95,070 | 95,070 | 95,070 | 96,021 | 96,021 | 96,982 | 92,404 | 97,952 | 90,054 | 98,932 | 90,054 | | 90,054 | 99,922 | 90,054 |
| 2 | DS-HT | kVA | 4,815 | 4,815 | 4,815 | 4,815 | 4,815 | 4,815 | 4,815 | 4,815 | 5,003 | 4,815 | 5,003 | | 5,053 | 4,815 | 5,104 |
| 3 | CS | kW | 13,902 | 14,180 | 14,464 | 24,463 | 22,451 | 24,953 | 22,207 | 25,453 | 23,447 | 25,963 | 23,447 | | 24,854 | 26,483 | 26,346 |
| 4 | LTS | HP | 993 | 991 | 991 | 1,001 | 870 | 1,012 | 853 | 1,023 | 928 | 1,034 | 928 | | 928 | 1,045 | 928 |
| 5 | HTS | kVA | 5,109 | 6,668 | 6,668 | 7,002 | 8,893 | 7,353 | 7,793 | 7,721 | 10,933 | 8,108 | 10,933 | | 11,589 | 8,514 | 12,285 |
| 6 | HT/LT | kW | 29,771 | 30,813 | 31,891 | 33,008 | 33,008 | 34,163 | 34,163 | 35,359 | 35,359 | 36,596 | 35,359 | | 36,596 | 37,877 | 37,877 |
| | Township Total | | 1,49,660 | 1,52,537 | 1,53,899 | 1,66,310 | 1,66,057 | 1,69,278 | 1,62,235 | 1,72,323 | 1,65,724 | 1,75,448 | 1,65,724 | | 1,69,074 | 1,78,656 | 1,72,594 |
| | Steel Plant | MVA | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| | GRAND TOTAL | | 1,49,705 | 1,52,582 | 1,53,944 | 1,66,355 | 1,66,102 | 1,69,323 | 1,62,280 | 1,72,368 | 1,65,769 | 1,75,493 | 1,65,769 | 45 | 1,69,119 | 1,78,701 | 1,72,639 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Summary of Power Purchase from Own Stations and Other Sources

Form No: F4

| Sl No | Source | PY | | | | | |
|-------------|--------|------------------------------|---------|------------|-------------------|---------|------------|
| | | FY 23-24 | | | | | |
| | | Energy Units (MU) | Rs Crs. | Paise/Unit | Energy Units (MU) | Rs Crs. | Paise/Unit |
| | | MYT (Case no. 13 of 2022) | | | Actual | | |
| (F) DVC | | 1602.82 | 753.95 | 470.00 | 308.84 | 160.30 | 519.04 |
| | | | | | | | |
| Grand Total | | 1602.82 | 753.95 | 470.00 | 308.84 | 160.30 | 519.04 |

| CY | | | | | | | | | | | |
|------------------------------|---------|------------|---------------------|---------|------------|------------------------|---------|------------|--------------------------|---------|------------|
| FY 24-25 | | | | | | | | | | | |
| Energy Units (MU) | Rs Crs. | Paise/Unit | Energy Units (MU) | Rs Crs. | Paise/Unit | Energy Units (MU) | Rs Crs. | Paise/Unit | Energy Units (MU) | Rs Crs. | Paise/Unit |
| MYT (Case no. 13 of 2022) | | | Actual (Apr-Sep) | | | Estimated (Oct-Mar) | | | Estimated (April- March) | | |
| 1,748.61 | 855.43 | 489.00 | 313.35 | 170.89 | 470.47 | 142.47 | 67.28 | 472.29 | 313.35 | 145.48 | 464.27 |
| | | | | | | | | | | | |
| 1748.61 | 855.43 | 489.00 | 313.35 | 170.89 | 470.47 | 142.47 | 67.28 | 472.29 | 313.35 | 145.48 | 464.27 |

| Control Period | | | | | |
|------------------------------|---------|------------|-------------------|---------|------------|
| FY 25-26 | | | FY 25-26 | | |
| Energy Units (MU) | Rs Crs. | Paise/Unit | Energy Units (MU) | Rs Crs. | Paise/Unit |
| MYT (Case no. 13 of 2022) | | | Estimated | | |
| 1908.51 | 971.00 | 509.00 | 268.66 | 129.72 | 482.84 |
| | | | | | |
| 1908.51 | 971.00 | 509.00 | 268.66 | 129.72 | 482.84 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Repair & Maintenance Expenditure

Form No: F5

| Repair & Maintenance Expenditure | | Form No: F5 | | | | | | | |
|----------------------------------|--|---------------------------------|--------|---------------------------------|---------------------|------------------------|------------------------|---------------------------------|-----------|
| Figure in Rs Crore | | | | | | | | | |
| S.No. | Particulars | PY | | CY | | | | Control Period | |
| | | FY 23-24 | | FY 24-25 | | | | FY 25-26 | |
| | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual (Apr-Sep) | Estimated (Oct-Mar) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| 1 | Plant and Machinery | 4.55 | 5.71 | 5.42 | | | 4.40 | 5.50 | 6.17 |
| 2 | Building | | | | | | | | |
| 3 | Civil Works | | | | | | | | |
| 4 | Hydraulic Works | | | | | | | | |
| 5 | Lines, Cables Net Works etc. | | | | | | | | |
| 6 | Vehicles | | | | | | | | |
| 7 | Furniture and Fixtures | | | | | | | | |
| 8 | Office Equipments | | | | | | | | |
| 9 | Spare Inventory for maintaining Transformer redundancy | | | | | | | | |
| 10 | Sub station maintenance by private agencies | | | | | | | | |
| 11 | Any other items (Capitalisation) | | | | | | | | |
| Total | | 4.55 | 5.71 | 5.42 | | | 4.40 | 5.50 | 6.17 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Employee Cost and Provisions

Form No: F6

| Employee Cost and Provisions | | | Form No: F6 | | | | | |
|------------------------------|---|---|---------------------------------|--------|---------------------------------|------------------------|---------------------------------|-----------|
| | | | PY | | CY | | Control Period | |
| | | | FY23-24 | | FY 24-25 | | FY 25-26 | |
| Particulars | | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| A | | Employee's Cost | | | | | | |
| | 1 | Salaries | | | | | | |
| | | Total C | | | | | | |
| D | | Bonus/Exgratia To Employees | | | | | | |
| E | | Grand Total | 9.35 | 11.24 | 9.92 | 11.04 | 10.52 | 11.04 |
| F | | Capitalization | | | | | | |
| | | Balance Item 'F' Apropriate For (E)-(F) | | | | | | |
| | | | | | | | | |
| | | Relevant Indices Of Wages Increase (As At The Beginning & End Of The Year) | | | | | | |
| G | | WPI | | | | | | |
| | | CPI | | | | | | |
| | | | | | | | | |
| H | | Relevant Factor | 5% | | 5% | 0% | | 0% |
| | | Gn | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Repair & Maintenance Expenditure

Form No: F7

| Administration & General Expenses | | Form No: F7 | | | | | | | |
|-----------------------------------|---|---------------------------------|--------|---------------------------------|---------------------|------------------------|------------------------|---------------------------------|-----------|
| S.No. | Particulars | PY | | CY | | | | Control Period | |
| | | FY 23-24 | | FY 24-25 | | | | FY 25-26 | |
| | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Actual (Apr-Sep) | Estimated (Oct-Mar) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| A) | Administration Expenses | | | | | | | | |
| | Sub-Total of Administrative Expenses | | | | | | | | |
| B) | Other Charges | | | | | | | | |
| 1 | Fee And Subscriptions Books And Periodicals | | | | | | | | |
| 2 | Printing And Stationery | | 0.58 | | | | 0.57 | | 0.57 |
| 3 | Advertisement Expenses (Other Than Purchase Related) Exhibition & Demo. | | | | | | | | |
| 4 | Contributions/Donations To Outside Institute / Association | | | | | | | | |
| 5 | Electricity Charges To Offices | | | | | | | | |
| 6 | Water Charges | | | | | | | | |
| 7 | Any Study - As per requirements | | | | | | | | |
| 8 | Miscellaneous Expenses | | | | | | | | |
| 9 | Public Interaction Program | | | | | | | | |
| 10 | Any Other expenses | | 0.58 | | | | 0.58 | | 0.58 |
| | Sub-Total of other charges | | 1.16 | | | | 1.15 | | 1.15 |
| C) | Legal Charges & Petition filing fees | | | | | | | | |
| D) | Auditor'S Fee/ Consultancy Services | | | | | | | | |
| E) | Freight - Material Related Expenses | | | | | | | | |
| F) | Departmental Charges | | 0.73 | | | | 0.73 | | 0.73 |
| G) | Total Charges | | | | | | | | |
| H) | Capitalization | | | | | | | | |
| I) | Total Charges Chargeable to Revenue Expenses | 2.79 | 1.89 | 2.96 | | | 1.88 | 3.14 | 1.88 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Fixed Assets and Provisions for depreciations

Form No: F8

| FY 2023-24 | | | | | | | | | | | | |
|--------------------|-----------------|-------------------|----------------------|-------------------------|----------------------------|----------------------|-------------------|----------------------|---------------------------|------------------|-----------------------|--------------------|
| MYT | | | | | | | | | | | | |
| Gross Fixed Assets | | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| Sl.No | Particulars | At Beging of Year | Addition During Year | Adjustments & Deduction | At End Of Year | Rate of Depreciation | At Beging of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The beging of Year | At the End Of Year |
| E. | Any other items | 59.73 | 11.49 | | 71.22 | 4.22% | | 2.763045 | | 2.763045 | 59.73 | 68.456955 |
| | Total | | | | | | | 2.76 | | | | |

| FY 2024-25 | | | | | | | | | | | |
|--------------------|----------------------|-------------------------|--------------------|----------------------------|--------------------|----------------------|---------------------------|----------------|------------------------|--------------------|--|
| MYT | | | | | | | | | | | |
| Gross Fixed Assets | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| Year | Addition During Year | Adjustments & Deduction | At the End Of Year | Rate of Depreciation | At Begning of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The begning of Year | At the End Of Year | |
| 71.22 | 1.00 | | 72.22 | 4.22% | 2.763045 | 3.026584 | | 5.789629 | 68.456955 | 66.430371 | |

| FY 2025-26 | | | | | | | | | | | |
|--------------------|----------------------|-------------------------|--------------------|----------------------------|--------------------|----------------------|---------------------------|----------------|------------------------|--------------------|--|
| MYT | | | | | | | | | | | |
| Gross Fixed Assets | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| f Year | Addition During Year | Adjustments & Deduction | At the End Of Year | Rate of Depreciation | At Begning of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The begning of Year | At the End Of Year | |
| 72.22 | 1.00 | | 73.22 | 4.22% | 5.79 | 3.07 | | 8.86 | 66.43 | 64.36 | |

| FY 2023-24 | | | | | | | | | | | | |
|--------------------|-------------------|----------------------|-------------------------|----------------|----------------------------|-------------------|----------------------|---------------------------|----------------|------------------------|--------------------|--|
| Actual | | | | | | | | | | | | |
| Gross Fixed Assets | | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| Particulars | At Beging of Year | Addition During Year | Adjustments & Deduction | At End Of Year | Rate of Depreciation | At Beging of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The begning of Year | At the End Of Year | |
| Total | 45.04 | 17.35 | | 62.39 | 4.22% | - | 2.27 | | 2.27 | 45.04 | 60.12 | |

| FY 2024-25 | | | | | | | | | | | |
|--------------------|----------------------|-------------------------|--------------------|----------------------------|--------------------|----------------------|---------------------------|----------------|------------------------|--------------------|--|
| Estimated | | | | | | | | | | | |
| Gross Fixed Assets | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| | Addition During Year | Adjustments & Deduction | At the End Of Year | Rate of Depreciation | At Begning of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The begning of Year | At the End Of Year | |
| 62.39 | 23.56 | | 85.95 | 4.22% | 2.27 | 3.13 | | 5.40 | 60.12 | 80.55 | |

| FY 2025-26 | | | | | | | | | | | |
|--------------------|----------------------|-------------------------|--------------------|----------------------------|--------------------|----------------------|---------------------------|----------------|------------------------|--------------------|--|
| Estimated | | | | | | | | | | | |
| Gross Fixed Assets | | | | Provision For Depreciation | | | | | Net Fixed Assets | | |
| At Beging of Year | Addition During Year | Adjustments & Deduction | At the End Of Year | Rate of Depreciation | At Begning of Year | Addition During Year | Adjust- ments & Deduction | At End Of Year | At The begning of Year | At the End Of Year | |
| 85.95 | 21.02 | | 106.97 | 4.22% | 5.40 | 4.07 | | 9.47 | 80.55 | 97.51 | |

| Year wise Capitalisation of Proposed Schemes | | | | | | | | |
|--|--------------|-------------|-------------|----------------------|-------------------------|-------------------------|-------------|--------------|
| Particulars (Rs. Cr.) | 2023-24 | | 2024-25 | | | | 2025-26 | |
| | MTR | Actual | MYT | Actual (April-Sept.) | Estimated (Oct.- March) | Estimated (April-March) | MYT | Estimated |
| 11KV Feeder Augmentation in BSL Township | 7.80 | 5.02 | | | | | | |
| Installation of Arterial Lights with LED Fixtures in BSL township | 2.12 | 2.16 | | | | | | |
| 30 No's of High Mast Towers with LED Fixture in BSL township | 0.57 | 1.14 | | | | | | |
| Smart Street Lighting Solution | | - | | | | | | 0.50 |
| Procurement of Cables, Wiring and other material | 1.00 | - | 1.00 | | | | 1.00 | 1.00 |
| Chemical Earthing | | - | | 2.05 | | 2.05 | | 2.44 |
| Procurement of 60 nos. of 800KVA Distribution transformer | - | - | | 3.24 | 4.86 | 8.10 | | |
| Procurement of 60 nos. of LT Distribution Panel | - | - | | 1.44 | 2.16 | 3.60 | | |
| Procurement of 8 nos. of Squirrel cage Induction Motors | | 0.61 | | | | | | |
| Procurement of 25 nos. of LT Distribution Panel | | 0.86 | | | | | | |
| Procurement of LT motors | | | | | | 0.02 | | |
| Procurement of Aerial Working Platform | | | | | | | | 1.42 |
| Supply and installation of 15 nos of High mast and 49 nos of Mini mast | | | | | | | | 2.51 |
| Replacement of complete electrics of 04 pump houses | | | | | | | | 10.00 |
| Procurement of 600 nos of AC | | | | | | | | 3.15 |
| Total | 11.49 | 9.79 | 1.00 | 2.05 | - | 13.77 | 1.00 | 21.02 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Interest and Finance charges

Form No: F9

| Particulars | PY | | CY | | Control Period | |
|---|----------|--------|----------|---------------------|---------------------------|-----------|
| | FY 23-24 | | FY 24-25 | | FY 25-26 | |
| | MYT | Actual | MYT | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| Interest and Finance Charges on Long Term Loans / Credits from the FIs/banks/organisations approved by the State Government | | | | | | |
| Net Total Of Interest & Finance Charges : For Revenue Account: C-D | 2.41 | 2.01 | 2.54 | 3.28 | 2.33 | 4.56 |

| Particulars | PY | | CY | | Control Period | |
|---|---------------------------|-------------|---------------------------|---------------------|---------------------------|-------------|
| | FY 23-24 | | FY 24-25 | | FY 25-26 | |
| | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| Net Loan-Opening | 24.11 | 14.25 | 29.39 | 24.13 | 27.06 | 37.49 |
| Additions | 8.04 | 12.15 | 0.70 | 16.49 | 0.70 | 14.72 |
| Repayment during the year | 2.76 | 2.27 | 3.03 | 3.13 | 3.07 | 4.07 |
| Net Loan-Closing | 29.39 | 24.13 | 27.06 | 37.49 | 24.69 | 48.14 |
| Average Loan | 26.75 | 19.19 | 28.23 | 30.81 | 25.88 | 42.81 |
| Weighted Average Rate of Interest on Loan (%) | 9.00% | 10.50% | 9.00% | 10.65% | 9.00% | 10.65% |
| Interest on Loan | 2.41 | 2.01 | 2.54 | 3.28 | 2.33 | 4.56 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Interest on Working Capital

Form No: F18

| Working Capital Requirements for DistributionBusiness | | | | | | | |
|---|--|---------------------------------|--------------|---------------------------------|------------------------|---------------------------------|-------------|
| (Rs Crores) | | | | | | | |
| Sl.No. | Particulars | PY | | CY | | Control Period | |
| | | FY 23-24 | | FY 24-25 | | FY 25-26 | |
| | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Estimated (Apr-Mar) | MYT (Case no. 13 of 2022) | Estimated |
| 1 | 1/12th of O&M expenses for the Distribution Business | | | | | | |
| 2 | Receivables equivalent to 2 months of revenues from sale of electricity at existing tariff | 134.49 | 11.87 | 146.57 | 14.83 | 159.82 | 15.16 |
| 3 | Maintenance Spares (1 % of GFA) | 0.60 | 0.45 | 0.71 | 0.62 | 0.72 | 0.86 |
| 4 | Less: 1/12th of Total Power Purchase Cost | (62.83) | (13.36) | (71.29) | (12.12) | (80.92) | (10.81) |
| 5 | Less: Consumer Security Deposit | - | - | - | - | - | - |
| 6 | Total Working Capital (1+2+3-4-5) | 72.26 | -1.04 | 75.99 | 3.33 | 79.62 | 5.21 |
| 7 | Rate of interest (SBI PLR on 1st April) | 10.50% | 12.00% | 10.50% | 12.15% | 10.50% | 12.15% |
| 8 | Interest on Working Capital | 7.59 | -0.12 | 7.98 | 0.40 | 8.36 | 0.63 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Existing and Proposed Tariff

Form No: T1

| Existing and Proposed Tariff | | | | |
|------------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|
| | | | | |
| Category | FY 2025-26 | | | |
| | Existing Component of tariff | | Proposed Component of tariff | |
| | Energy Charges | Fixed/Demand Charges | Energy Charges | Fixed/Demand Charges |
| | (Rs/kWh) | (Rs/con/month or Rs/ kVA/M) | (Rs/kWh) | (Rs/con/month or Rs/ kVA/M) |
| DS-LT | 3.25 | 80.00 | 4.23 | 90 |
| DS-HT | 2.80 | 75.00 | 3.64 | 90 |
| CS | 5.70 | 125.00 | 7.41 | 150 |
| LTIS | 4.60 | 150.00 | 5.98 | 175 |
| HTS | 5.10 | 300.00 | 6.63 | 345 |
| HT/LT | 5.70 | 125.00 | 7.41 | 150 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Revenue from current Tariff in true up years

Form No: T2

| Revenue from Current Tariffs in Past Years, Current Year and Control Period | | | | | | | | | | | | Form No: T2 | | | |
|---|----------------|------------------|---------------------------|---|------------------------|--------------------------------|---------------------------------|----------------------------------|---------------------------------|------------------------------------|---------------------------------------|---------------------------|---------------------------------------|------------------------------------|------------------------|
| FY 2023-24 | | | | | | | | | | | | | | | |
| | Category | No. of consumers | Consumption-Slabwise (MU) | Contract Demand/Connecte d Load (KW /KVA /HP) | Energy Charge (Rs/KWh) | Monthly Demand Charge (Rs/KVA) | Fixed Charge (Rs./conn./mont h) | Demand Charges Total in Rs. Crs. | Fixed Charges Total in Rs. Crs. | Variable Charges Total in Rs. Crs. | Rebates/Surc harges Total in Rs. Crs. | TOTAL BILLED AMT (RS.CRS) | Average Billing Rate (ABR) in Rs/unit | Average Cost of Supply (Rs./ Unit) | Existing Cross Subsidy |
| 1 | | 31497 | 92.25 | 90054 | 3.25 | | 80 | - | 3.02 | 29.98 | | 33.01 | 3.58 | 10.85 | 33% |
| 2 | | 7 | 8.31 | 5003 | 2.8 | 75 | | 0.45 | - | 2.33 | | 2.78 | 3.34 | | 31% |
| 3 | CS | 1918 | 27.45 | 23447 | 5.7 | 125 | | 3.52 | - | 15.65 | | 19.17 | 6.98 | | 64% |
| 4 | LTIS | 37 | 0.60 | 928 | 4.6 | 150 | | 0.17 | - | 0.28 | | 0.45 | 7.36 | | 68% |
| 5 | HTS | 27 | 10.77 | 10933 | 5.1 | 300 | | 3.94 | - | 5.49 | | 9.43 | 8.75 | | 81% |
| 6 | HT/LT | 656 | 29.72 | 35359 | 5.7 | 125 | | 5.30 | - | 16.94 | | 22.25 | 7.48 | | 69% |
| 7 | Township Total | 34142.00 | 169.11 | | | | | 13.37 | 3.02 | 70.67 | | 87.07 | 5.15 | | |
| FY 2024-25 | | | | | | | | | | | | | | | |
| | Category | No. of consumers | Consumption-Slabwise (MU) | Contract Demand/Connecte d Load (KW /KVA /HP) | Energy Charge (Rs/KWh) | Monthly Demand Charge (Rs/KVA) | Fixed Charge (Rs.) | Demand Charges Total in Rs. Crs. | Fixed Charges Total in Rs. Crs. | Variable Charges Total in Rs. Crs. | Rebates/Surc harges Total in Rs. Crs. | TOTAL BILLED AMT (RS.CRS) | Average Billing Rate (ABR) in Rs/unit | Average Cost of Supply (Rs./ Unit) | Existing Cross Subsidy |
| 1 | | 32126.94 | 93.17 | 90,054 | 3.25 | | 80 | - | 3.08 | 30.28 | | 33.37 | 3.58 | 10.06 | 36% |
| 2 | | 7.28 | 8.72 | 5,053 | 2.8 | 75 | | 0.45 | - | 2.44 | | 2.90 | 3.32 | | 33% |
| 3 | CS | 1937 | 28.83 | 24,854 | 5.7 | 125 | | 3.73 | - | 16.43 | | 20.16 | 6.99 | | 70% |
| 4 | LTIS | 38 | 0.60 | 928 | 4.6 | 150 | | 0.17 | - | 0.28 | | 0.45 | 7.36 | | 73% |
| 5 | HTS | 28.08 | 10.77 | 11,589 | 5.1 | 300 | | 4.17 | - | 5.49 | | 9.66 | 8.97 | | 89% |
| 6 | HT/LT | 656 | 29.72 | 36,596 | 5.7 | 125 | | 5.49 | - | 16.94 | | 22.43 | 7.55 | | 75% |
| 7 | Township Total | 34793.59 | 171.82 | | | | | 14.01 | 3.08 | 71.87 | | 88.96 | 5.18 | | |
| FY 2025-26 | | | | | | | | | | | | | | | |
| | Category | No. of consumers | Consumption-Slabwise (MU) | Contract Demand/Connecte d Load (KW /KVA /HP) | Energy Charge (Rs/KWh) | Monthly Demand Charge (Rs/KVA) | Fixed Charge (Rs./conn./mont h) | Demand Charges Total in Rs. Crs. | Fixed Charges Total in Rs. Crs. | Variable Charges Total in Rs. Crs. | Rebates/Surc harges Total in Rs. Crs. | TOTAL BILLED AMT (RS.CRS) | Average Billing Rate (ABR) in Rs/unit | Average Cost of Supply (Rs./ Unit) | Existing Cross Subsidy |
| 1 | | 32770 | 94.11 | 90,054.00 | 3.25 | | 80 | - | 3.15 | 30.58 | | 33.73 | 3.58 | 9.26 | 39% |
| 2 | | 8 | 9.16 | 5,104.00 | 2.8 | 75 | | 0.46 | - | 2.56 | | 3.02 | 3.30 | | 36% |
| 3 | CS | 1957 | 30.27 | 26,346.00 | 5.7 | 125 | | 3.95 | - | 17.25 | | 21.20 | 7.01 | | 76% |
| 4 | LTIS | 40 | 0.60 | 928.00 | 4.6 | 150 | | 0.17 | - | 0.28 | | 0.45 | 7.36 | | 80% |
| 5 | HTS | 30 | 10.77 | 12,285.00 | 5.1 | 300 | | 4.42 | - | 5.49 | | 9.91 | 9.21 | | 99% |
| 6 | HT/LT | 656 | 29.72 | 37,877.00 | 5.7 | 125 | | 5.68 | - | 16.94 | | 22.62 | 7.61 | | 82% |
| 7 | Township Total | 35461.00 | 174.63 | | | | | 14.68 | 3.15 | 73.11 | | 90.94 | 5.21 | | |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Revenue from proposed Tariff

Form No: T3

| Revenue from Proposed Tariffs in Ensuing Year/Control Period | | | FY 25-26 | | | | | Form No: T3 | | | | | | |
|--|-----------------|------------------|-------------------------------|---|---------------------------|-----------------------------------|----------------------------------|--|---------------------------------------|---------------------------------------|---------------------------------|--|--|---------------------------|
| S.No. | Tariff Category | No. of consumers | Consumption- Slabwise (MU) | Contract Demand/ Connected Load (KW/KVA/HP) | Energy Charge (Rs/KWh) | Monthly Demand Charge (Rs/KVA) | Fixed Charge (Rs./com./month) | Demand Charges Total in Rs. Crs. | Fixed Charges Total in Rs. Crs. | Variable Charges Total in Rs. Crs. | TOTAL BILLED AMT (RS CRS) | Average Billing Rate (ABR) in Rs/unit | Average Cost of Supply (Rs./ Unit) | Existing Cross Subsidy |
| 1 | DS-LT | 32770 | 94.11 | 90054 | 4.23 | | 90 | | 3.54 | 39.76 | 43.30 | 4.60 | | 50% |
| 2 | DS-HT | 8 | 9.16 | 5104 | 3.64 | 90 | | 0.55 | | 3.33 | 3.88 | 4.24 | | 46% |
| 3 | CS | 1957 | 30.27 | 26346 | 7.41 | 150 | | 4.74 | | 22.43 | 27.17 | 8.98 | | 97% |
| 4 | LTS | 40 | 0.60 | 928 | 5.98 | 175 | | 0.19 | | 0.36 | 0.56 | 9.20 | 9.26 | 99% |
| 5 | HTS | 30 | 10.77 | 12285 | 6.63 | 345 | | 5.09 | | 7.14 | 12.23 | 11.35 | | 123% |
| 6 | HT/LT | 656 | 29.72 | 37877 | 7.41 | 150 | | 6.82 | | 22.02 | 28.84 | 9.70 | | 105% |
| 7 | Township Total | 35461 | 174.63 | - | - | | | 17.39 | 3.54 | 95.05 | 115.98 | 6.64 | | |
| | Hike | | | | 30% | 15% | | | | | | | | |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Profit and Loss Account

Form No: S1

| Profit & Loss Account | | |
|----------------------------------|---|-----------------|
| | | |
| | Particulars | PY |
| | | FY 23-24 |
| | | |
| A | Revenue | |
| 1 | Revenue from sale of power | 71.23 |
| 2 | Other Non-tariff income | |
| 3 | Revenue subsidies | |
| | Total Revenue or Income | 71.23 |
| | | |
| B | Expenditure | |
| 1 | Purchase of Power from Own Stations | |
| 2 | Purchase of Power from Other Sources | 160.30 |
| 3 | Intra-State Transmission Charges | |
| 4 | Repairs and Maintenance | 5.71 |
| 5 | Employee costs | 11.24 |
| 6 | Administration and General expenses | 1.89 |
| 7 | Net prior period credit/(charges) | |
| 8 | Other Debits, Write-offs | |
| 9 | Return on Equity | 2.33 |
| 10 | | |
| | | |
| 11 | Less: Expenses Capitalized | |
| | | |
| C | PBDIT | |
| | | |
| D | Depreciation and Related debits | 2.27 |
| | | |
| E | PBIT | |
| | | |
| 1 | Interest & Finance Charges | 2.01 |
| 2 | Interest on working capital | -0.12 |
| 3 | Less: Interest Capitalized | |
| | | |
| F | Total Interest and Finance Charges | 1.89 |
| | | |
| G | TOTAL EXPENDITURE | 185.63 |
| | | |
| H | Profit/Loss before Tax | 114.40 |
| | | |
| I | Income Tax provisions | |
| | | |
| J | Profit/Loss after Tax | |

Form No: S4[illegible]

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Return on Equity

Form No: S5

| Return on Equity | | | | | | | |
|--------------------------|-------------------------------|----------|--------|----------|-----------------------|----------------|----------------|
| All figures in Rs Crores | | | | | | | |
| S. No. | Particulars | PY | | CY | | Control Period | Control Period |
| | | FY 23-24 | | FY 24-25 | | FY 25-26 | |
| | | MYT | Actual | MYT | Estimated (Apr-March) | MYT | Estimated |
| 1 | Opening Balance of Equity | 17.91 | 13.50 | 21.36 | 18.71 | 21.66 | 21.96 |
| 2 | Net Additions during the Year | 3.45 | 5.21 | 0.3 | 7.07 | 0.3 | 6.31 |
| 3 | Closing Balance of Equity | 21.36 | 18.71 | 21.66 | 25.77 | 21.96 | 28.27 |
| 4 | Average Balance of Equity | 19.64 | 16.10 | 21.51 | 22.24 | 21.81 | 25.11 |
| 5 | Rate of Return (%) | 14.50% | 14.50% | 14.50% | 14.50% | 14.50% | 14.50% |
| 6 | Return on Equity | 2.85 | 2.33 | 3.12 | 3.22 | 3.16 | 3.64 |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Energy balance

Form No: S7

| Energy Balance | | | | | | Form No: S7 | |
|----------------|--|---------------------------------|----------|---------------------------------|---------------------------------|---------------------------------|-----------|
| | Particulars | PY | | CY | | Control Period | |
| | | FY 23-24 | | FY 24-25 | | FY 25-26 | |
| | | MYT (Case no. 13 of 2022) | Actual | MYT (Case no. 13 of 2022) | Estimated (April- March.) | MYT (Case no. 13 of 2022) | Estimated |
| | | | | | | | |
| | 1 Purchase of Power | | | | | | |
| | Power from Own Stations | | | | | | |
| | Power from Other Sources | | | | | | |
| | Total Power Available for Sale or Energy Input | 1,602.82 | 1,304.30 | 1,748.61 | 1,661.24 | 1,908.51 | 1,697.42 |
| | Power available for sale to township | 229.65 | 308.84 | 238.13 | 313.35 | 246.97 | 268.66 |
| | | | | | | | |
| | 2 Energy Sales within the state | | | | | | |
| | a) LT Sales | 111.93 | 101.16 | 115.55 | 102.50 | 119.29 | 103.87 |
| | b) HT Sales | 94.76 | 67.95 | 98.76 | 69.32 | 102.99 | 70.76 |
| | c) EHT Sales | 1373.17 | 1135.19 | 1510.49 | 1347.89 | 1661.54 | 1428.76 |
| | Total Energy Sales | 1579.85 | 1304.30 | 1724.80 | 1519.70 | 1883.82 | 1603.39 |
| | | | | | | | |
| | 3 Distribution Loss(%) | 10.00% | 45.24% | 10.00% | 45.17% | 10.00% | 35.00% |
| | | | | | | | |
| | 4 Intra State Transmission Loss | | | | | | |
| | | | | | | | |
| | 5 Net Energy Requirement for sale in state | | | | | | |
| | | | | | | | |
| | 6 Energy available for inter state sale | | | | | | |
| | | | | | | | |
| | 7 Inter State Transmission Loss | | | | | | |
| | | | | | | | |
| | 8 Tradable Power | | | | | | |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

Truing Up

Form No: S8

| Truing Up | | Form No: S8 | |
|-----------|--|-------------|--------|
| S. No. | Particulars | PY | |
| | | FY 23-24 | |
| | | MYT | Actual |
| | Power Purchase (MU) | 1,602.82 | 308.84 |
| | Sale of Power to Township (MU) | 229.65 | 169.11 |
| | Loss % | 10.00% | 45.24% |
| | | | |
| 1 | Receipts | | |
| a | Revenue from tariffs & Miscell. Charges | 806.91 | 71.23 |
| b | Subsidy from Govt. | | |
| | Total | 806.91 | 71.23 |
| | | | |
| 2 | Expenditure | 786.24 | 185.63 |
| a | Purchase of Power from Own Stations | | |
| b1 | Purchase of Power from Other Sources | | |
| b2 | Purchase of Power from Other Sources | 753.95 | 160.30 |
| c | Transmission & Load Dispatch charges | | |
| d | O&M Expense | 16.69 | 18.84 |
| e | Depreciation | 2.76 | 2.27 |
| f | Interest on Working Capital | 7.59 | 0.12 |
| g | Interest on Loans | 2.41 | 2.01 |
| h | Interest on Consumer Security Deposit | | |
| i | Income Tax | | |
| j | Foreign Exchange Rate variation | | |
| k | Return on equity | 2.85 | 2.33 |
| l | Lease Charges | | |
| m | Other (Misc.)-net prior period credit/ (charges) | | |
| n | Sharing of Gains and Losses of O&M | | -2.15 |
| | Total | | |
| | | | |
| 3 | Reasonable Return | | |
| 4 | Other Income | | |
| a | Non-Tariff Income | | |
| b | Income from Other Business | | |
| c | Receipts on account of cross subsidy surcharge and additional surcharge from open access customers | | |
| d | Other | | |
| | | | |
| 5 | Annual Revenue Requirement (2)+(3)-(4) | 786.24 | 185.63 |
| 6 | Surplus(+) / Shortfall(-) : (1)-(5) before tariff revision | (20.67) | 114.40 |
| 7 | Tariff Revision Impact | | |
| 8 | Surplus(+) / Shortfall(-) : (6)-(7)after tariff revision | | |

Steel Authority of India Limited (SAIL)- Bokaro Steel Plant (BSL)

T&D Losses in HT/LT System

Form No: P2

| T&D Losses in LT and HT system | | | | | | | | | |
|--------------------------------|----------------|-------------------------------|----------------|--------|----------------|---------------------|----------------------------|-----------|--|
| | | Particulars | PY FY 23-24 | | CY FY 24-25 | | Control Period FY 25-26 | | |
| | | | MYT | Actual | MYT | Actual (Apr-Mar) | MYT | Estimated | |
| F | Overall Losses | | | | | | | | |
| | 1 | Energy In (A1+B1+C1+D1+E1) | 229.65 | 309 | 238.13 | 313.35 | 246.97 | 268.66 | |
| | 2 | Energy Sales (A5+B5+C5+D5+E4) | 206.68 | 169.11 | 214.31 | 171.82 | 222.28 | 174.63 | |
| | 3 | Total T&D Loss (2/1)*100% | 10.00% | 45.24% | 10.00% | 45.17% | 10.00% | 35.00% | |