

**BEFORE THE  
HON'BLE BIHAR ELECTRICITY REGULATORY COMMISSION  
VIDYUT BHAWAN -II, PATNA**

**Petition**

**For**

**True - up for FY 2021-22,  
Annual Performance Review (APR) for FY 2022-23,  
Determination of Annual Revenue Requirement (ARR)for the FY 2023-24,  
Determination of Transmission Tariff for the FY 2023-24**

**For**

**Bihar Grid Company Limited (BGCL)**

**Patna**



**Bihar Grid**

**2<sup>nd</sup>Floor, Alankar Place,  
Boring Road,  
Patna - 800 001**

**November \_\_,2022**

BEFORE, THE BIHAR ELECTRICITY REGULATORY COMMISSION,

IN THE MATTER OF

Filing of the Petition for True-up of FY 2021-22 under Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018, Annual Performance Review (APR) for FY 2022-23 and Determination of Annual Revenue Requirement (ARR) for the FY 2023-24 along with Determination of Transmission Tariff for the FY 2023-24 under Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 along with the other guidelines and directions issued by the Bihar Electricity Regulatory Commission from time to time and under Section 61, 62, 64 and 86 of the Electricity Act, 2003 read with the relevant guidelines.

AND

IN THE MATTER OF

BIHAR GRID COMPANY LIMITED (here in after referred to as "BGCL" or "Petitioner" which shall mean for the purpose of this Petition, the Licensee), having its registered office at 2<sup>nd</sup> Floor, Alankar Place, Boring Road, Patna - 800001.

The Petitioner respectfully submits as under:

1. BGCL is Filing of the Petition for True-up of FY 2021-22 under Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018, Annual Performance Review (APR) for FY 2022-23 and Determination of Annual Revenue Requirement (ARR) for the FY 2023-24 along with Determination of Transmission Tariff for the FY 2023-24 under Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 along with procedures outlined in the respective governing Regulations thereof.



2. This Petition has been prepared in accordance with the Section 61, 62 and 64 of the Electricity Act, 2003 along with provisions contained in Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018, Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021, and Bihar Electricity Regulatory Commission (Conduct of Business) Regulations 2005.
3. BGCL along with this Petition is submitting the Tariff Formats (**Annexure A** of the Petition) with relevant data and information to the extent applicable and would make available any further information/additional data required by the Bihar Electricity Regulatory Commission during the course of the proceedings.



Date: November, 2022

**Rajesh**  
**(GM-O&M/Comml)**

## CONTENTS

1	Background.....	1
1.1	Development of Intra State Transmission Network .....	1
1.2	Formation of BGCL .....	1
1.3	Transmission License for BGCL.....	2
1.4	Current Projects entrusted with BGCL .....	2
1.5	Main Functions and Duties of BGCL .....	2
2	Pending matters under adjudication in respect of BGCL.....	4
3	True - Up for 2021-22.....	7
3.1	Background .....	7
3.2	Performance of Transmission System - Transmission Availability Factor (TAF) and Transmission Loss.....	7
3.3	Capital Expenditure and Capitalisation.....	8
3.4	Schedule of Capitalization .....	10
3.5	Gross Fixed Assets .....	11
3.6	Depreciation.....	12
3.7	Interest on Loan Capital and Finance Charges.....	13
3.8	Operations and Maintenance Expenses .....	14
3.8.1	Employee Expenses .....	15
3.8.2	Repairs & Maintenance (R&M) Expenses .....	16
3.8.3	Administration and General (A&G) Expenses .....	16
3.9	Return on Equity .....	17
3.10	Interest on Working Capital .....	19
3.11	Gain/ Loss Sharing .....	21
3.12	Non- Tariff Income.....	22
3.13	Transmission Availability and Transmission Loss Incentive .....	23





3.14	Annual Transmission Charges/ ARR for True up of 2021-22 .....	25
4	Annual Performance Review for FY 2022-23 .....	28
4.1	Introduction .....	28
4.2	Performance of Transmission System .....	28
4.2.1	Transmission System Availability .....	28
4.2.2	Transmission Losses .....	28
4.2.3	Transformer Failure Rate .....	29
4.3	Schedule of Capitalization .....	29
4.4	Capitalization.....	31
4.5	Funding of Capitalization .....	32
4.6	Gross Fixed Assets .....	32
4.7	Depreciation.....	32
4.8	Interest on Loan Capital and Finance Charges .....	34
4.9	Operations and Maintenance Expenses .....	36
4.9.1	Employee Expenses .....	37
4.9.2	Repair and Maintenance Expenses.....	38
4.9.3	Administrative and General Expenses .....	39
4.10	Return on Equity .....	40
4.11	Interest on Working Capital .....	42
4.12	Non- Tariff Income.....	43
4.13	Annual Revenue Requirement for the FY 2022-23 .....	43
5	Annual Revenue Requirement for the FY 2023-24.....	46
5.1	Introduction .....	46
5.2	Performance of Transmission System .....	46
5.2.1	Availability of Transmission System .....	46
5.2.2	Transformer Failure Rate .....	46
5.3	Schedule of Capitalization .....	47

---

5.4	Capitalization.....	48
5.5	Gross Fixed Assets .....	48
5.6	Funding of Capitalization .....	49
5.7	Depreciation .....	49
5.8	Interest on Loan Capital and Finance Charges.....	49
5.9	Operations and Maintenance Expenses .....	51
5.9.1	Employee Expenses .....	53
5.9.2	Repair and Maintenance Expenses.....	54
5.9.3	Administrative and General Expenses .....	55
5.10	Return on Equity .....	56
5.11	Interest on Working Capital .....	57
5.12	Non- Tariff Income.....	58
5.13	Annual Revenue requirement for FY 2023-24.....	58
5.14	Revenue Gap/Surplus and Transmission Tariff determination for FY 2023-24	59
6	Compliance of Directives .....	61
7	Prayers to the Hon'ble Commission .....	66
	List of Annexures .....	68



## TABLE INDEX

Table 1 - Development of Intra State Transmission Network .....	1
Table 2 - Scheme wise Capital Expenditure and Capitalisation.....	8
Table 3 - CWIP statement for the FY 2021-22 .....	9
Table 4 - Details of Assets Capitalized during the FY 2021-22 (Part 1 of 2).....	10
Table 5 - Details of Assets Capitalized during the FY 2021-22 (Part 2 of 2) .....	10
Table 6 - Gross Fixed Assets for the FY 2021-22 .....	12
Table 7 - Computation of Weighted average Rate of Depreciation .....	13
Table 8 - BGCL claim of Depreciation for the FY 2021-22.....	13
Table 9 - BGCL claim of Interest on Loan for the FY 2021-22 .....	14
Table 10 - BGCL claim of Employee Expenses for the FY 2021-22 .....	15
Table 11 - BGCL claim of Repairs & Maintenance (R&M) Expenses for FY 2021-22 .	16
Table 12 - BGCL claim of Administration and General (A&G) Expenses for the FY 2021-22 .....	17
Table 13 - Computation of Grossed up Rate of Return on Equity .....	18
Table 14 - BGCL claim of Return on Equity for the FY 2021-22.....	19
Table 15 - Computation of Rate of Interest on Working Capital for the FY 2021-22..	20
Table 16 - BGCL claim of Interest on Working Capital for the FY 2021-22 .....	20
Table 17 - Gain/ Loss Sharing for the FY 2021-22.....	22
Table 18 - BGCL submission of Non- Tariff Income for the FY 2021-22 .....	22
Table 19 - Transmission Availability for the FY 2021-22.....	23
Table 20 - BGCL claim of Transmission Availability Incentive for the FY 2021-22....	24
Table 21 - BGCL claim of Transmission Loss Incentive for the FY 2021-22.....	25
Table 22 - BGCL claim of ARR for True up of FY 2021-22 .....	25
Table 23 - BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV (Part 1 of 2).....	29
Table 24 - BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV (Part 2 of 2).....	30
Table 25 - BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV (Supplementary).....	31
Table 26 - BGCL claim of CWIP Statement for the FY 2022-23.....	31

Table 27 - BGCL claim of Gross Fixed Assets for the FY 2022-23.....	32
Table 28 - BGCL claim of Depreciation for the FY 2022-23 .....	33
Table 29 - BGCL claim of Interest on Loan for the FY 2022-23 .....	35
Table 30 - Computation of Average CPI (past 3 years) .....	38
Table 31 - BGCL claim of Employee Expenses for the FY 2022-23.....	38
Table 32 - Computation of Average % factor (R&M expenses to GFA).....	39
Table 33 - BGCL claim of Repair and Maintenance Expenses for the FY 2022-23 .....	39
Table 34 - Computation of Average WPI (past 3 years) .....	40
Table 35 - BGCL claim of Administrative and General Expenses for the FY 2022-23 40	
Table 36 - BGCL claim of Return on Equity for the FY 2022-23 .....	41
Table 37 -Effective Tax rate .....	41
Table 38 - BGCL claim of Interest on Working Capital for the FY 2022-23 .....	42
Table 39 - BGCL claim of ARR for the APR of FY 2022-23.....	43
Table 40 - BGCL estimate of Asset Capitalization for the period FY 2023-24 Phase IV (Part 1 of 2).....	47
Table 41 - BGCL estimate of Asset Capitalization for the period FY 2023-24 Phase IV (Part 2 of 2).....	47
Table 42 - BGCL estimate of Asset Capitalization for the period FY 2023-24 Phase IV (Part 2 of 2(Supplementary)).....	47
Table 43 - CWIP statement for the period FY 2023-24 .....	48
Table 44 - BGCL estimate of Gross Fixed Assets for the period FY 2023-24.....	48
Table 45 - BGCL estimate of Depreciation for the period FY 2023-24 .....	49
Table 46 - BGCL estimate of Interest on Loan for the period FY 2023-24 .....	51
Table 47 - Computation of Average CPI (past 3 years) .....	53
Table 48 - BGCL estimate of Employee Expenses for the period FY 2023-24.....	53
Table 49 - Computation of Average % factor (R&M expenses to GFA).....	54
Table 50 - BGCL estimate of Repair and Maintenance Expenses for the period FY 2023-24 .....	55
Table 51 - Computation of Average WPI (past 3 years).....	55
Table 52 - BGCL estimate of Administrative and General Expenses for the period FY 23-24 .....	56



---

Table 53 - BGCL estimate of Return on Equity for the period FY 2023-24.....	57
Table 54 - BGCL estimate of Interest on Working Capital for the period FY 2023-24	58
Table 55 - BGCL estimate of Annual Revenue requirement for FY 2023-24.....	59
Table 56 - True up Revenue Surplus including Carrying Cost .....	60
Table 57 - BGCL claim of Transmission Charges for the FY 2023-24.....	60
Table 58 - BGCL submission to Directives.....	61

---

A handwritten signature in blue ink, appearing to be 'S. D.' or similar, located at the bottom right of the page.

# 1 Background

## 1.1 Development of Intra State Transmission Network

Considering the rapid load growth and the upcoming generating stations in the State of Bihar, a comprehensive study was carried out by POWERGRID in 2011-12 in association with the then Bihar State Electricity Board (BSEB) and Central Electricity Authority (CEA). As per the study, transmission and system strengthening schemes were planned and categorised in following three parts:

**Table 1 - Development of Intra State Transmission Network**

Part	Scheme Details
1	Bihar Sub-Transmission Phase-II extension scheme
2a	Strengthening scheme: Phase-1: Schemes identified for year 2012-13, 2013-14 and 2014-15 under Phase-III
2b	Strengthening Scheme: Phase-2: Schemes identified for year 2015-16 & additional strengthening for year 2016-17 under Phase-IV
3	Generation Linked Scheme: Transmission System for evacuation of power from Lakhisarai, Pirpainti and Buxar generation projects (identified for year 2016-17) under Phase-V

## 1.2 Formation of BGCL

In order to develop the aforesaid Intra-State Transmission System in the State of Bihar, Bihar State Power Holding Company Limited (BSP(H)CL) and Power Grid Corporation of India Limited (POWERGRID) formed a 50:50 Joint Venture Company in the name of Bihar Grid Company Limited (BGCL) on January 4, 2013 under the provisions of the Companies Act, 1956.



### 1.3 Transmission License for BGCL

The Transmission Licence was issued to BGCL on June 21, 2013 vide Letter No. BERG/Case No.7/2013-792-01-Tr.L. The Hon'ble Commission while granting the approval of transmission license in Case No. 7 of 2013 directed as follows:

*"Therefore, the application of the Bihar Grid Company Limited for grant of licence to the applicant BGCL for transmission of electricity as a transmission licensee in the State of Bihar is approved. After compliance of conditions laid down in the Regulations 13, 14 and 15 of BERG (Licencing for Transmission of Electricity) Regulations, 2007 by the Bihar Grid Company Limited, the Commission would issue the Licence. The BGCL shall pay the initial and annual licence fee to the Bihar Electricity Regulatory Commission in accordance with BERG (Fees, Fines and Charges) Regulations, 2006.*


*The licence shall be issued for 25 (twenty five) years with effect from the date of issue of the licence. Bihar Grid Company Limited shall submit requisite documents as specified in Regulations 13, 15 and 16 of the BERG (Licencing for Transmission of Electricity) Regulations, 2007. Bihar Grid Company Limited shall abide by all terms and conditions of the licence and any other terms and conditions which Commission considers necessary to remove the difficulty in giving effect to any of the provision of the BERG (Licencing for Transmission of Electricity) Regulations, 2007."*

### 1.4 Current Projects entrusted with BGCL

While it was initially envisaged that BGCL should undertake the development of transmission and system strengthening schemes as identified above, however, works under Part-1 and Part-2(a) were undertaken by BSPTCL on priority basis. Therefore, BGCL is implementing works under Part-2(b) of the above-mentioned schemes and Detailed Project Report (DPR) for the same has been approved by the Hon'ble Commission vide Order dated January 4, 2014 and July 22, 2015 in Case No. 20 of 2013 and Case No. 14 of 2015, respectively.

### 1.5 Main Functions and Duties of BGCL

The main functions and duties of BGCL are as follows:





- a) To undertake planning and coordination activities in regard to Intra-State Transmission, works connected with the inter-State Transmission System in the State of Bihar, to introduce open access in transmission on payment of transmission charges. To ensure development of an efficient, coordinated and economical system of Intra-State Transmission lines for smooth flow of electricity from a generating station to load centres and to provide non-discriminatory open access as per requirement. Other functions as may be assigned to the company by law or otherwise by Government or Government Authority concerning the operation of the Power System.
- b) To plan, acquire, develop, establish, built, take over, erect, lay, operate, run, manage, renovate, modernize, electrical transmission lines and/or networks through various voltage lines and associated sub-stations, including cables, wires, meters, computers and materials connected with transmission, ancillary services, telecommunication and tele-metering equipment etc.
- c) To make available the entire transmission capacity of the Project to BSP(H)CL on a commercial basis subject to the conditions laid down in the Inter-State Transmission Services Agreement (ITSA).
- d) To derive its revenue by recovery of transmission charges from transmission system users. The Company shall be primarily in the business of transmission of electricity and it shall be vested with the transmission assets, interest in property, rights and liabilities. The Company shall act as a Transmission Licensee under the Provisions of Section 14 of the Electricity Act, 2003.
- e) To define its own 'Safety policy ' keeping in view the motto of ' ZEROACCIDENT GOAL'.



## 2 Pending matters under adjudication in respect of BGCL

### 1. Appeal against BERC Order (dt.12.03.2021)

BGCL had filed petition for determination of Tariff for FY 2021-22 however during the course of proceedings, due to want of certain documents, the Hon'ble Commission had not approved the Capex for part 1 of 2 and the same was restricted to Rs. 1459.97Cr. (hard cost) based on the LOA awarded hard cost at that time. BGCL aggrieved by the said order of Hon'ble Commission preferred a Review of the said Order however, BGCL's plea was not accepted before the Hon'ble Commission. Thereafter, left with no choice, BGCL had to prefer an Appeal before the APTEL against the Hon'ble Commission's Order dated 12.3.21. The concurrent balances used for the derivation of True up of FY 2019-20 has been considered while filing the Petition for the True up of FY 2020-21.

The following were the necessary remedies sought from the Appellate Tribunal:

- a. The Appeal was being filed under Section 111 of the Electricity Act, 2003 against the Order dated 12.03.2021 (hereinafter referred to as the 'Impugned Order') passed by the Bihar Electricity Regulatory Commission (hereinafter called the 'State Commission') in Case No. 29 of 2020.
- b. The Appellant, Bihar Grid Company Limited had filed Case No. 29 of 2020 for Truing-up for the FY 2019-20, Annual Performance Review ('APR') for FY 2020-21, Annual Revenue Requirement ('ARR') and determination of Transmission Tariff for FY 2021-22 for its transmission assets in the State of Bihar.
- c. The State Commission vide the Impugned Order (order dated 12.03.21) has erroneously disallowed capitalization amounting to Rs. 69.5 Crores even though the amounts have been incurred by the Appellant,

disallowed the Interest During Construction ("IDC") to the tune of Rs. 34.76 Crores, and also disallowed the incentive for reduction of transmission loss achieved by the Appellant of 1.20% against the target of 2.0%. Further, the State Commission also erred in computation of Depreciation for the True-up of FY 2019-20.

- d. The Appellant had sought review of the Impugned Order by filing review petition being Case No. 04/2021 on all the above issues. The State Commission vide Order dated 28.12.2021 dismissed the review petition while rejecting the prayer of the Appellant on the basis that there is no error apparent in the Impugned Order.
- e. Since dismissal of review is not appealable under Order XLVII of Civil Procedure Code, 1908, the Appellant has challenged the Order dated 12.03.2021 on the above four issues.

## 2. Review of Order (dt. 25.03.2022)

The Petitioner craves leave to place on record that it had filed Review Petition No 15 of 2022 seeking review of the previous Tariff order dated 15.03.2022 passed by the Hon'ble Commission. In the review, BGCL had given extensive data and justification for the time and cost over-run as well as the capital cost actually incurred. The matter was taken up on 11.11.2022 and the Hon'ble Commission was of the view that the issues and the data can be raised in the present tariff proceedings itself. Therefore, BGCL craves leave to file an additional affidavit in the present proceedings bringing on record the contents and data filed along with Review Petition 15 of 2022.

In view of the above, BGCL has considered the opening balances in line with those claimed during the True up of FY 2019-20 and True up of FY 2020-21. The Hon'ble Commission is requested to kindly consider the above facts while determining the True up of FY 2021-22, APR for FY 2022-23 and ARR for FY 2023-24.



**TRUE-UP of ARR for the**  
**FY 2021-22**

---



### **3 True - Up for 2021-22**

#### **3.1 Background**

The Hon'ble BERC in the Order dated 12.03.2021 has approved ARR for FY 2021-22 to the tune of Rs. 541.71 Crore. Further, in the Order dated 25.03.2022, the Hon'ble BERC has approved Rs. 346.06 Crore while conducting the Review of Annual Performance for the FY 2021-22. The Petitioner herein, submits the claim towards each and every item of the ARR before this Hon'ble Commission for conducting the True-up for the period FY 2021-22 in accordance with the Regulatory provisions and the principles. The following considerations have been made by the Petitioner for the True up for FY 2021-22:

- a. Opening Value of GFA for FY 2021-22 are considered as respective closing values for FY 2020-21(as claimed by the Petitioner in the Tariff Petition for FY 2022-23)
- b. Actual Capital Expenditure and Capitalization of assets is considered as per books of accounts.
- c. Elements of ARR are calculated based on the normative parameters in line with the principles of Tariff Regulations 2018.
- d. Amount of Rs 22.71 Crore, pertaining to Land of Naubatpur and Porta-Cabin is being claimed under Part 2 capitalisation which was previously disallowed by the Hon'ble Commission during the True-up of FY 2018-19.

Details of the claims under various elements of the Annual Revenue Requirement (ARR) for the True-up for FY 2021-22 is explained in the subsequent sections.

#### **3.2 Performance of Transmission System - Transmission Availability Factor (TAF) and Transmission Loss**

The Tariff Regulations 2018 stipulate the Normative Transmission System Availability Factor (NATAF) of 98% for the control period FY 2019-20 to FY 2021-22.





The Petitioner submits that the Annual Transmission Availability of the BGCL system for the FY 2021-22 is 99.84%.

The Hon'ble Commission as per the Order dated 15.02.2019 has approved Transmission Loss trajectory to be 2% for the control period of FY 2019-20 to FY 2021-22. The Petitioner submits that the actual Annual Transmission Losses in the BGCL network for the FY 2021-22 is 1.27%.

The Month-wise Transmission Availability and Transmission Loss along with the incentives allowable in accordance with the Tariff Regulations 2018 is detailed out in the upcoming sections.

### 3.3 Capital Expenditure and Capitalisation

The Petitioner submits that the Hon'ble Commission vide Order dated 28.01.2020 had given in-principle approval of the Capital Investment Plan of Rs. 2091.88 Crore (in accordance with the Revised Cost Estimate - II proposed by the Petitioner) for Phase IV Part 1 of 2.

The Hon'ble Commission vide Order dated 28.07.2017 and further vide Order dated 20.03.2020 had approved Capital Investment Plan of Rs. 1688.36 Crore for Phase IV Part 2 of 2. In addition, the Hon'ble Commission vide Order dated 15.02.2019 also gave in-principle approval of the Supplementary works proposed along with Phase IV Part 2 of 2 amounting to Rs. 111.14 Crore.

The Capital Investment Plan as approved by the Hon'ble Commission w.r.t. BGCL Network is summarized below:

**Table 2-Scheme wise Capital Expenditure and Capitalisation**

Particulars	Approved Cost	Remarks
Phase IV Part 1 of 2	2,091.88	Order dated 28.01.2020
Phase IV Part 2 of 2	1,688.36	Order dated 28.07.2017
Phase IV Supplementary works	111.14	Order dated 15.02.2019
<b>Total</b>	<b>3,891.39</b>	

It is submitted that the Capital expenditure along with the details of capitalisation for FY 2021-22 as per books of accounts is summarised in the CWIP statement that shall follow in subsequent paras. The breakup of the Hard and the Soft cost of the



assets commissioned during the FY 2021-22 is annexed as **Annexure - B**. The Petitioner submits that the Hon'ble Commission while approving Capitalization during the True up for FY 2019-20 observed as follows:

*"4.4.25 However, considering that BGCL has already undertaken the capital cost of Rs.2,091.89 Crore, the Commission is inclined to provide BGCL a final opportunity to provide justification of each factor of cost escalation of the works undertaken in Phase IV Part I. Hence, the Commission directs BGCL to submit detailed information and justification along with supporting documents to substantiate the amount actually incurred on each factor of deviation as elaborated in earlier section of this Order in next Truing up in which Project get completed."*

In accordance with the above and submissions made before the Hon'ble Commission during the Review proceedings ; the Petitioner has claimed the Capitalization for the FY 2021-22 based upon the claims made by the Petitioner for FY 2020-21.

The Petitioner submits that the Land of Naubatpur and Porta-Cabin has been Capitalised in the Books of Accounts of Petitioner in earlier financial year but same was not approved during the True-up of FY 2018-19 as the asset pertaining to that land had not attained DOCO. It is submitted that the asset at Naubatpur has attained Capitalisation in the FY 2021-22, accordingly capitalization of Land and Porta-cabin amounting to Rs. 22.71 Cr has also been considered in capitalisation in this petition along with the audited capitalised cost. Summary of the Capital Cost for the FY 2021-22 is provided in the table below:

**Table 3-CWIP statement for the FY 2021-22**

*(in Rs Crore)*

S.No.	Particulars	Approved by the Hon'ble Commission in the Order dated 12.03.2021	BGCL claim
1	Opening CWIP without IEDC and IDC	439.98	717.10
2	Opening IDC	15.27	86.72
3	Opening IEDC	51.31	67.87
4	<b>Opening CWIP (1+2+3)</b>	<b>506.56</b>	<b>871.68</b>
5	Capital investment during the year (without IDC and IEDC)	293.32	192.77
6	IDC addition	33.36	39.20
7	IEDC addition	34.20	2.75
8	<b>Total (5+6+7)</b>	<b>360.88</b>	<b>234.72</b>



S.No.	Particulars	Approved by the Hon'ble Commission in the Order dated 12.03.2021	BGCL claim
9	Asset capitalisation without IDC & IEDC	733.30	262.13
10	IDC capitalised	48.63	16.86
11	IEDC capitalised	85.50	21.06
12	<b>Total Capitalisation (9+10+11)</b>	<b>867.43</b>	<b>300.04</b>
13	Closing CWIP without IDC and IEDC (1+5-9)	-	647.75
14	Closing IDC (2+6-10)	-	109.06
15	Closing IEDC (3+7-11)	-	49.56
16	<b>Closing CWIP (13+14+15)</b>	-	<b>806.37</b>

The Audited Accounts of BGCL for the FY 2021-22 is annexed as **Annexure C**.

The Petitioner thereby submits before the Hon'ble Commission to approve the CWIP and Capitalization for the FY 2021-22 as per the table above.

### 3.4 Schedule of Capitalization

The Petitioner submits that the Assets capitalized during FY 2021-22 in accordance with the Audited Accounts for the FY 2021-22 have been listed along with the Date of Commercial Operation in the table below:

**Table 4-Details of Assets Capitalized during the FY 2021-22 (Part 1 of 2)**

S. No.	Transmission Element (Part 1 of 2)	Date of Commercial Operation
	Nil	

**Table 5 - Details of Assets Capitalized during the FY 2021-22 (Part 2 of 2)**

S. No.	Transmission Element (Part 2 of 2)	Date of Commercial Operation
<b>Transmission Lines</b>		
<b>Transmission Line</b>		
1.	LILO of 400 kV D/C (Quad), ckt 3& 4, of Patna - Balia line, at Naubatpur (New)	17-03-2022
2.	132kV D/C Naubatpur (New) - Masaurhi (BSPTCL)	29-03-2022

S. No.	Transmission Element (Part 2 of 2)	Date of Commercial Operation
3.	132 kV D/C Dumraon (new)-Buxar (BSPTCL) TL	03-03-2022
<b>Sub Station</b>		
4.	132/33 kV 80 MVA Transformer-2 of GIS, Dumraon New	09-09-2021
5.	1X500 MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	17-03-2022
6.	1X160MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	29-03-2022
7.	1X80MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	29-03-2022
8.	400kv GIS NBTR	17-03-2022
<b>Bay Extension</b>		
9.	132kV Buxar (BSPTCL)-02.Nos	03-03-2022
10.	132 KV Masuarhi (BSPTCL)-2 Nos	29-03-2022

The Petitioner submits that few assets planned to be capitalized during the FY 2021-22 as per the submissions made for the Review of FY 2021-22 could not attain Capitalization in actual on account of reasons beyond the control of the Petitioner. The key reasons attributable to such delay include the time required for land acquisition, local law, order issues and unprecedented rainfall/floods in certain areas and the COVID pandemic & subsequent lockdowns. In view of the same, the Petitioner requests the Hon'ble Commission to approve the capitalisation of the projects.

### 3.5 Gross Fixed Assets

The Petitioner has considered the Opening GFA as per the Closing GFA submitted by the Petitioner in the True up Petition for FY 2020-21. The additions to GFA is considered as per the Audited Accounts for FY 2021-22 as well as land and porta-cabin as explained in the preceding section. Accordingly, the Petitioner requests the Hon'ble Commission to approve the GFA for FY 2021-22as depicted in the table below:

**Table 6 - Gross Fixed Assets for the FY 2021-22**

(in Rs Crores)

S.No.	Particulars	FY 2021-22	
		Approved by BERG in the Order dated 12.03.2021	BGCL claim
1	Opening GFA	2919.69	2039.42
2	Net Additions	867.43	300.04
A	Capex Addition		262.13
B	IDC Addition		16.86
C	IEDC addition		21.06
5	Closing GFA	3787.12	2339.44

### 3.6 Depreciation

According to Regulation 23 Tariff Regulations 2018, Depreciation shall be computed as follows:

*“(i) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year. No advance shall be granted against depreciation.*

*(ii) Depreciation shall not be allowed on assets funded by capital subsidies, beneficiary contributions or grants.*

*(iii) Depreciation shall be calculated annually on the basis of assets capitalised and put to use based on the straight line method over the useful life of the asset and at the rate not exceeding the rate specified by the Central Electricity Regulatory Commission from time to time as provided in Appendix-III of these Regulations.*

*The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.*

*Provided that freehold land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.*

*Provided further that the cost of lease hold land shall be amortised evenly within the leased period.*

*(iv) The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.*

*(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.*

*(vi) A provision of replacement of assets shall be made in the capital investment plan.*

The Petitioner also submits herein that the weighted average rate of depreciation for the assets capitalized on/ before 31.03.2021 is computed to be 5.17% while for the assets commissioned during the FY 2021-22, the weighted average rate of



depreciation is computed on a pro rata basis (*i.e.* based upon the actual DOCO of the capitalized asset) which comes out to be 0.27%. The computation of the Weighted Average Rate of depreciation is illustrated in the table below:

**Table 7- Computation of Weighted average Rate of Depreciation**  
(in Rs. Crores)

S.No.	Particulars	Value
1	Opening GFA as per Audited Accounts	2,079.02
2	Opening land	58.10
3	Net opening depreciable assets (1-2)	2,020.93
4	Depreciation of opening depreciable assets	104.54
5	<b>Weighted average rate of depreciation on opening assets (4/3)</b>	<b>5.17%</b>
6	Addition to Depreciable GFA (excluding land) as per Audited Accounts	278.22
7	Depreciation on asset additions during the year	0.75
8	<b>Weighted average prorata depreciation on asset additions during the year (7/6)</b>	<b>0.27%</b>

In accordance with the Rate of Depreciation computed as above, the Depreciation claimed by the Petitioner is Rs. 105.26 Crore as shown in the table below:

**Table 8 - BGCL claim of Depreciation for the FY 2021-22**  
(in Rs. Crore)

S.No.	Particulars	Approved for the FY 2021-22 (as per Order dated 12.03.2021)	BGCL claim for the FY 2021-22
1	Net Opening GFA (without land)	2861.14	2020.48
2	Additions during the year	867.43	300.03
3	Less: land during the year	-	21.82
4	Net Additions (2-3)	867.43	278.21
5	Closing GFA (1+4)	3728.57	2298.69
6	Average GFA (1+5)/2	3294.85	2159.59
7	Weighted average Rate of depreciation on opening assets	5.17%	5.17%
8	Weighted average Rate of depreciation on asset additions during the year	3.92%	0.27%
9	<b>Depreciation (1*7+4*8)</b>	<b>181.92</b>	<b>105.26</b>

### 3.7 Interest on Loan Capital and Finance Charges

Regulation 24 of Tariff Regulations 2018 stipulates the provisions in the matter of Interest and Finance charges on Loan Capital.

The Petitioner has considered Gross Opening Loan as the Normative Closing loan as claimed by the Petitioner in the True up Petition for the FY 2021-22. Further, the debt: equity ratio for the Capital Expenditure for the projects under Part 1 of 2, Part 2 of 2 shall be 80:20 in accordance with the Business Plan approved by the Hon'ble Commission vide respective Orders. As such, the normative loan addition shall be 80% of the Capitalization claimed for the FY 2021-22.

The weighted average rate of Interest on Actual Loans for assets capitalized through REC and PFC loans comes out to be 10.27% and 9.47%. The overall weighted average of Interest for the FY 2021-22 comes out to be 9.90%. The detailed working of the same is annexed as **Annexure D**.

In view of the above submissions, the Interest on Loan Capital claimed for the FY 2021-22 is Rs. 141.47 Crore, the working of which is explained below:

**Table 9-BGCL claim of Interest on Loan for the FY 2021-22**

(in Rs. Crore)

S.No	Particulars	Approved in the Order dated 12.03.2021 for FY 2021-22	BGCL claim for the FY 2021-22
1	Opening Loan (Normative)	2030.39	1360.89
2	Additions (@80% of GFA additions)	693.94	240.02
3	Repayment	181.92	105.26
4	Net Closing Loan (Normative) (1+2-3)	2542.41	1495.65
5	Average Loan (1+4)/2	2286.40	1428.27
6	Weighted average rate of Interest (%)	10.33%	9.90%
7	Interest on Loan (5x6)	236.19	141.47

### 3.8 Operations and Maintenance Expenses

Regulation 21 of Tariff Regulations 2018 provides for the mechanism by which Operations and Maintenance Expenses shall be allowed to the Transmission Licensee.

However, the Hon'ble Commission w.r.t Operation and Maintenance Expenses, in the Order dated 20.03.2020 observed as follows:

*"The Commission in Tariff Order dated 20.03.2020(Para 7.8) had opined to determine the O&M norms for the next control period (i.e. from FY 2022-23 onwards) as the parameters required for determination of O&M norms i.e. No. of substations, No. of buys, length of lines in Ckt KM, etc. and full operational O&M*

*expenses were not available and the same could be arrived after the capitalisation and commissioning of the assets (Phase IV Part 1 of 2, Phase IV Part 2 of 2 and supplemental works) which are spread over the Control period of FY 2020-21 to FY 2022-23."*

The Hon'ble Commission vide Order dated 20.03.2020 and Order dated 12.03.2021 in line with BGCL submissions opined that since many Transmission projects are under way and subsequently full network details were not available, therefore the norms for the computation of O&M Expenses could not be determined. In light of the same, the Petitioner is bound to claim O&M expenses on actuals based on the methodology adopted by the Hon'ble Commission towards the O&M Expenses.

However, the Hon'ble Commission vide Order dated 25.3.22 opined that O&M expenses being controllable factor should be allowed based on the norms and the Hon'ble Commission in the absence of norms has approved O&M expenses considering O&M Expenses approved pertaining to respective year's tariff order.

The Petitioner reiterates that since the asset development pertaining to Part 1 and Part 2 of 2 are still under development, the norms could not be determined, therefore, the Petitioner herein submits that it shall claim the O&M Expenses viz. Employee Expenses, Repairs & Maintenance (R&M) Expenses and Administration & General (A&G) Expenses at actuals as per the Books of Accounts for the FY 2021-22. The Hon'ble Commission is requested to approve the same.

### **3.8.1 Employee Expenses**

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

In continuation to the arguments placed in the preceding sections and approved by Hon'ble Commission, the Petitioner claim towards Employee Expenses for the FY 2021-22 as per the Books of Accounts is depicted below for the kind consideration of the Hon'ble Commission:

**Table 10 - BGCL claim of Employee Expenses for the FY 2021-22**

*(in Rs. Crore)*



Particulars	Approved in the Order dated 12.03.2021 for FY 2021-22	BGCL claim for the FY 2021-22
Base Employee Expenses	4.54	
Indexation %	5.35%	
Inflationary increase	0.51	
<b>Employee expenses</b>	<b>4.78</b>	<b>22.25</b>

### 3.8.2 Repairs & Maintenance (R&M) Expenses

The Repair and Maintenance Activities are primarily directed towards the upkeep of the transmission system and related office works.

In continuation to the arguments placed in the preceding sections, the Petitioner claim towards Repair and Maintenance Expenses for the FY 2021-22 as per the Books of Accounts is depicted below for the kind consideration of the Hon'ble Commission:

**Table 11-BGCL claim of Repairs & Maintenance (R&M) Expenses for FY 2021-22**  
(in Rs. Crore)

Particulars	Approved in the Order dated 12.03.2021 for FY 2021-22	BGCL claim for the FY 2021-22
Average GFA (Net of Land)	3294.85	
Average % of R&M expenses to average GFA	0.467%	
<b>R&amp;M expenses</b>	<b>15.40</b>	<b>22.54</b>

### 3.8.3 Administration and General (A&G) Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

In continuation to the arguments placed in the preceding sections, the Petitioner claim towards 3.8.3 Administration and General Expenses for the FY 2021-22 as per



the Books of Accounts is depicted below for the kind consideration of the Hon'ble Commission:

**Table 12-BGCL claim of Administration and General (A&G) Expenses for the FY 2021-22  
(in Rs. Crore)**

Particulars	Approved in the Order dated 12.03.2021 for FY 2021-22	BGCL claim for the FY 2021-22
Base A & G Expenses	3.13	
WPI Inflationary index %	2.96%	
Add: Inflationary increase	0.09	
<b>A&amp;G expenses</b>	<b>3.22</b>	<b>7.99</b>

### 3.9 Return on Equity

Regulation 22 of Tariff Regulations 2018 in the matter of Return on Equity stipulates the following:

***"22. Return on Equity***

*(a) Return on equity shall be computed on 30% of the capital cost or actual equity, whichever is lower:*

*Provided that assets funded by beneficiary contribution, capital subsidies/ grants and corresponding depreciation shall not form part of the capital cost. Actual equity invested in the Transmission Licensee or SLDC, as the case may be, as per book value shall be considered as perpetual and shall be used for computation in this Regulation:*

*Provided further that the premium if any raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the Scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.*

*(b) The return on the equity invested shall be allowed from the date of start of commercial operation and after put to use:*

*(c) Return on equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2015 and further incentive equivalent to 0.5% will be allowed in the form of RoE, if the project is completed within schedule as per the Annexure A or original schedule period as the case may be. However, Return on Equity for the project commissioned prior to 01.04.2015 shall be allowed at the rate of 14%."*

The Regulation 27 of the Tariff Regulations 2018 provides for the Gross up of the Rate of Return on Equity as specified under Regulation 22. The relevant excerpts are shown below:

*"27. Tax on Return on Equity*

1) *The base rate of return on equity as allowed by the Commission under Regulation 22 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned the transmission licensee or SLDC, as the case may be. The actual tax on income from other business including deferred tax liability (i.e. income on business other than business of transmission or SLDC, as the case may be) shall not be considered for the calculation of effective tax rate.*

2) *Rate of return on equity shall be rounded off to two decimal places and shall be computed as per the formula given below:*

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

*Where "t" is the effective tax rate in accordance with Clause(1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of licensee/SLDC paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess."*

The Petitioner submits that the effective Tax rate is for FY 2021-22 is 14.99%, the working of which is demonstrated below:

**Table 13-Computation of Grossed up Rate of Return on Equity**

Particulars	Formula	Value (Rs in Cr)
Profit before Tax	A	193.33
Actual Tax paid during the year	B	28.99
Effective Tax rate	C=B/A	14.99%
<b>Rate of Return on Equity</b>	<b>E=15.50%/(1-D)</b>	<b>18.23%</b>

It is submitted that the actual Tax paid as per the Audited Accounts for the FY 2021-22 is Rs. 28.99 Crores.

Furthermore, the Normative Opening Equity is considered as the Normative Closing Equity claimed by the Petitioner during the True up Petition for the FY 2020-



21. Accordingly, the Return on Equity claimed by the Petitioner for the FY 2021-22 is shown in the table below:

**Table 14 - BGCL claim of Return on Equity for the FY 2021-22**  
(in Rs. Crore)

S.No.	Particulars	Approved by the Hon'ble Commission in the Order dated 12.03.2021	BGCL claim
1	Opening Equity	597.00	407.05
2	Additions during the year	180.44	60.01
3	Closing Equity (1+2)	777.44	467.05
4	Average Equity (1+3)/2	687.22	437.05
5	Base Rate of Return on Equity%	15.50%	15.50%
6	Actual Tax paid during the year		28.99
7	Tax on Rate of Return on Equity	21.55%	14.99%
8	Rate of Return on Equity%	19.76%	18.23%
9	Return on Equity (4*5)	135.78	79.69

### 3.10 Interest on Working Capital

Regulation 26 of Tariff Regulations 2018 in the matter of Interest on Working Capital stipulates the following:

**"26. Interest on working capital**

(a) The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

(i) Receivables equivalent to two (2) month of transmission charges calculated on target availability level.

(ii) O&M Expenses of one (01) month.

(iii) Maintenance spares @ 15% of O&M expenses for one month.

**Less:**

(iv) Depreciation, return on equity and contribution to contingency reserves equivalent to two months.

(v) Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.

(b) Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Trueing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.

(c) Interest shall be allowed on the amount held as security deposit from Transmission System Users at the Bank Rate as at the date on which the application for determination of tariff is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.



(d) If the State Government is providing resource gap grant and/or subsidy, the working capital shall be reduced by two months equivalent of that amount."

In line with the provisions of the Tariff Regulations 2018, for the True-up of FY 2021-22, the Rate of Interest claimed is the weighted average MCLR plus 150 basis points. The computation of the Rate of Interest is demonstrated below:

**Table 15-Computation of Rate of Interest on Working Capital for the FY 2021-22**

S.No.	Date of MCLR Revision	Date applicable from	Date applicable to	Applicable no of days	SBI MCLR Rates*
1	15-03-2022	15-03-2022	12-04-2022	29	7.00%
2	15-02-2022	15-02-2022	15-03-2022	29	7.00%
3	15-01-2022	15-01-2022	14-02-2022	31	7.00%
4	15-12-2021	15-12-2021	14-01-2022	31	7.00%
5	15-11-2021	15-11-2021	14-12-2021	30	7.00%
6	15-10-2021	15-10-2021	14-11-2021	31	7.00%
7	15-09-2021	15-09-2021	14-10-2021	30	7.00%
8	15-08-2021	15-08-2021	14-09-2021	31	7.00%
9	15-07-2021	15-07-2021	14-08-2021	31	7.00%
10	15-06-2021	15-06-2021	14-07-2021	30	7.00%
11	15-05-2021	15-05-2021	14-06-2021	31	7.00%
12	15-04-2021	15-04-2021	14-05-2021	30	7.00%
13	10-04-2021	01-04-2021	14-04-2021	14	7.00%
14	<b>Weighted Average MCLR</b>				<b>7.00%</b>
15	<b>Rate of interest on Working Capital</b>				<b>8.50%</b>

\*Source: <https://sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data>

Based upon the Working capital requirements as envisaged in the provisions of the Tariff Regulations 2018 and the Rate of Interest as above, the Petitioner's claim towards Interest on Working Capital is worked out as depicted in the table below:

**Table 16 - BGCL claim of Interest on Working Capital for the FY 2021-22**  
(in Rs. Crore)

S.No.	Particulars	Approved by the Commission in the Order dated 12.03.2021	BGCL claim for FY 2021-22
1	O&M expenses (1 month)	1.95	4.40
2	Maintenance spares @15% of 1 month of O&M Exp	0.29	0.66
3	Receivables - 2 months	90.28	58.82
4	Less: Dep, RoE and contribution to contingency reserve (for 2	47.63	30.83

S.No.	Particulars	Approved by the Commission in the Order dated 12.03.2021	BGCL claim for FY 2021-22
	months)		
5	Total working capital (1+2+3-4)	44.90	33.05
6	Rate of interest	8.50%	8.50%
7	Interest on working capital (6x5)	3.82	2.81

The Petitioner requests the Hon'ble Commission to approve the Interest on Working Capital amounting to Rs. 2.81 Crore as above.

### 3.11 Gain/ Loss Sharing

Regulation 10 of the Tariff Regulations 2018 establish a mechanism for pass through of Gains/ Losses on account of controllable factor as follows:

***"10. Mechanism for sharing of gains or losses on account of controllable factors***

*10.1 The approved aggregate gain or loss to the Licensee or SLDC, as the case may be, on account of controllable factors shall be dealt with separately for aggregate gain and aggregate loss in the following manner:*

*(a) Aggregate gain:*

*(i) Two-third of the amount of such gain shall be a pass through as an adjustment in the tariff of the Licensee or SLDC, as the case may be,, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations;*

*(ii) The balance one-third of the amount of such gain shall be on account of Licensee or SLDC, as the case may be, and such amount shall be utilized at the discretion of Licensee or SLDC, as the case may be.*

*(b) Aggregate Loss:*

*(i) One-third of the amount of such loss shall normally be a pass through as an adjustment in the tariff of the Licensee or SLDC, as the case may be, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations, provided the Commission is satisfied that such loss is not on account of deliberate action of the Licensee or SLDC, as the case may be;*

*(ii) The balance two-third of the amount of such loss shall be on account of Licensee or SLDC and shall be absorbed by the Licensee or SLDC, as the case may be."*

The Petitioner submits that it has considered Working Capital as a controllable factor. Therefore, as per the above Regulations, the Petitioner computes the Gain to be shared as shown in the table below:

**Table 17 - Gain/ Loss Sharing for the FY 2021-22**
*(in Rs. Crore)*

Particulars	Formula	Value
Normative Interest on Working Capital	A	2.81
Actual Interest on Working Capital	B	0
Interest on Working Capital gains/ (losses)	C=A-B	2.91
<b>2/3rd of Gains to be passed through as an adjustment in Tariff</b>	<b>D=2/3*C</b>	<b>1.91</b>

### 3.12 Non- Tariff Income

The Petitioner submits that the actual Non-Tariff Income accounted in books of accounts stands at Rs 66.40 Crores for FY 2021-22 which includes Delayed Payment Surcharge of Rs 59.89 Crore.

The Petitioner further submits that while computing the actual Non-Tariff Income of BGCL for FY 2021-22, the financing cost for corresponding receivables has to be reduced as accrued DPS is considered as NTI. The Petitioner has already incurred Expenses on such outstanding receivables and DPS is levied as financing cost of such receivables, however, the Petitioner is allowed only 2 months of receivables in allowance of Working Capital. For the receivables beyond the period, DPS is applicable and as DPS is considered to be additional income for the Petitioner financing cost of such receivables are allowed in line with the Judgment of Hon'ble APTEL dated July 12, 2011 in case No. 142 & 147 of 2009.

The Petitioner submitted that the Hon'ble Commission vide its previous Order, has also considered the above approach which is in line with the Judgment dated 12.07.2011 of the Hon'ble APTEL in Appeal no. 142 & 147 of 2009. The Non-Tariff Income submitted by the Petitioner is summarised below:

**Table 18-BGCL submission of Non- Tariff Income for the FY 2021-22**
*(in Rs. Crore)*

S.No.	Particulars	Approved by the Commission in the Order dated 12.03.2021	BGCL submission for the FY 2021-22
1	Surcharge on transmission charges (@1.25% per month)		59.89



S.No.	Particulars	Approved by the Commission in the Order dated 12.03.2021	BGCL submission for the FY 2021-22
2	Interest from Bank		2.76
3	Interest from Others		0.43
4	Interest on Income Tax Refund & Insurance Claim		3.19
5	Sale of Scrap		0.13
6	Sale of Tender paper		-
7	<b>Total Non-Tariff Income (1+2+3+4+5)</b>		<b>66.40</b>
8	Principal amount on which DPS is charged (1/15%)		399.29
9	Rate of Interest for funding Principal of DPS		8.50%
10	<b>Less: Interest on funding of Principal DPS (7x8)</b>		<b>33.94</b>
11	<b>Net Non-Tariff Income (7-10)</b>	<b>7.42</b>	<b>32.46</b>

### 3.13 Transmission Availability and Transmission Loss Incentive

According to Regulation 16.3 of Tariff Regulations 2018, the Normative Annual Transmission System Availability Factor is 98%. The Petitioner submits that the System has achieved 99.84% Annual Transmission Availability. Month-wise Transmission Availability of the BGCL system is depicted in the table below:

**Table 19 - Transmission Availability for the FY 2021-22**

Month	No. of days	Transmission Availability (in %)
Apr'21	30	99.98%
May'21	31	99.96%
June'21	30	99.98%
July'21	31	99.57%
Aug'21	31	99.82%
Sep'21	30	99.87%
Oct'21	31	99.63%
Nov'21	30	99.97%
Dec'21	31	99.96%
Jan'22	31	99.91%
Feb'22	28	99.72%
Mar'22	31	99.74%
<b>Annual Transmission Availability</b>		<b>99.84%</b>



The Regulation 16.3 defines the incentive allowable to the Petitioner. The extract of the same is reproduced below:

*“16.3 The Transmission Licensee shall be entitled to incentive on achieving annual availability beyond the target availability, in accordance with the following formula: -  
 Incentive = Annual Transmission Charges x (Annual availability achieved – Target Availability) / Target Availability;  
 Where,  
 Annual transmission Charges shall correspond to Aggregate Revenue Requirement for each year of the Control Period for the particular Transmission Licensee within the State:  
 Provided that no incentive shall be payable above the availability of 99.75 % for AC system and 98.5 % for HVDC system.”*

In accordance with the above provisions, since the Petitioner has achieved Availability greater than 99.84%, the incentive claimed is capped upto the level of 99.75% for the FY 2021-22 as shown in the table below:

**Table 20-BGCL claim of Transmission Availability Incentive for the FY 2021-22**  
*(in Rs. Crore)*

Particulars	FY 2021-22
Normative Transmission Availability for incentive (%)	99.00%
Actual Transmission Availability (%)	99.84%
Annual Transmission charges (in Rs. Cr)	352.90
<b>Incentive (in Rs. Cr.)</b>	<b>2.65</b>

Further, as per Regulation 38 of the Tariff Regulations 2018, the Petitioner is also eligible for incentive towards achieving Transmission Loss. The relevant extracts of the Regulations are reproduced below:

***“38. Incentive/Disincentive***

*38.1 The Transmission Licensee shall be entitled to incentive/disincentive on account of deviation from target availability as well as transmission Loss target set by commission. However, the incentive/disincentive on account of deviation from transmission loss target shall be +/- 0.01% of ARR for deviation of 0.01% of transmission loss limited to +/- 2% of the ARR.*

*The transmission charges referred to in Regulation 33 of these Regulations are inclusive of such incentives and disincentives on account of availability of system.”*

In accordance with the above, the Hon'ble Commission is requested to approve the Incentive towards Transmission Loss as claimed by the Petitioner for the FY 2021-22 as depicted in the table below:

**Table 21-BGCL claim of Transmission Loss Incentive for the FY 2021-22**

Particulars	FY 2021-22
Normative Transmission losses	2.00%
Actual Transmission Losses	1.27%
Difference	0.73%
<b>Transmission Loss Incentive(in Rs. Crore)</b>	<b>2.57</b>

### 3.14 Annual Transmission Charges/ ARR for True up of 2021-22

The Petitioner submits that the Annual Transmission Charges have been arrived by aggregating all the expenses as illustrated in the previous sections *i.e.* Depreciation, Interest on Loan, O&M expenses, Return on Equity, Incentive on attaining Normative Transmission Availability and Interest on Working Capital. The Total Expenses Less Non-Tariff Income comprise Annual Transmission Charges or Annual Revenue Requirement. The Petitioner herein has claimed ARR for the True-up of FY 2021-22 as detailed in the table below. For the sake of comparative analysis, the ARR approved by the Hon'ble Commission in Order dated 12.03.2021 is also illustrated in the table below.

**Table 22-BGCL claim of ARR for True up of FY 2021-22**

*(in Rs. Crore)*

S.No	Particulars	Approved by the Commission in the Order dated 12.03.2021	Claimed by BGCL for FY 2021-22
1	O&M expenses (a+b+c)	23.40	52.78
a.	Employee Expenses	4.78	22.25
b.	R&M expenses	15.40	22.54
c.	A&G Expenses	3.22	7.99
2	Depreciation	181.92	105.26
3	Interest and finance charges	236.19	141.47
4	Interest on working capital	3.82	2.81
5	Return on equity	103.83	79.69
6	Incentive for TAF	-	2.65
7	Contribution to Contingency Reserve	-	-

S.No	Particulars	Approved by the Commission in the Order dated 12.03.2021	Claimed by BGCL for FY 2021-22
9	Gain/ (Loss) Sharing	-	(1.87)
10	Incentive on Transmission loss	-	2.57
12	<b>Gross Annual Revenue Requirement</b>	<b>549.16</b>	<b>385.36</b>
13	Less: Non-Tariff Income	7.45	32.46
14	<b>Net Annual Revenue Requirement</b>	<b>541.71</b>	<b>352.90</b>
15	Revenue billed during the year		452.62
16	Gap/ (Surplus) (14-15)		(99.62)
17	Gap/ (Surplus) Adjustment of Prev. years		(89.09)
18	<b>Net Gap/ (Surplus) (16-17)</b>		<b>(188.81)</b>

The Petitioner respectfully submits before the Hon'ble Commission to approve Rs. 352.90 Crore towards ARR for the True-up of FY 2021-22.



**ANNUAL**  
**PERFORMANCE REVIEW**  
**(APR) for the FY 2022-23**



## 4 Annual Performance Review for FY 2022-23

### 4.1 Introduction

The Hon'ble Commission approved the Annual Revenue Requirement of Rs.433.32Crore for the FY 2022-23in the Tariff Order dated 25.03.2022.In the instant petition, the Petitioner submits the revised estimates of the expenses for the Annual Performance Review for the FY 2022-23 as per the Tariff Regulations 2021for the kind consideration of the Hon'ble Commission.

### 4.2 Performance of Transmission System

#### 4.2.1 Transmission System Availability

Regulation 16 of Tariff Regulations 2021 stipulates the following:

***"Normative Annual Transmission System Availability Factor (NATAF):***

***16.1 The Normative Annual Transmission System Availability Factor for recovery of full transmission charges shall be as under:***

<i>(a) For full recovery of Annual Transmission Charges</i>		
1.	<i>AC System</i>	<i>98%</i>
2	<i>HVDC System</i>	<i>95%</i>
<i>(b) For Incentive Consideration</i>		
3	<i>AC System</i>	<i>98.5%</i>
4	<i>HVDC System</i>	<i>97.5%</i>

Accordingly, the Petitioner submits that Transmission System Availability is considered at 98% as per the Tariff Regulations 2021for FY 2022-23.

#### 4.2.2 Transmission Losses

The Hon'ble Commission has approved Transmission Loss trajectory at 1.80% for the FY 2022-23 vide Order dated 25.03.2022. The relevant extracts of the said Order is reproduced below:

***"Commission's Analysis***

***The Commission has observed, from the actual transmission losses data submitted for FY 2020-21, the transmission losses are in the range of 1.142% to 1.527% during the months of April 2021 to September 2021. The Commission anticipates the transmission losses during the second half year of FY 2021-22 in the same range that of 1<sup>st</sup> half year of FY 2020-21. Thus, the Commission anticipates the transmission loss level of around 1.30% for FY 2021-22.As such, the Commission opines it appropriate***

to consider intra-state transmission loss target at 1.80% for BGCL for the control period. The Commission, accordingly approves the transmission loss trajectory at 1.80% for each year of the control period of FY 2022-23 to FY 2024-25.

Accordingly, the Petitioner submits that Transmission Loss target is considered at 1.80% for the FY 2022-23.

#### 4.2.3 Transformer Failure Rate

The Petitioner submits that it would be able to maintain its operational efficiency through proactive measures. Therefore, the transformer failure rate is assumed to be NIL.

#### 4.3 Schedule of Capitalization

The Petitioner submits that it had earlier envisaged to capitalize the entire portfolio of projects (Part 1 of 2 and Part 2 of 2) by FY 2021-22, however, due to reasons beyond the control of the Petitioner particularly Covid induced lockdowns during the FY 2020-21 and FY 2021-22, certain items of the Capital works planned to be capitalized during the FY 2022-23 could not attain Capitalization which has led to a no. of works being spilled into the FY 2022-23 and FY 2023-24. The Hon'ble Commission is requested to take cognizance of this fact and approve the projected Capitalization as depicted below for the FY 2022-23:

**Table 23-BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV (Part 1 of 2)**

S. No.	Transmission Element	Date of Commissioning/ Likely Commissioning
<b>Transmission Lines</b>		
1	LILO 132 kV S/C Line _ Khagaul (BSPTCL) - Bihta (BSPTCL) Circuit 1	2022-23
2	LILO 132 kV S/C Line _ Digha (BSPTCL) - Bihta (BSPTCL) Circuit 1	2022-23
<b>New 220/132/33 kV GIS substations</b>		
3	132/33 kV 50 MVA Transformer 3 of GIS, Khirjisarai (Gaya Manpur)	2022-23
4	220/132 kV 160 MVA Transformer 2 of GIS, Goradih (Sabour)	2022-23
5	132/33 kV Transformer-1 50 MVA of GIS, Mokama (Hatidah)	2022-23
6	220/132 kV 160 MVA Transformer 1 of GIS, Mokama (Hatidah)	2022-23

S. No.	Transmission Element	Date of Commissioning/ Likely Commissioning
<b>Bay Extension Works</b>		
7	Bihita Bay Extension (2x132 kV GIS)	2022-23

**Table 24 - BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV (Part 2 of 2)**

S. No.	Transmission Element	Date of Commissioning/ Likely Commissioning
<b>Transmission Lines</b>		
1.	LILO of 400 kV D/C Nabinagar-II - Patna (PG) Transmission Line at Jakkanpur (New)	21-04-2022
2.	LILO of 220 kVD/C Ara (PG) - Khagaul (BSPTCL) line at Naubatpur (New)	12-05-2022
3.	220 kV D/C Naubatpur (New) - Bihta (BSPTCL) Transmission line.	28-06-2022
4.	220 kV D/C Naubatpur (New) - Bhusaula (New) Transmission line	02-06-2022
5.	LILO of 132 kV S/C Jakkanpur/Mithapur - Fatuha TL at Jakkanpur new (being re-conducted with HTLS by BSPTCL)	2022-23
6.	132 kV D/C_Line Dumraon (New) - Dumraon (BSPTCL) Ckt 1. (ACSR Zebra Conductor)	14-07-2022
7.	LILO of D/C 132 KV Ara (BSPTCL) - Jagdishpur (BSPTCL) at Dumraon New TL	14-07-2022
8.	LILO of one Ckt of 132kV D/C Purnea-Naugachia/ Khagaria line at Katihar (BSPTCL)	2022-23
9.	LILO of 220 kV S/C Khagaul (BSPTCL) - Sipara (BSPTCL) TL at Jakkanpur (New)	2022-23
10.	132kV D/C Naubatpur (New) - Palliganj (BSPTCL)	2022-23
<b>New 220/132/33 kV GIS substations</b>		
11.	1X500 MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	20-04-2022
12.	1X80MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	2022-23
13.	2X500MVA at 400/220/132/33kV GIS station at Jakkanpur	20-04-2022
14.	1X160MVA at 400/220/132/33kV GIS station at Jakkanpur	20-04-2022
15.	3X80MVA at 400/220/132/33kV GIS station at Jakkanpur	20-04-2022
16.	1X160MVA Transformer at Dumraon	2022-23
17.	2X100MVA, 220/33 kV New GIS at Bhusaula	03-06-2022
<b>Bay Extension Works</b>		
18.	220kV Bihta GIS (BSPTCL)	2022-23



S. No.	Transmission Element	Date of Commissioning/ Likely Commissioning
19.	1X160MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	2022-23
20.	132kV Katihar (BSPTCL)	2022-23

**Table 25 - BGCL estimate of Asset Capitalization for the FY 2022-23 Phase IV  
(Supplementary)**

S. No.	Transmission Element	Date of Commissioning/ Likely Commissioning
<b>New 220/132/33 kV GIS substations</b>		
1.	Installation of 220/132kV, 160MVA 3rd ICT at 220/132/33kV GIS Amnour S/s along with associated bays	2022-23

In addition to above Capital works, during the FY 2022-23, the Petitioner shall also undertake implementation of ABT meters pertaining to Part 1 and Part 2 of 2 projects. Accordingly, 459 meters are to be commissioned with an overall outlay of Rs. 12.06 Crore for the FY 2022-23. The Petitioner requests the Hon'ble Commission to approve the same.

#### **4.4 Capitalization**

The Petitioner submits that the capitalization for FY 2022-23 as per the following table:

**Table 26-BGCL claim of CWIP Statement for the FY 2022-23**

*(in Rs. Crore)*

S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Opening CWIP		647.75
2	Opening IDC		109.06
3	Opening IEDC		49.56
4	<b>Sub Total (Opening)</b>	<b>244.26</b>	<b>806.37</b>
5	Capital investment during the year		480.68
6	IDC addition during the year		91.51
7	IEDC addition during the year		85.38
8	<b>Sub Total (Additions)</b>	<b>57.64</b>	<b>657.57</b>
9	Asset capitalisation without IDC & IEDC		1,016.76



S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
10	IDC capitalised		188.18
11	IEDC capitalised		121.35
12	<b>Total Capitalisation (7+8+9)</b>	<b>301.90</b>	<b>1,326.29</b>
13	Closing CWIP (1+4-7)	-	116.66
14	Closing IDC (2+5-8)	-	12.39
15	Closing IEDC (3+6-9)	-	13.59
16	<b>Sub Total (Closing)</b>	<b>-</b>	<b>142.64</b>

#### 4.5 Funding of Capitalization

The Petitioner submits that the Capital Expenditure is being funded with a Debt - Equity ratio of 80:20. While Phase IV (part 1 of 2) has loan agreement with REC, Phase IV (Part 2 of 2) has loan agreement with PFC.

#### 4.6 Gross Fixed Assets

The Petitioner submits the estimated Gross Fixed Assets for the FY 2022-23 follows:

**Table 27-BGCL claim of Gross Fixed Assets for the FY 2022-23**

*(in Rs. Crore)*

S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Opening GFA	2,455.21	2,339.44
2	Additions to GFA	301.90	1,326.29
3	<b>Closing GFA (1+2)</b>	<b>2,757.11</b>	<b>3,665.73</b>

#### 4.7 Depreciation

Regulation 23 of Tariff Regulations, 2021 stipulates the following:

“

- i. Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year. No advance shall be granted against depreciation.
- ii. Depreciation shall not be allowed on assets funded by capital subsidies, beneficiary contributions or grants.
- iii. Depreciation shall be calculated annually on the basis of assets capitalised and put to use based on the straight line method over the useful life of the asset and at the rate not exceeding the rate specified by the Central Electricity Regulatory Commission from time to time as provided in Appendix-III of these Regulations.

The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.

Provided that freehold land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

Provided further that the cost of lease hold land shall be amortised evenly within the leased period.

- iv. The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.
- v. Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.
- vi. A provision of replacement of assets shall be made in the capital investment plan."
- vii. The licensee(s) shall submit certified copy of the Asset Register with the list of fully depreciated Transmission lines, substation, transformers, etc. along with the details of disposed off assets and amount received therefore with the tariff petition.

The Petitioner submits that depreciation is based on the capitalisation schedule of the assets. The Weighted average rate of depreciation for the opening GFA and for the Additions is considered to be 5.17% and 0.27% respectively which is considered for the True up for the FY 2021-22. Accordingly, the overall depreciation worked out for FY 2022-23 is summarised in the table below:

**Table 28-BGCL claim of Depreciation for the FY 2022-23**

(in Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Opening GFA (without land)	2438.44	2,298.69
2	Additions during the year	301.90	1,326.29
3	Less: land during the year	-	16.91
4	Closing GFA (1+2-3)	2740.34	3,608.08
5	Average GFA (1+4)/2	-	2,953.39
6	Weighted average Rate of depreciation on opening assets	5.18%	5.17%
7	Weighted average Rate of depreciation on asset additions during the year	2.06%	0.27%
8	Depreciation (1*6+(2-3)*7)	132.53	122.43

#### 4.8 Interest on Loan Capital and Finance Charges

According to Regulation 24 of Tariff Regulations 2021, Interest and Finance Charges is to be computed as follows:

“

- a) *The Transmission Licensee or SLDC, as the case may be, shall provide detailed loan-wise, project wise and utilization-wise details of all the loans.*
- b) *If the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30 % shall be treated as normative loan:  
Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loan:*
- c) *Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.*
- d) *The normative loan outstanding as of 1st April of control period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to 31<sup>st</sup> March of current period (a year before control period) from the gross normative loan.*
- e) *The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.*
- f) *Notwithstanding any moratorium period availed by the Transmission Licensee or SLDC, as the case may be, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.*
- g) *The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or nonconvertible debentures:  
Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable.  
Provided further that if no actual loan is outstanding but normative loan is still outstanding and the last available weighted average rate of interest is also not available, rate of interest equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') shall be applicable.  
Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest:  
Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects:*
- h) *The Transmission Licensee or SLDC, as the case may be, shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries.  
Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Transmission Licensee or SLDC and the beneficiaries.  
Provided further that the Transmission Licensee shall submit the calculation of such benefit to the Commission for its approval.*



- i) The Transmission Licensee shall enable tracking of the loans converted into grants under schemes like BRGF, PSDF, APDRP, RAPDRP, RGGVY, DDUGVY, RSVP, etc or any other loan from the Central or State Government by providing information and data regularly to the Commission, for enabling the Commission to recover from Transmission Licensee or SLDC, as the case may be, the amount of interest on loans which have been passed on to the beneficiaries in the earlier years and have been converted into grant subsequently so that the recovered amount is passed on to the beneficiaries.
- j) Addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalized and put to use.
- k) The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission. The transmission licensee shall endeavour to adhere the time schedule for various transmission system in accordance with Annexure-A appended for these regulations.  
 Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:  
 Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.
- l) The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Deposit Works, Grants or Capital Subsidy."

The Petitioner submits rate of Interest has been considered as per the actual long term Loan portfolio as on 31.03.2022. As such, the Rate of Interest considered for True-up of FY 2021-22 i.e. 9.90% has been considered for the Review for FY 2022-23. Accordingly, The Petitioner has claimed Interest and Finance charges for the FY 2022-23 as summarised in the table below:

**Table 29-BGCL claim of Interest on Loan for the FY 2022-23**

(in Rs. Crore)

S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Opening Loan	1596.34	1495.65
2	Additions (@80% of GFA additions)	241.52	1061.03
3	Repayment	132.53	122.43
4	Net Closing Loan (1+2-3)	1705.33	2434.25
5	Average Loan (1+4)/2	1650.84	1964.95



S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
6	Weighted average rate of Interest (%)	10.81%	9.90%
7	Interest on Loan (5x6)	168.06	194.62

#### 4.9 Operations and Maintenance Expenses

As per Regulation 21 of Tariff Regulations 2021,

*“ (a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repair and Maintenance (R&M) expense and Administrative and General (A&G) expense. Provided that such norms may be specified for a specific Transmission Licensee or a class of Transmission Licensees.*

*(b) Norms shall be defined in terms of number of personnel per ckt/km (for different categories of transmission lines for e.g. 400 KV, 220 KV, 132 KV etc. Lines) and number of personal per bay (for different categories of bay for e.g. 400 KV, 220 KV, 132 KV etc. Bays) along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per substation for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses.*

*(c) One-time expenses such as expense due to change in accounting policy and arrears paid due to pay commission recommendation shall be excluded from the norms in the trajectory.*

*(d) The unforeseen expenses beyond the control of the Transmission Licensee such as pay revision, shall be excluded from the norms in the trajectory.*

*(e) The One-time expenses and the expenses beyond the control of the Transmission Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.*

*(f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.*

*(g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline. Provided that for the purpose of escalation based on Wholesale Price Index(WPI<sub>in</sub>) and Consumer Price Index(CPI<sub>in</sub>), WPI<sub>in</sub> is to be computed based on the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past three financial years (including the year of Truing-up) as per the Office of Economic Advisor Ministry of Commerce & Industry Government of India and CPI<sub>in</sub> is to be computed*

*based on the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past three financial years (including the year of Truing-up) as per the Labour Bureau Government of India, at the time of filing of Petition. Provided that in case the average yearly inflation derived based on the monthly CPI and WPI indices is negative for a particular year, the same will be excluded from the computation of yearly inflation*

*(h) The Transmission Licensee specific trajectory of norms shall be identified by the Commission on the basis of absolute and relative analysis.*

*(i) In absolute analysis, Transmission Licensee's audited accounts of operations for last three years, expenses claimed for control period, historically approved cost, and prudence check shall be used by the Commission to estimate values of norms.*

*(j) In relative analysis, performance parameters of other Transmission Licensees within the same state or in other states, shall be considered by the Commission to estimate norms.*

*Provided that other Transmission Licensees so chosen shall have similar profile as that of the Transmission Licensee under consideration in terms of consumer mix, type of license area (city, state, etc.) type of substation, transmission networks, etc.*

*(k) Suitable average of outcomes of absolute and relative analysis shall be taken by the Commission to fix the norms over the control period for the Transmission Licensee. "*

The Petitioner submits that since a number of Transmission projects are under way and subsequently full network details are not available at present, therefore the norms for the computation of O&M Expenses must not be determined. In light of the same, the Petitioner herein has followed the methodology adopted by the Hon'ble Commission in the Order dated 25.03.2022 for computation of O&M Expenses pertaining to the ensuing year.

#### **4.9.1 Employee Expenses**

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

Regulation 21.1 stipulates the following:

“Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Transmission Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

Where:

EMP<sub>n</sub> : Employee expense for the year n

EMP<sub>b</sub> : Employee expense as per the norm

CPI inflation : is the average increase in the Consumer Price Index (CPI) for immediately preceding three years”

Provision: Provision for expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above. Till the norms are specified by the Commission the employee cost shall be determined on the basis of actual historical cost.”

As per the aforesaid regulations, the CPI index for the preceding three years has been shown in the table below:

#### CPI index

**Table 30-Computation of Average CPI (past 3 years)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Annual Average CPI Index	299.92	322.50	338.69	356.06
CPI Inflation (YOY)		7.53%	5.02%	5.13%
<b>Average</b>			<b>5.89%</b>	

The Petitioner submits the revised employee expenses for the FY 2022-23 based upon the Average CPI Inflation Index (preceding 3 years) and the Employee Expenses claimed for the true-up of FY 2021-22as shown in the table below:

**Table 31-BGCL claim of Employee Expenses for the FY 2022-23**

(in Rs Crore)

Particulars	Approved in Tariff order date 12.03.2022	Projected for FY 2022-23
Base Employee expenses	10.64	22.25
Indexation %	6.00%	5.89%
Inflationary increase	0.64	1.31
<b>Employee expenses</b>	<b>11.28</b>	<b>23.56</b>

#### 4.9.2 Repair and Maintenance Expenses

The Repair and Maintenance Activities are primarily directed towards the upkeep of the transmission system and related office works.

As per Regulation 21.2 of the Tariff Regulations 2021, R&M will be calculated as follows

*“Repairs and Maintenance expense shall be calculated as percentage (as per the norm determined) of Opening Gross Fixed Assets excluding land cost for the year governed by following formula:*

$$R\&M_n = K_b * GFA_n$$

*Where:*

*R&M<sub>n</sub> : Repairs & Maintenance expense for nth year*

*GFA<sub>n</sub> : Opening Gross Fixed Assets for nth year*

*K<sub>b</sub> : Percentage point as per the norm”*

The Petitioner submits that the Hon'ble Commission vide Order dated 12.03.2021 while determining ARR for the FY 2021-22, had allowed the R&M Expenses based upon the factor derived by considering the actual R&M expenses against the actual GFA. Following the similar methodology, the Petitioner herein considers the factor as per the True-up values of the previous years as shown in the table below:

**Table 32-Computation of Average % factor (R&M expenses to GFA)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Average GFA (Net of Land)	1,554.84	1,872.41	2,159.58
R&M expenses	8.52	20.46	22.54
% of R&M expenses to GFA (2/1)*100	0.55%	1.09%	1.04%
<b>Average % of R&amp;M expenses to average GFA</b>	<b>0.89%</b>		

*\*BGCL claim for the True up of FY 2021-22*

The Petitioner submits the claim towards R&M expenses on the basis of the factor derived above as shown in the following table:

**Table 33-BGCL claim of Repair and Maintenance Expenses for the FY 2022-23**  
(in Rs Crore)

S.No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Average GFA (excluding land)	2438.44	2298.69
2	% Factor on GFA	0.76%	0.89%
3	<b>R&amp;M Expenses (1x2)</b>	<b>18.53</b>	<b>20.57</b>

### 4.9.3 Administrative and General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.



As per Regulation 21.3 of the Tariff Regulations 2021, A&G Expenses shall be computed as follows:

*"A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and Consumer Price Index (CPI) in the ratio 60:40 and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + \text{Provision}$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: A&G expense as per the norm*

*WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years*

*Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and validated by the Commission. Till the norms of A&G expenses is specified by the Commission, the actual historical cost will be considered for determination of A&G expenses."*

As per the aforesaid regulations, the Average WPI index for the preceding three years has been shown in the table below:

**Table 34 - Computation of Average WPI (past 3 years)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Annual Average WPI Index	119.79	121.80	123.38	139.70
CPI Inflation (YOY)		1.68%	1.29%	13.23%
<b>Average</b>			<b>5.40%</b>	

Accordingly, based upon the derived Inflation Index in accordance with the Tariff Regulations 2021, the Petitioner projects the A&G Expenses as follows:

**Table 35-BGCL claim of Administrative and General Expenses for the FY 2022-23**  
(in Rs Crore)

Sl. No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Base A & G Expenses	5.06	7.99
2	Inflationary index %	3.85%	5.40%
3	Add: Inflationary increase	0.19	0.45
4	<b>A&amp;G expenses</b>	<b>5.25</b>	<b>8.42</b>

#### 4.10 Return on Equity

As per Regulation 22 of Tariff Regulations 2021, Return on Equity is to be computed as follows:

“

- a) Return on equity shall be computed on 30% of the capital cost or actual equity, whichever is lower:  
 Provided that assets funded by beneficiary contribution, capital subsidies/ grants and corresponding depreciation shall not form part of the capital cost. Actual equity invested in the Transmission Licensee or SLDC, as the case may be, as per book value shall be considered as perpetual and shall be used for computation in this Regulation:  
 Provided further that the premium if any raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the Scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.
- b) The return on the equity invested shall be allowed from the date of start of commercial operation and after put to use:
- c) Return on equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2015 and further incentive equivalent to 0.5% will be allowed in the form of RoE, if the project is completed within schedule as per the Annexure A or original schedule period as the case may be. However, Return on Equity for the project commissioned prior to 01.04.2015 shall be allowed at the rate of 14%.”

The Petitioner also submits that the Rate of Return on Equity has been considered at 20.71% assuming 25.17% as the effective MAT rate inclusive of surcharge and cess. Accordingly, the Return on Equity has been tabulated below:

**Table 36-BGCL claim of Return on Equity for the FY 2022-23**

(in Rs Crores)

Sl. No.	Particulars	Approved in Tariff order date 25.03.2022	Projected for FY 2022-23
1	Opening Equity	490.21	467.05
2	Add: Equity During the year	60.38	265.26
3	Closing equity balance (1+2)	550.59	732.31
4	Average equity $\{(1+3)/2\}$	520.40	599.68
5	Base Rate of Return on equity %	15.50%	15.50%
6	Tax Rate	25.168%	25.17%
7	Pretax Rate of Return on equity % $\{(5)/(1-(6))\}$	20.71%	20.71%
8	<b>Return on Equity (4*7)</b>	<b>107.77</b>	<b>124.21</b>

The working of Tax rate is shown in the table below:

**Table 37-Effective Tax rate**

Particulars	Ref	Rate
-------------	-----	------

Particulars	Ref	Rate
MAT	A	22%
Add: Surcharge	B	10%
Add: Cess	C	4%
Tax rate	$A*(100\%+B)*(100\%+C)$	25.17%

#### 4.11 Interest on Working Capital

Regulation 26 of Tariff Regulations 2021, stipulates the following methodology for computing the Interest on Working Capital:

“

- a. *The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:*
  - i. *Receivables equivalent to two (2) month of transmission charges calculated on target availability level.*
  - ii. *O&M Expenses of one (01) month.*
  - iii. *Maintenance spares @ 15% of O&M expenses for one month.*
- Less:
  - iv. *Return on equity and contribution to contingency reserves equivalent to two months.*
  - v. *Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.*
- b. *Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.*
- c. *Interest shall be allowed on the amount held as security deposit from Transmission System Users at the Bank Rate as at the date on which the application for determination of tariff is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.*
- d. *If the State Government is providing resource gap grant and/or subsidy, the working capital shall be reduced by two months equivalent of that amount. “*

The Petitioner submits that one year SBI MCLR as on 15<sup>th</sup>October2022was 7.95% as per Annexure E. Accordingly, the Interest on Working Capital has been considered as 9.45%. (SBI MCLR:7.95% +150 basis points)

**Table 38–BGCL claim of Interest on Working Capital for the FY 2022-23**  
(in Rs Crores)



S. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected for FY 2022-23
1	O&M expenses (1 month)	2.92	4.38
2	Maintenance spares @15% of 1 month O&M expenses (1x15%)	0.62	0.66
3	Receivables - 2 months	72.22	77.87
4	Less: Depreciation, RoE and contribution to contingency reserve for 2 months	18.37	20.70
5	Less: Amount of sec deposit held from consumers during the year	-	-
6	<b>Working capital requirement (1+2+3-4-5)</b>	<b>57.39</b>	<b>62.21</b>
7	Rate of interest	8.50%	9.45%
8	<b>Interest on working capital (6x7)</b>	<b>4.88</b>	<b>5.88</b>

#### 4.12 Non- Tariff Income

The Petitioner submits that for the FY 2022-23, it has considered the Non-Tariff Income as per the Non-Tariff Income claimed in the True up for FY 2021-22 as per the methodology adopted by the Hon'ble Commission in the Order dated 25.03.2022.

#### 4.13 Annual Revenue Requirement for the FY 2022-23

Accordingly, the Petitioner submits the Annual Fixed Charges for the FY 2022-23 as follows:

**Table 39-BGCL claim of ARR for the APR of FY 2022-23**

*(in Rs. Crores)*

S. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected for FY 2022-23
1	<b>O&amp;M expenses (a+b+c)</b>	35.07	<b>52.55</b>
a.	Employee cost	11.28	23.56
b.	R&M expenses	18.53	20.57
c.	A&G Expenses	5.25	8.42
2	Depreciation	132.53	122.43
3	Interest and finance charges	168.06	194.62
4	Interest on working capital	4.88	5.88
5	Return on Equity	107.77	124.21
6	Contribution to Contingency Reserve	2.44	-
7	<b>Gross Annual Revenue Requirement</b>	<b>450.74</b>	<b>499.70</b>



S. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected for FY 2022-23
8	Less: Non-Tariff income	17.42	32.46
9	Net ARR (1+2+3+4+5+6-8)	433.32	467.24

The Petitioner requests the Hon'ble Commission to kindly approve the ARR of Rs. 467.24Crore for the Review of FY 2022-23.



**ANNUAL REVENUE**  
**REQUIREMENT (ARR) for**  
**the**  
**FY 2023-24**  
**and**  
**TRANSMISSION**  
**CHARGES FOR THE**  
**FY 2023-24**

## 5 Annual Revenue Requirement for the FY 2023-24

### 5.1 Introduction

BGCL has submitted the petition on 9<sup>th</sup> December, 2021 for approval of Multiyear Annual Revenue Requirement (ARR) for the period FY 2022-23, FY 2023-24 and FY 2024-25. The ARR approved by the Hon'ble Commission for the FY 2023-24 is Rs. 450.98 Cr.

In accordance with BERC Tariff Regulations, 2021, the Petitioner submits the revised estimated for determination of ARR along with Transmission Tariff for the FY 2023-24.

### 5.2 Performance of Transmission System

Regulation 17.1 (b) stipulates the following:

*"The Commission shall monitor the following Quality of Supply parameters during the Control Period:*

- a) *Transmission System Availability*
- b) *Transformer Failure"*

#### 5.2.1 Availability of Transmission System

Regulation 16 of Tariff Regulations 2021 stipulates the following:

*"Normative Annual Transmission System Availability Factor (NATAF):  
16.1 The Normative Annual Transmission System Availability Factor for recovery of full transmission charges shall be as under:*

<i>(a) for full recovery of transmission charges</i>		
1.	<i>AC System</i>	<i>98%</i>
2	<i>HVDC System</i>	<i>95%</i>
<i>(b) For Incentive Consideration</i>		
3	<i>AC System</i>	<i>98.5%</i>
4	<i>HVDC System</i>	<i>97.5%</i>

As per the Business Plan, the Petitioner submits the Transmission System Availability to be 98% for FY 2023-24.

#### 5.2.2 Transformer Failure Rate

The Petitioner submits that it would be able to maintain its operational efficiency through proactive measures. Therefore, the transformer failure rate is estimated to be NIL for FY 2023-24.

### 5.3 Schedule of Capitalization

The Petitioner submits that following elements are projected to get commissioned during the FY 2023-24:

#### Phase IV (Part 1 of 2)

**Table 40 - BGCL estimate of Asset Capitalization for the period FY 2023-24Phase IV (Part 1 of 2)**

S.No.	Transmission Element	Likely Commissioning	Cost Estimate (Rs. Crore)
	Nil		

#### Phase IV (Part 2 of 2)

**Table 41 - BGCL estimate of Asset Capitalization for the period FY 2023-24Phase IV (Part 2 of 2)**

S.No.	Transmission Element	Likely Commissioning
<b>Transmission Lines</b>		
1.	LILO of 220 kV D/C Sipara (BSPTCL) - Bihta (BSPTCL) TL at Jakkanpur (new).	2023-24
2.	LILO of 132 kV D/C Jakkanpur - Sipara TL at Jakkanpur new (being re-conducted with HTLS by BSPTCL)	2023-24
<b>Substations</b>		
3.	2X160MVA at 400/220/132/33kV GIS station at Jakkanpur	2023-24
4.	1X80MVA at 400/220/132/33kV GIS station at Jakkanpur	2023-24

#### Phase IV(Supplementary)

**Table 42 - BGCL estimate of Asset Capitalization for the period FY 2023-24Phase IV (Part 2 of 2(Supplementary))**

S.No.	Transmission Element	Likely Commissioning
1	Installation of 420kV, 2x125MVA bus reactor at 400/220/132/33kV GIS Jakkanpur S/s along with associated bays	2023-24
2	Installation of 420kV, 2x125MVA bus reactor at 400/220/132/33kV GIS Naubatpur S/s along with associated bays	2023-24



## 5.4 Capitalization

Based on the above Capitalization schedule, the Petitioner submits the revised Capitalization details for FY 2023-24 as shown in the CWIP statement that follows:

**Table 43- CWIP statement for the period FY 2023-24**

*(in Rs Crores)*

S. No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Opening CWIP	-	116.66
2	Opening IDC	-	12.39
3	Opening IEDC	-	13.59
4	<b>Sub Total (Opening)</b>	-	<b>142.64</b>
5	Capital investment during the year	-	77.77
6	IDC addition during the year	-	8.26
7	IEDC addition during the year	-	9.06
8	<b>Sub Total (Additions)</b>	-	<b>95.09</b>
9	Asset capitalisation without IDC & IEDC	-	194.43
10	IDC capitalised	-	20.65
11	IEDC capitalised	-	22.65
12	<b>Total capitalisation during the year</b>	-	<b>237.73</b>
13	Closing CWIP	-	-
14	Closing IDC	-	-
15	Closing IEDC	-	-
16	<b>Sub Total (Closing)</b>	-	-

## 5.5 Gross Fixed Assets

The Petitioner submits that the Revised Estimates of Gross Fixed Assets as follows:

**Table 44-BGCL estimate of Gross Fixed Assets for the period FY 2023-24**

*(in Rs Crores)*

S.No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Opening GFA	3,909.46	3,665.73
2	Additions to GFA	-	237.73
3	<b>Closing GFA (1+2)</b>	<b>3,909.46</b>	<b>3,903.46</b>

## 5.6 Funding of Capitalization

The Petitioner submits that the Phase IV Capital Expenditure is being funded with a Debt - Equity ratio of 80:20.

Therefore, all assets due to attain capitalization in FY 2023-24 shall be funded with Debt - Equity ratio of 80:20.

## 5.7 Depreciation

The Petitioner has worked out the Depreciation as per Regulation 23 of Tariff Regulations 2021. The Petitioner submits that depreciation is based on the capitalisation schedule of the assets. The Weighted average rate of depreciation for the opening GFA (as on 01<sup>st</sup> April of each year of the Control period) and for the Additions (during each year of the Control period) is considered to be 5.17% and 0.27% respectively which is considered for the True up for the FY 2021-22. Accordingly, the overall depreciation has been worked out for FY 2023-24 as summarised in the table below:

**Table 45-BGCL estimate of Depreciation for the period FY 2023-24**  
(in Rs. Crores)

S. No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Opening GFA (without land)	2740.34	3,608.08
2	Additions during the year	-	237.73
3	Less: land during the year	-	-
4	Closing GFA (1+2-3)	2740.34	3,845.81
5	Average GFA (1+4)/2	2740.34	3,726.95
6	Weighted average Rate of depreciation on opening assets	5.18%	5.17%
7	Weighted average Rate of depreciation on asset additions during the year	2.06%	0.27%
8	<b>Depreciation (1*6+(2-3)*7)</b>	<b>141.95</b>	<b>187.28</b>

## 5.8 Interest on Loan Capital and Finance Charges

According to Regulation 24 of Tariff Regulations 2021, Interest and Finance Charges is to be computed as follows:

**“ 24. Interest and finance charges on loan capital**

- a) The Transmission Licensee or SLDC, as the case may be, shall provide detailed loan-wise, project wise and utilization-wise details of all the loans.
- b) If the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30 % shall be treated as normative loan:  
Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loan:
- c) Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.
- d) The normative loan outstanding as of 1st April of control period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to 31<sup>st</sup> March of current period (a year before control period) from the gross normative loan.
- e) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.
- f) Notwithstanding any moratorium period availed by the Transmission Licensee or SLDC, as the case may be, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.
- g) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or nonconvertible debentures:  
Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable.  
Provided further that if no actual loan is outstanding but normative loan is still outstanding and the last available weighted average rate of interest is also not available, rate of interest equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') shall be applicable.  
Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest:  
Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects:
- h) The Transmission Licensee or SLDC, as the case may be, shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries.  
Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Transmission Licensee or SLDC and the beneficiaries.  
Provided further that the Transmission Licensee shall submit the calculation of such benefit to the Commission for its approval.
- i) The Transmission Licensee shall enable tracking of the loans converted into grants under schemes like BRGF, PSDF, APDRP, RAPDRP, RGGVY, DDUGVY, RSVP, etc or any other loan from the Central or State Government by providing information and data regularly to the Commission, for enabling the Commission to recover from Transmission Licensee or SLDC, as the case may be, the amount



of interest on loans which have been passed on to the beneficiaries in the earlier years and have been converted into grant subsequently so that the recovered amount is passed on to the beneficiaries.

- j) Addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalized and put to use.
- k) The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission. The transmission licensee shall endeavour to adhere the time schedule for various transmission system in accordance with Annexure-A appended for these regulations.  
 Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:  
 Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.
- l) The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Deposit Works, Grants or Capital Subsidy."

Accordingly, the Petitioner has computed the Interest and Financing Charges for FY 2023-24 as depicted in the table below:

**Table 46-BGCL estimate of Interest on Loan for the period FY 2023-24**  
 (in Rs Crores)

S. No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Opening loan	1705.33	2,434.25
2	Additions during the year	-	190.18
3	Repayment	141.95	187.28
4	Closing Loan (1+2-3)	1563.38	2,437.15
5	Average Loan (1+4)/2	1634.36	2,435.70
6	Rate of Interest	10.18%	9.90%
7	<b>Interest Charges (5* 6)</b>	<b>166.38</b>	<b>241.25</b>

## 5.9 Operations and Maintenance Expenses

As per Regulation 21 of Tariff Regulations 2021:

### "21. Operation and Maintenance Expenses

(a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repair and Maintenance (R&M) expense and Administrative and General (A&G) expense.



*Provided that such norms may be specified for a specific Transmission Licensee or a class of Transmission Licensees.*

*(b) Norms shall be defined in terms of number of personnel per ckt/km (for different categories of transmission lines for e.g. 400 KV, 220 KV, 132 KV etc. Lines) and number of personal per bay (for different categories of bay for e.g. 400 KV, 220 KV, 132 KV etc. Bays) along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per substation for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses.*

*(c) One-time expenses such as expense due to change in accounting policy and arrears paid due to pay commission recommendation shall be excluded from the norms in the trajectory.*

*(d) The unforeseen expenses beyond the control of the Transmission Licensee such as pay revision, shall be excluded from the norms in the trajectory.*

*(e) The One-time expenses and the expenses beyond the control of the Transmission Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.*

*(f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.*

*(g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.*

*Provided that for the purpose of escalation based on Wholesale Price Index(WPI<sub>n</sub>) and Consumer Price Index(CPI<sub>n</sub>), WPI<sub>n</sub> is to be computed based on the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past three financial years(including the year of Truing-up) as per the Office of Economic Advisor Ministry of Commerce & Industry Government of India and CPI<sub>n</sub> is to be computed based on the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past three financial years (including the year of Truing-up) as per the Labour Bureau Government of India, at the time of filing of Petition.*

*Provided that in case the average yearly inflation derived based on the monthly CPI and WPI indices is negative for a particular year, the same will be excluded from the computation of yearly inflation*

*(h) The Transmission Licensee specific trajectory of norms shall be identified by the Commission on the basis of absolute and relative analysis.*

*(i) In absolute analysis, Transmission Licensee's audited accounts of operations for last three years, expenses claimed for control period, historically approved cost, and prudence check shall be used by the Commission to estimate values of norms.*

*(j) In relative analysis, performance parameters of other Transmission Licensees within the same state or in other states, shall be considered by the Commission to estimate norms."*

The Petitioner submits that since a number of Transmission projects are under way and subsequently full network details are not available at present, therefore the norms for the computation of O&M Expenses must not be determined. In light of the same, the Petitioner herein shall follow the methodology adopted by the Hon'ble

Commission in the Order dated 12.03.2021 for computation of O&M Expenses pertaining to the ensuing year.

### 5.9.1 Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

Regulation 21.1 stipulates the following:

#### **“21.1 Employee Cost**

*Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Transmission Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:*

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

*Where:*

*EMP<sub>n</sub> : Employee expense for the year n*

*EMP<sub>b</sub> : Employee expense as per the norm*

*CPI inflation : is the average increase in the Consumer Price Index (CPI) for immediately preceding three years”*

*Provision: Provision for expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above.*

*Till the norms are specified by the Commission the employee cost shall be determined on the basis of actual historical cost.*

As per the aforesaid Regulations, the CPI index for the preceding three years has been shown in the table below:

CPI index

**Table 47-Computation of Average CPI (past 3 years)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Annual Average CPI Index	299.92	322.50	338.69	356.06
CPI Inflation (YOY)		7.53%	5.02%	5.13%
<b>Average</b>			<b>5.89%</b>	

The Petitioner submits the revised employee expenses for FY 2023-24 based upon the Average CPI Inflation Index and the Employee Expenses for the previous year as shown in the table below:

**Table 48-BGCL estimate of Employee Expenses for the period FY 2023-24**

*(in Rs Crore)*

Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
Base Employee expenses	11.28	23.56
Indexation %	6.00%	5.89%
Inflationary increase	0.68	1.39
<b>Employee expenses</b>	<b>11.96</b>	<b>24.95</b>

### 5.9.2 Repair and Maintenance Expenses

The Repair and Maintenance Activities are primarily directed towards the upkeep of the transmission system and related office works

As per Regulations 21.2 of the Tariff Regulations 2021, R&M will be calculated as follows:

***“21.2 Repairs and Maintenance (R&M) Expense***

*Repairs and Maintenance expense shall be calculated as percentage (as per the norm determined) of Opening Gross Fixed Assets excluding land cost for the year governed by following formula:*

$$R\&M_n = K_b * GFAn$$

*Where:*

*R&M<sub>n</sub> : Repairs & Maintenance expense for nth year*

*GFAn : Opening Gross Fixed Assets for nth year*

*K<sub>b</sub> : Percentage point as per the norm”*

The Petitioner submits that the Hon'ble Commission vide Order dated 12.03.2021 while approving the ARR for the ensuing year, had allowed the R&M Expenses based upon the factor derived by considering the actual R&M expenses against the actual GFA. Following the similar methodology, the Petitioner herein considers the factor as shown in the table below:

**Table 49 - Computation of Average % factor (R&M expenses to GFA)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Average GFA (Net of Land)	1,554.84	1,872.41	2,159.58
R&M expenses	8.52	20.46	22.54
% of R&M expenses to GFA (2/1)*100	0.55%	1.09%	1.04%
<b>Average % of R&amp;M expenses to average GFA</b>	<b>0.89%</b>		

*\*BGCL claim for the True up of FY 2021-22*

The Petitioner submits the claim towards R&M expenses on the basis of the factor derived as above and the GFA as shown in the table below for FY 2023-24:



**Table 50-BGCL estimate of Repair and Maintenance Expenses for the period FY 2023-24  
(in Rs Crore)**

S.No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Average GFA (excluding land)	2740.34	3608.08
2	% Factor on GFA	0.76%	0.89%
3	<b>R&amp;M Expenses (1x2)</b>	<b>20.83</b>	<b>32.29</b>

### 5.9.3 Administrative and General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

As per Regulation 21.3 of the Tariff Regulations 2021, A&G Expenses are to be computed as follows:

***“21.3 Administrative and General (A&G) Expense***

*A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and Consumer Price Index (CPI) in the ratio 60:40 and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: A&G expense as per the norm*

*WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years*

*Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and validated by the Commission. Till the norms of A&G expenses is specified by the Commission, the actual historical cost will be considered for determination of A&G expenses.”*

As per the aforesaid regulations, the Average Wholesale Price index (WPI) for the preceding three years has been shown in the table below:

**Table 51 - Computation of Average WPI (past 3 years)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Annual Average WPI Index	119.79	121.80	123.38	139.70
CPI Inflation (YOY)		1.68%	1.29%	13.23%
<b>Average</b>			<b>5.40%</b>	



Based upon the Inflation Index derived above in accordance with the Tariff Regulations 2021, the Petitioner has projected the A&G Expenses as follows:

**Table 52 - BGCL estimate of Administrative and General Expenses for the period FY 23-24  
(in Rs Crore)**

Sl. No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Base A & G Expenses	5.25	8.42
2	Inflationary index %	3.85%	5.40%
3	Add: Inflationary increase	0.20	0.45
4	<b>A&amp;G expenses</b>	<b>5.46</b>	<b>8.88</b>

### 5.10 Return on Equity

As per Regulation 22 of Tariff Regulations 2021, Return on Equity is to be computed as follows:

**“22. Return on Equity**

- a) Return on equity shall be computed on 30% of the capital cost or actual equity, whichever is lower:

*Provided that assets funded by beneficiary contribution, capital subsidies/ grants and corresponding depreciation shall not form part of the capital cost. Actual equity invested in the Transmission Licensee or SLDC, as the case may be, as per book value shall be considered as perpetual and shall be used for computation in this Regulation:*

*Provided further that the premium if any raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the Scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.*

- b) The return on the equity invested shall be allowed from the date of start of commercial operation and after put to use:
- c) Return on equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2015 and further incentive equivalent to 0.5% will be allowed in the form of RoE, if the project is completed within schedule as per the Annexure A or original schedule period as the case may be. However, Return on Equity for the project commissioned prior to 01.04.2015 shall be allowed at the rate of 14%.”

The Petitioner also submits that the pre-tax Return on Equity has been considered at 20.71% assuming 25.17% as the effective MAT rate inclusive of surcharge and cess. Accordingly, the Return on Equity has been tabulated below for FY 2023-24:

(in Rs Crores)

**Table 53–BGCL estimate of Return on Equity for the period FY 2023-24**  
(in Rs Crore)

S.No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	Opening Equity	550.59	732.31
2	Add: Equity During the year	-	47.55
3	Closing equity balance (1+2)	550.59	779.85
4	Average equity $\{(1+3)/2\}$	550.59	756.08
5	Rate of Return on equity %	15.50%	15.50%
6	Tax Rate	25.168%	25.17%
7	Pre Tax Rate of Return on equity % $\{5/(1-6)\}$	20.71%	20.71%
8	<b>Return on Equity (4*7)</b>	<b>114.03</b>	<b>156.61</b>

### 5.11 Interest on Working Capital

Regulation 26 of Tariff Regulations 2021, stipulates the following methodology for the computation of Interest on Working Capital:

“

#### **26. Interest on working capital**

(a) The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

(i) Receivables equivalent to two (2) month of transmission charges calculated on target availability level.

(ii) O&M Expenses of one (01) month.

(iii) Maintenance spares @ 40% of R&M expenses for one month.


Provided that for the purpose of Truing-up for any year, the working capital requirement shall be re-computed on the basis of the values of revised normative Operation & Maintenance expenses and actual Revenue from Transmission Charges as reflected in the Audited Accounts excluding incentive, if any, and other components of working capital approved by the Commission in the Truing-up before sharing of gains and losses.

**Less:**

(iv) Return on equity and contribution to contingency reserves equivalent to two months.

(v) Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.

(b) Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank (one-year tenor) Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.



(c) Interest shall be allowed on the amount held as security deposit (except the security deposit held in the form of Bank Guarantee) from Transmission System Users at the Bank Rate (RBI Base Rate) as at the date on which the application for determination of tariff is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.

(d) If the State Government is providing resource gap grant and/or subsidy, the working capital shall be reduced by two months equivalent of that amount."

The Petitioner submits that one year SBI MCLR weighted average for 2022 is 7.00%. The same is shown in Annexure - E. Accordingly, the Interest on Working Capital has been considered as 8.50%. (SBI MCLR: 7.00% +150 basis points) for FY 2023-24.

**Table 54–BGCL estimate of Interest on Working Capital for the period FY 2023-24**  
(in Rs Crore)

S.No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	O&M expenses (1 month)	3.19	5.51
2	Maintenance spares @15% of 1 month O&M expenses	0.69	0.83
3	Receivables - 2 months	75.16	104.47
4	Less: Depreciation, RoE and contribution to contingency reserve for 2 months	19.46	26.10
5	Less: Amount of sec deposit held from consumers during the years	-	-
6	Working capital requirement	59.58	84.70
7	Rate of interest	8.50%	9.45%
8	<b>Interest on working capital</b>	<b>5.06</b>	<b>8.00</b>

### 5.12 Non- Tariff Income

The Petitioner submits that for FY 2023-24, it has considered the Non-Tariff Income as per the Non-Tariff Income claimed in the True up for FY 2021-22 i.e. Rs. 32.46 Crore in accordance with the methodology adopted by the Hon'ble Commission in its past Orders.

### 5.13 Annual Revenue requirement for FY 2023-24

As per the submissions made in the preceding sections, the ARR claimed for FY 2023-24 is depicted as shown in the table below:

**Table 55-BGCL estimate of Annual Revenue requirement for FY 2023-24**  
(in Rs Crore)

S.No.	Particulars	Approved in the order dt. 25.03.2022	FY 2023-24
1	O&M expenses (a+b+c)	38.24	66.11
a.	Employee cost	11.96	24.95
b.	R&M expenses	20.83	32.29
c.	A&G Expenses	5.46	8.88
2	Depreciation	166.38	187.28
3	Interest on loan capital	5.06	241.25
4	Interest on working capital	141.95	8.00
5	Return on Equity	114.03	156.61
6	Contribution to Contingency Reserve	2.74	-
7	<b>Gross Annual Revenue Requirement (1+2+3+4+5)</b>	<b>468.40</b>	<b>659.25</b>
8	Less: Non tariff income	17.42	32.46
9	<b>Net Annual Revenue Requirement (6-7)</b>	<b>450.98</b>	<b>626.79</b>

The Petitioner submits that the abovementioned ARR Charges are projected figures. The actual ARR for the relevant year will be submitted in accordance with applicable Regulations at the time of True-up. The Petitioner prays that the Hon'ble Commission may kindly approve the ARR of Rs. 626.79 for FY 2023-24.

#### **5.14 Revenue Gap/Surplus and Transmission Tariff determination for FY 2023-24**

The Petitioner submits before the Hon'ble Commission to pass the impact of the Revenue Surplus accrued during the True-up for FY 2021-22 in the Tariff for FY 2023-24 along with applicable Carrying Cost in accordance with the Regulation 13 of the Tariff Regulations 2021. The relevant extracts of the said Regulation are reproduced below:

***"13. True-Up and Annual Performance Review***

*The Commission shall True-Up expenses of the previous year either aspart of the Tariff order or issue Order/s for True-Up of expenses preceding the Tariff order of ensuing year."*.....

.....

.....



*(f) Notwithstanding anything contained in regulation 4 of these Regulations, the Revenue gap/surplus arising out of Truing up shall be considered by the Commission while determining the ARR of ensuing year(s). While approving adjustments towards revenue/expenses in future years, arising out of Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. However the revised estimated gap/surplus as a result of APR may or may not be passed in the ARR of ensuing year."*

The Petitioner therefore proposes Surplus adjustment pertaining to the True up of FY 2021-22 along with the applicable Carrying cost considering the prevailing Interest Rate. The working of the Surplus computation is illustrated in the table below:

**Table 56- True up Revenue Surplus including Carrying Cost**  
(in Rs. Crore)

S.No.	Particulars	BGCL claim
1	Surplus / (Gap) of the True-up of ARR for the FY 2021-22	188.81
2	Interest for FY 2021-22 @ 8.50% (half year)	8.02
3	Interest for FY 2022-23 @ 8.70%	17.84
4	Interest for FY 2023-24 @ 8.70% (half year)	8.92
5	Total Carrying Cost (2+3+4)	34.79
5	Total Surplus along with carrying cost to be considered for adjustment (1+5)	223.59

Accordingly, the Annual Transmission Charges claimed by the Petitioner for the period FY 2023-24 is shown in the table below:

(in Rs. Crore)

**Table 57-BGCL claim of Transmission Charges for the FY 2023-24**

S.No.	Particulars	BGCL claim
1	Net Annual Revenue Requirement	626.79
2	Add: Total Surplus along with carrying cost to be considered for adjustment	(223.59)
3	Annual Transmission Charges (1+2)	403.20
4	Monthly Transmission Charges	33.60

The Petitioner respectfully submits before the Hon'ble Commission to approve Annual Transmission Charges amounting to Rs. 403.20 Crore and Monthly Transmission Charges amounting to Rs. 33.60 Crore for the FY 2023-24.

## 6 Compliance of Directives

The Hon'ble Commission vide Order dated 25.03.2022 had issued certain Directives to the Petitioner in respect of Operational and Financial performance. In the said regard, the Petitioner submits the compliance status of the said Directives as indicated in the table below:

**Table 58-BGCL submission to Directives**

S.No.	Directive as per Order dated 25.03.2021	Petitioner's submission	Compliance status
1	<p><b>Details of Capitalization</b></p> <p>BGCL is directed to submit the scheme-wise details of actual capitalization including the following:</p> <p>i. Final cost of project versus approved DPR cost versus awarded cost of project</p> <p>ii. Break up of scheme wise actual BoQ quantity vs LoA BoQ quantity (along with supporting reasons for change in quantity)</p> <p>iii. Breakup of scheme wise actual hard cost in consonance with audited values versus LOA hard cost</p> <p>iv. Calculation of interest from the planned date of infusion of debt fund up to planned date of commercial operation versus calculation of interest from the date of infusion of debt fund up to actual date of commercial operation.</p>	<p>In compliance of the Hon'ble commissions directives as well as disallowances in the CapEx, BGCL has preferred a separate Review Petition to fulfil the compliance of the point mentioned alongside as well as seek necessary relief for the approval of Capex.</p> <p>BGCL shall also endeavour to provide any additional information as desired by the Hon'ble Commission during the course of instant proceedings.</p>	Complied



S.No.	Directive as per Order dated 25.03.2021	Petitioner's submission	Compliance status
	<p>v. Detailed working of approved variation due to impact of entry tax, other taxes, foreign exchange rate variation and miscellaneous expenses in MoM of BoD versus these expenses as approved in DPR.</p> <p>vi. Reconciliation with audited value along with supporting documents, of the above mentioned expenses (as mentioned in point v above) separately for each item of deviation .</p>		
2	<p><b>Summary report</b></p> <p>It has been observed that BGCL has been submitted multiple times for revision of its project costs. In view of this, the Commission opines a better tracking is needed of the capital projects being executed by BGCL, so that at the end of the year, the Commission is not required to deal with a sudden cost over-run. Thus, BGCL is directed to submit summary report on scheme wise capital expenditure and capitalization based on actual physical progress, bi-yearly.</p>	<p>The Petitioner in view of project monitoring time and again assesses the project related finances. Based upon the quantum of work left, any changes in scope, revision in Tax/ duty structure, the Petition pro-actively prepares Revised Cost Estimates and submits the same before the Hon'ble Commission for seeking necessary approval.</p> <p>The details of physical progress of the ongoing schemes will be submitted during the course of instant</p>	Complied

S.No.	Directive as per Order dated 25.03.2021	Petitioner's submission	Compliance status
		proceedings.	
3	<p><b>Online platform for capital project monitoring</b></p> <p>BGCL should develop a web based platform/portal such it encompasses features tracking the various schemes being carried out by BGCL in terms of cost, time, scope, actual progress and deviations. BGCL shall update all relevant information on the web based on regular basis and provide access of the same to the office of the Commission. This shall enable the Commission to monitor real time data of capital projects and suggest corrective actions as and when needed.</p>	Not done	Not Complied
4	<p><b>Adherence to Bihar Electricity Regulatory Commission (Power Regulatory Accounting) Regulations, 2018</b></p> <p>BGCL is directed to strictly adhere to the provisions of Bihar Electricity Regulatory Commission (Power Regulatory Accounting) Regulations, 2018 including regulation 5 for furnishing of regulatory Audited Accounts and Regulation 9.17 for accounting of all capital expenditure through</p>	<p>BGCL has already initiated the works towards preparation of Regulatory accounts. The Accounts so prepared shall be presented before BERC as and when the exercise is completed.</p>	Not Complied



S.No.	Directive as per Order dated 25.03.2021	Petitioner's submission	Compliance status
	capital work in progress.		
5	<b>Peak and Average Loading of Transmission Elements</b> BGCL should submit month wise peak and average loading of its Transmission elements to the Commission on quarterly basis.	Peak and average loading month wise is enclosed as <b>Annexure- F</b>	Complied
6	<b>Metering &amp; Energy Audit</b> To maintain a transparent energy accounting system and to arrive at monthly energy losses in the transmission system, appropriate energy meters with communication facilities at all the interface points at distribution periphery is necessary. BGCL should submit monthly energy accounting report certified by SLDC and shall incorporate the transmission loss as certified by SLDC in annual audited accounts. BGCL shall also submit a quarterly report on the status of metering and its availability as its elements commissioned during the ongoing Control Period.	Monthly Energy accounting certificate issued by SLDC is enclosed as <b>Annexure- G</b>	Complied
7	<b>Auxiliary consumption</b> In compliance of previous directive no. 4 (Auxiliary consumption and consumption in staff colonies), BGCL stated that no	Auxiliary consumption details are enclosed as <b>Annexure - H</b>	Complied





S.No.	Directive as per Order dated 25.03.2021	Petitioner's submission	Compliance status
	staff colonies have been provided to the employees at GSS and only auxiliary consumption of substation are billed by Discoms and claimed in Petition under A&G expenses. Hence, BGCL is directed to verify the bills raised by Discoms in accordance to the actual consumption and tariff schedule and rate for relevant category of connection upon serving of bill by Discoms.		

## 7 Prayers to the Hon'ble Commission

The Petitioner respectfully prays that the Hon'ble Commission may:

- a) Examine the proposal submitted by the Petitioner in the enclosed Petition for a favourable dispensation;
- b) Consider the impact of Review Petition filed against the Hon'ble Commission Order dated 25.03.2022 while adjudicating on the instant Petition.
- c) Pass suitable orders with respect to the True Up of FY 2021-22, APR of FY 2022-23, determination of ARR for FY 2023-24 along with Annual Transmission Charges for the FY 2023-24 as submitted in this petition.
- d) Condone any inadvertent omissions, errors, short comings and permit BGCL to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and
- e) Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

---



# ANNEXURES



## List of Annexures

- A. Tariff Filing Formats
- B. Breakup of Hard and Soft Cost of the assets commissioned during FY 2021-22
- C. BGCL Annual Audited Accounts for the FY 2021-22
- D. Computation of Weighted Average Rate of Interest
- E. 1 year SBI MCLR as on 15.10.2022
- F. Loading level of Transmission Elements
- G. SLDC Certificates
- H. Auxiliary Consumption



**Annexure B**

Summary		
Sl No	Format	Form No.
1	Statement of Projected Profit and Loss	S1
2	Projected Balance Sheet	S2
3	Projected Cash Flow Statement	S3
4	Annual Revenue Requirement	F1
5	Alloted Transmission Capacity and Charges to be paid by Long Term Transmission, Long Term Transmission Customers ( CL)	F2
6	Projection of Sales, Connected Load and Demand	F3
7	Revenue at current tariff rates	F4
8	Details of Transmission Lines and Substations	F5 (a,b,c)
9	Investment Plan (Scheme-wise)	F5 (d,e)
10	Abstract of Capital Cost for the existing Project, Capital Cost Estimates and Schedule of Commissioning for the New projects	F5 (f,g)
11	Capital Cost Estimates and Schedule of commissioning	F5 (h)
12	Break-up of Project Cost for Transmission System	F5 (i)
13	Breakup of Construction/ Supply/ Service packages	F5 (j)
14	Statement of Additional Capitalization	F5 (k)
15	Statement of Capital Works in Progress	F5 (l)
16	Capital Work-In-Progress (CWIP)	F5 (m)
17	Normative Parameters Considered for Tariff Computations	F6
18	Reconciliation of Gross Fixed Assets(GFA) admitted with Gross Fixed	F7 (a)
19	Gross Fixed Assets (GFA) (Information to be supplied for the previous year (actuals), current year (RE) and the ensuing year (s) (projections)	F7 (b,c,d)
20	Value of Depreciation Charges	F7 (e)
21	Statement of Assets Not in Use	F7 (f)
22	User contributions and grants towards cost of capital assets	F8
23	Details of Loans for the year	F9 (a,b,c)
24	Domestic loans, bonds and financial leasing	F9 (d)
25	Statement of Reconciliation of Net Actual Loan (opening) with Net Normative Loan (Opening)	F9 (e)
26	Details of Equity	F10
27	Interest and Finance Charges	F11
28	Lease details	F12
29	Operations & Maintenance Cost	F13
30	Employee Expenses	F14
31	R&M Expenses	F15
32	Administration and General Expenses	F16
33	Short Term Open Access Consumers	F17
34	Details of Non-tariff Income	F18
35	Working Capital Interest	F19
36	Investments in Non business related activities	F20
37	Details of Expenses Capitalised	F21
38	Net Prior Period Expenses / Income	F22
39	Contribution to Contingency Reserve	F23
40	Allocation statement of Expenses of SLDC	F24
41	Transmission Losses (For Transmission Licensee)	P1
42	Energy Delivered by Transmission licensee to the distribution Distribution Licensees/ Bulk consumers at interface points	P2
43	Details of Electrical Accidents	P3

SI No	Format	Form No.
44	Abstract of Outages due to feeder tripping	P4
45	Major System Disturbances	P5
46	Frequency Variation	P6
47	Voltage Fluctuation	P7
48	Licensee wise Load shedding carried out during the year	P8
49	Details of Overloaded Feeders	P9
50	Details of over loaded Transformers	P10
51	Failure of Transformers	P11
52	Key Ratios	P12



## Statement of Projected Profit and Loss

(Form No. SI)

Particulars		Previous Year (Rs Cr)	Previous Year (Rs Cr)
		FY 2020-21	FY 2021-22
I	Revenue from operations	460.20	452.62
II	Other Income	32.97	65.92
<b>III</b>	<b>Total Income ( I+II)</b>	<b>493.17</b>	<b>518.54</b>
IV	Expenses		
	Employee benefit expenses	11.29	14.95
	Finance cost	162.50	175.85
	Depreciation and amortisation expense	95.55	105.38
	Other expenses	28.14	29.03
	<b>Total expenses (IV)</b>	<b>297.47</b>	<b>325.21</b>
<b>V</b>	<b>Profit/(Loss) before exceptional items and tax (III-IV)</b>	<b>195.70</b>	<b>193.33</b>
VI	Exceptional Items	-	-
VII	Profit/(Loss) before Tax (V-VI)	195.70	193.33
VIII	Total Tax expense	40.88	49.37
	(1) Current Tax	42.00	6.35
	(2) Deffered Tax	-1.12	43.02
<b>IX</b>	<b>Profit (Loss) for the period from Continuing operations (VII-VIII)</b>	<b>154.82</b>	<b>143.97</b>
X	Profit/(Loss) from dis continuing operations	-	-
XI	Tax expense of dis continuing operations	-	-
XII	Profit/(Loss) from dis continuing operations (after tax) (X-XI)	-	-
<b>XIII</b>	<b>Profit/(Loss) for the period (IX+XII)</b>	<b>154.82</b>	<b>143.97</b>
XIV	Other Comprehensive income	-	-
<b>XV</b>	<b>Total Comprehensive income for the period(XIII+XIV)</b>	<b>154.82</b>	<b>143.97</b>
XVI	Earnings per equity share (for continuing operation)		
	(1) Basic	2.86	2.37
	(2) Diluted	2.86	2.37
XVII	Earnings per equity share (for dis continued operation)		
	(1) Basic	-	-
	(2) Diluted	-	-
XVIII	Earnings per equity share (for dis continued & Continuing operations)		
	(1) Basic	2.86	2.37
	(2) Diluted	2.86	2.37

Signature of Petitioner





<b>Projected Balance Sheet</b>		
<b>Particulars</b>	<b>As at 31st March, 2021</b>	<b>As at 31st March, 2022</b>
<b>ASSETS</b>		
<b>Non-Current Assets</b>		
(a) Property, Plant and Equipment	1,806.68	1,978.71
(b) Capital Work-in-Progress	832.07	789.46
(c) Other Intangible Assets	1.25	1.18
(d) Intangible Assets under Development	0.17	0.17
(e) Other non current assets	3.17	0.85
<b>Total Non-Current Assets</b>	<b>2,643.33</b>	<b>2,770.37</b>
<b>Current Assets</b>		
(a) Inventories	1.70	1.70
(b) Financial Assets		
(i) Trade receivables	506.31	618.68
(ii) Cash and Cash Equivalents	110.26	129.89
(c) Other Current Assets	55.29	60.99
<b>Total Current Assets</b>	<b>673.56</b>	<b>811.25</b>
<b>Total Assets</b>	<b>3,316.90</b>	<b>3,581.63</b>
<b>EQUITY AND LIABILITIES</b>		
<b>Equity</b>		
(a) Equity Share Capital	580.59	645.07
(b) Other Equity	235.14	379.10
<b>Total Equity</b>	<b>815.73</b>	<b>1,024.17</b>
<b>Liabilities</b>		
<b>Non-Current Liabilities</b>		
(a) Financial Liabilities		
(i) Borrowings	1,926.71	1,992.98
(ii) Other Non Current financial Liabilities	109.37	70.99
(b) Deferred Tax Liabilities (net)	131.16	174.18
<b>Total non current Liability</b>	<b>2,167.24</b>	<b>2,238.15</b>
<b>Current Liabilities</b>		
(a) Financial Liabilities		
(i) Other Current Financial Liabilities	45.14	60.91
(ii) Current Borrowing	110.99	117.94
(b) Other Current Liabilities	131.22	106.51
(c) Provisions	4.57	4.96
(d) Current Tax Liabilities (Net)	42.00	28.99
<b>Total Current Liabilities</b>	<b>333.93</b>	<b>319.30</b>
<b>Total Equity and Liabilities</b>	<b>3,316.90</b>	<b>3,581.63</b>

Signature of Petitioner

<b>Cash Flow Statement</b>		<b>Form No: S3</b>	
<b>Particulars</b>	<b>Previous Year FY 2020-21</b>	<b>Previous Year FY 2021-22</b>	
<b>A. CASH FLOW FROM OPERATING ACTIVITIES</b>			
Net Profit/(Loss) as per Profit & Loss A/c	154.82		143.97
Depreciation	95.52		105.37
Finance Costs	162.50		175.85
Interest Received from Bank	-4.64		-2.76
Prior Period Expenses/ Preliminary expenses	-		-
Operating profit before working capital changes	<b>408.19</b>		<b>408.19</b>
<b>Adjustment For Increase/Decrease in:</b>			
Trade Receivables	-296.20		-112.37
Other Current Assets	-39.45		-5.69
Inventories	-		-
Other Current Liabilities	-6.37		-24.72
Other Current Financial Liabilities	-2.03		15.77
Current Borrowing	12.11		6.95
Deferred Tax Liabilities	-1.12		43.02
Short Term Provisions	0.40		0.39
Current Tax Liabilities	42.00		-13.01
<b>TOTAL</b>	<b>117.54</b>		<b>117.54</b>
<b>B. CASH FLOW FROM INVESTING ACTIVITIES</b>			
Tangible/Intangible Assets	-297.09		-277.33
Capital Work in Progress	-14.88		42.60
Long Term Loans and Advances	1.36		2.32
Interest Received from Bank	4.64		2.76
<b>TOTAL</b>	<b>-305.97</b>		<b>-305.97</b>
<b>C. CASH FLOW FROM FINANCING ACTIVITIES</b>			
Issue of Share Capital / Other Equity	66.01		64.48
CSR Expenditure	-		-
Interest and Finance Costs Paid	-162.50		-175.85
Other Non Current Financial Liabilities	-6.22		-38.38
Borrowings	236.80		66.27
<b>TOTAL</b>	<b>134.10</b>		<b>134.10</b>
<b>D. NET INCREASE/(DECREASE) IN CASH FLOW (A+B+C)</b>	<b>-54.33</b>		<b>19.63</b>
<b>E. CASH &amp; CASH EQUIVALENT AT THE BEGINNING OF THE YEAR</b>	<b>164.59</b>		<b>110.26</b>
<b>F. CASH &amp; CASH EQUIVALENT AT THE END OF THE YEAR</b>	<b>110.26</b>		<b>129.89</b>

Signature of Petitioner



Annual Revenue Requirement		Form No. F1			
S.No.	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
I.	Energy Available (MU)		6,082.12	7,298.55	8,758.26
II.	Energy Transmitted/Wheeled (MU)		6,004.51	7,205.41	8,646.49
III.	Loss %		1.28%	1.28%	1.28%
IV.	Transmission Cost per unit (Rs/U)				
V.	Total Transmission System Capacity (in MW)				
VI.	Transmission Cost per MW				
VII.	Max Demand handled by the transmission system (in MW)				
<b>A.</b>	<b>Income from Transmission Function</b>				
<b>1</b>	<b>Receipts</b>				
a	Transmission/Wheeling Charges at current tariff rates	328.97	541.71	433.32	604.54
b	Subsidy from Govt. (If any)	-	-	-	-
	<b>Total Receipts ( A)</b>	<b>328.97</b>	<b>541.71</b>	<b>433.32</b>	<b>604.54</b>
<b>B</b>	<b>Expenditure</b>				
<b>1</b>	<b>O&amp;M Expenses</b>				
i	Employee Expenses	4.78	22.25	23.56	24.95
ii	R&M Expense	15.40	22.54	20.57	32.29
iii	A&G Expense	3.22	7.99	8.42	8.88
	<b>Total O&amp;M expenses ( i+ii+iii+iv)</b>	<b>23.40</b>	<b>52.78</b>	<b>52.55</b>	<b>66.11</b>
<b>2</b>	<b>Return on Equity</b>	<b>103.83</b>	<b>79.69</b>	<b>109.35</b>	<b>137.86</b>
<b>3</b>	<b>Depreciation</b>	<b>181.92</b>	<b>105.26</b>	<b>122.43</b>	<b>187.28</b>
<b>4</b>	<b>Interest and finance charges on Loan Capital</b>	<b>236.19</b>	<b>141.47</b>	<b>194.62</b>	<b>241.25</b>
<b>5</b>	<b>Interest on Working Capital</b>	<b>3.82</b>	<b>2.81</b>	<b>3.52</b>	<b>4.50</b>
<b>6</b>	<b>Contribution towards Contingency Reserve</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>7</b>	<b>Gain/ Loss sharing</b>	<b>-</b>	<b>-1.87</b>	<b>-</b>	<b>-</b>
<b>9</b>	<b>Availability Incentive (TAF)</b>	<b>-</b>	<b>2.65</b>	<b>-</b>	<b>-</b>
<b>10</b>	<b>Transmission Loss Incentive</b>	<b>-</b>	<b>2.57</b>	<b>-</b>	<b>-</b>
	<b>Total Expenditure ( B)</b>	<b>549.16</b>	<b>385.36</b>	<b>482.47</b>	<b>637.00</b>
<b>C</b>	<b>Other Deductions</b>				
<b>1</b>	<b>Income from other Business</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>2</b>	<b>Non tariff income</b>	<b>7.45</b>	<b>32.46</b>	<b>32.46</b>	<b>32.46</b>
<b>3</b>	<b>Revenue from Short Term transmission charges</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Other Deductions ( C)</b>	<b>7.45</b>	<b>32.46</b>	<b>32.46</b>	<b>32.46</b>
<b>D</b>	<b>Net ARR for Transmission Function ( B-C)</b>	<b>541.71</b>	<b>352.90</b>	<b>450.01</b>	<b>604.54</b>
<b>E</b>	<b>Shortfall/ (Excess) before tariff revision impact (A-D)</b>		<b>-188.81</b>	<b>16.69</b>	
<b>F</b>	<b>Surplus/ (Gap) Adjustment of Prev. years</b>		<b>-89.09</b>		
<b>G</b>	<b>Shortfall/ (Excess) after Gap adjustment (E-F)</b>		<b>-277.90</b>		

Signature of Petitioner

**Alloted Transmission Capacity and Charges to be paid by Long Term Transmission  
Long Term Transmission Customers ( CL) Form F2**

(In MW)

	Particulars	Approved	Actual	FY 2022-23	Ensuing years (Projection)
		FY 2021-22			FY 2023-24
A	Distribution Licensees	All Bills are raised to BSPTCL			
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	i.				
	ii.				
B	Bulk Consumers/Long Term Open Access Customers (If				
1					
2					
Transmission Capacity to all the long term Transmission					
Charges to be paid by Long Term Transmission Customers/month				<u>Rs. Crores</u>	
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited	All Bills are raised to BSPTCL			
2	South Bihar Power Distribution Company Limited				
3	Others				
	i.				
	ii.				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
Total					

**Signature of Petitioner**





**Projection of Sales, Connected Load and Demand**

**Form No: F3**

	Particulars	Approved	Actual	FY 2022-23	Ensuing years (Projection)
		FY 2021-22			FY 2023-24
<b>A) Projection of sales (MU)</b>					
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	-----				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				
<b>B) Projection of Connected Load (in KW)</b>					
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	-----				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				
<b>C) Projection of Maximum or Peak Demand (in MW) (Unrestricted)</b>					
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	-----				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				
<b>D) Projection of Minimum Demand (in MW)</b>					
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	-----				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				

Not applicable for BGCL as a fixed tariff bill is raised to BSPTCL

<b>E) Projection of Average Demand (in MW)</b>				
A	Distribution Licensees			
1	North Bihar Power Distribution Company Limited			
2	South Bihar Power Distribution Company Limited			
3	Others			
	--			
B	Bulk Consumers/Long Term Open Access Consumers (If any)			
1				
2				
<b>TOTAL</b>				

**Signature of Petitioner**



**Revenue At Current Tariff Rates**

**Form No: F4**

Rs. Crores

	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
		As BGCL bills a fixed tariff to BSPTCL, the section is not relevant			
A	Distribution Licenses				
1	North Bihar Company Limited				
2	South Bihar Company Limited				
3	Others				
	i.				
	ii.				
	<b>TOTAL</b>				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				
	<b>Grand Total</b>				

**At Proposed Tariff Rates**

	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
		As BGCL bills a fixed tariff to BSPTCL, the section is not relevant			
A	Distribution Licensees				
1	North Bihar Power Distribution Company Limited				
2	South Bihar Power Distribution Company Limited				
3	Others				
	i.				
	ii.				
	<b>TOTAL</b>				
B	Bulk Consumers/Long Term Open Access Consumers (If any)				
1					
2					
	<b>TOTAL</b>				
	<b>Grand Total</b>				
Le	Tariff at Current Rates				
	Impact of Tariff Revision				

**Signature of Petitioner**

## (a) Details of Transmission Lines and Substations

## Transmission Lines

SNo	Name of line	Type of line AC/ HVDC	S/C or D/C	No. of Sub-conductors	Voltage level kV	Line length Cld.-Km.	Date of Commercial operation /Put in use
1	132 kV D/C Amnour (BGCL) - Chhapra (BSPTCL) T/L	AC	D/C	1	132	51.16	27-Dec-17
2	220 kV D/C Hajipur (BSPTCL) - Amnour (BGCL) T/L	AC	D/C	1	220	95.27	18-Apr-17
3	132 kV D/C Amnour (BGCL) - Siwan (BSPTCL) T/L	AC	D/C	1	132	130.73	• Ckt 2: 24 Apr 2017 • Ckt 1: 12 Aug 2017
4	L/O of 220kV D/C BiharSharif (BSPTCL) - Bodhgaya (BSPTCL) T/L at Khijrisarai (BGCL)	AC	D/C	1	220	25.71	• 220kV BiharSharif - Bodhgaya - 7 Aug 2017 • 220 kV BiharSharif Khijir Sarai - 26 Aug 2017
5	132 kV S/C Khizersarai (BGCL) - Jehanabad (BSPTCL) T/L	AC	D/C	1	132	61.18	26-Feb-20
6	L/O of 132kV S/C Bodhgaya (BSPTCL) - Wazirganj (BSPTCL) T/L at Khijrisarai (BGCL)	AC	S/C	1	132	30.26	• Khijrisarai - Wazirganj - 8 Sep 2017 • Khijrisarai - Bodhgaya - 10 Sep 2017
7	132 kV S/C Khizersarai (BGCL) - Hulasganj (BSPTCL) T/L	AC	S/C	1	132	10.29	26-Aug-17
8	220 kV D/C Patna (PG) - Khagaul (BSPTCL) T/L	AC	D/C	1	220	51.31	08-Aug-19
9	L/O of one circuit of 132 kV D/C Khagaul (BSPTCL) - Dighe (BSPTCL) T/L at Bilhta New (BSPTCL)	AC	D/C	1	132	53.46	2022-23
10	220 kV D/C Khizersarai (BGCL) - Gaya (PG) T/L	AC	D/C	1	220	115.91	27-May-18
11	220 kV D/C Sekhopur Sarai (BGCL) - Narhat (BGCL) T/L	AC	D/C	1	220	101.69	22-Dec-17
12	220 kV D/C Khizersarai (BGCL) - Narhat (BGCL) T/L	AC	D/C	1	220	109.44	17-Sep-17
13	132 kV D/C Narhat (BGCL) - Nawada (BSPTCL) T/L	AC	D/C	1	132	35.15	19-Sep-17
14	132 kV S/C Sekhopur Sarai (BGCL) - BiharSharif (BSPTCL) T/L	AC	S/C	1	132	43.12	26-Feb-19
15	132 kV D/C Sekhopur Sarai (BGCL) - Shekhpura (BSPTCL) T/L	AC	D/C	1	132	48.14	23-Dec-17
16	L/O of 220 kV D/C Begusarai (BSPTCL) - BiharSharif (BSPTCL) T/L at Mokama (BGCL)	AC	D/C	1	220	12.86	28-Sep-20
17	132 kV D/C Mokama (BGCL) - Hatidah (BSPTCL) T/L	AC	D/C	1	132	13.96	24-Sep-20
18	220 kV D/C Sekhopur Sarai (BGCL) - Haveli Kharagpur (BGCL) T/L	AC	D/C	1	220	249.03	02-May-18
19	L/O of 132 kV D/C Sultanganj (BSPTCL) - Lakhisarai (BSPTCL) T/L at Haveli Kharagpur (BGCL)	AC	D/C	1	132	73.24	02-May-18
20	132 kV D/C Haveli Kharagpur (BGCL) - Jamalpur (BSPTCL) T/L	AC	D/C	1	132	67.16	21-Jan-19
21	132 kV D/C Goradib (BGCL) - Sabour (BSPTCL) T/L	AC	D/C	1	132	23.87	16-Jun-19
22	L/O of 132 kV D/C Kahalgaon (BSPTCL) - Sultanganj (BSPTCL) T/L at Goradib (BGCL)	AC	D/C	1	132	36.07	27-Jan-19
23	220 kV D/C Haveli Kharagpur (BGCL) - Goradib (BGCL) T/L	AC	D/C	1	220	120.40	26-Jan-19



(b) Substations							
No	Name of Sub- station	Type of Substation Conventional/ GIS	Voltage level kV	No. of transformers / Reactors/ SVC etc (with capacity)		No. of Bays	Date of Commercial operation /Put in use
				Number	Capacity		
1	220/132/33 kV Amnour GIS	GIS	220/132	2	160	220kV-5, 132kV-9, 33kV-11	19-Apr-17
2	220/132/33 kV Amnour GIS	GIS	132/33	2	50		
3	220/132/33 kV Khijisarai GIS	GIS	220/132/33	1	160	220kV-11, 132kV-13, 33kV-14	07-Aug-17
4	220/132/33 kV Khijisarai GIS	GIS	132/33	2	50		
5	220/132/33 kV Goradli GIS	GIS	220/132	1	160	220kV-5, 132kV-11, 33kV-11	26-Jan-19
6	220/132/33 kV Goradli GIS	GIS	132/33	1	50		
7	220/132/33 kV Haveli Kharagpur GIS	GIS	220/132	1	160	220kV-7, 132kV-11, 33kV-11	02-May-18
8	220/132/33 kV Haveli Kharagpur GIS	GIS	132/33	2	50		
9	220/132/33 kV Shekhopur Sarai GIS	GIS	220/132	1	160	220kV-7, 132kV-8, 33kV-11	22-Dec-17
10	220/132/33 kV Shekhopur Sarai GIS	GIS	132/33	2	50		
11	220/132/33 kV Narhat GIS	GIS	220/132	1	160	220kV-7, 132kV-7, 33kV-11	17-Sep-17
12	220/132/33 kV Narhat GIS	GIS	132/33	2	50		
13	220/132/33 kV Mokama GIS	GIS	220/132	1	160	220kV-7, 132kV-7, 33kV-11	24-Sep-20
14	220/132/33 kV Mokama GIS	GIS	132/33	1	80		01-Oct-20
15	220/132 kV 160 MVA Transformer 2 of GIS, Narhat (Nawada)	GIS	220/132	1	160	220kV-01 132kV-01	14-May-19
16	220/132 kV 160 MVA Transformer 2 of GIS, Khijisarai (Gaya Manpur)	GIS	220/132	1	160	220kV-01 132kV-01	22-Aug-19
17	220/132 kV 160 MVA Transformer 2 of GIS, Shekhopur Sarai	GIS	220/132	1	160	220kV-01 132kV-01	08-Nov-19
18	132/33 kV 50 MVA Transformer 2 of GIS, Goradli (Sabour)	GIS	132/33	1	50	132kV-01 33kV-01	21-Dec-19
19	220/132 kV 160 MVA Transformer 2 of GIS, Haveli Kharagpur (Jamalpur)	GIS	220/132	1	160	220kV-01 132kV-01	19-Jan-20
20	132/33 kV 50 MVA Transformer 3 of GIS, Khijisarai (Gaya Manpur)	GIS	132/33	1	50	132kV-01 33kV-01	2022-23
21	220/132 kV 160 MVA Transformer 2 of GIS, Goradli (Sabour)	GIS	220/132	1	160	220kV-01 132kV-01	2022-23
22	132/33 kV Transformer-1 50 MVA of GIS, Mokama (Hatidah)	GIS	132/33	1	50	132kV-01 33kV-01	2022-23
23	220/132 kV 160 MVA Transformer 1 of GIS, Mokama (Hatidah)	GIS	220/132	1	160	220kV-01 132kV-01	2022-23

## (c) Extension of Substations

No	Name of Extension Sub-station	Type of Substation (Conventional/ GIS)	Voltage level kV	No. of Bays	Date of Commercial operation /Put in use	Covered in this petition (Yes/No)
1	132/33 kV Siwan (BSPTCL)	Conventional	132kV	2	24-Apr-17	Yes
2	132/33 kV Chhapra (BSPTCL)	Conventional	132kV	2	27-Dec-17	Yes
3	220/132 kV Hazipur (BSPTCL)	GIS	220kV	5	18-Apr-17	Yes
5	400/220 kV Gaya (PG)	Conventional	220kV	2	27-May-18	Yes
6	132/33 kV Hulasganj (BSPTCL)	Conventional	132kV	1	26-Aug-17	Yes
4	400/220 kV Gauricbak (PG)	Conventional	220kV	2	08-Aug-19	Yes
7	220/132 kV Khagaul (BSPTCL)	GIS	220kV	2	08-Aug-19	Yes
8	132/33 kV Sabour (BSPTCL)	Conventional	132kV	2	16-Jun-19	Yes
9	132/33 kV Jamalpur (BSPTCL)	Conventional	132kV	2	21-Jan-19	Yes
10	132/33 kV B'Sharif (BSPTCL)	Conventional	132kV	1	27-Feb-19	Yes
11	132/33 kV Selkhpura (BSPTCL)	Conventional	132kV	2	27-Dec-17	Yes
12	132/33 kV Nawada (BSPTCL)	Conventional	132kV	2	17-Sep-17	Yes
13	Sabour Bay Extension (2 * 132 kV Bay AIS)	Conventional	132kV	2	16-Jun-19	Yes
14	Jehanabad Bay Extension (2x132 kV AIS)	Conventional	132kV	2	26-Feb-20	Yes
15	Hatidah Bay Extension (2 * 132 kV Bay AIS)	Conventional	132kV	2	24-Sep-20	Yes
16	Bihtra Bay Extension (2x132 kV GIS)	GIS	132/33	2	2022-23	Yes

\*Note:- Information to be provided for Previous Year, Current Year & Ensuing Control Period

## (c) Details of Installed Transformer at Substation

Sl.No	Voltage Ratio of Transformer (kV/kV)	Details of Transformers		Details of Transformers		Details of Transformers	
		Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)
		Previous Year (FY 2021-22)		Current Year (FY 2022-23)		Ensuing Year (FY 2023-24)	
1	400/220	-	-	-	-	-	-
2	400/132	-	-	-	-	-	-
3	220/132	12 (160MVA)	1,920	12	1,920	14	2,240
4	220/33	-	-	-	-	-	-
5	132/33	12 (50MVA)	600	12	600	14	780
6	132/33	1 (80 MVA)	80	1	80	1	80

Note: Information required for Previous years, current year and Ensuing years

## (a) Details of Transmission Lines and Substations

SNo	Name of line	Transmission Lines					
		Type of line AC / HYDC	S/C or D/C	No. of Sub-conductors	Voltage level kV	Line length Ckt.-km.	Date of Commercial operation /Put in use
1	LILO of 400 kV D/C Nabinagar II - Patna (PG) transmission line at Jakkampur - 14km	AC	D/C	1	400	28	21-04-2022
2	LILO of 220 kV D/C Sipara (BSPTCL) - Bihta (BSPTCL) line at Jakkampur (new) (14 kms)	AC	D/C	1	220	28	2023-24
3	LILO of 220 kV S/C Khagaul (BSPTCL) - Sipara (BSPTCL) at Jakkampur (new)(10 kms)	AC	S/C	1	220	10	2022-23
4	LILO of 132 kV D/C Jakkampur-Sipara line at Jakkampur(new) (being reconducted with HTLS by BSPTCL) (29 kms)	AC	D/C	1	132	40	2023-24
5	LILO of 132 kV S/C Jakkampur/Mihapur-Fatma line at Jakkampur New (being reconducted with HTLS by BSPTCL)	AC	S/C	1	132	12	2022-23
6	LILO of 220 kV D/C Ara (PG)- Dumraon (New) and LILO of 220 kV D/C line Nadookhar (BSPTCL) - Dumraon (New) (BGCL) (50 kms)	AC	D/C	1	220	100	13-12-2020
7	132 kV D/C Dumraon(New)- Dumraon(BSPTCL) transmission line(8kms)	AC	D/C	1	132	16	14-07-2022
8	132 kV Dumraon (new) -Buxar (BSPTCL)(20 kms)	AC	D/C	1	132	40	03-03-2022
9	LILO of 400 kV D/C quad ckt 3&4 of Patna-bihta line at Naubatpur(new)(12 kms)	AC	D/C	1	400	24	17-03-2022
10	LILO of 220kV D/C Ara (PG) - Khagaul (BSPTCL) line at Naubatpur(new) - (22 kms)	AC	D/C	1	220	44	12-05-2022
11	220 kV D/C Naubatpur(New) - Bihta (BSPTCL) transmission line (25 kms)	AC	D/C	1	220	50	28-06-2022
12	220 kV D/C Naubatpur(New)-Bhusanli(new) transmission Line (18 kms)	AC	D/C	1	220	36	02-06-2022
13	LILO of one ckt of 132 kV D/C Patna - Nawgachi /Khagaria line at Katihar (BSPTCL) (30 kms)	AC	D/C	1	132	60	2022-23
14	LILO of 132 kV D/C Ara (BSPTCL) - Jagdishpur (BSPTCL) at Dumraon New (BGCL)	AC	D/C	1	132	88.04	14-07-2021
15	132 kV D/C Naubatpur -Masauhi transmission line (11.5 kms)	AC	D/C	1	132	23	29-03-2022
16	132 kV D/C Naubatpur - Paliaganj transmission line (25.5 kms)	AC	D/C	1	132	51	2022-23

(b) Substations							
No	Name of Sub-station	Type of Substation Conventional/ GIS	Voltage level kV	No. of transformers / Reactors/ SVC etc (with capacity)	No. of Bays	Date of Commercial operation /Put in use	Covered in this petition (Yes/No)
	Jakkampur 400kV GIS	GIS	400kV	02(500MVA),03(160MVA),04(80MVA)		2022-23 /2023-24	Yes
1	Dumraon 220kV GIS	GIS	220 kV	02(160MVA),02(80MVA)		160 MVA TF 1 (01-01-21) 80 MVA TF 1 (10-01-21) and GIS (10-01-2021) 80 MVA TF 2 (09-09-21)	Yes
2	Naubatpur 400kV GIS	GIS	400kV	02(500MVA),02(160MVA),02(80MVA)		1X500 MVA & GIS (17-03-22) 1X160MVA & 1X80MVA (19-03-22)	Yes
	Bhussaulo 220kV GIS	GIS	220 kV	02(100MVA)		03-06-2022	Yes

(c) Extension of Substations							
1	132 kV Dumraon (BSPTCL)	GIS	132 kV		2	10-01-2021	Yes
2	132 kV Buxar (BSPTCL)	GIS	132 kV		2	03-03-2022	Yes
3	220 kV Bihra GIS (BSPTCL)	GIS	220 kV		2	2022-23	Yes
4	132 kV Katihar (BSPTCL)	GIS	132 kV		2	2022-23	Yes
5	132 kV Paliganj (BSPTCL)	GIS	132 kV		2	2022-23	Yes
6	132 kV Masabari (BSPTCL)	GIS	132 kV		2	29-03-2022	Yes

\*Note:- Information to be provided for Previous Year, Current Year & Ensuing Control Period

(c) Details of Installed Transformer at Substation							
Sl.No	Voltage Ratio of Transformer (kV/kV)	Details of Transformers		Details of Transformers		Details of Transformers	
		Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)
		Previous Year (2021-22)		Current Year (2022-23)		Ensuing Year (2023-24)	
1	400/220	1 - (500MVA)	500.00	4	2,000	4	2,600
2	400/132	-	-	-	-	-	-
3	220/132	2 - (160MVA)	320.00	5	800	7	1,120
4	220/33	(50MVA)	-	2	200	2	200
5	132/33	3 - (80MVA)	240.00	6	480	7	530

Note: Information required for Previous years, current year



## (a) Details of Transmission Lines and Substations

## Transmission Lines

S.No	Name of line	Type of line AC/ HVDC	S/C or D/C	No. of Sub-conductors	Voltage level kV	Line length Ckt.-Kms.	Date of Commercial operation /Put in use
1							
2							
3							

## (b) Substations

No	Name of Sub-station	Type of Substation Conventional/ GIS	Voltage level kV	No. of transformers / Reactors/ SVC etc (with capacity)	No. of Bays	Date of Commercial operation /Put In use	Covered in this petition (Yes/No)
1	Installation of 420kV, 2x125MVAR bus reactor at 400/220/132/33kV GIS Jakkampur S/s along with associated bays	GIS	420	2 (125 KVAR reactor)	2	2022-23	Yes
2	Installation of 420kV, 2x125MVAR bus reactor at 400/220/132/33kV GIS Naubatpur S/s along with associated bays	GIS	420	2 (125 KVAR reactor)	2	2022-23	Yes
3	Installation of 220/132kV, 160MVA 3rd ICT at 220/132/33kV GIS Chapra S/s along with associated bays	GIS	220	1 ICT (160 MVA)	2	2022-23	Yes

## (c) Details of Installed Transformer at Substation

Sl.No	Voltage Ratio of Transformer (kV/kV)	Details of Transformers		Details of Transformers		Details of Transformers	
		Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)	Total number	Total Capacity (MVA)
		Previous Year (FY 2021-22)		Current Year (2022-23)		Ensuing Year (2023-24)	
1	400/220	-	-	-	-	-	-
2	400/132	-	-	-	-	-	-
3	220/132	-	-	-	-	-	-
4	220/33	(160MVA)	-	-	-	1.00	160.00
5	132/33	-	-	-	-	-	-

Note: Information required for Previous years, current year

## ABT Metering

## Form: F5

S.No.	Particulars	Total number		Total number	
		Previous Year (FY 2021-22)	Current Year (2022-23)	Previous Year (FY 2021-22)	Current Year (2022-23)
1	ABT Meters	0	128	0	261

Signature of Petitioner

**(d) Investment Plan (Scheme-wise) (Rs. in Cr.)**

S.N	Name of scheme / Project	Name of line/ Sub-division etc	Approved Outlay		Progressive upto beginning of prev. year		Previous year FY 2021-22		Current year FY 2022-23		Ensuing Year 2023-24		Form No: F5 Progressive Capital Expenditure upto the end of the ensuing year FY 2023-24			
			Approved in MYT/RE	Actual*	Capitalization	Capital Expenditure (CWIP)	Capitalization	Capital Expenditure (CWIP)	Capitalization	Capital Expenditure (CWIP)	Capitalization	Capital Expenditure (CWIP)	Capitalization	Capital Expenditure (CWIP)	Capitalization	Capital Expenditure (CWIP)
			Approved as per order dt. 12.01.21													
1	Phase IV (Part 1 of 2)		2,091.89		1,880.94	96.12	2,919.69		101.32	210.95	13.51			2,091.89		
2	Phase IV (part 2 of 2)		1,688.36		158.45	886.21	300.04		1,081.82	576.10	148.05			1,688.36		
3	Phase IV (Part 2 Supplementary)		111.14		-	-	-		128.41	21.46	53.81			111.14		
4	ABT Metering		12.06		-	-	-		4.99	12.06	7.08			12.06		
	<b>Total</b>		<b>3,903.45</b>		<b>2,039.39</b>	<b>886.21</b>	<b>2,919.69</b>	<b>300.04</b>	<b>254.72</b>	<b>1,326.29</b>	<b>650.50</b>	<b>237.73</b>		<b>3,903.45</b>		

\*Must be in agreement with the figures shown in audited account, otherwise a reconciliation statement must be accompanied.  
 Please furnish separately details regarding approval of Capital Investment under BERC (Procedure for Filing Capital Investment and Capitalization Plan) Regulations, 2018 and indicate the portion which is not approved under BERC (Procedure for Filing Capital Investment and Capitalization Plan) Regulations, 2018.

Note:  
 Ø The amount of grants and loans shall be furnished separately scheme wise and funding agency wise. Ø Additional column may be inserted (if required) for Ensuing Years (Projection).  
 Ø All Information for previous year, current year (RE), Ensuing year must be in line with information approved in MYT/Business Plan (if any), other-wise a statement showing complete details of variation must be accompanied.  
 Ø CWIP shall mean Capital Work in Progress

**(e) Investment Plan (Year-wise)**

S.N	Project	Year	Originally proposed (DPR Estimate)	Approved by the Commission	Revised	Revised approval by the Commission in review	Actual expenditure till FY 2021-22
1	Phase IV (Part 1 of 2)		1699.36	1699.36	2091.89	NA	2,078.38
2	Phase IV (part 2 of 2)	FY 2017-18	1688.36	1688.36	-----	NA	1,473.12
3	Phase IV (Supplementary)	FY 2019-20	111.14	111.14	-----	NA	
4	ABT Metering	FY 2021-22	17.64	10.65	12.06	NA	4.99

Note: i) Information for previous year to be given in columns 1 to 7 co-relating the information given in current or earlier MYT/Business Plan (if any).  
 ii) Information for the current year to be given in columns 1 to 5 co-relating the information given in MYT/Business Plan (if any)  
 iii) Amount of grants and loans shall be furnished separately funding Agencywise and yearwise.

Signature of Petitioner

**(f) Abstract of Capital Cost for the existing Project, Capital Cost Estimates and Schedule of Commissioning for the New projects (Rs Crores)**

**Form No:F5**

	Particulars	Approved	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22	FY 2022-23	FY 2023-24	
1	Capital Cost	3,787.12	3,145.81	3,808.37	3,903.46
	-Foreign Component				
	Foreign Exchange rate considered for the admitted				
	-Domestic Component				
	-IDC including Financing Charges	48.63	16.86	188.18	20.65
	Capital cost admitted as on -----				
	(Give reference of the BEREC relevant Order with Pet)				
2	Less : Capital Expenditure(CWIP)	-	806.37	142.64	-
3	Less : User contributions and Grants				
4	Total Capital Cost admitted	3,787.12	2,339.44	3,665.73	3,903.46
5	Increase /Decrease due to FERV				
6	Capital Cost for Purposes of ARR*	3,787.12	2,339.44	3,665.73	3,903.46

\*Must be in agreement with the figures shown in Form No: F5 (page-2), otherwise a reconciliation statement must be accompanied.

# In accordance with the Capital cost approved by the Hon'ble BEREC vide Order dated 12.03.2021

Note

1. Copy of approval letter should be enclosed. Deviation in capital cost and scope of work if any, must be submitted in detailed.

2. Details of IDC & Financing Charges are to be furnished as per FORM- .

**(g) Financial Package of Capital cost Admitted**

Particulars	Capital Cost as Approved		FY 2021-22		FY 2022-23	FY 2023-24
	Currency	Amount	Capital Cost Incurred	Capital Cost Admitted	Capital Cost to be Incurred	Capital Cost to be Incurred
Loans	INR					
PFC/ REC		3,029.70	1,871.55	1,871.55	2,932.59	3,122.77
Total Loan		3,029.70	1,871.55	1,871.55	2,932.59	3,122.77
Equity						
Domestic		757.42	467.89	467.89	733.15	780.69
Total Equity		757.42	467.89	467.89	733.15	780.69
Total Capital	3,787.12	2,339.44	2,339.44	3,665.73	3,903.46	
Debt : Equity			80:20			

Provide details for Truc-up period, Current Year and each of ensuing years seperately.

Signature of Petitioner



**(h) Capital Cost Estimates and Schedule of commissioning for New Projects**  
**F5**

**Form No:**

Particulars	Present Day Cost	Completed Cost
Price level of approved estimates	As of End of 2nd Qtr. Of the FY 2021-22	As on Scheduled COD of the Station
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, FC, FERC & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. crores)		
Capital cost excluding IDC, FC, FERC & Hedging Cost (Rs. crores) ABT Metering scheme		
IDC, FC, FERC & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. crores)		
Total IDC, FC, FERC & Hedging Cost (Rs. crores)		
Rates, taxes & duties considered		
Capital cost Including IDC, FC, FERC & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. crores)		
Capital cost Including IDC, FC, FERC & Hedging Cost (Rs. crores) for ABT Metering scheme		
Note:		
1. Copy of approval letter should be enclosed.		
2. Details of Capital cost are to be furnished as per Form F5-5 or Form 14(Additional Capitalization) as applicable.		
3. Details of IDC & Financing Charges are to be furnished as per Form 20		

Not Applicable

**Signature of Petitioner**





**(i) Break-up of Project Cost for Transmission System Phase IV (Part 1 of 2)****Form No: F5**

Rs. Crores

No	Break Down	As per original estimates	As per RCE 2	Variation (B-C)	Reasons for Variation
	A	B	C	D	E
A	Transmission Line				
1	Preliminary works				
1.1	Survey (Incl Substation)	2.41	2.97	-0.56	
1.2	forest clearance, PTCC , general civil works etc.	40.33	40.33	0.00	
	<b>Total Preliminary works</b>	<b>42.74</b>	<b>43.30</b>	<b>-0.56</b>	
2	Transmission Lines material				
2.2	Conductor	544.02	775.18	-231.16	
2.4	Insulators				
2.1	Towers Steel				
2.3	Earth Wire				
2.5	Hardware Fittings				
2.6	Conductor & Earthwire accessories				
2.7	Spares				
2.8	Erection, Stringing & Civil works including foundation				
	<b>Total Transmission Line Materials</b>	<b>544.02</b>	<b>775.18</b>	<b>-231.16</b>	
3	Taxes and Duties				
3.1	Custom Duty				
3.2	Other Taxes & Duties				
	<b>Total Taxes &amp; Duties</b>	<b>0</b>	<b>0</b>	<b>0</b>	
	<b>Total -Transmission lines</b>	<b>586.76</b>	<b>818.48</b>	<b>-231.72</b>	
B.	Substations				
4	Preliminary works & land				
4.1	Design & Engineering				
4.2	Land	31.3	12.92	18.38	
4.3	Site preparation				
	<b>Total Preliminary works &amp; land</b>	<b>31.3</b>	<b>12.92</b>	<b>18.38</b>	
5	Civil Works				
5.1	Control Room including HVAC	69.97	107.96	-37.99	
5.2	Township & Colony				
5.3	Roads and Drainage				
5.4	Foundation for structures				
5.5	Misc. civil works				
	<b>Total Civil Works</b>	<b>69.97</b>	<b>107.96</b>	<b>-37.99</b>	

Refer to -  
Review  
Petition  
against Tariff  
Order dated  
12.03.2021

6	Substation Equipments			
6.1	Transformers			
6.2	Switchgear (CT,PT, Circuit Breaker, Isolator etc)			
6.3	Compensating Equipment (Reactor, SVCs etc)			
6.4	Control , Relay & Protection Panel			
6.5	PLCC			
6.6	HVDC package	637.25	768.62	-131.37
6.7	Bus Bars/ conductors/Insulators			
6.8	Outdoor lighting			
6.9	Emergency D.G. Set			
6.10	Grounding System			
6.11	Structure for switchyard			
	<b>Total Substation Equipments</b>	<b>637.25</b>	<b>768.62</b>	<b>-131.37</b>
7	Spares	13.56	7.81	5.75
8	Taxes and Duties			
8.1	Custom Duty			
8.2	Other Taxes & Duties			
	<b>Total Taxes &amp; Duties</b>	<b>13.56</b>	<b>7.81</b>	<b>5.75</b>
	<b>Total (Sub-station)</b>	<b>752.08</b>	<b>897.31</b>	<b>-145.23</b>
9	Construction and pre-commissioning expenses			
9.1	Site supervision & site admn.etc.			
9.2	Tools and Plants			
9.3	construction Insurance			
	<b>Total Construction and pre-Commissioning expenses</b>	<b>0</b>	<b>0</b>	<b>0</b>
10	Overheads			
10.1	Establishment			
10.2	Audit & Accounts			
10.3	Contingency	40.17	51.47	-11.30
	<b>Total Overheads</b>	<b>40.17</b>	<b>51.47</b>	<b>-11.3</b>
11	<b>Total Cost</b>	<b>1379.01</b>	<b>1767.26</b>	<b>-388.25</b>
12	IDC, FC, FERV & Hedging Cost			
12.1	Interest During Construction (IDC)	159.69	204.52	-44.83
12.2	Financing Charges (FC)			
12.3	Foreign Exchange Rate Variation (FERV)			
12.4	Hedging Cost			
12.5	Incidental Expenditure During Construction (IEDC)	160.66	120.11	40.55
	<b>Total of IDC, FC, FERV &amp; Hedging Cost</b>	<b>320.35</b>	<b>324.63</b>	<b>-4.28</b>
13	<b>Capital Cost incl IDC, FC, FERV &amp; Hedging Cost</b>	<b>1699.36</b>	<b>2091.89</b>	<b>-392.53</b>

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the transmission licensee.
2. Above statement to be provided separately for each transmission line commissioned during the ARR period

**(i) Break-up of Project Cost for Transmission System Phase IV (Part 2 of 2)****Form No: F5**

Rs. Crores

No	Break Down	As per original estimates	As per RCE	Variation (B-C)	Reasons for Variation
	A	B	C	D	E
A	Transmission Line				
1	Preliminary works				
1.1	Survey (Incl Substation)	1.51			
1.2	forest clearance, PTCC , general civil works etc.	127.32			
	<b>Total Preliminary works</b>	<b>128.83</b>	<b>0.00</b>	<b>0.00</b>	
2	Transmission Lines material				
2.2	Conductor	271.35			
2.4	Insulators				
2.1	Towers Steel				
2.3	Earth Wire				
2.5	Hardware Fittings				
2.6	Conductor & Earthwire accessories				
2.7	Spares				
2.8	Erection, Stringing & Civil works including foundation				
	<b>Total Transmission Line Materials</b>	<b>271.35</b>	<b>0.00</b>	<b>0.00</b>	
3	Taxes and Duties				
3.1	Custom Duty				
3.2	Other Taxes & Duties				
	<b>Total Taxes &amp; Duties</b>	<b>0</b>	<b>0</b>	<b>0</b>	
	<b>Total -Transmission lines</b>	<b>400.18</b>	<b>0.00</b>	<b>0.00</b>	
B.	Substations				
4	Preliminary works & land				
4.1	Design & Engineering				
4.2	Land	52.71			
4.3	Site preparation				
	<b>Total Preliminary works &amp; land</b>	<b>52.71</b>	<b>0.00</b>	<b>0</b>	
5	Civil Works				
5.1	Control Room including HVAC	24.06			
5.2	Township & Colony				
5.3	Roads and Drainage				
5.4	Foundation for structures				
5.5	Misc. civil works				
	<b>Total Civil Works</b>	<b>24.06</b>	<b>0.00</b>	<b>0</b>	



6	Substation Equipments			
6.1	Transformers			
6.2	Switchgear (CT,PT, Circuit Breaker, Isolator etc)			
6.3	Compensating Equipment (Reactor, SVCs etc)			
6.4	Control , Relay & Protection Panel			
6.5	PLCC			
6.6	HVDC package	901.88		
6.7	Bus Bars/ conductors/Insulators			
6.8	Outdoor lighting			
6.9	Emergency D.G. Set			
6.10	Grounding System			
6.11	Structure for switchyard			
	<b>Total Substation Equipments</b>	<b>901.88</b>	<b>0.00</b>	<b>0</b>
7	Spares			
8	Taxes and Duties			
8.1	Custom Duty			
8.2	Other Taxes & Duties			
	<b>Total Taxes &amp; Duties</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total (Sub-station)</b>	<b>978.65</b>	<b>0.00</b>	<b>0.00</b>
9	Construction and pre-commissioning			
9.1	Site supervision & site admn.etc.			
9.2	Tools and Plants			
9.3	construction Insurance			
	<b>Total Construction and pre-Commissioning expenses</b>	<b>0</b>	<b>0</b>	<b>0</b>
10	Overheads			
10.1	Establishment			
10.2	Audit & Accounts			
10.3	Contingency	35.20		
	<b>Total Overheads</b>	<b>35.20</b>	<b>0.00</b>	<b>0</b>
11	<b>Total Cost</b>	<b>1414.03</b>	<b>0.00</b>	<b>0.00</b>
12	IDC, FC, FERV & Hedging Cost			
12.1	Interest During Construction (IDC)	158.66		
12.2	Financing Charges (FC)			
12.3	Foreign Exchange Rate Variation (FERV)			
12.4	Hedging Cost			
12.5	Incidental Expenditure During Construction (IEDC)	159.62		
	<b>Total of IDC, FC, FERV &amp; Hedging Cost</b>	<b>318.28</b>	<b>0.00</b>	<b>0</b>
13	<b>Capital Cost incl IDC, FC, FERV &amp; Hedging Cost</b>	<b>1688.36</b>	<b>0.00</b>	<b>0.00</b>

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the transmission licensee.
2. Above statement to be provided separately for each transmission line commissioned during the ARR period



**(i) Break-up of Project Cost for Transmission System Phase IV (Supplementary)****Form No: F5**

Rs. Crores

No	Break Down	As per original estimates	As per RCE	Variation (B-C)	Reasons for Variation
	A	B	C	D	E
A	Transmission Line				
1	Preliminary works				
1.1	Survey (Incl Substation)			0.00	
1.2	forest clearance, PTCC , general civil works etc.			0.00	
	<b>Total Preliminary works</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	
2	Transmission Lines material				
2.2	Conductor				
2.4	Insulators				
2.1	Towers Steel			0.00	
2.3	Earth Wire				
2.5	Hardware Fittings				
2.6	Conductor & Earthwire accessories				
2.7	Spares				
2.8	Erection, Stringing & Civil works including foundation				
	<b>Total Transmission Line Materials</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	
3	Taxes and Duties				
3.1	Custom Duty				
3.2	Other Taxes & Duties				
	<b>Total Taxes &amp; Duties</b>	<b>0</b>	<b>0</b>	<b>0</b>	
	<b>Total - Transmission lines</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
B.	Substations				
4	Preliminary works & land				
4.1	Design & Engineering				
4.2	Land				
4.3	Site preparation				
	<b>Total Preliminary works &amp; land</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
5	Civil Works				
5.1	Control Room including HVAC				
5.2	Township & Colony				
5.3	Roads and Drainage	0.6			
5.4	Foundation for structures				
5.5	Misc. civil works				
	<b>Total Civil Works</b>	<b>0.6</b>	<b>0.00</b>	<b>0</b>	

6	Substation Equipments			
6.1	Transformers			
6.2	Switchgear (CT,PT, Circuit Breaker, Isolator etc)			
6.3	Compensating Equipment (Reactor, SVCs etc)			
6.4	Control , Relay & Protection Panel			
6.5	PLCC			
6.6	HVDC package	88.78		
6.7	Bus Bars/ conductors/Insulators			
6.8	Outdoor lighting			
6.9	Emergency D.G. Set			
6.10	Grounding System			
6.11	Structure for switchyard			
	<b>Total Substation Equipments</b>	<b>88.78</b>	<b>0.00</b>	<b>0</b>
7	Spares			
8	Taxes and Duties			
8.1	Custom Duty			
8.2	Other Taxes & Duties			
	<b>Total Taxes &amp; Duties</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total (Sub-station)</b>	<b>89.38</b>	<b>0.00</b>	<b>0.00</b>
9	Construction and pre-commissioning			
9.1	Site supervision & site admn.etc.			
9.2	Tools and Plants			
9.3	construction Insurance			
	<b>Total Construction and pre-Commissioning expenses</b>	<b>0</b>	<b>0</b>	<b>0</b>
10	Overheads			
10.1	Establishment			
10.2	Audit & Accounts			
10.3	Contingency	2.68		
	<b>Total Overheads</b>	<b>2.68</b>	<b>0.00</b>	<b>0</b>
11	<b>Total Cost</b>	<b>92.06</b>	<b>0.00</b>	<b>0.00</b>
12	IDC, FC, FERV & Hedging Cost			
12.1	Interest During Construction (IDC)	8.34		
12.2	Financing Charges (FC)			
12.3	Foreign Exchange Rate Variation (FERV)			
12.4	Hedging Cost			
12.5	Incidental Expenditure During Construction (IEDC)	10.73		
	<b>Total of IDC, FC, FERV &amp; Hedging Cost</b>	<b>19.07</b>	<b>0.00</b>	<b>0</b>
13	<b>Capital Cost incl IDC, FC, FERV &amp; Hedging Cost</b>	<b>111.14</b>	<b>0.00</b>	<b>0.00</b>

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the transmission licensee.
2. Above statement to be provided separately for each transmission line commissioned during the ARR period

Signature of Petitioner



**(j) Break-up of Construction/ Supply/ Service packages Phase IV (Part 1 of 2)****Form No:F5**

SN	Particulars	1	2	3	4
1	Name/ No. of Construction / Supply / Service Package (and Schemes/plan)				
2	Scope of works <sup>1</sup> (in line with head of cost break-ups as applicable)				
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work				
4	No. of bids received				
5	Date of Award				
6	Actual Date of Start of work				
	Original Scheduled date of Start of work				
7	Actual date of Completion of Work				
	Original Scheduled date of Completion of work				
8	Value of Award <sup>2</sup> in (Rs. Lakhs)				
9	Firm or With Escalation in prices				
10	Actual capital expenditure till the completion or up to COD whichever is earlier for work capitalized during the period(Rs.Cr.) - Without Taxes & Duties and IEDC				
11	Actual capital expenditure till the end of the period(Rs.Cr.) for Capital work under progress - Taxes & Duties and IEDC (included in above) - IDC, FC, FERV & Hedging Cost(included in above)				
12	Actual capital expenditure already capitalized in earlier years(Rs.Cr.) - Taxes & Duties and IEDC (included in above) - IDC, FC, FERV & Hedging Cost(included in above)				
13	<b>Sub -total (10+11+12)</b>	0.00	0.00	0.00	0.00

Note:

- a) As the scope of work contains multiple elements, it is difficult to quantify each and every element separately within a particular package  
b) The petitioner has already submitted element wise detail as per the BERC directive

Note: 1. Above statement to be provided separately for each work commissioned during the period, work under progress and part capitalization done in earlier year

2. Statement as Per Form F5-6 to be duly reconciled with corresponding Cost Break Up to be provided as per Form F5-5, for each transmission line commissioned during the True-up, Review and ARR period

**Signature of Petitioner**


**(j) Break-up of Construction/ Supply/ Service packages Phase IV (Part 2 of 2)****Form No:F5**

SL.	Particulars	1	2	3	4
1	Name/ No. of Construction / Supply / Service Package (and Schemes/plan)				
2	Scope of works <sup>1</sup> (in line with head of cost break-ups as applicable)				
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work				
4	No. of bids received				
5	Date of Award				
6	Actual Date of Start of work				
	Original Scheduled date of Start of work				
7	Actual date of Completion of Work				
	Original Scheduled date of Completion of work				
8	Value of Award <sup>2</sup> in (Rs. Lakhs)				
9	Firm or With Escalation in prices				
10	Actual capital expenditure till the completion or up to COD whichever is earlier for work capitalized during the period(Rs.Cr.) - Without Taxes & Duties and IEDC				
11	Actual capital expenditure till the end of the period(Rs.Cr.) for Capital work under progress - Taxes & Duties and IEDC (included in above) - IDC, FC, FERV & Hedging Cost(included in above)				
12	Actual capital expenditure already capitalized in earlier years(Rs.Cr.) - Taxes & Duties and IEDC (included in above) - IDC, FC, FERV & Hedging Cost(included in above)				
13	<b>Sub -total (10+11+12)</b>	0.00	0.00	0.00	0.00

Note:

- a) As the scope of work contains multiple elements, it is difficult to quantify each and every element separately within a particular package  
b) The petitioner has already submitted element wise detail as per the BEREC directive

Note:

**Signature of Petitioner**



**(k) Statement of Additional Capitalization** **Form No: F5**

						Rs. Crores
No	Year	Work/ Equipment proposed to be added after COD up to Cut off Date/ Beyond Cut off Date	Amount capitalised and Proposed to be capitalised	Justification	Regulations under which covered	Admitted Cost <sup>1</sup>
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
Not Applicable as Projects are under execution						

Note:  
1 Fill the form in chronological order year wise along with detailed justification clearly bring out the necessity and the benefits accruing to the beneficiaries.  
2 In case initial spares are purchased alongwith any equipment, then the cost of such spares should be indicated separately.

**Signature of Petitioner**



**(I) Statement of Capital Works in Progress (Total)****Form No: F5**

Rs. Crores

		Particulars	Approved	Claimed	Current Year	Ensuing years (Projection)
			FY 2021-22		FY 2022-23	FY 2023-24
			A	a	Opening Capital Expenditure(CWIP)	506.56
	b	Amount of IDC, FC, FERV & Hedging cost included in a above	15.27	86.72	109.06	12.39
B	a	Addition/Adjustment in Capital Expenditure(CWIP) during the period	360.88	234.72	650.50	95.09
	b	Amount of IDC, FC, FERV & Hedging cost included in a above	33.36	39.20	91.51	8.26
C	a	Capitalization/Transfer to Gross Fixed asset during the period	867.43	300.04	1,314.23	237.73
	b	Amount of IDC, FC, FERV & Hedging cost included in a above	48.63	16.86	188.18	20.65
D	a	Closing Capital Expenditure(CWIP)	-	806.37	142.64	-
	b	Amount of IDC, FC, FERV & Hedging cost included in a above	-	109.06	12.39	-

**Phase IV (Part 1 of 2) (Rs. Crores)**

		Particulars	Approved	Claimed	Current Year	Ensuing years (Projection)
			FY 2021-22		FY 2022-23	FY 2023-24
			A	a	Opening Capital Expenditure(CWIP)	
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		56.50	72.82	-
B	a	Addition/Adjustment in Capital Expenditure(CWIP) during the period		101.32	13.51	-
	b	Amount of IDC, FC, FERV & Hedging cost included in a above*		16.32	2.18	-
C	a	Capitalization/Transfer to Gross Fixed asset during the period		-	210.95	-
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		-	74.99	-
D	a	Closing Capital Expenditure(CWIP)		197.44	-	-
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		72.82	-	-

Includes adjustment on account of CWIP-Ind AS

**Phase IV (Part 2 of 2 and supplementary) (Rs. Crores)**

		Particulars	Approved	Claimed	Current Year	Ensuing years (Projection)
			FY 2021-22		FY 2022-23	FY 2023-24
			A	a	Opening Capital Expenditure(CWIP)	
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		30.22	36.25	12.39
B	a	Addition/Adjustment in Capital Expenditure(CWIP) during the period		133.40	636.99	95.09
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		22.89	89.33	8.26
C	a	Capitalization/Transfer to Gross Fixed asset during the period		300.04	1,103.28	237.73
	b	Amount of IDC, FC, FERV & Hedging cost included in a above		16.86	113.19	20.65
D	a	Closing Capital Expenditure(CWIP)		608.93	142.64	-

b	Amount of IDC, FC, FERV & Hedging cost included in a above		36.25	12.39	-
---	--	--	-------	-------	---

**Signature of Petitioner**



**(m) Capital Work-In-Progress (CWIP)**

Form No: F5

Rs. Crore

S. N	Particulars	Previous year FY 2021-22			Current year (RE) FY 2022-23			Ensuing year (s) (Projections) FY 2023-24		
		Loan	Grant	Equity	Loan	Grant	Equity	Loan	Grant	Equity
1	Opening CWIP	697.35		174.34	645.10		161.27	114.11		28.53
2	New Investment	187.78		46.94	520.40		130.10	76.07		19.02
3	Less Capitalization(a+b)	240.03		60.01	1,051.38		262.85	190.18	-	47.55
	a) CWIP Capitalization	240.03		60.01	1,051.38		262.85	190.18		47.55
	b) New Investment capitalization									
4	Closing CWIP (1+2-3)	645.10	-	161.27	114.11	-	28.53	-	-	-

Signature of Petitioner





**Normative Parameters Considered for Tariff Computations**

**Form No: F6**

S No	Particulars		As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
			FY 2021-22		FY 2022-23	FY 2023-24
1	Target Availability	%	98%	99.84%	98%	98%
	AC System	%	98%	99.84%	98%	98%
	HVDC bi-pole links	%	Not Applicable			
	HVDC back-to-back Stations	%				
2	Normative O&M per ckt.km, if any	Rs. Crores				
3	Normative O&M per bay, if any	Rs. Crores				
4	Normative A&G expenses per ckt.km, if any	Rs. Crores				
5	Normative A&G per bay, if any	Rs. Crores				
6	Normative R&M expenses	% of GFA	0.47%	NA	0.89%	0.89%
7	Maintenance Spares for Working Capital, if any	% of O&M	15% of O&M expenses for one month	15% of O&M expenses for one month	15% of O&M expenses for one month	15% of O&M expenses for one month
8	Receivables for Working Capital	in Months	2	2	2	2
9	Effective Rate of Return on Equity	%	18.23%	20.71%	20.71%	20.71%
10	Base Rate of Reserve Bank as on 1 Apr **	%		4.25%	4.25%	5.65%
11	State Bank one-year 'MCLR' as per BERC Regulations 2018 and BERC Regulations 2021	%	7.0%	7.0%	7.0%	7.0%
12	Bank Rate as on __ Oct 2020	%				

Source:

\* <https://www.sbi.co.in/portal/web/interest-rates/mclr>

\*\* <https://www.rbi.org.in/scripts/WSSView.aspx?Id=23347>

**Signature of Petitioner**



**(a) Reconciliation of Gross Fixed Assets(GFA) admitted with Gross Fixed Assets(GFA) of  
Financial Account (Total) Form No. F7**

	Particulars	As per Order dated 12.03.2021	Actual	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
<b>A</b>	<b>Gross Fixed Assets ( as at begining of the year):</b>				
	1.GFA as per (Financial/Statutory Account)	2,079.02	2,079.02	2,339.44	3,665.73
	2.Expenditure allowed but not capitalized in Financial/Statutory Account	-	-	-	-
	3.Expenditure Capitalized in Financial/Statutory Account but not allowed.	258.06	39.61	-	-
	4. Admitted GFA(1+2-3)	1,820.96	2,039.42	2,339.44	3,665.73
<b>B</b>	<b>Addition/ adjustment to Gross Fixed Assets (During the year):</b>				
	5.Expenditure capitalized in Financial/Statutory Account	277.31	300.04	1,326.29	237.73
	6.Expenditure allowed but not capitalized in Financial/Statutory Account	-	-	-	-
	7.Expenditure Capitalized in Financial/Statutory Account but not allowed.	22.73	-	-	-
<b>C</b>	<b>Gross Fixed Assets (as at end of the year) Admitted by the commisson( 4+5+6-7)</b>	2,075.55	2,339.45	3,665.73	3,903.46

**Signature of Petitioner**



(b) Gross Fixed Assets (GFA) (Information to be supplied for the preceding year (Actuals), current year (RE) and the ensuing year (0 (projections) (Rs. in Cr.)

S. N	Year	Particulars (Le Assets Group)	GFA at the beginning of the year				Addition to GFA during the year				Adjustment to GFA on account of				GFA at the end of the year					
			Consumer Contribution	By grants	Loan	Equity	Consumer Contribution	By grants	Loan	Equity	Total	Consumer Contribution	By grants	Loan	Equity	Total	Consumer Contribution	By grants	Loan	Equity
1			3	4	5	6		8	9	10	11	12	13	14	15	16	17	18	19	
1	2021-22	Freehold Land			5.26	1.31	6.57											5.26	1.31	6.57
2		Leasehold Land (perpetual)			41.22	10.31	51.53											41.22	10.31	51.53
3		Building & civil work			103.45	25.86	129.31		43.72	10.93	54.65							147.17	36.79	183.96
4		Transmissions			739.98	184.99	924.97		36.82	9.20	46.02							776.79	194.20	970.99
5		Sub-stations			766.46	191.62	958.08		139.98	34.99	174.97							906.44	226.61	1,133.05
6		Furniture			1.53	0.38	1.91		0.17	0.04	0.21							1.70	0.42	2.12
7		Electrical installation			0.12	0.03	0.15		0.00	0.00	0.00							0.12	0.03	0.15
8		Office equipment			0.42	0.11	0.53		0.41	0.10	0.52							0.83	0.21	1.04
9		Electronic data processing machine			0.61	0.15	0.76		0.05	0.01	0.07				0.01	0.00	0.01	0.65	0.16	0.81
10		Servers & network component			0.28	0.07	0.35											0.28	0.07	0.35
11		Servicing equipment			3.90	0.98	4.88		0.70	0.18	0.88							4.61	1.15	5.76
12		<b>Total</b>	1,063.22	1,885.07	415.80	2,079.02	221.86	55.47	277.33					0.01	0.00	0.01	1,885.07	471.27	2,356.34	
1	2022-23	Freehold Land			5.26	1.31	6.57											5.26	1.31	6.57
2		Leasehold Land (perpetual)			41.22	10.31	51.53											41.22	10.31	51.53
3		Building & civil work			147.17	36.79	183.96											147.17	36.79	183.96
4		Transmissions			776.79	194.20	970.99		1,061.03	265.26	1,326.29							2,744.26	686.07	3,430.33
5		Sub-stations			906.44	226.61	1,133.05													
6		Furniture			1.70	0.42	2.12											1.70	0.42	2.12
7		Electrical installation			0.12	0.03	0.15											0.12	0.03	0.15
8		Office equipment			0.83	0.21	1.04											0.83	0.21	1.04
9		Electronic data processing machine			0.65	0.16	0.81											0.65	0.16	0.81
10		Servers & network component			0.28	0.07	0.35											0.28	0.07	0.35
11		Servicing equipment			4.61	1.15	5.76											4.61	1.15	5.76
12		<b>Total</b>	1,885.07	2,946.10	471.27	2,356.34	1,061.03	265.26	1,326.29								2,946.10	736.53	3,682.63	
1	2023-24	Freehold Land			5.26	1.31	6.57											5.26	1.31	6.57
2		Leasehold Land (perpetual)			41.22	10.31	51.53											41.22	10.31	51.53
3		Building & civil work			147.17	36.79	183.96											147.17	36.79	183.96
4		Transmissions			2,744.26	686.07	3,430.33		190.18	47.55	237.73							2,934.45	733.61	3,668.06
5		Sub-stations																		
6		Furniture			1.70	0.42	2.12											1.70	0.42	2.12
7		Electrical installation			0.12	0.03	0.15											0.12	0.03	0.15
8		Office equipment			0.83	0.21	1.04											0.83	0.21	1.04
9		Electronic data processing machine			0.65	0.16	0.81											0.65	0.16	0.81
10		Servers & network component			0.28	0.07	0.35											0.28	0.07	0.35
11		Servicing equipment			4.61	1.15	5.76											4.61	1.15	5.76
12		<b>Total</b>	2,946.10	3,136.28	736.53	3,682.63	190.18	47.55	237.73								3,136.28	784.07	3,920.36	

## (c) Bifurcation of Fixed Assets into IDC and IFDC etc.

S.N	Particulars	As per Order dated 20.03.2020	Actual	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Opening Gross Fixed Assets		2,039.42	2,339.44	3,665.73
a	Additions in Gross Fixed Assets		300.04	1,326.29	237.73
b	Amount of IDC, FC, FERV & Hedging cost included in B(a) above		16.86	188.18	20.65
c	Amount of IFDC (excluding IDC, FC, FERV & Hedging cost) included in B(a)		21.06	121.35	22.65
d	Add/(Less): Adjustment for assets sold/discarded etc		0.01	-	-
2	Closing Gross Fixed Assets		2,339.44	3,665.73	3,903.46

## (d) Bifurcation of Fixed Assets into Depreciable and Non-Depreciable assets etc.

S.N	Particulars	As per Order dated 20.03.2020	Actual	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Gross fixed assets of the beginning of the year		2,039.42	2,339.44	3,665.73
	Less: Value of non depreciable assets (i.e land)		18.93	40.75	57.65
	Net Assets		2,020.48	2,298.69	3,608.08
2	Additions during the year		300.03	1,326.29	237.73
	Less: Value of non depreciable assets (i.e land)		21.82	16.91	-
	Net Assets		278.21	1,309.39	237.73
3(i)	IDC, FC, FERV & Hedging cost		16.86	188.18	20.65
3(ii)	Amount of IFDC		21.06	121.35	22.65
4	Adjustment for assets sold/discarded etc		0.01	-	-
5	Closing GFA		2,298.69	3,608.08	3,845.81
6	Average GFA (Excluding Value of non depreciable assets)		2,159.59	2,953.39	3,726.95
7	Weighted Average Rate of Depreciation on Opening depreciable assets		5.17%	5.17%	5.17%
8	Weighted Average Rate of Depreciation net Depreciable assets during the year		0.27%	0.27%	0.27%
9	Gross Depreciation		105.26	122.43	187.28
10	Opening grants*		-	-	-
11	Grants* during the year		-	-	-
12	Adjustment for assets sold/discarded etc		-	-	-
13	Total Grants*		-	-	-
14	Average Grants*		-	-	-
15	Weighted Average rate of Depreciation		-	-	-
16	Depreciation for GFA on Grants		-	-	-
17	Net Depreciation of GFA(8-15)		105.26	122.43	187.28



**Details of Equity****Form****(b.) Details of Indian Equity****Rs. Crores**

S.No.	Particulars	FY 2021-22		FY 2022-23	FY 2023-24
		Date	Actual Amount	Amount	Amount
1	Infusion		208.44	265.26	47.55
	<b>Total</b>		<b>208.44</b>	<b>265.26</b>	<b>47.55</b>

**(c) Details of Total Return on equity****Rs. Crores**

S.No.	Particulars	Approved	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Amount of total asset created during the year		300.0	1,326.3	237.7
2	Less asset created from grant		-	-	-
3	Less asset created from users contribution		-	-	-
4	Net asset Created		300.0	1,326.3	237.7
5	Amount of equity addition		60.01	265.26	47.55
6	Equity (Opening Balance)		407.05	467.05	732.31
7	Equity (Closing Balance)		467.05	732.31	779.85
8	Average Equity		437.05	599.68	756.08
9	Base rate of Return on Equity%		15.5%	15.5%	15.5%
	Tax Rate ( Enclose detailed calculation alongwith supporting documents)%		14.99%	14.99%	14.99%
	Effective Rate of Return on Equity		18.23%	18.23%	18.23%
10	Return on Equity (Rs. In crore)		79.69	109.35	137.86
11	Equity entitled to incentive		-	-	-
12	Incentive		-	-	-
13	Additional Return		-	-	-
14	<b>Total Return on Equity</b>		<b>79.69</b>	<b>109.35</b>	<b>137.86</b>

**(d) Details of Total Equity Infused**

S.No.	Particulars	Actual	Current Year	Ensuing years (Projection)
		FY 2021-22	FY 2022-23	FY 2023-24
	Shareholders' Funds			
1	Equity Share Capital	64.48	265.26	47.55
2	Other Equity	143.97		
2	Share Prcmium utilized for Capital Expenditure			
3	Free Reserves utilized for Capital Expenditure			
	<b>Total Equity</b>	<b>208.44</b>	<b>265.26</b>	<b>47.55</b>

**Signature of Petitioner**


## (e) Value of Depreciation Charges (Rs. Crores)

Form No 7

S. N.	Particulars(i.e Assets Group)	Accumulated depreciation at the beginning of FY 2021-22					Depreciation charges during the FY 2021-22					Accumulated Depreciation on account of assets sold/discarded etc					Accumulated depreciation at the end of FY 2021-22				
		Consumer Contribution	By grants	Loan	Equity	Total	Consumer Contribution	By grants	Loan	Equity	Total	Consumer Contribution	By grants	Loan	Equity	Total	Consumer Contribution	By grants	Loan	Equity	Total
1	2	3	4	5	6	8	9	10	11		12	13	14	15		16	17	18	19		
<b>1 Land</b>																					
a) Freehold Land					-					-					-					-	
b) Leasehold Land (perpetual)					-					-					-					-	
<b>2 Buildings</b>																					
a) Building & civil work					11.41					4.40					-					15.81	
<b>3 Plant and Machinery</b>																					
a) Transmissions					130.46					48.95					-					179.41	
b) Sub-stations					129.00					51.09					-					180.09	
<b>4 Furniture and Fixtures</b>																					
a) Furniture					0.24					0.13					-					0.36	
b) Electrical installation					0.02					0.01					-					0.03	
<b>5 Office Equipment</b>																					
a) Office equipment					0.14					0.05					-					0.19	
b) Electronic data processing machine					0.48					0.27				0.01						0.73	
c) Servers & network component					0.12					0.07					-					0.19	
d) Servicing equipment					0.47					0.33					-					0.79	
<b>Total</b>					<b>272.34</b>					<b>105.29</b>				<b>0.01</b>						<b>377.62</b>	

Signature of Petitioner

**(f) Statement of Assets Not in Use**

**Form No: F7**

Rs. Crores

Financial Year\*

Sl · No.	Date of Acquisition/Instal lation	Historical Cost/Cost of Acquisition	Date of withdrawal operations	Accumulated Depreciation on date of withdrawal	Written down value on date of withdrawal
----------------	---	---	-------------------------------------	---	---

The petitioner submits that there is no instance of any asset not in use

\*Note:- Information to be provided for Previous Year, Current Year & Ensuing Control Period

Signature of Petitioner



**User contributions and grants towards cost of capital assets**

**Form No. F8  
(Rs. Crores)**

	Particulars	Previous Year			Current Year		Ensuing Year/years	
		Balance at the start of the year	Additions	Balance at the end of the Year	Additions	Balance at the end of the Year	Additions	Balance at the end of the Year
1	User contributions Towards Cost Of Capital Assets							
2	Grant Towards Cost Of Capital Assets							
<b>A</b>	<b>Total (1+2)</b>							
forming part of Depreciable GFA								
3	User contributions Towards Cost Of Capital Assets							
4	Grant Towards Cost Of Capital Assets							
<b>B</b>	<b>Total (3+4)</b>							
forming part of non-Depreciable GFA								
5	User contributions Towards Cost Of Capital Assets							
6	Grant Towards Cost Of Capital Assets							
<b>C</b>	<b>Total (5+6)</b>							
Assets un-utilized (A-B-C)								
7	User contributions Towards Cost Of Capital Assets							
8	Grant Towards Cost Of Capital Assets							
<b>C</b>	<b>Total (7+8)</b>							
D	Amount utilized for CWIP out of "C" above							
E	Amount kept in Bank out of "C" above							
F	Depreciation on assets created out of grants (Admitted)							
G	Depreciation on assets created out of grants (Financial/Statutory Account)							

The petitioner submits that the entire funding is being done through debt and equity, there is no user contribution or grant

\* Pertaining to Transmission Business Only, SLDC shall file separately

**Signature of Petitioner**





(a) Details of Loans for the year - Phase IV(Part 1 of 2)									Form No: F9
S.N	Year	Particulars	Purpose of loan	Opening balance	Weighted Average Rate of Interest In%	Addition during the year	Repayment during the year(As per books of accounts)	Closing balance	Amount of penal interest paid*
		1	2		4	5	6	7	8
2	2019-20	Term Loan REC - Phase IV(Part 1 of 2)	Towards Construction						
3	2020-21	Term Loan REC - Phase IV(Part 1 of 2)	Towards Construction	1101.97	10.69	40.85	99.85	1,042.97	-
4	2021-22	Term Loan REC - Phase IV(Part 1 of 2)	Towards Construction						
5	2022-23	Term Loan REC - Phase IV(Part 1 of 2)	Towards Construction						
6									

(a) Details of Loans for the year - Phase IV(Part 1 of 2)									Form No: F9
S.N	Year	Particulars	Purpose of loan	Opening balance	Rate of Interest	Addition during the year	Repayment during the year(As per books of accounts)	Closing balance	Amount of penal interest paid*
		1	2		4	5	6	7	8
2	2019-20	Term Loan PFC - Phase IV(Part 2 of 2)	Towards Construction						
3	2020-21	Term Loan PFC - Phase IV(Part 2 of 2)	Towards Construction	824.74	9.52	125.27	-	950.01	-
4	2021-22	Term Loan PFC - Phase IV(Part 2 of 2)	Towards Construction						
5	2022-23	Term Loan PFC - Phase IV(Part 2 of 2)	Towards Construction						

Note: The interest rates for ensuing years i.e. 2018-19 onwards are considered at the same rate as per DPR considerations

<b>(b) Further Details in case of Foreign Loans</b>								
S.N	Particulars				Date	Amount (Foreign Currency)	Exchange Rate	Amount (in Rs. Crore)
	Name of Currency	Not Applicable						
	Loan							
	Scheduled Principal Repayment							
	Actual Principal Repayment							
	Scheduled Interest payment							
	Actual Interest payment							
	Period of h							
	Cost of hed							

<b>(c) Information regarding Restructuring of Outstanding Loan during the year</b>							
S.N	Source of Loan	Amount of Original Loan	Old Rate of Interest	Amount already Restructured	Revised Rate of Interest	Amount now being Restructured	New Rate of Interest
1	2	3	4	5	6	7	8
Not Available							

<b>Signature of Petitioner</b>
--------------------------------



**(d) Domestic loans, bonds and financial leasing**

Form No: F9

FY 2021-22

Rs. Crores

Sl. No.	Particulars	Opening Balance at the beginning of the				Amount received during the	Principal		Interest			Closing Balance	
		Principal not overdue	Principal overdue	Interest overdue	Total		Due	Paid	Due	Paid	%	Principal	Interest Accrued but not due
A	LONG-TERM												
2	REC	1,101.97	-	-	1,101.97	40.85	-	-	113.02	113.02		1,142.82	
3	PFC	824.74	-	-	824.74	125.27	-	-	49.48	49.48		950.01	
	Sub Total (A)	1,926.71	-	-	1,926.71	166.12	-	-	162.50	162.50		2,092.83	
B	SHORT-TERM												
	Sub Total (B)	-	-	-	-	-	-	-	-	-		-	-
	Total (A+B)	1,926.71	-	-	1,926.71	166.12	-	-	162.50	162.50		2,092.83	

\*Note:- Loanwise information to be provided for Previous Year, Current Year &amp; Control period. Also indicate rate of interest and other conditions.

FY 2022-23

Rs. Crores

Sl. No.	Particulars	Opening Balance at the beginning of the				Amount received during the	Principal		Interest			Closing Balance	
		Principal not overdue	Principal overdue	Interest overdue	Total		Due	Paid	Due	Paid	%	Principal	Interest Accrued but not due
A	LONG-TERM												
2	REC	1,142.82											
3	PFC	950.01											
	Sub Total (A)	2,092.83											
B	SHORT-TERM												
	Sub Total (B)	-	-	-	-	-	-	-	-	-		-	-
	Total (A+B)	2,092.83	-	-	-	-	-	-	-	-		-	-

FY 2023-24

Rs. Crores

Sl. No.	Particulars	Opening Balance at the beginning of the				Amount received during the	Principal		Interest			Closing Balance	
		Principal not overdue	Principal overdue	Interest overdue	Total		Due	Paid	Due	Paid	%	Principal	Interest Accrued but not due
A	LONG-TERM												
2	REC												
3	PFC												
	Sub Total (A)												
B	SHORT-TERM												
	Sub Total (B)												
	Total (A+B)												

2022-23

Rs. Crores

Sl. No.	Particulars	Opening Balance at the beginning of the year				Amount received during the year	Principal repayment		Interest			Closing Balance	
		Principal not overdue	Principal overdue	Interest overdue	Total		Due	Paid	Due	Paid	%	Principal	Interest Accrued but not due
A	LONG-TERM												
2	REC												
3	PFC												
	Sub Total (A)												
B	SHORT-TERM												
	Sub Total (B)												
	Total (A+B)												

\*Note:- Loanwise information to be provided for Previous Year, Current Year &amp; Control period. Also indicate rate of interest and other conditions.

Signature of Petitioner

**(c) Statement of Reconciliation of Net Actual Loan ( opening ) with Net Normative Loan ( Opening ) (Rs. In Crore) Form No: F9**

Particulars		Previous year	Current Year	Ensuing years (Projection)
		FY 2021-22	FY 2022-23	FY 2023-24
Net Actual Loan as per Books of Accounts as on : 31.03.2021				
	Domestic	1992.98		
	Foreign			
Add : Repayment Made till Date		99.85		
Gross Actual Loan		2092.83		
Add:Equity considered as normative loan				
Gross Normative Loan		1638.31	1878.33	2939.36
Less : Dpreciation Recovered as per ARR till Date		277.42	382.68	505.12
Net Normative Loan		1360.89	1495.65	2434.25

Signature of Petitioner





Interest and Finance Charges(Rs. Crores)			Form No: F11		
S.N.	Particulars		FY 2021-22	FY 2022-23	FY 2023-24
1	2	3	4	5	6
1	Net Opening Loan		1,360.89	1,495.65	2,434.25
2	Additions		240.02	1,061.03	190.18
3	Repayment		105.26	122.43	187.28
4	Net Closing Loan		1,495.65	2,434.25	2,437.15
5	Average Loan		1,428.27	1,964.95	2,435.70
6	Weighted average rate of Interest		9.90%	9.90%	9.90%
7	<b>Interest on Loan</b>		141.47	194.62	241.25
8	Other Finance charges		-	-	-
9	Total Interest and finance charges		141.47	194.62	241.25

\* Year-wise details should be submitted with documentary evidence. Further Rate of interest of various loans to be indicated in a separate sheet. Further Details in case of Foreign Loans

**Interest (IDC) Capitalized**

S.N.	Name of scheme /Project	Source of loan	Interest capitalized			
			As on beginning of previous year FY 2021-22*	Previous year FY 2021-22	During Current year FY 2022-23	During Ensuing year FY 2023-24
	1	2	3	4	5	6
1	Phase IV(Part 1 of 2)	REC	116.51	-	74.99	-
2	Phase IV(Part 2 of 2)	PFC	11.23	16.86	113.19	20.65
3	Phase IV (Supplementary)	PFC	-	-		
4	ABT Metering	REC/ PFC	-	-	-	-

\*As per BERC Order dated 25.03.2022

**Signature of Petitioner**



**Lease details (Rs. Crores)****Form No: F12**

S.N	Name of Lesser	Assets		Leased	Lease Rentals	Primary Period	Secondary
		Descriptions	Gross Amount	on		ended / ending by	period ending by
1	2	3	4	5	6	7	8

The petitioner submits that there are no leased assets

Note: Statement showing Cost benefits analysis of lease must be accompanied.

**Signature of Petitioner**

**Operations & Maintenance Cost****Form No: F13**

Rs. Crores

Sl.No	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Repair & Maintenance Expenses	15.40	22.54	20.57	32.29
2	Employee Expenses	9.41	22.25	23.56	24.95
2	Administrative and General Expenses	3.93	7.99	8.42	8.88
	Less :				
4	Expenses Capitalized	0.00	0.00	0.00	0.00
	<b>Net O&amp;M Expenses</b>	<b>28.74</b>	<b>52.78</b>	<b>52.55</b>	<b>66.11</b>

**Signature of Petitioner**

## Employee Expenses

Form No:F14

Rs. Crores

S.N	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
				FY 2022-23	FY 2023-24
1	Salarics & Allowances				
(i)	Existing Employees				
(ii)	New Employees				
	Total	4.78	22.25	23.56	24.95
2	Contribution to Terminal Benefits (Accrual Basis)		0	0	0
3	Total of Salary & Allowances and Terminal Benefits				
4	Amount Capitalised		0.00	0.00	0.00
5	Net Amount (To Pl.)		22.25	23.56	24.95
6	Grand Total	9.41	22.25	23.56	24.95

## Note:

- (i) Terminal benefits paid for the period before the date of reorganisation i.e. 01.11.2012, shall not be considered.  
(ii) In respect of continuing employees as on the date of reorganisation and newly appointed employees after re-organisation date the terminal benefits shall be allowed.  
(iii) In respect of item 6, a brief description to be appended.

(b) Consumer Price Inflation						
S.No	Particulars	PY 3	PY 2	PY 1	Current Year	Ensuing years
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
	Annual Average CPI Index	284.42	299.92	322.50	338.69	356.06
	CPI Inflation		5.45%	7.53%	5.02%	5.13%
	Average				6.0%	5.9%
	Annual Average WPI Index	114.88	119.79	121.80	123.38	139.70
	WPI Inflation		4.3%	1.7%	1.3%	13.2%
	Average				2.42%	5.40%

## Note

CPI and WPI Inflation computed for current year shall be considered for control period at the time of filing of ARR. CPI inflation shall be



<b>(c) Employee Strength</b>				
S.N	Particulars	Prev. Year	Current Year	Ensuing years (Projection)
		FY 2021-22	FY 2022-23	FY 2023-24
1	2	3	4	5
1	<b>Number of employees at the beginning of the FY</b>	<b>88</b>	<b>95</b>	<b>93</b>
a)	Technical	79	85	83
b)	Non Technical (Administration)	6	6	6
c)	Non Technical (Revenue, Finance and Accounts)	3	4	4
2	<b>No. of employees added during the FY</b>	<b>20</b>	<b>5</b>	<b>-</b>
a)	Technical	19	2	-
b)	Non Technical (Administration)	-	1	-
c)	Non Technical (Revenue, Finance and Accounts)	1	2	-
3	<b>Number of employees retiring/ leaving during the FY</b>	<b>13</b>	<b>7</b>	<b>-</b>
a)	Technical	13	4	-
b)	Non Technical (Administration)	-	1	-
c)	Non Technical (Revenue, Finance and Accounts)	-	2	-
4	<b>Number of employees at the end of FY (1+2-3)</b>	<b>95</b>	<b>93</b>	<b>93</b>
a)	Technical	85	83	83
b)	Non Technical (Administration)	6	6	6
c)	Non Technical (Revenue, Finance and Accounts)	4	4	4

<b>(d) Employees Productivity Parameters</b>				
S.N	Particulars	Prev. Year	Current Year	Ensuing
		FY 2021-22	FY 2022-23	FY 2023-24
1	2	5	6	7
1	Number of employees	92	94	93
2	Number of Sub-stations	27	42	50
3	Total capacity of Sub-stations (MVA)	2,840	6,000	6,080
4	Transmission line length in ckt/km	1,644		
5	Energy Received at STU-CTU interface (MUs)	6,082	7,299	8,758
6	Employees per MU of energy handled (1/5)	0.0150	0.0129	0.0106
7	Employees cost ( Rs Cr)	22.25	23.56	24.95
8	Employees cost in Rs / kWh (7/5)	0.0366	0.0323	0.0285

Signature of Petitioner

**R&M Expenses****Form No: F15**

Rs. Crores

S.No.	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Average Gross Fixed Assets				
1(a)	Less Land Cost				
1(b)	Net Fixed Assets	3,294.85	2,020.48	2,298.7	3,608.1
2	Percentage point as per the norm (%)	0.467%	NA	0.895%	0.895%
3	Repair & Maintenance Expenses	15.40	22.54	20.57	32.29

\*Normative/Approved in MYT/RE: If norms are specified by the Commission for concern year, Normative figures shall be given. In case norms are not specified latest approved figures in MYT or Revised Estimate(RE) as the case may be shall be given.

**Further details of component wise R&M Expenses**

S.N.	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Plant & Machinery		22.53		
2	Others		0.01		
3	Total expenses	15.40	22.54	20.57	32.29
4	Less capitalized	-	-	-	-
5	Net Expenses	15.40	22.54	20.57	32.29
6	Total expenses charged to revenue	15.40	22.54	20.57	32.29

\* Year-wise details of these charges may be provided with documentary evidence

**Signature of Petitioner**

## Administration and General Expenses

Form No: F16

Rs. Crores

Particulars	As per Order dated 12.03.2021	Claim ed	Current Year	Ensuing years (Projection)
	FY 2021-22		FY 2022-23	FY 2023-24
Advertisement Expenses		0.17	0.18	0.18
Audit Fees		0.02	0.02	0.02
Bank Charges		0.01	0.01	0.01
Books & Periodicals Expenses		0.00	0.00	0.00
Communication Expenses		0.02	0.02	0.02
CSR Exp.-Sports,Art & Culture		0.12	0.12	0.13
CSR Capital Expenditure		1.97	2.08	2.19
Electricity Expenses		1.61	1.70	1.79
Entertainment Expenses		0.10	0.10	0.11
Filing Fee		0.03	0.03	0.03
Insurance		0.99	1.05	1.10
Legal Expenses		0.09	0.09	0.10
Licence Fee		0.15	0.16	0.17
Loss on Sale of Fixed Assets		0.00	0.00	0.00
Meeting Expenses		0.04	0.05	0.05
Office Expenses		1.08	1.13	1.20
Printing & Stationery Expenses		0.18	0.19	0.20
Prof./technical Fee		0.11	0.12	0.13
Recruitment Expenses		0.00	0.00	0.00
Rent		0.73	0.77	0.82
Taxes, Brokerage & Commission		0.00	0.00	0.00
Telephone & Mobile Expenses		0.15	0.16	0.17
Travelling Expenses		0.52	0.55	0.58
Vehicle Expenses		1.97	2.08	2.19
<b>Total expenses</b>	<b>3.22</b>	<b>7.99</b>	<b>8.42</b>	<b>8.88</b>
Less Adjustments	-	-	-	-
Less Capitalised	-	-	-	-
Net expenses	3.22	7.99	8.42	8.88
<b>Total expenses charged to revenue</b>	<b>3.22</b>	<b>7.99</b>	<b>8.42</b>	<b>8.88</b>

\* Year-wise details of these charges may be provided with documentary evidence.

Base A&G Expenses			7.99	8.42
Inflation Index (WPI and CPI weighted average (last 3 yrs))			5.40%	5.40%
Add: Inflationary Increase			0.43	0.45
Add: Provisions (if any)			-	-
<b>A&amp;G Expenses</b>	<b>3.93</b>	<b>7.99</b>	<b>8.42</b>	<b>8.88</b>

Signature of Petitioner

Short Term Open Access Consumers			Form No: F17	
Rs. Crores				
Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
	FY 2021-22		FY 2022-23	FY 2023-24
Number of Short Term Open Access Customers	The section is not applicable			
Amount				
Retained by Licensee				
Payable to Beneficiaries				

Signature of Petitioner





## Details of Non-tariff Income

Form No: F18

Rs. Crores

S. N.	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Surcharge on transmission charges	18.35	59.89	59.89	59.89
2	Interest from Bank	0.85	2.76	2.76	2.76
3	Interest from Others	-	0.43	0.43	0.43
4	Interest on Income Tax Refund & Insurance Claim	-	3.19	3.19	3.19
5	Sale of Scrap	0.06	0.13	0.13	0.13
6	Sale of Tender paper	0.003	-	-	-
7	<b>Total Non Tariff Income</b>	19.26	66.40	66.40	66.40
8	Principal amount on which DPS is charged	122.36	399.29	399.29	399.29
9	Rate of Interest for funding Principal of DPS	9.66%	8.50%	8.50%	8.50%
10	<b>Less: Interest on funding of Principal DPS</b>	11.82	33.94	33.94	33.94
11	<b>Net Non Tariff Income</b>	7.42	32.46	32.46	32.46

Signature of Petitioner



**Working Capital Interest**

Form No: F19

Rs. Crores

	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22		FY 2022-23	FY 2023-24
1	Receivables equivalent to two (2) month of transmission charges calculated on target availability level	90.28	58.82	75.00	100.76
2	O&M Expenses of one month	1.95	4.40	4.38	5.51
3	Maintenance spares @15% of O&M expenses of one month	0.29	0.66	0.66	0.83
4	Less: (i) Depreciation, ROE, and contribution to contingency reserve equivalent to two months. (ii) Security deposit if any, held during the year (iii) two months equivalent of grant received from the State Govt.	47.67	30.83	38.63	54.19
<b>Total Working Capital</b>		<b>44.90</b>	<b>33.05</b>	<b>41.41</b>	<b>52.90</b>
Interest Rate		8.50%	8.50%	8.50%	8.50%
<b>Interest on Working Capital</b>		<b>3.82</b>	<b>2.81</b>	<b>3.52</b>	<b>4.50</b>

Signature of Petitioner



**Investments in Non business related activities**
**Form No: F20**

Rs. Crores

Sl.No.	Description of investment	Balance at the beginning of the year	Further Investments during the year	Investments realised during the year	Balance at the end of the year	Remarks

**Details of Income from Other Business (Rs. In Crore)**

No	Particulars		Previous year	Current year	Ensuing Years
I	Receipts from other Business	I	The petitioner submits that it is not engaged in any other non business activities		
	Less: Expenses from other business	E			
	Revenue of other Business	R=I-E			
II	Assets of Licensed business utilized in other business	A			
	Total assets of other business (including the assets utilized of the Licensed Business)	C			
	Allocation of Revenue to Licensed Business decided by the Commission	X			
III	Due to Licensed Business (to be deducted from ARR)*	$X*(R*A/C)$			

**Note:- Information to be provided for Previous Year, Current Year & each year of Control period**

\*In case Gross Receipts exceed expenditure of other business in (I) above (where Gross receipt is less than expenditure of other business in (I) above no amount shall be deducted from ARR of Licensee).

**Signature of Petitioner**


**Details of Expenses Capitalised****Form No: F21**

Rs. Crores

Sl.No.	Particulars	As per Order dated 12.03.2021	Claimed	Current Year	Ensuing years (Projection)
		FY 2021-22			FY 2022-23
1	Interest & Finance charges Capitalised	48.63	16.86	188.18	20.65
2	Other expenses capitalised:				
	a. Employee expenses				
	b. R&M Expenses				
	c. A&G Expenses				
	d. Depreciation				
	e. Others, if any				
	f. IEDC	85.50	21.06	121.35	22.65
	<b>Total of 2</b>	<b>85.50</b>	<b>21.06</b>	<b>121.35</b>	<b>22.65</b>
	<b>Grand Total</b>	<b>134.13</b>	<b>37.91</b>	<b>309.53</b>	<b>43.30</b>

**Signature of Petitioner**



**Net Prior Period Expenses / Income**

**Form No: F22**

**Rs. Crores**

Sl.No.	Particulars	Previous Year	Current year (RE)
<b>A</b>	<b>Income relating to previous years:</b>		
1	Interest income for prior periods	The petitioner submits that there have been no prior period expenses/income	
2	Income Tax prior period		
3	Excess Provision for Depreciation		
4	Excess Provision for Interest and Fin. Charges		
5	Other Excess Provision		
6	Others (please specify)		
	<b>Sub-Total A</b>		
<b>B</b>	<b>Expenditure relating to previous years</b>		
1	Employee Cost		
2	Depreciation		
3	Interest and Finance Charges		
4	Admn. Expenses		
5	Withdrawal of Revenue Demand		
6	Material Related		
7	Others (please specify)		
	<b>Sub-Total B</b>		
	<b>Net prior period Credit/(Charges) : A-B</b>		

**Extraordinary Items(Rs. Crores)**

Sl.No.	Particulars	Previous Year	Current year (RE)
1	Extraordinary Credits	The petitioner submits that there have been no extraordinary debits and credits	
a	`--		
	<b>TOTAL CREDITS</b>		
2	Extraordinary Debits		
a	`--		
	<b>TOTAL DEBITS</b>		

**Signature of Petitioner**

**Contribution to Contingency Reserve**

Form No: F23

(Rs. Crores)

S.N	Particulars	As per	Claimed	Current Year	Ensuing years (Projection)
		Order dated 12.03.2021			
		FY 2021-22	FY 2022-23	FY 2023-24	
1	Fixed Assets		2,189.43	3,002.59	3,784.60
2	%age appropriation to the contingency reserve		0.10%	0.10%	0.10%
3	Appropriation to the contingency amount	0	-	-	-
4	Amount invested in securities				
5	Drawal from the contingency reserve (Please specify) (i) (ii) (iii) Total drawal				

**Information Regarding Grant/Subsidy from State Govt/Central Govt.**

S.N	Particulars	As per	Claimed	Current Year	Ensuing years (Projection)
		Order dated 12.03.2021			
		FY 2021-22	FY 2022-23	FY 2023-24	
A	Amount from State Govt. i) Purpose for which grant received (a) (b) ii) Targeted categories for subsidy (a) (b)	Not Applicable			
B	Amount from Central Govt. i) Purpose for which grant received (a) (b)				

Signature of Petitioner

**Allocation statement of Expenses of SLDC**

**Form No: F24**

Rs. Crores

Particulars	Previous year			Current Year			Ensuing Years		
	Total Expenses of STU	Allocated %	SLDC Share	Total Expenses of STU	Allocated %	SLDC Share	Total Expenses of STU	Allocated %	SLDC Share
<b>Expenditure</b>	The petitioner submits that this section is not applicable								
<b>a O&amp;M Expenses</b>									
<b>i R&amp;M Expense</b>									
<b>ii Employee Expenses</b>									
<b>iii A&amp;G Expense</b>									
Total O&M expenses (									
<b>b Depreciation</b>									
<b>c Interest on Loan</b>									
<b>f Return on Equity</b>									
<b>g Others, please specify</b>									
<b>Total Expenditure</b>									

**Signature of Petitioner**



**Transmission Losses (For Transmission Licensee)**

All figures in MUs

S.No.	Details	Previous year FY 2021-22	Current year FY 2022-23	Ensuing Years FY 2023-24
<b>A</b>	<b>Losses in 400 KV system</b>			
1	Total Energy delivered by Generating Stations and Inter State/ Intra State tie- links at the interface points of the Intra State Transmission system	The Petitioner submits that currently it is handelling power at only 220 kV Level.	4,075.41	4,890.49
2	Energy Delivered to next (Lower) Voltage level of the Transmission		4,068.90	4,882.68
3	Sum of all the energy delivered at this voltage level to the State Distribution System		-	-
4	Transmission loss in system (A1-A2-A3)		6.51	7.81
5	Transmission loss in (Transco) system (%) {A4/A1} x 100		0.16%	0.16%
<b>B</b>	<b>Losses in 220 KV system</b>	<b>Previous year FY 2021-22</b>	<b>Current year FY 2022-23</b>	<b>Ensuing Years FY 2023-24</b>
1	Total Energy delivered by Generating Stations and Inter State/ Intra State tie- links at the interface points of the Intra State Transmission system	6,082.12	7,298.55	8,758.26
2	Energy Delivered to next (Lower) Voltage level	5,919.01	7,102.81	8,523.37
3	Sum of all the energy delivered at this voltage level to the State Distribution System	85.50	102.60	123.12
4	Transmission loss in system (B1-B2-B3)	77.61	93.14	111.76
5	Transmission loss in (Transco) system (%) {B4/B1} x 100	1.28%	1.28%	1.28%
<b>C</b>	<b>Loss Calculation at 132 KV</b>	<b>Previous year FY 2021-22</b>	<b>Current year FY 2022-23</b>	<b>Ensuing Years FY 2023-24</b>
1	Total Energy delivered by Generating Stations and Inter State/ Intra State tie- links at the interface points of the Intra State Transmission system	The Petitioner submits that currently it is handelling power at only 220 kV Level.		
2	Energy Delivered to next (Lower) Voltage level			
3	Sum of all the energy delivered at this voltage level to the State Distribution System			
4	Transmission loss in system (C1-C2-C3)			
5	Transmission loss in (Transco) system (%) {C4/C1} x 100			
<b>D</b>	<b>Total Losses in the Transmission system</b>	<b>Previous year FY 2021-22</b>	<b>Current year FY 2022-23</b>	<b>Ensuing Years FY 2023-24</b>
1	Total Energy delivered by Generating Stations and Inter State tie- links at the interface points of the Intra State Transmission	6,082.12	7,298.55	8,758.26
2	Sum of all the energy delivered by the Transmission system in to the State Distribution System	6,004.51	7,205.41	8,646.49
3	Transmission loss in system (D1-D2)	77.61	93.14	111.76
4	Transmission loss in (Transco) system (%) {D3/D1} x 100	1.28%	1.28%	1.28%

Signature of Petitioner





**Energy Delivered by Transmission licensee to the distribution Distribution License**

Month	Distribution Licensee / Bulk Consumer			Total Energy delivered*
	NBPDCL	SBPDCL	BSPTCL	
	MU	MU	MU	MU
1	3	4	9	10
Apr-21	22.6489	39.4649	529.7065	591.82
May-21	21.2929	37.1545	478.9673	537.41
Jun-21	21.4498	45.7498	480.2536	547.45
Jul-21	25.7919	52.1231	554.4357	632.35
Aug-21	26.2893	58.6155	553.9909	638.90
Sep-21	22.5861	51.0155	557.2871	630.89
Oct-21	20.7601	42.3186	496.5048	559.58
Nov-21	15.2438	34.4882	396.8458	446.58
Dec-21	16.0192	39.4315	389.1094	444.56
Jan-22	17.6356	40.9010	443.5254	502.06
Feb-22	13.6727	35.6939	387.0126	436.38
Mar-22	19.8788	47.2289	486.6133	553.72
<b>Total (FY 2021-22)</b>				
Apr-22	22.7418	60.1047	551.1706	603.52
May-22	24.9804	56.6702	577.9502	543.36
Jun-22	25.7709	62.74	543.0311	551.46
Jul-22	26.3220	75.8770	582.6073	634.56
Aug-22	25.0158	84.0457	690.7614	640.65
Sep-22				
Oct-22				
Nov-22				
Dec-22				
Jan-23				
Feb-23				
Mar-23				
<b>Total (Current year FY 22-23 till August)</b>				
Apr-23				
May-23				
Jun-23				
Jul-23				
Aug-23				
Sep-23				
Oct-23				
Nov-23				
Dec-23				
Jan-24				
Feb-24				
Mar-24				
<b>Total (FY 2023-24)</b>				
Details to be provided for previous years, current year and for each year of control period.				

\*As BGCLhas an integrated transmission system, the data is being supplied month wise

Signature of Petitioner



Details of Electrical Accidents						
Type of Accident	Previous Year FY 2020-21			Current year (2021-22)		
	No. of Accidents			No. of Accidents		
	Fatal	Non Fata	Total	Fatal	Non Fatal	Total
Human	0	0	0	0	0	0
Other, if any, (please specify)	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0

Signature of Petitioner



## Abstract of Outages due to feeder tripping

S. No.	Detail	Previous Year (FY 2021-22)				Current Year (FY 2022-23)				Ensuing Year (FY 2023-24)					
		Month	No. of feeders under outage	No. of trippings	Total Duration of Trippings (hrs.)	Average duration of interruption per feeder	Month	No. of feeders	No. of trippings	Total Duration of Trippings (hrs.)	Average duration of interruption per feeder	No. of feeders	No. of trippings	Total Duration of Trippings (hrs.)	Average duration of interruption per feeder
1	voltage Level (220 KV)														
		Apr-21	0	0	0.00	0.00	Apr-22	0	0	0.00	0.00				
		May-21	3	4	42.03	14.01	May-22	0	0	0.00	0.00				
		Jun-21	3	3	0.95	0.32	Jun-22	0	0	0.00	0.00				
		Jul-21	5	5	14.45	2.89	Jul-22	1	1	1.18	1.18				
		Aug-21	0	0	0.00	0.00	Aug-22	0	0	0.00	0.00				
		Sep-21	3	4	77.02	25.67	Sep-22								
		Oct-21	3	3	183.27	61.09	Oct-22								
		Nov-21	0	0	0.00	0.00	Nov-22								
		Dec-21	0	0	0.00	0.00	Dec-22								
		Jan-22	0	0	0.00	0	Jan-23								
		Feb-22	2	2	3.58	1.79	Feb-23								
		Mar-22	0	0	0.00	0.00	Mar-23								
			<b>Total</b>	19	21	321.30	105.77	<b>Total</b>	1	1	1.18	1.18			
2	voltage Level (132 KV)														
		Apr-21	0	0	0.00	0.00	Apr-22	3	11	3.87	1.29				
		May-21	4	6	16.23	4.06	May-22	4	4	9.37	2.34				
		Jun-21	1	3	2.38	2.38	Jun-22	7	7	17.43	2.49				
		Jul-21	1	2	0.37	0.37	Jul-22	3	5	1.95	0.65				
		Aug-21	7	14	8.82	1.26	Aug-22	7	8	12.58	1.80				
		Sep-21	2	6	2.43	1.22	Sep-22								
		Oct-21	6	13	6.12	1.02	Oct-22								
		Nov-21	3	5	0.93	0.31	Nov-22								
		Dec-21	0	0	0.00	0.00	Dec-22								
		Jan-22	2	2	0.60	0.30	Jan-23								
		Feb-22	2	2	0.85	0.43	Feb-23								
		Mar-22	3	3	1.18	0.39	Mar-23								
			<b>Total</b>	31	56	39.92	11.7	<b>Total</b>	24	35	45.20	8.57			

Signature of Petitioner

Major System Disturbances							
S.No.	Disturbances	Previous Years		Current Years		Ensuing Years	
		Number	Total Duration (Hrs.)	Number	Total Duration (Hrs.)	Number	Total Duration (Hrs.)
A	<b>Disturbances when DISCOM supply has been effected for more than 1hr.</b>	The petitioner submits that there have been no major system disturbances due to equipment failure		The petitioner submits that there have been no major system disturbances till date			
i	Due to 400 kV transformer failures						
ii	Due to 400 kV transmission line outage						
iii	Due to 400 kV sub-station equipment (CT, CVT etc.) failure						
iv	Due to 220 kV transformer failure						
v	Due to 220 kV transmission line failure						
vi	Due to 220 kV sub-station equipment (CT, CVT etc.) failure						
vii	Due to 132 kV transformer failure						
viii	Due to 132 kV transmission line failure						
ix	Due to 132 kV sub-station equipment (CT, CVT etc.) failure						
B	<b>Estimated unserved energy due to such interruptions</b>						
C	<b>Other Transmission disturbances when DISCOM supply has got effected</b>						
i							
ii							
iii							
iv							

Signature of Petitioner





**Frequency Variation**

Sl.no	Frequency	Previous Years		Current Years		Ensuing Years	
		No. of Hours	As percentage of total hours in the year (%)	No. of Hours	As percentage of total hours in the year (%)	No. of Hours	As percentage of total hours in the year (%)
1	Above 50.5 Hz	Frequency variation is being addressed by ERLDC/ SLDC with appropriate action like Generation Control, Load shedding, Anciliary Services Booking as and when required.					
2	50.5 - 5.2 Hz						
3	50.2 - 49.8 Hz						
4	49.8 - 49.5 Hz						
5	49.5 - 49.0 Hz						
6	49.0 - 48.5 Hz						
7	Below 48.5 Hz						

Source: ERLDC Annual Grid performance report 2020-21

Signature of Petitioner



Voltage Fluctuation																				
Name of Sub-Station	Transformation Capacity	Reactive Compensation provided	Previous Year						Current Year						Ensuing Years					
			Time during which voltage in an year						Time during which voltage in an year						Time during which voltage in an year					
			More than upper limit in %age		Between upper & lower limit		Less than lower limit in %age		More than upper limit in %age		Between upper & lower limit		Less than lower limit in %age		More than upper limit in %age		Between upper & lower limit		Less than lower limit in %age	
			Hours	%age	Hours	%age	Hours	%age	Hours	%age	Hours	%age	Hours	%age	Hours	%age	Hours	%age		
<b>400 kV level</b>			Voltage fluctuation is being addressed by ERLDC/ SLDC with appropriate action like opening/ closing of reactors/ capacitors, lines and Tap changing as and when required.																	
i																				
ii																				
iii																				
iv																				
<b>220 kV Level</b>			Voltage fluctuation is being addressed by ERLDC/ SLDC with appropriate action like opening/ closing of reactors/ capacitors, lines and Tap changing as and when required.																	
i																				
ii																				
iii																				
iv																				
<b>132 kV level</b>			Voltage fluctuation is being addressed by ERLDC/ SLDC with appropriate action like opening/ closing of reactors/ capacitors, lines and Tap changing as and when required.																	
i																				
ii																				
iii																				
iv																				
<p>Note: Upper Limit is 420 kVrms and lower limit is 360 kVrms in case of 400 kv level  Upper Limit is 245 kVrms and lower limit is 200 kVrms in case of 220 kv level  Upper Limit is 145 kVrms and lower limit is 120 kVrms in case of 132 kv level</p>																				

Signature of Petitioner

## Licensee wise Load shedding carried out during the year

S. No.	Particulars	NBPDCL	SBPDCL
	<b>Load shedding during the Year (In Hrs.)</b>		
<b>1</b>	<b>On SLDC's instructions</b>	The petitioner submits that there has been no load shedding BGCL. However Load shedding is being done by BSPTCL, SLDC.	
a	To control excess drawal		
b	To control equipment damage		
c	Under force majeure conditions		
<b>2</b>	Due to maintenance or outage of own network		
<b>3</b>	Any other reason		
	<b>Total load shedding for the Year</b>		

Signature of Petitioner



**Details of Overloaded Feeders**

S.No	Voltage Level	No. of feeders	Feeder length (ckt. Km.)	No. of feeders overloaded	Line length overloaded feeders (ckt. Km.)	% number of Overloaded feeders in Area	% length of overloaded feeders in Area
<b>Previous Year (FY 2020-21)</b>							
1	400 KV						
2	220 KV						
3	132 KV						
The petitioner submits that there has been no over loading in feeder							
<b>Current Year (FY 2021-22)</b>							
1	400 KV						
2	220 KV						
3	132 KV						
The petitioner submits that there has been no over loading in feeder							

**Note:**

Equipment considered as overloaded if carrying more than 110% of rated load for average 1 hour per day. Details to be provided for previous two years, base year and for each year of control period.

<b>Signature of Petitioner</b>
--------------------------------





## Details of over loaded Transformers

Sl. No.	Rated Voltage	Previous Year (FY 2021-22)			Current Year (FY 2022-23)			Ensuing Year (FY 2023-24)		
		Rated Capacity	Actual Load on Transformer	% of Transformers over loaded	Rated Capacity	Actual Load on Transformer	% of Transformers over loaded	Rated Capacity	Actual Load on Transformer	% of Transformers over loaded
1	400/220/33 KV Transformers									
	Capacity									
	i									
	ii									
	<b>Total</b>									
2	220/132/33KV Transformers									
	Capacity									
	i									
	ii									
	<b>Total</b>									
3	220/132KV Transformers									
	Capacity									
	i									
	ii									
	<b>Total</b>									
4	132/33KV Transformers									
	Capacity									
	i									
	ii									
	<b>Total</b>									

The petitioner submits that there has been no over loading in transformer

Signature of Petitioner



## Failure of Transformers

S. No.	Transformation ratio	Previous Year (2021-2022)			Current Year (2022-23)			Ensuing Years (2023-24)		
		No. of Transformers	No. of failures	Total Duration of failure	No. of Transformers	No. of failures	Total Duration of failure (hrs.)	No. of Transformers	No. of failures	Total Duration of failure (hrs.)
1	400/220/33 KV									
i	500 MVA	1	0	0	2	1	0	4	0	0
2	220/132/33 kV									
i	160 MVA	4	0	0	5	0	0	9	0	0
3	220/132 kV									
i	160 MVA									
4	220/33 kV									
i	100 MVA	0	0	0	1	0	0	2	0	0
4	132/33 kV									
i	80 MVA	4	0	0	5	0	0	8	0	0
ii	50 MVA									
	500									
	160+ t	4	0	0	5	0	0	9	0	0
	160	10	0	0	10	2	2.65	12	0	0
	100	0	0	0	1	0	0	2	0	0
	80	4	0	0	5	0	0	8	0	0
	50	12	0	0	12	0	0	15	0	0
	Total number	31	0	0	35	2	2.65	50	0	0
	i. 400 kV Naubatpur									
	a) 500 MVA	0	0	0	0	0	0	1	0	0
	b) 500 MVA (141307-3)	1	0	0	1	0	0	1	0	0
	c) 160 MVA (14138-7)	1	0	0	1	0	0	1	0	0
	d) 160 MVA	0	0	0	0	0	0	1	0	0
	e) 80 MVA (14139-8)	1	0	0	1	0	0	1	0	0
	f) 80 MVA	0	0	0	0	0	0	1	0	0
	ii 400 kV									
	a) 500 MVA (141307-4)	0	0	0	1	0	0	1	0	0
	b) 500 MVA	0	0	0	0	0	0	1	0	0
	c) 160 MVA (14138-6)	0	0	0	1	0	0	1	0	0
	d) 160 MVA	0	0	0	0	0	0	1	0	0
	e) 160 MVA	0	0	0	0	0	0	1	0	0
	f) 80 MVA	0	0	0	0	0	0	1	0	0
	g) 80 MVA	0	0	0	0	0	0	1	0	0
	h) 80 MVA	0	0	0	0	0	0	1	0	0
	i) 80 MVA (14139-	0	0	0	1	0	0	1	0	0
	Total	3	0	0	6	0	0	15	0	0

2	220/132/33KV									
<b>i. 220 kV Amnour GIS</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA	1	0	0	1	0	0	1	0	0	
c) 50 MVA (6042)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6046)	1	0	0	1	0	0	1	0	0	
<b>ii. 220 kV Khiirsarai GIS</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA (T14138-02)	1	0	0	1	0	0	1	0	0	
c) 50 MVA (6043)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6045)	1	0	0	1	0	0	1	0	0	
d) 50 MVA	0						1	0	0	
<b>iii. 220 kV Narhat</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA (14138-01)	1	0	0	1	0	0	1	0	0	
c) 50 MVA (6041)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6044)	1	0	0	1	0	0	1	0	0	
<b>iv. 220 kV Shekhopur Sarai</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA	1	0	0	1	0	0	1	0	0	
c) 50 MVA (6033)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6035)	1	0	0	1	0	0	1	0	0	
<b>v. 220 kV Haveli Kharagpur GIS</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA (T14138-3)	1	0	0	1	0	0	1	0	0	
c) 50 MVA (6034)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6036)	1	0	0	1	0	0	1	0	0	
<b>vi. 220 kV Goradiah GIS</b>										
a) 160 MVA	1	0	0	1	2	2.65	1	0	0	
b) 160 MVA	0	0	0	0	0	0	1	0	0	
c) 50 MVA (6037)	1	0	0	1	0	0	1	0	0	
d) 50 MVA (6038)	1	0	0	1	0	0	1	0	0	
<b>vii. 220 kV Mokama GIS</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA (T14138-5)	0	0	0	0	0	0	1	0	0	
c) 80 MVA (T14139-1)	1	0	0	1	0	0	1	0	0	
d) 50 MVA	0	0	0	0	0	0	1	0	0	
<b>viii 220 kV Bhusaula</b>										
a) 100 MVA	0	0	0	1	0	0	1	0	0	
b) 100 MVA	0	0	0	0	0	0	1	0	0	
<b>ix. Dumraon GIS</b>										
a) 160 MVA	1	0	0	1	0	0	1	0	0	
b) 160 MVA	0	0	0	0	0	0	1	0	0	
c) 80 MVA (T14139-2)	1	0	0	1	0	0	1	0	0	
d) 80 MVA (T14139-7)	1	0	0	1	0	0	1	0	0	
<b>Total</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>2</b>	<b>2.65</b>	<b>35</b>	<b>0</b>	<b>0</b>	

Signature of Petitioner

**Key Ratios****Form No: P12**

S. No	Particulars	Previous Year FY 2021-22	Current Year FY 2022-23	Ensuing Years FY 2023-24
A	<b>Financial &amp; Material</b>			
1	Annual capital expenditure/net book value			
2	Total Transmission cost/Energy Transmitted	0.59	0.62	0.70
3	Employee cost as a percentage of total cost	6%	5%	4%
4	Operating expenses / Revenue from Transmission of power	15%	12%	11%
5	Cost of capital invested			
6	Debt Service Coverage Ratio			
7	Cost of total Stores Inventory/100 Km of transmission lines			
9	Working Capital to Revenue from Transmission of power	1.09		





<b>B</b>	<b>HR Management</b>			
1	Energy Transmitted (MU) per Employee	65.62	76.65	92.97
2	Total line length/employee (cktKm.)	17.97	17.49	17.68
3	Connected Load per Employee			
4	Transmission Income per Employee	3.86	4.79	6.50
5	Training participation days per employee			
<b>C</b>	<b>Operational Performance</b>			
1	Unplanned outage/total outage (Fault breakdown / total outage)			
2	Annual replacement rate of Transmission transformers (%): (Transmission Transformers replaced / Transformers in service)			

**Signature of Petitioner**



Type	Transmission element	DOCO	Hard Cost (in Cr.)	IDC	IEDC	Soft Cost	Total Cost
<b>Phase IV (Part 1)</b>							
Sub Station	132/33 kV 80 MVA Transformer-2 of GIS, Dumraon New	09-09-2021	4.74	0.34	0.42	0.76	5.50
Transmission Line	LILO of 400 kV D/C (Quad), ckt 3& 4, of Patna - Balia line, at Naubatpur (New)	17-03-2022	14.62	1.04	1.30	2.33	16.96
Transmission Line	132kV D/C Naubatpur (New) - Masaurhi (BSPTCL)	29-03-2022	10.98	0.78	0.97	1.75	12.73
Transmission Line	132 kV D/C Dumraon (new)-Buxar (BSPTCL) TL	03-03-2022	14.08	1.00	1.25	2.25	16.33
Sub Station	1X500 MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	17-03-2022	14.10	1.00	1.25	2.25	16.35
Sub Station	1X160MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	29-03-2022	6.75	0.48	0.60	1.08	7.83
Sub Station	1X80MVA ICT at 400/220/132/33 kV New GIS station at Naubatpur	29-03-2022	4.86	0.34	0.43	0.78	5.64
Bay Extension	132kV Buxar (BSPTCL)(02.Nos)	03-03-2022	5.16	0.37	0.46	0.82	5.99
Bay Extension	132 KV Masaurhi (BSPTCL)-2 no Bays	29-03-2022	7.19	0.51	0.64	1.15	8.33
Sub Station	400kv GIS NBTR	17-03-2022	155.23	11.01	13.75	24.76	179.99
<b>Total Cap FY 2021-22</b>							<b>275.64</b>

---

# BIHAR GRID COMPANY LIMITED

---

## ANNUAL FINANCIAL STATEMENT

2021-2022

### Address

2<sup>nd</sup> Floor, Alankar Place,  
Boring Road , Patna- 800001



**BIHAR GRID COMPANY LIMITED**  
**2nd FLOOR, ALANKAR PLACE, BORING ROAD, PATNA**  
**Balance Sheet as at 31-March-2022**

(₹ in Lakh)

Particulars	Note	As at 31-March-2022	As at 31-March-2021
<b>ASSETS</b>			
<b>Non-Current Assets</b>			
(a) Property, Plant and Equipment	4	1,97,871.25	1,80,668.08
(b) Capital Work-in-Progress	5	78,946.33	83,206.53
(c) Other Intangible Assets	6	117.51	124.96
(d) Intangible Assets under Development	7	16.65	16.65
(e) Other non current assets	8	85.49	317.05
<b>Total Non-Current Assets</b>		<b>2,77,037.23</b>	<b>2,64,333.27</b>
<b>Current Assets</b>			
(a) Inventories	9	169.87	169.87
(b) Financial Assets			
(i) Trade receivables	10	61,867.58	50,630.83
(ii) Cash and Cash Equivalents	11	12,989.26	11,026.40
(c) Other Current Assets	12	6,098.71	5,529.30
<b>Total Current Assets</b>		<b>81,125.42</b>	<b>67,356.39</b>
<b>Total Assets</b>		<b>3,58,162.65</b>	<b>3,31,689.66</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
(a) Equity Share Capital	13	64,507.01	58,059.39
(b) Other Equity	14	37,910.07	23,513.51
<b>Total Equity</b>		<b>1,02,417.08</b>	<b>81,572.90</b>
<b>Liabilities</b>			
<b>Non-Current Liabilities</b>			
<b>(a) Financial Liabilities</b>			
(i) Borrowings	15	1,99,298.19	1,92,671.12
(ii) Other Non Current financial Liabilities	16	7,098.86	10,937.18
(b) Deferred Tax Liabilities (net)	17	17,418.10	13,115.92
<b>Total non current Liability</b>		<b>2,23,815.15</b>	<b>2,16,724.22</b>
<b>Current Liabilities</b>			
<b>(a) Financial Liabilities</b>			
(i) Other Current Financial Liabilities	18	6,091.15	4,514.30
(i) Current Borrowing	19	11,793.76	11,098.76
(b) Other Current Liabilities	20	10,650.54	13,122.44
(c) Provisions	21	496.16	456.90
(d) Current Tax Liabilities (Net)	22	2,898.81	4,200.13
<b>Total Current Liabilities</b>		<b>31,930.42</b>	<b>33,392.54</b>
<b>Total Equity and Liabilities</b>		<b>3,58,162.65</b>	<b>3,31,689.65</b>

The Notes to Accounts (1 to 48) form an integral part of these financial statements.

As per our report of even date

For Kumar Sanjay & Co.  
 Chartered Accountants  
 Firm Reg. No. : 113362W

*Binod Kumar*  
 Binod Kumar  
 Partner  
 Membership No.: 417916



*Sanjeev Hans*  
 Sanjeev Hans  
 Chairperson  
 DIN-05342058

*Niketa Sinha*  
 Niketa Sinha  
 Co. Secretary

Place : Patna  
 Date : 26.05.2022

For and On behalf of the Board of Directors

*Mahendra Kumar Singh*  
 Mahendra Kumar Singh  
 Managing Director  
 DIN-08989333

*M K Choudhary*  
 M K Choudhary  
 CFO



Place : Patna  
 Date : 26.05.2022



**BHAR GRID COMPANY LIMITED**

2nd FLOOR, ALANKAR PLACE, BORING ROAD, PATNA

Statement of Profit and Loss for the year ended 31-March-2022

(₹ in Lakh)

	Particulars	Note no.	For the year ended 31-March 2022	For the year ended 31-March 2021
I	Revenue from operations	23	45,262.00	46,020.00
II	Other Income	24	6,592.38	3,297.24
III	<b>Total Income ( I+II)</b>		<b>51,854.38</b>	<b>49,317.24</b>
IV	Expenses			
	Employee benefit expenses	25	1,495.01	1,129.02
	Finance costs	26	17,585.23	16,249.63
	Depreciation and amortisation expense	27	10,537.61	9,554.51
	Other expenses	28	2,903.17	2,814.14
	<b>Total expenses (IV)</b>		<b>32,521.02</b>	<b>29,747.29</b>
V	<b>Profit/(Loss) before exceptional items and tax (III-IV)</b>		<b>19,333.36</b>	<b>19,569.95</b>
VI	Exceptional Items		-	-
VII	<b>Profit/(Loss) before Tax (V-VI)</b>		<b>19,333.36</b>	<b>19,569.95</b>
VIII	Total Tax expense	29	4,936.80	4,088.00
	(1) Current Tax -Current Year		2,898.81	4,200.13
	-Earlier Years		(2,264.19)	-
	(2) Deferred Tax		4,302.18	(112.13)
IX	<b>Profit (Loss) for the period from Continuing operations (VII-VIII)</b>		<b>14,396.56</b>	<b>15,481.95</b>
X	Profit/(Loss) from dis continuing operations		-	-
XI	Tax expense of dis continuing operations		-	-
XII	Profit/(Loss) from dis continuing operations (after tax) (X-XI)		-	-
XIII	<b>Profit/(Loss) for the period (IX+XII)</b>		<b>14,396.56</b>	<b>15,481.95</b>
XV	<b>Total Comprehensive income for the period(XIII+XIV)</b>		<b>14,396.56</b>	<b>15,481.95</b>
XVI	Earnings per equity share (for continuing operation)			
	(1) Basic		2.37	2.86
	(2) Diluted		2.37	2.86
XVIII	Earnings per equity share (for dis continued & Continuing operations)			
	(1) Basic		2.37	2.86
	(2) Diluted		2.37	2.86

The Notes to Accounts (1 to 48) form an integral part of these financial statements.

As per our report of even date

For Kumar Sanjay & Co.

Chartered Accountants

Firm Reg. No. : 113362W

*Binod Kumar*

Binod Kumar

Partner

Membership No.: 417916



For and On behalf of the Board of Directors

*Sanjeev Hans*

Sanjeev Hans

Chairperson

DIN-05342058

*Mahendra Kumar Singh*

Mahendra Kumar Singh

Managing Director

DIN-08989333

*Niketa Sinha*

Niketa Sinha

Co. Secretary

*M K Choudhary*

M K Choudhary

CFO

Place : Patna

Date : 26.05.2022

Place : Patna

Date : 26.05.2022



*[Handwritten signature]*

BHAR GRID COMPANY LTD  
2nd FLOOR, ALANKAR PLACE, BORING ROAD, PATNA  
Cash Flow Statement for the Year ended 31-March-2022

(₹ in Lakh)

	PARTICULARS	For the year ended 31-March-2022	For the year ended 31-March-2021
<b>A.</b>	<b>CASH FLOW FROM OPERATING ACTIVITIES</b>		
	Net Profit/(Loss) as per Profit & Loss A/c	14,396.56	15,481.95
	Depreciation	10,536.90	9,552.03
	Finance Costs	17,585.23	16,249.63
	Interest Received from Bank	(275.58)	(464.34)
	<b>Operating profit before working capital changes</b>	<b>42,243.11</b>	<b>40,819.26</b>
	<b>Adjustment For Increase/Decrease in:</b>		
	Trade Receivables	(11,236.75)	(29,619.63)
	Other Current Assets	(569.41)	(3,945.39)
	Inventories	(0.00)	-
	Other Current Liabilities	(2,471.90)	(637.08)
	Other Current Financial Liabilities	1,576.85	(202.95)
	Current Borrowing	695.00	1,211.46
	Deferred Tax Liabilities	4,302.18	(112.13)
	Short Term Provisions	39.26	40.18
	Current Tax Liabilities	(1,301.32)	4,200.13
	<b>TOTAL</b>	<b>33,277.01</b>	<b>11,753.84</b>
<b>B.</b>	<b>CASH FLOW FROM INVESTING ACTIVITIES</b>		
	Tangible/Intangible Assets	(27,732.62)	(29,708.95)
	Capital Work in Progress	4,260.19	(1,487.52)
	Long Term Loans and Advances	231.56	135.54
	Interest Received from Bank	275.58	464.34
	<b>TOTAL</b>	<b>(22,965.29)</b>	<b>(30,596.59)</b>
<b>C.</b>	<b>CASH FLOW FROM FINANCING ACTIVITIES</b>		
	Issue of Share Capital / Other Equity	6,447.62	6,601.28
	Interest and Finance Costs Paid	(17,585.23)	(16,249.63)
	Other Non Current Financial Liabilities	(3,838.32)	(621.60)
	Borrowings	6,627.07	23,680.11
	<b>TOTAL</b>	<b>(8,348.85)</b>	<b>13,410.16</b>
<b>D.</b>	<b>Net Increase/(Decrease) in Cash Flow (A+B+C)</b>	<b>1,962.87</b>	<b>(5,432.59)</b>
<b>E.</b>	<b>Cash &amp; Cash Equivalents at the beginning of the year</b>	<b>11,026.40</b>	<b>16,458.98</b>
<b>F.</b>	<b>Cash &amp; Cash Equivalents at the end of the year</b>	<b>12,989.26</b>	<b>11,026.40</b>

Note :

Cash and Cash equivalents consist balances with banks in current accounts.

The Notes to Accounts (1 to 48) form an integral part of these financial statements.

As per our report of even date

For Kumar Sanjay & Co.  
Chartered Accountants  
Firm Reg. No. : 113362W

*Binod Kumar*

Binod Kumar  
Partner  
Membership No.: 417916



For and on behalf of the Board of Directors

*Sanjeev Hans*

Sanjeev Hans  
Chairperson  
DIN-05342058

*Mahendra Kumar Singh*

Mahendra Kumar Singh  
Managing Director  
DIN-08989333

*Niketa Sinha*

Niketa Sinha  
Co. Secretary

*M K Choudhary*

M K Choudhary  
CFO

Place : Patna  
Date : 26.05.2022

Place : Patna  
Date : 26.05.2022



*[Handwritten signature]*

Statement of Changes in Equity for the year ended 31-March-2022

A. Equity Share Capital

(₹ in Lakh)

As at 01-April-2021	58,059.39
Changes during the year	6,447.62
As at 31-March-2022	64,507.01
As at 01-April-2020	50,159.11
Changes during the year	7,900.28
As at 31-March-2021	58,059.39

B. Other Equity

(₹ in Lakh)

Particulars	Share application money pending allotment	Reserves and Surplus			Total
		Other Reserve	General Reserve	Retained Earnings	
Balance as at 1st April, 2021	-	-	-	24,812.51	24,812.51
Received during the year	-	-	-	-	-
Total Comprehensive Income for the Year	-	-	-	14,396.56	14,396.56
Balance as at 31st March, 2022	-	-	-	39,209.07	39,209.07

(₹ in Lakh)

Particulars	Share application money pending allotment	Reserves and Surplus			Total
		Capital Reserve	General Reserve	Retained Earnings	
Balance as at 1st April, 2020	1,299.00	-	-	9,330.56	10,629.56
Received during the year	-	-	-	-	-
Total Comprehensive Income for the Year	-	-	-	15,481.95	15,481.95
Shares Alloted During the year	(1,299.00)	-	-	-	(1,299.00)
Transfer to Retained Earnings	-	-	-	-	-
Balance as at 31st March, 2021	-	-	-	24,812.51	24,812.51

Refer to Note 13 for Nature & Movement of Other Equity.

The Notes to Accounts (1 to 48) form an integral part of these financial statements.

As per our report of even date

For Kumar Sanjay & Co.  
Chartered Accountants  
Firm Reg. No. : 113362W

*Binod Kumar*

Binod Kumar  
Partner  
Membership No.: 417916



For and on behalf of the Board of Directors

*Sanjeev Hans*

Sanjeev Hans  
Chairperson  
DIN-05342058

*Niketa Sinha*

Niketa Sinha  
Co. Secretary

*Mahendra Kumar Singh*

Mahendra Kumar Singh  
Managing Director  
DIN-08989333

*M K Choudhary*  
CFO

Place: Patna  
Date : 26.05.2022

Place : Patna  
Date : 26.05.2022



*[Handwritten signature]*



## Notes to Standalone Financial Statements

### 1. Corporate and General Information

**Bihar Grid Company Limited** ('the Company') is a public company domiciled and incorporated in India under the provisions of The Companies Act. The registered office of the Company is situated at **Second Floor, Alankar Place, Boring Road, Patna, Bihar, India.**

The Company is a 50 : 50 Joint Venture between Bihar State Power (Holding) Company Ltd and Power Grid Corporation of India Ltd. It is principally engaged to build (construct), own, operate and Maintain (BOOM) intra-state transmission lines, substations and associated installations.

The financial statements of the company for the year ended 31 March 2022 were approved for issue by the Board of Directors on 26.05.2022.

### 2. Significant Accounting Policies

A summary of the significant accounting policies applied in the preparation of the financial statements are as given below. These accounting policies have been applied consistently to all periods presented in the financial statements.

#### 2.1 Basis of Preparation

##### i) Compliance with Ind AS

The financial statements are prepared in compliance with Indian Accounting Standards (Ind AS) notified under Section 133 of the Companies Act, 2013 (the Act), Companies (Indian Accounting Standards) Rules, 2015, the relevant provisions of the Companies Act, 2013 (to the extent notified), The Companies Act, 1956 and the provisions of Electricity Act, 2003, in each case, to the extent applicable and as amended thereafter.

##### ii) Basis of Measurement

The financial statements have been prepared on accrual basis and under the historical cost convention except following which have been measured at fair value:

- Certain financial assets and liabilities measured at fair value,
- Defined benefit plans – plan assets measured at fair value

##### iii) Functional and presentation currency

The financial statements are presented in Indian Rupees in Lakh (₹ in Lakh), which is the Company's functional and presentation currency and all amounts are rounded to the nearest crore and two decimals thereof, except as stated otherwise.

##### iv) Use of estimates

The preparation of financial statements requires estimates and assumptions that affect the reported amount of assets, liabilities, revenue and expenses during the reporting period. Although, such estimates and assumptions are made on a reasonable and prudent basis taking into account all available information, actual results could differ from these estimates. The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision effects only that period or in the period of the revision and future periods if the revision affects both current and future years (refer Note no. 3 on critical accounting estimates, assumptions and judgments).





## v) Current and non-current classification

The Company presents assets and liabilities in the balance sheet based on current/non-current classification.

An asset is current when it is:

- Expected to be realized or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realized within twelve months after the reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in normal operating cycle;
- It is held primarily for the purpose of trading;
- It is due to be settled within twelve months after the reporting period; or
- There is no unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

All other liabilities are classified as non-current.

Deferred tax assets/liabilities are classified as non-current.

The Company recognizes twelve months period as its operating cycle.

## 2.2 Property, Plant and Equipment

The Company had opted to consider the carrying value of Property, Plant and Equipment as per previous GAAP on the date of transition to Ind AS (1<sup>st</sup> April, 2015) to be the deemed cost as per Ind AS 101 'First time Adoption of Indian Accounting Standards'.

### Initial Recognition and Measurement

Property, Plant and Equipment is initially measured at cost of acquisition/construction including any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. After initial recognition, Property, Plant and Equipment is carried at cost less accumulated depreciation / amortisation and accumulated impairment losses, if any.

Property, Plant and Equipment acquired as replacement of the existing assets are capitalized and its corresponding replaced assets removed/ retired from active use are derecognized.

If the cost of the replaced part or earlier inspection component is not available, the estimated cost of similar new parts/inspection component is used as an indication of what the cost of the existing part/ inspection component was when the item was acquired or inspection was carried out.

In the case of commissioned assets, deposit works/cost-plus contracts where final settlement of bills with contractors is yet to be affected, capitalization is done on provisional basis subject to necessary adjustments in the year of final settlement.



Assets and systems common to more than one transmission systems are capitalized on the basis of technical estimates/ assessments.

Transmission system assets are considered as ready for intended use from the date of commercial operation declared in terms of BERC Tariff Regulations and capitalized accordingly.

The cost of land includes provisional deposits, payments/liabilities towards compensation, rehabilitation and other expenses wherever possession of land is taken.

Expenditure on levelling, clearing and grading of land if incurred for construction of building is capitalized as part of cost of the related building.

Spares parts whose cost is ₹5,00,000/- and above, standby equipment and servicing equipment which meets the recognition criteria of Property, Plant and Equipment are capitalized.

The acquisition or construction of some items of property, plant and equipment although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for the company to obtain future economic benefits from its other assets. Such items are recognized as property, plant and equipment.

#### **Subsequent costs**

Subsequent expenditure is recognized as an increase in carrying amount of assets when it is probable that future economic benefits deriving from the cost incurred will flow to the company and cost of the item can be measured reliably.

The cost of replacing part of an item of Property, Plant & Equipment is recognized in the carrying amount of the item if it is probable that future economic benefits embodied within the part will flow to the company and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property, plant and equipment are recognised in the Statement of Profit & Loss as incurred.

#### **Derecognition**

An item of Property, Plant and Equipment is derecognized when no future economic benefits are expected from their use or upon their disposal.

The gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the net disposal proceeds and the carrying amount of the asset and is recognised in the Statement of Profit and Loss on the date of disposal or retirement.

### **2.3 Capital Work-In-Progress (CWIP)**

Cost of material, erection charges and other expenses incurred for the construction of Property, Plant and Equipment are shown as CWIP based on progress of erection work till the date of capitalization.

Expenditure of Corporate office and Projects, directly attributable to construction of property, plant and equipment are identified and allocated on a systematic basis to the cost of the related assets.

Interest during construction and expenditure (net) allocated to construction as per policy above are kept as a separate item under CWIP and apportioned to the assets being capitalized in proportion to the closing balance of CWIP.

Deposit works/cost-plus contracts are accounted for on the basis of statement received from the contractors or technical assessment of work completed.



Unsettled liability for price variation/exchange rate variation in case of contracts is accounted for on estimated basis as per terms of the contracts.

#### 2.4 Intangible Assets and Intangible Assets under development

The Company had opted to consider the carrying value of Intangible Assets as per previous GAAP on the date of transition to Ind AS (1<sup>st</sup> April, 2015) to be the deemed cost as per Ind AS 101 'First time Adoption of Indian Accounting Standards'.

Intangible assets are measured on initial recognition at cost. After initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses.

Subsequent expenditure on already capitalized Intangible assets is capitalised when it increases the future economic benefits embodied in an existing asset and is amortised prospectively.

The cost of software (which is not an integral part of the related hardware) acquired for internal use and resulting in significant future economic benefits is recognized as an intangible asset when the same is ready for its use.

Afforestation charges for acquiring right-of-way for laying transmission lines are accounted for as intangible assets on the date of capitalization of related transmission lines.

Expenditure incurred, eligible for capitalization under the head Intangible Assets, are carried as "Intangible Assets under Development" till such assets are ready for their intended use.

Expenditure on research is recognised as an expense when it is incurred.

Expenditure on development activities shall be recognised as Intangible asset if it meets the eligibility criteria as per Ind AS 38 'Intangible Assets', otherwise it shall be recognised as an expense.

An item of Intangible asset is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in the Statement of Profit and Loss when the asset is derecognised.

#### 2.5 Depreciation/ Amortisation

##### Property, Plant and Equipment

Depreciation/amortisation on the items of property, plant and equipment related to transmission business is provided on straight line method following the rates and methodology notified by the BERC for the purpose of recovery of tariff and on property, plant and equipment of telecom and consultancy business is provided on straight line method as per useful life specified in Schedule II of the Companies Act, 2013 except for property, plant and equipment specified in the following paragraphs.

Depreciation on spares parts, standby equipment and servicing equipment which are capitalized, is provided on straight line method from the date they are available for use over the remaining useful life of the related assets of transmission business, following the rates and methodology notified by the BERC.

Depreciation on following items of property, plant and equipment is provided based on estimated useful life as per technical assessment.



A handwritten signature in blue ink, consisting of a series of loops and curves.





Particulars	Useful life
a. Computers & Peripherals	3 Years
b. Servers & Network Components	5 years
c. Buildings (RCC frame structure)	35 years
d. Transmission line	35 years
e. Substation Equipment	35 years

Residual value of above assets is considered as Nil.

Mobile phones are charged off in the year of purchase.

Property, plant and equipment costing ₹5,000/- or less, are fully depreciated in the year of acquisition.

Where the cost of depreciable property, plant and equipment has undergone a change due to increase/decrease in long term monetary items on account of exchange rate fluctuation, price adjustment, change in duties or similar factors, the unamortized balance of such asset is depreciated prospectively at the rates and methodology as specified by the BERC Tariff Regulations,

Depreciation on additions to/deductions from Property, Plant and Equipment during the year is charged on pro-rata basis from/up to the date on which the asset is available for use/disposed.

The residual values, useful lives and methods of depreciation for items of property, plant and equipment other than items of property, plant and equipment related to transmission business are reviewed at each financial year-end and adjusted prospectively, wherever required.

#### Intangible Assets

Cost of software capitalized as intangible asset is amortized over the period of legal right to use or 3 years, whichever is less with Nil residual value.

Afforestation charges are amortized over thirty-five years from the date of capitalization of related transmission assets following the rates and methodology notified by Bihar Electricity Regulatory Commission (BERC) Tariff Regulations.

The amortization period and the amortization method for an intangible asset are reviewed at each financial year-end and are accounted for as change in accounting estimates in accordance with Ind AS 8 "Accounting Policies, Changes in Accounting Estimates and Errors"

#### 2.6 Borrowing Costs

All the borrowed funds (except short term funds for working capital) are earmarked to specific projects. The borrowing costs (including bond issue expenses, interest, discount on bonds, front end fee, guarantee fee, management fee etc.) are allocated to the projects in proportion to the funds so earmarked.

Exchange differences arising from foreign currency borrowing to the extent regarded as an adjustment to interest costs are treated as borrowing cost.

Borrowing costs directly attributable to the acquisition or construction of qualifying assets are capitalised (net of income on temporary deployment of funds) as part of the cost of such assets till the assets are ready for the intended use. Qualifying assets are assets which take a substantial period of time to get ready for their intended use.



*(Handwritten signature)*





All other borrowing costs are recognised in Statement of Profit and Loss in the period in which they are incurred.

## 2.7 Cash and cash equivalents

Cash and cash equivalents include cash on hand and at bank, and deposits held at call with banks having a maturity of three months or less from the date of acquisition that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

## 2.8 Inventories

Inventories are valued at lower of the cost, determined on weighted average basis and net realizable value.

Steel scrap and conductor scrap are valued at estimated realizable value or book value, whichever is less.

Spares which do not meet the recognition criteria as Property, Plant and Equipment, including spare parts whose cost is less than ₹ 5,00,000/- are recorded as inventories.

Surplus materials as determined by the management are held for intended use and are included in the inventory.

The diminution in the value of obsolete/unserviceable/surplus stores and spares and non-moving unserviceable inventories is ascertained on review and provided for.

## 2.9 Leases

Lease is a contract that conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

To assess whether a contract conveys the right to control the use of an identified asset, the Company assesses whether: (i) the contract involves use of an identified assets, (ii) the customer has substantially all the economic benefits from the use of the asset through the period of the lease and (iii) the customer has the right to direct the use of the asset.

### f) As a Lessee

At the date of commencement of the lease, the Company recognises a right-of-use asset (ROU) and a corresponding lease liability for all lease arrangements in which it is a lessee, except for lease with a term of twelve months or less (i.e. short term leases) and leases for which the underlying asset is of low value. For these short-term and leases for which the underlying asset is of low value, the Company recognizes the lease payments on straight-line basis over the term of the lease.

Certain lease arrangements include the options to extend or terminate the lease before the end of the lease term. ROU assets and lease liabilities includes these options when it is reasonably certain that they will be exercised.

The right-of-use assets are initially recognized at cost, which comprises the amount of the initial measurement of the lease liability adjusted for any lease payments made at or before the inception date of the lease along with any initial direct costs, restoration obligations and lease incentives received.



Subsequently, the right-of-use assets is measured at cost less any accumulated depreciation, accumulated impairment losses, if any and adjusted for any remeasurement of the lease liability. The Company applies Ind AS 36 to determine whether a ROU asset is impaired and accounts for any identified impairment loss as described in the accounting.

The lease liability is initially measured at present value of the lease payments that are not paid at that date.

The interest cost on lease liability is expensed in the Statement of Profit and Loss, unless eligible for capitalization as per accounting policy 2.6 on "Borrowing costs".

Lease liability and ROU asset have been separately presented in the financial statements and lease payments have been classified as financing cash flows.

## ii) As a Lessor

A lease is classified at the inception date as a finance lease or an operating lease.

### a) Finance leases

A lease that transfers substantially all the risks and rewards incidental to ownership of an asset is classified as a finance lease.

The interest element of lease is accounted in the Statement of Profit and Loss over the lease period based on a pattern reflecting a constant periodic rate of return on the net investment as per the tariff notified by BERC.

### b) Operating leases

An operating lease is a lease other than a finance lease. Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases.

For operating leases, the asset is capitalized as property, plant and equipment and depreciated over its economic life. Rental income from operating lease is recognized over the term of the arrangement.

## 2.10 Employee benefits

### 2.10.1 Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into separate entities (Funds) and will have no legal or constructive obligation to pay further contributions, if the Fund does not hold sufficient assets to pay all employee's benefits related to employee service in the current and prior periods. Obligations for contribution to defined contribution plans are recognized as an employee benefits expense in the statement of profit and loss in the period during which services are rendered by employees.

The Company has a defined contribution pension scheme which is administered through a separate trust. The obligation of the Company is to contribute to the trust to the extent of amount not exceeding 30% of basic pay and dearness allowance less employer's contribution towards provident fund, gratuity, post-retirement medical facility (PRMF) or any other retirement benefits. The contributions to the fund for the year are recognized as an expense and charged to the statement of profit and loss.

### 2.10.2 Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's liability towards gratuity, post-retirement medical facility, baggage allowance



A handwritten signature in blue ink, consisting of a stylized 'S' and 'J' followed by a flourish.





for settlement at home town after retirement, long service award on retirement and provident fund scheme to the extent of interest liability on provident fund contribution are in the nature of defined benefit plans.

The Company pays fixed contribution to Provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The contributions to the fund for the year are recognized as expense and are charged to the statement of profit and loss. The obligation of the Company is limited to such fixed contributions and to ensure a minimum rate of interest on contributions to the members as specified by the Government of India (GoI).

The Company has schemes for payment of baggage allowance towards expenses for settlement at hometown for the superannuated employees & their dependents and for providing a Long Service Award to all regular employees of the Company on superannuation.

The Company's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. Any unrecognized past service costs and the fair value of any plan assets are deducted. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Company, the recognized asset is limited to the total of any unrecognized past service costs and the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. An economic benefit is available to the Company if it is realizable during the life of the plan, or on settlement of the plan liabilities. Any actuarial gains or losses are recognized in OCI in the period in which they arise and subsequently not reclassified to profit or loss.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognized in the statement of profit and loss on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognized immediately in the statement of profit and loss.

### 2.10.3 Other long-term employee benefits

Benefits under the Company's leave encashment and employee family economic rehabilitation scheme constitute other long term employee benefits.

The Company's net obligation in respect of leave encashment is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Company's obligations. The calculation is performed using the projected unit credit method. Any actuarial gains or losses are recognized in the statement of profit and loss in the period in which they arise.

As per 'POWERGRID Employee Family Economic Rehabilitation Scheme', which is optional, in the event of death or permanent total disability of an employee, the dependent(s) or the employee, as the case may be, is paid a fixed amount based on the last salary drawn by the employee till the notional date of superannuation of the employee upon depositing the final provident fund and gratuity amount which will be interest free.



#### 2.10.4 Short-term benefits

Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under performance related pay if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

#### 2.11 Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

##### Financial Assets

##### Classification

The Company classifies its financial assets in the following categories:

- at amortised cost,
- at fair value through other comprehensive income

The classification depends on the following:

- the entity's business model for managing the financial assets and
- the contractual cash flow characteristics of the financial asset

##### Initial recognition and measurement

All financial assets are recognised initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs, if any, that are attributable to the acquisition of the financial asset.

##### Subsequent measurement

**Debt Instruments at Amortised cost:** Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. A gain or loss on a debt investment that is subsequently measured at amortised cost is recognised in profit or loss when the asset is derecognised or impaired. Interest income from these financial assets is included in finance income using the effective interest rate method.

**Debt Instruments at Fair value through other comprehensive income (FVOCI):** Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at fair value through other comprehensive income (FVOCI). On derecognition of the asset, cumulative gain or loss previously recognised in OCI is reclassified from the equity to profit and loss. Interest income from these financial assets is included in finance income using the effective interest rate method.

##### Derecognition of financial assets

A financial asset is derecognized only when

- The right to receive cash flows from the asset have expired, or
- a) The company has transferred the rights to receive cash flows from the financial asset (or) retains the contractual rights to receive the cash flows of the financial assets, but





assumes a contractual obligation to pay the cash flows to one or more recipients and

b) the company has transferred substantially all the risks and rewards of the asset (or) the company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

The difference between the carrying amount and the amount of consideration received/receivable is recognised in the Statement of Profit and Loss.

#### **Impairment of financial assets:**

For trade receivables and unbilled revenue, the company applies the simplified approach required by Ind AS 109 Financial Instruments, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

For recognition of impairment loss on other financial assets and risk exposure, the company determines whether there has been a significant increase in the credit risk since initial recognition. If credit risk has not increased significantly, 12-month Expected Credit Loss (ECL) is used to provide for impairment loss. However, if credit risk has increased significantly, lifetime ECL is used. If, in a subsequent period, credit quality of the instrument improves such that there is no longer a significant increase in credit risk since initial recognition, then the entity reverts to recognizing impairment loss allowance based on 12 -month ECL.

#### **Financial Liabilities**

Financial liabilities of the Company are contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Company.

The Company's financial liabilities include loans & borrowings, trade and other payables.

#### **Classification, initial recognition and measurement**

Financial liabilities are recognised initially at fair value minus, in the case of financial liabilities not recorded at fair value through profit or loss, transaction costs that are directly attributable to the issue of financial liabilities.

#### **Subsequent measurement**

After initial recognition, financial liabilities are subsequently measured at amortised cost using the EIR method. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate (EIR). Any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in the Statement of Profit and Loss over the period of the borrowings using the EIR. Gains and losses are recognised in Statement of Profit and Loss when the liabilities are derecognised.

The EIR amortisation is included as finance costs in the Statement of Profit and Loss.

#### **Derecognition of financial liability**

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference between the carrying amount of a financial liability that has been extinguished or transferred to another party and the consideration paid, including



any non-cash assets transferred or liabilities assumed, is recognised in Statement of Profit and Loss as other income or finance cost.

#### Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the Balance Sheet if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

### 2.12 Foreign Currency Translation

#### (a) Functional and presentation currency

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which the Company operates ('the functional currency'). The financial statements are presented in Indian Rupees in Lakh (₹ in Lakh), which is the Company's functional and presentation currency.

#### (b) Transactions and balances

Transactions in foreign currencies are initially recorded at the exchange rates prevailing on the date of the transaction. Foreign currency monetary items are translated with reference to the rates of exchange ruling on the date of the Balance Sheet. Non-Monetary items denominated in foreign currency are reported at the exchange rate ruling on the date of initial recognition of the non-monetary prepayment asset or deferred income liability, or the date that related item is recognized in the financial statements, whichever is earlier. In case the transaction is recognized in stages, then transaction date is established for each stage.

Foreign exchange gains and losses (other than related to foreign currency loans outstanding) are presented in the statement of profit and loss on a net basis within other gains/ (losses).

### 2.13 Income Tax

Income tax expense represents the sum of current and deferred tax. Tax is recognised in the Statement of Profit and Loss, except to the extent that it relates to items recognised directly in equity or other comprehensive income. In this case the tax is also recognised directly in equity or in other comprehensive income.

#### Current income tax

The Current Tax is based on taxable profit for the year under the tax laws enacted and applicable to the reporting period in the countries where the company operates and generates taxable income and any adjustment to tax payable in respect of previous years.

#### Deferred tax

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the company's financial statements and the corresponding tax bases used in the computation of taxable profit and is accounted for using the Balance Sheet method. Deferred tax assets are generally recognised for all deductible temporary differences, unused tax losses and unused tax credits to the extent that it is probable that future taxable profits will be available against which those deductible temporary differences, unused tax losses and unused tax credits can be utilised. The carrying amount of deferred tax assets is reviewed at each Balance Sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available against which the temporary differences can be utilised.





Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the Balance Sheet date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority.

## 2.14 Revenue

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product or service to a customer.

### Significant Financing Component

Where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year, the Company assesses the effects of significant financing component in the contract. As a consequence, the Company makes adjustment in the transaction prices for the effects of time value of money.

## 2.15.1 Revenue from Operations

### Transmission

Transmission Income is accounted for based on tariff orders notified by the BERC. In case of transmission projects where final tariff orders are yet to be notified, transmission income is accounted for on provisional basis as per tariff regulations and orders of the BERC in similar cases. Difference, if any, is accounted on issuance of final tariff orders by the BERC. Transmission Income in respect of additional capital expenditure incurred after the date of commercial operation is accounted for based on expenditure incurred on year-to-year basis as per BERC tariff regulations. As at each reporting date, transmission income includes an accrual for services rendered to the customers but not yet billed i.e., Unbilled Revenue.

Rebates allowed to beneficiaries as early payment incentives are deducted from the amount of revenue.

The Transmission system incentive / disincentive is accounted for based on certification of availability by the respective Regional Power Committees (RPCs) and in accordance with the BERC tariff regulations. Where certification by RPCs is not available, incentive/disincentive is accounted for on provisional basis as per estimate of availability by the company and differences, if any is accounted upon certification by RPCs.

Advance against depreciation (AAD), forming part of tariff pertaining upto the block period 2004-09, to facilitate repayment of loans, was reduced from transmission income and considered as deferred income to be included in transmission income in subsequent years. The outstanding deferred income in respect of AAD is recognized as transmission income, after twelve years from the end of the financial year in which the asset was commissioned, to the extent depreciation recovered in the tariff during the year is lower than depreciation charged in the accounts.

## 2.15.2 Other Income

Interest income is recognized, when no significant uncertainty as to measurability or collectability exists, on a time proportion basis taking into account the amount outstanding and the applicable interest rate, using the effective interest rate method (EIR).



Surcharge recoverable from trade receivables, liquidated damages, warranty claims and interest on advances to suppliers are recognized when no significant uncertainty as to measurability and collectability exists.

Scrap other than steel scrap & conductor scrap are accounted for as and when sold.

Dividend income is recognized when right to receive payment is established.

Insurance claims for loss of profit are accounted for in the year of acceptance. Other insurance claims are accounted for based on certainty of realization.

Revenue from rentals and operating leases is recognized on an accrual basis in accordance with the substance of the relevant agreement.

## 2.16 Dividends

Annual dividend distribution to the shareholders is recognised as a liability in the period in which the dividends are approved by the shareholders. Any interim dividend paid is recognised on approval by Board of Directors. Dividend payable and corresponding tax on dividend distribution is recognised directly in equity.

## 2.17 Provisions and Contingencies

### a) Provisions

Provisions are recognised when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are discounted. Unwinding of the discount is recognised in the Statement of Profit and Loss as a finance cost. Provisions are reviewed at each Balance Sheet date and are adjusted to reflect the current best estimate.

### b) Contingencies

Contingent liabilities are disclosed on the basis of judgment of the management / independent experts. These are reviewed at each balance sheet date and are adjusted to reflect the current management estimate.

Contingent liabilities are disclosed when there is a possible obligation arising from past events, the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company or a present obligation that arises from past events where it is either not probable that an outflow of resources will be required to settle or a reliable estimate of the amount cannot be made. Information on contingent liability is disclosed in the Notes to the Financial Statements.

Contingent assets are possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company. Contingent assets are disclosed in the financial statements when inflow of economic benefits is probable on the basis of judgment of management. These are assessed continually to ensure that developments are appropriately reflected in the financial statements.





## 2.18 Share capital and Other Equity

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds.

## 2.19 Prior Period Items

Material prior period errors are corrected retrospectively by restating the comparative amounts for prior period presented in which the error occurred or if the error occurred before the earliest period presented, by restating the opening statement of financial position.

## 2.20 Operating Segments

The Board of Directors is the Company's 'Chief Operating Decision Maker' or 'CODM' within the meaning of Ind AS 108 'Operating Segments'. CODM monitors the operating results of its business segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on profit or loss and is measured consistently with profit or loss in the financial statements.

The operating segments have been identified on the basis of the nature of products / services.

- Segment revenue includes sales and other income directly identifiable with / allocable to the segment including inter-segment transactions.
- Expenses that are directly identifiable with / allocable to segments are considered for determining the segment result. Expenses which relate to the Company as a whole and not allocable to segments are included under unallocable expenditure.
- Income which relates to the Company as a whole and not allocable to segments is included in unallocable income.
- Segment assets and liabilities include those directly identifiable with the respective segments. Unallocable assets and liabilities represent the assets and liabilities that relate to the Company as a whole and not allocable to any segment.
- Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment, and intangible assets.

## 2.21 Earnings per Share

Basic earnings per share is computed using the net profit or loss for the year attributable to the shareholders and weighted average number of shares outstanding during the year.

Diluted earnings per share is computed using the net profit or loss for the year attributable to the shareholders and weighted average number of equity and potential equity shares outstanding during the year, except where the result would be anti-dilutive.

Additionally, basic and diluted earnings per share are computed using the earnings amounts excluding the movements in Regulatory Deferral Account Balances.

## 2.22 Statement of Cash Flows

Statement of Cash flows is prepared as per indirect method prescribed in the Ind AS 7 'Statement of Cash Flows'.



### 3. Critical Estimates and Judgments

The preparation of financial statements requires the use of accounting estimates which may significantly vary from the actual results. Management also needs to exercise judgment while applying the company's accounting policies.

This note provides an overview of the areas that involved a higher degree of judgment or complexity, and of items which are more likely to be materially adjusted due to estimates and assumptions turning out to be different than those originally assessed.

The areas involving critical estimates or judgments are:

#### Revenue Recognition:

Transmission income is accounted for based on tariff orders notified by the BERC. In case of transmission projects where final tariff orders are yet to be notified, transmission income is accounted for as per tariff regulations and other orders of the BERC in similar cases. Differences, if any, are accounted on issuance of final tariff orders by the BERC. Transmission income in respect of additional capital expenditure incurred after the date of commercial operation is accounted for based on expenditure incurred on year-to-year basis as per BERC tariff regulations.

#### Useful life of property, plant and equipment:

The estimated useful life of property, plant and equipment is based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

The Company reviews at the end of each reporting date the useful life of plant and equipment, other than the assets of transmission business which are governed by BERC Regulations, and are adjusted prospectively, if appropriate.

#### Provisions and contingencies:

The assessments undertaken in recognizing provisions and contingencies have been made in accordance with Ind AS 37 "Provisions, Contingent Liabilities and Contingent Assets". The evaluation of the likelihood of the contingent events has required best judgment by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, this likelihood could alter.



A handwritten signature in blue ink, located below the stamps.

BIHAR GRID COMPANY LIMITED  
NOTE 4 - PROPERTY, PLANT & EQUIPMENT

(₹ in Lakhs)

Sl. NO.	Particulars	COST			ACCUMULATED DEPRECIATION			NET BOOK VALUE		
		As at 1st April 2021	Additions during the year	Disposal	As at 31st March 2022	As at 1st April, 2021	For the year	Disposal	As at 31st March 2022	As at 31st March 2021
1	Land									
	a) Freehold Land	657.06	-	-	657.06	-	-	-	657.06	657.06
	b) Leasehold Land (perpetual)	5,152.68	-	-	5,152.68	-	-	-	5,152.68	5,152.68
2	Buildings									
	a) Building & civil work	12,931.09	5,465.29	-	18,396.38	1,141.44	-	-	1,580.95	16,815.43
	Plant and Machinery	-	-	-	-	-	-	-	-	-
	a) Transmissions	92,497.01	4,602.07	-	97,099.08	13,046.31	-	-	17,941.24	79,157.84
	b) Sub-stations	95,807.66	17,497.04	-	1,13,304.69	12,899.90	-	-	18,009.16	95,295.53
4	Furniture and Fixtures									
	a) Furniture	190.74	2.43	-	212.17	23.53	-	-	36.46	175.72
	b) Electrical installation	14.79	0.43	-	15.23	2.12	-	-	3.07	12.16
5	Office Equipment									
	a) Office equipment	52.52	51.61	-	104.16	14.14	-	-	19.18	84.99
	b) Electronic data processing machine	75.88	6.61	1.30	81.19	47.65	0.71	-	73.47	7.72
	c) Servers & network component	34.77	-	-	34.77	12.35	-	-	19.30	15.47
	d) Servicing equipment	488.11	88.00	-	576.11	46.78	-	-	79.45	496.66
	<b>SUB-TOTAL</b>	<b>2,07,902.29</b>	<b>27,732.53</b>	<b>1.30</b>	<b>2,35,633.32</b>	<b>27,234.21</b>	<b>0.71</b>	<b>37,762.27</b>	<b>1,97,871.25</b>	<b>1,80,668.08</b>

Sl. NO.	Particulars	COST			ACCUMULATED DEPRECIATION			NET BOOK VALUE		
		As at 1st April 2020	Additions during the year	Disposal	As at 31st March 2021	As at 1st April, 2020	For the year	Disposal	As at 31st March 2021	As at 31st March 2020
1	Land									
	a) Freehold Land	657.06	-	-	657.06	-	-	-	657.06	657.06
	b) Leasehold Land (perpetual)	5,152.68	-	-	5,152.68	-	-	-	5,152.68	5,152.68
2	Buildings									
	a) Building & civil work	10,307.80	2,623.29	-	12,931.09	754.66	-	-	1,141.44	11,789.65
	Plant and Machinery									
	a) Transmissions	86,916.38	5,580.63	-	92,497.01	8,349.07	-	-	13,046.31	79,450.69
	b) Sub-stations	74,526.76	21,280.90	-	95,807.66	8,507.78	-	-	12,899.90	82,907.75
4	Furniture and Fixtures									
	a) Furniture	153.20	37.55	-	190.74	12.75	-	-	23.53	167.21
	b) Electrical installation	10.32	4.46	-	14.78	1.36	-	-	2.12	12.67
5	Office Equipment									
	a) Office equipment	51.81	0.71	-	52.52	10.84	-	-	14.14	38.38
	b) Electronic data processing machine	76.17	2.96	3.25	75.88	29.09	2.47	-	47.65	28.23
	c) Servers & network component	13.33	21.44	-	34.77	7.39	-	-	12.35	5.94
	d) Servicing equipment	333.77	154.34	-	488.11	21.07	-	-	46.78	441.33
	<b>SUB-TOTAL</b>	<b>1,78,199.27</b>	<b>29,706.27</b>	<b>3.25</b>	<b>2,07,902.29</b>	<b>17,634.00</b>	<b>2.47</b>	<b>27,234.21</b>	<b>1,80,668.08</b>	<b>1,60,505.36</b>



*(Handwritten signature)*



BIHAR GRID COMPANY LIMITED  
NOTE 5 - Capital Work-in-Progress

Particulars	In ₹ (Rupees)					As at 31st March 2022
	As at 1st April, 2021	Additions during the year	Adjustments	Capitalised during the year	As at 31st March 2022	
<b>Part-2</b>						
Crop Compensation	1,828.66	860.25	-	397.66	2,291.25	
CWIP - IDC	3,021.68	2,450.65	161.85	1,685.69	3,624.79	
CWIP - Transformers.	7,919.13	490.26	-	3,046.00	5,363.39	
Tree Compensation	23.47	36.64	-	32.40	27.71	
CWIP - Insulators	475.73	180.44	-	99.07	557.10	
CWIP - Ind AS	-323.70	323.70	-	-	-	
CWIP - Conductors & EW	4,882.36	3,070.82	-	1,048.88	6,904.30	
CWIP - IEDC.	6,514.76	83.57	-	2,105.64	4,492.69	
CWIP-Substation/Bays	23,342.18	3,661.02	-	16,757.98	10,245.21	
CWIP -Towers	13,885.37	2,673.49	-	2,391.07	14,167.79	
<b>Part-1</b>						
Crop Compensation	699.34	68.71	-	-	768.04	
CWIP - Conductors & EW	891.21	23.56	-	-	914.77	
CWIP - IDC.	5,650.12	1,631.56	-	-	7,281.68	
CWIP - IEDC.	272.02	191.18	-	-	463.19	
CWIP - Ind AS	-95.30	95.30	-	-	-	
CWIP - Insulators	170.27	-	-	-	170.27	
CWIP-Substation/Bays	27.57	567.76	-	-	595.34	
CWIP -Towers	230.77	-	23.26	-	207.50	
CWIP - Transformers	5.20	-	-	-	5.20	
Tree Compensation	13.04	7.54	-	-	20.58	
<b>Part-2</b>	<b>69,433.88</b>	<b>16,416.45</b>	<b>185.12</b>	<b>27,564.40</b>	<b>58,100.82</b>	
Constn.Stores with Contractors-Station Materials	6,667.23	3,324.72	1,140.46	-	8,851.49	
Constn.Stores with Contractors- Towers	121.16	1,472.66	1,302.28	-	291.53	
Const. Stores - In Transit	1,150.24	-	1,150.24	-	-	
Const.Stores With Contractors-Conductors&EW	2,546.12	1,015.29	3,070.82	-	490.58	
Const.Stores With Contractors - Insulators.	203.65	97.06	180.44	-	120.26	
Const. Stores with Contractors-Transformers	1,336.87	900.58	463.07	-	1,774.39	
<b>Part-1</b>						
Constn.Stores with Contractors-Station Materials	3.01	7,273.84	-	-	7,276.85	
Constn.Stores with Contractors- Towers	633.32	-	-	-	633.32	
Const.Stores With Contractors-Conductors&EW	775.68	296.03	-	-	1,071.72	
Const.Stores With Contractors - Insulators.	335.37	-	-	-	335.37	
<b>Total</b>	<b>13,772.64</b>	<b>14,380.17</b>	<b>7,307.31</b>	<b>-</b>	<b>20,845.51</b>	
<b>Total</b>	<b>83,206.53</b>	<b>30,796.62</b>	<b>7,492.42</b>	<b>27,564.40</b>	<b>78,946.33</b>	





**BIHAR GRID COMPANY LIMITED**  
NOTE 5 - Capital Work-in-Progress

(₹ in Lakh)

Particulars	As at 1st April, 2020	Additions during the year	Adjustments	Capitalised during the year	As at 31st March 2021
<b>Part-2</b>					
Crop Compensation	1,051.59	922.97	-	145.90	1,828.66
CWIP - IDC	2,480.64	1,664.37	-	1,123.33	3,021.68
CWIP - Transformers.	1,867.04	7,209.68	-	1,157.59	7,919.13
Tree Compensation	6.89	19.40	-	2.82	23.47
CWIP - Insulators	154.13	392.71	-	71.12	475.73
CWIP - Ind AS	-196.07	-127.63	-	-	-323.70
CWIP - Conductors & EW	3,114.30	2,888.86	-	1,120.79	4,882.36
CWIP - IEDC.	6,160.31	721.19	-	366.73	6,514.76
CWIP-Substation/Bays	12,994.57	19,412.21	-	9,064.60	23,342.18
CWIP -Towers	10,807.67	5,051.78	-	1,974.08	13,885.37
<b>Part-1</b>					
Crop Compensation	616.73	159.09	-	76.48	699.34
CWIP - Conductors & EW	1,143.58	-0.00	-	252.37	891.21
CWIP - IDC.	4,735.84	1,879.66	-	985.38	5,650.12
CWIP - IEDC.	798.01	254.59	-	780.59	272.02
CWIP - Ind AS	-134.98	39.69	-	-	-95.30
CWIP - Insulators	247.08	-	-	76.80	170.27
CWIP-Substation/Bays	587.78	9,234.34	-	9,794.55	27.57
CWIP -Towers	1,401.37	108.43	-	1,279.03	230.77
CWIP -Transformers	-	1,217.84	-	1,212.64	5.20
Tree Compensation	11.03	2.01	-	-	13.04
	<b>47,867.51</b>	<b>51,051.18</b>	<b>-</b>	<b>29,484.81</b>	<b>69,433.88</b>
<b>Part-2</b>					
Constn.Stores with Contractors-Station Materials	20,458.88	-	13,791.66	-	6,667.23
Constn.Stores with Contractors- Towers	3,154.71	-	3,033.56	-	121.16
Const. Stores - In Transit	-	1,150.24	-	-	1,150.24
Const.Stores With Contractors-Conductors&EW	3,490.42	-	944.31	-	2,546.12
Const.Stores With Contractors - Insulators.	440.87	-	237.23	-	203.65
Const. Stores with Contractors-Transformers	3,384.84	-	2,047.97	-	1,336.87
<b>Part-1</b>					
Constn.Stores with Contractors-Station Materials	1,848.17	-	1,845.16	-	3.01
Constn.Stores with Contractors- Towers	493.30	140.02	-	-	633.32
Const.Stores With Contractors-Conductors&EW	370.37	405.31	-	-	775.68
Const.Stores With Contractors - Insulators.	209.93	125.44	-	-	335.37
<b>Total</b>	<b>33,851.50</b>	<b>1,821.01</b>	<b>21,899.87</b>	<b>-</b>	<b>13,772.64</b>
	<b>81,719.01</b>	<b>52,872.20</b>	<b>21,899.87</b>	<b>29,484.81</b>	<b>83,206.53</b>



BIHAR GRID COMPANY LIMITED  
NOTE 6 - OTHER INTANGIBLE ASSETS

(₹ in Lakhs)

Sl. NO.	Particulars	COST		ACCUMULATED AMORTISATION				NET BOOK VALUE		
		As at 1st April, 2021	As at 31st March 2022	Additions during the year	Adjustment during the year	As at 1st April, 2021	Additions during the year	Adjustment during the year	As at 31st March 2022	As at 31st March 2021
1	EDP Software	13.69	13.07	1.39	-	11.09	1.27	-	12.36	2.71
2	Right of Way- Afforestation Expenses	143.32	143.32	-	-	20.95	7.57	-	28.52	114.80
	<b>SUB-TOTAL</b>	<b>157.00</b>	<b>156.39</b>	<b>1.39</b>	<b>-</b>	<b>32.04</b>	<b>8.84</b>	<b>-</b>	<b>40.88</b>	<b>117.51</b>
										<b>124.96</b>

(₹ in Lakhs)

Sl. NO.	Particulars	COST		ACCUMULATED AMORTISATION				NET BOOK VALUE		
		As at 1st April, 2020	As at 31st March 2021	Additions during the year	Adjustment during the year	As at 1st April, 2020	Additions during the year	Adjustment during the year	As at 31st March 2021	As at 31st March 2020
1	EDP Software	13.45	13.69	0.23	-	6.60	4.49	-	11.09	2.60
2	Right of Way- Afforestation Expenses	137.62	143.32	5.69	-	13.62	7.33	-	20.95	122.36
	<b>SUB-TOTAL</b>	<b>151.08</b>	<b>157.00</b>	<b>5.93</b>	<b>-</b>	<b>20.22</b>	<b>11.83</b>	<b>-</b>	<b>32.04</b>	<b>124.96</b>
										<b>130.86</b>

*(Handwritten Signature)*



**BIHAR GRID COMPANY LIMITED**  
**NOTE 7 - INTANGIBLE ASSETS UNDER DEVELOPMENT**

(₹ in Lakh)

Particulars	As at 1st April, 2021	Additions during the year	Adjustments	Capitalised during the year	As at 31st March 2022
1 Right of Way- Afforestation Expenses	16.65	-	-	-	16.65
Total	16.65	-	-	-	16.65

In ₹ (Rupees)

Particulars	As at 1st April, 2020	Additions during the year	Adjustments	Capitalised during the year	As at 31st March 2021
1 Right of Way- Afforestation Expenses	16.65	-	-	-	16.65
Total	16.65	-	-	-	16.65



*(Handwritten signature)*

BIHAR GRID COMPANY LIMITED  
NOTE 8 - Other Non-current Assets

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
<b>Secured against Bank Guarantee:</b>		
Advance to Shandong Taikai HV S.Gear Co.Ltd.	-	118.34
Advance to ABB	63.39	176.61
Advance to TATA PROJECT	10.24	10.24
<b>Un-secured:</b>		
Security Deposit- Alankar Place Office	8.85	8.85
Security Deposit to CDSL	1.50	1.50
Security Deposit to NSDL	1.50	1.50
<b>Grand Total</b>	<b>85.49</b>	<b>317.05</b>

NOTE 9 - Inventories

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Conductors & EW	60.43	60.43
Insulators	7.31	7.31
Other Line Materials	48.19	48.19
Tower Materials	53.92	53.92
<b>Total</b>	<b>169.87</b>	<b>169.87</b>

Notes-Inventory lying idle for issue for last 1 year

NOTE 10 - Trade Receivables

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Trade receivables		
Unsecured Considered good (Bihar State Power Holding Company Limited)	61,867.58	50,630.83
<b>Total</b>	<b>61,867.58</b>	<b>50,630.83</b>

NOTE 11 - Cash and Cash Equivalents

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Balances with banks		
In Current Accounts (with Sweep TD)	12,989.26	11,026.40
<b>Total</b>	<b>12,989.26</b>	<b>11,026.40</b>

NOTE 12 - Other Current Assets

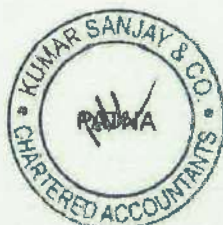
A. Advances Recoverable

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
<b>Part-2</b>		
Deposits for Capital Works	85.44	85.44
Recoverable From Con-Sup-Others	44.84	256.02
<b>Part-1</b>		
Employee Advance	22.76	28.78
CSR Advance	99.85	13.87
GST - TDS Collected/To Be Collected	-	0.24
Prepaid Expenses	84.17	75.88
Recoverable From Con-Sup-Others	20.24	25.75
<b>Sub Total (A)</b>	<b>357.30</b>	<b>479.99</b>

B. Advance Tax and TDS

Particulars	As at 31-March-2022	As at 31-March-2021
<b>Advance Payment of Income Tax</b>		
Opening Balance	3,981.71	321.67
Paid during the year	2,105.09	3,981.71
Adjustment during the year	(3,981.71)	(321.67)
<b>Total</b>	<b>2,105.09</b>	<b>3,981.71</b>
<b>TDS/TCS Collected /to be Collected *</b>		
Opening Balance	204.07	465.21
Accounted for during the year	1,482.49	280.72
Adjustment during the year	(938.70)	(341.85)
<b>Total</b>	<b>747.86</b>	<b>204.07</b>
<b>Income tax recoverable</b>		
Opening Balance	863.52	390.11
Accounted for during the year	2,888.46	863.52
Realised during the year	(863.52)	(390.11)
<b>Total</b>	<b>2,888.46</b>	<b>863.52</b>
<b>Sub Total (B)</b>	<b>5,741.41</b>	<b>5,049.30</b>
<b>Grand Total (A+B)</b>	<b>6,098.71</b>	<b>5,529.30</b>



*(Handwritten signature)*





BIHAR GRID COMPANY LIMITED

NOTE 13 - Equity Share Capital.

Authorized, Issued, Subscribed and Paid up share capital

(₹ in Lakh)

Particulars	As at 31-March-2022		As at 31-March-2021	
	Number of Shares	(₹ in Lakh)	Number of Shares	(₹ in Lakh)
<b>Authorised Share Capital</b>				
Equity Shares of ₹ 10 each	80,00,00,000	80,000.00	80,00,00,000	80,000.00
<b>Total</b>	<b>80,00,00,000</b>	<b>80,000.00</b>	<b>80,00,00,000</b>	<b>80,000.00</b>
<b>Issued Share Capital</b>				
Equity Shares of ₹ 10 each	64,50,70,072	64,507.01	58,05,93,870	58,059.39
<b>Total</b>	<b>64,50,70,072</b>	<b>64,507.01</b>	<b>58,05,93,870</b>	<b>58,059.39</b>

a. Reconciliation of the shares outstanding at the beginning and at the end of the reporting period.

Equity Shares.

Particulars	As at 31-March-2022		As at 31-March-2021	
	No. of Shares	(₹ in Lakh)	No. of Shares	(₹ in Lakh)
At the beginning of the period	58,05,93,870	58,059.39	50,15,91,052	50,159.11
Issued During the period	6,44,76,202	6,447.62	7,90,02,818	7,900.28
<b>Outstanding at the end of the period</b>	<b>64,50,70,072</b>	<b>64,507.01</b>	<b>58,05,93,870</b>	<b>58,059.39</b>

b. Terms/ rights attached to equity shares

The Company has only one class of equity shares having nominal value of Rs.10 per share. Each holder of equity entitled to one vote per share.

In the event of liquidation of the company, the holders of equity shares will be entitled to received remaining assets of the company, after distribution of all preferential amounts. The distribution will be in proportion to the number of equity shares held by the shareholders.

c. Shares held by holding company.

Out of equity shares issued by the company, shares held by the Joint Venture partners are as below:

		(₹ in Lakh)	
		31.03.2022	31.03.2021
<b>Power Grid Corporation of India Limited</b>			
32,25,35,036 equity shares of Rs. 10 each fully paid		32,253.50	29,029.69
<b>Bihar State Power (Holding) Company Ltd.</b>			
32,25,35,036 equity shares of Rs. 10 each fully paid		32,253.50	29,029.69

d. Details of shareholders holding more than 5% shares in the company

	As at 31-March-2022		As at 31-March-2021	
	No. of Shares	% holding in the class	No. of Shares	% holding in the class
<b>Equity Shares of Rs.10 each fully paid</b>				
Power Grid Corporation of India Ltd.*	32,25,35,036	50%	29,02,96,935	50%
Bihar State Power Holding Co. Ltd.**	32,25,35,036	50%	29,02,96,935	50%
	<b>64,50,70,072</b>	<b>100%</b>	<b>58,05,93,870</b>	<b>100%</b>

\* Out of 32,25,35,036 equity shares, 3 shares are held by nominees of Power Grid Corporation of India Limited on its behalf (jointly with Power Grid Corporation of India Limited).

\*\* Out of 32,25,35,036 equity shares, 300 shares are held by nominees of Bihar State Power (Holding) Company Ltd. on its behalf (jointly with Bihar State Power (Holding) Company Ltd.).



*(Handwritten signature)*



BIHAR GRID COMPANY LIMITED

NOTE 14 - Other Equity

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Deduction during the year		-
Balance at the End of the year	-	-
Share application money pending allotment	-	1,299.00
Less : Share Allotted during the year		1,299.00
Total	-	-
<b>Retained Earnings</b>		
Balance at the Beginning of the year	23,513.51	8,031.56
Add : Net Profit for the year	14,396.56	15,481.95
Less : Appropriations to CSR Reserve	-	-
Balance at the End of the year	37,910.07	23,513.51
<b>Total</b>	<b>37,910.07</b>	<b>23,513.51</b>

NOTE 15 - Long-Term Borrowings

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
<b>Secured</b>		
Term Loans		
From other parties		
Loan From REC	1,04,297.09	1,10,196.79
Loan From PFC	95,001.10	82,474.33
<b>Total</b>	<b>1,99,298.19</b>	<b>1,92,671.12</b>

Further Notes

The Company has taken term loan from Rural Electrification Corporation Ltd. (REC) for Part-1 Projects (Sanction Date 31-Oct-2014 for Rs. 1359.49 Crores and 06-Jan-2020 for Rs. 189.82 Crores ) on which interest rate is fixed for each drawal till its repayment in 15 years. The repayment of interest and principal is on quarterly basis. Assets of the Company created out of this loan is hypothecated to REC as security of the loan up to 110% of the loan amount. The effective rate of interest as at 31.03.2022 is 10.54% p.a. (Previous year as at 31.3.2021 10.73% p.a.). Repayment of principal has been started from quarter ending 30.06.2018. There is no default in payment of Principal and Interest.

The Company has also taken term loan from Power Finance Corporation Ltd. (PFC) for Part-2 Projects (Sanction Date - 18-Jan-2018 for Rs. 1350.69 Crores ) on which interest rate is fixed for each drawal till its repayment in 15 years. The repayment of interest and principal is on quarterly basis. Assets of the Company created out of this loan is hypothecated to PFC as security of the loan up to 110% of the loan amount. The effective rate of interest as at 31.03.2022 is 9.13% p.a. (Previous year as at 31.3.2021 9.52%). Repayment of Principal has not been started. There is no default in payment of interest.

NOTE 16 - Other Non-Current Financial Liabilities

In ₹ (Rupees)

Particulars	As at 31-March-2022	As at 31-March-2021
Deposit/Retention Money-contractors/Other	7,098.86	10,937.18
<b>Total</b>	<b>7,098.86</b>	<b>10,937.18</b>



*(Handwritten signature)*



## NOTE 17 - Deferred Tax Liabilities (Net)

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
As per Last Account	13,115.92	13,228.06
Additions during the year	4,302.18	(112.13)
<b>Total</b>	<b>17,418.10</b>	<b>13,115.92</b>

## NOTE 18 - Other Current Financial Liabilities

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Deposit/Retention Money-contractors/Other	6,091.15	4,514.30
<b>Total</b>	<b>6,091.15</b>	<b>4,514.30</b>

## NOTE 19 - Current Borrowing

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Loan from REC	9,984.91	9,622.19
Loan from PFC	1,808.85	1,476.57
<b>Total</b>	<b>11,793.76</b>	<b>11,098.76</b>

## NOTE 20 - Other Current Liabilities

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Statutory Dues	135.92	10,713.15
Audit fee Payable	0.86	3.16
Dead Cheque	113.67	113.58
E M D	18.48	19.40
Other Payables	8,344.94	82.42
PF/GPF	5.77	5.06
Payable to Power Grid	1.79	2.22
Vehicle Expenses Payable	21.16	22.52
Security / Manpower Outsource Payable	213.03	192.13
VPF	-	2.84
Deposit for Capital Works	1,501.83	1,792.24
Security Deposit	293.08	173.71
<b>Total</b>	<b>10,650.54</b>	<b>13,122.44</b>

## NOTE 21 - Provisions

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
Provisions for Employees Benefits		
Salary , PRP, Leave Encashment & Reimbursement	369.64	380.53
Superannuation benefits	126.52	76.38
<b>Total</b>	<b>496.16</b>	<b>456.90</b>

## NOTE 22 - Current Tax Liabilities

(₹ in Lakh)

Particulars	As at 31-March-2022	As at 31-March-2021
As per last year balance sheet	4,200.13	-
Additions during the year	2,898.81	4,200.13
Less: Amount adjusted during the year	4,200.13	-
<b>Total</b>	<b>2,898.81</b>	<b>4,200.13</b>






BIHAR GRID COMPANY LIMITED

NOTE 23 - Revenue from Operations

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Sale of Service		
Transmission Charges	45,262.00	46,020.00
<b>Total</b>	<b>45,262.00</b>	<b>46,020.00</b>

Further Notes:

Transmission charges have been recognised as per Tariff orders issued by Bihar Electricity Regulatory Commission (BERC) on 12.03.2021 for the year 2021-22, the same is subject to Truing up in the next year. Transmission Charges for the year 2019-20 has been trued down by BERC and adjusted in ARR of 2021-22 for ₹ 5,764.00 Lakh.

NOTE 24 - Other income

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Surcharge on transmission charges	5,989.39	2,720.63
Interest from Bank	275.58	614.95
Interest from Others	42.70	109.19
Interest on Income Tax Refund	69.08	17.55
Liquidated Damages Recovered	-	13.54
Insurance Claim	249.87	-
Sale of Scrap	13.24	14.44
<b>Total</b>	<b>6,639.86</b>	<b>3,490.31</b>
Less : Transferred to Expenditure during construction (Net) Note - 30	47.49	193.08
<b>Grand Total</b>	<b>6,592.38</b>	<b>3,297.24</b>

NOTE 25 - Employee Benefit Expenses

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Salaries and Wages	1,849.37	1,506.07
Contribution to Provident Fund and Other Funds	292.05	157.38
Staff Welfare Expenses	83.63	74.05
<b>Total</b>	<b>2,225.05</b>	<b>1,737.49</b>
Less : Transferred to Expenditure during construction (Net) Note - 30	730.04	608.48
<b>Grand Total</b>	<b>1,495.01</b>	<b>1,129.02</b>

NOTE 26 - Finance Costs

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Interest on REC Loan	12,259.02	13,206.26
Interest on PFC Loan	8,359.05	6,780.46
<b>Total</b>	<b>20,618.06</b>	<b>19,986.73</b>
Less : Transferred to Expenditure during construction (Net) Note - 30	3,032.83	3,737.10
<b>Grand Total</b>	<b>17,585.23</b>	<b>16,249.63</b>

NOTE 27 - Depreciation and Amortization Expenses

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Depreciation of Property, Plant & Equipment	10,528.77	9,542.68
Amortisation of Intangible assets	8.84	11.83
<b>Total</b>	<b>10,537.61</b>	<b>9,554.51</b>



*(Handwritten signature)*





BIHAR GRID COMPANY LIMITED

NOTE 28 - Other expenses

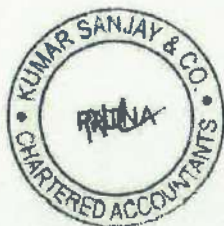
(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Repair & Maintanance		
-Plant & Machinery		
Repair & Maint.-Sub-Stations	852.50	972.21
Repair & Maint.-Trans. Line	4.29	1.95
R&M-Sub-Stn Security-Manpower Outsource	1,363.10	1,185.66
R&M-Transmission-Manpower Outsource	33.42	32.06
-Others	0.89	4.36
Advertisement Expenses	16.63	31.29
Audit Fees	1.75	3.16
Bank Charges	0.76	0.70
Books & Periodicals Expenses	0.42	0.05
Communication Expenses	1.81	15.74
CSR Exp.-Sports,Art & Culture	11.63	51.52
CSR Capital Expenditure	197.15	21.00
Electricity Expenses	161.31	131.21
Entertainment Expenses	9.93	4.89
Filing Fee	2.56	12.82
Insurance	99.22	97.14
Legal Expenses	8.80	3.02
Licence Fee	15.00	100.00
Loss on Sale of Fixed Assets	0.26	0.31
Meeting Expenses	4.29	3.54
Office Expenses	107.64	162.30
Printing & Stationery Expenses	18.35	9.55
Prof./technical Fee	11.49	10.35
Recruitment Expenses	0.31	0.55
Rent	73.47	81.12
Taxes, Brokerage & Commission	0.34	0.37
Telephone & Mobile Expenses	14.91	11.22
Travelling Expenses	52.38	50.58
Vehicle Expenses	197.39	182.78
<b>Total</b>	<b>3,262.01</b>	<b>3,181.44</b>
<b>Less : Transferred to Expenditure during construction (Net) Note - 30</b>	<b>358.84</b>	<b>367.30</b>
<b>Grand Total</b>	<b>2,903.17</b>	<b>2,814.14</b>

NOTE 29 - Tax Expense

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
Tax Expense - Current	2,898.81	4,200.13
Tax Expense - Deferred	4,302.18	(112.13)
<b>Total</b>	<b>7,200.98</b>	<b>4,088.00</b>



*(Handwritten signature)*



BIHAR GRID COMPANY LIMITED

NOTE 30 - Expenditure during construction (Net)

(₹ in Lakh)

Particulars	For the year ended 31-March 2022	For the year ended 31-March 2021
<b>A. Other expenses</b>		
Repair & Maintenance -Others		
Repair & Maint.-Sub-Stations	3.03	14.27
R&M-Sub-Stn Security-Manpower Outsource	180.93	134.82
-Others	0.99	1.53
Advertisement Expenses	5.46	10.96
Bank Charges	0.25	0.02
Books & Periodicals Expenses	0.14	5.51
Electricity Expenses	4.65	5.30
Entertainment Expenses	3.26	1.71
Filing Fee	0.84	4.75
Legal Expenses	2.89	1.06
Meeting Expenses	1.41	1.24
Office Expenses	34.08	63.89
Loss on Sale of Fixed Assets	0.09	0.23
Printing & Stationery Expenses	6.02	3.34
Prof./technical Fee	3.77	4.12
Recruitment Expenses	0.10	0.19
Rent	24.11	28.41
Telephone & Mobile Expenses	4.89	4.01
Travelling Expenses	17.18	17.71
Vehicle Expenses	64.76	64.23
<b>Total A</b>	<b>358.84</b>	<b>367.30</b>
<b>B. Employee Benefit Expenses</b>		
Salaries and Wages	606.78	527.43
Contribution to Provident Fund and Other Funds	95.82	55.11
Staff Welfare Expenses	27.44	25.93
<b>Total B</b>	<b>730.04</b>	<b>608.48</b>
<b>C. Finance Cost</b>		
Interest on REC Loan	1,692.04	1,904.34
Interest on PFC Loan	1,340.79	1,832.76
<b>Total C</b>	<b>3,032.83</b>	<b>3,737.10</b>
<b>D. Less Other Income</b>		
Interest from Bank	41.62	150.61
Interest from Others	5.87	42.46
<b>Total D</b>	<b>47.49</b>	<b>193.08</b>
<b>Grand Total (A+B+C-D)</b>	<b>4,074.22</b>	<b>4,519.81</b>



*(Handwritten signature)*



## Notes to Financial Statements

### 31. Exceptional and Extraordinary Items

There are no exceptional and extraordinary items as at the Balance Sheet date.

### 32. Auditors Remuneration

S. No.	Particulars	FY 2021-22 (₹. in Lakh)	FY 2020-21 (₹. in Lakh)
1	Audit Fees	0.75	0.75
2	Tax Audit Fee	0.40	0.30
3	Other Matters	0.60	0.15
	<b>Total</b>	<b>1.75</b>	<b>1.20</b>

### 33. Employee Benefits

The obligation as per Accounting Standard-15 "Employee Benefits" has been provided by the JV Partners. The Company has provided Short term liability in respect of the same.

### 34. The disclosure as per AS 18 - Related Party Disclosure :

The BIHAR GRID COMPANY LIMITED is a Joint Venture between Power Grid Corporation of India Ltd. and BIHAR STATE POWER(HOLDING) COMPANY LIMITED. All key decisions are taken by the Board of BIHAR GRID COMPANY LIMITED where nominees of POWERGRID and BIHAR STATE POWER(HOLDING) COMPANY LIMITED exercise control.

#### Details of Related parties and nature of relationship :

S. No.	Name of the Related Party	Nature of Relationship
1.	Power Grid Corporation of India Limited.	JV partner
2.	Bihar State Power (Holding) Company Limited	JV partner

#### Details of Related party transactions :

The following transactions occurred with related parties:

Particulars	(₹ in Lakh)	
	As on 31st March 2022	As on 31st March, 2021
<b>Power Grid Corporation of India Ltd. (JV Partner)</b>		
Investments Received during the year (Equity)	3,223.81	3,950.14
Reimbursement of Expenses	605.10	445.74
Post Award Techno Managerial Service	148.55	151.39

Particulars	(₹ in Lakh)	
	As on 31st March 2022	As on 31st March, 2021
<b>Bihar State Power (Holding) Company Limited (JV Partner)</b>		
Investments Received during the year (Equity)	3,223.81	3,950.14
Transmission Charges & Surcharge	51,251.39	48,740.63






35. Borrowing cost

Borrowing Cost of ₹ 3,032.83/-Lakh (Previous ₹ 3,737.10/-Lakh) has been adjusted in the Property Plant & Equipment (PPE) / Capital Work in Progress (CWIP) as per Ind AS 23- "Borrowing Costs".

36. Dues to Micro and Small Enterprises

Based on information available with the company, there are few suppliers/service providers who are registered as micro, small or medium enterprise under The Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act, 2006). Information in respect of micro and small enterprises as required by Companies Act 2013 and MSMED Act, 2006 is given as under:

(₹ in lakh)

Sr. No	Particulars	For the year ended 31st March, 2022	For the year ended 31 <sup>st</sup> March, 2021
1	Principal amount and interest due thereon remaining unpaid to any supplier as at end of each accounting year: Principal Interest	176.98 Nil	116.21 Nil
2	The amount of Interest paid by the buyer in terms of section 16 of the MSMED Act, 2006 along with the amount of the payment made to the supplier beyond the appointed day during each accounting year	Nil	Nil
3	The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under MSMED Act, 2006	Nil	Nil
4	The amount of interest accrued and remaining unpaid at the end of each accounting year.	Nil	Nil
5	The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the small enterprise for the purpose of disallowance as a deductible expenditure under section 23 of the MSMED Act 2006	Nil	Nil

37. Key Management Personnel

Sr. No.	Name of Director	Designation	Date of Appointment	Date of Resignation
1.	Shri. Sanjeev Hans	Chairman & Director	01.07.2021	Continuing
2.	Shri. Mahendra Kumar Singh	Managing Director	22.12.2020	Continuing
3.	Mrs. Seema Gupta	Woman Director	20.09.2018	Continuing
4.	Shri. K. Sreekant	Director	26.09.2019	Continuing
5.	Shri. Raju Lakshmanan	Nominee Director	19.06.2020	Continuing
6.	Shri. Sandeep Kumar R Pudukalkatti	Director	07.02.2017	31.12.2021
7.	Shri. T.C. Sarmah	Director	22.12.2015	31.12.2021
8.	Shri. Mukul Kumar Gupta	Director	23.02.2022	Continuing
9.	Shri. Yugesh Kumar Dixit	Additional Director	23.02.2022	Continuing
10.	Shri. Madhav Kumar Choudhary	CFO	19.06.2020	Continuing
11.	Mrs. Niketa Sinha	Company Secretary	19.09.2016	Continuing



*(Handwritten signature)*





### Remuneration to Key Managerial Personnel

Remuneration paid to Directors ₹ 80.20 Lakh (previous year ₹ 75.97 Lakh) Advance to directors is ₹ NIL (previous year ₹ NIL).

### 38. Segment Information

#### Business Segment

The Board of Directors is the company's Chief operating decision maker who monitors the operating results of its business segments separately for the purpose of making decisions about resource allocation and performance assessment. One reportable segments have been identified on the basis of product/services. The company has a single reportable segment i.e., Power transmission network for transmission system.

The operations of the company are mainly carried out within the country and therefore there is no reportable geographical segment.

### 39. Earnings Per Share

Particulars	(₹ in Lakh)	
	For the year ended 31.03.2022	For the year ended 31.03.2021
(a) Basic and diluted earnings per share attributable to the equity holders of the company	2.37	2.86
(b) Total Earnings attributable to the equity holders of the company	14,396.56	15,481.95
(c) Weighted average number of shares used as the denominator	60,76,16,288	54,15,90,458

### 40. Fair Value Measurements

Financial Instruments by category	31 <sup>st</sup> March, 2022		31 <sup>st</sup> March, 2021	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<b>Financial Assets</b>				
Trade Receivable	61,867.58	61,867.58	50,630.83	50,630.83
Cash & cash Equivalents	12,989.26	12,989.26	11,026.40	11,026.40
<b>Total Financial assets</b>	<b>74,856.84</b>	<b>74,856.84</b>	<b>61,657.23</b>	<b>61,657.23</b>
<b>Financial Liabilities</b>				
Borrowings	1,99,298.19	1,99,298.19	1,92,671.12	1,92,671.12
Other Non Current financial Liabilities	7098.86	7098.86	11,356.17	11,356.17
Other Financial Liabilities				
Current	6091.15	6091.15	15,613.06	15,613.06
<b>Total financial liabilities</b>	<b>2,12,488.20</b>	<b>2,12,488.20</b>	<b>2,19,640.35</b>	<b>2,19,640.35</b>

#### Further notes:

The carrying amounts of trade receivables, cash and cash equivalents and other current financial liabilities are considered to be the same as their fair value, due to their short term nature.

The carrying amount of borrowings are considered to be the same as their fair value, due to their fixed rate of interest for each drawl.



#### 41. Capital management

##### a) Risk Management

The company's objectives when managing capital are to

- maximize the shareholder value;
- safeguard its ability to continue as a going concern;
- maintain an optimal capital structure to reduce the cost of capital.

For the purpose of the company's capital management, equity capital includes issued equity capital and all other equity reserves attributable to the equity holders of the company. The company manages its capital structure and makes adjustments in light of changes in economic conditions, regulatory framework and requirements of financial covenants with lenders. To maintain or adjust the capital structure, the company may adjust the dividend payment to shareholders, regulate investments in new projects, return capital to shareholders or issue new shares.

No changes were made in the objectives, policies or processes for managing capital during the years ended 31 March 2021.

##### b) Dividends

No dividend has been declared by the company in the previous year and current year.

#### 42. Financial Risk Management:

The Company's principal financial liabilities comprise loans and borrowings denominated in Indian rupees, trade payables and other payables. The main purpose of these financial liabilities is to finance the Company's capital investments and operations.

The Company's principal financial assets include trade and other receivables, and cash and cash equivalents that are generated from its operations.

The Company's activities expose it to the following financial risks, namely,

- a) Credit risk,
- b) Liquidity risk,
- c) Market risk.

This note presents information regarding the company's exposure, objectives, policies and processes for measuring and managing these risks.

The management of financial risks by the Company is summarized below:-

##### a) Credit Risk

Credit risk is the risk that counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss.

A default on a financial asset is when the counterparty fails to make contractual payments within 3 years of when they fall due. This definition of default is determined considering the business environment in which the Company operates and other macro-economic factors.

Assets are written-off when there is no reasonable expectation of recovery, such as a debtor declaring bankruptcy or failing to engage in a repayment plan with the Company. Where loans or receivables have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivable due. Where recoveries are made, these are recognized in the statement of profit and loss.



i. Trade Receivables and Unbilled Revenue

The Company primarily provides transmission facilities to intra-state transmission service customers (DICs) comprising mainly NBPDCI and SBPDCL (a wholly owned subsidiaries of Bihar State Power (Holding) Company Limited). BERC tariff regulations allows payment against monthly bills towards transmission charges within a period of 60 days from the date of the bill and levy of charge on delayed payment beyond 60 days. A granted rebate is provided by the company for payment made within 30 days.

**Ageing analysis of trade receivables**

The ageing analysis of the trade receivables is as below:-

Ageing						(₹. in Lakh)
	0-30 days past due	31-60 days past due	61-90 days past due	91-120 days past due	More than 120 days past due	Total
31.03.2022	5,555.30	3,772.00	3,772.00	5,355.72	43,412.56	61,867.58
31.03.2021	8,057.96	3,835.00	-	8,787.32	29,950.55	50,630.83

ii. Other Financial Assets (excluding trade receivables and unbilled revenue)

• Cash and cash equivalents

The Company held cash and cash equivalents of ₹ 12,989.26 Lakh on 31<sup>st</sup> March, 2022. The cash and cash equivalents are held with public sector banks and high rated private sector banks and do not have any significant credit risk.

Considering the above factors and the prevalent regulations, the trade receivables and unbilled revenue continue to have a negligible credit risk on initial recognition and thereafter on each reporting date.

b) Liquidity risk

Liquidity risk management implies maintaining sufficient cash and marketable securities and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due. The Company monitors its risk of a shortage of funds using a liquidity planning tool. The Company has entered into Inter-Corporate Loan Agreement for Funding of its Obligations. For this, Company Provided Quarterly Cash Flows in Advance To Holding Company along with Monthly Requirement.

Management monitors rolling forecasts of the Company's liquidity position comprising the undrawn borrowing facilities below and cash and cash equivalents on the basis of expected cash flows.

The Company depends on both internal and external sources of liquidity to provide working capital and to fund capital expenditure.

c) Market Risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk:

- (i) Currency risk
- (ii) Interest rate risk
- (iii) Other price risk, such as equity price risk and commodity risk

(i) Currency risk

As on Reporting date the Company does not have any exposure to currency risk in respect of foreign currency denominated loans and borrowings and procurement of goods and services whose purchase consideration foreign currency except as following

The Company's exposure to foreign currency risk not hedged by a derivative instrument or otherwise at the end of the reporting period is as follows:



*(Handwritten signature)*





Particulars	Amount in Foreign Currency (in Lakh)			Amount (₹ in Lakh)	
		As at 31.03.2022	As at 31.03.2021	As at 31.03.2022	As at 31.03.2021
Trade Payables/deposits and retention money	USD	19.79	19.11	1493.24	3318.63
	JPY	-	-	-	-
	CAD	-	-	-	-
Amount of contracts remaining to be executed	USD	4.253	8.222	324.63	627.57
	JPY	-	-	-	-
	CAD	-	-	-	-

(ii) **Interest rate risk**

The Company has taken borrowings from PFC & REC at fixed interest rate which get reset at every three years cycle. The Company's interest rate risk is not considered significant; hence sensitivity analysis for the risk is not disclosed.

43. **Capital and other Commitments**

Particulars	(₹. in Lakh)	
	As at 31 <sup>st</sup> March, 2022	As at 31 <sup>st</sup> March, 2021
Estimated amount of contracts remaining to be executed on capital account and not provided for (net of advances)	1035.63	8713.91

44. **Contingent Liabilities and contingent assets**

**A. Contingent Liabilities**

Claims against the Company not acknowledged as debts in respect of:

(i) **Disputed Income Tax/Sales Tax/Excise/Municipal Tax Matters**

Disputed Income Tax Matters amounting to ₹106.49 Lakh (Previous Year ₹104.40 Lakh) are being contested before Appellate Authorities. Many of these matters have been disposed of in favour of the company but are disputed before higher authorities by the concerned departments. Against total claim of ₹104.40 Lakh (Previous Year ₹104.40 Lakh), provision of ₹106.49 Lakh (Previous Year ₹104.40 Lakh) is made as contingent liability as it is not a wilful default and in management opinion, same is not expected to be upheld by the court.

(ii) **Others**

- a) Other contingent liabilities amounts to ₹0.00 Lakh (Previous Year ₹0.00 Lakh) which includes claim of ₹0.00 Lakh (Previous Year ₹0.00 Lakh) related to Arbitration cases/ROW cases.

**B. Contingent Assets**

While determining the tariff of the Company, BERC has disallowed certain capital expenditure incurred by the Company. The Company aggrieved over such issues has filed appeals with the Appellate Tribunal for Electricity (APTEL)/Hon'ble Supreme Court against the tariff orders issued by the BERC. Based on past experience, the Company believes that a favourable outcome is probable. However, it is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the judgement

45. **Income Tax expense**

The company has opted to pay Income tax as per Provisions of Section 115BAA of the Income Tax Act 1961 since financial year 2019-20.



*(Handwritten signature)*





46. Corporate Social Responsibilities (CSR)

As per section 135 of the Companies Act, 2013, every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during any financial year, every year the company is required to spend, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy. The details of CSR expenses for the year are as under:-

(₹ in Lakh)

Particulars	For the year ended 31st March 2022	For the year ended 31st March 2021
A. Gross Amount required to be spent during the year	493.01	336.24
B. Amount approved by the Board to be spent during the year	229.29	173.66
<b>Total</b>	<b>493.01</b>	<b>336.24</b>
<b>Amount spent on CSR</b>		
a) Construction or acquisition of any asset	11.63	21.00
b) Education and Skill Development expenses	-	-
c) Sports, Art and Culture expenses	123.97	51.52
d) Amount transferred to The Cleen Ganga fund specified under Schedule VII as per second proviso to section 135(5).)	73.18	-
<b>Total Amount spent on CSR</b>	<b>208.78</b>	<b>72.52</b>
<b>Opening CSR Liability/Provision</b>	<b>251.25</b>	<b>263.72</b>
Add: CSR Expense	208.78	72.52
Less: Amount paid in Cash	275.80	84.99
<b>Closing CSR Liability/Provision</b>	<b>184.23</b>	<b>251.25</b>

47. Additional Regulatory Information as per Schedule III to the Companies Act, 2013

a) Details of immovable properties where title deeds are not in the name of the company: NIL

Type of Property	Description of item of property	Gross carrying value as on 31.03.2022 (₹ in lakh)	Gross carrying value as on 31.03.2021 (₹ in lakh)	Title deeds held in the name of	Whether title deed holder is a promoter, director or relative of promoter/director or employee of promoter/director	Property held since which date	Reason for not being held in the name of the company
Freehold land	-	-	-	-	-	-	-
Freehold land	-	-	-	-	-	-	-
ROU Asset-Land	-	-	-	-	-	-	-
ROU Asset-Land	-	-	-	-	-	-	-
Building	-	-	-	-	-	-	-
Building	-	-	-	-	-	-	-
ROU Asset-Buildings	-	-	-	-	-	-	-
ROU Asset-Buildings	-	-	-	-	-	-	-



*(Handwritten signature)*



b) Aging of Capital Work in Progress is as follows:

(₹ in lakh)					
Particulars	<1 Year	1-2 Years	2-3 Years	>3 Years	Total
<b>As at 31.03.2022</b>					
Project in progress	17928.41	32065.92	27815.72	1136.24	78946.29
Projects temporarily suspended	-	-	-	-	-
<b>Total</b>	<b>17928.41</b>	<b>32065.92</b>	<b>27815.72</b>	<b>1136.24</b>	<b>78946.29</b>
<b>As at 31.03.2021</b>					
Project in progress	20453.40	27815.73	1136.24	33801.16	83206.53
Projects temporarily suspended	-	-	-	-	-
<b>Total</b>	<b>20453.40</b>	<b>27815.73</b>	<b>1136.24</b>	<b>33801.16</b>	<b>83206.53</b>

c) For capital-work-in progress (CWIP), whose completion is overdue or has exceeded its cost compared to its original plan, CWIP completion schedule is as follows:

(₹ in lakh)						
Particulars	Project	<1 Year	1-2 Years	2-3 Years	>3 Years	Total
Project in progress	-	-	-	-	-	-
Project in progress	-	-	-	-	-	-

d) Aging of Intangible assets under development is as follows:

(₹ in lakh)					
Particulars	<1 Year	1-2 Years	2-3 Years	>3 Years	Total
<b>As at 31.03.2022</b>					
Project in progress	-	0.01	-	16.64	16.65
Projects temporarily suspended	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>0.01</b>	<b>-</b>	<b>16.64</b>	<b>16.65</b>
<b>As at 31.03.2021</b>					
Project in progress	0.01	-	-	16.64	16.65
Projects temporarily suspended	-	-	-	-	-
<b>Total</b>	<b>0.01</b>	<b>-</b>	<b>-</b>	<b>16.64</b>	<b>16.65</b>

e) For Intangible assets under development, whose completion is overdue or has exceeded its cost compared to its original plan, Intangible assets under development completion schedule is as follows:

(₹ in lakh)						
Particulars	Project	<1 Year	1-2 Years	2-3 Years	>3 Years	Total
Project in progress	Right of Way-Afforestation Expenses	-	0.01	-	16.64	16.65
Project in progress	-	-	-	-	-	-

f) No proceeding has been initiated or pending against the company for holding any benami property under the Prohibition of Benami Property Transactions Act, 1988 (as amended) and rules made thereunder as at the end of the financial year.

g) The Company is not sanctioned any working capital limit secured against current assets by any Finance Institutions.

h) The company was not declared as a wilful defaulter by any bank or financial Institution or other lender during the financial year.



*(Handwritten signature)*





i) Relationship with Struck off Companies:

(₹ in lakh)

Name of struck off Company	Nature of transactions with struck off Company	Balance outstanding as on 31.03.2022	Balance outstanding as on 31.03.2021	Relationship with the Struck off company
EMCO Ltd.	Receivables	12775.46	12775.46	Vendor
	Payables	1092.39	1092.39	Vendor
	Other outstanding balances (to be specified)	-	-	

- j) The Company has registered charges or satisfaction of charges during the financial year with Registrar within statutory period.
- k) The company has complied with the number of layers prescribed under clause (87) of section 2 of the Act read with the Companies (Restriction on number of Layers) Rules, 2017 during the financial year.
- l) Ratios

Ratio	Numerator	Denominator	Current Year	Previous Year	Variance	Reason for variance >25%
(a) Current Ratio	Current Assets	Current Liabilities	2.54	2.02	25.96	Due to increase of current Assets "Debtors"
(b) Debt-Equity Ratio	Total Debt	Shareholder's Equity	1.95	2.36	-17.61	
(c) Debt Service Coverage Ratio	Profit for the period + Depreciation and amortization expense + Finance costs	Interest & Lease Payments + Principal Repayments	1.72	1.75	-1.85	
(d) Return on Equity Ratio	Profit for the period	Average Shareholder's Equity	0.23	0.29	-17.90	
(e) Inventory turnover ratio	Revenue from Operations	Average Inventory	266.46	270.92	-1.65	
(f) Trade Receivables turnover ratio	Revenue from Operations	Average Trade Receivables (before deducting provision)	0.80	1.28	-37.37	Average collection increased
(g) Trade payables turnover ratio	Gross Other Expense (-) FERV, Provisions, Loss on disposal of PPE	Average Trade payables	0.35	0.30	14.16	
(h) Net capital turnover ratio	Revenue from Operations	Current Assets - Current Liabilities	0.92	1.35	-32.10	Due to increase of current Assets "Debtors"



*(Handwritten signature)*

(i) Net profit ratio	Profit for the period	Revenue from Operations	0.32	0.34	-5.45	
(j) Return on Capital employed	Earnings before interest and taxes	Tangible Net Worth + Total Debt + Deferred Tax Liability	0.12	0.12	0.00	
(k) Return on investment	$\{MV(T1) - MV(T0) - \text{Sum } [C(t)]\}$	$\{MV(T0) + \text{Sum } [W(t) * C(t)]\}$	0.04	0.05	-14.97	

#### 48. Previous Year Figures

1. The Previous Year's Figures have been reclassified/re-grouped wherever necessary.
2. Figures have been rounded off nearest to Rupees in Lakh up to Two Decimal.

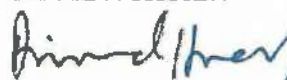
The Notes to Accounts (1 to 48) form an integral part of these financial statements.

As per our report of even date

For Kumar Sanjay & Co.

Chartered Accountants

ICAI FRN : 113362W



(Binod Kumar)

Partner

Membership No.- 417916



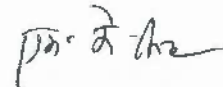
For and on behalf of the Board of Directors



(Sanjeev Hans)

Chairperson

DIN-05342058



(Mahendra Kumar Singh)

Managing Director

DIN- 08989333



(Niketa Sinha)

Company Secretary



(Madhav Kumar Choudhary)

CFO

Place: Patna

Date : 26.05.2022

Place: Patna

Date : 26.05.2022







SL NO.	Borrower Name	Scheme Code	Scheme Name	Loan Number	Minor Category	Major Category	Disbursement Date	Interest Rate	Current ROI Effective Date	Loan Term	Outstanding Balance	Customer Grading	Weight of Loan Interest
7548	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-1	Strength of IT System in Bihar	QQ-CPU-446-7625-1	P-SI (Transmission)	Transmission	19-Feb-15	10.5	19-Feb-21	216	365581.94.46	A	0.002077
7549	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-2	Strength of IT System in Bihar	QQ-CPU-446-7625-2	P-SI (Transmission)	Transmission	02-Mar-15	10.5	02-Mar-21	216	11000000	A	0.009283
7550	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-3	Strength of IT System in Bihar	QQ-CPU-446-7625-3	P-SI (Transmission)	Transmission	27-Mar-15	10.5	27-Mar-21	216	155656666.7	A	0.018712
7551	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-4	Strength of IT System in Bihar	QQ-CPU-446-7625-4	P-SI (Transmission)	Transmission	13-May-15	9.32	13-May-21	216	9184566.74	A	0.006021
7552	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-5	Strength of IT System in Bihar	QQ-CPU-446-7625-5	P-SI (Transmission)	Transmission	01-Jul-15	9.32	01-Jul-21	216	213989376.3	A	0.019724
7553	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-6	Strength of IT System in Bihar	QQ-CPU-446-7625-6	P-SI (Transmission)	Transmission	16-Oct-15	9.32	16-Oct-21	216	375999998.8	A	0.032728
7554	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-7	Strength of IT System in Bihar	QQ-CPU-446-7625-7	P-SI (Transmission)	Transmission	30-Nov-15	9.22	30-Nov-21	216	180333333.2	A	0.013156
7555	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-8	Strength of IT System in Bihar	QQ-CPU-446-7625-8	P-SI (Transmission)	Transmission	13-Jan-16	9.22	13-Jan-22	216	205933333.3	A	0.017967
7556	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-9	Strength of IT System in Bihar	QQ-CPU-446-7625-9	P-SI (Transmission)	Transmission	17-Feb-16	8.81	17-Feb-22	216	149013333.3	A	0.013031
7557	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-10	Strength of IT System in Bihar	QQ-CPU-446-7625-10	P-SI (Transmission)	Transmission	07-Mar-16	8.81	07-Mar-22	216	488960208	A	0.043604
7558	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-11	Strength of IT System in Bihar	QQ-CPU-446-7625-11	P-SI (Transmission)	Transmission	28-Mar-16	8.81	28-Mar-22	216	207800000	A	0.019131
7559	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-12	Strength of IT System in Bihar	QQ-CPU-446-7625-12	P-SI (Transmission)	Transmission	31-Mar-16	8.81	31-Mar-22	216	41338647.48	A	0.003672
7560	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-13	Strength of IT System in Bihar	QQ-CPU-446-7625-13	P-SI (Transmission)	Transmission	11-Apr-16	11	30-Jun-19	216	140433333.3	A	0.013161
7561	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-14	Strength of IT System in Bihar	QQ-CPU-446-7625-14	P-SI (Transmission)	Transmission	25-May-16	11	30-Jun-19	216	192200000	A	0.027927
7562	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-15	Strength of IT System in Bihar	QQ-CPU-446-7625-15	P-SI (Transmission)	Transmission	17-Jun-16	11	30-Jun-19	216	249333333.3	A	0.021874
7563	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-16	Strength of IT System in Bihar	QQ-CPU-446-7625-16	P-SI (Transmission)	Transmission	18-Jun-16	11	18-Jul-19	216	326666666.7	A	0.028232
7564	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-17	Strength of IT System in Bihar	QQ-CPU-446-7625-17	P-SI (Transmission)	Transmission	18-Jul-16	11	18-Jul-19	216	44000000	A	0.004891
7565	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-18	Strength of IT System in Bihar	QQ-CPU-446-7625-18	P-SI (Transmission)	Transmission	18-Jul-16	11	12-Sep-19	216	513333333.3	A	0.044167
7566	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-19	Strength of IT System in Bihar	QQ-CPU-446-7625-19	P-SI (Transmission)	Transmission	20-Oct-16	11	20-Oct-19	216	733333333.3	A	0.061697
7567	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-20	Strength of IT System in Bihar	QQ-CPU-446-7625-20	P-SI (Transmission)	Transmission	21-Dec-16	11	21-Dec-19	216	913333333.3	A	0.081993
7568	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-21	Strength of IT System in Bihar	QQ-CPU-446-7625-21	P-SI (Transmission)	Transmission	31-Dec-16	11	31-Dec-19	216	122808573.7	A	0.010719
7569	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-22	Strength of IT System in Bihar	QQ-CPU-446-7625-22	P-SI (Transmission)	Transmission	14-Feb-17	11	14-Feb-20	216	240000000	A	0.0241257
7570	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-23	Strength of IT System in Bihar	QQ-CPU-446-7625-23	P-SI (Transmission)	Transmission	14-Feb-17	11	14-Feb-20	216	326666666.7	A	0.005852
7571	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-24	Strength of IT System in Bihar	QQ-CPU-446-7625-24	P-SI (Transmission)	Transmission	31-Mar-17	11	31-Mar-20	216	152857438.1	A	0.013375
7572	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-25	Strength of IT System in Bihar	QQ-CPU-446-7625-25	P-SI (Transmission)	Transmission	28-Mar-17	11	28-Mar-20	216	513333333.2	A	0.049191
7573	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-26	Strength of IT System in Bihar	QQ-CPU-446-7625-26	P-SI (Transmission)	Transmission	30-Jun-17	11	30-Jun-20	216	286000000	A	0.0230236
7574	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-27	Strength of IT System in Bihar	QQ-CPU-446-7625-27	P-SI (Transmission)	Transmission	30-Jun-17	11	30-Jun-20	216	278171735.2	A	0.0344037
7575	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-28	Strength of IT System in Bihar	QQ-CPU-446-7625-28	P-SI (Transmission)	Transmission	30-Jun-17	11	30-Jun-20	216	168420558.1	A	0.0147733
7576	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-29	Strength of IT System in Bihar	QQ-CPU-446-7625-29	P-SI (Transmission)	Transmission	06-Sep-17	10.5	06-Sep-20	216	580000000	A	0.0481266
7577	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-30	Strength of IT System in Bihar	QQ-CPU-446-7625-30	P-SI (Transmission)	Transmission	27-Dec-17	10.5	27-Dec-20	216	226966666.7	A	0.0198602
7578	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-31	Strength of IT System in Bihar	QQ-CPU-446-7625-31	P-SI (Transmission)	Transmission	31-Dec-17	10.5	31-Dec-21	216	212957477.5	A	0.0196239
7579	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-32	Strength of IT System in Bihar	QQ-CPU-446-7625-32	P-SI (Transmission)	Transmission	25-May-18	9.32	25-May-21	216	183333333.1	A	0.0160423
7580	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-33	Strength of IT System in Bihar	QQ-CPU-446-7625-33	P-SI (Transmission)	Transmission	30-Jun-18	9.32	30-Jun-21	216	6424997.1	A	0.0005521
7581	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-34	Strength of IT System in Bihar	QQ-CPU-446-7625-34	P-SI (Transmission)	Transmission	30-Jun-18	9.32	30-Jun-21	216	227068492.2	A	0.0196932
7582	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-35	Strength of IT System in Bihar	QQ-CPU-446-7625-35	P-SI (Transmission)	Transmission	25-Sep-18	9.32	25-Sep-21	216	283858933.1	A	0.0221072
7583	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-36	Strength of IT System in Bihar	QQ-CPU-446-7625-36	P-SI (Transmission)	Transmission	13-Nov-18	9.32	13-Nov-21	216	208206697.7	A	0.0182549
7584	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-37	Strength of IT System in Bihar	QQ-CPU-446-7625-37	P-SI (Transmission)	Transmission	20-Nov-18	8.81	20-Nov-22	216	320666666.7	A	0.0215138
7585	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-38	Strength of IT System in Bihar	QQ-CPU-446-7625-38	P-SI (Transmission)	Transmission	30-Jun-19	10.5	30-Jun-19	216	13121429.2	A	0.0151535
7586	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-39	Strength of IT System in Bihar	QQ-CPU-446-7625-39	P-SI (Transmission)	Transmission	30-Jun-19	10.5	30-Jun-19	216	378720000	A	0.0331391
7587	Bihar Grid Company Ltd	BR-TO-CPU-446-7625-40	Strength of IT System in Bihar	QQ-CPU-446-7625-40	P-SI (Transmission)	Transmission	17-Dec-19	10.5	17-Dec-19	216	1095308.2	A	0.0187073
7588	Bihar Grid Company Ltd	BR-TO-CPU-446-18885-1	Additional loan of Rs.188.82 C	QQ-CPU-446-18885-1	P-SI (Transmission)	Transmission	10-Jun-20	10.5	10-Jun-20	152	207058823.6	A	0.0181181
7589	Bihar Grid Company Ltd	BR-TO-CPU-446-18885-2	Additional loan of Rs.189.82 C	QQ-CPU-446-18885-2	P-SI (Transmission)	Transmission	17-Sep-20	10	17-Sep-20	152	390980519.6	A	0.0342119
7590	Bihar Grid Company Ltd	BR-TO-CPU-446-18885-3	Additional loan of Rs.189.82 C	QQ-CPU-446-18885-3	P-SI (Transmission)	Transmission	13-Dec-20	10	13-Dec-20	152	332833041.2	A	0.0291981
7591	Bihar Grid Company Ltd	BR-TO-CPU-446-18885-4	Additional loan of Rs.189.82 C	QQ-CPU-446-18885-4	P-SI (Transmission)	Transmission	08-Dec-21	9.75	08-Dec-21	180	4478892.26	A	0.00382
7592	Bihar Grid Company Ltd	BR-TO-CPU-446-18764-1	Aug. of Bill transfer and ICT	MM-CPU-446-18764-1	P-SI (Transmission)	Transmission	11-Feb-22	8.75	11-Feb-22	180	199995601.2	A	0.0175003
7593	Bihar Grid Company Ltd	BR-TO-CPU-446-18764-2	Aug. of Bill transfer and ICT	MM-CPU-446-18764-2	P-SI (Transmission)	Transmission	23-Mar-22	8.75	23-Mar-22	180	200000000	A	0.0175006
7594	Bihar Grid Company Ltd	BR-TO-CPU-446-18764-3	Aug. of Bill transfer and ICT	MM-CPU-446-18764-3	P-SI (Transmission)	Transmission	23-Mar-22	8.75	23-Mar-22	180	211428200.899.13	A	10.27

Sl.No	Name	Instal No.	Category	From Date	To Date	Disburseme nt Date	Debit Amt	Credit Amt	Days	ROI	O/S Bal	Int Amount	Weight of Loan outstandi ng	Interest weight
1	BIHAR GRID COMPANY LTD	1	Transmission	16-Jan-22	16-Apr-22	20-04-2018	-	-	91	9.15	25,00,00,000.00	57,03,082.00	0.026315	0.240787
2	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-07-2018	-	-	91	9.40	54,52,397.00	1,27,780.00	0.000574	0.005395
3	BIHAR GRID COMPANY LTD	2	Transmission	16-Jan-22	16-Apr-22	16-08-2018	-	-	91	9.40	25,00,00,000.00	58,58,904.00	0.026315	0.247366
4	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-10-2018	-	-	91	9.40	96,93,876.00	2,27,182.00	0.001102	0.009592
5	BIHAR GRID COMPANY LTD	3	Transmission	16-Jan-22	16-Apr-22	26-10-2018	-	-	91	9.40	31,00,00,000.00	72,65,041.00	0.032631	0.306733
6	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-01-2019	-	-	91	9.40	1,85,14,590.00	4,33,901.00	0.001949	0.018319
7	BIHAR GRID COMPANY LTD	4	Transmission	16-Jan-22	16-Apr-22	25-03-2019	-	-	91	9.65	19,00,00,000.00	45,71,192.00	0.02	0.192998
8	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-04-2019	-	-	91	9.65	2,04,55,220.00	4,92,130.00	0.002153	0.020778
9	BIHAR GRID COMPANY LTD	5	Transmission	16-Jan-22	16-Apr-22	18-06-2019	-	-	91	9.65	52,27,00,000.00	1,25,75,589.00	0.05502	0.530947
10	BIHAR GRID COMPANY LTD	6	Transmission	16-Jan-22	16-Apr-22	25-07-2019	-	-	91	9.65	38,50,00,000.00	92,62,678.00	0.040526	0.391074
11	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-07-2019	-	-	91	9.65	2,84,10,431.00	6,83,524.00	0.002991	0.028859
12	BIHAR GRID COMPANY LTD	7	Transmission	16-Jan-22	16-Apr-22	02-08-2019	-	-	91	9.65	1,50,00,00,000.00	3,60,88,356.00	0.157893	1.523667
13	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-10-2019	-	-	91	9.65	7,60,48,396.00	18,29,641.00	0.008005	0.077248
14	BIHAR GRID COMPANY LTD	8	Transmission	16-Jan-22	16-Apr-22	11-11-2019	-	-	91	9.65	75,00,00,000.00	1,80,44,178.00	0.078946	0.761833
15	BIHAR GRID COMPANY LTD	9	Transmission	16-Jan-22	16-Apr-22	03-01-2020	-	-	91	9.65	1,00,00,00,000.00	2,40,58,904.00	0.105262	1.015778
16	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-01-2020	-	-	91	9.65	9,89,43,075.00	23,80,462.00	0.010415	0.100504
17	BIHAR GRID COMPANY LTD	10	Transmission	16-Jan-22	16-Apr-22	13-03-2020	-	-	91	9.40	50,00,00,000.00	1,17,17,808.00	0.052631	0.494731
18	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-04-2020	-	-	91	9.40	13,70,24,464.00	32,11,253.00	0.014423	0.135581
19	BIHAR GRID COMPANY LTD	11	Transmission	16-Jan-22	16-Apr-22	27-05-2020	-	-	91	9.40	50,00,00,000.00	1,17,17,808.00	0.052631	0.494731
20	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-07-2020	-	-	91	9.40	15,08,41,195.00	35,35,056.00	0.015878	0.149252
21	BIHAR GRID COMPANY LTD	12	Transmission	16-Jan-22	16-Apr-22	15-09-2020	-	-	91	9.15	50,00,00,000.00	1,14,06,164.00	0.052631	0.481573
22	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-09-2020	-	-	91	9.40	16,53,00,620.00	38,73,922.00	0.0174	0.163559
23	BIHAR GRID COMPANY LTD	13	Transmission	16-Jan-22	16-Apr-22	30-12-2020	-	-	91	9.40	50,00,00,000.00	1,17,17,808.00	0.052631	0.494731
24	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-01-2021	-	-	91	9.40	17,90,48,619.00	41,96,115.00	0.018847	0.177162
25	BIHAR GRID COMPANY LTD	14	Transmission	16-Jan-22	16-Apr-22	26-03-2021	-	-	91	9.40	20,00,00,000.00	46,87,123.00	0.021052	0.197892
26	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-04-2021	-	-	91	9.15	18,99,09,952.00	43,32,288.00	0.01999	0.182911
27	BIHAR GRID COMPANY LTD	15	Transmission	16-Jan-22	16-Apr-22	07-07-2021	-	-	91	9.15	9,00,00,000.00	20,53,110.00	0.009474	0.086683
28	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-07-2021	-	-	91	9.15	19,99,97,891.00	45,62,418.00	0.021052	0.192627
29	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-10-2021	-	-	91	9.15	21,13,34,864.00	48,21,040.00	0.022246	0.203546
30	BIHAR GRID COMPANY LTD	IDC	Transmission	16-Jan-22	16-Apr-22	15-01-2022	-	-	91	9.15	21,14,34,457.00	48,23,312.00	0.022256	0.203642
31	BIHAR GRID COMPANY LTD	16	Transmission	14-Feb-22	16-Apr-22	14-Feb-22	-	-	61	9.15	20,00,00,000.00	30,58,356.00	0.021052	0.192629
32	BIHAR GRID COMPANY LTD	17	Transmission	23-Mar-22	16-Apr-22	23-Mar-22	-	-	24	9.15	15,00,00,000.00	9,02,466.00	0.015789	0.144472
	Total										9,50,01,10,047.00	22,02,18,591.00		9.47



Particulars	REC	PFC
Total O/S Balance	11,42,82,00,899	9,50,01,10,047
Weighted Interest Rate	10.27	9.47
Weight	0.000000000049	0.000000000045
<b>Total Weighted Average Rate</b>	<b>5.61</b>	<b>4.30</b>
		<b>9.90%</b>



Date of MCLR revision	SBI MCLR Rates	Date from	Date to	Applicable no of days
15-03-2022	7.00%	15-03-2022	12-04-2022	29
15-02-2022	7.00%	15-02-2022	15-03-2022	29
15-01-2022	7.00%	15-01-2022	14-02-2022	31
15-12-2021	7.00%	15-12-2021	14-01-2022	31
15-11-2021	7.00%	15-11-2021	14-12-2021	30
15-10-2021	7.00%	15-10-2021	14-11-2021	31
15-09-2021	7.00%	15-09-2021	14-10-2021	30
15-08-2021	7.00%	15-08-2021	14-09-2021	31
15-07-2021	7.00%	15-07-2021	14-08-2021	31
15-06-2021	7.00%	15-06-2021	14-07-2021	30
15-05-2021	7.00%	15-05-2021	14-06-2021	31
15-04-2021	7.00%	15-04-2021	14-05-2021	30
10-04-2021	7.00%	01-04-2021	14-04-2021	14
<b>Weighted Average MCLR</b>				<b>7.000%</b>





[MCLR Historical Data](#)

### Marginal Cost Lending Rates

Effective Date	Interest Rate (%)						
	ON	1M	3M	6M	1Y	2Y	3Y
15.10.2022	7.60	7.60	7.60	7.90	7.95	8.15	8.25
15.09.2022	7.35	7.35	7.35	7.65	7.70	7.90	8.00
15.08.2022	7.35	7.35	7.35	7.65	7.70	7.90	8.00
15.07.2022	7.15	7.15	7.15	7.45	7.50	7.70	7.80
15.06.2022	7.05	7.05	7.05	7.35	7.40	7.60	7.70
15.05.2022	6.85	6.85	6.85	7.15	7.20	7.40	7.50
15.04.2022	6.75	6.75	6.75	7.05	7.10	7.30	7.40
15.03.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.02.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.01.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.12.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.11.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.10.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.09.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.08.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.07.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.06.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.05.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.04.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.04.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.03.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.02.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.01.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.12.2020	6.65	6.65	6.65	6.95	7.00	7.20	7.30
10.11.2020	6.65	6.65	6.65	6.95	7.00	7.20	7.30

**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: JAN' 2021

Voltage Grade	S.No	Name of TL	Load MW						Remark
			Max	Time	Date	Min	Time	Date	
			A. Power Flow In 220kV transmission line						
220 kv (26 nos.)	1	Hajipur - Amnour ckt-01	-144.18	18:00	19-01-2021	-49.26	15:00	07-01-2021	
	2	Hajipur - Amnour ckt-02	-144	18:00	19-01-2021	-48.52	15:00	07-01-2021	
	3	Patna (PG) - Khagaul ckt-02	-102.06	10:00	22-01-2021	-35.17	04:00	19-01-2021	
	4	Patna (PG) - Khagaul ckt-03	-100.51	10:00	22-01-2021	-35.04	04:00	19-01-2021	
	5	Khijirsarai - Biharsharif ckt-01	-141.75	18:00	19-01-2021	-36.81	12:00	20-01-2021	
	6	Khijirsarai - Biharsharif ckt-02	-142.49	18:00	19-01-2021	-36.82	12:00	20-01-2021	
	7	Khijirsarai - Bodh Gaya ckt-01	87.96	11:00	13-01-2021	-0.03	15:00	23-01-2021	
	8	Khijirsarai - Bodh Gaya ckt-02	88.54	11:00	13-01-2021	-0.01	15:00	25-01-2021	
	9	Khijirsarai - Gaya (PG) ckt-01	-103.67	11:00	13-01-2021	-9.42	15:00	06-01-2021	
	10	Khijirsarai - Gaya (PG) ckt-02	-104.15	11:00	13-01-2021	-9.43	14:00	05-01-2021	
	11	Khijirsarai - Narhat ckt-01	72.35	08:00	11-01-2021	15.27	08:00	29-01-2021	
	12	Khijirsarai - Narhat ckt-02	72.26	08:00	11-01-2021	15.28	08:00	29-01-2021	
	13	Narhat - Sekhopur Sarai ckt-01	44.93	18:00	09-01-2021	-0.54	15:00	03-01-2021	
	14	Narhat - Sekhopur Sarai ckt-02	46.78	18:00	24-01-2021	-0.59	12:00	04-01-2021	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	0	0	0	0	0	0	System connected but no power flow
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	-45.60	09:00	05-01-2021	-10.80	01:00	01-01-2021	
	17	Haveli Kharagpur - Goradh ckt-01	0	0	0	0	0	0	System connected but no power flow
	18	Haveli Kharagpur - Goradh ckt-02	6.20	18:00	02-01-2021	0.40	13:00	01-01-2021	
	19	Mokama-Biharsharif ckt-1	-80.80	21:00	23-01-2021	0.00	03:00	02-01-2021	
	20	Mokama-Biharsharif ckt-2	-82.20	21:00	23-01-2021	0.00	03:00	02-01-2021	
	21	Mokama-BTPS ckt-1	83.60	23:00	20-01-2021	0.00	03:00	02-01-2021	
	22	Mokama-BTPS ckt-2	114.00	04:00	13-01-2021	0.00	03:00	02-01-2021	
	23	Ara(PG)-Dumraon New - 01	31.99	15:00	24-01-2021	0.18	07:00	02-01-2021	
	24	Ara(PG)-Dumraon New - 02	32.04	15:00	24-01-2021	0.18	07:00	02-01-2021	
	25	Dumraon New-Nadokhar - 01	52.47	12:00	30-01-2021	0.06	11:00	01-01-2021	
	26	Dumraon New-Nadokhar - 02	52.66	12:00	30-01-2021	0.01	07:00	02-01-2021	
B. Power Flow In 132 kv transmission line									
132 kv (29 nos.)	1	Amnour - Siwan ckt-01	66.97	18:00	15-01-2021	0.01	10:00	21-01-2021	
	2	Amnour - Siwan ckt-02	69.5	07:00	29-01-2021	0.02	02:00	19-01-2021	
	3	Amnour - Chhapara ckt-01	66.05	19:00	19-01-2021	16.84	03:00	09-01-2021	
	4	Amnour - Chhapara ckt-02	65.73	19:00	19-01-2021	16.83	03:00	09-01-2021	
	5	Khijirsarai - Bodh Gaya ckt-03	0.12	04:00	01-01-2021	0	13:00	07-01-2021	
	6	Khijirsarai - Wajirganj ckt-01	40.72	08:00	27-01-2021	0.01	14:00	10-01-2021	
	7	Khijirsarai - Hulasganj ckt-01	65.59	18:00	19-01-2021	0	09:00	01-01-2021	
	8	Khijirsarai - Jehanabad ckt-01	102.27	17:00	13-01-2021	1.56	07:00	15-01-2021	
	9	Khijirsarai - Jehanabad ckt-02	89.97	18:00	14-01-2021	1.62	07:00	15-01-2021	
	10	Narhat - Nawadah ckt-01	45.30	16:00	19-01-2021	2.73	12:00	20-01-2021	
	11	Narhat - Nawadah ckt-02	57.55	18:00	18-01-2021	2.73	12:00	20-01-2021	
	12	Haveli Kharagpur - Sultanganj ckt-01	-28.80	10:00	04-01-2021	-0.80	04:00	16-01-2021	
	13	Haveli Kharagpur - Sultanganj ckt-02	-28.60	10:00	04-01-2021	-0.80	04:00	22-01-2021	
	14	Haveli Kharagpur - Lakhisarai ckt-01	-8.6	18:00	28-02-2021	-3.7	12:00	28-01-2021	
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	System connected but no power flow
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	
	18	Sekhopur Sarai - Sekhpura ckt-01	18.7	08:00	10-01-2021	6.6	01:00	06-01-2021	
	19	Sekhopur Sarai - Sekhpura ckt-02	18.7	08:00	10-01-2021	6.5	01:00	06-01-2021	
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	
	21	Goradh - Sultanganj ckt-01	0	0	0	0	0	0	System connected but no power flow
	22	Goradh - Sultanganj ckt-02	0	0	0	0	0	0	
	23	Goradh - Kahalganj ckt-01	0	0	0	0	0	0	
	24	Goradh - Kahalganj ckt-02	0	0	0	0	0	0	
	25	Goradh - Sabour ckt-01	-14.90	17:00	21-01-2021	0	0	01-01-2021	
	26	Goradh - Sabour ckt-02	-2.20	12:00	29-01-2021	0	0	01-01-2021	
	27	Mokama-Hatidaha ckt-01	46.30	10:00	08-01-2021	0.00	01:00	01-01-2021	
	28	Mokama-Hatidaha ckt-02	46.70	10:00	08-01-2021	0.00	01:00	01-01-2021	
	29	132kv D/C Dumraon New-Dumraon(BSPTCL)	94.97	18:00	30-01-2021	20.86	23:00	02-01-2021	
C. Power Flow In transformers									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kv	142.98	18:00	19-01-2021	48.87	15:00	07-01-2021	
	2	Tr-02/160 MVA, 220/132 kv	144.97	18:00	19-01-2021	48.89	15:00	07-01-2021	
	3	Tr-01/50 MVA, 132/33 kv	29.3	17:00	27-01-2021	3.9	00:00	09-01-2021	
	4	Tr-02/50 MVA, 132/33 kv	19.02	19:00	30-01-2021	0.05	00:00	12-01-2021	
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kv	128.81	18:00	19-01-2021	01:26	07:00	15-01-2021	
	2	Tr-02/160 MVA, 220/132 kv	132.51	18:00	19-01-2021	07:40	07:00	15-01-2021	
	3	Tr-01/50 MVA, 132/33 kv	Not Supplied						
	4	Tr-02/50 MVA, 132/33 kv	5.63	08:00	21-01-2021	00:43	09:00	03-01-2021	
	5	Tr-03/50 MVA, 132/33 kv	8.1	11:00	23-01-2021	00:14	00:00	05-01-2021	
Narhat GIS	1	Tr-01/160 MVA, 220/132 kv	90.74	09:00	08-01-2021	7.14	08:00	29-01-2021	
	2	Tr-02/160 MVA, 220/132 kv	93.56	18:00	04-01-2021	6.09	08:00	29-01-2021	
	3	Tr-01/50 MVA, 132/33 kv	0.04	01:00	06-01-2021	0.02	18:00	07-01-2021	Charged at no load
	4	Tr-02/50 MVA, 132/33 kv	17.82	18:00	24-01-2021	2.72	06:00	19-01-2021	
Sekhopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kv	25.30	08:00	10-01-2021	0.80	08:00	15-01-2021	
	2	Tr-02/160 MVA, 220/132 kv	26.30	08:00	11-01-2021	1.10	23:00	20-01-2021	
	3	Tr-01/50 MVA, 132/33 kv	16.10	08:00	05-01-2021	0.2	12:00	01-01-2021	
	4	Tr-02/50 MVA, 132/33 kv	24.70	08:00	13-01-2021	0.20	11:00	28-01-2021	
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kv	-23.70	10:00	04-01-2021	-6.30	03:00	01-01-2021	
	2	Tr-02/160 MVA, 220/132 kv	-24.60	10:00	04-01-2021	-7.4	00:00	04-01-2021	
	3	Tr-01/50 MVA, 132/33 kv	5.60	19:00	25-01-2021	1.3	12:00	17-01-2021	
	4	Tr-02/50 MVA, 132/33 kv	3.20	18:00	28-01-2021	1	17:00	21-01-2021	
Goradh GIS	1	Tr-01/160 MVA, 220/132 kv	0	0	0	0	0	0	System connected but no power flow
	2	Tr-02/160 MVA, 220/132 kv	Not Supplied						
	3	Tr-01/50 MVA, 132/33 kv	10.10	18:00	20-01-2021	0	11:00	01-01-2021	
	4	Tr-02/50 MVA, 132/33 kv	5.30	17:00	18-01-2021	0	10:00	11-01-2021	
Mokama GIS	1	Tr-01/160 MVA, 220/132 kv	Not Supplied						
	2	Tr-02/160 MVA, 220/132 kv	90.70	10:00	08-01-2021	0.00	02:00	01-01-2021	
	3	Tr-01/80 MVA, 132/33 kv	Not Supplied						
Dumraon NEW GIS	4	Tr-02/80 MVA, 132/33 kv	0.5	10:00	15-01-2021	0	04:00	18-01-2021	System connected but
	1	Tr-01/160 MVA, 220/132 kv	95.09	18:00	30-01-2021	0.07	09:00	01-01-2021	
Note	2	Tr-01/80 MVA, 132/33 kv	0.5	08:00	01-01-2021	0.04	03:00	01-01-2021	

Negative sign(-) denote Import of power and positive sign (+) denote export of power. For example (-) 144 MW in Hajipur - Amnour ckt-2 denotes Import of 144 MW from Hajipur S/S to Amnour S/S and 66.97 MW in Amnour -Siwan ckt-1 denotes 66.97 MW from Amnour to Siwan S/S.



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: FEB' 2021

Voltage Grade	S.No	Name of TL	Load MW						Remark
			Max		Time		Date		
			Min	Time	Date	Min	Time	Date	
<b>A. Power Flow in 220kV transmission line</b>									
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-127.86	20:00	01-02-2021	-38.38	14:00	27-02-2021	
	2	Hajipur - Amnour ckt-02	-127.00	20:00	01-02-2021	-38.37	14:00	27-02-2021	
	3	Patna (PG) - Khagaul ckt-02	-134.61	08:00	02-02-2021	-28.09	14:00	07-02-2021	
	4	Patna (PG) - Khagaul ckt-03	-133.84	08:00	02-02-2021	-27.85	14:00	07-02-2021	
	5	Khijirsarai - Biharsharif ckt-01	-181.91	08:00	22-02-2021	-23.08	12:00	02-02-2021	
	6	Khijirsarai - Biharsharif ckt-02	-182.44	08:00	22-02-2021	-23.13	12:00	02-02-2021	
	7	Khijirsarai - Bodh Gaya ckt-01	-35.22	11:00	02-02-2021	0.03	02:00	10-02-2021	
	8	Khijirsarai - Bodh Gaya ckt-02	-35.35	11:00	02-02-2021	-0.03	05:00	15-02-2021	
	9	Khijirsarai - Gaya (PG) ckt-01	-67.46	11:00	02-02-2021	-4.68	15:00	26-02-2021	
	10	Khijirsarai - Gaya (PG) ckt-02	-69.11	11:00	02-02-2021	-4.83	15:00	26-02-2021	
	11	Khijirsarai - Narhat ckt-01	124.93	18:00	20-02-2021	20.77	21:00	09-02-2021	
	12	Khijirsarai - Narhat ckt-02	124.99	18:00	20-02-2021	20.77	21:00	09-02-2021	
	13	Narhat - Sekhopur Sarai ckt-01	62.25	18:00	20-02-2021	-0.25	19:00	08-02-2021	
	14	Narhat - Sekhopur Sarai ckt-02	62.15	18:00	20-02-2021	-0.24	19:00	08-02-2021	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	6.60	07:00	10-02-2021	3.1	15:00	30-02-2021	System connected but no power flow
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	71.10	18:00	20-02-2021	0.5	13:00	21-02-2021	
	17	Haveli Kharagpur - Goradih ckt-01	33.50	21:00	09-02-2021	0.90	19:00	20-02-2021	System connected but no power flow
	18	Haveli Kharagpur - Goradih ckt-02	58.70	17:00	20-02-2021	40.5	13:00	20-02-2021	
	19	Mokama-Biharsharif ckt-1	-106.20	20:00	09-02-2021	0.00	05:00	01-02-2021	
	20	Mokama-Biharsharif ckt-2	-107.00	20:00	09-02-2021	0.00	05:00	01-02-2021	
	21	Mokama-BTPS ckt-1	-84.10	09:00	28-02-2021	0.00	06:00	02-02-2021	
	22	Mokama-BTPS ckt-2	-84.10	09:00	28-02-2021	0.00	06:00	02-02-2021	
	23	Ara(PG)-Dumraon New - 01	-41.91	13:00	28-02-2021	-0.01	23:00	07-02-2021	
	24	Ara(PG)-Dumraon New - 02	-41.73	13:00	28-02-2021	-0.01	08:00	10-02-2021	
	25	Dumraon New-Nadokhar - 01	-35.87	19:00	11-02-2021	-0.02	15:00	25-02-2021	
	26	Dumraon New-Nadokhar - 02	-41.47	19:00	11-02-2021	-0.01	15:00	25-02-2021	
<b>B. Power Flow in 132 kV transmission line</b>									
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	71.76	19:00	14-02-2021	9.01	16:00	07-02-2021	
	2	Amnour - Siwan ckt-02	72.33	19:00	14-02-2021	8.98	16:00	07-02-2021	
	3	Amnour - Chhapara ckt-01	67.55	15:00	01-02-2021	12.03	19:00	27-02-2021	
	4	Amnour - Chhapara ckt-02	59.93	20:00	05-02-2021	11.99	19:00	27-02-2021	
	5	Khijirsarai - Bodh Gaya ckt -03	4.93	13:00	07-02-2021	0	12:00	01-02-2021	
	6	Khijirsarai - Wajirganj ckt-01	44.20	08:00	05-02-2021	0	09:00	14-02-2021	
	7	Khijirsarai-Hulasganj ckt-01	72.87	18:00	12-02-2021	0.07	15:00	08-02-2021	
	8	Khijirsarai - Jehanabad ckt-01	81.22	19:00	27-02-2021	15.9	17:00	12-02-2021	
	9	Khijirsarai - Jehanabad ckt-02	81.26	19:00	27-02-2021	15.94	17:00	12-02-2021	
	10	Narhat - Nawadah ckt-01	61.62	09:00	16-02-2021	7.43	12:00	12-02-2021	
	11	Narhat - Nawadah ckt-02	61.45	09:00	16-02-2021	7.41	12:00	12-02-2021	
	12	Haveli Kharagpur - Sultanganj ckt-01	0	0	0	0	0	0	System connected but no power flow
	13	Haveli Kharagpur - Sultanganj ckt-02	0	0	0	0	0	0	
	14	Haveli Kharagpur - Lakhisarai ckt-01	-22.80	19:00	08-02-2021	-3.50	16:00	07-02-2021	
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	
	18	Sekhopur Sarai - Sekhpura ckt-01	19.60	19:00	28-02-2021	5.8	18:00	20-02-2021	System connected but no power flow
	19	Sekhopur Sarai - Sekhpura ckt-02	19.70	19:00	28-02-2021	7.3	15:00	28-02-2021	
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	
	21	Goradih - Sultanganj ckt-01	0.00	00:00	01-02-2021	0.00	00:00	01-02-2021	
	22	Goradih - Sultanganj ckt-02	0.00	00:00	01-02-2021	0.00	00:00	01-02-2021	
	23	Goradih - Kahalgaon ckt-01	31.20	17:00	20-02-2021	0.00	00:00	01-02-2021	
	24	Goradih - Kahalgaon ckt-02	31.30	17:00	20-02-2021	0.00	00:00	01-02-2021	
	25	Goradih - Sabour ckt-01	40.60	20:00	09-02-2021	1.30	08:00	18-02-2021	
	26	Goradih - Sabour ckt-02	0.00	00:00	01-02-2021	0.00	00:00	01-02-2021	
	27	Mokama-Hatidah ckt-01	39.80	08:00	02-02-2021	0.00	11:00	12-02-2021	
	28	Mokama-Hatidah ckt-02	-40.20	08:00	02-02-2021	0.00	11:00	12-02-2021	
	29	132kV D/C Dumraon New-Dumraon(BSPCL)ckt-2	105.20	19:00	11-02-2021	16.88	11:00	12-02-2021	
Substation Details	S.No.	MVA Capacity	Load MW						Remark
			Max		Time		Date		
			Min	Time	Date	Min	Time	Date	
<b>C. Power Flow In transformers</b>									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	125.32	20:00	01-02-2021	38.18	14:00	27-02-2021	
	2	Tr-02/160 MVA, 220/132 kV	127.76	20:00	01-02-2021	38.62	14:00	27-02-2021	
	3	Tr-01/50 MVA, 132/33 kV	23.41	19:00	01-02-2021	0.15	21:00	27-02-2021	
	4	Tr-02/50 MVA, 132/33 kV	18.14	19:00	03-02-2021	3.51	06:00	01-02-2021	
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kV	130.28	19:00	12-02-2021	21.52	17:00	17-02-2021	
	2	Tr-02/160 MVA, 220/132 kV	134.14	19:00	12-02-2021	22.77	17:00	12-02-2021	
	3	Tr-01/50 MVA, 132/33 kV							
Narhat GIS	1	Tr-02/50 MVA, 132/33 kV	6.64	08:00	28-02-2021	0.03	11:00	27-02-2021	
	2	Tr-03/50 MVA, 132/33 kV	9.72	18:00	18-02-2021	0.06	14:00	03-02-2021	
	3	Tr-01/160 MVA, 220/132 kV	71.25	18:00	14-02-2021	16.88	12:00	12-02-2021	
	4	Tr-02/160 MVA, 220/132 kV	126.29	18:00	22-02-2021	15.61	12:00	12-02-2021	
Sekhopur Sarai GIS	1	Tr-01/50 MVA, 132/33 kV	16.73	30:00	26-02-2021	0.02	18:00	23-02-2021	
	2	Tr-02/50 MVA, 132/33 kV	18.84	08:00	17-02-2021	0.03	07:00	27-02-2021	
	3	Tr-01/160 MVA, 220/132 kV	28.00	08:00	25-02-2021	1.00	15:00	04-02-2021	
	4	Tr-02/160 MVA, 220/132 kV	28.20	08:00	26-02-2021	1.00	03:00	03-02-2021	
Haveli Kharagpur GIS	1	Tr-01/50 MVA, 132/33 kV	0.90	08:00	01-02-2021	0.2	20:00	01-02-2021	
	2	Tr-02/50 MVA, 132/33 kV	21.50	08:00	16-02-2021	3.2	02:00	27-02-2021	
	3	Tr-01/160 MVA, 220/132 kV	4.50	18:00	21-02-2021	1.30	22:00	20-02-2021	
	4	Tr-02/160 MVA, 220/132 kV	8.20	18:00	11-02-2021	0.30	13:00	21-02-2021	
Goradih GIS	1	Tr-01/50 MVA, 132/33 kV	5.40	18:00	03-02-2021	0.2	14:00	20-02-2021	
	2	Tr-02/50 MVA, 132/33 kV	3.10	18:00	03-02-2021	0.9	00:00	20-02-2021	
	3	Tr-01/160 MVA, 220/132 kV	62.40	17:00	20-02-2021	0.00	00:00	01-02-2021	
	4	Tr-02/160 MVA, 220/132 kV							
Mokama GIS	1	Tr-01/50 MVA, 132/33 kV	2.50	17:00	10-02-2021	0.00	02:00	07-02-2021	
	2	Tr-02/50 MVA, 132/33 kV	5.20	17:00	01-02-2021	0.00	07:00	01-02-2021	
	3	Tr-01/160 MVA, 220/132 kV	77.60	08:00	02-02-2021	0.00	11:00	12-02-2021	
	4	Tr-01/80 MVA, 132/33 kV							System connected but no power flow
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	105.29	19:00	11-02-2021	17	11:00	12-02-2021	
	2	Tr-01/80 MVA, 132/33 kV	5.43	19:00	15-02-2021	0.04	09:00	03-02-2021	
Note	Negative sign(-) denote import of power and positive sign(+) denote export of power .for example (-) 127.86 MW in Hajipur - Amnour ckt-1 denotes import of 127.86 MW from Hajipur S/S to Amnour S/S and 71.76 MW in Amnour -Siwan ckt-1 denotes 71.76 MW from Amnour to Siwan S/S.								

**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: **MARCH' 2021**

Voltage Grade	S.No	Name of TL	Load MW						Remark
			Max	Time	Date	Min	Time	Date	
<b>A. Power Flow in 220kV transmission line</b>									
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-162.17	14:00	23-03-2021	-19.85	12:00	25-03-2021	
	2	Hajipur - Amnour ckt-02	-132.41	21:00	21-03-2021	-19.61	12:00	25-03-2021	
	3	Patna (PG) - Khagaul ckt-02	-101.75	19:00	09-03-2021	-40.18	15:00	04-03-2021	
	4	Patna (PG) - Khagaul ckt-03	-100.33	19:00	09-03-2021	-39.92	15:00	04-03-2021	
	5	Khijirsarai - Biharsharif ckt-01	-167.08	07:00	07-03-2021	4.97	15:00	30-03-2021	
	6	Khijirsarai - Biharsharif ckt-02	-167.73	07:00	07-03-2021	-4.4	15:00	30-03-2021	
	7	Khijirsarai - Both Gaya ckt-01	107.59	18:00	13-03-2021	-0.01	00:00	17-03-2021	
	8	Khijirsarai - Both Gaya ckt-02	108.15	18:00	13-03-2021	0.01	00:00	17-03-2021	
	9	Khijirsarai - Gaya (PG) ckt-01	-85.59	18:00	30-03-2021	-1.74	15:00	04-03-2021	
	10	Khijirsarai - Gaya (PG) ckt-02	-85.74	18:00	30-03-2021	-2.05	15:00	04-03-2021	
	11	Khijirsarai - Narhat ckt-01	93.76	19:00	20-03-2021	20.9	14:00	25-03-2021	
	12	Khijirsarai - Narhat ckt-02	93.53	19:00	20-03-2021	20.93	14:00	25-03-2021	
	13	Narhat - Sekhopur Sarai ckt-01	56.67	19:00	20-03-2021	9.33	15:00	25-03-2021	
	14	Narhat - Sekhopur Sarai ckt-02	56.83	19:00	20-03-2021	9.26	15:00	25-03-2021	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	7.90	21:00	12-03-2021	0.3	13:00	21-03-2021	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	9.70	22:00	30-03-2021	0.1	07:00	24-03-2021	
	17	Haveli Kharagpur - Goradih ckt-01	0	0	0	0	0	0	
	18	Haveli Kharagpur - Goradih ckt-02	0	0	0	0	0	0	
	19	Mokama-Biharsharif ckt-1	-98.00	15:00	30-03-2021	0.00	04:00	01-03-2021	
	20	Mokama-Biharsharif ckt-2	-99.00	15:00	30-03-2021	0.00	04:00	01-03-2021	
	21	Mokama-BTPS ckt-1	-100.80	09:00	04-03-2021	0.00	03:00	01-03-2021	
	22	Mokama-BTPS ckt-2	-100.20	09:00	04-03-2021	0.00	03:00	01-03-2021	
	23	Ara(PG)-Dumraon New - 01	25.3	16:00	30-03-2021	0.01	09:00	23-03-2021	
	24	Ara(PG)-Dumraon New - 02	25.42	16:00	30-03-2021	0.03	16:00	03-10-2021	
	25	Dumraon New-Nadokhar - 01	-46.91	19:00	20-03-2021	0.08	16:00	03-12-2021	
	26	Dumraon New-Nadokhar - 02	-52.98	19:00	03-12-2021	-2.62	09:00	03-06-2021	
<b>B. Power Flow in 132 kV transmission line</b>									
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	62.30	20:00	23-03-2021	14.28	12:00	02-03-2021	
	2	Amnour - Siwan ckt-02	63.07	20:00	23-03-2021	14.48	12:00	02-03-2021	
	3	Amnour - Chhapara ckt-01	62.17	20:00	22-03-2021	6.47	12:00	25-03-2021	
	4	Amnour - Chhapara ckt-02	61.92	20:00	22-03-2021	6.23	12:00	25-03-2021	
	5	Khijirsarai - Both Gaya ckt -03	31.50	20:00	24-03-2021	0	12:00	02-03-2021	
	6	Khijirsarai - Wajirganj ckt -01	44.79	18:00	08-03-2021	0.06	14:00	04-03-2021	
	7	Khijirsarai-Hulasganj ckt-01	30.95	19:00	31-03-2021	0.07	17:00	08-03-2021	
	8	Khijirsarai - Jehanabad ckt-01	82.57	19:00	10-03-2021	0	13:00	19-03-2021	
	9	Khijirsarai - Jehanabad ckt-02	82.54	19:00	10-03-2021	0	13:00	19-03-2021	
	10	Narhat - Nawadah ckt-01	31.89	19:00	05-03-2021	9.33	15:00	25-03-2021	
	11	Narhat - Nawadah ckt-02	31.78	19:00	05-03-2021	9.26	15:00	25-03-2021	
	12	Haveli Kharagpur - Sultanganj ckt-01	0	0	0	0	0	0	
	13	Haveli Kharagpur - Sultanganj ckt-02	0	0	0	0	0	0	
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	
	18	Sekhopur Sarai - Sekhpura ckt-01	44.60	19:00	20-03-2021	5.9	15:00	25-03-2021	
	19	Sekhopur Sarai - Sekhpura ckt-02	44.70	19:00	20-03-2021	5.8	15:00	25-03-2021	
	20	Sekhopur Sarai - Bharsarif	0	0	0	0	0	0	System connected but no power flow
	21	Goradih - Sultanganj ckt-01	0	0	0	0	0	0	
	22	Goradih - Sultanganj ckt-02	0	0	0	0	0	0	
	23	Goradih - Kahalgaoon ckt-01	0	0	0	0	0	0	
	24	Goradih - Kahalgaoon ckt-02	0	0	0	0	0	0	
	25	Goradih - Sabour ckt-01	-8.50	20:00	31-03-2021	-0.60	09:00	13-03-2021	
	26	Goradih - Sabour ckt-02	0	0	0	0	0	0	
	27	Mokama-Hatidah ckt-01	18.00	19:00	24-03-2021	0.00	12:00	01-03-2021	
	28	Mokama-Hatidah ckt-02	44.50	19:00	20-03-2021	0.00	12:00	01-03-2021	
	29	132kV D/C Dumraon New-Dumraon(B5PTCL)ckt-2	73.19	21:00	23-03-2021	23.10	17:00	13-03-2021	
Substation Details	S.No.	MVA Capacity	Load MW						Remark
			Max	Time	Date	Min	Time	Date	
<b>C. Power Flow in transformers</b>									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	131.77	21:00	21-03-2021	19.56	12:00	25-03-2021	
	2	Tr-02/160 MVA, 220/132 kV	133.43	21:00	21-03-2021	19.77	12:00	25-03-2021	
	3	Tr-01/50 MVA, 132/33 kV	30.25	18:00	23-03-2021	3.01	12:00	25-03-2021	
	4	Tr-02/50 MVA, 132/33 kV	21.15	21:00	30-03-2021	0.06	05:00	13-03-2021	
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kV	123.31	19:00	10-03-2021	19.42	13:00	30-03-2021	
	2	Tr-02/160 MVA, 220/132 kV	126.88	19:00	10-03-2021	20.67	13:00	30-03-2021	
	4	Tr-02/50 MVA, 132/33 kV	7.68	13:00	07-03-2021	0.03	16:00	02-03-2021	
Narhat GIS	5	Tr-03/50 MVA, 132/33 kV	11.08	11:00	07-03-2021	0.06	16:00	06-03-2021	
	1	Tr-01/160 MVA, 220/132 kV	42.03	19:00	05-03-2021	3.77	04:00	13-03-2021	
	2	Tr-02/160 MVA, 220/132 kV	40.18	19:00	05-03-2021	2.80	04:00	13-03-2021	
Sekhopur Sarai GIS	3	Tr-01/50 MVA, 132/33 kV	4.75	19:00	07-03-2021	0.45	11:00	13-03-2021	
	4	Tr-02/50 MVA, 132/33 kV	14.99	18:00	02-03-2021	0.03	11:00	21-03-2021	
	1	Tr-01/160 MVA, 220/132 kV	103.30	19:00	20-03-2021	12.40	05:00	09-03-2021	
	2	Tr-02/160 MVA, 220/132 kV	52.60	19:00	05-03-2021	12.50	05:00	09-03-2021	
Haveli Kharagpur GIS	3	Tr-01/50 MVA, 132/33 kV	0.80	07:00	17-03-2021	0.2	13:00	01-03-2021	
	4	Tr-02/50 MVA, 132/33 kV	22.90	18:00	02-03-2021	1.7	14:00	25-03-2021	
	1	Tr-01/160 MVA, 220/132 kV	5.50	22:00	30-03-2021	1.30	18:00	28-03-2021	
	2	Tr-02/160 MVA, 220/132 kV	4.40	21:00	31-03-2021	0.30	15:00	13-03-2021	
Goradih GIS	3	Tr-01/50 MVA, 132/33 kV	6.60	22:00	31-03-2021	0.2	14:00	16-03-2021	
	4	Tr-02/50 MVA, 132/33 kV	3.50	21:00	31-03-2021	0.9	14:00	12-03-2021	
	1	Tr-01/160 MVA, 220/132 kV	0	0	0	0	0	0	
	2	Tr-01/50 MVA, 132/33 kV	5.80	10:00	26-03-2021	0.00	14:00	01-03-2021	
Mokama GIS	3	Tr-02/50 MVA, 132/33 kV	9.50	11:00	24-03-2021	0.00	20:00	07-03-2021	
	1	Tr-02/160 MVA, 220/132 kV	88.30	19:00	20-03-2021	0.00	01:00	01-03-2021	
Dumraon GIS	2	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	System connected but no power flow
	1	Tr-01/160 MVA, 220/132 kV	78.82	21:00	23-03-2021	25.82	15:00	13-03-2021	
	2	Tr-01/80 MVA, 132/33 kV	4.8	00:00	13-03-2021	0.05	10:00	20-03-2021	
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example {-} 162.17 MW in Hajipur - Amnour ckt-1 denotes import of 162.17 MW from Hajipur S/S to Amnour S/S and 62.30 MW in Amnour -Siwan ckt-1 denotes 62.30 MW from Amnour to Siwan S/S.								



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: April 2021

Voltage Grade	S.No	Name of TL	Load MW							Remark
			Max	Time	Date	Min	Time	Date	Avg of Month	
			A. Power Flow in 220kV transmission line							
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-170.86	11:00	08-04-2021	-38.81	15:00	04-04-2021	-94.26	
	2	Hajipur - Amnour ckt-02	-186.83	14:00	16-04-2021	-0.15	16:00	19-04-2021	-80.22	
	3	Patna (PG) - Khagaul ckt-02	-103.48	21:00	16-04-2021	-29.63	14:00	19-04-2021	72.54	
	4	Patna (PG) - Khagaul ckt-03	-102.26	21:00	16-04-2021	-29.37	14:00	19-04-2021	71.85	
	5	Khijirsarai - Biharsharif ckt-01	-145.72	07:00	01-04-2021	-5.03	04:00	30-04-2021	-69.92	
	6	Khijirsarai - Biharsharif ckt-02	-145.98	07:00	01-04-2021	-3.9	04:00	30-04-2021	-68.82	
	7	Khijirsarai - Bodh Gaya ckt-01	-67.20	20:00	03-04-2021	-0.21	03:00	02-04-2021	-21.59	
	8	Khijirsarai - Bodh Gaya ckt-02	-67.58	20:00	03-04-2021	-0.30	03:00	02-04-2021	-23.05	
	9	Khijirsarai - Gaya (PG) ckt-01	-113.24	20:00	03-04-2021	-8.29	13:00	19-04-2021	-58.53	
	10	Khijirsarai - Gaya (PG) ckt-02	-113.49	20:00	03-04-2021	-8.28	13:00	19-04-2021	-58.64	
	11	Khijirsarai - Narhat ckt-01	99.90	20:00	13-04-2021	10.92	17:00	29-04-2021	69.00	
	12	Khijirsarai - Narhat ckt-02	99.68	20:00	13-04-2021	10.95	17:00	29-04-2021	68.96	
	13	Narhat - Sekhopur Sarai ckt-01	6.50	13:00	06-04-2021	1.7	15:00	13-04-2021	24.97	
	14	Narhat - Sekhopur Sarai ckt-02	12.00	02:00	16-04-2021	0.4	11:00	11-04-2021	24.95	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	6.50	13:00	06-04-2021	1.7	15:00	13-04-2021	0.56	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	12.00	02:00	16-04-2021	0.4	11:00	11-04-2021	8.6	
	17	Haveli Kharagpur - Goradih ckt-01	0	0	0	0	0	0	0	System connected but no power flow
	18	Haveli Kharagpur - Goradih ckt-02	0	0	0	0	0	0	0	
	19	Mokama-Biharsharif ckt-1	-127.10	14:00	02-04-2021	0.00	14:00	01-04-2021	-59.96	
	20	Mokama-Biharsharif ckt-2	-127.90	14:00	02-04-2021	0.00	14:00	01-04-2021	-60.64	
	21	Mokama-BTPS ckt-1	-58.00	07:00	01-04-2021	0.00	07:00	01-04-2021	43.64	
	22	Mokama-BTPS ckt-2	-58.40	07:00	01-04-2021	0.00	07:00	01-04-2021	43.62	
	23	Ara (PG)-Dumraon New - 01	35.93	14:00	02-04-2021	0.01	00:00	20-04-2021	6.97	
	24	Ara (PG)-Dumraon New - 02	35.93	14:00	02-04-2021	0.05	22:00	16-04-2021	7.05	
	25	Dumraon New-Nadokhar - 01	-55.26	14:00	02-04-2021	-4.49	06:00	22-04-2021	-36.19	
	26	Dumraon New-Nadokhar - 02	-55.46	14:00	02-04-2021	-4.55	06:00	22-04-2021	-36.39	
B. Power Flow in 132 kV transmission line										
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	80.12	22:00	21-04-2021	0.04	07:00	22-04-2021	46.05	
	2	Amnour - Siwan ckt-02	80.76	22:00	21-04-2021	0.06	07:00	22-04-2021	46.25	
	3	Amnour - Chhapara ckt-01	52.47	14:00	24-04-2021	0.01	06:00	22-04-2021	32.28	
	4	Amnour - Chhapara ckt-02	70.07	21:00	19-04-2021	0.01	15:00	19-04-2021	32.77	
	5	Khijirsarai - Bodh Gaya ckt -03	33.35	20:00	16-04-2021	0	23:00	18-04-2021	8.2	
	6	Khijirsarai - Wajirganj ckt-01	40.89	19:00	24-04-2021	0	20:00	01-04-2021	7.23	
	7	Khijirsarai-Hulasganj ckt-01	65.53	19:00	01-04-2021	0	00:00	20-04-2021	19.75	
	8	Khijirsarai - Jehanabad ckt-01	89.32	20:00	20-04-2021	3.35	03:00	30-04-2021	58.71	
	9	Khijirsarai - Jehanabad ckt-02	89.28	20:00	20-04-2021	3.35	03:00	30-04-2021	58.67	
	10	Narhat - Nawadah ckt-01	56.77	20:00	13-04-2021	0.49	13:00	19-04-2021	36.03	
	11	Narhat - Nawadah ckt-02	56.62	20:00	13-04-2021	0.51	13:00	19-04-2021	35.93	
	12	Haveli Kharagpur - Sultanjanj ckt-01	0	0	0	0	0	0	0	System connected but no power flow
	13	Haveli Kharagpur - Sultanjanj ckt-02	0	0	0	0	0	0	0	
	14	Haveli Kharagpur - Lakhsaral ckt-01	0	0	0	0	0	0	0	
	15	Haveli Kharagpur - Lakhsaral ckt-02	0	0	0	0	0	0	0	
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	0	
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	0	
	18	Sekhopur Sarai - Sekhpura ckt-01	21.50	19:00	15-04-2021	5.2	15:00	19-04-2021	15.48	
	19	Sekhopur Sarai - Sekhpura ckt-02	21.70	19:00	15-04-2021	5.0	15:00	19-04-2021	15.55	
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	0	
	21	Goradih - Sultanjanj ckt-01	0	0	0	0	0	0	0	System connected but no power flow
	22	Goradih - Sultanjanj ckt-02	0	0	0	0	0	0	0	
	23	Goradih - Kahalgau ckt-01	0	0	0	0	0	0	0	
	24	Goradih - Kahalgau ckt-02	0	0	0	0	0	0	0	
	25	Goradih - Sabour ckt-01	-10.60	16:00	16-04-2021	0	0	01-04-2021	-2.66	
	26	Goradih - Sabour ckt-02	-23.10	20:00	14-04-2021	0	0	01-04-2021	-5.47	
	27	Mokama-Hatidah ckt-01	34.70	21:00	07-04-2021	0	14:00	01-04-2021	16.14	
	28	Mokama-Hatidah ckt-02	57.00	07:00	11-04-2021	0	09:00	22-04-2021	16.95	
	29	132kV D/C Dumraon New-Dumraon(BSPTCL)ckt-2	80.69	21:00	16-04-2021	3.45	13:00	19-04-2021	56.13	
C. Power Flow in transformers										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	140.62	21:00	15-04-2021	0.07	16:00	19-04-2021	90.61	
	2	Tr-02/160 MVA, 220/132 kV	142.29	21:00	15-04-2021	0.07	16:00	19-04-2021	91.82	
	3	Tr-01/50 MVA, 132/33 kV	28.03	22:00	16-04-2021	0.04	16:00	19-04-2021	17.23	
	4	Tr-02/50 MVA, 132/33 kV	21.81	20:00	16-04-2021	0.05	15:00	01-04-2021	13.09	
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kV	139.44	19:00	01-04-2021	10.82	13:00	19-04-2021	79.79	
	2	Tr-02/160 MVA, 220/132 kV	143.56	19:00	01-04-2021	11.83	13:00	19-04-2021	82.57	
	3	Tr-01/50 MVA, 132/33 kV	Not Commissioned							
Narhat GIS	1	Tr-01/160 MVA, 220/132 kV	6.37	19:00	19-04-2021	0.03	03:00	18-04-2021	4.26	
	2	Tr-02/160 MVA, 220/132 kV	7.88	20:00	14-04-2021	0.07	08:00	22-04-2021	5.55	
	3	Tr-01/50 MVA, 132/33 kV	68.26	20:00	13-04-2021	0.08	07:00	12-04-2021	44.46	
	4	Tr-02/50 MVA, 132/33 kV	65.73	20:00	13-04-2021	0.05	07:00	12-04-2021	42.51	
Sekhopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	5.59	19:00	13-04-2021	0.04	07:00	12-04-2021	8.02	
	2	Tr-02/160 MVA, 220/132 kV	20.93	23:00	06-04-2021	0.03	17:00	17-04-2021	22.00	
	3	Tr-01/160 MVA, 220/132 kV	57.70	19:00	20-04-2021	4.10	15:00	09-04-2021	40.50	
	4	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0	System connected but no power flow
Haveli Kharagpur GIS	1	Tr-01/50 MVA, 132/33 kV	0.90	19:00	04-04-2021	0.2	06:00	01-04-2021	0.60	
	2	Tr-02/50 MVA, 132/33 kV	18.60	18:00	04-04-2021	0.5	15:00	19-04-2021	0.87	
	3	Tr-01/160 MVA, 220/132 kV	6.60	22:00	30-04-2021	0.70	17:00	09-04-2021	5.46	
	4	Tr-02/160 MVA, 220/132 kV	5.40	00:00	30-04-2021	0.20	17:00	09-04-2021	3.16	
Goradih GIS	1	Tr-01/50 MVA, 132/33 kV	7.80	22:00	30-04-2021	1.6	11:00	11-04-2021	4.80	
	2	Tr-02/50 MVA, 132/33 kV	4.40	22:00	14-04-2021	1.1	10:00	20-04-2021	3.88	
	3	Tr-01/160 MVA, 220/132 kV	0	0	0	0	0	0	0	System connected but no power flow
	4	Tr-02/160 MVA, 220/132 kV	Not Commissioned							
Mokama GIS	1	Tr-01/50 MVA, 132/33 kV	17.30	16:00	14-04-2021	0	20:00	12-04-2021	4.59	
	2	Tr-02/50 MVA, 132/33 kV	7.00	19:00	14-04-2021	0	11:00	09-04-2021	3.35	
	3	Tr-01/160 MVA, 220/132 kV	Not Commissioned							
	4	Tr-02/160 MVA, 220/132 kV	69.20	21:00	07-04-2021	0.00	09:00	22-04-2021	32.87	
Dumraon GIS	1	Tr-01/80 MVA, 132/33 kV	Not Commissioned							
	2	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	0	System connected but no power flow
	3	Tr-01/160 MVA, 220/132 kV	86.41	21:00	16-04-2021	3.66	13:00	19-04-2021	57.43	
	4	Tr-02/160 MVA, 220/132 kV	6.41	20:00	13-04-2021	0.05	09:00	12-04-2021	2.59	
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example {-} 186.83 MW in Hajipur - Amnour ckt-2 denotes import of 186.83 MW from Hajipur S/S to Amnour S/S and 80.12 MW in Amnour -Siwan ckt-1 denotes 80.12 MW from Amnour to Siwan S/S.									



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: **MAY 2021**

Voltage Grade	S.No	Name of TL	Load MW						Remark		
			Max	Time	Date	Min	Time	Date		Avg of Month	
			A. Power Flow in 220kV transmission line								
220 kV [26 nos.]	1	Hajipur - Amnour ckt-01	-136.84	01:00	07-05-2021	-0.08	13:00	28-05-2021	-78.50		
	2	Hajipur - Amnour ckt-02	-139.82	17:00	05-05-2021	-0.06	14:00	12-05-2021	-74.94		
	3	Patna (PG) - Khagaul ckt-02	-98.74	22:00	15-05-2021	-20.86	12:00	12-05-2021	72		
	4	Patna (PG) - Khagaul ckt-03	-97.75	22:00	15-05-2021	-20.61	12:00	12-05-2021	71.39		
	5	Khijirsarai - Biharsharif ckt-01	-134.64	06:00	12-05-2021	-1.62	04:00	18-05-2021	-73.45		
	6	Khijirsarai - Biharsharif ckt-02	-134.92	06:00	12-05-2021	0.08	04:00	18-05-2021	-72.60		
	7	Khijirsarai - Bodh Gaya ckt-01	-62.05	23:00	17-05-2021	0.00	11:00	13-05-2021	-12.67		
	8	Khijirsarai - Bodh Gaya ckt-02	-62.27	23:00	17-05-2021	-0.06	17:00	05-05-2021	-11.95		
	9	Khijirsarai - Gaya (PG) ckt-01	-89.57	00:00	18-05-2021	0.29	01:00	08-05-2021	-41.33		
	10	Khijirsarai - Gaya (PG) ckt-02	-89.87	00:00	18-05-2021	0.33	14:00	20-05-2021	-41.46		
	11	Khijirsarai - Narhat ckt-01	76.23	21:00	16-05-2021	2.74	15:00	12-05-2021	48.34		
	12	Khijirsarai - Narhat ckt-02	76.07	21:00	16-05-2021	2.61	15:00	12-05-2021	48.32		
	13	Narhat - Sekhopur Sarai ckt-01	41.09	12:00	04-05-2021	0.63	15:00	12-05-2021	20.98		
	14	Narhat - Sekhopur Sarai ckt-02	40.99	12:00	04-05-2021	0.56	15:00	12-05-2021	20.92		
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	11.30	22:00	24-05-2021	1.2	19:00	13-05-2021	3.81		
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	48.30	13:00	04-05-2021	-0.2	06:00	08-05-2021	4.51		
	17	Haveli Kharagpur - Goradhi ckt-01	45.40	12:00	04-05-2021	13.20	23:00	09-05-2021	0.64		
	18	Haveli Kharagpur - Goradhi ckt-02	-1.40	11:00	05-05-2021	-0.10	20:00	03-05-2021	0		
	19	Mokama-Biharsharif ckt-1	-154.30	03:00	24-05-2021	0.00	07:00	01-05-2021	-42.47		
	20	Mokama-Biharsharif ckt-2	-154.90	00:00	23-05-2021	0.00	07:00	01-05-2021	-42.97		
	21	Mokama-BTPS ckt-1	-73.00	15:00	20-05-2021	0.00	07:00	01-05-2021	38.02		
	22	Mokama-BTPS ckt-2	-73.50	15:00	20-05-2021	0.00	07:00	01-05-2021	35.58		
	23	Ara (PG)-Dumraon New - D1	41.41	23:00	26-05-2021	-0.01	16:00	03-05-2021	-2.18		
	24	Ara (PG)-Dumraon New - 02	41.53	23:00	26-05-2021	-0.04	16:00	03-05-2021	-2.13		
	25	Dumraon New-Nadokhar - 01	-66.28	23:00	26-05-2021	0.12	08:00	27-05-2021	-26.11		
	26	Dumraon New-Nadokhar - 02	-66.71	23:00	26-05-2021	-0.01	08:00	27-05-2021	-26.27		
B. Power Flow in 132 kV transmission line											
132 kV [29 nos.]	1	Amnour - Siwan ckt-01	68.27	01:00	07-05-2021	0.01	08:00	12-05-2021	33.26		
	2	Amnour - Siwan ckt-02	68.88	01:00	07-05-2021	0.05	09:00	28-05-2021	33.83		
	3	Amnour - Chhapara ckt-01	58.96	20:00	31-05-2021	1.99	06:00	10-05-2021	30.08		
	4	Amnour - Chhapara ckt-02	66.08	18:00	10-05-2021	0.01	09:00	20-05-2021	31.00		
	5	Khijirsarai - Bodh Gaya ckt-03	24.93	15:00	18-05-2021	0	21:00	03-05-2021	0.07		
	6	Khijirsarai - Wairganj ckt-01	43.95	21:00	03-05-2021	0.07	14:00	05-05-2021	27.60		
	7	Khijirsarai-Hulasganj ckt-01	34.22	12:00	29-05-2021	0.1	16:00	03-05-2021	16.85		
	8	Khijirsarai - Jehanabad ckt-01	85.46	20:00	16-05-2021	0	09:00	30-05-2021	52.00		
	9	Khijirsarai - Jehanabad ckt-02	85.52	20:00	16-05-2021	0	09:00	30-05-2021	52.19		
	10	Narhat - Nawadah ckt-01	35.39	18:00	17-05-2021	0.03	00:00	18-05-2021	20.94		
	11	Narhat - Nawadah ckt-02	35.29	18:00	17-05-2021	0.03	00:00	18-05-2021	20.87		
	12	Haveli Kharagpur - Sultananganj ckt-01	0	0	0	0	0	0	0	System connected but no power flow	
	13	Haveli Kharagpur - Sultananganj ckt-02	0	0	0	0	0	0	0		
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	0		
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0		
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	0		
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	0		
	18	Sekhopur Sarai - Sekhpura ckt-01	20.80	21:00	31-05-2021	1.0	06:00	08-05-2021	12.02		
	19	Sekhopur Sarai - Sekhpura ckt-02	21.00	21:00	31-05-2021	1.0	06:00	08-05-2021	12.09		
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	0	System connected but no power flow	
	21	Goradhi - Sultananganj ckt-01	0	0	0	0	0	0	0		
	22	Goradhi - Sultananganj ckt-02	0	0	0	0	0	0	0		
	23	Goradhi - Kahalganj ckt-01	44.10	12:00	04-05-2021	11.90	22:00	03-05-2021	0.64		
	24	Goradhi - Kahalganj ckt-02	0	0	0	0	0	0	0.01		
	25	Goradhi - Sabour ckt-01	0	0	0	0	0	0	0.00		
	26	Goradhi - Sabour ckt-02	-24.80	20:00	10-05-2021	0.30	05:00	13-05-2021	-9.37		
	27	Mokama-Hatidah ckt-01	18.70	20:00	16-05-2021	0.00	01:00	01-05-2021	7.49		
	28	Mokama-Hatidah ckt-02	35.90	19:00	25-05-2021	0.00	01:00	01-05-2021	8.51		
	29	132kV D/C Dumraon New-Dumraon(BSPCL) ckt-2	80.43	21:00	17-05-2021	3.26	00:00	28-05-2021	50.61		
Substation Details	S.No.	MVA Capacity	Load MW						Remark		
			Max	Time	Date	Min	Time	Date			
C. Power Flow in transformers											
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	135.26	01:00	07-05-2021	0.02	11:00	28-05-2021	77.64		
	2	Tr-02/160 MVA, 220/132 kV	137.01	01:00	07-05-2021	0.02	13:00	28-05-2021	78.97		
	3	Tr-01/50 MVA, 132/33 kV	28.57	15:00	10-05-2021	0.03	05:00	29-05-2021	16.01		
	4	Tr-02/50 MVA, 132/33 kV	24.40	22:00	16-05-2021	0.03	00:00	27-05-2021	12.44		
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kV	124.54	20:00	17-05-2021	2.09	14:00	12-05-2021	77.09		
	2	Tr-02/160 MVA, 220/132 kV	128.29	20:00	17-05-2021	2.92	14:00	12-05-2021	79.69		
	3	Tr-01/50 MVA, 132/33 kV	Not Commissioned								
	4	Tr-02/50 MVA, 132/33 kV	5.43	07:00	01-05-2021	0.03	09:00	04-05-2021	3.36		
	5	Tr-03/50 MVA, 132/33 kV	9.67	20:00	17-05-2021	0.06	11:00	11-05-2021	4.71		
Narhat GIS	1	Tr-01/160 MVA, 220/132 kV	61.87	00:00	03-05-2021	0.58	00:00	18-05-2021	77.92		
	2	Tr-02/160 MVA, 220/132 kV	44.27	22:00	17-05-2021	1.64	04:00	18-05-2021	26.16		
	3	Tr-01/50 MVA, 132/33 kV	5.60	20:00	17-05-2021	0.08	18:00	05-05-2021	6.86		
	4	Tr-02/50 MVA, 132/33 kV	16.27	19:00	17-05-2021	0.03	21:00	02-05-2021	17.66		
Sekhopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	52.10	06:00	17-05-2021	0.10	15:00	12-05-2021	33.74		
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	System connected but no power flow		
	3	Tr-01/50 MVA, 132/33 kV	0.90	19:00	03-05-2021	0.2	01:00	01-05-2021		0.56	
	4	Tr-02/50 MVA, 132/33 kV	19.10	07:00	12-05-2021	0.8	02:00	28-05-2021		8.08	
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kV	7.00	03:00	19-05-2021	1.00	20:00	12-05-2021		4.21	
	2	Tr-02/160 MVA, 220/132 kV	5.80	22:00	16-05-2021	1.10	06:00	02-05-2021	3.26		
	3	Tr-01/50 MVA, 132/33 kV	8.40	22:00	16-05-2021	0.3	04:00	28-05-2021	5.00		
	4	Tr-02/50 MVA, 132/33 kV	4.30	23:00	17-05-2021	0.2	20:00	03-05-2021	2.44		
Goradhi GIS	1	Tr-01/160 MVA, 220/132 kV	44.20	12:00	04-05-2021	10.40	21:00	03-05-2021	0.56		
	2	Tr-02/160 MVA, 220/132 kV	Not Commissioned								
	3	Tr-01/50 MVA, 132/33 kV	12.90	00:00	03-05-2021	0.00	17:00	03-05-2021	4.19		
	4	Tr-02/50 MVA, 132/33 kV	14.40	18:00	23-05-2021	0.00	00:00	01-05-2021	5.02		
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV	Not Commissioned								
	2	Tr-02/160 MVA, 220/132 kV	37.50	20:00	16-05-2021	0.00	01:00	01-05-2021	16.24		
	3	Tr-01/80 MVA, 132/33 kV	Not Commissioned								
	4	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	0.08	System connected but no power flow	
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	87.25	21:00	17-05-2021	3.37	00:00	28-05-2021	52.61		
	2	Tr-01/80 MVA, 132/33 kV	6.84	21:00	16-05-2021	0.06	18:00	11-05-2021	3.13		
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example (-) 139.82 MW in Hajipur - Amnour ckt-2 denotes import of 139.82 MW from Hajipur S/S to Amnour S/S and 68.27 MW in Amnour -Siwan ckt-1 denotes 68.27 MW from Amnour to Siwan S/S.										



**BIHAR GRID COMPANY LIMITED**  
**Loading level of Transmission Assets**

Month: **JUNE 2021**

Voltage Grade	S. No	Name of TL	Load (in MW)						Avg of Month	Remark
			Max	Time	Date	Min	Time	Date		
<b>A. Power Flow in 220kV Transmission Line</b>										
220 kV (26 nos.)	1	Amnour (BGCL) - Hajipur (BSPTCL) ckt-01	+177.80	03:00	20-06-2021	-0.01	20:00	01-06-2021	-84.85	
	2	Amnour (BGCL) - Hajipur (BSPTCL) ckt-02	-128.04	00:00	01-06-2021	-0.80	03:00	28-06-2021	-82.23	
	3	Patna (PG) - Khatra (BSPTCL) ckt-02	+110.27	22:00	07-06-2021	-5.97	18:00	01-06-2021	-70.61	
	4	Patna (PG) - Khatra (BSPTCL) ckt-03	-109.66	22:00	07-06-2021	-5.75	15:00	01-06-2021	-76.06	
	5	Khijrasarai (BGCL) - Biharsharif (BSPTCL) ckt-01	-143.86	06:00	03-06-2021	0.02	18:00	05-06-2021	-55.53	
	6	Khijrasarai (BGCL) - Biharsharif (BSPTCL) ckt-02	-136.51	07:00	07-06-2021	0.02	18:00	05-06-2021	-54.83	
	7	Khijrasarai (BGCL) - Bodh Gaya (BSPTCL) ckt-01	-99.24	22:00	26-06-2021	5.03	11:00	02-06-2021	-5.32	
	8	Khijrasarai (BGCL) - Bodh Gaya (BSPTCL) ckt-02	-94.46	21:00	05-06-2021	-0.04	16:00	13-06-2021	-11.59	
	9	Khijrasarai (BGCL) - Gaya (PG) ckt-01	-171.04	20:00	24-06-2021	2.23	08:00	02-06-2021	-70.73	
	10	Khijrasarai (BGCL) - Gaya (PG) ckt-02	-171.31	20:00	24-06-2021	2.09	08:00	02-06-2021	-70.83	
	11	Khijrasarai (BGCL) - Narmada (BGCL) ckt-01	95.82	20:00	28-06-2021	1.88	18:00	01-06-2021	54.94	
	12	Khijrasarai (BGCL) - Narmada (BGCL) ckt-02	96.62	20:00	28-06-2021	1.92	18:00	01-06-2021	54.97	
	13	Narmada (BGCL) - Sekkopur Sarai (BGCL) ckt-01	55.95	17:00	30-06-2021	0.89	18:00	01-06-2021	23.39	
	14	Narmada (BGCL) - Sekkopur Sarai (BGCL) ckt-02	51.75	22:00	19-06-2021	0.00	18:00	01-06-2021	23.08	
	15	Sekkopur Sarai (BGCL) - Haveli Kharagpur (BGCL) ckt-01	57.50	22:00	19-06-2021	-0.4	11:00	25-06-2021	7.78	
	16	Sekkopur Sarai (BGCL) - Haveli Kharagpur (BGCL) ckt-02	4.00	23:00	27-06-2021	-0.1	06:00	30-06-2021	0.68	
	17	Haveli Kharagpur (BGCL) - Goradh (BGCL) ckt-01	47.10	22:00	19-06-2021	35.10	21:00	13-06-2021	0.13	
	18	Haveli Kharagpur (BGCL) - Goradh (BGCL) ckt-02	0	0	0	0	0	0	0.00	Charged on No Load
	19	Mokama (BGCL) - Biharsharif (BSPTCL) ckt-1	-125.80	03:00	18-06-2021	0.00	07:00	01-06-2021	-33.07	
	20	Mokama (BGCL) - Biharsharif (BSPTCL) ckt-2	-126.40	03:00	18-06-2021	0.00	07:00	01-06-2021	-33.3	
	21	Mokama (BGCL) - BTPS ckt-1	-80.50	06:00	30-06-2021	0.00	05:00	01-06-2021	20.44	
	22	Mokama (BGCL) - BTPS ckt-2	-80.50	08:00	30-06-2021	0.00	05:00	01-06-2021	20.11	
	23	Dumraon New (BGCL) - Ara (PG) ckt-01	24.57	21:00	10-06-2021	0.03	21:00	25-06-2021	-0.38	
	24	Dumraon New (BGCL) - Ara (PG) ckt-02	24.71	21:00	10-06-2021	-0.02	16:00	06-06-2021	-0.3	
	25	Dumraon New (BGCL) - Nadekhar (BSPTCL) ckt-01	-71.43	21:00	10-06-2021	0.36	16:00	27-06-2021	-32.48	
	26	Dumraon New (BGCL) - Nadekhar (BSPTCL) ckt-02	-71.96	21:00	10-06-2021	-0.48	16:00	27-06-2021	-32.71	
<b>B. Power Flow in 132 kV Transmission Line</b>										
132 kV (29 nos.)	1	Amnour (BGCL) - Shivan (BSPTCL) ckt-01	70.89	15:00	06-06-2021	0.01	17:00	01-06-2021	36.31	
	2	Amnour (BGCL) - Shivan (BSPTCL) ckt-02	87.55	11:00	06-06-2021	0.02	06:00	06-06-2021	34.95	
	3	Amnour (BGCL) - Chhapra (BSPTCL) ckt-01	63.05	21:00	23-06-2021	0.00	16:00	01-06-2021	34.13	
	4	Amnour (BGCL) - Chhapra (BSPTCL) ckt-02	63.23	21:00	23-06-2021	0.01	19:00	01-06-2021	33.03	
	5	Khijrasarai (BGCL) - Bodh Gaya (BSPTCL) ckt-03	0.00	01:00	17-06-2021	0	12:00	09-06-2021	0.01	
	6	Khijrasarai (BGCL) - Wajirang (BSPTCL) ckt-01	40.01	22:00	27-06-2021	0.01	12:00	28-06-2021	25.17	
	7	Khijrasarai (BGCL) - Hulsaganj (BSPTCL) ckt-01	51.80	18:00	05-06-2021	0.14	17:00	01-06-2021	19.94	
	8	Khijrasarai (BGCL) - Jehanabad (BSPTCL) ckt-01	90.02	20:00	08-06-2021	0.01	16:00	01-06-2021	52.57	
	9	Khijrasarai (BGCL) - Jehanabad (BSPTCL) ckt-02	101.86	23:00	03-06-2021	0.9	16:00	01-06-2021	62.06	
	10	Narmada (BGCL) - Nawadsh (BSPTCL) ckt-01	53.10	20:00	29-06-2021	0.38	18:00	01-06-2021	23.24	
	11	Narmada (BGCL) - Nawadsh (BSPTCL) ckt-02	65.26	01:00	03-06-2021	0.37	17:00	01-06-2021	24.01	
	12	Haveli Kharagpur (BGCL) - Sultanpuri (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	13	Haveli Kharagpur (BGCL) - Sultanpuri (BSPTCL) ckt-02	0	0	0	0	0	0	0	
	14	Haveli Kharagpur (BGCL) - Lakhsarai (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	15	Haveli Kharagpur (BGCL) - Lakhsarai (BSPTCL) ckt-02	0	0	0	0	0	0	0	
	16	Haveli Kharagpur (BGCL) - Jambur (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	17	Haveli Kharagpur (BGCL) - Jambur (BSPTCL) ckt-02	0	0	0	0	0	0	0	
	18	Sekkopur Sarai (BGCL) - Sekkopur (BSPTCL) ckt-01	20.10	19:00	28-06-2021	1.0	02:00	02-06-2021	13.23	
	19	Sekkopur Sarai (BGCL) - Sekkopur (BSPTCL) ckt-02	20.40	21:00	30-06-2021	1.0	02:00	02-06-2021	13.31	
	20	Sekkopur Sarai (BGCL) - Biharsharif (BSPTCL) TL	0	0	0	0	0	0	0	
	21	Goradh (BGCL) - Sultanpuri (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	22	Goradh (BGCL) - Sultanpuri (BSPTCL) ckt-02	0	0	0	0	0	0	0	
	23	Goradh (BGCL) - Kahalgagan (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	24	Goradh (BGCL) - Kahalgagan (BSPTCL) ckt-02	0	0	0	0	0	0	0	
	25	Goradh (BGCL) - Satepur (BSPTCL) ckt-01	0	0	0	0	0	0	0	
	26	Goradh (BGCL) - Satepur (BSPTCL) ckt-02	36.40	21:00	13-06-2021	0.00	16:00	01-06-2021	-12.48	
	27	Mokama (BGCL) - Hatdaha (BSPTCL) ckt-01	42.30	20:00	16-06-2021	0.00	17:00	01-06-2021	11.01	
	28	Mokama (BGCL) - Hatdaha (BSPTCL) ckt-02	53.40	04:00	07-06-2021	0.00	17:00	01-06-2021	14.12	
	29	Dumraon New (BGCL) - Dumraon (BSPTCL) ckt-02	87.19	20:00	03-06-2021	2.72	16:00	01-06-2021	58.7	
<b>C. Power Flow in Transformers</b>										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	128.04	00:00	01-06-2021	0.04	19:00	01-06-2021	80.76	
	2	Tr-02/160 MVA, 220/132 kV	130.27	00:00	01-06-2021	0.05	19:00	01-06-2021	81.74	
	3	Tr-01/50 MVA, 132/33 kV	27.44	01:00	01-06-2021	0.02	00:00	04-06-2021	13.50	
	4	Tr-02/50 MVA, 132/33 kV	45.50	02:00	28-06-2021	0.06	18:00	01-06-2021	15.16	
	5	Tr-01/160 MVA, 220/132 kV	121.13	20:00	08-06-2021	1.06	17:00	01-06-2021	77.96	
Khatra GIS	1	Tr-02/160 MVA, 220/132 kV	124.88	20:00	08-06-2021	1.85	17:00	01-06-2021	80.66	
	2	Tr-01/50 MVA, 132/33 kV	0	0	0	0	0	0	0	
	3	Tr-02/50 MVA, 132/33 kV	9.05	15:00	28-06-2021	0.03	21:00	01-06-2021	3.87	
	4	Tr-03/50 MVA, 132/33 kV	7.61	20:00	30-06-2021	0.07	17:00	01-06-2021	4.52	
	5	Tr-04/50 MVA, 132/33 kV	0	0	0	0	0	0	0	
Narmada GIS	1	Tr-01/160 MVA, 220/132 kV	65.66	20:00	28-06-2021	0.87	15:00	02-06-2021	31.92	
	2	Tr-02/160 MVA, 220/132 kV	63.13	20:00	28-06-2021	0.82	15:00	01-06-2021	30.66	
	3	Tr-01/50 MVA, 132/33 kV	7.63	15:00	01-06-2021	0.02	22:00	02-06-2021	3.76	
	4	Tr-02/50 MVA, 132/33 kV	26.39	22:00	14-06-2021	0.03	19:00	15-06-2021	26.87	
Sarkopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	55.70	10:00	28-06-2021	7.90	07:00	02-06-2021	37.31	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0	Charged on No Load
	3	Tr-01/50 MVA, 132/33 kV	0.90	20:00	03-06-2021	0.1	06:00	04-06-2021	0.48	
	4	Tr-02/50 MVA, 132/33 kV	23.70	07:00	28-06-2021	0.8	22:00	01-06-2021	10.23	
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kV	7.20	22:00	28-06-2021	1.25	11:00	29-06-2021	4.74	
	2	Tr-02/160 MVA, 220/132 kV	6.90	22:00	28-06-2021	1.1	16:00	28-06-2021	3.8	
	3	Tr-01/50 MVA, 132/33 kV	0.00	22:00	29-06-2021	1.2	20:00	01-06-2021	6.85	
	4	Tr-02/50 MVA, 132/33 kV	4.40	22:00	28-06-2021	1	12:00	25-06-2021	2.66	
Goradh GIS	1	Tr-01/160 MVA, 220/132 kV	47.20	21:00	13-06-2021	1.30	03:00	01-06-2021	0.073	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0	Not Commissioned
	3	Tr-01/50 MVA, 132/33 kV	12.80	20:00	08-06-2021	0.00	18:00	01-06-2021	3.63	
	4	Tr-02/50 MVA, 132/33 kV	15.00	20:00	05-06-2021	0.00	18:00	01-06-2021	6.86	
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV	0	0	0	0	0	0	0	Not Commissioned
	2	Tr-02/160 MVA, 220/132 kV	84.60	20:00	29-06-2021	0.00	17:00	01-06-2021	25.2	
	3	Tr-01/50 MVA, 132/33 kV	0	0	0	0	0	0	0	Not Commissioned
	4	Tr-02/50 MVA, 132/33 kV	0	0	0	0	0	0	0	Charged on No Load
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	101.36	21:00	29-06-2021	3	16:00	01-06-2021	55.7	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0	Not Commissioned
	3	Tr-01/50 MVA, 132/33 kV	12.83	21:00	08-06-2021	0.04	15:00	27-06-2021	4.22	
	4	Tr-02/50 MVA, 132/33 kV	0	0	0	0	0	0	0	Not Commissioned

Note: Negative sign (-) denotes import of power and positive sign (+) denotes export of power. For example: (-) 177.80 MW in Amnour - Hajipur ckt-2 denotes import of 177.80 MW from Hajipur to Amnour and 70.89 MW in Amnour - Shivan ckt-1 denotes 70.89 MW from Amnour to Shivan.

**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: JULY 2021

Voltage Grade	S.No	Name of TL	Load						Remark	
			MW							
			Max	Time	Date	Min	Time	Date		Avg of Month
<b>A. Power Flow in 220kV transmission line</b>										
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-123.39	15:00	06-07-2021	-26.46	15:00	31-07-2021	-88.61	
	2	Hajipur - Amnour ckt-02	-133.23	11:00	02-07-2021	-25.85	15:00	31-07-2021	-96.01	
	3	Patna (PG) - Khagaul ckt-02	-124.89	23:00	16-07-2021	-43.54	13:00	31-07-2021	-64.31	
	4	Patna (PG) - Khagaul ckt-03	-124.89	23:00	14-07-2021	-43.56	13:00	31-07-2021	-63.85	
	5	Khijrsarai - Biharsharif ckt-01	-177.78	22:00	25-07-2021	3.12	01:00	31-07-2021	-75.58	
	6	Khijrsarai - Biharsharif ckt-02	-176.83	22:00	25-07-2021	-2.64	00:00	31-07-2021	-75.07	
	7	Khijrsarai - Bodh Gaya ckt-01	-101.56	20:00	02-07-2021	0.02	11:00	08-07-2021	-5.67	
	8	Khijrsarai - Bodh Gaya ckt-02	0	0	0	0	0	0	0.00	
	9	Khijrsarai - Gaya (PG) ckt-01	-139.09	23:00	26-07-2021	-1.01	08:00	31-07-2021	-82.91	
	10	Khijrsarai - Gaya (PG) ckt-02	-139.17	23:00	26-07-2021	-0.76	08:00	31-07-2021	-83.73	
	11	Khijrsarai - Narhat ckt-01	98.67	21:00	06-07-2021	0.05	20:00	08-07-2021	57.77	
	12	Khijrsarai - Narhat ckt-02	122.99	08:00	29-07-2021	0.21	19:00	08-07-2021	82.35	
	13	Narhat - Sekhopur Sarai ckt-01	59.25	14:00	27-07-2021	9.29	16:00	06-07-2021	14.10	
	14	Narhat - Sekhopur Sarai ckt-02	68.49	20:00	21-07-2021	5.11	19:00	20-07-2021	20.38	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	5.00	01:00	01-07-2021	0.1	08:00	02-07-2021	0.20	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	47.80	10:00	20-07-2021	0.1	20:00	13-07-2021	10.00	
	17	Haveli Kharagpur - Goradli ckt-01	18.60	19:00	10-07-2021	3.40	19:00	09-07-2021	0.65	
	18	Haveli Kharagpur - Goradli ckt-02	0	0	0	0	0	0	0.00	System connected but no power flow
	19	Mokama-Biharsharif ckt-1	-177.10	00:00	10-07-2021	0.00	12:00	01-07-2021	-88.17	
	20	Mokama-Biharsharif ckt-2	-178.30	00:00	10-07-2021	0.00	12:00	01-07-2021	-88.14	
	21	Mokama-BTPS ckt-1	-73.60	07:00	01-07-2021	0.00	19:00	01-07-2021	26.97	
	22	Mokama-BTPS ckt-2	-76.10	07:00	01-07-2021	0.00	19:00	01-07-2021	35.56	
	23	Ara (PG) - Dumraon New - 01	33.74	19:00	12-07-2021	-0.01	01:00	07-07-2021	-4.94	
	24	Ara (PG) - Dumraon New - 02	33.8	19:00	12-07-2021	-0.01	01:00	07-07-2021	-4.87	
	25	Dumraon New-Nadokhar - 01	-84.12	19:00	12-07-2021	0.53	10:00	31-07-2021	-35.78	
	26	Dumraon New-Nadokhar - 02	-84.87	19:00	12-07-2021	0.51	10:00	31-07-2021	-36.02	
<b>B. Power Flow in 132 kV transmission line</b>										
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	62.52	13:00	05-07-2021	8.39	10:00	08-07-2021	30.41	
	2	Amnour - Siwan ckt-02	69.33	13:00	02-07-2021	8.44	10:00	08-07-2021	36.56	
	3	Amnour - Chhapara ckt-01	58.88	20:00	31-07-2021	13.63	14:00	23-07-2021	36.84	
	4	Amnour - Chhapara ckt-02	68.33	06:00	02-07-2021	13.65	14:00	01-07-2021	30.90	
	5	Khijrsarai - Bodh Gaya ckt-03	0.09	22:00	21-07-2021	0.01	01:00	01-07-2021	0.05	
	6	Khijrsarai - Wajiganj ckt-01	58.55	09:00	16-07-2021	0.01	00:00	08-07-2021	20.87	
	7	Khijrsarai-Hulasganj ckt-01	39.51	20:00	01-07-2021	0.07	12:00	04-07-2021	9.87	
	8	Khijrsarai - Jehanabad ckt-01	94.48	20:00	23-07-2021	2.01	04:00	31-07-2021	68.79	
	9	Khijrsarai - Jehanabad ckt-02	99.30	14:00	29-07-2021	2	04:00	31-07-2021	57.74	
	10	Narhat - Nawadah ckt-01	59.56	20:00	01-07-2021	0.01	18:00	23-07-2021	33.41	
	11	Narhat - Nawadah ckt-02	54.00	20:00	01-07-2021	0.01	18:00	23-07-2021	29.48	
	12	Haveli Kharagpur - Sultanganj ckt-01	-14.10	20:00	31-07-2021	-1.70	06:00	31-07-2021	-0.16	
	13	Haveli Kharagpur - Sultanganj ckt-02	-14.00	20:00	31-07-2021	-1.70	06:00	31-07-2021	-0.16	
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0.00	System connected but no power flow
	16	Haveli Kharagpur - Jamalpur ckt-01	8.60	20:00	31-07-2021	1.40	17:00	31-07-2021	0.73	
	17	Haveli Kharagpur - Jamalpur ckt-02	40.80	10:00	20-07-2021	1.60	17:00	31-07-2021	0.64	
	18	Sekhopur Sarai - Sekhpora ckt-01	27.60	20:00	25-07-2021	2.3	13:00	28-07-2021	10.03	
	19	Sekhopur Sarai - Sekhpora ckt-02	26.50	07:00	27-07-2021	2.3	13:00	28-07-2021	10.00	
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	0.00	System connected but no power flow
	21	Goradli - Sultanganj ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	22	Goradli - Sultanganj ckt-02	0	0	0	0	0	0	0.00	System connected but no power flow
	23	Goradli - Kahaigaon ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	24	Goradli - Kahaigaon ckt-02	0	0	0	0	0	0	0.00	System connected but no power flow
	25	Goradli - Sabour ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	26	Goradli - Sabour ckt-02	28.40	21:00	05-07-2021	0.50	15:00	05-07-2021	-12.33	
	27	Mokama-Hatidah ckt-01	19.40	08:00	07-07-2021	0.00	12:00	01-07-2021	11.83	
	28	Mokama-Hatidah ckt-02	19.50	08:00	07-07-2021	0.00	12:00	01-07-2021	11.97	
	29	132kV D/C Dumraon New-Dumraon(BSPICL)ckt-2	100.40	13:00	14-07-2021	10.57	08:00	31-07-2021	69.55	
Substation Details	S.No	MVA Capacity	Load						Remark	
			Max	Time	Date	Min	Time	Date		
<b>C. Power Flow in transformers</b>										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	122.36	15:00	06-07-2021	25.72	15:00	31-07-2021	85.53	
	2	Tr-02/160 MVA, 220/132 kV	123.95	15:00	06-07-2021	26.05	15:00	31-07-2021	89.67	
	3	Tr-01/50 MVA, 132/33 kV	25.42	00:00	07-07-2021	0.02	01:00	11-07-2021	16.42	
	4	Tr-02/50 MVA, 132/33 kV	47.57	02:00	11-07-2021	1.97	09:00	31-07-2021	18.04	
Khijrsarai GIS	1	Tr-01/160 MVA, 220/132 kV	129.53	19:00	13-07-2021	2.65	07:00	31-07-2021	80.02	
	2	Tr-02/160 MVA, 220/132 kV	133.31	19:00	13-07-2021	3.5	07:00	31-07-2021	82.65	
	3	Tr-01/50 MVA, 132/33 kV			Not Commissioned					
Narhat GIS	4	Tr-02/50 MVA, 132/33 kV	7.95	06:00	17-07-2021	0.03	06:00	01-07-2021	4.71	
	5	Tr-03/50 MVA, 132/33 kV	11.64	12:00	25-07-2021	0.07	06:00	21-07-2021	6.46	
	1	Tr-01/160 MVA, 220/132 kV	95.89	21:00	25-07-2021	2.83	15:00	23-07-2021	39.16	
	2	Tr-02/160 MVA, 220/132 kV	84.96	20:00	09-07-2021	1.50	19:00	26-07-2021	39.48	
	3	Tr-01/50 MVA, 132/33 kV	9.50	07:00	26-07-2021	0.08	23:00	03-07-2021	9.77	
Sekhopur Sarai GIS	4	Tr-02/50 MVA, 132/33 kV	26.48	14:00	24-07-2021	0.02	12:00	31-07-2021	21.73	
	1	Tr-01/160 MVA, 220/132 kV	89.40	07:00	27-07-2021	0.10	10:00	17-07-2021	30.02	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0.00	
	3	Tr-01/50 MVA, 132/33 kV	0	0	0	0	0	0	0.00	
Haveli Kharagpur GIS	4	Tr-02/50 MVA, 132/33 kV	23.10	19:00	04-07-2021	0.5	02:00	22-07-2021	9.81	
	1	Tr-01/160 MVA, 220/132 kV	43.00	10:00	20-07-2021	0.90	19:00	19-07-2021	3.60	
	2	Tr-02/160 MVA, 220/132 kV	10.70	21:00	12-07-2021	1.30	19:00	26-07-2021	5.54	
	3	Tr-01/50 MVA, 132/33 kV	10.40	21:00	12-07-2021	0.2	07:00	24-07-2021	5.73	
Goradli GIS	4	Tr-02/50 MVA, 132/33 kV	12.00	22:00	05-07-2021	0.5	15:00	01-07-2021	3.15	
	1	Tr-01/160 MVA, 220/132 kV	18.60	19:00	10-07-2021	3.40	19:00	09-07-2021	0.93	
	2	Tr-02/160 MVA, 220/132 kV			Not Commissioned					
	3	Tr-01/50 MVA, 132/33 kV	0.03	00:00	10-07-2021	0.01	14:00	16-07-2021	3.25	
Mokama GIS	4	Tr-02/50 MVA, 132/33 kV	0.02	10:00	10-07-2021	0.31	00:00	01-07-2021	9.92	
	1	Tr-01/160 MVA, 220/132 kV			Not Commissioned					
	2	Tr-02/160 MVA, 220/132 kV	38.30	08:00	07-07-2021	0.00	15:00	17-07-2021	23.89	
Dumraon GIS	3	Tr-01/80 MVA, 132/33 kV			Not Commissioned					
	4	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	0.00	Recommission
Note	1	Tr-01/160 MVA, 220/132 kV	116.25	13:00	14-07-2021	14.31	11:00	08-07-2021	71.85	
	2	Tr-01/80 MVA, 132/33 kV	19.75	20:00	29-07-2021	0.04	18:00	17-07-2021	4.26	

Negative sign (-) denote import of power and positive sign (+) denote export of power. For example: (-) 123.39 MW in Hajipur - Amnour ckt-2 denotes import of 123.39 MW from Hajipur S/S to Amnour S/S and 62.52 MW in Amnour - Siwan ckt-1 denotes 62.52 MW from Amnour to Siwan S/S.



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: August 2021

Voltage Grade	S.No	Name of TL	Load						Remark
			MW						
			Max	Time	Date	Min	Time	Date	
<b>A. Power Flow in 220kV transmission line</b>									
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-132.76	23:00	17-08-2021	-28.79	13:00	27-08-2021	60.96
	2	Hajipur - Amnour ckt-02	-132.44	22:00	17-08-2021	-28.87	13:00	27-08-2021	66.97
	3	Patna (PG) - Khasaul ckt-02	-187.94	20:00	06-08-2021	-54.66	09:00	18-08-2021	97.86
	4	Patna (PG) - Khasaul ckt-03	-187.2	20:00	06-08-2021	-54.04	09:00	18-08-2021	97.98
	5	Khajirasarai - Biharsharif ckt-01	-153.32	07:00	15-08-2021	-33.36	00:00	10-08-2021	83.43
	6	Khajirasarai - Biharsharif ckt-02	-154.24	07:00	15-08-2021	-32.09	00:00	10-08-2021	82.83
	7	Khajirasarai - Bodh Gaya ckt-01	0	15:00	29-08-2021	0	10:00	01-08-2021	0.00
	8	Khajirasarai - Bodh Gaya ckt-02	0	0	0	0	0	0	0.00
	9	Khajirasarai - Gaya (PG) ckt-01	-135.86	20:00	20-08-2021	-33.18	07:00	07-08-2021	66.94
	10	Khajirasarai - Gaya (PG) ckt-02	-135.82	20:00	20-08-2021	-32.54	07:00	07-08-2021	70.56
	11	Khajirasarai - Narhat ckt-01	-125.59	20:00	14-08-2021	-36.41	05:00	04-08-2021	81.45
	12	Khajirasarai - Narhat ckt-02	-125.51	20:00	14-08-2021	-36.34	05:00	04-08-2021	80.92
	13	Narhat - Sekhopur Sarai ckt-01	-74.24	20:00	14-08-2021	-22.44	21:00	21-08-2021	50.34
	14	Narhat - Sekhopur Sarai ckt-02	-74.15	20:00	14-08-2021	-22.44	21:00	21-08-2021	35.04
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	-46.80	21:00	17-08-2021	-5.7	00:00	30-08-2021	16.13
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	-84.00	21:00	13-08-2021	-1.7	11:00	09-08-2021	25.41
	17	Haveli Kharagpur - Goradhi ckt-01	-28.20	21:00	11-08-2021	-2.00	10:00	19-08-2021	5.76
	18	Haveli Kharagpur - Goradhi ckt-02	0	0	0	0	0	0	0.00
	19	Mokama-Biharsharif ckt-1	-123.60	22:00	26-08-2021	0.00	07:00	01-08-2021	-36.2
	20	Mokama-Biharsharif ckt-2	-124.60	22:00	02-08-2021	0.00	07:00	01-08-2021	-36.4
	21	Mokama-BTPS ckt-1	111.40	22:00	12-08-2021	0.00	06:00	01-08-2021	24.14
	22	Mokama-BTPS ckt-2	111.20	22:00	12-08-2021	0.00	06:00	01-08-2021	13.01
	23	Arar (PG)-Dumraon New - 01	-31.29	07:00	31-08-2021	-0.01	13:00	19-08-2021	-4.74
	24	Arar (PG)-Dumraon New - 02	-31.3	07:00	31-08-2021	-0.02	22:00	22-08-2021	-8.76
	25	Dumraon New-Nadokhar - 01	-59.77	20:00	11-08-2021	0.39	16:00	23-08-2021	-28.20
	26	Dumraon New-Nadokhar - 02	-60.85	20:00	11-08-2021	0.62	16:00	23-08-2021	-28.41
<b>B. Power Flow in 132 kV transmission line</b>									
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	69.38	19:00	23-08-2021	0.01	13:00	27-08-2021	38.53
	2	Amnour - Siwan ckt-02	70.12	19:00	25-08-2021	0.78	13:00	27-08-2021	38.77
	3	Amnour - Chhapara ckt-01	69.71	01:00	17-08-2021	9.36	17:00	25-08-2021	34.87
	4	Amnour - Chhapara ckt-02	68.1	01:00	17-08-2021	9.25	17:00	25-08-2021	34.54
	5	Khajirasarai - Bodh Gaya ckt-03	50.72	20:00	20-08-2021	0	09:00	01-08-2021	0.30
	6	Khajirasarai - Wajirganj ckt-01	-49.28	19:00	22-08-2021	0.06	18:00	16-08-2021	35.20
	7	Khajirasarai-Hullaganj ckt-01	34.36	10:00	23-08-2021	0	00:00	01-08-2021	0.19
	8	Khajirasarai - Jehanabad ckt-01	82.87	23:00	16-08-2021	8.4	13:00	28-08-2021	48.89
	9	Khajirasarai - Jehanabad ckt-02	110.25	16:00	06-08-2021	8.41	13:00	28-08-2021	48.91
	10	Narhat - Nawadah ckt-01	42.73	20:00	22-08-2021	1.96	20:00	31-08-2021	26.21
	11	Narhat - Nawadah ckt-02	38.56	21:00	24-08-2021	1.76	20:00	31-08-2021	26.88
	12	Haveli Kharagpur - Sultanganj ckt-01	-14.20	19:00	02-08-2021	-2.20	15:00	01-08-2021	-0.55
	13	Haveli Kharagpur - Sultanganj ckt-02	-14.40	19:00	02-08-2021	-2.30	15:00	01-08-2021	-0.55
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	0.00
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0.00
	16	Haveli Kharagpur - Jamalpur ckt-01	27.50	15:00	23-08-2021	1.40	14:00	09-08-2021	13.42
	17	Haveli Kharagpur - Jamalpur ckt-02	26.70	21:00	25-08-2021	0.70	25:00	01-08-2021	0.00
	18	Sekhopur Sarai - Sekhupura ckt-01	31.90	16:00	13-08-2021	4.9	10:00	13-08-2021	18.90
	19	Sekhopur Sarai - Sekhupura ckt-02	31.90	16:00	13-08-2021	4.9	10:00	13-08-2021	17.65
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	0.00
	21	Goradhi - Sultanganj ckt-01	0	0	0	0	0	0	0.01
	22	Goradhi - Sultanganj ckt-02	0	0	0	0	0	0	0.01
	23	Goradhi - Kahalgaoon ckt-01	0	0	0	0	0	0	0.00
	24	Goradhi - Kahalgaoon ckt-02	0	0	0	0	0	0	0.01
	25	Goradhi - Sabour ckt-01	-27.50	21:00	21-08-2021	-1.30	15:00	22-08-2021	-0.61
	26	Goradhi - Sabour ckt-02	-27.70	20:00	06-08-2021	-0.70	06:00	04-08-2021	-3.57
	27	Mokama-Hatidah ckt-01	23.40	21:00	27-08-2021	0.00	14:00	01-08-2021	12.17
	28	Mokama-Hatidah ckt-02	23.50	21:00	27-08-2021	0.00	14:00	01-08-2021	13.11
	29	132kV D/C Dumraon New-Dumraon(BSPTCL)ckt-2	108.13	21:00	18-08-2021	18.91	15:00	01-08-2021	60.72
Substation Details	S.No.	MVA Capacity	Load						Remark
			Max	Time	Date	Min	Time	Date	
<b>C. Power Flow in Transformers</b>									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	131.71	22:00	17-08-2021	28.86	13:00	27-08-2021	69.90
	2	Tr-02/160 MVA, 220/132 kV	133.26	22:00	17-08-2021	28.39	13:00	27-08-2021	61.66
	3	Tr-01/50 MVA, 132/33 kV	27.32	21:00	27-08-2021	0.03	18:00	05-08-2021	17.41
Khajirasarai GIS	1	Tr-02/50 MVA, 132/33 kV	36.28	02:00	15-08-2021	0.07	14:00	24-08-2021	17.73
	2	Tr-01/160 MVA, 220/132 kV	124.64	20:00	20-08-2021	14.16	22:00	16-08-2021	70.87
	3	Tr-02/160 MVA, 220/132 kV	128.29	20:00	20-08-2021	15.7	21:00	16-08-2021	73.24
	4	Tr-01/50 MVA, 132/33 kV	6.59	07:00	21-08-2021	0.03	21:00	01-08-2021	4.63
	5	Tr-02/50 MVA, 132/33 kV	14.35	07:00	08-08-2021	0.06	09:00	13-08-2021	5.80
Narhat GIS	1	Tr-01/160 MVA, 220/132 kV	73.19	14:00	02-08-2021	0.07	16:00	02-08-2021	37.91
	2	Tr-02/160 MVA, 220/132 kV	78.41	17:00	07-08-2021	0.05	12:00	03-08-2021	36.74
	3	Tr-01/50 MVA, 132/33 kV	22.65	05:00	17-08-2021	0.03	16:00	03-08-2021	13.89
	4	Tr-02/50 MVA, 132/33 kV	23.81	08:00	25-08-2021	0.03	20:00	02-08-2021	23.18
Sekhopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	61.70	08:00	21-08-2021	5.80	17:00	25-08-2021	43.77
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0
	3	Tr-01/50 MVA, 132/33 kV	1.10	07:00	22-08-2021	0.20	11:00	12-08-2021	0.45
	4	Tr-02/50 MVA, 132/33 kV	23.30	20:00	17-08-2021	1.0	17:00	28-08-2021	10.90
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kV	34.30	21:00	25-08-2021	1.10	16:00	23-08-2021	18.19
	2	Tr-02/160 MVA, 220/132 kV	57.70	21:00	25-08-2021	1.10	06:00	07-08-2021	47.66
	3	Tr-01/50 MVA, 132/33 kV	13.90	21:00	01-08-2021	0.5	16:00	20-08-2021	6.36
	4	Tr-02/50 MVA, 132/33 kV	4.30	22:00	21-08-2021	1	14:00	24-08-2021	3.24
Goradhi GIS	1	Tr-01/160 MVA, 220/132 kV	28.40	20:00	11-08-2021	3.60	16:00	13-08-2021	5.69
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0
	3	Tr-01/50 MVA, 132/33 kV	10.30	20:00	05-08-2021	3.10	15:00	12-08-2021	5.19
	4	Tr-02/50 MVA, 132/33 kV	18.40	19:00	13-08-2021	1.20	07:00	04-08-2021	11.09
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV	47.00	12:00	27-08-2021	0.00	07:00	04-08-2021	24.06
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0
	3	Tr-01/80 MVA, 132/33 kV	0	0	0	0	0	0	0.03
	4	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	0.03
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	122.82	21:00	13-08-2021	14.33	02:00	30-08-2021	63.78
	2	Tr-01/80 MVA, 132/33 kV	12.88	09:00	19-08-2021	0.07	21:00	25-08-2021	3.69
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example (-) 132.76 MW in Hajipur - Amnour ckt-1 denotes import of 132.76 MW from Hajipur S/S to Amnour S/S and 69.90 MW in Amnour - Siwan ckt-1 denotes 62.52 MW from Amnour to Siwan S/S.								

B FAR GRID COMPANY LIMITED

Loading level of Transmission Assets

Month: September 2021

Voltage Grade	S. No	Name of TL	Element Loading Details						Remark
			in MW		Date		Time		
			Max	Time	Min	Time	Date	Avg	
<b>A. Power Flow in 220kV transmission line</b>									
220 kV [26 nos. Ckts]	1	Fajour - Amnour ckt-01	-161.95	22:00	28-09-2021	-36.16	09:00	14-09-2021	89.4'
	2	Fajour - Amnour ckt-02	-124.86	19:00	05-09-2021	36.11	09:00	14-09-2021	77.5'
	3	Patna (PG) - Khagaul ckt-02	-118.52	21:00	01-09-2021	-51.77	15:00	14-09-2021	-93.56
	4	Patna (PG) - Khagaul ckt-03	-118.22	21:00	01-09-2021	-51.58	15:00	14-09-2021	-93.38
	5	Khjirsarai - Biharsharif ckt-01	-144.13	05:00	03-09-2021	5.34	19:00	30-09-2021	-85.72
	6	Khjirsarai - Biharsharif ckt-02	-144.08	05:00	03-09-2021	-1.38	20:00	30-09-2021	84.56
	7	Khjirsarai - Bodh Gaya ckt-01	0.00	06:00	30-09-2021	5.02	07:00	01-09-2021	0.00
	8	Khjirsarai - Bodh Gaya ckt-02	0.00	09:00	01-09-2021	3.00	00:00	01-09-2021	0.00
	9	Khjirsarai - Gaya (PG) ckt-01	135.8'	23:00	26-09-2021	-2.99	10:00	14-09-2021	-80.50
	10	Khjirsarai - Gaya (PG) ckt-02	-156.06	23:00	26-09-2021	-3.21	10:00	14-09-2021	-80.58
	11	Khjirsarai - Narhat ckt-01	133.39	13:00	12-09-2021	2.60	14:00	30-09-2021	53.63
	12	Khjirsarai - Narhat ckt-02	133.16	13:00	12-09-2021	2.62	14:00	30-09-2021	53.73
	13	Narhat - Sekhopur Sarai ckt-01	92.72	13:00	12-09-2021	0.90	14:00	30-09-2021	46.48
	14	Narhat - Sekhopur Sarai ckt-02	92.53	13:00	12-09-2021	0.90	14:00	30-09-2021	46.44
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	89.80	13:00	12-09-2021	-2.2	08:00	07-09-2021	22.45
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	76.20	12:00	14-09-2021	-1.7	00:00	06-09-2021	30.74
	17	Haveli Kharagpur - Goradhi ckt-01	15.70	23:00	29-09-2021	2.30	28:00	30-09-2021	0.79
	18	Haveli Kharagpur - Goradhi ckt-02	0	0	0	0	0	0	0.00
	19	Mokama-Biharsharif ckt-1	-156.80	25:00	23-09-2021	0.00	12:00	02-09-2021	-14.55
	20	Mokama-Biharsharif ckt-2	-157.40	25:00	23-09-2021	0.00	10:00	01-09-2021	-45.07
	21	Mokama-BTFS ckt-1	142.50	25:00	23-09-2021	0.00	16:00	01-09-2021	32.58
	22	Mokama-BTFS ckt-2	146.70	22:00	17-09-2021	0.00	16:00	01-09-2021	32.75
	23	Arar(PG)-Dumraon New - 01	-25.68	07:00	33-09-2021	-0.34	18:00	09-03-2021	-3.28
	24	Arar(PG)-Dumraon New - 02	-25.65	07:00	33-09-2021	-0.53	18:00	03-09-2021	-3.82
	25	Dumraon New-Nadokhar - 01	-81.07	23:00	26-09-2021	-3.29	07:00	15-09-2021	34.54
	26	Dumraon New-Nadokhar - 02	-81.35	23:00	26-09-2021	-4.56	07:00	15-09-2021	-34.78
<b>B. Power Flow in 132 kV transmission line</b>									
132 kV [29 nos. Ckts]	1	Amnour - Siwan ckt-01	68.7	15:00	28-09-2021	0.01	06:00	11-09-2021	33.69
	2	Amnour - Siwan ckt-02	98.51	13:00	05-09-2021	0.02	23:00	12-09-2021	33.55
	3	Amnour - Chhazara ckt-01	87.56	13:00	28-09-2021	11.5	15:00	30-09-2021	34.57
	4	Amnour - Chhazara ckt-02	60.58	22:00	20-09-2021	11.7	15:00	30-09-2021	35.75
	5	Khjirsarai - Bodh Gaya ckt-03	28.55	13:00	12-09-2021	0.01	00:00	01-09-2021	9.52
	6	Khjirsarai - Wajjiganj ckt-01	48.24	13:00	30-09-2021	0.03	04:00	04-09-2021	31.25
	7	Khjirsarai - Kulasganj ckt-01	46.70	12:00	08-09-2021	0.00	00:00	04-09-2021	5.42
	8	Khjirsarai - Jehanabad ckt-01	79.53	15:00	30-09-2021	10.02	13:00	30-09-2021	53.31
	9	Khjirsarai - Jehanabad ckt-02	79.75	18:00	30-09-2021	10.01	13:00	30-09-2021	53.26
	10	Narhat - Nawadah ckt-01	61.50	13:00	03-09-2021	0.15	10:00	30-09-2021	30.91
	11	Narhat - Nawadah ckt-02	50.41	11:00	03-09-2021	0.81	12:00	30-09-2021	23.64
	12	Haveli Kharagpur - Sultanganj ckt-01	46.90	11:00	30-09-2021	5.30	09:00	09-09-2021	2.65
	13	Haveli Kharagpur - Sultanganj ckt-02	46.30	11:00	30-09-2021	5.30	09:00	09-09-2021	2.65
	14	Haveli Kharagpur - Lakhisarai ckt-01	-25.00	20:00	30-09-2021	-15.80	15:00	30-09-2021	-0.28
	15	Haveli Kharagpur - Lakhisarai ckt-02	-25.10	20:00	30-09-2021	-15.90	15:00	30-09-2021	-0.29
	16	Haveli Kharagpur - Jamalpur ckt-01	56.20	20:00	20-09-2021	1.80	02:00	11-09-2021	28.79
	17	Haveli Kharagpur - Jamalpur ckt-02	50.30	21:00	27-09-2021	13.40	18:00	02-09-2021	7.19
	18	Sekhopur Sarai - Sekhpura ckt-01	24.10	13:00	28-09-2021	4.2	20:00	24-09-2021	15.67
	19	Sekhopur Sarai - Sekhpura ckt-02	24.10	13:00	26-09-2021	4.1	21:00	30-09-2021	15.91
	20	Sekhopur Sarai - Biharsharif	0	0	0	0	0	0	0.00
	21	Goradhi - Sultanganj ckt-01	0	0	0	0	0	0	0.01
	22	Goradhi - Sultanganj ckt-02	0	0	0	0	0	0	0.01
	23	Goradhi - Kahalganj ckt-01	0	0	0	0	0	0	0.00
	24	Goradhi - Kahalganj ckt-02	0	0	0	0	0	0	0.01
	25	Goradhi - Sabour ckt-01	19.90	19:00	11-09-2021	-1.40	14:00	22-09-2021	-1.14
	26	Goradhi - Sabour ckt-02	0	0	0	0	0	0	0.00
	27	Mokama-Hatada ckt-01	21.90	07:00	10-09-2021	0.00	09:00	01-09-2021	12.02
	28	Mokama-Hatada ckt-02	22.10	07:00	10-09-2021	0.00	09:00	01-09-2021	12.13
	29	Dumraon New-Dumraon(BS) (132kV) ckt-01	101.83	06:00	26-09-2021	22.81	07:00	15-09-2021	64.28

Substation Details	S. No	MVA Capacity	Load						Remark
			MW						
			Max	Time	Date	Min	Time	Date	
<b>C. Power Flow in Transformers</b>									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	123.65	19:00	05-09-2021	29.95	19:00	24-09-2021	83.80
	2	Tr-02/160 MVA, 220/132 kV	125.53	18:50	05-09-2021	50.28	19:00	24-09-2021	84.91
	3	Tr-01/50 MVA, 132/33 kV	27.44	22:00	23-09-2021	0.04	13:00	17-09-2021	15.65
	4	Tr-02/50 MVA, 132/33 kV	27.57	22:00	23-09-2021	0.05	18:00	15-09-2021	15.52
KhijrSarai GIS	1	Tr-01/160 MVA, 220/132 kV	118.57	20:00	10-09-2021	10.62	12:00	30-09-2021	50.30
	2	Tr-02/160 MVA, 220/132 kV	122.08	20:00	10-09-2021	11.72	13:00	30-09-2021	82.91
	3	Tr-01/50 MVA, 132/33 kV	Not Commissioned						
	4	Tr-02/50 MVA, 132/33 kV	8.53	19:00	25-09-2021	0.03	17:00	01-09-2021	4.19
	5	Tr-03/50 MVA, 132/33 kV	10.26	17:00	27-09-2021	0.08	17:00	08-09-2021	6.11
Nahat GIS	1	Tr-01/160 MVA, 220/132 kV	68.82	13:00	03-09-2021	0.02	10:00	30-09-2021	17.89
	2	Tr-02/160 MVA, 220/132 kV	62.50	11:00	03-09-2021	0.05	06:00	02-09-2021	18.79
	3	Tr-01/50 MVA, 132/33 kV	8.91	08:00	06-09-2021	0.02	23:00	18-09-2021	4.88
	4	Tr-02/50 MVA, 132/33 kV	26.28	19:00	20-09-2021	0.03	19:00	12-09-2021	14.23
Sekarapur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	58.70	15:00	26-09-2021	1.40	16:00	02-09-2021	39.76
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0.00
	3	Tr-01/50 MVA, 132/33 kV	4.05	16:00	14-09-2021	0.20	14:00	01-09-2021	0.61
	4	Tr-02/50 MVA, 132/33 kV	18.90	05:00	19-09-2021	0.2	15:00	27-09-2021	7.33
Haveli Kharapur GIS	1	Tr-01/160 MVA, 220/132 kV	65.20	11:00	04-09-2021	1.30	18:00	27-09-2021	28.30
	2	Tr-02/160 MVA, 220/132 kV	63.20	11:00	04-09-2021	1.80	10:00	27-09-2021	24.92
	3	Tr-01/50 MVA, 132/33 kV	10.50	21:00	08-09-2021	1.4	18:00	30-09-2021	6.44
	4	Tr-02/50 MVA, 132/33 kV	5.00	21:00	08-09-2021	0.5	18:00	02-09-2021	3.13
Goradh GIS	1	Tr-01/160 MVA, 220/132 kV	-16.70	22:00	29-09-2021	-0.10	02:00	01-09-2021	0.00012
	2	Tr-02/160 MVA, 220/132 kV	Not Commissioned						
	3	Tr-01/50 MVA, 132/33 kV	11.70	17:00	13-09-2021	0.00	00:00	01-09-2021	0.57
	4	Tr-02/50 MVA, 132/33 kV	19.50	13:00	11-09-2021	0.00	17:00	13-09-2021	11.24
Moraina GIS	1	Tr-01/160 MVA, 220/132 kV	Not Commissioned						
	2	Tr-02/160 MVA, 220/132 kV	44.20	07:00	10-09-2021	0.00	09:00	01-09-2021	28.12
	3	Tr-01/80 MVA, 132/33 kV	Not Commissioned						
	4	Tr-02/80 MVA, 132/33 kV	0	0	0	0	0	0	0.00
Dumran GIS	1	Tr-01/160 MVA, 220/132 kV	113.71	03:00	25-09-2021	26.16	15:00	14-09-2021	77.58
	2	Tr-01/80 MVA, 132/33 kV	18.48	21:00	01-09-2021	0.03	18:00	09-09-2021	4.25
	3	Tr-02/80 MVA, 132/33 kV	18.50	19:00	12-09-2021	0.06	19:00	13-09-2021	8.31
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example, [-] 181.95 MW in Hajipur - Amnour ckt-1 denotes import of 181.95 MW from Hajipur S/S to Amnour S/S and 86.7 MW in Amnour -Siwan ckt-1 denotes 86.7 MW from Amnour to Siwan S/S.								



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: **October 2021**

Voltage Grade	S.No	Name of TL	Load						Avg of Month	Remark
			MW							
			Max	Time	Date	Min	Time	Date		
<b>A. Power Flow in 220kV Transmission line</b>										
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	-194.98	22:00	07-10-2021	-32.88	15:00	31-10-2021	93.04	
	2	Hajipur - Amnour ckt-02	-125.37	22:00	20-10-2021	-32.85	15:00	31-10-2021	59.57	
	3	Patna (PG) - Khagaul ckt-02	-110.88	12:00	01-10-2021	-59.43	15:00	02-10-2021	-82.30	
	4	Patna (PG) - Khagaul ckt-03	-110.72	17:00	01-10-2021	-39.3	15:00	02-10-2021	-81.90	
	5	Khijisarai - Biharsharif ckt-01	-146.36	07:00	23-10-2021	0.76	00:00	01-10-2021	-74.34	
	6	Khijisarai - Biharsharif ckt-02	-147.61	07:00	23-10-2021	1.95	18:00	07-10-2021	-73.65	
	7	Khijisarai - Bodh Gaya ckt-01	0.5	19:00	19-10-2021	0	00:00	01-10-2021	0.04	System connected but no power flow
	8	Khijisarai - Bodh Gaya ckt-02	0	20:00	0	0	0	0	0	
	9	Khijisarai - Gaya (PG) ckt-01	-133.42	00:00	13-10-2021	-6.87	07:00	19-10-2021	-56.97	
	10	Khijisarai - Gaya (PG) ckt-02	-133.75	22:00	13-10-2021	-6.74	07:00	19-10-2021	-67.04	
	11	Khijisarai - Narhat ckt-01	143.74	19:00	13-10-2021	1.8	03:00	01-10-2021	73.01	
	12	Khijisarai - Narhat ckt-02	143.39	19:00	13-10-2021	19.72	03:00	01-10-2021	72.91	
	13	Narhat - Sekhopur Sarai ckt-01	99.14	19:00	13-10-2021	5.54	01:00	01-10-2021	44.96	
	14	Narhat - Sekhopur Sarai ckt-02	98.95	19:00	13-10-2021	5.33	01:00	01-10-2021	44.99	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	123.60	18:00	19-10-2021	6.6	02:00	19-10-2021	26.47	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	125.80	18:00	22-10-2021	1.7	06:00	17-10-2021	32.25	
	17	Haveli Kharagpur - Goradli ckt-01	74.60	19:00	19-10-2021	10.30	22:00	17-10-2021	6.90	
	18	Haveli Kharagpur - Goradli ckt-02	72.70	21:00	22-10-2021	9.80	22:00	17-10-2021	5.45	
	19	Mokama-Biharsharif ckt-1	-135.20	22:00	01-10-2021	0.00	07:00	07-10-2021	-29.65	
	20	Mokama-Biharsharif ckt-2	-135.50	22:00	01-10-2021	0.00	07:00	07-10-2021	-79.96	
	21	Mokama-BTPS ckt-1	126.80	22:00	01-10-2021	0.00	11:00	01-10-2021	19.78	
	22	Mokama-BTPS ckt-2	154.50	13:00	01-10-2021	0.00	08:00	01-10-2021	1.76	
	23	Ara(PG)-Dumraon New - 01	-32.27	07:00	29-10-2021	0.01	18:00	02-10-2021	-1.92	
	24	Ara(PG)-Dumraon New - 02	-32.11	07:00	30-10-2021	0.01	17:00	02-10-2021	-1.87	
	25	Dumraon New-Nadokhar - 01	-68.42	20:00	10-09-2021	0.51	07:00	31-10-2021	-29.54	
	26	Dumraon New-Nadokhar - 02	-68.82	20:00	10-09-2021	-0.95	07:00	31-10-2021	-29.59	
<b>B. Power Flow in 132 kV transmission line</b>										
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	57.78	22:00	20-10-2021	0.02	05:00	02-10-2021	32.40	
	2	Amnour - Siwan ckt-02	58.37	22:00	20-10-2021	1.32	00:00	08-10-2021	37.71	
	3	Amnour - Chhapara ckt-01	63.79	12:00	01-10-2021	9.28	09:00	04-10-2021	31.12	
	4	Amnour - Chhapara ckt-02	58.24	20:00	18-10-2021	9.27	09:00	04-10-2021	30.33	
	5	Khijisarai - Bodh Gaya ckt-03	0.08	14:00	01-10-2021	0	09:00	01-10-2021	0.01	System connected but no power flow
	6	Khijisarai - Wajirganj ckt-01	38.45	19:00	14-10-2021	0.07	12:00	01-10-2021	24.65	
	7	Khijisarai-Hulassanj ckt-01	0	0	0	0	0	0	0	System connected but no power flow
	8	Khijisarai - Jehanabad ckt-01	81.16	08:00	06-10-2021	13.43	18:00	07-10-2021	51.40	
	9	Khijisarai - Jehanabad ckt-02	81.33	08:00	06-10-2021	13.43	18:00	07-10-2021	51.36	
	10	Narhat - Nawadah ckt-01	35.53	20:00	12-10-2021	1.44	13:00	23-10-2021	20.38	
	11	Narhat - Nawadah ckt-02	35.43	20:00	12-10-2021	1.44	13:00	23-10-2021	28.65	
	12	Haveli Kharagpur - Sultanganj ckt-01	31.40	19:00	31-10-2021	1.60	02:00	19-10-2021	4.86	
	13	Haveli Kharagpur - Sultanganj ckt-02	26.10	19:00	23-10-2021	0.50	02:00	19-10-2021	2.99	
	14	Haveli Kharagpur - Lakhisarai ckt-01	-27.10	18:00	01-10-2021	-6.82	11:00	01-10-2021	-6.53	
	15	Haveli Kharagpur - Lakhisarai ckt-02	-27.00	18:00	01-10-2021	-6.90	11:00	01-10-2021	-6.53	
	16	Haveli Kharagpur - Jamalpur ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	17	Haveli Kharagpur - Jamalpur ckt-02	53.50	20:00	08-10-2021	8.90	11:00	01-10-2021	33.48	
	18	Sekhopur Sarai - Sekhpura ckt-01	19.80	18:00	01-10-2021	2.5	09:00	03-10-2021	11.78	
	19	Sekhopur Sarai - Sekhpura ckt-02	20.00	18:00	01-10-2021	2.3	09:00	03-10-2021	11.81	
	20	Sekhopur Sarai - Biharsarif	0.00	0	0.00	0.00	0	0.00	0.00	
	21	Goradli - Sultanganj ckt-01	0.00	0	0.00	0.00	0	0.00	0.00	System connected but no power flow
	22	Goradli - Sultanganj ckt-02	0.00	0	0.00	0.00	0	0.00	0.00	
	23	Goradli - Kahalgao ckt-01	69.90	13:00	12-10-2021	6.60	07:00	19-10-2021	6.53	
	24	Goradli - Kahalgao ckt-02	37.90	20:00	13-10-2021	6.90	02:00	19-10-2021	5.89	
	25	Goradli - Sabour ckt-01	-58.00	14:00	19-10-2021	-0.03	19:00	04-10-2021	-15.35	
	26	Goradli - Sabour ckt-02	0.00	0	0.00	0.00	0	0.00	0.00	
	27	Mokama-Hatidab ckt-01	30.70	19:00	06-10-2021	0.00	04:00	01-10-2021	10.97	
	28	Mokama-Hatidab ckt-02	20.80	08:00	16-10-2021	0.60	05:00	01-10-2021	11.05	
	29	132kV D/C Dumraon New-Dumraon(BSPCL)ckt-2	82.82	20:00	10-09-2021	0.50	03:00	10-12-2021	53.33	
Substation Details	S.No.	MVA Capacity	Load						Remark	
			Max	Time	Date	Min	Time	Date		
<b>C. Power Flow in transformers</b>										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	174.37	22:00	20-10-2021	27.33	06:00	01-10-2021	76.62	
	2	Tr-02/160 MVA, 220/132 kV	126.02	22:00	20-10-2021	27.68	06:00	01-10-2021	77.64	
	3	Tr-03/50 MVA, 132/33 kV	26.74	19:00	01-10-2021	0.03	11:00	15-10-2021	13.81	
Khijisarai GIS	1	Tr-01/160 MVA, 220/132 kV	26.88	19:00	05-10-2021	0.12	18:00	09-10-2021	13.94	
	2	Tr-02/160 MVA, 220/132 kV	100.05	08:00	06-10-2021	17.06	18:00	07-10-2021	66.79	
	3	Tr-03/50 MVA, 132/33 kV	103.96	08:00	06-10-2021	14.1	18:00	07-10-2021	69.09	
Narhat GIS	1	Tr-01/160 MVA, 220/132 kV	4.81	18:00	03-10-2021	0.03	19:00	03-10-2021	2.19	
	2	Tr-02/160 MVA, 220/132 kV	11.49	17:00	12-10-2021	0.08	15:00	02-10-2021	5.81	
	3	Tr-03/50 MVA, 132/33 kV	44.71	19:00	10-10-2021	3.52	21:00	23-10-2021	12.70	
Sekhopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	42.71	19:00	10-10-2021	3.41	01:00	08-10-2021	12.35	
	2	Tr-02/160 MVA, 220/132 kV	11.48	13:00	06-10-2021	0.08	17:00	01-10-2021	3.82	
	3	Tr-03/50 MVA, 132/33 kV	6.54	18:00	12-10-2021	0.02	18:00	03-10-2021	7.72	
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kV	50.70	18:00	16-10-2021	5.40	20:00	19-10-2021	30.75	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	System connected but no power flow	
	3	Tr-03/50 MVA, 132/33 kV	1.00	07:00	16-10-2021	0.20	17:00	02-10-2021	0.54	
Goradli GIS	1	Tr-01/160 MVA, 220/132 kV	17.70	19:00	11-10-2021	0.2	03:00	20-10-2021	6.57	
	2	Tr-02/160 MVA, 220/132 kV	42.60	19:00	31-10-2021	1.80	10:00	23-10-2021	24.44	
	3	Tr-03/50 MVA, 132/33 kV	40.70	19:00	31-10-2021	1.80	10:00	23-10-2021	23.11	
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV	8.50	21:00	08-10-2021	0.7	01:00	19-10-2021	4.96	
	2	Tr-02/160 MVA, 220/132 kV	4.10	22:00	16-10-2021	0.2	12:00	03-10-2021	3.29	
	3	Tr-03/80 MVA, 132/33 kV	75.80	20:00	13-10-2021	0.00	00:00	01-10-2021	11.72	
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	0	0	0	0	0	0	System connected but no power flow	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0		
	3	Tr-03/80 MVA, 132/33 kV	10.80	20:00	15-10-2021	0.00	04:00	02-10-2021	4.95	
Note	1	Tr-01/160 MVA, 220/132 kV	19.00	19:00	13-10-2021	0.00	16:00	02-10-2021	9.65	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	System connected but no power flow	
	3	Tr-03/80 MVA, 132/33 kV	96.42	20:00	10-09-2021	13.2	15:00	10-03-2021	65.19	
Note	1	Tr-01/160 MVA, 220/132 kV	0.04	00:00	10-01-2021	0.05	23:00	10-01-2021	2.35	
	2	Tr-02/160 MVA, 220/132 kV	18.22	19:00	10-08-2021	0.05	07:00	22-10-2021	6.87	
	3	Tr-03/80 MVA, 132/33 kV	18.22	19:00	10-08-2021	0.05	07:00	22-10-2021	6.87	

Negative sign(-) denote import of power and positive sign (+) denote export of power. For example (-) 194.98 MW in Hajipur - Amnour ckt-1 denotes import of 194.98 MW from Hajipur S/S to Amnour S/S and 57.78 MW in Amnour-Siwan ckt-1 denotes 57.78 MW from Amnour to Siwan S/S.



**BIHAR GRID COMPANY LIMITED**  
**Loading level of Transmission Assets**

Month: **November 2021**

Voltage Grade	S.No	Name of TL	Load						Avg of Month	Remark	
			MW								
			Max	Time	Date	Min	Time	Date			
<b>A. Power Flow in 220kV transmission line</b>											
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	101.94	18:00	18-11-2021	27.01	03:00	02-11-2021	67.55		
	2	Hajipur - Amnour ckt-02	102.12	18:00	18-11-2021	27.18	03:00	02-11-2021	67.95		
	3	Patna (PG) - Khataul ckt-02	66.23	18:00	01-11-2021	33.96	15:00	10-11-2021	58.25		
	4	Patna (PG) - Khataul ckt-03	66.17	18:00	01-11-2021	33.91	15:00	10-11-2021	58.10		
	5	Khijrsara - Biharsharif ckt-01	133.85	18:00	25-11-2021	29.42	13:00	03-11-2021	75.96		
	6	Khijrsara - Biharsharif ckt-02	133.22	18:00	21-11-2021	28.58	13:00	30-11-2021	75.38		
	7	Khijrsara - Bodh Gaya ckt-01	114.4	20:00	21-11-2021	0	11:00	22-11-2021	0.07		
	8	Khijrsara - Bodh Gaya ckt-02	0.03	03:00	0	0	00:00	0			
	9	Khijrsara - Gaya (PG) ckt-01	72.78	22:00	20-11-2021	0.3	16:00	11-11-2021	34.65		
	10	Khijrsara - Gaya (PG) ckt-02	72.36	22:00	20-11-2021	0.2	16:00	11-11-2021	34.62		
	11	Khijrsara - Narhat ckt-01	106.42	18:00	29-11-2021	20.97	13:00	23-11-2021	52.64		
	12	Khijrsara - Narhat ckt-02	106.43	18:00	29-11-2021	20.85	13:00	24-11-2021	52.50		
	13	Narhat - Sekhampur Sarai ckt-01	71.84	18:00	29-11-2021	15.45	13:00	06-11-2021	36.21		
	14	Narhat - Sekhampur Sarai ckt-02	76.76	18:00	29-11-2021	15.35	13:00	06-11-2021	36.70		
	15	Sekhampur Sarai - Haveli Kharagpur ckt-01	61.70	18:00	22-11-2021	16.2	15:00	01-11-2021	6.80		
	16	Sekhampur Sarai - Haveli Kharagpur ckt-02	100.80	17:00	29-11-2021	18.3	13:00	06-11-2021	42.48		
	17	Haveli Kharagpur - Goradhi ckt-01	22.00	20:00	22-11-2021	25.40	14:00	20-11-2021	5.85		
	18	Haveli Kharagpur - Goradhi ckt-02	0.00	0	0	0.00	00:00	0	0.00	System connected but no power flow	
	19	Mokama-Biharsharif ckt-1	106.30	20:00	21-11-2021	11.05	22:00	01-11-2021	27.6		
	20	Mokama-Biharsharif ckt-2	107.20	20:00	21-11-2021	11.00	22:00	01-11-2021	27.74		
	21	Mokama-STPS ckt-1	129.20	20:00	26-11-2021	0.05	22:00	01-11-2021	41.46		
	22	Mokama-STPS ckt-2	128.10	20:00	26-11-2021	0.00	22:00	01-11-2021	38.54		
	23	Ara(IG)-Dumraon New - 02	29.23	07:00	21-11-2021	0.01	09:00	19-11-2021	4.69		
	24	Ara(IG)-Dumraon New - 02	29.21	07:00	21-11-2021	0.01	09:00	11-11-2021	4.54		
	25	Dumraon - New-Nadodhar - 01	38.96	22:00	21-05-2021	-0.49	10:00	15-11-2021	17.80		
	26	Dumraon - New-Nadodhar - 02	39.26	22:00	21-05-2021	0.52	10:00	15-11-2021	17.93		
<b>B. Power Flow in 132 kV transmission line</b>											
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	47.86	17:00	05-11-2021	0.01	03:00	06-11-2021	21.22		
	2	Amnour - Siwan ckt-02	43.34	05:00	06-11-2021	12.61	25:00	16-11-2021	27.32		
	3	Amnour - Champara ckt-01	51.37	18:00	04-11-2021	5.22	04:00	02-11-2021	34.93		
	4	Amnour - Champara ckt-02	52.47	18:00	04-11-2021	5.16	04:00	02-11-2021	34.96		
	5	Khijrsara - Bodh Gaya ckt-03	0.28	23:00	21-11-2021	0	10:00	01-11-2021	0.01		
	6	Khijrsara - Khataul ckt-01	25.24	18:00	29-11-2021	0.01	18:00	22-11-2021	23.08		
	7	Khijrsara-Hulsiaganj ckt-01	0.06	20:00	22-11-2021	0	07:00	01-11-2021	0.01		
	8	Khijrsara - Jehanabad ckt-01	62.45	18:00	04-11-2021	19.49	13:00	28-11-2021	41.78		
	9	Khijrsara - Jehanabad ckt-02	67.8	18:00	18-11-2021	19.5	13:00	28-11-2021	42.14		
	10	Narhat - Nawadah ckt-01	28.71	18:00	02-11-2021	0.01	01:00	23-11-2021	12.22		
	11	Narhat - Nawadah ckt-02	23.47	18:00	02-11-2021	0.01	01:00	24-11-2021	8.55		
	12	Haveli Kharagpur - Sultanjan ckt-01	0	0	0	0	0	0	0.01		
	13	Haveli Kharagpur - Sultanjan ckt-02	15.00	04:00	11-11-2021	0.60	17:00	10-11-2021	8.03		
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	0.06	System connected but no power flow	
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0.06		
	16	Haveli Kharagpur - Jama pur ckt-01	45.30	04:00	11-11-2021	13.70	14:00	14-11-2021	26.42		
	17	Haveli Kharagpur - Jama pur ckt-02	39.90	18:00	04-11-2021	20.60	15:00	05-11-2021	6.07		
	18	Sekhampur Sarai - Sekhpura ckt-01	15.80	18:00	03-11-2021	5.6	15:00	09-11-2021	9.67		
	19	Sekhampur Sarai - Sekhpura ckt-02	15.90	18:00	03-11-2021	5.5	15:00	05-11-2021	9.68		
	20	Sekhampur Sarai - Biharsharif	0	0	0	0	0	0	0.00		
	21	Goradhi - Sultanjan ckt-01	0	0	0	0	0	0	0.01	System connected but no power flow	
	22	Goradhi - Sultanjan ckt-02	0	0	0	0	0	0	0.01		
	23	Goradhi - Kahalgagan ckt-01	56.50	16:00	10-11-2021	0.00	00:00	01-11-2021	3.06		
	24	Goradhi - Kahalgagan ckt-02	38.00	19:00	22-11-2021	0.00	00:00	01-11-2021	2.72		
	25	Goradhi - Sabour ckt-01	-19.80	17:00	04-11-2021	-1.10	03:00	25-11-2021	-12.00		
	26	Goradhi - Sabour ckt-02	0.00	00:00	01-11-2021	0.00	00:00	01-11-2021	0.00	System connected but no power flow	
	27	Mokama-Hatidah ckt-01	30.30	18:00	05-11-2021	0.00	13:00	01-11-2021	11.51		
	28	Mokama-Hatidah ckt-02	30.60	18:00	05-11-2021	0.00	13:00	01-11-2021	11.64		
	29	132kV D/C Dumraon New-Dumraon (HSPTCL) ckt-2	61.41	19:00	15-11-2021	20.12	16:00	11-09-2021	27.84		
Substation Details	S.No.	MVA Capacity	Load						Avg of Month	Remark	
			Max	Time	Date	Min	Time	Date			
<b>C. Power Flow in transformers</b>											
Amnour G/S	1	Tr-01/160 MVA, 220/132 kV	101.56	18:00	15-11-2021	28.83	04:00	02-11-2021	67.08		
	2	Tr-02/160 MVA, 220/132 kV	102.88	18:00	18-11-2021	27.05	04:00	02-11-2021	67.98		
	3	Tr-01/150 MVA, 132/33 kV	18.2	18:00	02-11-2021	0.01	09:00	06-11-2021	10.48		
	4	Tr-02/150 MVA, 132/33 kV	18.31	18:00	02-11-2021	0.54	16:00	30-11-2021	10.59		
Khijrsara GIS	1	Tr-01/160 MVA, 220/132 kV	83.90	18:00	29-11-2021	27.26	10:00	23-11-2021	55.99		
	2	Tr-02/160 MVA, 220/132 kV	87.57	18:00	17-11-2021	28.46	10:00	23-11-2021	55.30		
	3	Tr-01/150 MVA, 132/33 kV			Not Commissioned						
Narhat GIS	4	Tr-02/150 MVA, 132/33 kV	3.4	07:00	28-11-2021	0.03	20:00	25-11-2021	1.85		
	5	Tr-03/150 MVA, 132/33 kV	11.91	08:00	28-11-2021	0.08	16:00	15-11-2021	6.41		
	1	Tr-01/160 MVA, 220/132 kV	32.48	18:00	02-11-2021	0.2	18:00	25-11-2021	7.48		
	2	Tr-02/160 MVA, 220/132 kV	33.47	16:00	02-11-2021	0.07	16:00	26-11-2021	8.53		
	3	Tr-01/150 MVA, 132/33 kV	4.12	18:00	30-11-2021	0.09	18:00	25-11-2021	7.63		
Sekhampur Sarai GIS	4	Tr-02/150 MVA, 132/33 kV	15.38	17:00	22-11-2021	0.04	06:00	15-11-2021	7.50		
	1	Tr-01/160 MVA, 220/132 kV	40.50	18:00	03-11-2021	3.45	15:00	23-11-2021	24.80		
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0.00		
	3	Tr-01/150 MVA, 132/33 kV	0.50	18:00	01-11-2021	0.20	08:00	01-11-2021	0.44		
Haveli Kharagpur GIS	4	Tr-02/150 MVA, 132/33 kV	14.30	18:00	28-11-2021	1.0	08:00	17-11-2021	5.19		
	1	Tr-01/160 MVA, 220/132 kV	41.80	18:00	04-11-2021	6.60	13:00	06-11-2021	20.98		
	2	Tr-02/160 MVA, 220/132 kV	30.30	18:00	04-11-2021	4.10	13:00	06-11-2021	19.74		
	3	Tr-01/150 MVA, 132/33 kV	5.45	18:00	10-11-2021	1.1	13:00	03-11-2021	3.23		
	4	Tr-02/150 MVA, 132/33 kV	3.25	04:00	11-11-2021	0.6	16:00	27-11-2021	1.85		
Goradhi GIS	1	Tr-01/160 MVA, 220/132 kV	71.60	19:00	22-11-2021	0.92	00:00	00:00	5.73		
	2	Tr-02/160 MVA, 220/132 kV			Not Commissioned						
	3	Tr-01/150 MVA, 132/33 kV	14.60	17:00	26-11-2021	0.02	14:00	07-11-2021	3.62		
	4	Tr-02/150 MVA, 132/33 kV	13.50	03:00	11-11-2021	0.92	10:00	30-11-2021	8.28		
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV			Not Commissioned						
	2	Tr-02/160 MVA, 220/132 kV	61.90	18:00	05-11-2021	0.02	00:00	01-11-2021	23.22		
	3	Tr-01/180 MVA, 132/33 kV			Not Commissioned						
	4	Tr-02/180 MVA, 132/33 kV	0.02	01:00	01-11-2021	0.00	00:00	30-11-2021	0.82		
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	73.19	18:00	18-11-2021	25.43	15:00	11-09-2021	46.53		
	2	Tr-01/180 MVA, 132/33 kV	0.04	00:00	11-01-2021	0.03	18:00	11-01-2021	2.09		
	3	Tr-02/180 MVA, 132/33 kV	16.09	08:00	28-11-2021	0.08	12:00	11-01-2021	4.99		
Note	Negative sign (-) denote import of power and positive sign (+) denote export of power. For example (-) 101.94 MW in Hajipur - Amnour ckt-1 denotes import of 101.94 MW from Hajipur S/S to Amnour S/S and 47.86 MW in Amnour -Siwan ckt-1 denotes 47.86 MW from Amnour to Siwan S/S.										

**BIHAR GRID COMPANY LIMITED**  
**Loading level of Transmission Assets**

Month: December 2021

Voltage Grade	S.No	Name of TL	Load							Remark
			MW							
			Max	Time	Date	Min	Time	Date	Avg of Month	
<b>A. Power Flow in 220kV transmission line</b>										
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	116.04	18:00	31-12-2021	12.37	05:00	29-12-2021	65.33	
	2	Hajipur - Amnour ckt-02	101.91	19:00	31-12-2021	14.35	15:00	28-12-2021	61.41	
	3	Patna (FG) - Khagaul ckt-02	97.69	19:00	21-12-2021	32.71	03:00	16-12-2021	54.75	
	4	Patna (FG) - Khagaul ckt-03	91.88	19:00	11-12-2021	32.91	03:00	16-12-2021	59.13	
	5	Khijirsarai - Bihar Sharif ckt-01	137.45	18:00	20-12-2021	19.26	15:00	19-12-2021	59.36	
	6	Khijirsarai - Bihar Sharif ckt-02	137.87	18:00	20-12-2021	18.12	15:00	19-12-2021	58.90	
	7	Khijirsarai - Bodh Gaya ckt-01	45.15	17:00	20-12-2021	0.01	13:00	04-12-2021	3.49	
	8	Khijirsarai - Bodh Gaya ckt-02	45.35	17:00	20-12-2021	0.25	08:00	24-12-2021	1.50	
	9	Khijirsarai - Gaya (FG) ckt-01	81.52	17:00	20-12-2021	2.93	04:00	28-12-2021	34.76	
	10	Khijirsarai - Gaya (FG) ckt-02	82.75	17:00	20-12-2021	2.85	04:00	29-12-2021	37.43	
	11	Khijirsarai - Nari ckt-01	116.90	12:00	29-12-2021	19.75	15:00	04-12-2021	50.68	
	12	Khijirsarai - Nari ckt-02	116.63	12:00	29-12-2021	19.71	15:00	04-12-2021	49.82	
	13	Narhat - Sekhopur Sarai ckt-01	78.12	12:00	29-12-2021	9.75	12:00	24-12-2021	27.70	
	14	Narhat - Sekhopur Sarai ckt-02	77.84	12:00	29-12-2021	9.80	12:00	24-12-2021	27.57	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	67.01	18:00	29-12-2021	9.9	17:00	24-12-2021	6.51	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	127.00	17:00	29-12-2021	8.52	12:00	24-12-2021	35.53	
	17	Haveli Kharagpur - Goradih ckt-01	19.80	17:00	29-12-2021	0.00	00:00	29-12-2021	-0.12	
	18	Haveli Kharagpur - Goradih ckt-02	0.00	0	0	0.00	00:00	0	0.05	System connected but no power flow
	19	Mokama-Bihar Sharif ckt-1	112.50	09:00	01-12-2021	0.00	01:00	01-12-2021	28.7	
	20	Mokama-Bihar Sharif ckt-2	115.50	09:00	01-12-2021	0.00	01:00	01-12-2021	28.08	
	21	Mokama-BTPS ckt-1	111.80	09:00	01-12-2021	0.00	01:00	01-12-2021	32.89	
	22	Mokama-BTPS ckt-2	111.10	09:00	01-12-2021	0.00	01:00	01-12-2021	33.16	
	23	Ara (PG)-Dumraon New - C1	68.89	17:00	21-12-2021	0.04	00:00	12-01-2021	-6.71	
	24	Ara (PG)-Dumraon New - C2	69.15	17:00	21-12-2021	0.04	01:00	12-01-2021	-6.68	
	25	Dumraon New-Nadokha - 01	49.34	19:00	16-12-2021	-0.13	08:00	12-04-2021	18.14	
	26	Dumraon New-Nadokha - 02	45.34	19:00	16-12-2021	0.03	18:00	12-02-2021	-18.78	
<b>B. Power Flow in 132 kV transmission line</b>										
132 kV (29 nos.)	1	Amnour - Siwan ckt-01	52.66	12:00	29-12-2021	0.03	08:00	18-12-2021	21.23	
	2	Amnour - Siwan ckt-02	61.52	07:00	17-12-2021	12.53	04:00	16-12-2021	27.85	
	3	Amnour - Chhapara ckt-01	55.65	19:00	31-12-2021	5.7	05:00	29-12-2021	01.28	
	4	Amnour - Chhapara ckt-02	63.45	17:00	02-12-2021	6.71	05:00	29-12-2021	01.28	
	5	Khijirsarai - Bodh Gaya ckt-03	0.16	04:00	12-12-2021	0	11:00	01-12-2021	6.03	
	6	Khijirsarai - Hattiganj ckt-01	38.70	16:00	20-12-2021	0	16:00	27-12-2021	18.10	
	7	Khijirsarai - Hattiganj ckt-02	0.04	04:00	25-12-2021	0	08:00	01-12-2021	0.01	
	8	Khijirsarai - Jehanabad ckt-01	70.03	18:00	25-12-2021	9.95	12:00	24-12-2021	44.14	
	9	Khijirsarai - Jehanabad ckt-02	70.02	18:00	25-12-2021	8.33	18:00	28-12-2021	44.13	
	10	Narhat - Nawadah ckt-01	47.84	09:00	26-12-2021	0.01	01:00	01-12-2021	15.92	
	11	Narhat - Nawadah ckt-02	45.72	18:00	25-12-2021	0.01	01:00	01-12-2021	14.44	
	12	Haveli Kharagpur - Sultanganj ckt-01	65.80	12:00	29-12-2021	52.10	16:00	29-12-2021	0.01	
	13	Haveli Kharagpur - Sultanganj ckt-02	15.50	18:00	23-12-2021	0.66	15:00	10-12-2021	8.49	
	14	Haveli Kharagpur - Lakhisarai ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0.00	
	16	Haveli Kharagpur - Jamiapur ckt-01	46.80	10:00	24-12-2021	9.66	12:00	29-12-2021	28.83	
	17	Haveli Kharagpur - Jamiapur ckt-02	0	0	0	0	0	0	0.00	
	18	Sekhopur Sarai - Sekhipura ckt-01	17.80	09:00	29-12-2021	3.1	14:00	24-12-2021	3.45	
	19	Sekhopur Sarai - Sekhipura ckt-02	12.90	09:00	29-12-2021	2.6	17:00	29-12-2021	3.51	
	20	Sekhopur Sarai - Bihar Sharif	0	0	0	0	0	0	0.00	System connected but no power flow
	21	Goradih - Sultanganj ckt-01	0	0	0	0	0	0	0.01	
	22	Goradih - Sultanganj ckt-02	0	0	0	0	0	0	0.01	
	23	Goradih - Kahalganj ckt-01	0	0	0	0	0	0	0.00	
	24	Goradih - Kahalganj ckt-02	0	0	0	0	0	0	0.01	
	25	Goradih - Sabour ckt-01	-72.70	17:00	21-12-2021	0.70	02:00	29-12-2021	-9.87	
	26	Goradih - Sabour ckt-02	-23.10	17:00	26-12-2021	-1.20	05:00	30-12-2021	-3.05	System connected but no power flow
	27	Mokama-Hatidah ckt-01	27.00	18:00	18-12-2021	0.00	01:00	01-12-2021	3.88	
	28	Mokama-Hatidah ckt-02	27.20	18:00	18-12-2021	0.00	01:00	01-12-2021	3.97	
	29	132kV D/C Dumraon New-Dumraon (BSP/TL) ckt-2	90.74	08:00	25-12-2021	7.99	03:00	12-04-2021	40.80	
Substation Details	S.No.	MVA Capacity	Load							Remark
			Max	Time	Date	Min	Time	Date		
<b>C. Power Flow in transformers</b>										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	122.02	19:00	30-12-2021	6.71	05:00	29-12-2021	63.91	
	2	Tr-02/160 MVA, 220/132 kV	153.37	19:00	30-12-2021	6.29	05:00	29-12-2021	64.78	
	3	Tr-01/50 MVA, 132/33 kV	18.23	19:00	30-12-2021	0.03	16:00	29-12-2021	10.68	
	4	Tr-02/50 MVA, 132/33 kV	18.3	19:00	30-12-2021	0.03	15:00	22-12-2021	10.76	
Khijirsarai GIS	1	Tr-01/160 MVA, 220/132 kV	89.43	18:00	20-12-2021	8	18:00	28-12-2021	56.77	
	2	Tr-02/160 MVA, 220/132 kV	92.23	18:00	20-12-2021	8.93	18:00	28-12-2021	58.80	
	3	Tr-01/50 MVA, 132/33 kV								Not Commissioned
Narhat GIS	4	Tr-02/50 MVA, 132/33 kV	3.96	08:00	27-12-2021	0.03	15:00	17-12-2021	1.98	
	5	Tr-03/50 MVA, 132/33 kV	12.29	18:00	01-12-2021	1.68	00:00	29-12-2021	7.15	
	6	Tr-01/160 MVA, 220/132 kV	58.28	19:00	26-12-2021	0.03	17:00	06-12-2021	10.23	
	7	Tr-02/160 MVA, 220/132 kV	52.40	19:00	26-12-2021	0.04	13:00	07-12-2021	10.29	
	8	Tr-01/50 MVA, 132/33 kV	12.39	17:00	27-12-2021	0.07	08:00	29-12-2021	2.97	
Sekhopur Sarai GIS	4	Tr-02/50 MVA, 132/33 kV	15.37	12:00	18-12-2021	0.03	16:00	27-12-2021	7.78	
	1	Tr-01/160 MVA, 220/132 kV	45.40	09:00	25-12-2021	0.09	15:00	10-12-2021	24.80	
	2	Tr-02/160 MVA, 220/132 kV	0	0	0	0	0	0	0.00	
	3	Tr-01/50 MVA, 132/33 kV	0.90	08:00	19-12-2021	0.20	09:00	01-12-2021	0.44	
Haveli Kharagpur GIS	4	Tr-02/50 MVA, 132/33 kV	12.70	19:00	08-12-2021	0.2	12:00	16-12-2021	5.18	
	1	Tr-01/160 MVA, 220/132 kV	56.90	17:00	29-12-2021	10.60	14:00	20-12-2021	20.95	
	2	Tr-02/160 MVA, 220/132 kV	54.80	17:00	29-12-2021	9.10	14:00	20-12-2021	19.73	
	3	Tr-01/50 MVA, 132/33 kV	5.20	18:00	28-12-2021	0.2	08:00	18-12-2021	3.29	
Goradih GIS	4	Tr-02/50 MVA, 132/33 kV	3.29	18:00	28-12-2021	0.2	06:00	30-12-2021	1.85	
	1	Tr-01/160 MVA, 220/132 kV	89.70	17:00	29-12-2021	0.90	19:00	22-12-2021	5.29	
	2	Tr-02/160 MVA, 220/132 kV								Not Commissioned
	3	Tr-01/50 MVA, 132/33 kV	18.30	17:00	26-12-2021	0.20	14:00	18-12-2021	1.62	
Mokama GIS	4	Tr-02/50 MVA, 132/33 kV	14.50	17:00	26-12-2021	0.80	02:00	29-12-2021	8.26	
	1	Tr-01/160 MVA, 220/132 kV								Not Commissioned
	2	Tr-02/160 MVA, 220/132 kV	54.30	18:00	18-12-2021	0.00	01:00	03-12-2021	24.72	
	3	Tr-01/50 MVA, 132/33 kV								Not Commissioned
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	106.8	09:00	25-12-2021	28.28	02:00	13-04-2021	44.83	
	2	Tr-01/80 MVA, 132/33 kV	22.27	18:00	24-12-2021	0.03	18:00	12-07-2021	7.59	
	3	Tr-02/80 MVA, 132/33 kV	15.78	08:00	12-03-2021	0.01	18:00	18-12-2021	4.99	
Note	Negative sign(-) denote import of power and positive sign (+) denote export of power. For example (-) 116.04 MW in Hajipur - Amnour ckt-1 denotes import of 116.04 MW from Hajipur S/S to Amnour S/S and 52.66 MW in Amnour - Siwan ckt-1 denotes 52.66 MW from Amnour to Siwan S/S.									



**BIHAR GRID COMPANY LIMITED**  
**Loading level of Transmission Assets**

Month: **January 2022**

Voltage Grade	S.No	Name of TL	Load MW						Avg of Month	Remark
			Max	Time	Date	Min	Time	Date		
<b>A. Power Flow in 220kV transmission line</b>										
220 kV (26 nos.)	1	Hajipur - Amnour ckt-01	135.92	17:00	08-01-2022	-39.13	15:00	23-01-2022	68.49	
	2	Hajipur - Amnour ckt-02	134.86	10:00	07-01-2022	18.74	15:00	23-01-2022	61.49	
	3	Patna (FG) - Khagaul ckt-02	117.92	18:41	02-01-2022	32.97	04:00	24-01-2022	67.05	
	4	Patna (FG) - Khagaul ckt-03	113.53	13:00	07-01-2022	32.69	04:00	23-01-2022	66.26	
	5	Khijisara - Biharsharif ckt-01	162.66	16:00	21-01-2022	-24.82	06:00	25-01-2022	-74.80	
	6	Khijisara - Biharsharif ckt-02	-134.27	18:00	20-01-2022	23.18	23:00	18-01-2022	-74.03	
	7	Khijisara - Bodh Gaya ckt-01	79.86	10:00	13-01-2022	0.01	11:00	29-01-2022	-15.17	
	8	Khijisara - Bodh Gaya ckt-02	137.88	11:00	03-01-2022	0	14:00	18-01-2022	-19.28	
	9	Khijisara - Gaya (FG) ckt-01	116.32	10:00	05-01-2022	0.11	20:00	07-01-2022	-41.34	
	10	Khijisara - Gaya (FG) ckt-02	-116.57	10:00	03-01-2022	-14.19	08:00	23-01-2022	-42.72	
	11	Khijisara - Narhat ckt-01	-111.20	19:00	18-01-2022	28.59	15:00	03-01-2022	61.62	
	12	Khijisara - Narhat ckt-02	133.02	19:00	18-01-2022	28.60	05:00	23-01-2022	62.88	
	13	Narhat - Sekkopur Sara ckt-01	95.78	19:00	18-01-2021	20.45	04:00	25-01-2022	38.28	
	14	Narhat - Sekkopur Sara ckt-02	152.87	12:00	18-01-2021	28.42	04:00	25-01-2022	38.81	
	15	Sekkopur Sarai - Haveli Kharagpur ckt-01	69.20	19:00	18-01-2021	-9.6	13:00	17-01-2022	-17.88	
	16	Sekkopur Sarai - Haveli Kharagpur ckt-02	69.10	19:00	18-01-2021	-9.5	13:00	17-01-2022	-30.87	
	17	Haveli Kharagpur - Goradhi ckt-01	35.90	19:00	18-01-2021	74.5	14:00	18-01-2022	0.47	
	18	Haveli Kharagpur - Goradhi ckt-02	56.90	15:00	07-01-2022	9.00	23:00	18-01-2022	0.70	
	19	Mokama-Biharsharif ckt-1	105.10	18:00	12-01-2022	0.00	20:00	07-01-2022	34.53	
	20	Mokama-Biharsharif ckt-2	109.00	18:00	12-01-2022	0.00	20:00	07-01-2022	33.25	
	21	Mokama-BTPS ckt-1	69.80	23:00	13-01-2022	0.00	00:00	02-01-2022	-18.41	
	22	Mokama-BTPS ckt-2	69.00	23:00	13-01-2022	0.00	00:00	02-01-2022	-18.43	
	23	Ara (FG) Dumrao - New - D1	51.73	13:00	31-01-2022	0.02	22:00	13-01-2022	3.49	
	24	Ara (FG) Dumrao - New - D2	51.91	13:00	31-01-2022	-0.02	06:00	14-01-2022	3.47	
	25	Dumraon New-Nadokhar - 01	84.11	13:00	31-01-2022	-1.72	17:00	05-01-2022	-23.50	
	26	Dumraon New-Nadokhar - 02	-84.83	13:00	31-01-2022	-1.72	17:00	05-01-2022	-23.48	
<b>B. Power Flow in 132 kV transmission line</b>										
132 kV (29 nos.)	1	Amnour - Swan ckt-01	65.06	08:00	09-01-2022	0.01	03:00	07-01-2022	28.77	
	2	Amnour - Swan ckt-02	66.06	08:00	29-01-2022	9.02	13:00	10-01-2022	38.20	
	3	Amnour - Chapara ckt-01	42.96	20:00	27-01-2022	5.76	04:00	09-01-2022	25.12	
	4	Amnour - Chapara ckt-02	42.36	20:00	27-01-2022	5.76	04:00	07-01-2022	24.56	
	5	Khijisara - Bodh Gaya ckt-03	0.09	06:00	25-01-2022	0	11:00	07-01-2022	0.01	
	6	Khijisara - Wajirganj ckt-01	46.02	18:00	17-01-2022	0.95	13:00	27-01-2022	24.65	
	7	Khijisara - Hulsaganj ckt-01	57.98	10:00	21-01-2022	0	14:00	01-01-2022	11.66	
	8	Khijisara - Jehanabad ckt-01	78.94	19:00	29-01-2022	0.07	14:00	16-01-2022	44.73	
	9	Khijisara - Jehanabad ckt-02	79.00	19:00	29-01-2022	0.07	14:00	16-01-2022	44.06	
	10	Narhat - Nawadah ckt-01	41.02	10:00	11-01-2022	1.28	13:00	18-01-2022	18.67	
	11	Narhat - Nawadah ckt-02	37.44	10:00	11-01-2022	1.30	13:00	18-01-2022	16.49	
	12	Haveli Kharagpur - Sultanganj ckt-01	65.70	12:00	21-01-2022	41.60	14:00	21-01-2022	0.01	
	13	Haveli Kharagpur - Sultanganj ckt-02	14.83	18:00	20-01-2022	3.70	14:00	25-01-2022	9.46	
	14	Haveli Kharagpur - Lakhisara ckt-01	0	0	0	0	0	0	0.00	System connected but no power flow
	15	Haveli Kharagpur - Lakhisara ckt-02	0	0	0	0	0	0	0.00	
	16	Haveli Kharagpur - Jamalpur ckt-01	49.12	10:00	19-01-2022	14.00	11:00	29-01-2022	31.11	
	17	Haveli Kharagpur - Jamalpur ckt-02	0	0	0	0	0	0	0.00	
	18	Sekkopur Sarai - Sekhpura ckt-01	19.40	09:00	20-01-2022	3.1	14:00	24-01-2022	11.20	
	19	Sekkopur Sarai - Sekhpura ckt-02	19.40	09:00	20-01-2022	3.8	14:00	24-01-2022	11.24	
	20	Sekkopur Sarai - Biharsharif	0	0	0	0	0	0	0.00	
	21	Goradhi - Sultanganj ckt-01	0	0	0	0	0	0	0.01	System connected but no power flow
	22	Goradhi - Sultanganj ckt-02	0	0	0	0	0	0	0.01	
	23	Goradhi - Kahalgagan ckt-01	24.90	14:00	07-01-2022	0.00	00:00	01-01-2022	0.12	
	24	Goradhi - Kahalgagan ckt-02	28.00	14:00	07-01-2022	0.00	00:00	01-01-2022	0.11	
	25	Goradhi - Sabour ckt-01	21.50	19:00	18-01-2022	0.00	12:00	20-01-2022	5.14	
	26	Goradhi - Sabour ckt-02	37.60	18:00	18-01-2022	0.04	17:00	17-01-2022	4.75	
	27	Mokama-Hatidah ckt-01	50.30	08:00	31-01-2022	0.00	01:00	01-01-2022	16.04	
	28	Mokama-Hatidah ckt-02	50.30	08:00	31-01-2022	0.00	01:00	01-01-2022	16.34	
	29	132kV D/C Dumraon New-Dumraon (ESPTCL) ckt-2	81.52	19:00	19-01-2022	25.38	04:00	23-01-2022	46.97	
Substation Details	S.No.	MVA Capacity	Load MW						Remark	
			Max	Time	Date	Min	Time	Date		
<b>C. Power Flow in transformers</b>										
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	132.39	18:00	06-01-2022	25.83	17:00	08-01-2022	67.24	
	2	Tr-02/160 MVA, 220/132 kV	138.07	18:00	05-01-2022	26.16	17:00	08-01-2022	68.20	
	3	Tr-03/50 MVA, 132/33 kV	20.35	18:00	18-01-2022	0.93	12:00	17-01-2022	11.75	
	4	Tr-02/50 MVA, 132/33 kV	29.61	11:00	04-01-2022	0.93	15:00	27-01-2022	12.06	
Khijisara Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	113.45	19:00	11-01-2022	20.54	05:00	23-01-2022	65.65	
	2	Tr-02/160 MVA, 220/132 kV	116.82	19:00	31-01-2022	21.79	05:00	23-01-2022	68.69	
	3	Tr-01/50 MVA, 132/33 kV								Not Commissioned
	4	Tr-02/50 MVA, 132/33 kV	4.26	08:00	09-01-2022	0.05	09:00	02-01-2022	2.32	
	5	Tr-03/50 MVA, 132/33 kV	13.36	08:00	24-01-2022	0.1	18:00	16-01-2022	6.66	
Narhat GIS	1	Tr-01/160 MVA, 220/132 kV	45.48	10:00	11-01-2022	7.17	13:00	18-01-2022	12.73	
	2	Tr-02/160 MVA, 220/132 kV	45.59	10:00	11-01-2022	7.16	11:00	03-01-2022	11.29	
	3	Tr-01/50 MVA, 132/33 kV	5.42	09:00	07-01-2022	0.09	13:00	17-01-2022	3.32	
	4	Tr-02/50 MVA, 132/33 kV	14.89	10:00	09-01-2022	0.03	10:00	05-01-2022	8.46	
Sekkopur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	43.30	08:00	07-01-2022	3.90	06:00	23-01-2022	18.32	
	2	Tr-02/160 MVA, 220/132 kV	44.18	18:00	29-01-2022	2.40	06:00	23-01-2022	20.02	
	3	Tr-01/50 MVA, 132/33 kV	12.80	13:00	06-01-2022	0.20	16:00	01-01-2022	5.12	
Haveli Kharagpur GIS	1	Tr-02/50 MVA, 132/33 kV	12.30	07:00	24-01-2022	0.5	06:00	23-01-2022	6.06	
	2	Tr-01/160 MVA, 220/132 kV	63.00	17:00	20-01-2022	10.30	13:00	17-01-2022	24.32	
	3	Tr-02/160 MVA, 220/132 kV	60.80	12:00	20-01-2022	8.90	13:00	17-01-2022	22.74	
	4	Tr-01/50 MVA, 132/33 kV	5.50	18:00	06-01-2022	0.50	14:00	07-01-2022	0.93	
Goradhi GIS	1	Tr-02/160 MVA, 220/132 kV	9.22	18:00	17-01-2022	0.20	18:00	17-01-2022	4.77	
	2	Tr-02/160 MVA, 220/132 kV	-72.40	18:00	18-01-2022	0.00	00:00	01-01-2022	3.12	
	3	Tr-02/50 MVA, 132/33 kV								Not Commissioned
Mokama GIS	1	Tr-02/50 MVA, 132/33 kV	15.30	12:00	10-01-2022	0.00	15:00	05-01-2022	1.53	
	2	Tr-02/50 MVA, 132/33 kV	14.60	17:00	17-01-2022	0.00	15:00	16-01-2022	9.28	
	3	Tr-01/160 MVA, 220/132 kV								Not Commissioned
Dumraon GIS	1	Tr-02/160 MVA, 220/132 kV	108.00	08:00	28-01-2022	0.00	01:00	01-01-2022	41.73	
	2	Tr-02/80 MVA, 132/33 kV								Not Commissioned
	3	Tr-02/80 MVA, 132/33 kV	0.00	01:00	04-11-2021	0.00	00:00	30-11-2021	0.07	
Note	1	Tr-01/160 MVA, 220/132 kV	91.78	09:00	18-01-2022	3.39	14:00	06-01-2022	54.80	
	2	Tr-01/80 MVA, 132/33 kV	21.76	17:00	01-01-2022	0.20	19:00	19-01-2022	4.90	
	3	Tr-02/80 MVA, 132/33 kV	0.04	00:00	01-01-2022	0.00	07:00	22-01-2022	0.12	

Negative sign (-) denote import of power and positive sign (+) denote export of power. For example (-) 135.92 MW in Hajipur - Amnour ckt-1 denotes import of 135.92 MW from Hajipur 5/5 to Amnour 5/5 and 65.06 MW in Amnour - Swan ckt-1 denotes 65.06 MW from Amnour to Swan 5/5.

**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: February 2022

Voltage Grade	S.No	Name of TL	Load MW						Remark
			Max	Time	Date	Min	Time	Date	
			Avg of Month						
<b>A. Power Flow in 220kV transmission line</b>									
220 KV (26 nos.)	1	Hajipur - Amnour ckt-01	131.74	06:00	04-02-2022	0.11	04:00	04-02-2022	15.67
	2	Hajipur - Amnour ckt-02	104.77	08:00	07-02-2022	27.78	00:00	05-02-2022	1.88
	3	Patna (PG) - Khagaul ckt-01	109.5	16:00	11-02-2022	0	18:00	02-02-2022	45.12
	4	Patna (PG) - Khagaul ckt-02	121.64	02:00	04-02-2022	27.64	14:00	27-02-2022	68.17
	5	Khijisaraï - Biharsharif ckt-01	178.96	17:00	04-02-2022	19.84	14:00	27-02-2022	87.02
	6	Khijisaraï - Biharsharif ckt-02	147.21	18:00	21-02-2022	20.93	14:00	27-02-2022	81.96
	7	Khijisaraï - Bodh Gaya ckt-01	42.07	20:00	19-02-2022	0.02	02:00	25-02-2022	-16.75
	8	Khijisaraï - Bodh Gaya ckt-02	42.05	20:00	19-02-2022	0.05	02:00	17-02-2022	-13.60
	9	Khijisaraï - Gaya (PG) ckt-01	64.30	20:00	19-02-2022	0.5	15:00	08-02-2022	-45.77
	10	Khijisaraï - Gaya (PG) ckt-02	64.31	20:00	19-02-2022	0.19	23:00	24-02-2022	47.39
	11	Khijisaraï - Narnhat ckt-01	114.48	09:00	22-02-2022	-1.24	03:00	04-02-2022	70.23
	12	Khijisaraï - Narnhat ckt-02	114.77	09:00	22-02-2022	11.25	03:00	04-02-2022	70.12
	13	Narnhat - Sechopur Sarai ckt-01	75.38	09:00	22-02-2022	14.79	21:00	14-02-2022	32.09
	14	Narnhat - Sechopur Sarai ckt-02	105.01	15:00	05-02-2022	13.89	21:00	24-02-2022	38.74
	15	Sechopur Sarai - Haveli Kharagpur ckt-01	56.30	08:00	28-02-2022	17.7	03:00	25-02-2022	51.05
	16	Sechopur Sarai - Haveli Kharagpur ckt-02	63.30	15:00	07-02-2022	10.8	03:00	04-02-2022	57.45
	17	Haveli Kharagpur - Gorad h ckt-01	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0
	18	Haveli Kharagpur - Gorad h ckt-02	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0
	19	Mokama-Biharsharif ckt-1	32.90	17:00	28-02-2022	0.00	09:00	23-02-2022	5.58
	20	Mokama-Biharsharif ckt-2	33.80	17:00	28-02-2022	0.00	20:00	17-02-2022	5.74
	21	Mokama-BTP5 ckt-1	60.90	21:00	24-02-2022	0.00	01:00	04-02-2022	-33.1
	22	Mokama-BTP5 ckt-2	62.70	21:00	24-02-2022	0.00	01:00	04-02-2022	-34.33
	23	Ara(PS)-Dumraon New - 01	40.27	18:00	02-04-2022	0.02	24:00	27-02-2022	5.55
	24	Ara(PS)-Dumraon New - 02	-40.32	18:00	02-04-2022	-0.01	04:00	28-02-2022	5.52
	25	Dumraon New-Nadokher - 01	-46.71	09:00	02-03-2022	0.11	13:00	01-04-2022	-18.65
	26	Dumraon New-Nadokher - 02	-45.91	09:00	03-03-2022	0.03	13:00	02-04-2022	-18.65
<b>B. Power Flow in 132 kV transmission line</b>									
132 KV (29 nos.)	1	Amnour - Siwan ckt-01	55.35	12:00	13-02-2022	0.01	08:00	21-02-2022	23.79
	2	Amnour - Siwan ckt-02	61.89	15:00	05-02-2022	3.61	04:00	08-02-2022	35.99
	3	Amnour - Champara ckt-01	54.61	19:00	15-02-2022	9.27	19:00	19-02-2022	23.97
	4	Amnour - Champara ckt-02	55.26	07:00	05-02-2022	0.01	07:00	04-02-2022	31.02
	5	Khijisaraï - Bodh Gaya ckt-03	0.17	06:00	04-02-2022	0	14:00	01-02-2022	0.01
	6	Khijisaraï - Wajiganj ckt-01	47.44	08:00	24-02-2022	0.06	10:00	15-02-2022	22.29
	7	Khijisaraï-Nulaganj ckt-01	67.68	10:00	20-02-2022	0	00:00	22-02-2022	12.91
	8	Khijisaraï - Jehanabad ckt-01	21.10	19:00	17-02-2022	4.36	23:00	04-02-2022	49.86
	9	Khijisaraï - Jehanabad ckt-02	21.11	18:00	17-02-2022	4.2	23:00	04-02-2022	49.76
	10	Narnhat - Nawadah ckt-01	37.36	11:00	20-02-2022	1.04	03:00	04-02-2022	17.35
	11	Narnhat - Nawadah ckt-02	49.99	13:00	07-02-2022	0.17	17:00	27-02-2022	15.29
	12	Haveli Kharagpur - Sultanganj ckt 01	0	0	0	0	0	0	0
	13	Haveli Kharagpur - Sultanganj ckt-02	14.80	19:00	02-02-2022	1.50	15:00	05-02-2022	8.78
	14	Haveli Kharagpur - Lakhisarai ckt-01	23.60	17:00	15-02-2022	16.90	15:00	13-02-2022	0.16
	15	Haveli Kharagpur - Lakhisarai ckt-02	0	0	0	0	0	0	0
	16	Haveli Kharagpur - Jamalpur ckt-01	44.30	09:00	04-02-2022	7.30	14:00	07-02-2022	27.35
	17	Haveli Kharagpur - Jamalpur ckt-02							
	18	Sechopur Sarai - Sekhpara ckt-01	42.40	09:00	22-02-2022	3.2	00:00	24-02-2022	17.42
	19	Sechopur Sarai - Sekhpara ckt-02	42.40	09:00	22-02-2022	4.0	06:00	04-02-2022	17.52
	20	Sechopur Sarai - Biharsharif	0	0	0	0	0	0	0
	21	Gorad h - Sultanganj ckt-01	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0.01
	22	Gorad h - Sultanganj ckt-02	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0.01
	23	Gorad h - Kaha gaon ckt-01	0.01	00:00	01-02-2022	0.00	00:00	28-02-2022	0.01
	24	Gorad h - Kaha gaon ckt-02	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0.00
	25	Gorad h - Sabour ckt-01	8.20	16:00	12-02-2022	2.00	09:00	04-02-2022	-4.56
	26	Gorad h - Sabour ckt-02	-8.20	12:00	28-02-2022	0.20	15:00	24-02-2022	-4.61
	27	Mokama-Hatidah ckt-01	54.00	09:00	16-02-2022	0.00	18:00	21-02-2022	27.3
	28	Mokama-Hatidah ckt-02	54.00	09:00	16-02-2022	0.00	18:00	21-02-2022	27.54
	29	132KV D/C Dumraon - New-Dumraon(BSPTCL)ckt-2	44.79	18:00	02-12-2022	0.69	07:00	02-04-2022	44.05
Substation Details			Load MW						Remark
S.No.	MVA Capacity	Max	Time	Date	Min	Time	Date		
<b>C. Power Flow in transformers</b>									
Amnour GIS	1	Tr-01/160 MVA, 220/132 kV	103.8	08:00	07-02-2022	0.06	06:00	04-02-2022	64.78
	2	Tr-02/160 MVA, 220/132 kV	149.14	11:00	20-02-2022	0.06	06:00	04-02-2022	66.90
	3	Tr-01/50 MVA, 132/33 kV	37.83	18:00	05-02-2022	0.26	21:00	17-02-2022	10.75
	4	Tr-02/50 MVA, 132/33 kV	23.26	12:00	24-02-2022	0.03	18:00	21-02-2022	10.17
Khijisaraï GIS	1	Tr-01/160 MVA, 220/132 kV	173.47	10:00	20-02-2022	0	00:00	04-02-2022	72.69
	2	Tr-02/160 MVA, 220/132 kV	126.88	10:00	20-02-2022	9.51	00:00	04-02-2022	76.04
	3	Tr-01/50 MVA, 132/33 kV							
Narnhat GIS	1	Tr-01/50 MVA, 132/33 kV	15.33	12:00	21-02-2022	0.03	17:00	02-02-2022	2.56
	2	Tr-02/50 MVA, 132/33 kV	15.40	08:00	22-02-2022	0.1	00:00	04-02-2022	1.28
	1	Tr-01/160 MVA, 220/132 kV	20.29	19:00	07-02-2022	0.06	14:00	11-02-2022	11.84
	2	Tr-02/160 MVA, 220/132 kV	47.33	11:00	20-02-2022	0.11	01:00	04-02-2022	10.29
	3	Tr-01/50 MVA, 132/33 kV	5.84	08:00	20-02-2022	0.04	01:00	04-02-2022	3.57
Sechopur Sarai GIS	1	Tr-02/50 MVA, 132/33 kV	16.83	08:00	23-02-2022	0.03	18:00	24-02-2022	8.57
	1	Tr-01/160 MVA, 220/132 kV	47.60	09:00	27-02-2022	0.90	04:00	04-02-2022	23.79
	2	Tr-02/160 MVA, 220/132 kV	47.2	09:00	23-02-2022	4	15:00	04-02-2022	23.77
	3	Tr-01/50 MVA, 132/33 kV	10.80	18:00	02-02-2022	0.20	12:00	01-02-2022	1.25
Haveli Kharagpur GIS	1	Tr-02/50 MVA, 132/33 kV	16.40	07:00	18-02-2022	1.5	18:00	27-02-2022	16.20
	1	Tr-01/160 MVA, 220/132 kV	32.10	19:00	02-02-2022	7.30	14:00	07-02-2022	21.58
	2	Tr-02/160 MVA, 220/132 kV	80.70	19:00	02-02-2022	6.20	03:00	04-02-2022	20.25
Gorad h GIS	3	Tr-01/50 MVA, 132/33 kV	0	0	0	0	0	0	
	4	Tr-02/50 MVA, 132/33 kV	8.80	11:00	13-02-2022	1.00	02:00	04-02-2022	5.43
	1	Tr-01/160 MVA, 220/132 kV	0.00	00:00	01-02-2022	0.00	00:00	28-02-2022	0.04
	2	Tr-02/160 MVA, 220/132 kV							
Mokama GIS	1	Tr-01/50 MVA, 132/33 kV	12.70	07:00	08-02-2022	0.20	00:00	01-02-2022	3.80
	2	Tr-02/50 MVA, 132/33 kV	15.10	06:00	01-02-2022	1.50	04:00	01-02-2022	5.14
	1	Tr-01/160 MVA, 220/132 kV							
	2	Tr-02/160 MVA, 220/132 kV							
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	107.70	09:00	16-02-2022	0.00	18:00	21-02-2022	40.87
	2	Tr-01/50 MVA, 132/33 kV							
	3	Tr-01/50 MVA, 132/33 kV	0.00	01:00	01-02-2022	0.00	00:00	28-02-2022	0.00
	4	Tr-02/50 MVA, 132/33 kV	92.8	16:00	02-02-2022	14.03	02:00	02-04-2022	54.27
Note	1	Tr-01/160 MVA, 220/132 kV	18.76	09:00	02-01-2022	0.22	21:00	07-03-2022	4.34
	3	Tr-02/50 MVA, 132/33 kV	19.21	08:00	18-02-2022	3.53	16:00	28-02-2022	6.52



**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: March 2022

Voltage Grade	S.No	Name of TL	Load							Remark
			MW		Time		Date		Avg of Month	
			Max	Time	Min	Time	Date	Date		
<b>A. Power Flow in 400KV transmission line</b>										
400 kv (04 nos)	1	Patna (FC) - Nandipur ckt-01	106.52	6:00	71.01	20:22	100.39	14:00	29.03.2022	156.33
	2	Patna (FC) - Nandipur ckt-02	192	6:30	23.04	20:22	111.56	15:00	29.03.2022	175.57
	3	Nandipur - Bhatapara ckt-01	108.37	6:00	71.01	20:22	109.09	13:00	29.03.2022	92.19
	4	Nandipur - Bhatapara ckt-02	102.16	6:00	71.01	20:22	112.04	13:00	29.03.2022	128.52
<b>B. Power Flow in 220KV transmission line</b>										
220 kv (26 nos)	1	Hajipur - Amroha ckt-01	176.2	21:30	19.03	20:22	21.46	15:00	01.03.2022	27.56
	2	Hajipur - Amroha ckt-02	176.45	21:30	19.03	20:22	31.48	15:00	01.03.2022	76.11
	3	Patna (FC) - Khataulah ckt-02	171.04	20:30	25.04	20:22	43.8	14:00	12.01.2022	70.30
	4	Patna (FC) - Khataulah ckt-01	122.03	20:30	25.04	20:22	33.65	14:00	12.01.2022	86.00
	5	Khataulah - Bhatapara ckt-01	20.90	07:00	03.03	20:22	0.1	13:00	01.03.2022	45.11
	6	Khataulah - Bhatapara ckt-02	104.41	07:00	03.03	20:22	-0.02	06:00	21.03.2022	44.21
	7	Khataulah - Bhatapara ckt-03	67.17	14:00	18.03	20:22	4.9	17:00	07.03.2022	35.05
	8	Khataulah - Bhatapara ckt-04	67.5	14:00	18.03	20:22	4.81	17:00	07.03.2022	35.20
	9	Khataulah - Gaya (FC) ckt-01	92.73	21:00	27.03	20:22	15.94	15:00	01.03.2022	55.88
	10	Khataulah - Gaya (FC) ckt-02	92.16	21:00	27.03	20:22	16.87	15:00	01.03.2022	55.88
	11	Khataulah - Nandipur ckt-01	84.47	21:00	27.03	20:22	34.32	17:00	26.03.2022	66.37
	12	Khataulah - Nandipur ckt-02	175.84	11:00	11.03	20:22	94.21	17:00	26.03.2022	85.55
	13	Nandipur - Hajipur ckt-01	52.90	18:00	26.03	20:22	5.73	19:00	23.03.2022	46.65
	14	Nandipur - Hajipur ckt-02	54.90	18:00	26.03	20:22	5.80	19:00	26.03.2022	45.24
	15	Hajipur - Gaya (FC) ckt-01	56.00	19:00	03.03	20:22	3.1	19:00	26.03.2022	31.57
	16	Hajipur - Gaya (FC) ckt-02	30.30	19:00	26.03	20:22	11.8	19:00	06.03.2022	21.09
	17	Hajipur - Khataulah ckt-01	0.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	18	Hajipur - Khataulah ckt-02	0.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	19	Mokama - Hajipur ckt-01	131.70	07:00	23.03	20:22	0.00	03:00	02.03.2022	31.14
	20	Mokama - Hajipur ckt-02	130.40	07:00	23.03	20:22	0.00	03:00	02.03.2022	30.53
	21	Mokama - BTPS ckt-1	122.38	01:00	25.03	20:22	0.00	21:00	01.03.2022	18.84
	22	Mokama - BTPS ckt-2	120.50	00:00	23.03	20:22	0.00	21:00	01.03.2022	25.25
	23	Amroha - Dumraon New - 01	59.21	16:00	03.12	20:22	0.01	14:00	19.03.2022	43.34
	24	Amroha - Dumraon New - 02	55.14	16:00	03.12	20:22	-0.07	12:00	20.04.2022	41.89
	25	Dumraon New - Nandipur - 01	94.35	18:00	03.12	20:22	0.16	06:00	19.03.2022	73.16
	26	Dumraon New - Nandipur - 02	94.83	18:00	03.12	20:22	0.11	06:00	19.03.2022	73.49
<b>C. Power Flow in 132 KV transmission line</b>										
132 kv (33 nos)	1	Amroha - Swant ckt-01	67.64	22:00	30.03	20:22	5.85	17:00	31.03.2022	25.08
	2	Amroha - Swant ckt-02	87.73	22:00	30.03	20:22	10.67	16:00	26.03.2022	26.57
	3	Amroha - Chhapra ckt-01	86.02	20:00	29.03	20:22	10.37	12:00	06.03.2022	49.40
	4	Amroha - Chhapra ckt-02	72.86	22:00	12.03	20:22	17.66	13:00	06.03.2022	31.78
	5	Khataulah - Bhatapara ckt-01	0.53	22:00	29.03	20:22	0	11:00	07.03.2022	0.91
	6	Khataulah - Bhatapara ckt-02	43.83	09:00	30.03	20:22	0.06	14:00	08.03.2022	29.43
	7	Khataulah - Bhatapara ckt-03	0.1	20:00	31.03	20:22	0	09:00	09.03.2022	0.90
	8	Khataulah - Bhatapara ckt-04	18.70	19:00	07.04	20:22	7.54	07:00	10.03.2022	41.82
	9	Khataulah - Nandipur ckt-01	86.36	18:00	07.04	20:22	7.56	07:00	11.03.2022	47.29
	10	Nandipur - Nandipur ckt-01	34.99	20:00	16.03	20:22	7.79	13:00	03.03.2022	22.74
	11	Nandipur - Nandipur ckt-02	31.19	19:00	07.04	20:22	5.02	13:00	05.03.2022	18.20
	12	Hajipur - Khataulah ckt-01	0.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	13	Hajipur - Khataulah ckt-02	18.39	19:00	06.03	20:22	0.80	12:00	05.03.2022	3.73
	14	Hajipur - Khataulah ckt-03	6.00	00:00	07.03	20:22	0.00	00:00	01.03.2022	0.92
	15	Hajipur - Khataulah ckt-04	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0.91
	16	Hajipur - Khataulah ckt-05	16.76	20:00	14.03	20:22	15.40	12:00	06.03.2022	11.25
	17	Hajipur - Khataulah ckt-06	50.69	21:00	21.03	20:22	3.60	17:00	26.03.2022	26.36
	18	Hajipur - Khataulah ckt-07	18.80	19:00	26.03	20:22	7.4	08:00	11.03.2022	18.22
	19	Hajipur - Khataulah ckt-08	72.49	19:00	06.04	20:22	6.5	20:00	28.03.2022	31.25
	20	Hajipur - Khataulah ckt-09	1	00:00	0	00:00	0	0	0	0
	21	Goradich - Sultanganj ckt-01	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	22	Goradich - Sultanganj ckt-02	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	23	Goradich - Sultanganj ckt-03	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	24	Goradich - Sultanganj ckt-04	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	25	Goradich - Sabour ckt-01	8.60	18:00	31.03	20:22	-0.01	20:00	28.03.2022	-5.81
	26	Goradich - Sabour ckt-02	8.60	18:00	31.03	20:22	0.00	20:00	28.03.2022	5.66
	27	Mokama - Hatia ckt-01	48.10	18:00	12.03	20:22	0.00	03:00	01.03.2022	11.34
	28	Mokama - Hatia ckt-02	8.00	00:00	12.03	20:22	0.00	03:00	01.03.2022	11.51
	29	Dumraon New - Dumraon (SPTCL) ckt-02	66.81	19:00	18.02	20:22	1.30	19:00	03.08.2022	52.38
	30	Dumraon New - Burar ckt-01	23.04	19:00	31.03	20:22	3.62	18:00	28.03.2022	13.49
	31	Dumraon New - Burar ckt-02	22.84	19:00	31.03	20:22	5.61	18:00	26.03.2022	13.42
	32	Nandipur - Masauli New ckt-01	32.06	19:00	01.03	20:22	7.80	17:00	12.03.2022	11.21
	33	Nandipur - Masauli New ckt-02	32.31	19:00	01.03	20:22	0.01	20:00	13.03.2022	1.11
	<b>D. Power Flow in transformers</b>									
Amroha GIS	1	Tr-01/180 MVA, 220/132 KV	124.66	20:00	19.03	20:22	31.29	19:00	07.03.2022	72.32
	2	Tr-02/180 MVA, 220/132 KV	127.39	20:00	19.03	20:22	31.45	19:00	07.03.2022	78.25
	3	Tr-03/50 MVA, 132/33 KV	23.84	20:00	17.03	20:22	0.13	18:00	04.03.2022	13.25
	4	Tr-04/50 MVA, 132/33 KV	47.61	20:00	13.03	20:22	0.13	18:00	04.03.2022	13.24
Khataulah GIS	1	Tr-01/180 MVA, 220/132 KV	132.87	18:00	18.03	20:22	18.7	17:00	07.03.2022	69.17
	2	Tr-02/180 MVA, 220/132 KV	115.47	18:00	18.03	20:22	13.64	17:00	07.03.2022	71.46
	3	Tr-03/50 MVA, 132/33 KV	7.46	18:00	01.03	20:22	0.03	16:00	11.03.2022	1.48
	4	Tr-04/50 MVA, 132/33 KV	13.84	18:00	11.03	20:22	3.03	15:00	07.03.2022	5.34
Nandipur GIS	1	Tr-01/180 MVA, 220/132 KV	45.16	19:00	21.03	20:22	8.52	07:00	07.03.2022	44.67
	2	Tr-02/180 MVA, 220/132 KV	40.12	19:00	21.03	20:22	5.38	12:00	16.03.2022	13.02
	3	Tr-03/50 MVA, 132/33 KV	5.47	20:00	21.03	20:22	0.29	19:00	31.03.2022	5.70
	4	Tr-04/50 MVA, 132/33 KV	15.01	08:00	17.03	20:22	1.08	08:00	30.03.2022	10.15
Hajipur GIS	1	Tr-01/180 MVA, 220/132 KV	23.70	19:00	16.03	20:22	2.00	18:00	02.03.2022	12.57
	2	Tr-02/180 MVA, 220/132 KV	25.4	19:00	26.03	20:22	7.4	19:00	26.03.2022	24.8
	3	Tr-03/50 MVA, 132/33 KV	1.10	19:00	05.03	20:22	0.20	08:00	01.03.2022	0.82
	4	Tr-04/50 MVA, 132/33 KV	17.50	20:00	22.03	20:22	2.4	08:00	02.03.2022	11.80
Hajipur GIS	1	Tr-01/180 MVA, 220/132 KV	30.30	22:00	28.04	20:22	4.30	17:00	26.03.2022	22.97
	2	Tr-02/180 MVA, 220/132 KV	28.70	19:00	26.03	20:22	3.00	17:00	26.03.2022	21.94
	3	Tr-03/50 MVA, 132/33 KV	7.50	21:00	22.03	20:22	1.70	14:00	04.03.2022	4
	4	Tr-04/50 MVA, 132/33 KV	7.80	18:00	01.03	20:22	1.00	14:00	11.03.2022	1.80
Goradich GIS	1	Tr-01/180 MVA, 220/132 KV	6.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	2	Tr-02/180 MVA, 220/132 KV	6.00	16:00	06.03	20:22	0.00	15:00	07.04.2022	1.05
	3	Tr-03/50 MVA, 132/33 KV	18.60	20:00	22.03	20:22	0.00	13:00	06.03.2022	10.17
	4	Tr-04/180 MVA, 220/132 KV	96.40	18:00	12.03	20:22	0.00	04:00	01.03.2022	27.49
Mokama GIS	1	Tr-01/180 MVA, 220/132 KV	0.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	2	Tr-02/180 MVA, 220/132 KV	0.00	00:00	01.03	20:22	0.00	00:00	01.03.2022	0
	3	Tr-03/180 MVA, 220/132 KV	106.78	19:00	14.03	20:22	21.67	15:00	26.03.2022	85.49
	4	Tr-04/80 MVA, 132/33 KV	0.04	00:00	04.01	20:22	0.30	03:00	03.11.2022	0.29
Dumraon GIS	1	Tr-01/80 MVA, 132/33 KV	20.46	19:00	23.03	20:22	3.49	17:00	03.03.2022	13.14
	2	Tr-02/50 MVA, 400/270 KV	64.90	19:00	11.03	20:22	0.04	21:00	19.03.2022	24.06
	3	Tr-03/50 MVA, 400/270 KV	0.00	00:00	01.03					

BHAR GRID COMPANY LIMITED  
Loading level of Transmission Assets

Month: April 2022

Voltage Grade	S.No	Name of TL	Load						Remark	
			Max	Time	Date	Min	Time	Date		Avg of Month
A. Power Flow in 400kV transmission line										
400 kv (08 nos.)	1	Naubatpur - Patna PG ct-01	117.54	18:00	20-04-2022	19.09	13:00	07-04-2022	207.48	
	2	Naubatpur - Patna PG ct-02	174.3	18:00	20-04-2022	16.71	13:00	02-04-2022	206.49	
	3	Naubatpur - Ballia PG ct-01	134.19	05:00	15-04-2022	0.77	13:00	01-04-2022	149.246	
	4	Naubatpur - Ballia PG ct-02	136.75	05:00	15-04-2022	0.11	13:00	01-04-2022	149.246	
	5	Jalkanjpur - Nab Naga PG ct-01	307.09	13:00	23-04-2022	48.7	18:00	21-04-2022	210.95	
	6	Jalkanjpur - Nab Naga PG ct-02	407.66	13:00	23-04-2022	45.13	06:00	26-04-2022	275.42	
	7	Jalkanjpur - Patna PG ct-01	134.16	13:00	29-04-2022	49.04	08:00	26-04-2022	251.22	
	8	Naubatpur - Patna PG ct-02	136.76	13:00	29-04-2022	49.76	18:00	26-04-2022	250.64	
	B. Power Flow in 220kV transmission line									
220 kv (28 nos.)	1	Hajipur - Amnour ct-01	144.97	13:00	26-04-2022	6.66	15:00	24-04-2022	97.64	
	2	Hajipur - Amnour ct-02	144.75	13:00	26-04-2022	6.92	15:00	23-04-2022	87.07	
	3	Patna (PCT) - Khatwa ct-02	115.93	21:00	19-04-2022	32.32	18:00	24-04-2022	80.00	
	4	Patna (PCT) - Khatwa ct-02	115.72	21:00	19-04-2022	18.12	18:00	24-04-2022	80.27	
	5	Khatwa - Biharsharif ct-01	117.41	20:00	22-04-2022	6.92	12:00	01-04-2022	114.86	
	6	Khatwa - Biharsharif ct-02	133.04	20:00	22-04-2022	7.66	12:00	01-04-2022	115.35	
	7	Khatwa - Bodh Gaya ct-01	122.11	12:00	29-04-2022	0.75	15:00	21-04-2022	141.06	
	8	Khatwa - Bodh Gaya ct-02	95.84	13:00	29-04-2022	0.91	18:00	24-04-2022	156.34	
	9	Khatwa - Gaya PG ct-01	95.84	12:00	29-04-2022	7.48	15:00	24-04-2022	156.71	
	10	Khatwa - Gaya PG ct-02	87.61	20:00	18-04-2022	6.99	15:00	24-04-2022	156.17	
	11	Khatwa - Napat ct-01	109.83	19:00	26-04-2022	3.71	15:00	23-04-2022	97.08	
	12	Khatwa - Napat ct-02	120.41	19:00	26-04-2022	3.73	13:00	23-04-2022	95.69	
	13	Napat - Sekthapur Sarai ct-01	126.01	19:00	26-04-2022	17.50	15:00	24-04-2022	113.02	
	14	Napat - Sekthapur Sarai ct-02	126.96	19:00	26-04-2022	13.25	15:00	24-04-2022	113.00	
	15	Sekthapur Sarai - Haveli Kharagpur ct-01	154.70	21:00	06-04-2022	3.6	13:00	23-01-2022	64.96	
	16	Sekthapur Sarai - Haveli Kharagpur ct-02	86.40	13:00	16-04-2022	0.4	05:00	03-04-2022	47.70	
	17	Haveli Kharagpur - Goradh ct-01	48.70	13:00	16-04-2022	2.7	21:00	07-04-2022	9.34	
	18	Haveli Kharagpur - Goradh ct-02	68.70	22:00	30-04-2022	7.80	23:00	07-04-2022	7.22	
	19	Mokama - Biharsharif ct-01	0.00	0:00	01-04-2022	0.00	1:00	01-04-2022	0	
	20	Mokama - Biharsharif ct-02	0.00	0:00	01-04-2022	0.00	1:00	01-04-2022	0	
	21	Mokama - Bhatgaon ct-01	58.50	0:00	27-04-2022	0.00	0:00	01-04-2022	11.00	
	22	Mokama - Bhatgaon ct-02	58.50	0:00	27-04-2022	0.00	0:00	01-04-2022	11.00	
	23	Dumraon New-Dumraon New-01	60.4	19:00	14-04-2022	0.05	03:00	24-04-2022	48.28	
	24	Dumraon New-Dumraon New-02	60.6	19:00	14-04-2022	0.02	03:00	24-04-2022	48.50	
	25	Dumraon New-Nadokha-01	60.4	19:00	14-04-2022	0.03	03:00	24-04-2022	48.52	
	26	Dumraon New-Nadokha-02	60.6	19:00	14-04-2022	0.06	06:00	20-04-2022	48.52	
	27	Naubatpur - Amnour ct-01	136.53	0:00	30-04-2022	60.34	16:00	30-04-2022	7.67	
	28	Naubatpur - Amnour ct-02	134.41	14:00	28-04-2022	26.51	08:00	30-04-2022	4.90	
	C. Power Flow in 132 kV transmission line									
	132 kv (33 nos.)	1	Amnour - Siwan ct-02	65.12	13:00	26-04-2022	1.48	16:00	24-04-2022	35.15
		2	Amnour - Siwan ct-02	73.37	13:00	09-04-2022	1.73	16:00	10-04-2022	31.68
		3	Amnour - Chhapra ct-01	65.27	12:00	08-04-2022	1.35	15:00	24-04-2022	41.98
		4	Amnour - Chhapra ct-02	36.31	19:00	19-04-2022	1.66	14:00	21-04-2022	45.16
		5	Khatwa - Bodh Gaya ct-01	0.38	23:00	07-04-2022	0	13:00	04-04-2022	0.01
		6	Khatwa - Waikarai ct-01	47.13	21:00	19-04-2022	0.06	1:00	01-04-2022	39.70
		7	Khatwa - Jehanabad ct-01	68.85	19:00	28-04-2022	0	08:00	01-04-2022	3.09
		8	Khatwa - Jehanabad ct-02	76.38	19:00	04-04-2022	7.45	15:00	24-04-2022	49.27
		9	Khatwa - Jehanabad ct-02	76.73	19:00	03-04-2022	7.43	15:00	24-04-2022	49.24
		10	Napat - Biharsharif ct-01	41.19	18:00	27-04-2022	5.19	18:00	23-04-2022	47.06
		11	Napat - Biharsharif ct-02	38.16	18:00	27-04-2022	0.52	14:00	23-04-2022	41.03
		12	Haveli Kharagpur - Sultanpuri ct-01	13.70	21:00	29-04-2022	1.10	15:00	29-04-2022	0.04
		13	Haveli Kharagpur - Sultanpuri ct-02	12.10	12:00	08-04-2022	0.00	0:00	01-04-2022	11.40
		14	Haveli Kharagpur - Lakhsar ct-01	34.10	13:00	26-04-2022	5.10	15:00	26-04-2022	0.36
		15	Haveli Kharagpur - Lakhsar ct-02	35.00	13:00	26-04-2022	5.10	15:00	26-04-2022	0.36
		16	Haveli Kharagpur - Jamnour ct-01	55.40	22:00	26-04-2022	1.70	18:00	24-04-2022	6.02
		17	Haveli Kharagpur - Jamnour ct-02	56.90	20:00	23-04-2022	2.10	22:00	29-04-2022	35.53
		18	Sekthapur Sarai - Sebhpura ct-01	46.30	18:00	28-04-2022	4.0	15:00	24-04-2022	20.80
		19	Sekthapur Sarai - Biharsharif ct-02	65.80	19:00	26-04-2022	8.1	15:00	24-04-2022	19.82
20		Sekthapur Sarai - Biharsharif ct-02	0	0:00	0	0	0	0	0	
21		Goradh - Sultanpuri ct-01	42.40	12:00	16-04-2022	13.70	09:00	06-04-2022	4.11	
22		Goradh - Sultanpuri ct-02	41.80	12:00	16-04-2022	0.10	01:00	01-04-2022	4.36	
23		Goradh - Khatwa ct-01	0.80	00:00	01-04-2022	0.00	00:00	01-04-2022	0.02	
24		Goradh - Khatwa ct-02	0.60	00:00	01-04-2022	0.00	00:00	01-04-2022	0.01	
25		Goradh - Sabour ct-01	21.40	20:00	14-04-2022	0.60	00:00	05-04-2022	3.30	
26		Goradh - Sabour ct-02	16.80	21:00	24-04-2022	0.00	00:00	05-04-2022	3.48	
27		Mokama - Bhatgaon ct-01	17.40	01:00	27-04-2022	0.00	12:00	01-04-2022	17.37	
28		Mokama - Bhatgaon ct-02	58.00	07:00	27-04-2022	0.81	12:00	01-04-2022	17.16	
29		Dumraon New-Dumraon (BSPCL) ct-02	51.12	10:00	04-07-2022	5.00	18:00	25-04-2022	36.90	
30		Dumraon New-Buxar ct-01	75.38	20:00	23-04-2022	2.41	15:00	14-04-2022	16.38	
31		Dumraon New-Buxar ct-02	75.31	20:00	23-04-2022	2.42	15:00	24-04-2022	16.31	
32		Naubatpur - Napat ct-01	63.28	17:00	08-04-2022	15.2	07:00	30-04-2022	28.71	
33		Naubatpur - Napat ct-02	41.96	19:00	19-04-2022	15.13	07:00	30-04-2022	28.70	
Substation Details										
S.No		MVA Capacity	Load						Remark	
			Max	Time	Date	Min	Time	Date		
D. Power Flow in Transformers										
Amnour GIS		1	Tr-01/160 MVA, 220/132 kV	144.74	13:00	26-04-2022	6.17	14:00	24-04-2022	91.70
		2	Tr-02/160 MVA, 220/132 kV	145.08	13:00	26-04-2022	8.24	14:00	21-04-2022	92.87
		3	Tr-03/160 MVA, 132/132 kV	163.3	21:00	28-04-2022	0.03	19:00	05-04-2022	14.83
		4	Tr-02/50 MVA, 132/132 kV	39.89	08:00	02-04-2022	0.03	02:00	29-04-2022	16.76
Khatwa GIS		1	Tr-01/160 MVA, 220/132 kV	126.80	10:00	29-04-2022	19.21	13:00	16-04-2022	69.03
		2	Tr-02/160 MVA, 220/132 kV	112.49	10:00	29-04-2022	20.3	13:00	16-04-2022	71.32
		3	Tr-01/50 MVA, 132/132 kV							Not Commissioned
		4	Tr-02/50 MVA, 132/132 kV	6.09	17:00	18-04-2022	0.05	15:00	23-04-2022	7.84
		5	Tr-03/50 MVA, 132/132 kV	15.10	19:00	26-04-2022	0.07	16:00	30-04-2022	8.96
Napat GIS		1	Tr-01/160 MVA, 220/132 kV	49.56	18:00	27-04-2022	11.16	12:00	26-04-2022	17.51
		2	Tr-02/160 MVA, 220/132 kV	45.56	18:00	27-04-2022	10.32	12:00	26-04-2022	15.82
	3	Tr-01/50 MVA, 132/132 kV	7.03	20:00	26-04-2022	0.08	21:00	06-04-2022	4.59	
	4	Tr-02/50 MVA, 132/132 kV	16.07	19:00	19-04-2022	0.03	09:00	25-04-2022	11.01	
Sektapur Sarai GIS	1	Tr-01/160 MVA, 220/132 kV	54.40	19:00	26-04-2022	4.30	07:00	28-04-2022	26.70	
	2	Tr-02/160 MVA, 220/132 kV	54.5	19:00	26-04-2022	2.8	07:00	28-04-2022	26.93	
	3	Tr-01/50 MVA, 132/132 kV	1.00	11:00	18-04-2022	0.20	03:00	01-04-2022	0.84	
	4	Tr-02/50 MVA, 132/132 kV	74.20	19:00	29-04-2022	1.7	18:00	37-04-2022	17.39	
Haveli Kharagpur GIS	1	Tr-01/160 MVA, 220/132 kV	81.30	12:00	06-04-2022	2.0	21:00	27-04-2022	20.81	
	2	Tr-02/160 MVA, 220/132 kV	62.50	18:00	28-04-2022	20.80	21:00	27-04-2022	20.81	
	3	Tr-01/50 MVA, 132/132 kV	8.20	20:00	27-04-2022	1.20	18:00	24-04-2022	6	
	4	Tr-02/50 MVA, 132/132 kV	8.50	22:00	12-04-2022	1.50	07:00	14-04-2022	3.30	
Goradh GIS	1	Tr-01/160 MVA, 220/132 kV	127.80	12:00	16-04-2022	3.20	09:00	08-04-2022	16.48	
	2	Tr-02/160 MVA, 220/132 kV							Not Commissioned	
	3	Tr-03/50 MVA, 132/132 kV	17.30	20:00	18-04-2022	1.10	14:00	23-04-2022	8.41	
	4	Tr-02/50 MVA, 132/132 kV	19.50	19:00	12-04-2022	1.10	15:00	23-04-2022	12.05	
Mokama GIS	1	Tr-01/160 MVA, 220/132 kV							Not Commissioned	
	2	Tr-02/160 MVA, 220/132 kV	115.30	0:00	27-04-2022	0.00	0:00	01-04-2022	24.51	
	3	Tr-01/50 MVA, 132/132 kV							Not Commissioned	
	4	Tr-02/50 MVA, 132/132 kV	0.00	0:00	10-04-2022	0.00	1:00	20-01-2022	0.05	
Dumraon GIS	1	Tr-01/160 MVA, 220/132 kV	12.55	21:00	29-04-2022	29.35	15:00	24-04-2022	74.08	



**BIHAR GRID COMPANY LIMITED**

**Loading level of Transmission Assets**

Month: May/2022

Voltage Grade	S.No	Name of TL	Max				Min				Avg of Month	Remark
			Max	Time	Date	Min	Time	Date				
400 KV (4 nos.)	1	Patna (P) - Patna (P) ckt-01	462.74	06:00	17.05.2022	119.71	11:00	01.05.2022	261.14			
	2	Patna (P) - Patna (P) ckt-02	466.7	05:00	17.05.2022	163.5	11:00	01.05.2022	303.12			
	3	Patna (P) - Patna (P) ckt-03	476.08	04:00	16.05.2022	43.18	11:00	01.05.2022	111.07			
	4	Patna (P) - Patna (P) ckt-04	462.41	05:00	17.05.2022	49.76	11:00	01.05.2022	115.55			
	5	Patna (P) - Patna (P) ckt-05	464.77	23:00	15.05.2022	52.55	07:00	20.05.2022	122.44			
	6	Patna (P) - Patna (P) ckt-06	466.34	23:00	15.05.2022	53.27	07:00	20.05.2022	122.83			
	7	Patna (P) - Patna (P) ckt-07	466.8	23:00	15.05.2022	53.07	07:00	20.05.2022	121.19			
	8	Patna (P) - Patna (P) ckt-08	474.62	23:00	15.05.2022	52.35	07:00	20.05.2022	128.85			
220 KV (21 nos.)	1	Hajipur - Amroha ckt-01	144.3	22:00	13.05.2022	4.96	05:00	29.05.2022	83.77			
	2	Hajipur - Amroha ckt-02	133.8	22:00	13.05.2022	5.00	05:00	29.05.2022	80.00			
	3	Hajipur (P) - Hajipur (P) ckt-01	151.52	05:00	08.05.2022	34.22	06:00	06.05.2022	72.94			
	4	Hajipur (P) - Hajipur (P) ckt-02	149.54	05:00	08.05.2022	33.3	06:00	05.05.2022	72.66			
	5	Hajipur (P) - Hajipur (P) ckt-03	126.00	18:00	25.05.2022	18.69	00:00	22.05.2022	74.23			
	6	Hajipur (P) - Hajipur (P) ckt-04	137.21	06:00	23.05.2022	23.54	23:00	21.05.2022	78.35			
	7	Hajipur (P) - Hajipur (P) ckt-05	126.05	16:00	18.05.2022	0.43	19:00	19.05.2022	76.81			
	8	Hajipur (P) - Hajipur (P) ckt-06	76.35	16:00	16.05.2022	0.78	19:00	19.05.2022	72.58			
	9	Hajipur (P) - Hajipur (P) ckt-07	103.28	10:00	16.05.2022	1.88	05:00	22.05.2022	56.97			
	10	Hajipur (P) - Hajipur (P) ckt-08	103.25	10:00	16.05.2022	1.82	05:00	22.05.2022	56.87			
	11	Hajipur (P) - Hajipur (P) ckt-09	137.49	20:00	13.05.2022	28.21	01:00	27.05.2022	89.85			
	12	Hajipur (P) - Hajipur (P) ckt-10	137.17	20:00	13.05.2022	28.18	01:00	27.05.2022	89.69			
	13	Hajipur (P) - Hajipur (P) ckt-11	95.35	20:00	13.05.2022	11.72	18:00	19.05.2022	76.45			
	14	Hajipur (P) - Hajipur (P) ckt-12	95.18	20:00	13.05.2022	11.22	18:00	19.05.2022	76.43			
	15	Hajipur (P) - Hajipur (P) ckt-13	82.50	01:00	03.05.2022	0.28	11:00	23.05.2022	43.06			
	16	Hajipur (P) - Hajipur (P) ckt-14	88.60	01:00	03.05.2022	1.3	11:00	19.05.2022	43.33			
	17	Hajipur (P) - Hajipur (P) ckt-15	0	00:00	0	0	00:00	0	0.00			
	18	Hajipur (P) - Hajipur (P) ckt-16	66.70	13:00	04.05.2022	0.20	04:00	03.05.2022	1.38			
	19	Hajipur (P) - Hajipur (P) ckt-17	130.10	13:00	04.05.2022	0.80	03:00	04.05.2022	2.51			
	20	Hajipur (P) - Hajipur (P) ckt-18	130.30	17:00	20.05.2022	0.00	01:00	03.05.2022	2.65			
132 KV (33 nos.)	1	Amroha - Siwan ckt-01	56.85	17:00	26.05.2022	0.67	05:00	29.05.2022	33.86			
	2	Amroha - Siwan ckt-02	59.82	17:00	26.05.2022	0.84	05:00	26.05.2022	34.80			
	3	Amroha - Chhapra ckt-01	91.73	17:00	18.05.2022	2.43	05:00	28.05.2022	41.42			
	4	Amroha - Chhapra ckt-02	91.84	00:00	23.05.2022	1.34	05:00	29.05.2022	42.88			
	5	Hajipur (P) - Hajipur (P) ckt-01	61.08	00:00	15.05.2022	0.00	01:00	01.05.2022	0.00			
	6	Hajipur (P) - Hajipur (P) ckt-02	46.47	20:00	21.05.2022	0.04	00:00	28.05.2022	31.62			
	7	Hajipur (P) - Hajipur (P) ckt-03	50.79	13:00	26.05.2022	0.67	13:00	20.05.2022	37.53			
	8	Hajipur (P) - Hajipur (P) ckt-04	64.97	20:00	13.05.2022	1.93	23:00	21.05.2022	42.73			
	9	Hajipur (P) - Hajipur (P) ckt-05	64.93	19:00	17.05.2022	1.02	23:00	23.05.2022	43.69			
	10	Hajipur (P) - Hajipur (P) ckt-06	52.44	30:00	21.05.2022	0.18	00:00	21.05.2022	29.36			
	11	Hajipur (P) - Hajipur (P) ckt-07	46.23	20:00	22.05.2022	0.58	15:00	19.05.2022	37.46			
	12	Hajipur (P) - Hajipur (P) ckt-08	0	00:00	0	0	00:00	0	0.00			
	13	Hajipur (P) - Hajipur (P) ckt-09	18.70	20:00	04.05.2022	1.70	10:00	01.05.2022	5.73			
	14	Hajipur (P) - Hajipur (P) ckt-10	17.40	20:00	14.05.2022	4.59	14:00	26.05.2022	3.48			
	15	Hajipur (P) - Hajipur (P) ckt-11	17.40	20:00	14.05.2022	4.60	14:00	26.05.2022	3.46			
	16	Hajipur (P) - Hajipur (P) ckt-12	61.90	15:00	03.05.2022	0.80	16:00	26.05.2022	25.14			
	17	Hajipur (P) - Hajipur (P) ckt-13	13.30	20:00	13.05.2022	7.10	01:00	04.05.2022	17.62			
	18	Hajipur (P) - Hajipur (P) ckt-14	49.90	20:00	13.05.2022	0.26	00:00	27.05.2022	18.36			
	19	Hajipur (P) - Hajipur (P) ckt-15	51.00	20:00	13.05.2022	1.8	13:00	23.05.2022	24.81			
	20	Hajipur (P) - Hajipur (P) ckt-16	0	00:00	0	0	00:00	0	0.00	System connected but no power flow		
21	Gorakhpur - Gorakhpur ckt-01	24.40	00:00	04.05.2022	28.50	09:00	01.05.2022	0.77				
22	Gorakhpur - Gorakhpur ckt-02	34.60	00:00	04.05.2022	28.50	09:00	01.05.2022	0.73				
23	Gorakhpur - Gorakhpur ckt-03	0.00	00:00	04.05.2022	0.00	00:00	01.05.2022	0.00				
24	Gorakhpur - Gorakhpur ckt-04	1.20	00:00	04.05.2022	3.60	03:00	03.05.2022	0.00				
25	Gorakhpur - Gorakhpur ckt-05	14.20	20:00	01.05.2022	0.10	02:00	24.05.2022	8.54				
26	Gorakhpur - Gorakhpur ckt-06	14.30	20:00	01.05.2022	0.10	02:00	24.05.2022	8.56				
27	Hajipur (P) - Hajipur (P) ckt-01	51.60	00:00	13.05.2022	13.04	01:00	02.05.2022	22.95				
28	Hajipur (P) - Hajipur (P) ckt-02	34.30	00:00	13.05.2022	11.60	15:00	26.05.2022	33.35				
29	Hajipur (P) - Hajipur (P) ckt-03	36.14	19:00	24.05.2022	4.45	21:00	29.05.2022	44.54				
30	Hajipur (P) - Hajipur (P) ckt-04	35.60	20:00	18.05.2022	4.65	18:00	24.05.2022	38.35				
31	Hajipur (P) - Hajipur (P) ckt-05	25.48	20:00	18.05.2022	6.68	19:00	24.05.2022	20.34				
32	Hajipur (P) - Hajipur (P) ckt-06	31.24	14:00	01.05.2022	1.89	05:00	28.05.2022	15.72				
33	Hajipur (P) - Hajipur (P) ckt-07	21.11	17:00	05.05.2022	3.88	05:00	28.05.2022	11.45				
Substation Details	S.No.	MVA Capacity	Load				Date	Date	Remark			
			Max	Time	Date	Min						
Siwan GIS	1	Tr-01/160 MVA, 220/132 KV	132.38	23:00	11.05.2022	4.01	05:00	29.05.2022	93.84			
	2	Tr-02/160 MVA, 220/132 KV	114.26	22:00	11.05.2022	4.59	05:00	29.05.2022	94.08			
	3	Tr-03/160 MVA, 132/66 KV	25.71	00:00	29.05.2022	0.07	00:00	25.05.2022	16.18			
	4	Tr-04/160 MVA, 132/66 KV	21.82	00:00	29.05.2022	0.07	00:00	25.05.2022	16.87			
	5	Tr-05/160 MVA, 220/132 KV	105.87	01:00	19.05.2022	2.88	00:00	22.05.2022	71.36			
Hajipur GIS	1	Tr-01/160 MVA, 132/66 KV	339.11	01:00	19.05.2022	6.09	00:00	22.05.2022	74.37			
	2	Tr-02/160 MVA, 132/66 KV	12.52	01:00	28.05.2022	0.04	00:00	09.05.2022	2.85			
	3	Tr-03/160 MVA, 132/66 KV	14.84	19:00	29.05.2022	0.09	03:00	28.05.2022	8.51			
	4	Tr-04/160 MVA, 220/132 KV	64.70	00:00	21.05.2022	0.72	00:00	21.05.2022	18.81			
Narhat GIS	1	Tr-01/160 MVA, 220/132 KV	25.95	20:00	21.05.2022	0.06	00:00	21.05.2022	17.38			
	2	Tr-02/160 MVA, 132/66 KV	8.75	19:00	18.05.2022	0.07	19:00	22.05.2022	5.41			
	3	Tr-03/160 MVA, 132/66 KV	16.47	08:00	19.05.2022	0.03	16:00	03.05.2022	10.16			
	4	Tr-04/160 MVA, 220/132 KV	27.00	20:00	18.05.2022	0.40	01:00	27.05.2022	26.29			
Sethapur Saral GIS	1	Tr-01/160 MVA, 220/132 KV	28.5	08:00	19.05.2022	1.3	15:00	09.05.2022	24.17			
	2	Tr-02/160 MVA, 132/66 KV	1.90	07:00	11.05.2022	0.20	01:00	01.05.2022	0.91			
	3	Tr-03/160 MVA, 132/66 KV	16.60	19:00	08.05.2022	1.1	07:00	03.05.2022	12.49			
	4	Tr-04/160 MVA, 220/132 KV	64.30	20:00	13.05.2022	4.00	01:00	03.05.2022	32.49			
Kamthi Bhaiyapur GIS	1	Tr-01/160 MVA, 220/132 KV	88.30	23:00	01.05.2022	1.00	03:00	03.05.2022	11.12			
	2	Tr-02/160 MVA, 132/66 KV	18.40	22:00	13.05.2022	0.60	15:00	24.05.2022	6.44			
	3	Tr-03/160 MVA, 132/66 KV	4.20	22:00	13.05.2022	0.50	13:00	02.05.2022	1.73			
	4	Tr-04/160 MVA, 220/132 KV	89.10	00:00	01.05.2022	1.10	03:00	03.05.2022	1.72			
Sethapur GIS	1	Tr-01/160 MVA, 220/132 KV	11.30	20:00	01.05.2022	0.30	14:00	28.05.2022	6.44			
	2	Tr-02/160 MVA, 132/66 KV	17.40	20:00	01.05.2022	0.20	12:00	28.05.2022	10.52			
	3	Tr-03/160 MVA, 220/132 KV	107.60	00:00	31.05.2022	22.60	15:00	26.05.2022	65.89			
	4	Tr-04/160 MVA, 132/66 KV	0.00	01:00	01.05.2022	0.00	23:00	11.05.2022	0.00			
Dumraon GIS	1	Tr-01/160 MVA, 220/132 KV	122.43	21:00	17.05.2022	55.97	07:00	09.05.2022	85.48			
	2	Tr-02/160 MVA, 132/66 KV	21.47	21:00	28.05.2022	0.19	07:00	05.05.2022	16.95			
	3	Tr-03/160 MVA, 132/66 KV	4.64	04:00	01.05.2022	0.13	00:00	01.05.2022	0.00			
	4	Tr-04/160 MVA, 220/132 KV	134.99	00:00	18.05.2022	43.53	17:00	05.05.2022	2.14			
Hajipur GIS	1	Tr-01/160 MVA, 220/132 KV	81.84	19:00	06.05.2022	4.16	05:00	28.05.2022	30.43			
	2	Tr-02/160 MVA, 132/66 KV	6.7	13:00	16.05.2022	0.21	00:00	10.05.2022	0.02			
	3	Tr-03/160 MVA, 132/66 KV	0.00	17:00	02.05.2022	0.02	15:00	04.05.2022	0.04			
	4	Tr-04/160 MVA, 220/132 KV	0.68	15:00	26.05.2022	0						

**BIHAR GRID COMPANY LIMITED**  
Loading Level of Transmission Assets

Month: June 2022

Voltage Grade	S.No	Name of TL	Load MW				Date	Time	Date	Leg of Month	Remarks
			Max	Time	Min	Time					
			A. Power Flow in 400kV Transmission Line								
400 KV (08 nos.)	1	Amroha - Patna (01) - 01	482.22	15:00	27.16	07:00	15.00	15-06-2022	47.87		
	2	Amroha - Patna (02) - 02	496.48	15:00	28.16	07:00	15:00	15-06-2022	47.87		
	3	Amroha - Patna (03) - 03	474.99	15:00	28.06	07:00	15:00	15-06-2022	47.87		
	4	Amroha - Patna (04) - 04	406.95	15:00	28.06	07:00	15:00	15-06-2022	47.87		
	5	Amroha - Patna (05) - 05	552.41	01:00	08.18	20:00	07:00	25-06-2022	47.87		
	6	Amroha - Patna (06) - 06	551.09	01:00	08.18	20:00	07:00	25-06-2022	47.87		
	7	Amroha - Patna (07) - 07	551.09	01:00	08.18	20:00	07:00	25-06-2022	47.87		
	8	Amroha - Patna (08) - 08	551.24	01:00	08.06	20:00	07:00	25-06-2022	47.87		
220 KV (34 nos.)	1	Amroha - Patna (01) - 01	181.98	14:00	22.06	22:00	08:00	25-06-2022	57.42		
	2	Amroha - Patna (02) - 02	177.63	14:00	22.06	22:00	08:00	25-06-2022	57.42		
	3	Amroha - Patna (03) - 03	161.7	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	4	Amroha - Patna (04) - 04	141.83	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	5	Amroha - Patna (05) - 05	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	6	Amroha - Patna (06) - 06	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	7	Amroha - Patna (07) - 07	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	8	Amroha - Patna (08) - 08	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	9	Amroha - Patna (09) - 09	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	10	Amroha - Patna (10) - 10	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	11	Amroha - Patna (11) - 11	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	12	Amroha - Patna (12) - 12	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	13	Amroha - Patna (13) - 13	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	14	Amroha - Patna (14) - 14	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	15	Amroha - Patna (15) - 15	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	16	Amroha - Patna (16) - 16	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	17	Amroha - Patna (17) - 17	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	18	Amroha - Patna (18) - 18	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	19	Amroha - Patna (19) - 19	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	20	Amroha - Patna (20) - 20	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	21	Amroha - Patna (21) - 21	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	22	Amroha - Patna (22) - 22	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	23	Amroha - Patna (23) - 23	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	24	Amroha - Patna (24) - 24	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	25	Amroha - Patna (25) - 25	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	26	Amroha - Patna (26) - 26	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	27	Amroha - Patna (27) - 27	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	28	Amroha - Patna (28) - 28	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	29	Amroha - Patna (29) - 29	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	30	Amroha - Patna (30) - 30	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	31	Amroha - Patna (31) - 31	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	32	Amroha - Patna (32) - 32	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	33	Amroha - Patna (33) - 33	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
	34	Amroha - Patna (34) - 34	143.95	16:00	08.06	20:00	15:00	19-06-2022	57.42		
132 KV (33 nos.)	1	Amroha - Patna (01) - 01	77.69	23:00	05.06	20:00	15:00	07-06-2022	38.58		
	2	Amroha - Patna (02) - 02	83.62	23:00	05.06	20:00	15:00	07-06-2022	38.58		
	3	Amroha - Patna (03) - 03	60.72	13:00	05.06	20:00	15:00	15-06-2022	38.58		
	4	Amroha - Patna (04) - 04	65.79	14:00	29.06	20:00	15:00	15-06-2022	38.58		
	5	Amroha - Patna (05) - 05	0.09	14:00	29.06	20:00	15:00	15-06-2022	38.58		
	6	Amroha - Patna (06) - 06	49.33	08:00	13.06	20:00	15:00	07-06-2022	38.58		
	7	Amroha - Patna (07) - 07	38.93	20:00	27.06	20:00	15:00	05-06-2022	38.58		
	8	Amroha - Patna (08) - 08	66.84	07:00	26.06	20:00	15:00	01-06-2022	38.58		
	9	Amroha - Patna (09) - 09	66.84	07:00	26.06	20:00	15:00	01-06-2022	38.58		
	10	Amroha - Patna (10) - 10	55.67	20:00	08.06	20:00	15:00	30-06-2022	38.58		
	11	Amroha - Patna (11) - 11	55.67	20:00	08.06	20:00	15:00	21-06-2022	38.58		
	12	Amroha - Patna (12) - 12	0.00	0.00	0.00	0.00	0.00	0.00	38.58	System connected but no power flow	
	13	Amroha - Patna (13) - 13	0.00	0.00	0.00	0.00	0.00	0.00	38.58		
	14	Amroha - Patna (14) - 14	37.73	10:00	03.06	20:00	15:00	02-06-2022	38.58		
	15	Amroha - Patna (15) - 15	27.29	10:00	03.06	20:00	15:00	02-06-2022	38.58		
	16	Amroha - Patna (16) - 16	21.06	10:00	03.06	20:00	15:00	02-06-2022	38.58		
	17	Amroha - Patna (17) - 17	46.00	10:00	03.06	20:00	15:00	20-06-2022	38.58		
	18	Amroha - Patna (18) - 18	23.76	10:00	16.06	20:00	15:00	16-06-2022	38.58		
	19	Amroha - Patna (19) - 19	22.80	20:00	16.06	20:00	15:00	16-06-2022	38.58		
	20	Amroha - Patna (20) - 20	0.00	0.00	0.00	0.00	0.00	10-06-2022	38.58		
	21	Amroha - Patna (21) - 21	3.02	20:00	13.06	20:00	15:00	10-06-2022	38.58		
	22	Amroha - Patna (22) - 22	2.02	16:00	16.06	20:00	15:00	10-06-2022	38.58		
	23	Amroha - Patna (23) - 23	2.02	16:00	16.06	20:00	15:00	10-06-2022	38.58		
	24	Amroha - Patna (24) - 24	3.02	20:00	13.06	20:00	15:00	10-06-2022	38.58		
	25	Amroha - Patna (25) - 25	14.19	15:00	14.06	20:00	15:00	15-06-2022	38.58		
	26	Amroha - Patna (26) - 26	14.19	15:00	14.06	20:00	15:00	15-06-2022	38.58		
	27	Amroha - Patna (27) - 27	60.00	07:00	07.06	20:00	15:00	18-06-2022	38.58		
	28	Amroha - Patna (28) - 28	60.00	07:00	07.06	20:00	15:00	18-06-2022	38.58		
	29	Amroha - Patna (29) - 29	59.22	08:00	18.06	20:00	15:00	18-06-2022	38.58		
	30	Amroha - Patna (30) - 30	45.79	06:00	09.06	20:00	15:00	26-06-2022	38.58		
	31	Amroha - Patna (31) - 31	45.79	06:00	09.06	20:00	15:00	26-06-2022	38.58		
	32	Amroha - Patna (32) - 32	13.98	16:00	14.06	20:00	15:00	30-06-2022	38.58		
	33	Amroha - Patna (33) - 33	13.98	16:00	14.06	20:00	15:00	30-06-2022	38.58		
	Substation Details	S.No.	MVA Capacity	Load MW				Date		Date	
Max		Time	Min	Time	Date	Time	Date				
Amroha GIS	1	Tr-02150 MVA, 220/132 KV	141.04	03:00	03.06	20:00	22.52	09:00	29-06-2022	65.91	
	2	Tr-02150 MVA, 220/132 KV	154.89	05:00	03.06	20:00	23.18	09:00	29-06-2022	65.91	
	3	Tr-02150 MVA, 220/132 KV	28.45	00:00	01.06	20:00	0.03	16:00	11-06-2022	11.89	
	4	Tr-02150 MVA, 220/132 KV	28.52	00:00	01.06	20:00	0.03	16:00	11-06-2022	11.89	
	5	Tr-02150 MVA, 220/132 KV	170.08	20:00	25.06	20:00	48.22	17:00	01-06-2022	80.39	
Kalyani GIS	1	Tr-02150 MVA, 220/132 KV	110.15	20:00	26.06	20:00	15.47	17:00	01-06-2022	84.01	
	2	Tr-02150 MVA, 220/132 KV							Not Commissioned		
	3	Tr-02150 MVA, 220/132 KV	13.56	11:00	19.06	20:00	0.03	13:00	11-06-2022	1.01	
Marhata GIS	1	Tr-02150 MVA, 220/132 KV	16.44	11:00	23.06	20:00	0.03	13:00	11-06-2022	3.32	
	2	Tr-02150 MVA, 220/132 KV	7.20	01:00	24.06	20:00	6.93	21:00	04-06-2022	11.41	
	3	Tr-02150 MVA, 220/132 KV	6.31	20:00	08.06	20:00	2.83	07:00	24-06-2022	10.38	
	4	Tr-02150 MVA, 220/132 KV	8.54	01:00	04.06	20:00	0.04	22:00	05-06-2022	1.87	
	5	Tr-02150 MVA, 220/132 KV	23.33	08:00	28.06	20:00	0.04	17:00	01-06-2022	12.29	
Sibpur GIS	1	Tr-02150 MVA, 220/132 KV	50.00	08:00	03.06	20:00	3.11	12:00	19-06-2022	24.69	
	2	Tr-02150 MVA, 220/132 KV	43.00	08:00	04.06	20:00	5.11	18:00	14-06-2022	24.69	
	3	Tr-02150 MVA, 220/132 KV	1.00	02:00	04.06	20:00	0.00	01:00	01-06-2022	2.44	
	4	Tr-02150 MVA, 220/132 KV	19.00	09:00	14.06	20:00	1.00	13:00	19-06-2022	13.02	
Haveli GIS	1	Tr-02150 MVA, 220/132 KV	52.78	12:00	20.06	20:00	2.39	20:00	20-06-2022	27.47	
	2	Tr-02150 MVA, 220/132 KV	60.50	12:00	02.06	20:00	2.00	20:00	20-06-2022	36.30	
	3	Tr-02150 MVA, 220/132 KV	9.40	11:00	17.06	20:00	1.00	09:00	19-06-2022	6.05	



BHAR GRID COMPANY LIMITED

Loading level of Transmission Assets

Month: JULY 2022

Voltage Grade	S.No	Name of TL	Load						Risk of Month	Remarks
			MW		MVA		Date			
			Max	Trns	Max	Trns	Start	End		
400 KV/380 KV	1	Wardha - Bhatnagar-1	24.52	11%	08-07-2022	11.25	08-07-2022	11.25	23-07-2022	
	2	Wardha - Bhatnagar-2	47.33	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	3	Wardha - Bhatnagar-3	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	4	Wardha - Bhatnagar-4	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	5	Wardha - Bhatnagar-5	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	6	Wardha - Bhatnagar-6	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	7	Wardha - Bhatnagar-7	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	8	Wardha - Bhatnagar-8	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	9	Wardha - Bhatnagar-9	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	10	Wardha - Bhatnagar-10	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	11	Wardha - Bhatnagar-11	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	12	Wardha - Bhatnagar-12	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	13	Wardha - Bhatnagar-13	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	14	Wardha - Bhatnagar-14	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	15	Wardha - Bhatnagar-15	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	16	Wardha - Bhatnagar-16	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	17	Wardha - Bhatnagar-17	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
	18	Wardha - Bhatnagar-18	46.98	21%	08-07-2022	23.33	08-07-2022	23.33	23-07-2022	
220 KV/215 KV	1	Wardha - Bhatnagar-19	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	2	Wardha - Bhatnagar-20	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	3	Wardha - Bhatnagar-21	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	4	Wardha - Bhatnagar-22	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	5	Wardha - Bhatnagar-23	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	6	Wardha - Bhatnagar-24	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	7	Wardha - Bhatnagar-25	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	8	Wardha - Bhatnagar-26	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	9	Wardha - Bhatnagar-27	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	10	Wardha - Bhatnagar-28	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	11	Wardha - Bhatnagar-29	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	12	Wardha - Bhatnagar-30	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	13	Wardha - Bhatnagar-31	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	14	Wardha - Bhatnagar-32	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	15	Wardha - Bhatnagar-33	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	16	Wardha - Bhatnagar-34	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	17	Wardha - Bhatnagar-35	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	18	Wardha - Bhatnagar-36	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	19	Wardha - Bhatnagar-37	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	20	Wardha - Bhatnagar-38	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	21	Wardha - Bhatnagar-39	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	22	Wardha - Bhatnagar-40	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	23	Wardha - Bhatnagar-41	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
	24	Wardha - Bhatnagar-42	100.20	45%	11-07-2022	51.80	11-07-2022	51.80	23-07-2022	
132 KV/125 KV	1	Wardha - Bhatnagar-43	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	2	Wardha - Bhatnagar-44	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	3	Wardha - Bhatnagar-45	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	4	Wardha - Bhatnagar-46	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	5	Wardha - Bhatnagar-47	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	6	Wardha - Bhatnagar-48	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	7	Wardha - Bhatnagar-49	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	8	Wardha - Bhatnagar-50	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	9	Wardha - Bhatnagar-51	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	10	Wardha - Bhatnagar-52	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	11	Wardha - Bhatnagar-53	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	12	Wardha - Bhatnagar-54	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	13	Wardha - Bhatnagar-55	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	14	Wardha - Bhatnagar-56	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	15	Wardha - Bhatnagar-57	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	16	Wardha - Bhatnagar-58	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	17	Wardha - Bhatnagar-59	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	18	Wardha - Bhatnagar-60	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	19	Wardha - Bhatnagar-61	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	20	Wardha - Bhatnagar-62	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	21	Wardha - Bhatnagar-63	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	22	Wardha - Bhatnagar-64	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	23	Wardha - Bhatnagar-65	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	
	24	Wardha - Bhatnagar-66	33.40	15%	11-07-2022	17.27	11-07-2022	17.27	23-07-2022	

Notes: Negative sign(-) denotes negative load and positive sign(+) denotes positive load. The maximum loading level of 132 KV/125 KV is observed at 11-07-2022. The maximum loading level of 220 KV/215 KV is observed at 11-07-2022. The maximum loading level of 400 KV/380 KV is observed at 11-07-2022.

**BIHAR GRID COMPANY LIMITED**  
**Loading level of Transmission Assets**

Voltage Grade	S.No	Name of TL	Load MW						Month:	Remark
			Max		Time		Date		Avg of Month	
			Min	Time	Date	Date				
<b>A. Power Flow in 400kV transmission line</b>										
400 kV (08 nos.)	1	Neubatpur - Patna [PG] ckt - 01	445.96	00:00	30-08-2022	53.58	16:00	16-08-2022	-317.90	
	2	Neubatpur - Patna [PG] ckt - 02	446.06	00:00	30-08-2022	53.85	16:00	16-08-2022	-322.34	
	3	Neubatpur - Ballia [PG] ckt - 01	817.30	00:00	30-08-2022	4.06	12:00	17-08-2022	220.64	
	4	Neubatpur - Ballia [PG] ckt - 02	840.35	00:00	30-08-2022	7.11	12:00	17-08-2022	224.06	
	5	Jakkanpur - Nabinaga (NPG) ckt - 01	519.35	22:00	21-08-2022	137.33	08:00	24-08-2022	454.84	
	6	Jakkanpur - Nabinaga (NPG) ckt - 02	519.84	22:00	21-08-2022	-138.85	08:00	24-08-2022	445.22	
	7	Jakkanpur - Patna [PG] ckt - 01	498.44	22:00	21-08-2022	108.46	08:00	24-08-2022	412.73	
	8	Jakkanpur - Patna [PG] ckt - 02	484.52	22:00	21-08-2022	106.61	08:00	24-08-2022	409.56	
<b>B. Power Flow in 220kV transmission line</b>										
220 kV (34 nos.)	1	Hajipur - Amnour ckt-01	172.42	10:00	22-08-2022	6.02	13:00	15-08-2022	52.90	
	2	Hajipur - Amnour ckt-02	133.27	05:00	27-08-2022	-23.23	12:00	27-08-2022	87.61	
	3	Patna (PG) - Khagaul ckt-02	78.63	12:00	30-08-2022	25.51	12:00	15-08-2022	61.90	
	4	Patna (PG) - Khagaul ckt-01	78.11	12:00	30-08-2022	25.39	12:00	15-08-2022	61.69	
	5	Khijisara - Biharsharif ckt-01	154.62	08:00	06-08-2022	-23.2	15:00	20-08-2022	87.2	
	6	Khijisara - Biharsharif ckt-02	155.48	08:00	06-08-2022	-23.54	15:00	20-08-2022	87.85	
	7	Khijisara - Bodh Gaya ckt-01	73.55	20:00	11-08-2022	-10.74	18:00	09-08-2022	15.41	
	8	Khijisara - Bodh Gaya ckt-02	74.80	00:00	13-08-2022	1.34	08:00	20-08-2022	33.22	
	9	Khijisara - Gaya (PG) ckt-01	124.62	19:00	04-08-2022	-15.56	06:00	15-08-2022	-75.24	
	10	Khijisara - Gaya (PG) ckt-02	124.98	19:00	04-08-2022	-15.59	06:00	15-08-2022	-75.8	
	11	Khijisara - Narihat ckt-01	144.97	20:00	06-08-2022	24.04	15:00	14-08-2022	102.73	
	12	Khijisara - Narihat ckt-02	144.97	20:00	06-08-2022	23.8	15:00	14-08-2022	102.64	
	13	Narihat - Sekhopur Sarai ckt-01	129.55	11:00	26-08-2022	18.18	15:00	14-08-2022	28.06	
	14	Narihat - Sekhopur Sarai ckt-02	94.07	12:00	04-08-2022	18.08	15:00	14-08-2022	27.06	
	15	Sekhopur Sarai - Haveli Kharagpur ckt-01	64.50	19:00	04-08-2022	6.50	06:00	15-08-2022	38.27	
	16	Sekhopur Sarai - Haveli Kharagpur ckt-02	64.00	19:00	04-08-2022	5.50	06:00	15-08-2022	35.40	
	17	Haveli Kharagpur - Goradhi ckt-01	0.00	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow
	18	Haveli Kharagpur - Goradhi ckt-02	69.40	19:00	04-08-2022	15.70	11:00	04-08-2022	0.74	
	19	Mokama - Biharsharif ckt-1	135.20	02:00	12-08-2022	0.00	23:00	10-08-2022	28.61	
	20	Mokama - Biharsharif ckt-2	136.40	02:00	12-08-2022	0.00	23:00	10-08-2022	29.65	
	21	Mokama - BTFS ckt-1	-162.20	02:00	12-08-2022	0.00	21:00	02-08-2022	-54.54	
	22	Mokama - BTFS ckt-2	-163.40	02:00	12-08-2022	0.00	21:00	02-08-2022	-54.71	
	23	Arja (PG) Dumraon New - 01	64.13	18:00	03-08-2022	0.05	18:00	02-08-2022	62.66	
	24	Arja (PG) Dumraon New - 02	64.99	18:00	03-08-2022	0.01	08:00	14-08-2022	65.97	
	25	Dumraon - New - Adolhar - 01	116.27	18:00	03-08-2022	0.05	17:00	29-08-2022	-37.71	
	26	Dumraon - New - Adolhar - 02	-116.89	18:00	03-08-2022	0.05	17:00	29-08-2022	-38.08	
	27	Neubatpur - Arja (PG) ckt-01	145.89	08:00	19-08-2022	5.99	11:00	15-08-2022	92.62	
	28	Neubatpur - Arja (PG) ckt-02	145.88	08:00	19-08-2022	6.30	11:00	15-08-2022	93.64	
	29	Neubatpur - Khagaul ckt-01	27.37	06:00	30-08-2022	0.05	23:00	30-08-2022	-7.11	
	30	Neubatpur - Khagaul ckt-02	27.32	06:00	30-08-2022	0.00	23:00	30-08-2022	-7.17	
	31	Neubatpur - Bhusaola ckt-01	0.26	16:00	11-08-2022	0.00	00:00	01-08-2022	0.07	
	32	Neubatpur - Bhusaola ckt-02	0.36	16:00	11-08-2022	0.00	21:00	01-08-2022	0.01	
	33	Neubatpur - Birta ckt-01	-15.08	18:00	02-08-2022	-0.07	16:00	25-08-2022	-7.71	
	34	Neubatpur - Birta ckt-02	-15.16	18:00	02-08-2022	0.03	20:00	16-08-2022	-2.87	
<b>C. Power Flow in 132 kV transmission line</b>										
132 kV (39 nos.)	1	Amnour - Siwan ckt-02	66.35	15:00	26-08-2022	1.25	17:00	09-08-2022	71.64	
	2	Amnour - Siwan ckt-02	66.22	15:00	26-08-2022	1.34	04:00	06-08-2022	34.95	
	3	Amnour - Chapara ckt-01	67.11	14:00	11-08-2022	15.47	12:00	27-08-2022	39.43	
	4	Amnour - Chapara ckt-02	71.27	17:00	13-08-2022	12.06	12:00	15-08-2022	39.53	
	5	Khijisara - Bodh Gaya ckt-03	51.24	07:00	07-08-2022	0.01	03:00	03-08-2022	7.12	
	6	Khijisara - Wajinganj ckt-01	52.25	06:00	03-08-2022	0.00	12:00	05-08-2022	26.11	
	7	Khijisara - Hulasganj ckt-01	44.27	09:00	31-08-2022	0.01	16:00	06-08-2022	9.32	
	8	Khijisara - Jehanabad ckt-01	92.92	19:00	12-08-2022	8.53	14:00	19-08-2022	34.76	
	9	Khijisara - Jehanabad ckt-02	92.43	19:00	12-08-2022	8.38	14:00	19-08-2022	34.78	
	10	Narihat - Nawadah ckt-01	72.51	21:00	14-08-2022	1.61	04:00	31-08-2022	37.48	
	11	Narihat - Nawadah ckt-02	58.86	19:00	01-08-2022	1.43	04:00	31-08-2022	33.75	
	12	Haveli Kharagpur - Sultan ganj ckt-01	30.60	13:00	16-08-2022	26.50	14:00	16-08-2022	0.18	
	13	Haveli Kharagpur - Sultan ganj ckt-02	46.10	11:00	16-08-2022	25.30	14:00	16-08-2022	0.26	
	14	Haveli Kharagpur - Lakhsisarai ckt-01	0.00	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow
	15	Haveli Kharagpur - Lakhsisarai ckt-02	0.00	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow
	16	Haveli Kharagpur - Jamalpur ckt-01	31.40	22:00	25-08-2022	1.00	06:00	15-08-2022	27.00	
	17	Haveli Kharagpur - Jamalpur ckt-02	31.30	22:00	25-08-2022	0.90	06:00	15-08-2022	22.67	
	18	Sekhopur Sarai - Sekhpara ckt-01	28.40	08:00	06-08-2022	3.00	17:00	04-08-2022	24.28	
	19	Sekhopur Sarai - Sekhpara ckt-02	29.00	08:00	06-08-2022	4.10	16:00	11-08-2022	25.18	
	20	Sekhopur Sarai - Biharsharif	0.00	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow
	21	Goradhi - Sultan ganj ckt-01	0.00	00:00	01-08-2022	0.00	00:00	01-08-2022	0.01	
	22	Goradhi - Sultan ganj ckt-02	22.50	13:00	20-08-2022	0.00	00:00	01-08-2022	-4.35	
	23	Goradhi - Kahalganj ckt-01	51.50	10:00	04-08-2022	0.00	00:00	01-08-2022	0.38	
	24	Goradhi - Kahalganj ckt-02	43.20	18:00	04-08-2022	0.00	00:00	01-08-2022	0.36	
	25	Goradhi - Sabour ckt-01	-20.40	19:00	19-08-2022	0.30	14:00	19-08-2022	-11.03	
	26	Goradhi - Sabour ckt-02	-20.50	19:00	19-08-2022	0.40	10:00	27-08-2022	-11.08	
	27	Mokama - Adolhar ckt-01	54.60	09:00	02-08-2022	0.00	16:00	20-08-2022	32.65	
	28	Mokama - Adolhar ckt-02	55.30	09:00	02-08-2022	0.00	16:00	20-08-2022	32.68	
	29	DUMRACON-DUMRACON ckt-02	41.22	08:00	05-08-2022	0.01	15:00	15-08-2022	26.65	
	30	DUMRACON-BUXAR ckt-01	36.58	09:00	08-08-2022	2.52	10:00	15-08-2022	-35.86	
	31	DUMRACON-BUXAR ckt-02	56.89	09:00	08-08-2022	2.53	10:00	15-08-2022	-35.84	
	32	DUMRACON-DUMRACON ckt-01	41.55	08:00	06-08-2022	0.52	15:00	15-08-2022	29.52	
	33	DUMRACON-ARA ckt-01	-34.19	21:00	24-08-2022	0.43	11:00	15-08-2022	-12.71	
	34	DUMRACON-ARA ckt-02	26.09	19:00	15-08-2022	0.43	11:00	15-08-2022	-12.66	
	35	DUMRACON-JAGSIHPUR ckt-01	47.70	19:00	16-08-2022	0.03	03:00	15-08-2022	4.51	
	36	DUMRACON-JAGSIHPUR ckt-02	-15.51	06:00	01-08-2022	0.09	23:00	20-08-2022	-4.48	
	37	Neubatpur - Masaurhi ckt - 01	73.99	17:00	02-08-2022	0.94	18:00	03-08-2022	13.24	
	38	Neubatpur - Masaurhi ckt - 02	73.29	17:00	02-08-2022	0.94	18:00	03-08-2022	13.09	
	39	JAKKANPUR-SIPARA 03	50.21	14:00	26-08-2022	13.13	09:00	15-08-2022	34.44	
40	JAKKANPUR-FATUHA	49.50	11:00	29-08-2022	17.62	04:00	15-08-2022	41.88		
Substation Details	S.No.	MVA Capacity	Load MW						Remark	
			Max	Time	Date	Min	Time	Date		
<b>D. Power Flow in transformers</b>										
Amnour GIS	1	Tr-01-160 MVA, 220-132 kV	132.28	05:00	27-08-2022	1.02	13:00	15-08-2022	90.63	
	2	Tr-02-160 MVA, 220-132 kV	133.83	05:00	27-08-2022	1.05	13:00	15-08-2022	92.00	
	3	Tr-01-50 MVA, 132-11 kV	26.61	22:00	28-08-2022	0.94	22:00	27-08-2022	-6.79	
	4	Tr-02-50 MVA, 132-11 kV	26.69	22:00	28-08-2022	0.95	22:00	27-08-2022	-6.92	
Khijisara GIS	1	Tr-01-160 MVA, 220-132 kV	133.11	22:00	27-08-2022	17.84	14:00	19-08-2022	83.51	
	2	Tr-02-160 MVA, 220-132 kV	137.93	22:00	27-08-2022	18.93	14:00	19-08-2022	85.22	
	3	Tr-01-50 MVA, 132-11 kV			Not Commissioned					
Narihat GIS	4	Tr-02-50 MVA, 132-11 kV	20.25	06:00	30-08-2022	0.03	07:00	06-08-2022	8.06	
	5	Tr-03-50 MVA, 132-11 kV	16.2	07:00	06-08-2022	0.08	15:00	19-08-2022	3.47	
	1	Tr-01-160 MVA, 220-132 kV	101.01	08:00	29-08-2022	0.02	19:00	14-08-2022	24.18	
	2	Tr-02-160 MVA, 220-132 kV	80.82	21:00	14-08-2022	3.68	13:00	30-08-2022	21.52	
	3	Tr-01-50 MVA, 132-11 kV	10.44	20:00	29-08-2022	0.02	22:00	24-08		



GIS	3	Tr-C1-150 MVA, 132-33 KV	1.52	2700	29-08-2022	0.26	11400	07-08-2022	1.50	
	4	Tr-C2-150 MVA, 132-33 KV	26.00	2700	31-08-2022	1.2	21000	18-08-2022	15.08	
Haveli Sharadpur GIS	1	Tr-C1-150 MVA, 220-132 KV	54.10	12000	26-08-2022	0.9	07000	30-08-2022	24.34	
	2	Tr-C2-150 MVA, 220-132 KV	44.80	12000	26-08-2022	5.5	07000	30-08-2022	27.08	
	3	Tr-C1-150 MVA, 132-33 KV	10.50	7500	31-08-2022	0.2	10000	20-08-2022	5.88	
Go-adli G S	4	Tr-C2-90 MVA, 132-33 KV	8.22	21000	28-08-2022	1.2	17000	19-08-2022	5.04	
	1	Tr-C1-150 MVA, 220-132 KV	66.50	18000	04-08-2022	0.00	00000	07-08-2022	0.71	
	2	Tr-C2-150 MVA, 220-132 KV								Not Commissioned
	3	Tr-C1-90 MVA, 132-33 KV	19.60	20000	27-08-2022	0.00	19000	16-08-2022	11.80	
Mckama G-S	4	Tr-C2-90 MVA, 132-33 KV	30.40	17000	20-08-2022	0.00	15000	09-08-2022	4.58	
	1	Tr-C1-160 MVA, 220-132 KV								Not Commissioned
	2	Tr-C2-160 MVA, 220-132 KV	115.40	19000	03-08-2022	1.11	19000	14-08-2022	54.004	
Dumraon GIS	3	Tr-C1-80 MVA, 132-33 KV								Not Commissioned
	4	Tr-C2-80 MVA, 132-33 KV	11.80	20000	14-08-2022	0.00	02000	01-08-2022	4.120	
	1	Tr-C1-160 MVA, 220-132 KV	148.24	22000	24-08-2022	13.49	10000	15-08-2022	-95.82	
	2	Tr-C1-80 MVA, 132-33 KV	15.83	19000	24-08-2022	0.02	02000	04-08-2022	-17.95	
Nouabpur GIS	3	Tr-C2-80 MVA, 132-33 KV	0.02	00000	01-08-2022	0.00	00000	31-08-2022	0.00	
	1	Tr-C1-500 MVA, 400-220 KV								Not Commissioned
	2	Tr-C2-500 MVA, 400-220 KV	775.35	19000	18-08-2022	20.83	08000	20-08-2022	155.00	
	3	Tr-C1-160 MVA, 220-132 KV	48.00	13000	07-08-2022	14.64	05000	14-08-2022	22.00	
	4	Tr-C2-160 MVA, 220-132 KV								Not Commissioned
	5	Tr-C1-80 MVA, 132-33 KV	4.52	08000	28-08-2022	0.07	11000	15-08-2022	2.25	
Jalalpur GIS	6	Tr-C2-80 MVA, 132-33 KV								Not Commissioned
	1	Tr-C1-500 MVA, 400-220 KV	81.27	23000	27-08-2022	33.21	05000	15-08-2022	32.000	
	2	Tr-C2-500 MVA, 400-220 KV								Not Commissioned
	3	Tr-C1-160 MVA, 220-132 KV	81.10	23000	27-08-2022	35.71	04000	15-08-2022	10.000	
	4	Tr-C2-160 MVA, 220-132 KV								Not Commissioned
	5	Tr-C1-80 MVA, 132-33 KV								Not Commissioned
	6	Tr-C2-80 MVA, 132-33 KV								Not Commissioned
	7	Tr-C3-80 MVA, 132-33 KV								Not Commissioned
Bhusaula GIS	8	Tr-C4-80 MVA, 132-33 KV	0.11	13000	28-08-2022	0.03	15000	16-08-2022	0.090	
	1	Tr-C1-100 MVA, 220-33KV								
Note	Negative sign(-) denote import of power and positive sign(+) denote export of power. For example (-) 172.42 MW in Hajipur - Annour ckt-1 denotes import of 172.42 MW from Hajipur S-5 to Annour S-5 and 66.72 MW in Annour -Siwan ckt-2 denotes 66.72 MW from Annour to Siwan S-5.									

**BIHAR GRID COMPANY LIMITED**  
Loading level of Transmission Assets

Month: **September 2022**

Voltage Grade	S.No	Name of TL	Load								Remark
			Max	Time	Date	Min	Time	Date	Avg of Month		
			A. Power Flow in 400kV transmission line								
400 kV (08 nos.)	1	Naubatpur - Patna(PGI) ckt-01	543.43	06:00	09-09-2022	62.09	13:00	25-09-2022	-477.57		
	2	Naubatpur - Patna(PGI) ckt-02	802.28	17:00	10-09-2022	61.97	13:00	25-09-2022	-333.08		
	3	Naubatpur - Ballia(PGI) ckt-01	746.46	17:00	03-09-2022	4.01	03:00	24-09-2022	228.00		
	4	Naubatpur - Ballia(PGI) ckt-02	399.62	17:00	03-09-2022	-5.52	15:00	24-09-2022	221.50		
	5	Jalkhanpur - Madanagar(NPGI) ckt-01	523.82	00:00	01-09-2022	24.37	08:00	26-09-2022	298.17		
	6	Jalkhanpur - Madanagar(NPGI) ckt-02	525.57	00:00	01-09-2022	-25.26	08:00	26-09-2022	294.04		
	7	Jalkhanpur - Patna(PGI) ckt-01	496.27	00:00	01-09-2022	2.82	08:00	27-09-2022	367.89		
	8	Jalkhanpur - Patna(PGI) ckt-02	490.46	00:00	01-09-2022	-7.18	08:00	27-09-2022	359.93		
<b>B. Power Flow in 220kV transmission line</b>											
220 kV (34 nos.)	1	Faipur - Amnour ckt-01	138.96	14:00	26-09-2022	-22.55	16:00	15-09-2022	93.57		
	2	Faipur - Amnour ckt-02	174.03	17:00	11-09-2022	-32.48	18:00	15-09-2022	88.73		
	3	Patna (PGI) - Khatauli ckt-01	30.45	18:00	19-09-2022	23.68	09:00	24-09-2022	51.23		
	4	Patna (PGI) - Khatauli ckt-02	89.8	18:00	10-09-2022	21.22	09:00	24-09-2022	59.05		
	5	Khijisara - Biharsharif ckt-01	163.83	08:00	27-09-2022	-30.09	19:00	17-09-2022	94.11		
	6	Khijisara - Biharsharif ckt-02	-163.31	08:00	27-09-2022	-30.64	19:00	17-09-2022	94.19		
	7	Khijisara - Both Gaya ckt-01	-52.73	18:00	01-09-2022	-0.01	07:00	17-09-2022	-25.94		
	8	Khijisara - Both Gaya ckt-02	56.52	18:00	01-09-2022	0.07	07:00	17-09-2022	-26.04		
	9	Khijisara - Gaya (PGI) ckt-01	90.69	23:00	09-09-2022	2.62	16:00	26-09-2022	97.44		
	10	Khijisara - Gaya (PGI) ckt-02	96.99	23:00	09-09-2022	-3.7	16:00	26-09-2022	97.38		
	11	Khijisara - Narhat ckt-01	140.65	20:00	23-09-2022	41.8	15:00	19-09-2022	-55.09		
	12	Khijisara - Narhat ckt-02	140.27	20:00	23-09-2022	41.74	15:00	19-09-2022	-55.36		
	13	Narhat - Sekkopur Sarai ckt-01	83.40	23:00	17-09-2022	24.89	12:00	10-09-2022	26.87		
	14	Narhat - Sekkopur Sarai ckt-02	83.10	23:00	17-09-2022	24.89	12:00	10-09-2022	26.86		
	15	Sekkopur Sarai - Haveli Kharagpur ckt-01	55.5	13:00	27-09-2022	2.7	12:00	10-09-2022	33.49		
	16	Sekkopur Sarai - Haveli Kharagpur ckt-02	53.2	14:00	21-09-2022	2.7	12:00	10-09-2022	34.46		
	17	Haveli Kharagpur - Goradli ckt-01	0	00:00	00-00-0000	0	00:00	00-00-0000	0.00	System connected but no power flow	
	18	Haveli Kharagpur - Goradli ckt-02	0	00:00	00-00-0000	0	00:00	00-00-0000	0.00	System connected but no power flow	
	19	Mokama-Biharsharif ckt-1	135.6	07:00	15-09-2022	0	19:00	01-09-2022	31.10		
	20	Mokama-Biharsharif ckt-2	156.5	07:00	15-09-2022	0	19:00	01-09-2022	31.52		
	21	Mokama-BTPS ckt-1	-158.5	07:00	16-09-2022	0	22:00	01-09-2022	-66.62		
	22	Mokama-BTPS ckt-2	-158	07:00	16-09-2022	0	22:00	01-09-2022	-66.58		
	23	Ara(PGI) - Dumraon New -01	-64.81	08:00	08-09-2022	0.26	08:00	01-09-2022	-19.92		
	24	Ara(PGI) - Dumraon New -02	64.88	08:00	08-09-2022	-0.18	08:00	01-09-2022	-19.97		
	25	Dumraon New-Kedokhar -01	-71.26	00:00	05-09-2022	0.09	22:00	17-09-2022	-32.99		
	26	Dumraon New-Kedokhar -02	-71.64	00:00	01-09-2022	0.01	22:00	17-09-2022	-21.03		
	27	Naubatpur - Ara(PGI) ckt-01	138.75	06:00	05-09-2022	34.53	16:00	15-09-2022	95.71		
	28	Naubatpur - Ara(PGI) ckt-02	138.85	06:00	06-09-2022	34.64	16:00	15-09-2022	95.72		
	29	Naubatpur - Khatauli ckt-01	53.17	08:00	24-09-2022	0.01	13:00	01-09-2022	7.35		
	30	Naubatpur - Khatauli ckt-02	53.45	08:00	24-09-2022	0.02	13:00	01-09-2022	7.41		
	31	Naubatpur - Bhusauli ckt-01	0.27	12:00	06-09-2022	0	02:00	18-09-2022	0.57		
	32	Naubatpur - Bhusauli ckt-02	0.48	06:00	17-09-2022	0	11:00	06-09-2022	0.23		
	33	Naubatpur - Bitta ckt-01	24.25	09:00	24-09-2022	0.02	07:00	26-09-2022	7.80		
	34	Naubatpur - Bitta ckt-02	24.34	09:00	24-09-2022	-0.03	22:00	01-09-2022	7.80		
<b>C. Power Flow in 132 kV transmission line</b>											
132 kV (39 nos.)	1	Amnour - Siwan ckt-01	65.06	23:00	10-09-2022	5.37	14:00	09-09-2022	35.56		
	2	Amnour - Siwan ckt-02	65.4	23:00	10-09-2022	5.38	14:00	09-09-2022	35.69		
	3	Amnour - Chhapara ckt-01	59.87	02:00	23-09-2022	5.69	24:00	15-09-2022	34.11		
	4	Amnour - Chhapara ckt-02	60.22	02:00	23-09-2022	5.68	22:00	15-09-2022	34.03		
	5	Khijisara - Both Gaya ckt-01	78.45	14:00	03-09-2022	0.01	00:00	01-09-2022	0.01		
	6	Khijisara - Hajiganj ckt-01	69.23	10:00	06-09-2022	0.06	17:00	14-09-2022	19.15		
	7	Khijisara-Hajiganj ckt-02	56.36	13:00	23-09-2022	0.05	09:00	16-09-2022	25.48		
	8	Khijisara - Jehanabad ckt-01	73.65	21:00	09-09-2022	2.82	18:00	21-09-2022	46.81		
	9	Khijisara - Jehanabad ckt-02	101.9	20:00	22-09-2022	2.81	18:00	21-09-2022	47.63		
	10	Narhat - Nawadah ckt-01	69.12	19:00	22-09-2022	1.38	17:00	13-09-2022	36.43		
	11	Narhat - Nawadah ckt-02	64.50	18:00	28-09-2022	1.09	17:00	13-09-2022	33.47		
	12	Haveli Kharagpur - Suhanjani ckt-01	15.1	16:00	30-09-2022	14.50	15:00	30-09-2022	0.26		
	13	Haveli Kharagpur - Suhanjani ckt-02	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	14	Haveli Kharagpur - Lakhsaral ckt-01	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	15	Haveli Kharagpur - Lakhsaral ckt-02	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	16	Haveli Kharagpur - Amalpur ckt-01	30.2	19:00	07-09-2022	2.70	14:00	03-09-2022	23.48		
	17	Haveli Kharagpur - Amalpur ckt-02	30.2	19:00	07-09-2022	2.60	14:00	03-09-2022	23.47		
	18	Sekkopur Sarai - Sekhpura ckt-01	47.3	23:00	17-09-2022	9.20	09:00	08-09-2022	24.98		
	19	Sekkopur Sarai - Sekhpura ckt-02	48	23:00	17-09-2022	1.20	04:00	01-09-2022	25.78		
	20	Sekkopur Sarai - Biharsharif	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	21	Goradli - Suhanjani ckt-01	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	22	Goradli - Suhanjani ckt-02	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	23	Goradli - Kahalgauz ckt-01	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	24	Goradli - Kahalgauz ckt-02	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	System connected but no power flow	
	25	Goradli - Sabour ckt-01	-17.2	09:00	03-09-2022	0.00	17:00	24-09-2022	-9.87		
	26	Goradli - Sabour ckt-02	-17.2	09:00	03-09-2022	0.00	17:00	24-09-2022	-9.91		
	27	Mokama-Hatidah ckt-01	55.91	12:00	10-09-2022	0.00	08:00	04-09-2022	31.76		
	28	Mokama-Hatidah ckt-02	56.43	12:00	10-09-2022	0.00	08:00	04-09-2022	32.88		
	29	DUMRADN-DUMRADN ckt-01	17.76	06:00	09-09-2022	0.42	17:00	19-09-2022	17.68		
	30	DUMRADN-DUMRADN ckt-02	17.85	06:00	09-09-2022	0.26	17:00	19-09-2022	17.90		
	31	DUMRADN-BUXAR ckt-01	53.30	08:00	20-09-2022	0.01	17:00	14-09-2022	24.66		
	32	DUMRADN-BUXAR ckt-02	51.28	08:00	20-09-2022	0.01	17:00	20-09-2022	24.17		
	33	DL MRADN-ARA ckt-01	52.76	21:00	04-09-2022	0.01	00:00	13-09-2022	6.96		
	34	DL MRADN-ARA ckt-02	52.48	21:00	04-09-2022	0.01	00:00	13-09-2022	6.96		
	35	DL MRADN-JAGDISHPUR ckt-01	32.27	19:00	03-09-2022	0.91	11:00	25-09-2022	24.1		
	36	DL MRADN-JAGDISHPUR ckt-02	32.14	19:00	03-09-2022	0.88	00:00	13-09-2022	23.56		
	37	Naubatpur - Masaurhi ckt-01	21.28	15:00	27-09-2022	3.90	14:00	10-09-2022	13.68		
	38	Naubatpur - Masaurhi ckt-02	21.26	15:00	27-09-2022	3.87	14:00	10-09-2022	13.53		
	39	JALKHANPUR-SIIPARA-03	39.74	19:00	16-09-2022	2.45	15:00	26-09-2022	30.88		
40	JALKHANPUR-FATUA	48.28	19:00	16-09-2022	2.10	15:00	26-09-2022	43.08			



Substation Details	S.No.	MVA Capacity	Load						Avg of Month	Remark
			MW							
			Max	Time	Date	Min	Time	Date		
<b>D. Power Flow in transformers</b>										
Amnour GIS	1	T-01-160 MVA, 220-132 kV	126.82	02:00	23-09-2022	32.96	16:00	15-09-2022	85.76	
	2	T-02-160 MVA, 220-132 kV	133.70	03:00	23-09-2022	32.52	16:00	15-09-2022	86.90	
	3	T-01-50 MVA, 132-33 kV	25.81	21:00	04-09-2022	0.07	19:00	02-09-2022	16.77	
	4	T-02-50 MVA, 132-33 kV	25.75	21:00	04-09-2022	0.12	16:00	03-03-2022	16.87	
Khijir Sarai S/S	1	T-01-160 MVA, 220-132 kV	124.33	19:00	07-09-2022	-0.21	19:00	17-09-2022	76.38	
	2	T-02-160 MVA, 220-132 kV	149.65	05:00	17-09-2022	0.55	19:00	17-09-2022	79.60	
	3	T-01-50 MVA, 132-33 kV								Not Commissioned
	4	T-02-50 MVA, 132-33 kV	18.69	07:00	19-09-2022	0.03	15:00	19-09-2022	8.36	
	5	T-03-50 MVA, 132-33 kV	15.09	08:00	10-09-2022	0.09	18:00	02-09-2022	9.99	
Narhat GIS	1	T-01-160 MVA, 220-132 kV	79.05	20:00	22-09-2022	3.89	17:00	13-09-2022	22.17	
	2	T-02-160 MVA, 220-132 kV	66.77	20:00	22-09-2022	1.59	17:00	13-09-2022	29.79	
	3	T-01-50 MVA, 132-33 kV	9.71	20:00	05-09-2022	0.09	15:00	29-09-2022	6.15	
	4	T-02-50 MVA, 132-33 kV	20.84	19:00	03-09-2022	0.03	14:00	09-09-2022	11.02	
Sekhepur Sara GIS	1	T-01-160 MVA, 220-132 kV	61.80	13:00	24-09-2022	3.3	10:00	21-09-2022	35.00	
	2	T-02-160 MVA, 220-132 kV	54.70	12:00	23-09-2022	4.4	15:00	19-09-2022	35.60	
	3	T-01-50 MVA, 132-33 kV	1.60	09:00	29-09-2022	0.2	21:00	13-09-2022	1.31	
	4	T-02-50 MVA, 132-33 kV	24.90	22:00	05-09-2022	1.2	11:00	06-09-2022	16.81	
Haveli Kharagpur GIS	1	T-01-160 MVA, 220-132 kV	88.10	19:00	07-09-2022	10.3	14:00	03-09-2022	27.87	
	2	T-02-160 MVA, 220-132 kV	85.00	19:00	07-09-2022	9	14:00	03-09-2022	26.44	
	3	T-01-50 MVA, 132-33 kV	10.50	22:00	09-09-2022	1.4	23:00	24-09-2022	6.83	
	4	T-02-50 MVA, 132-33 kV	7.30	21:00	24-09-2022	1.2	14:00	03-09-2022	4.45	
Garetilh GIS	1	T-01-160 MVA, 220-132 kV	0	00:00	00-00-0000	0.00	00:00	00-00-0000	0.00	
	2	T-02-160 MVA, 220-132 kV								Not Commissioned
	3	T-01-50 MVA, 132-33 kV	16.10	04:00	02-09-2022	0	23:00	01-09-2022	10.74	
	4	T-02-50 MVA, 132-33 kV	21.50	13:00	02-09-2022	0	14:00	03-09-2022	8.97	
Mokama GIS	1	T-01-160 MVA, 220-132 kV								Not Commissioned
	2	T-02-160 MVA, 220-132 kV	111.40	10:00	10-09-2022	0.00	08:00	04-09-2022	50.11	
	3	T-01-80 MVA, 132-33 kV								Not Commissioned
	4	T-02-80 MVA, 132-33 kV	10.80	19:00	02-09-2022	0.00	09:00	01-09-2022	2.50	
Dumraon GIS	1	T-01-160 MVA, 220-132 kV	138.80	19:00	03-09-2022	1.58	16:00	15-09-2022	75.60	
	2	T-01-80 MVA, 132-33 kV	25.04	19:00	04-09-2022	2.32	16:00	29-09-2022	9.00	
	3	T-02-80 MVA, 132-33 kV	0.00	03:00	01-09-2022	0.00	09:00	31-09-2022		
Naubatpur S/S	1	T-01-500 MVA, 400-220 kV								Not Commissioned
	2	T-02-500 MVA, 400-220 kV	285.79	19:00	27-09-2022	116.69	14:00	10-09-2022	212.00	
	3	T-01-160 MVA, 220-132 kV	45.37	15:00	27-09-2022	9.04	14:00	10-09-2022	25.00	
	4	T-02-160 MVA, 220-132 kV								Not Commissioned
	5	T-01-80 MVA, 132-33 kV	6.70	08:00	26-09-2022	0.08	15:00	22-09-2022	2.00	
	6	T-02-80 MVA, 132-33 kV								Not Commissioned
Jalkanpur GIS	1	T-01-500 MVA, 400-220 kV	87.48	19:00	22-09-2022	45.95	14:00	13-09-2022	71.59	
	2	T-02-500 MVA, 400-220 kV								Not Commissioned
	3	T-01-160 MVA, 220-132 kV	87.09	19:00	22-09-2022	45.56	14:00	11-09-2022	71.44	
	4	T-02-160 MVA, 220-132 kV								Not Commissioned
	5	T-01-80 MVA, 132-33 kV								Not Commissioned
	6	T-02-80 MVA, 132-33 kV								Not Commissioned
	7	T-03-80 MVA, 132-33 kV								Not Commissioned
	8	T-04-80 MVA, 132-33 kV	0.13	12:00	30-05-2022	0.03	16:00	29-09-2022	0.00	
8	T-01-100 MVA, 220-33 kV	0.50	12:00	01-08-2022	0.02	11:00	31-09-2022	0.10		

Note: Negative sign(-) denote import of power and positive sign (+) denote export of power. For example (-) 136.96 MW in Hajipur - Amnour ckt-1 denotes import of 136.96 MW from Hajipur S-S to Amnour S-S and 65.08 MW in Amnour - Siwan ckt-2 denotes 65.08 MW from Amnour to Siwan S-S.

BIHAR GRID COMPANY LIMITED

Name of the DIS	Details With Service Connection Number taken to measure Auxiliary Consumption		Consumption (Meter Reading)		Electricity charges paid in FY 2021-22			
	Customer ID	Meter SI. No.	Meter wise (in MWH)	Total (in MWH)	From Date	To Date	Bill Amount (in Rs.)	Total Amount (in Rs.)
Paveth Kharragar	236702196791	LT-01(NBPD2842)	18.57	419.52	10-03-2021	10-04-2021	80,576	32,19,432
			9.75		10-04-2021	09-05-2021	78,582	
			37.82		09-05-2021	14-06-2021	1,12,842	
			29.38		14-06-2021	16-07-2021	2,21,534	
			27.32		16-07-2021	11-08-2021	2,05,856	
			31.50		11-08-2021	14-09-2021	2,38,839	
			25.17		14-09-2021	12-10-2021	1,90,653	
			21.28		12-10-2021	08-11-2021	1,07,366	
			17.20		08-11-2021	14-12-2021	1,40,278	
			25.37		14-12-2021	11-01-2022	1,90,216	
	0.00	11-01-2022	10-02-2022	7,566				
	19.37	10-02-2022	11-03-2022	84,689				
	10.79	11-03-2022	10-04-2022	1,40,016				
	16.76	10-04-2022	09-05-2022	1,43,838				
	13.76	09-05-2022	14-06-2022	2,88,019				
	11.68	14-06-2022	16-07-2022	97,092				
	10.33	16-07-2022	11-08-2022	84,573				
	13.01	11-08-2022	14-09-2022	1,08,878				
	14.01	14-09-2022	12-10-2022	1,11,418				
	13.51	12-10-2022	08-11-2022	1,07,366				
17.51	08-11-2022	14-12-2022	1,38,537					
1.76	14-12-2022	11-01-2023	34,436					
18.48	11-01-2023	10-02-2023	1,53,172					
20.00	10-02-2023	11-03-2023	1,55,988					
23.00	11-03-2023	09-04-2023	2,04,371					
23.00	09-04-2023	15-05-2023	10,987					
75.00	15-05-2023	07-06-2023	8,47,212					
28.00	07-06-2023	12-07-2023	7,79,489					
28.00	12-07-2023	10-08-2023	2,00,848					
31.00	10-08-2023	11-09-2023	2,35,339					
21.00	11-09-2023	12-10-2023	1,61,540					
24.00	12-10-2023	08-11-2023	1,78,288					
23.00	08-11-2023	15-12-2023	2,02,934					
20.00	15-12-2023	17-01-2024	1,44,383					
26.00	17-01-2024	18-02-2024	1,84,888					
16.00	18-02-2024	12-03-2024	1,16,868					
16.00	12-03-2024	07-04-2024	78,147					
24.00	07-04-2024	10-05-2024	1,20,182					
22.00	10-05-2024	09-06-2024	1,09,888					
28.00	09-06-2024	15-07-2024	1,29,833					
22.00	15-07-2024	14-08-2024	1,04,882					
24.00	14-08-2024	19-09-2024	1,28,917					
11.00	19-09-2024	09-10-2024	54,292					
27.00	09-10-2024	16-11-2024	1,35,491					
97.00	16-11-2024	18-12-2024	84,911					
14.00	18-12-2024	14-01-2025	89,881					
27.58	14-01-2025	26-02-2025	1,38,864					
19.88	26-02-2025	29-03-2025	99,187					
27.90	29-03-2025	13-04-2025	1,93,477					
22.00	13-04-2025	17-05-2025	1,56,211					
24.88	17-05-2025	19-06-2025	1,71,388					
28.34	19-06-2025	20-07-2025	1,86,888					
28.80	20-07-2025	20-08-2025	2,09,788					
30.72	20-08-2025	21-09-2025	2,25,842					
26.91	21-09-2025	21-10-2025	1,89,284					
17.50	21-10-2025	18-11-2025	1,32,488					
17.78	18-11-2025	16-12-2025	1,32,987					
20.40	16-12-2025	16-01-2026	1,52,080					
20.24	16-01-2026	14-02-2026	1,60,322					
13.61	14-02-2026	09-03-2026	86,870					
28.39	09-03-2026	03-04-2026	2,11,874					
33.30	03-04-2026	03-05-2026	1,73,140					
49.88	03-05-2026	03-06-2026	3,71,743					
26.60	03-06-2026	08-07-2026	1,88,888					
41.95	08-07-2026	29-08-2026	3,12,824					
26.33	29-08-2026	30-09-2026	1,80,047					
66.49	30-09-2026	22-10-2026	4,87,839					
150.00	22-10-2026	23-03-2027	1,22,439					
2.92	23-03-2027	14-04-2027	52,378					
2.80	14-04-2027	20-05-2027	28,534					
4.31	20-05-2027	19-06-2027	40,960					
3.84	19-06-2027	18-07-2027	38,283					
4.34	18-07-2027	11-08-2027	38,243					
3.16	11-08-2027	12-09-2027	32,162					
4.03	12-09-2027	11-10-2027	37,873					
3.87	11-10-2027	12-11-2027	38,229					
3.86	12-11-2027	12-12-2027	27,742					
2.43	12-12-2027	13-01-2028	27,139					
1.98	13-01-2028	13-02-2028	23,375					
2.10	13-02-2028	22-03-2028	28,977					
14.46	22-03-2028	21-04-2028	1,18,900					
13.00	21-04-2028	20-05-2028	82,784					
22.99	20-05-2028	19-06-2028	1,74,503					
15.53	19-06-2028	18-07-2028	1,28,866					
18.88	18-07-2028	11-08-2028	1,41,787					
26.11	11-08-2028	12-09-2028	1,89,835					
18.76	12-09-2028	11-10-2028	1,43,821					
18.19	11-10-2028	12-11-2028	1,39,882					
14.51	12-11-2028	12-12-2028	1,13,287					
18.83	12-12-2028	13-01-2029	1,28,214					
14.53	13-01-2029	13-02-2029	1,33,013					
54.74	13-02-2029	22-03-2029	1,18,632					
18.79	22-03-2029	26-04-2029	2,61,182					
11.71	26-04-2029	15-05-2029	1,36,882					
10.93	15-05-2029	16-06-2029	96,587					
15.28	16-06-2029	15-07-2029	89,321					
8.90	15-07-2029	23-08-2029	1,24,981					
13.68	23-08-2029	18-09-2029	72,934					
18.87	18-09-2029	20-10-2029	1,12,124					
3.05	20-10-2029	07-11-2029	1,17,493					
1.43	07-11-2029	08-12-2029	28,826					
1.30	08-12-2029	08-01-2030	30,375					
1.54	08-01-2030	04-02-2030	16,986					
0.00	04-02-2030	04-03-2030	20,185					
0.00	04-03-2030	07-04-2030	16,928					
0.00	07-04-2030	15-05-2030	2,88,166					
0.00	15-05-2030	15-06-2030	2,68,024					
72.28	15-06-2030	24-07-2030	76,446					
10.34	24-07-2030	19-08-2030	24,843					
3.02	19-08-2030	08-09-2030	48,483					
Total Amount							1,83,36,137	1,63,35,137

**BIHAR GRID COMPANY LIMITED**

Name of the GIS	Details With Service Connection Number taken to measure Auxiliary Consumption		Consumption (Meter Reading)		Electricity charges paid in FY 2022-23			
	Customer ID	Meter Sl. No.	Meter wise (in MWH)	Total (in MWH)	From Date	To Date	Bill Amount (in Rs.)	Total Amount (in Rs.)
Mavelli Kharagpur	238702198791	LT-01(NBPD2842)	23.59	230.18	11-03-2022	15-04-2022	1,07,967	16,01,265
			21.03		15-04-2022	14-05-2022	1,01,825	
			24.66		14-05-2022	17-06-2022	1,91,742	
			19.58		17-06-2022	14-07-2022	1,50,439	
			21.76		14-07-2022	13-08-2022	1,07,740	
			21.76		13-08-2022	12-09-2022	1,07,577	
			21.04		12-09-2022	11-10-2022	1,51,935	
			6.90		11-03-2022	15-04-2022	60,317	
			24.59		15-04-2022	17-06-2022	2,02,440	
			10.53		17-06-2022	14-07-2022	85,065	
Mavelli Kharagpur	238702198873	LT-02(NBPD2631)	11.71	162.00	14-07-2022	13-08-2022	95,848	9,59,645
			11.71		13-08-2022	12-09-2022	95,755	
			11.32		12-09-2022	11-10-2022	92,536	
			55.00		12-03-2022	10-05-2022	2,69,018	
			37.00		10-05-2022	14-06-2022	2,59,832	
			29.00		14-06-2022	11-07-2022	2,03,070	
			27.00		11-07-2022	07-08-2022	-17,744	
			34.00		07-08-2022	14-09-2022	2,36,469	
			84.52		29-03-2022	09-08-2022	4,25,091	
			Mavelli Kharagpur		222102440273	LT-01(XB426793)	24.65	
24.65								
Annour	102510096642	LT-01(XB426792)	24.65	199.95	09-03-2022	09-04-2022	1,64,508	14,34,481
			25.90		09-04-2022	07-05-2022	1,70,090	
			30.10		07-05-2022	04-06-2022	2,21,379	
			27.80		04-06-2022	04-07-2022	2,00,112	
			33.20		04-07-2022	04-08-2022	2,43,715	
			31.32		04-08-2022	03-09-2022	2,29,841	
			29.78		03-09-2022	04-10-2022	1,97,136	
			114.80		23-05-2022	02-08-2022	4,65,401	
			27.00		02-08-2022	06-09-2022	1,04,700	
			Shekhopur Sarai		23620018859	LT-02(XC579640)	27.00	
2.40	22-03-2022	23-04-2022		29,580				
3.40	23-04-2022	21-05-2022		33,301				
3.80	21-05-2022	17-06-2022		36,079				
3.83	17-06-2022	21-07-2022		40,184				
3.89	21-07-2022	30-08-2022		42,857				
2.93	30-08-2022	28-09-2022		31,780				
18.75	22-03-2022	23-04-2022		1,47,149				
22.31	23-04-2022	21-05-2022		1,70,120				
22.09	21-05-2022	17-06-2022		1,97,755				
Goradh	234203806544	LT-01(00059011)	20.57	144.55	17-06-2022	21-07-2022	1,60,643	11,70,558
			20.61		21-07-2022	30-08-2022	1,63,402	
			20.17		30-08-2022	28-09-2022	1,58,728	
			39.30		08-03-2022	11-04-2022	2,97,515	
			33.11		11-04-2022	07-05-2022	2,43,930	
			18.28		07-05-2022	05-06-2022	1,47,149	
			40.85		05-06-2022	09-07-2022	3,07,732	
			14.20		06-07-2022	03-08-2022	84,328	
			31.01		03-08-2022	03-09-2022	2,32,525	
			28.71		03-09-2022	25-10-2022	2,18,137	
Bokama	213405922915	LT-02(2173375)	1.83	202.55	08-03-2022	11-04-2022	21,420	15,28,319
			1.20		11-04-2022	08-05-2022	16,869	
			1.87		08-05-2022	14-06-2022	24,650	
			2.73		14-06-2022	10-08-2022	36,011	
			191.18		N/A	06-07-2022	14,41,890	
			43.74		16-08-2022	07-10-2022	-3,24,060	
			5.86		10-03-2022	09-04-2022	82,853	
			6.47		10-04-2022	09-05-2022	72,073	
			9.05		10-05-2022	14-06-2022	81,239	
			10.50		15-06-2022	16-07-2022	70,069	
Dumraon	216303815747	LT-01(20061829)	9.04	242.35	17-07-2022	20-08-2022	75,889	97,776
			9.65		21-08-2022	07-09-2022	35,213	
			94.28		01-04-2022	08-06-2022	7,59,312	
			31.35		08-06-2022	05-07-2022	2,36,610	
			87.31		01-08-2022	01-09-2022	3,19,261	
			39.44		01-09-2022	01-10-2022	3,16,366	
			33.92		30-04-2022	31-05-2022	2,88,844	
			39.19		31-05-2022	30-06-2022	2,61,897	
			20.30		30-06-2022	31-07-2022	1,63,606	
			2.74		31-07-2022	31-08-2022	41,522	
Khaigat Boin	102244393	31500525(BSPTCL meter)	0.26	52.47	31-08-2022	30-09-2022	23,348	3,97,026
			0.34		08-09-2022	10-06-2022	4,488	
			0.40		10-06-2022	09-07-2022	4,977	
			0.28		09-07-2022	09-08-2022	3,878	
			0.12		08-08-2022	07-09-2022	2,719	
			0.53		07-09-2022	10-10-2022	5,741	
			1.70		N/A	06-09-2022	8,741	
			94.28		01-04-2022	08-06-2022	7,59,312	
			31.35		08-06-2022	05-07-2022	2,36,610	
			87.31		01-08-2022	01-09-2022	3,19,261	
Naubaigar	210207759164	LT-02(20004231)	39.44	252.58	01-09-2022	01-10-2022	3,16,366	16,28,742
			33.92		30-04-2022	31-05-2022	2,88,844	
			39.19		31-05-2022	30-06-2022	2,61,897	
			20.30		30-06-2022	31-07-2022	1,63,606	
			2.74		31-07-2022	31-08-2022	41,522	
			0.26		31-08-2022	30-09-2022	23,348	
			0.34		08-09-2022	10-06-2022	4,488	
			0.40		10-06-2022	09-07-2022	4,977	
			0.28		09-07-2022	09-08-2022	3,878	
			0.12		08-08-2022	07-09-2022	2,719	
Jakkampur	102203658	LT-01(X1674498)	0.53	95.41	07-09-2022	10-10-2022	5,741	7,78,577
			1.70		N/A	06-09-2022	8,741	
			94.28		01-04-2022	08-06-2022	7,59,312	
			31.35		08-06-2022	05-07-2022	2,36,610	
			87.31		01-08-2022	01-09-2022	3,19,261	
			39.44		01-09-2022	01-10-2022	3,16,366	
			33.92		30-04-2022	31-05-2022	2,88,844	
			39.19		31-05-2022	30-06-2022	2,61,897	
			20.30		30-06-2022	31-07-2022	1,63,606	
			2.74		31-07-2022	31-08-2022	41,522	
Shivaula	216203340947	LT-01(20004227)	0.26	1.73	31-08-2022	30-09-2022	23,348	21,801
			0.34		08-09-2022	10-06-2022	4,488	
			0.40		10-06-2022	09-07-2022	4,977	
			0.28		09-07-2022	09-08-2022	3,878	
			0.12		08-08-2022	07-09-2022	2,719	
			0.53		07-09-2022	10-10-2022	5,741	
			1.70		N/A	06-09-2022	8,741	
			94.28		01-04-2022	08-06-2022	7,59,312	
			31.35		08-06-2022	05-07-2022	2,36,610	
			87.31		01-08-2022	01-09-2022	3,19,261	
Bihra Boin	212107892225		2.55	4.25	06-09-2022	08-10-2022	12,123	20,864
			2.55					
<b>Total Amount</b>							<b>1,27,88,630</b>	<b>1,27,88,630</b>





Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021,

Letter No. 309  
File No: SLDC/S.O. cell/SLDC/BGCL/22/2017

Dated 10-08-2021

From,

Chief Engineer (System Operation)  
Bihar State Power Transmission Co. Ltd.

To

AGM- O&M (Commercial)  
Bihar Grid Company Limited  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Sub: Certification of Energy accounting of BGCL power system for the month of April'21, May'21 & June'21.

Ref:- (i) BGCL tariff order FY 2021-22.

Sir,

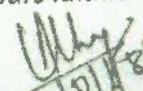
With reference to the subject mentioned above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL" dated 12.03.2021 of BERCL. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system is calculated as follows:

Month	Loss (in %)
April-2021	1.344
May-2021	1.152
June-2021	1.311

Encl: as above

Yours faithfully

  
(A. K. Chaudhary)

Chief Engineer (System Operation)





Energy accounting of BGCL system for month June - 2021

Sl. No.	Name of connectee GIS (BGCL)	Voltage Level	Name of TL/ Subm BGCL (GIS) to BSPTCL	Import Energy (MWh) (BSPTCL/PGCL to BGCL)				Export Energy (MWh) BGCL to BSPTCL/DISCOM				Meter (operator)	Net Consumption		
				Previous Reading (taken on dated 01.01.2021 at 00:00 hrs)	Current Reading (taken on dated 01.07.2021 at 00:00 hrs)	M.T.	Energy received (in MWh)	Previous Reading (taken on dated 01.07.2021 at 00:00 hrs)	Current Reading (taken on dated 01.07.2021 at 00:00 hrs)	M.T.	Energy received (in MWh)				
1	Khatasari GIS	220 KV	220 KV Khatasari - Gaya (PG) Ckt-1	463575.7	455729.1	1.6	5145.44	7531.8	7545.1	1.6	22.88	R	63.84		
			220 KV Khatasari - Gaya (PG) Ckt-2	50015.9	50070.3	1.6	5509.84	3472.4	3472.4	1.6	22.72	R			
			220 KV Bodhgaya-Khatasari ckt-01	36944	37243	1	4299	6263	6263	1	467	R			
			220 KV Bodhgaya-Khatasari ckt-02	38301	41152	1	8762	7197	7197	1	429	R			
			220 KV Biharsharif - Khatasari ckt-1	401470	241585	2	40166	45	45	1	0	R			
		132KV	220 KV Biharsharif - Khatasari ckt-2	199788	273460	1	39562	60	60	1	0	R			
			132 KV Wazirganj - Khatasari line	15	15	2	0	264001.01	293062.3	2	16118.98	L			
			132 KV Bodhgaya - Khatasari feeder	9204.5	9204.5	2	0	147673.91	147626	2	5.96	L			
			132 KV Hulsaganj - Khatasari Line	1.9	1.9	2	0	17426.6	64511.7	2	14370.2	R			
			132 KV Khatasari - Jehanabad Ckt-1	10	10	1	0	522670	560446	1	37599	R			
			132 KV Khatasari - Jehanabad Ckt-2	16	16	1	0	377789	565438	1	37639	R			
			Khatasari-Nagarah feeder	0.74	0.74	2	0	37182.54	37229.9	2	94.72	L			
			Khatasari-Nagarah feeder	0.1	0.1	2	0	1270.44	1398.1	2	290.68	L			
			Khatasari-Nagarah feeder	0.1	0.1	2	0	1398.1	1398.1	2	295.8	L			
			Khatasari-Nagarah feeder	0.58	0.54	2	0	31853.34	33893.08	2	77.84	L			
2	Narhat (Nawada) GIS	132KV	132 KV Narhat-Nawada Line-1	14884.3	14984.7	1	0.4	0.2	2	0.16	L	25.36			
			132 KV Narhat-Nawada Line-2	14769.5	14771.8	1	2.1	818322.1	825047.5	1	16724.4		R		
		33KV	Narhat-Narhat feeder-06					818186.4	820902.2	1	17284.2		R		
			Narhat-Andherwad feeder-01					18235	33167.14	2	1864.28		L		
			Narhat-Bazail feeder					95803.06	98444.3	2	5278.48		L		
	132 KV	Narhat-Masoor feeder-05					10433.88	12062.54	2	3257.32	L				
		132 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-1	1400	1400	1	0	6550.89	6862	2	642.24	L				
		132 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-2	28	28	1	0	171014	180577	1	9561	R				
	33 KV	132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-1	13818	13818	1	0	102221	111801	1	9578	R				
		Seikhpura-sari-Panchi feeder					4585	4585	2	0	R				
		Seikhpura-sari-Sari Sarai feeder					6594.1	6862	1	127.5	L				
		Seikhpura-sari-Onama feeder					71066.3	75996.6	2	4830.3	L				
		132 KV D/C Haveli Kharagpur (BGCL) - Jamapur Ckt-1 trans line	85.6	85.6	1	0	44945.5	47305.9	1	2360.3	L				
		132 KV D/C Haveli Kharagpur (BGCL) - Jamapur Ckt-2 trans line	112.3	112.3	1	0	158493	168693	1	0	R				
		132 KV Sultanganj-Jamalpur new Ckt-1	155000	155000	1	0	230062.1	220662.1	1	0	R				
4	Haveli Kharagpur (Jamalpur) GIS	132 KV	132 KV Sultanganj-Jamalpur new Ckt-2	147858	147858	1	0	24877	24877	1	0	L	31.2		
			132 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-1	38987	38987	1	0	25974	25974	1	0	L			
		33 KV	132 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-2	36840	36840	1	0	1991	1991	2	0	L			
			H.Kgp-H.Kgp RPS5 Ckt-01					20212.6	22995	1	2782.4	L			
			H.Kgp-Banshara RPS5 Ckt-06					12359.8	12938.4	1	578.6	L			
	132 KV	H.Kgp-Pipra RPS5 Ckt-04					5472.2	5616.7	1	144.5	L				
		H.Kgp-Tatia Bantar PSS Line					22567.5	23787.4	2	1179.9	L				
		H.Kgp-Tatia Bisheshwar PSS Line					21595.6	21970.9	1	3383.3	L				
		H.Kgp-H.Kgp RPS5 Ckt-01					20212.6	22995	1	2782.4	L				
		H.Kgp-Banshara RPS5 Ckt-06					12359.8	12938.4	1	578.6	L				
		H.Kgp-Pipra RPS5 Ckt-04					5472.2	5616.7	1	144.5	L				
		H.Kgp-Tatia Bantar PSS Line					22567.5	23787.4	2	1179.9	L				
	5	Aminour GIS	220 KV	220 KV Hapur-Chhapra (New) Ckt-01	1892167	1953461	1	61794							23.7
				220 KV Hapur-Chhapra (New) Ckt-02	1097362	1127645	2	60606							
			132 KV	132 KV Chhapra - Aminour ckt-1					599557.2	688102.9	1	24545.7		R	
132 KV Chhapra - Aminour ckt-2								599026.2	622724.9	1	23698.7	R			
132 KV Aminour-sivan ckt-1								497229.2	510503.2	2	25549.2	R			
33 KV		132 KV Aminour-sivan ckt-2					590917.5	603152.2	2	24432.4	R				
		Aminour-Aminour feeder					89595.2	91085	2	2879.6	L				
		Aminour-Marhaura feeder					126012.8	129314.8	2	6604	L				
		Aminour-Derail feeder					55883	57477.6	1	1594.6	L				
		Aminour-Derail feeder					57477.6	59235.9	2	3516.6	L				
		Aminour-Nagra feeder					56177.8	58923.8	2	3482	L				
		Aminour-Makar feeder					4234.5	4234.5	1	0	L				
132 KV		Aminour-Pujji Kupper feeder					814.3	8851.6	1	1210.3	L				
		132 KV Sultanganj-Sabour New Ckt-1	22538	22538	1	0	2071	2071	1	8	L				
		132 KV Sultanganj-Sabour New Ckt-2	25120	25120	1	0	2632	2632	1	7	L				
	132KV KAHALGAON-GORADIH Ckt-I (Formerly 132KV KAHALGAON-SULTANGANI Ckt-I)	4744	4744	1	0	153037	151037	1	0	L					
	132KV KAHALGAON-GORADIH Ckt-II (Formerly 132KV KAHALGAON-SULTANGANI Ckt-II)	4902	4902	1	0	100815	100821	1	6	L					
	132 KV Sabour-Goradiah Ckt-I	95289.7	95290.2	1	0.5	1862.7	1864.7	1	2	R					
	132 KV Sabour-Goradiah Ckt-II	95819	104880.2	1	9061.2	2008.8	2069.5	1	61.2	R					
	Goradiah - Pair					2137.1	2603.6	2	933	L					
	Goradiah - Sakara					23831.4	25486	1	1654.6	L					
	Goradiah - Sanhaulta					1156.5	2114.2	2	3915.4	L					
7	Khaigaul (GIS Bay)	220 KV	220 KV Patna - Khaigaul Ckt-2	673234	709076.9	1.6	57345.64	332939.3	350850.7	3.2	57316.48	R/L			
			220 KV Patna - Khaigaul Ckt-3	673177.6	709153.3	1.6	57561.12	332406.1	350195.7	3.2	56925.44	R/L			
			220 KV Biharsharif-Mokama ckt-1	264376	290635	1	26259	27984	26259	1	3594	L			
8	Mokama GIS	220 KV	220 KV BTPS-Mokama ckt-2	267830	294384	1	26554	22642	26245	1	3603	L			
			220 KV BTPS-Mokama ckt-1	61544	67688	1	6144	519480	539196	1	19716	R			
		132 KV	132 KV Hathidah-Mokama ckt-1	61010	67320	1	6310	560186	569901	1	19715	R			
			132 KV Hathidah-Mokama ckt-2	584.1	584.2	1	0.1	73788.2	81951.3	1	8167.1	R			
			132 KV Hathidah-Mokama ckt-3	543.2	543.3	1	0.1	76246.5	86643.1	1	10396.6	R			
9	Dumraon New (GIS)	220KV	220KV Dumraon New- Ara (PG) ckt-1	24052	29448	1.6	2233.6	76529	77760.7	1.6	1970.72	L			
			220KV Dumraon New- Ara (PG) ckt-2	4231	3614.2	1.6	2713.12	3629	4672.1	1.6	1990.56	L			
		132KV	220KV Dumraon New-Nadhokar Ckt-1	196086	219701	1	23616	20321	20324	1	3	R			
			220KV Dumraon New-Nadhokar Ckt-2	1059168	1082948	1	23780	75136	75136	1	2	R			
			132KV 132 KV Dumraon New-Dumraon (BSPTCL) Ckt-2	9	9	1	0	183653	204359	2	80706	R			
33 KV	Brahmpur PSS	2.3	2.3	2	0	5071	6260	2	2378	L					
	Shahpur (PSS)	3.1	3.1	2	0	16.7	2098.6	2	4155.8	L					
Total							556788.08					370.88			
							554788.08								
							7328.44								
							2.311								
							551459.64								

Handwritten signatures and initials at the bottom right of the page.



Energy accounting of BGCL system for month May - 2021

Sl. No.	Name of connected GIS (BGCL)	Voltage Level	Name of T/L from BGCL (GIS) to BSPICL	Import Energy (MVAH) (BSPICL) TO BGCL				Export Energy (MVAH) BGCL TO BSPICL (DISCOM)				Meter Location	SST Consumption
				Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.05.2021 at 00:00 Hrs)	M.F.	Energy received in MVAH	Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.05.2021 at 00:00 Hrs)	M.F.	Energy received in MVAH		
1	Khizersara GIS	220 KV	220 KV Khizersara- Gaya (PG) ckt-1	443738.4	463135.7	1.6	11735.68	7066	7531.8	1.6	745.28	R	64.88
			220 KV Khizersara- Gaya (PG) ckt-2	448119.8	468025.9	1.6	11231.5	7907.6	7472.4	1.6	741.68	R	
			220 KV Bodhgaya-Khizersara ckt-01	36550	38244	1	4934	5445	6263	1	818	R	
			220 KV Bodhgaya-Khizersara ckt-02	27334	38360	1	11026	1543	7597	1	2054	R	
			220 KV Biharsharif- Khizersara ckt-1	146550	191720	1	54820	41	65	1	24	R	
			220 KV Biharsharif- Khizersara ckt-2	145422	197788	1	54356	49	80	1	31	R	
		132KV	132 KV Wazirganj-Khizersara line	15	15	2	0	23736	28421.01	2	20534.01	L	
			132 KV Bodhgaya-Khizersara feeder	8203.5	5204.5	2	4	117507.5	147603.01	2	51.02	L	
			132 KV Hulsaganj-Khizersara Line	1.9	1.9	2	0	51158.6	17426.6	2	12536	R	
			132 KV Khizersara - Jehanabad Ckt-1	10	10	1	0	48445.3	522870	1	18416	R	
			132 KV Khizersara - Jehanabad Ckt-2	16	16	1	0	449267	577799	1	38532	R	
			Khizersara-Nagah feeder	0.74	0.74	2	0	35933.74	37142.54	2	2497.6	L	
			Khizersara-Atri feeder	0.1	0.1	2	0	32158.48	31853.34	2	3389.72	L	
			Khizersara (GIS) - Khizersara (PSS)	0.58	0.58	2	0	15015.46	15015.46	2	0.04	L	
			132KV	132 KV Narhat-Nawada Line-1	14883.4	14884.3	1	0.9	801750	81923.1	1	15573.1	
132KV	132 KV Narhat-Nawada Line-2	14768.5	14769.5	1	1	805367.5	820902.2	1	15534.7	R			
2	Narhat (Nawada) GIS	33KV	Narhat-Narhat feeder-06				37280.34	38235	2	1905.32	L	26.72	
			Narhat-Andherwad feeder-01				93151	95803.06	2	5304.12	L		
			Narhat-Bajauli feeder				9796.7	10433.88	2	1278.36	L		
			Narhat-Mesora feeder-05				6244.84	6550.88	2	617.08	L		
3	Shekhpur-sara (Shekhpura) GIS	132 KV	132 KV Shekhpura - New Shekhpura (BGCL) Ckt-1	1400	1400	1	0	16204	17304	1	8980	R	27.2
			132 KV Shekhpura - New Shekhpura (BGCL) Ckt-2	28	28	1	0	93232	102223	1	8991	R	
		33 KV	132 KV Biharsharif - New Shekhpura (BGCL) Ckt-1	13818	13818	1	0	4585	4585	1	0	R	
4	Haveli-Kharagpur (Jehanpuri) GIS	132 KV	Sekhpur sara- Panchi feeder					6227.2	6543	1	316.9	L	31
			Sekhpur sara- Katri Sara feeder					67157.8	71066.3	1	3306.5	L	
			Sekhpur sara- Onana feeder					42528.7	44943.5	1	2416.8	L	
			132 KV D/C Haveli Kharagpur (BGCL)- Jamapur Ckt-I trans line	85.6	85.6	1	0	168493	168493	1	0	R	
			132 KV D/C Haveli Kharagpur (BGCL)- Jamapur Ckt-II trans line	112.3	112.3	1	0	220062.1	220062.1	1	0	R	
			132 KV Sultanganj-Jampur new Ckt-1	155000	155000	1	0	24877	24877	1	0	L	
			132 KV Sultanganj-Jampur new Ckt-2	147858	147858	1	0	25974	25974	1	0	L	
5	Amour GIS	132 KV	132 KV LAKHSARA-HAVELI KHARAGPUR Ckt-1	38987	38987	1	0	1991	1991	1	0	L	20.7
			132 KV LAKHSARA-HAVELI KHARAGPUR Ckt-2	36840	36840	1	0	2213	2213	1	0	L	
			H.Kgo-III RGP RPSS Ckt-01					17614.5	20212.6	1	2538.1	L	
			H.Kgo-Banahara RPSS Ckt-06					11840.7	12359.8	1	519.1	L	
			H.Kgo-Pipa RPSS Ckt-04					5216.6	5472.2	1	255.6	L	
			H.Kgo-Tata Bambar PSS Line					21539.7	22367.5	1	1027.8	L	
		33 KV	H.Kgo-Tata Begeshwar PSS Line					20521	21595.6	1	1074.4	L	
			Amour-Amour Feeder					1	0	0	R		
			Amour-Mahaura Feeder					2	0	0	R		
			Amour-Deraul Feeder					2	0	0	R		
6	Goradih (Sabour) GIS	132 KV	Amour-Nagra Feeder				52234.8	53883	1	3648.2	L	24.1	
			Amour-Maker Feeder				53434.4	56177.8	2	5486.8	L		
			Amour-Poju Kapoor Feeder				4234.5	4234.5	1	0	L		
			132 KV Sultanganj-Sabour New Ckt-1	22538	22538	1	2	2069	2071	1	8		L
			132 KV Sultanganj-Sabour New Ckt-2	35129	35129	1	1	2624	2632	1	8		L
			132KV KAHALGAON-GORADIH Ckt-I (Formerly 132KV KAHALGAON-SULTANGANJ) Ckt-I)	4735	4744	1	9	150551	151037	1	486		L
		33 KV	132KV KAHALGAON-GORADIH Ckt-II (Formerly 132KV KAHALGAON-SULTANGANJ) Ckt-II)	4901	4902	1	1	60809	100815	1	0		L
			132 KV Sabour-Goradih Ckt-I	95289.5	95289.7	1	0.2	1859.3	1862.7	1	1.4		R
			132 KV Sabour-Goradih Ckt-II	88833.4	95819	1	6985.6	2088.8	2068.3	1	0		R
			Goradih - Pair					1370	1371.1	1	1534.2		L
7	Khasauri (GIS Bay)	220 KV	Goradih - Sakara				27269.4	23811.4	1	1562	L	0	
			Sarhaua				0	1156.5	2	2313	L		
			Goradih - Goradih					16366.8	17070.1	7	1406.6		C
			220 KV Patna - Khasauri Ckt-2	639787.9	673234	1.6	53513.76	316199.8	332939.3	3.2	5356.4		R/L
			220 KV Patna - Khasauri Ckt-3	639562	623177.6	1.6	53784.96	315806.9	332406.1	3.2	53117.44		R/L
			220 KV Biharsharif-Mokama ckt-1	23052	264376	1	34324	20411	22984	1	3573		L
		132 KV	220 KV Biharsharif-Mokama ckt-2	233150	267820	1	34680	20063	22647	1	2579		L
			220 KV BTPS-Mokama ckt-1	57994	61544	1	3550	491453	519480	1	28027		R
			220 KV BTPS-Mokama ckt-2	57453	61010	1	3557	520037	550146	1	30149		R
			132 KV Hathidah-Mokama ckt-1	585.8	584.1	1	0.3	67787	73764.2	1	5917.2		R
9	Dumraon New (GIS)	220KV	132 KV Hathidah-Mokama ckt-2	542.7	543.2	1	0.5	69498.7	76244.5	1	6747.8	R	0
			220KV Dumraon New- Ara (PG) ckt-1	21643.3	24052	1.6	3853.92	75143.5	76529	1.6	7216.8	L	
			220KV Dumraon New- Ara (PG) ckt-2	18421	4231	1.6	3822.74	2229.6	3678	1.6	2237.44	L	
		220KV Dumraon New-Nadhokar Ckt-1	176140	196086	1	19946	20001	20121	1	320	R		
		220KV Dumraon New-Nadhokar Ckt-2	1039106	1059168	1	20062	74815	75156	1	321	R		
		132KV	132 KV Dumraon New-Dumraon (BSPICL) Ckt-2	9	9	1	0	124715	163653	1	18938	R	
Total			Brahmpur PSS	2.5	2.3	2	0	3511	5071	2	1080	L	170.8
				Total loss =				6334.84					
				% LOSS =				1.351					

Handwritten signatures and initials at the bottom right of the page.



ENERGY ACCOUNTING OF BGCL SYSTEM FOR MONTH APRIL - 2021

S.No.	Name of concerned GIS (BGCL)	Voltage level	Name of T/J from BGCL (GIS) to BSPTCL	Import Energy (MWh) (BSPTCL/PGCL to BGCL)				Export Energy (MWh) BGCL to BSPTCL/PGCL				Meter location	SST Consumption
				Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.03.2021 at 00:00 Hrs)	Mt	Energy received (in MWh)	Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.03.2021 at 00:00 Hrs)	Mt	Energy received (in MWh)		
1	Khatwasari GIS	220 KV	220 KV Khatwasari-Gaya (PG) Ckt-1	417178.1	413218.4	1.0	42496.16	7060	7066	1.6	0	R	42.28
			220 KV Khatwasari-Gaya (PG) Ckt-2	421512.1	448119.9	1.6	42574.08	7007.6	7007.6	1.6	0	R	
			220 KV Bodhgaya-Khatwasari Ckt-01	10927	26550	1	15628	5325	5543	1	118	R	
			220 KV Bodhgaya-Khatwasari Ckt-02	10518	27344	1	16826	5425	5543	1	118	R	
			220 KV Biharsharif-Khatwasari Ckt-1	95902	146550	1	50648	52	43	1	5	R	
			220 KV Biharsharif-Khatwasari Ckt-2	95519	145432	1	49913	52	43	1	5	R	
		110 KV	110 KV Wazirganj-Khatwasari line	18.5	25	2	0	27132.51	27132.51	2	6952.02	R	
			110 KV Sonbhadra-Khatwasari feeder	8660.5	9201.5	2	1086	14450.89	14750.13	2	14739.8	R	
			110 KV Khatwasari-Khatwasari Line	1.9	1.9	0	0	442494	484554	1	41960	R	
			110 KV Khatwasari-Khatwasari Line	30	10	1	0	44734	48267	1	41913	R	
			110 KV Khatwasari - Jehanabad Ckt-1	16	16	0	0	14395.78	15935.74	2	3075.92	R	
			110 KV Khatwasari - Jehanabad Ckt-2	0.74	0.74	2	0	10183.9	12158.48	2	1949.16	R	
2	Narhat (Nawada) GIS	110 KV	Khatwasari-Narhat feeder	0.1	0.1	2	0	15915.46	15915.46	2	0	R	25.93
			Khatwasari-Atli feeder	0.56	0.56	2	0	17684.2	20275.0	1	25908.8	R	
			Khatwasari (PG) - Khatwasari (PSS)	14893.5	14893.4	1	0	17684.2	20275.0	1	25847.7	R	
			110 KV Narhat-Nawada line-1	14752.5	14768.5	1	0	17684.2	20275.0	2	2185.28	R	
			110 KV Narhat-Nawada line-2					16187.7	17360.14	2	5199.4	R	
			110 KV Narhat-Nawada line-3					80551.3	93151	2	7245	R	
		93 KV	Narhat-Narhat feeder-05					8472.2	9794.7	2	7245	R	
			Narhat-Andherwadi feeder-01					5908	6214.84	2	673.66	R	
			Narhat-Kajuli feeder									R	
			Narhat-Kescor feeder-03					15089.1	16203.4	1	11143	R	
			110 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-1	1400	1400	1	0	15089.1	16203.4	1	11143	R	
			110 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-2	28	28	1	0	8207.2	9322	1	11160	R	
4	Sheikhpura-sari (Sheikhpura) GIS	110 KV	110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-1	13818	13818	1	0	4585	4585	1	0	R	22.4
			110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-2					5898.1	6227.2	1	329.1	R	
			110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-3					63242.1	67157.8	1	3915.7	R	
			110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-4					4070.2	42528.7	1	2458.5	R	
			110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-5					168493	168493	1	0	R	
			110 KV Biharsharif - New Sheikhpura (BGCL) Ckt-6					220062.1	220062.1	1	0	R	
		33 KV	Sekhapur-sari-Panahi feeder					24877	24877	1	0	R	
			Sekhapur-sari-Katri Sarai feeder					25974	25974	1	0	R	
			Sekhapur-sari-Divana feeder					1984	1993	1	7	R	
			110 KV D/C Haveli Kharagpur (BGCL)-Jamapur Ckt-1 trans line	85.6	85.6	1	0	220062.1	220062.1	1	0	R	
			110 KV D/C Haveli Kharagpur (BGCL)-Jamapur Ckt-1 trans line	112.3	112.3	1	0	24877	24877	1	0	R	
			110 KV D/C Haveli Kharagpur (BGCL)-Jamapur Ckt-1 trans line	155000	155000	1	0	25974	25974	1	0	R	
4	Haveli-Kharagpur (Jamapur) GIS	110 KV	110 KV Sultanganj-Jamapur new Ckt-1	147858	147858	1	0	1984	1993	1	7	R	29.8
			110 KV Sultanganj-Jamapur new Ckt-2	36987	36987	1	0	1984	1993	1	7	R	
			110 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-1	36840	36840	1	0	220062.1	220062.1	1	0	R	
			110 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-2					14990.1	17618.5	1	2654.4	R	
			110 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-3					11252.8	11940.7	1	687.9	R	
			110 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-4					4850	5216.6	1	366.6	R	
		220 KV	H.Kgp-H.Kgp PPS Ckt-01					20249.7	21539.7	1	1243	R	
			H.Kgp-Banahara PPS Ckt-06					19274	20523	1	0	R	
			H.Kgp-Pura PPS Ckt-04					68306.9	72000	2	0	R	
			H.Kgp-Tata Rambar PPS Line					88612	92000	2	0	R	
			H.Kgp-Tata Rambar PPS Line	1765152	1832458.9	2	68306.9	72000	72000	2	0	R	
			H.Kgp-Tata Rambar PPS Line	1093722	1068028	1	0	61989.1	63719.3	1	1732.2	R	
5	Ammour GIS	110 KV	220 KV Hajipur-Chhapra (New) Ckt-01					572474.7	578016.1	1	23941.6	R	22.6
			220 KV Hajipur-Chhapra (New) Ckt-02					469486	485624.8	2	32277.6	R	
			110 KV Chhapra - Ammour Ckt-1					562602.4	578707.2	2	32209.4	R	
			110 KV Chhapra - Ammour Ckt-2					84264.6	87028.8	2	5524	R	
			110 KV Ammour-Sawan Ckt-1					119715.3	123087	2	6323.4	R	
			110 KV Ammour-Sawan Ckt-2					48019.4	52234.6	1	4215.4	R	
		33 KV	Ammour-Ammour feeder					93424.4	93424.4	2	5694.6	R	
			Ammour-Marhaura feeder					50587.1	4234.6	2	0	R	
			Ammour-Derhi feeder					4234.6	4234.6	2	0	R	
			Ammour-Nagra feeder					5493	6561.5	1	1068.5	R	
			Ammour-Makar feeder					2055	2055	1	0	R	
			Ammour-Jaghi Rajpur F feeder	22534	22536	1	2	2617	2624	1	7	R	
6	Goradhi (Sabour) GIS	110 KV	110 KV Sultanganj-Sabour New Ckt-1	25317	25317	1	2	2617	2624	1	7	R	23.12
			110 KV Sultanganj-Sabour New Ckt-2					150548	150551	1	5	R	
			110 KV KAHALGAON-GORADHI Ckt-I (Formerly 110KV KAHALGAON-SULTANGANJ Ckt-I)	4734	4735	1	1	150548	150551	1	5	R	
			110 KV KAHALGAON-GORADHI Ckt-II (Formerly 110KV KAHALGAON-SULTANGANJ Ckt-II)	4899	4901	1	2	100809	100809	1	6	R	
			110 KV Sabour-Goradhi Ckt-I	93371.2	95289.5	1	1918.3	1859.3	1859.3	1	0	R	
			110 KV Sabour-Goradhi Ckt-II	44891.2	88834.4	1	3942.2	2007.8	2008.3	1	0.5	R	
		33 KV	Goradhi - Pat					514.5	1370	2	1531	R	
			Goradhi - Sakara					20506.4	22289.4	1	3760	R	
			Goradhi - Sakara					151609.9	16368.8	1	2411.8	R	
			Goradhi - Goradhi					299878.5	316199.8	1	92228.16	R	
			Goradhi - Patna - Khagaul Ckt-2	607224	635783.9	1.6	52102.24	299641	315806.9	1	11730.88	R	
			Goradhi - Patna - Khagaul Ckt-3	606787.3	639562	1.6	52439.52	299641	315806.9	1	11730.88	R	
7	Khagaul (GIS Bay)	220 KV	220 KV Patna - Khagaul Ckt-3	186263	230052	1	43789	20088	20411	1	323	R	0
			220 KV Biharsharif-Mokama Ckt-1	188483	233150	1	44367	19743	20063	1	320	R	
			220 KV Biharsharif-Mokama Ckt-2	56596	57994	1	1399	483352	491453	1	33101	R	
			220 KV BTPS-Mokama Ckt-1	56057	57453	1	1399	486778	520087	1	33290	R	
			220 KV BTPS-Mokama Ckt-2	583.8	583.8	1	0	56175	67787	1	11672	R	
			220 KV BTPS-Mokama Ckt-3	542.7	542.7	1	0	57389.8	69498.7	1	12188.8	R	
		110 KV	110 KV Hathidah-Mokama Ckt-1	19803	19839.3	1.6	58.08	72816	73457.1	1.6	1025.76	R	
			110 KV Hathidah-Mokama Ckt-2	18903	18939.3	1.6	58.08	72816	73457.1	1.6	1025.76	R	
			110 KV Hathidah-Mokama Ckt-3	17845.1	17881.1	1.6	112.8	13833.3	14000.3	1.6	2337.6	R	
			110 KV Hathidah-Mokama Ckt-4	23457.1	23493.1	1.6	112.8	13833.3	14000.3	1.6	2337.6	R	
			110 KV Hathidah-Mokama Ckt-5	21300.3	21336.3	1.6	548.8	73590.1	75143.5	1.6	2485.64	R	
			110 KV Hathidah-Mokama Ckt-6	0	0	1.6	0	58117	58388.6	1.6	114.56	R	
9	Dumraon New	220 KV	220KV Dumraon New- Ara (PG) Ckt-1	21300.3	21336.3	1.6	548.8	73590.1	75143.5	1.6	2485.64	R	168.87
			220KV Dumraon New- Ara (PG) Ckt-2	0	0	1.6	0	58117	58388.6	1.6	114.56	R	
			220KV Dumraon New- Ara (PG) Ckt-3	547.3	547.3	1.6	11.52	54.7	54.7	1.6	875.68	R	
			220KV Dumraon New- Ara (PG) Ckt-4	667.4	667.4	1.6	197.44	10.7	1696.7	1.6	2367.2	R	
			220KV Dumraon New- Ara (PG) Ckt-5	1496.7	1496.7	1.6	552.64	667.4	2229.6	1.6	2699.7	R	
			220KV Dumraon New- Ara (PG) Ckt-6	1496.7	1496.7	1.6	552.64	667.4	2229.6	1.6	2699.7	R	
		110 KV	110KV Dumraon New-Hathidah Ckt-1	1496.7	1496.7	1.6	552.64	667.4	2229.6	1.6	2699.7	R	
			110KV Dumraon New-Hathidah Ckt-2	1012636	1039106	1	16470	74804	74815	1	11	R	
			110KV Dumraon New-Hathidah Ckt-3	9	9	1	0	85700	134715	1	39015	R	
			110KV Dumraon New-Hathidah Ckt-4	9	9	1	0	85700	134715	1	39015	R	
			110KV Dumraon New-Hathidah Ckt-5	9	9	1	0	85700	134715	1	39015	R	
			110KV Dumraon New-Hathidah Ckt-6	9	9	1	0	85700	134715	1	39015	R	
33 KV	Brahmapur PPS					61744.72	61744.72			R			
						61744.72	61744.72			R			
				Total loss x			2220.93						
				% LOSS			1.344						

*(Handwritten signatures and initials)*

M.H.



Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U40102BR2012SGC018889

[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021.

Letter No. .... /  
Dated: SEDC/SC/Cell/SEDC/BGCL/22/2017

Dated..... /

From,

Chief Engineer (System Operation)  
Bihar State Power Transmission Co. Ltd.

To

AGM- O&M (Commercial)  
Bihar Grid Company Limited  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Sub: Certification of Energy accounting of BGCL power system for the month of August -2021.  
Ref: Your office letter no. IV/PT/BG/O&M/Energy meter/August'21/771 dated 13.09.2021.

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system for the month of August-2021 is calculated as 1.142 %.

Encl: as above

Yours faithfully

Sd/-

(A. K. Chaudhary)

Chief Engineer (System Operation)

Date.....

11-10-21

Memo No. ....

Copy forwarded to chief engineer, STU for kind information and necessary action.

(A. K. Chaudhary)

Chief Engineer (System Operation)



Energy accounting of BGCL system for month August - 2021

S.No	Name of Consumer/Feed C/S (Others)	Voltage (kV)	Name of 7E Name BGCL Feeds (in BSE/FE)	Input Energy (MWH) (BSE/FE/PGCA to BGCL)			Output Energy (MWH) BGCL to BSE/FE/PGCA			Meter Station	MWh	SIT Classification
				Previous Reading (kWh) on 01.08.2021 at 00:00 hrs	Current Reading (kWh) on 31.08.2021 at 00:00 hrs	M.F.	Previous Reading (kWh) on 01.08.2021 at 00:00 hrs	Current Reading (kWh) on 31.08.2021 at 00:00 hrs	M.F.			
				Energy received in MWH	Energy received in MWH	Energy received in MWH						
A	Bhadrachal City	220 KV	220 KV Bhadrachal - Area (PGCL) 1	25804.5	27541.8	1.2	5193.38	1936.2	3706.2	1.2	0	1
			220 KV Bhadrachal - Area (PGCL) 2	26242.1	27861.2	1.2	11493.52	1174.5	1974.1	1.2	10.22	1
			220 KV Bhadrachal - Bhadrachal (BCL) 1	45174	43174	1	0	4841	4841	1	0	0
			220 KV Bhadrachal - Bhadrachal (BCL) 2	47158	47160	1	0	8074	8115	1	42	0
			220 KV Bhadrachal - Bhadrachal (BCL) 3	239119	263407	1	11288	110	110	1	5	0
			220 KV Bhadrachal - Bhadrachal (BCL) 4	285644	311658	1	12007	110	110	1	0	0
			132 KV Walingali - Bhadrachal (BCL) 1	33.5	35.5	2	0	20307.3	318154	2	25195	0
			132 KV Bhadrachal - Bhadrachal (BCL) 1	8208.3	9208.3	0	0	18168.5	147740.5	2	224	1
			132 KV Bhadrachal - Bhadrachal (BCL) 2	1.9	1.9	2	0	68812.3	68160.9	2	117.6	0
			132 KV Bhadrachal - Bhadrachal (BCL) 3	10	10	1	0	402407	418578	2	18169	0
			132 KV Bhadrachal - Bhadrachal (BCL) 4	18	18	1	0	608039	644199	1	16100	0
			132 KV Bhadrachal - Bhadrachal (BCL) 5	0.58	0.64	2	0.22	19151.51	19151.52	2	0	1
			132 KV Bhadrachal - Bhadrachal (BCL) 6	0.78	0.78	1	0	0	0	1	1.56	1
			132 KV Bhadrachal - Bhadrachal (BCL) 7	14887.1	14887.1	0	0	858172.4	861780.8	1	21118.6	0
			132 KV Bhadrachal - Bhadrachal (BCL) 8	14714.1	14713	1	0.7	861108.6	870993.4	1	21851.2	0
B	Nashik (Nashik) - 01	11KV	Nashik - Nashik Feeder 01	102185.1	104780.7	2	104780.7	104780.7	2	104780.7	1	
			Nashik - Nashik Feeder 02	14201.38	15119.64	1	14201.38	15119.64	1	14201.38	1	
			Nashik - Nashik Feeder 03	7422.58	8084.14	2	7422.58	8084.14	2	1123.22	1	
C	Mumbai (Mumbai) - 01	132KV	132 KV Mumbai - New Mumbai (BCL) (C) 1	1400	1400	1	0	148010	200109	1	17439	0
			132 KV Mumbai - New Mumbai (BCL) (C) 2	18	18	1	0	117407	117478	1	1471	0
			132 KV Mumbai - New Mumbai (BCL) (C) 3	11818	11818	1	0	4581	4181	1	0	0
D	Mumbai (Mumbai) - 02	132KV	132KV - Nashik - Nashik Feeder					7299.9	7604.8	1	164.9	1
			132KV - Nashik - Nashik Feeder					80705.7	86012.5	2	5318.9	1
			132KV - Nashik - Nashik Feeder					49274.6	52718.9	1	1564.1	1
			132 KV (C) - Nashik - Nashik (BCL) - Nashik (C) 1 (C) 1	85.8	90.8	1	5	148351.7	178923.5	1	9511.8	0
			132 KV (C) - Nashik - Nashik (BCL) - Nashik (C) 2 (C) 2	112.3	112.5	1	5.2	270460.6	270199.4	1	9938.8	0
			132 KV Sullangary - Nashik (C) 1	155117	155786	1	629	24871	24871	1	0	1
E	Mumbai (Mumbai) - 03	132 KV	132 KV Sullangary - Nashik (C) 2	147924	148607	1	629	25874	25874	1	0	1
			132 KV LAKHISARAI - NAVELI - KHARAGPUR (C) 1	38989	38989	1	0	1994	1994	1	0	1
			132 KV LAKHISARAI - NAVELI - KHARAGPUR (C) 2	36841	36841	1	0	2214	2214	1	0	1
			H Ego - H Ego (PSS) (C) 1					25867.4	25867.1	1	58.7	1
			H Ego - Banahara (PSS) (C) 2					25867.1	25867.1	1	2931.2	1
			H Ego - Banahara (PSS) (C) 3					2572.3	14870.5	1	898.2	1
F	Amravati City	220 KV	H Ego - Tana (PSS) (C) 1					5762.4	5477.5	1	145.1	1
			H Ego - Tana (PSS) (C) 2					24950.1	24929.8	2	1378.5	1
			H Ego - Tana (PSS) (C) 3					24670.7	24667.1	2	36.4	1
			H Ego - Tana (PSS) (C) 4					24647.1	25617.3	2	1900.9	1
			220 KV Nagpur - Chhapra (New) (C) 1	201952	208807	1	8855			1	0	0
			220 KV Nagpur - Chhapra (New) (C) 2	1161250	1195782	2	88064			2	0	0
			132 KV Chhapra - Amravati (C) 1					710744	710442.5	1	25638.5	0
			132 KV Chhapra - Amravati (C) 2					648698.2	674717.5	1	21629.1	0
			132 KV Amravati - Amravati (C) 1					523418.2	523418.2	2	26208.4	0
			132 KV Amravati - Amravati (C) 2					610408.7	610418.7	2	28017	0
G	Goradhi (Goradhi) - 01	132 KV	Amravati - Amravati Feeder					94209.6	97199.1	2	6179	1
			Amravati - Amravati Feeder					123193.8	126084.6	2	7582	1
			Amravati - Amravati Feeder					61477.6	63622.4	2	4189.6	1
			Amravati - Amravati Feeder					61996.3	65247.1	2	4571.6	1
			Amravati - Amravati Feeder					4234.5	4234.5	2	0	0
			Amravati - Amravati Feeder					9517.6	10164.7	2	1168.2	1
			132 KV Sullangary - Nashik (C) 1	27549	27540	1	0	2088	2095	1	7	1
			132 KV Sullangary - Nashik (C) 2	25120	25121	1	0	2548	2654	1	6	1
			132 KV KASHI - GORADHI (C) 1	4744	4744	1	0	15007	15029	1	2	1
			132 KV KASHI - GORADHI (C) 2	490	490	1	0	100827	100813	1	0	1
H	Dumraon (Dumraon) - 01	132 KV	132 KV Sullangary - Goradhi (C) 1	91290.5	100219.7	1	9929.2	1366.1	2448.1	1	7.2	0
			132 KV Sullangary - Goradhi (C) 2	114048.7	117072	1	2963.1	2068.7	2075.6	1	5.9	0
			Goradhi - Tancha					26233.2	26233.1	1	0.1	1
			Goradhi - Pair					424.6	2316.1	2	3782	1
			Goradhi - Sakara					1267.8	3072.1	1	1804.1	1
			Santaula					4464.5	4682	2	3271	1
			Goradhi - Goradhi					19864	21551.3	2	3170.8	1
			220 KV Patna - Khagaul (C) 1	753024.3	788601.6	1.6	72907.88	127778.4	195512.7	1.2	72765.76	0.1
			220 KV Patna - Khagaul (C) 2	753719.6	798923.3	1.6	73125.92	127014.9	194051.7	1.2	72817.76	0.1
			I	Mokama City	220 KV	220 KV Bhadrachal - Mokama (C) 1	32844	357905	1	29464	28820	81947
220 KV Bhadrachal - Mokama (C) 2	32626	362152				1	29126	28572	31908	1	3017	1
220 KV BIPS - Mokama (C) 1	440	5879				1	5349	15013	18301	1	11248	0
220 KV BIPS - Mokama (C) 2	480	6404				1	5524	14801	17389	1	12589	0
J	Dumraon (Dumraon) - 02	132 KV	132 KV Hattihata - Mokama (C) 1	585	585.2	1	0.1	91087.7	100400.2	1	6122.5	0
			132 KV Hattihata - Mokama (C) 2	543.1	543.5	1	0.2	98876.1	103271.8	1	6397.8	0
			220KV - Dumraon - New Dumraon (BCL) (C) 1	744.1	11047.4	1.9	7118.74	7446.5	7490.2	1.6	869.92	1
			220KV - Dumraon - New Dumraon (BCL) (C) 2	8576.2	13180.1	1.6	7163.04	5401.1	6425.8	1.6	888.8	1
			220KV - Dumraon - New Dumraon (BCL) (C) 3	246618	267827	1	21208	20136	20137	1	0	0
			220KV - Dumraon - New Dumraon (BCL) (C) 4	1130012	1131180	1	21148	75151	75151	1	0	0
K	Dumraon (Dumraon) - 03	132KV	132 KV Dumraon - New Dumraon (BCL) (C) 1	9	9	1	0	255865	101043	1	45079	0
			132KV - PSS	2.1	2.1	2	0	7308.8	861	2	1040.4	1
			132KV - PSS	3.1	3.1	2	0	5467.3	8617.8	2	6410.1	1
L	Dumraon (Dumraon) - 04	132KV					64017.58	64017.58	64017.58	1	0	0
							64805.7.58	64805.7.58	64805.7.58	1	0	0

Total Feeds : 2402.81  
% LOSS : 1.142

Handwritten signature and initials.





Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021,

Letter No. 346  
HC No. SLD/SC/Cell/SLD/DC/BGCL/22/2017

Dated 06/09/21

From,

Chief Engineer (System Operation)  
Bihar State Power Transmission Co. Ltd.

To

AGM- O&M (Commercial)  
Bihar Grid Company Limited  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Sub: Certification of Energy accounting of BGCL power system for the month of July-2021.  
Ref: Your office letter no. JV/PT/BG/O&M/Energy meter/July'21/660 dated 13.08.2021.

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BERC. All the interface points of BGCL and BSPCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system for the month of July-2021 is calculated as 1.527 %.

Encl: as above

Yours faithfully

  
(A. K. Chaudhary)

Chief Engineer (System Operation)





Energy accounting of BGCL system for month July - 2021

S.No	Name of connected GIS (BGCL)	Voltage Level	Name of T/L from BGCL (GIS) to BSPTCL	Import Energy (MWh) (BSPTCL/PGCL to BGCL)			Export Energy (MWh) (BGCL to BSPTCL/DSCOM)			Meter location	SS1 Consumption	
				Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.03.2021 at 00:00 Hrs)	M.F	Energy received in (MWh)	Previous Reading (taken on dated 01.02.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.03.2021 at 00:00 Hrs)			M.F
1	Khizersarai GIS	220 KV	220 KV Khizersarai - Gava (PG) CKT-1	495729.1	512220.4	1.6	47186.08	7546.1	7547.2	1.6	1.16	MVA
			220 KV Khizersarai - Gaya (PG) CKT-2	50009.3	53079.3	1.6	4779.2	7486.6	1.6	1.93		
			220 KV Bodhgaya - Khizersarai CKT-01	41243	45574	1	431	6750	1	65		
			220 KV Bodhgaya - Khizersarai CKT-02	47152	47156	1	4	8026	1	48		
			220 KV Biharsharif - Khizersarai CKT-1	241586	298119	1	56533	65	1	45		
			220 KV Biharsharif - Khizersarai CKT-2	239380	295649	1	56269	80	1	50		
			132 KV Wazirganj - Khizersarai line	15	15.5	2	1	293062.5	2	3990		
			132 KV Bodhgaya - Khizersarai feeder	5204.5	9204.5	2	0	147626	2	5		
			132 KV Hulsaganj - Khizersarai Line	1.9	1.9	2	0	64611.7	2	5		
			132 KV Khizersarai - Jehanabad CKT-1	10	10	1	0	68322.1	2	7420.8		
2	Narhat (Nawada) GIS	33 KV	132 KV Khizersarai - Jehanabad CKT-2	16	16	1	0	560489	1	41938	47.04	
			Khizersarai - Naugarh feeder	0.74	0.74	2	0	608039	1	42601		
			Khizersarai - Naugarh feeder					37229.9	2	0		
			Khizersarai - Atri feeder					1270.44	2	3511.68		
			Khizersarai (GIS) - Khizersarai (PSS)	0	0	2	0	33892.06	2	0		
			Mahakar feeder	0.64	0.64	2	0	1348.1	2	4794.76		
			132 KV Narhat - Nawada Line-1	14884.7	14887.3	1	1.6	15915.52	2	0		
			132 KV Narhat - Nawada Line-2	14771.8	14774.3	1	2.5	0.28	2	1		
			Narhat - Narhat feeder-06					859872.4	1	24824.9		
			Narhat - Andherwad feeder-01					860108.6	1	21922.2		
3	Shekhopur-sarai (Sheikhpura) GIS	132 KV	Narhat - Rajauli feeder	98442.3	100365.1	2	2472.2	40403.24	2	2472.2		
			Narhat - Mescor feeder-05	12062.54	14201.78	2	4278.48	3845.6	2	3845.6		
			132 KV Sheikhpura - New Sheikhpura (BGCL) CKT-1	1400	1400	1	0	6862	2	1121.16		
			132 KV Sheikhpura - New Sheikhpura (BGCL) CKT-2	28	28	1	0	180577	1	7493		
			132 KV Biharsharif - New Sheikhpura (BGCL) CKT-1	13818	13818	1	0	111801	1	7506		
			Sekhopur sarai - Panchi feeder					4585	1	0		
			Sekhopur sarai - Katni Sarai feeder					6862	1	377.9		
			Sekhopur sarai - Onama feeder					75856.6	1	4809.1		
			132 KV D/C Haveli Kharagpur (BGCL) - Jamapur CKT-1 trans line	85.6	85.8	1	0.2	47305.6	1	1959		
			132 KV D/C Haveli Kharagpur (BGCL) - Jamapur CKT-1 trans line	112.3	112.3	1	0	168493	1	58.7		
4	Haveli-Kharagpur (Jamalpur) GIS	33KV	132 KV Sultanganj - Jamalpur new CKT-1	155000	155117	1	117	24877	24877	1	0	3C
			132 KV Sultanganj - Jamalpur new CKT-2	147858	147974	1	116	23974	25974	1	0	
			132 KV LAKHISARAI-HAVELI KHARAGPUR CKT-1	38987	38987	1	0	1991	1994	1	3	
			132 KV LAKHISARAI-HAVELI KHARAGPUR CKT-2	36840	36841	1	1	2213	2214	1	1	
			H.Kgp-H.KGP RPSS CKT-01					22995.4	25897.4	1	2902	
			H.Kgp-Banahara RPSS CKT-06					12938.4	13572.3	1	633.9	
			H.Kgp-Pipra RPSS CKT-04					5616.7	5762.4	1	145.7	
			H.Kgp-Tatia Bamber PSS Line					23747.4	24950.1	1	1102.7	
			H.Kgp-Tatia Babeshwari PSS Line					22378.9	24620.7	1	1641.8	

(92)

Handwritten signature

Handwritten mark









**Bihar State Power Transmission Company Ltd., Patna**  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021,

Letter No. 59  
File no. SUDCS O. cell SUDC/TRGCL/22/2017

Dated 28/1/2022

From,

**Chief Engineer (System Operation)**  
**Bihar State Power Transmission Co. Ltd.**

To

**AGM- O&M (Commercial)**  
**Bihar Grid Company Limited**  
2nd floor, Alankar place, Boring Road  
Patna, 800001

**Sub:** Certification of Energy accounting of BGCL power system for the month of November'21 and December'21.

**Ref:** (i) Your office letter no. JV/PT/BG/O&M/Energy meter/December'21/25 dated 10.01.2022.  
(ii) Your office letter no. JV/PT/BG/O&M/Energy meter/November'21/969 dated 06.12.2021

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system for the month of November'21 and December'21 are calculated as **1.053%** and **1.395%** respectively.

Encl: as above

Yours faithfully

(A. K. Chaudhary)

Chief Engineer (System Operation)

Energy accounting of BGCL system for month December - 2021

S.No	Name of connected GIS (BGCL)	Voltage Level	Name of T/L from BGCL (GIS) to BSPTCL	Import Energy (MWh)	Current Reading (taken on dated 01.01.2022 at 00:00 Hrs)	M.F	Energy received (in MWh)	Export Energy (MWh) BGCL	Previous Reading (taken on dated 01.12.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.01.2022 at 00:00 Hrs)	M.F	Energy received (in MWh)	Current Reading (taken on dated 01.01.2022 at 00:00 Hrs)	M.F	Energy received (in MWh)	Meter location	SST Consumption		
1	Khatasarai GIS	220 KV	220 KV Khijarsarai - Gaya (PG) ckt-1	126771.1	1,39,982.50	1.6	24306.24	7572.6	7572.6	7572.6	1.6	0	7572.6	1.6	0	R	32.32		
			220 KV Khijarsarai - Gaya (PG) ckt-2	111323.1	1,28,446.20	1.6	27396.36	7513.2	7513.2	7513.2	7513.2	1.6	0	7513.2	1.6	0		R	
			220 KV Bodhgaya-Khizarsarai ckt-01	45574	48,350.00	1	2776	6845	6845	6845	6845	1	210	7055.00	1	210		R	
			220 KV Bodhgaya-Khizarsarai ckt-02	47195	49,973.00	1	2778	8213	8213	8213	8213	1	232	8445.00	1	232		R	
			220 KV Biharsharif- Khizarsarai ckt-1	530530	5,80,786.00	1	50256	177	177	177	177	1	0	177	1	0		R	
			220 KV Biharsharif- Khizarsarai ckt-2	527199	5,77,081.00	1	49882	212	212	212	212	1	0	212	1	0		R	
			132 KV Wazirganj-Khizarsarai line	15.5	15.50	2	0	344584.99	351102.02	351102.02	344584.99	351102.02	2	13084.06	351102.02	2		13084.06	L
			132 KV Bodhgaya-Khizarsarai Feeder	9205	9,205.50	2	1	151183.5	151195.01	151195.01	151183.5	151195.01	2	23.07	151195.01	2		23.07	L
			132 KV Hulsaganj-Khizarsarai Line	1.9	1.90	2	0	70341.4	70341.4	70341.4	70341.4	70341.4	2	0	70341.4	2		0	R
			132 KV Khizarsarai - Jehanabad Ckt-1	10	10.00	1	0	743438	7,75,058.00	7,75,058.00	743438	7,75,058.00	1	31620	7,75,058.00	1		31620	R
2	Narhat (Nawada) GIS	33KV	132 KV Khizarsarai - Jehanabad Ckt-2	16	16.00	1	0	749195	749195	749195	1	31586	7,80,781.00	1	31586	R	19.9		
			Khizarsarai-Naugarh feeder					7676.96	8,374.78	8,374.78	7676.96	2	1395.64	8,374.78	2	1395.64		L	
			Khizarsarai-Atri feeder					11658.96	13,616.56	13,616.56	11658.96	2	3915.2	13,616.56	2	3915.2		L	
			Khizarsarai (GIS) - Khizarsarai (PSS)					15915.52	15,915.52	15,915.52	15915.52	2	0	15,915.52	2	0		L	
			Mahakar feeder					1090.62	1,598.20	1,598.20	1090.62	2	1315.15	1,598.20	2	1315.15		L	
			132 KV Narhat-Nawada Line-1	14887.5	14,889.10	1	1.6	927863	9,39,626.20	9,39,626.20	927863	9,39,626.20	1	11263.2	9,39,626.20	1		11263.2	R
			132 KV Narhat-Nawada Line-2	14786	14,789.70	1	3.7	917805.1	9,28,548.40	9,28,548.40	917805.1	9,28,548.40	1	20745.3	9,28,548.40	1		20745.3	R
			Narhat-Narhat feeder-06					44689.7	45,284.30	45,284.30	44689.7	45,284.30	2	1229.2	45,284.30	2		1229.2	L
			Narhat-Andherwadi feeder-01					106745.1	1,06,745.10	1,06,745.10	106745.1	1,06,745.10	2	0	1,06,745.10	2		0	L
			Narhat-Rajauli feeder					22752.4	25,867.40	25,867.40	22752.4	25,867.40	2	5830	25,867.40	2		5830	L
3	Shekhopur-sarai (Sheikhpura) GIS	132 KV	Narhat-Miscor feeder-05	1400	1400	1	0	227788	2,30,380.00	2,30,380.00	1	2602	2,30,380.00	1	2602	R	19.2		
			132 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-1					1400	1400	1400	1400	1	0	1400	1	0		R	
			132 KV Sheikhpura - New Sheikhpura (BGCL) Ckt-2	28	28	1	0	159104	1,61,711.00	1,61,711.00	159104	1,61,711.00	1	2607	1,61,711.00	1		2607	R
			132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-1	33818	13818	1	0	4585	4,585.00	4,585.00	4585	4,585.00	1	0	4,585.00	1		0	R
			Sekhopur sarai- Panchi feeder					8440	8,691.90	8,691.90	8440	8,691.90	1	251.9	8,691.90	1		251.9	L
			Sekhopur sarai- Katri Sarai feeder					93195.2	95,308.10	95,308.10	93195.2	95,308.10	1	212.9	95,308.10	1		212.9	L
			Sekhopur sarai- Onama feeder					57917.2	59,614.10	59,614.10	57917.2	59,614.10	1	1896.9	59,614.10	1		1896.9	L
			132 KV D/C Haveli Kharagpur(BGCL)- Jamapur Ckt-1 trans line	90.8	90.8	1	0	214877.8	2,34,363.40	2,34,363.40	214877.8	2,34,363.40	1	19885.8	2,34,363.40	1		19885.8	R
			132 KV D/C Haveli Kharagpur(BGCL)- Jamapur Ckt-II trans line	117.5	117.5	1	0	263901	263901	263901	263901	263901	1	0	263901	1		0	R
			4	Haveli-Kharagpur (Jamalpur) GIS	132 KV	132 KV Sultanganj-Jamalpur new Ckt-1	155748	1,56,779.00	1	31	30275	30,687.00	30,687.00	1	412	30,687.00		1	412
132 KV Sultanganj-Jamalpur new Ckt-2	148602	148602				1	0	38517	42,786.00	42,786.00	38517	42,786.00	1	6269	42,786.00	1	6269	L	
132 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-1	39578	39578				1	0	1997	1997	1997	1997	1	0	1997	1	0	L		
132 KV LAKHISARAI-HAVELI KHARAGPUR Ckt-2	37431	37431				1	0	2219	2219	2219	2219	1	0	2219	1	0	L		
H.Kharagpur PSS								30772.3	31,607.20	31,607.20	30772.3	31,607.20	2	1669.8	31,607.20	2	1669.8	L	
H.Kgp-Banahara RPSS Ckt-06								15754.7	16,020.50	16,020.50	15754.7	16,020.50	2	531.6	16,020.50	2	531.6	L	
H.Kgp-Pipra RPSS Ckt-04								6043	8,102.00	8,102.00	6043	8,102.00	2	118	8,102.00	2	118	L	
H.Kgp-Tatia Bambar PSS Line								28891.7	29,293.80	29,293.80	28891.7	29,293.80	2	804.2	29,293.80	2	804.2	L	
H.Kgp-Bageshwari PSS								27499	27,883.00	27,883.00	27499	27,883.00	2	765	27,883.00	2	765	L	

Handwritten signature

Handwritten signature



5	220 KV	220 KV Hajipur-Chhapra (New) Ckt-01	2271271.9	23,20,236.00	1	48964.1				1	0	R
		220 KV Hajipur-Chhapra (New) Ckt-02	1271594	12,95,253.00	2	47318				2	0	R
Amnour GIS	132 KV	132 KV Chapra - Amnour ckt. 1					809611.2	8,33,224.60	1	23613.4	R	
		132 KV Chapra - Amnour ckt. 2					747650.7	7,70,940.90	1	23290.2	R	
		132 KV Amnour-siwan ckt-1					568879.1	5,76,661.40	2	15604.6	R	
		132 KV Amnour-siwan ckt-2					661962	6,70,312.00	2	16700.2	R	
		Amnour-Amnour feeder					104548.7	1,06,434.60	2	3771.8	L	
		Amnour-Marhaura feeder					145446.4	1,47,456.10	2	4019.4	L	
		Amnour-Derni feeder					68643.7	69,829.20	2	2971	L	
		Amnour-Nagra feeder					72179.3	74,731.60	2	5304.6	L	
		Amnour-Makel feeder					4239.8	4239.8	1	0	L	
		Amnour-Pajhi Keppoi F feeder					11957.3	12,324.10	2	733.6	L	
Goradh (Sabour) GIS	132 KV	132 KV Suitanganj-Sabour New Ckt-1	22544	22,545.00	1	1	2113	2,121.00	1	8	L	
		132 KV Suitanganj-Sabour New Ckt-2	25124	25,125.00	1	1	2670	2,676.00	1	8	L	
		132KV KAHALGAON-GORADH Ckt-1	4746	4,747.00	1	1	158127	1,58,134.00	1	7	L	
		132KV KAHALGAON-GORADH Ckt-2	4906	4,907.00	1	1	107180	1,07,186.00	1	6	L	
		132 KV Sabour-Goradh Ckt-1	178343	1,35,696.40	1	7353.4	1868.5	1,868.80	1	0.3	R	
		132 KV Sabour-Goradh Ckt-2	117012.8	1,19,398.50	1	2386.7	2081.2	2,082.90	1	1.7	R	
		Goradh - Tarcha					26233.3	26,449.50	1	216.2	L	
		Goradh - Pair					5560.6	6,968.90	2	2016.4	L	
		Goradh - Sakara					7673.5	8,836.20	1	1162.7	L	
		Sanhaula					10275.1	11,816.10	2	3082	L	
7	220 KV	Goradh - Goradh										
		220 KV Patna - Khagaul Ckt-2	904242.7	9,32,270.90	1.6	44845.12	448262.2	4,62,264.90	3.2	44808.64	R/L	
		220 KV Patna - Khagaul Ckt-3	904866.7	9,32,980.80	1.6	44582.56	447140	4,61,068.90	3.2	44572.48	R/L	
		220 KV Biharsharif-Mokama ckt-1	421337	4,23,843.00	1	2308	63176	87,545.00	1	24369	L	
		220 KV Biharsharif-Mokama ckt-2	426641	4,29,014.00	1	2373	62937	87,239.00	1	24282	L	
		220 KV BTPS-Mokama ckt-1	49205	76,692.00	1	27487	88189	89,844.00	1	1655	R	
		220 KV BTPS-Mokama ckt-2	50302	78,096.00	1	27793	88554	90,179.00	1	1625	R	
		132 KV Hathidah-Mokama ckt-1	586.4	586.50	1	0.1	125797.7	1,29,603.10	1	3895.3	R	
		132 KV Hathidah-Mokama ckt-2	544.7	544.7	1	0	130874	1,34,733.30	1	3859.3	R	
		220KV Dumraon New-Aral(PG) ckt-1	40379.3	44,022.10	1.6	5828.48	81606.6	82,131.20	1.6	839.36	L	
8	220KV	220KV Dumraon New-Aral(PG) ckt-2	20432.6	24,066.20	1.6	5813.76	8774.3	9,303.06	1.6	846.016	L	
		220KV Dumraon New-Nadhoker Ckt-1	327450	3,41,238.00	1	13788	20375	20,451.00	1	76	R	
		220KV Dumraon New-Nadhoker Ckt-2	1191256	12,05,138.00	1	13882	75187	75,265.00	1	79	R	
		132 KV Dumraon New-Dumraon(BSPCL) Ckt-2	9	9	1	0	412785	4,42,535.00	1	29750	R	
9	33 KV	Brahmpur PSS										
		Shahpur(PSS)										
Total												
Total loss =						6311.124						
% LOSS =						1.395						
												132.02

Handwritten signature

Handwritten signature

Handwritten signature



Energy accounting of BGCL system for month November - 2021

S.No	Name of connected GIS (BGCL)	Voltage Level	Name of T/L from BGCL (GIS) to BSPTCL	Import Energy (MWH)		Export Energy (MWH) BGCL		Current Reading (taken on dated 01.11.2021 at 00:00 Hrs)	M.F	Energy received (in MWh)	Current Reading (taken on dated 01.12.2021 at 00:00 Hrs)	M.F	Energy received (in MWh)	Meter location	SST Consumption				
				Previous Reading (taken on dated 01.11.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.12.2021 at 00:00 Hrs)	Previous Reading (taken on dated 01.11.2021 at 00:00 Hrs)	Current Reading (taken on dated 01.12.2021 at 00:00 Hrs)												
1	KHzersarai GIS	220 KV	220 KV KHzersarai - Gaya (PG) ckt-1	109148.1	124771.1	1.6	24596.8	7547.4	1.5	40.32	7572.6	1.5	40.32	R	231.66				
			220 KV KHzersarai - Gaya (PG) ckt-2	95709.2	111323.1	1.6	24982.24	7487.9	1.5	40.48	7513.2	7487.9	1.5	40.48		R			
			220 KV Bodh Gaya - KHzersarai ckt-01	45574	45574	1	0	6845	6845	1	0	6845	6845	1		0	R		
			220 KV Bodh Gaya - KHzersarai ckt-02	47175	47195	1	20	8190	8213	1	23	8213	8213	1		23	R		
			220 KV Biharsharif - KHzersarai ckt-1	475669	530530	1	54861	177	177	1	0	177	177	1		0	R		
			220 KV Biharsharif - KHzersarai ckt-2	472560	527199	1	54639	212	212	1	0	212	212	1		0	R		
			132 KV Waxirganj - KHzersarai line	15.5	15.5	2	0	336777.5	344584.99	2	16614.98	344584.99	344584.99	2		16614.98	L		
			132 KV Bodh Gaya - KHzersarai feeder	9205	9205	2	0	151172	151183.5	2	23	151183.5	151183.5	2		23	L		
			132 KV Hulseganj - KHzersarai Line	1.9	1.9	2	0	70341.4	70341.4	2	0	70341.4	70341.4	2		0	R		
			132 KV KHzersarai - Jehanabad Ckt-1	10	10	1	0	713495	743438	1	29945	743438	743438	1		29945	R		
			132 KV KHzersarai - Jehanabad Ckt-2	16	16	1	0	719014	749195	1	30181	749195	749195	1		30181	R		
			2	Narhat (Hawada) GIS	132KV	KHzersarai-Narhat feeder	15.5	15.5	2	0	7022.02	7676.96	2	1309.88		2	1309.88	L	18.9
KHzersarai-Atri feeder	15.5	15.5				2	0	5912.42	11658.96	2	5493.08	11658.96	2	5493.08	L				
KHzersarai (GIS) - KHzersarai (PSS) Mahakar feeder	14887.5	14887.5				1	0	15915.52	15915.52	2	0	15915.52	15915.52	2	0	L			
132 KV Narhat-Nawada Line-1	14764.2	14764.2				1	1.8	539.9	1090.82	2	1103.44	1090.82	1090.82	2	1103.44	L			
132 KV Narhat-Nawada Line-2	14887.5	14887.5				1	0	918951.2	927863	1	8671.8	927863	927863	1	8671.8	R			
Narhat-Narhat feeder-06	14764.2	14764.2				1	1.8	910924.8	917803.1	1	6878.3	917803.1	917803.1	1	6878.3	R			
Narhat-Andherwadi feeder-01	14764.2	14764.2				1	1.8	44126.3	44669.7	2	1086.8	44669.7	44669.7	2	1086.8	L			
Narhat-Rajauli feeder	14764.2	14764.2				1	1.8	106745.1	106745.1	2	0	106745.1	106745.1	2	0	L			
Narhat-Meskor feeder-05	14764.2	14764.2				1	1.8	20047	22752.4	2	5410.8	22752.4	22752.4	2	5410.8	L			
132 KV Sheikhpura - New Sheikhpura (BGCL) CKT-1	1400	1400				1	0	9249.5	9638.4	2	777.8	9638.4	9638.4	2	777.8	L			
132 KV Sheikhpura - New Sheikhpura (BGCL) CKT-2	28	28				1	0	220909	227788	1	6879	227788	227788	1	6879	R			
3	Shekhopur-sarai (Sheikhpura) GIS	33 KV				132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-1	13818	13818	1	0	4585	4585	1	0	1	0	R	19.9	
			132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-2	13818	13818	1	0	8217	8440	1	223	8440	1	223	L				
			132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-1	13818	13818	1	0	91214	93195.2	1	1883.2	93195.2	1	1883.2	L				
			132 KV Biharsharif - New Sheikhpura (BGCL) Ckt-2	13818	13818	1	0	56190	57917.2	1	1727.2	57917.2	1	1727.2	L				
			132 KV D/C Havelli Kharagpur (BGCL) - Jamapur CKT-1 trans line	90.8	90.8	1	0	199837.7	216477.8	1	14640.1	216477.8	216477.8	1	14640.1	R			
			132 KV D/C Havelli Kharagpur (BGCL) - Jamapur CKT-1 trans line	117.5	117.5	1	0	259548	263901	1	4353	263901	263901	1	4353	R			
			132 KV Sultanpur-Jamalpur new CKT-1	145602	145602	1	1	30269	30275	1	6	30269	30275	1	6	L			
			132 KV Sultanpur-Jamalpur new CKT-2	145602	145602	1	0	30016	36517	1	6501	36517	36517	1	6501	L			
			132 KV LAKHISARAI-HAVELI KHARAGPUR CKT-1	39578	39578	1	0	1997	1997	1	0	1997	1997	1	0	L			
			132 KV LAKHISARAI-HAVELI KHARAGPUR CKT-2	37491	37491	1	0	2219	2219	1	0	2219	2219	1	0	L			
			4	Haveli-Kharagpur (Jamalpur) GIS	33KV	H. Kharagpur PSS	30722.3	30722.3	2	1564.8	29589.9	2	1564.8	30722.3	2	1564.8	L		21.9
						H. Kgp-Banahara RPSS CKT-06	15754.7	15754.7	2	998.8	15505.3	2	998.8	15754.7	15754.7	2	998.8		
H. Kgp-Pipra RPSS CKT-04	5995.2	5995.2				2	95.6	5995.2	2	95.6	5995.2	5995.2	2	95.6	L				
H. Kgp-Taita Bambar PSS Line	28534.3	28534.3				2	714.8	28534.3	2	714.8	28534.3	28534.3	2	714.8	L				
H. Kgp-Bageshwari PSS	27119.1	27119.1				2	759.8	27119.1	2	759.8	27119.1	27119.1	2	759.8	L				

Handwritten signature and initials.







**Bihar State Power Transmission Company Ltd., Patna**  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN – U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna – 800021,

Letter No. ....../  
File no. SFDX/SC/Cell/SFDX/BGCL/22/2017

Dated...../

From,

**Chief Engineer (System Operation)**  
**Bihar State Power Transmission Co. Ltd.**

To

**AGM- O&M (Commercial)**  
**Bihar Grid Company Limited**  
**2nd floor, Alankar place, Boring Road**  
**Patna, 800001**

**Sub:** Certification of Energy accounting of BGCL power system for the month of October -2021.  
**Ref:** Your office letter no. JV/PT/BG/O&M/Energy meter/October'21/878 dated 08.11.2021.

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BEREC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system for the month of October'21 is calculated as 1.398 %.

Encl: as above

Yours faithfully

  
(A. K. Chaudhary)

Chief Engineer (System Operation)







Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN – U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna – 800021,

Letter No. ....../  
(file no. SDC/SC/CE/SE/DC/BGCL/22/2021)

Dated...../

From,

**Chief Engineer (System Operation)**  
**Bihar State Power Transmission Co. Ltd.**

To

**AGM- O&M (Commercial)**  
**Bihar Grid Company Limited**  
**2nd floor, Alankar place, Boring Road**  
**Patna, 800001**

**Sub:** Certification of Energy accounting of BGCL power system for the month of September-2021.  
**Ref:** Your office letter no. JV/PT/BG/O&M/Energy meter/September'21/812 dated 05.10.2021.

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been prepared on the basis of data received from BGCL as well as in our system from AMR. In compliance of the above mentioned directive, energy loss % in the BGCL power system for the month of September-2021 is calculated as 1.205 %.

Encl: as above

Yours faithfully

Sd/-

(A. K. Chaudhary)

**Chief Engineer (System Operation)**

Memo No. .... 477

Date.. 12/11/2021

Copy forwarded to chief engineer. STU for kind information and necessary action.

(A. K. Chaudhary)

**Chief Engineer (System Operation)**



Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN – U40102BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna – 800021,

Letter No. 174  
File no. BGCL/Loss/transmission/06/2022

Dated 17-03-22

From,

Chief Engineer (System Operation)  
Bihar State Power Transmission Co. Ltd.

To

AGM- O&M (Commercial)  
Bihar Grid Company Limited  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Sub: Certification of Energy accounting of BGCL power system for the month of February'22.  
Ref: Your office letter no. JV/PT/BG/O&M/Energy meter/February'22/223 dated 14.03.2022.

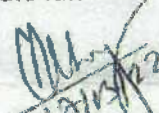
Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance to *Directive 6: Metering and Energy Audit, of "Transmission Tariff for FY 2021-22 for BGCL"* dated 12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been verified on the basis of energy meter data received from BGCL as well as from AMR in SAMAST. In compliance of the above mentioned directive, transmission loss % in the BGCL power system for the month of February'22 is calculated as 1.07 %.

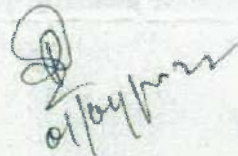
Encl: as above

Yours faithfully

  
(A. K. Chaudhary)  
Chief Engineer (System Operation)



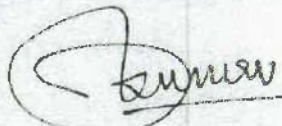
Pl note & file






**MONTHLY BGCL LOSS ACCOUNTING REPORT FOR THE MONTH OF FEB 2022**

Sl No.	Name of the Power Station	Energy (In MU)
1	Total import from regional grid (purchases from ISGS, PX, bilateral etc.)	147.921328
2	Sharing Of ISTS Transformer Loss (as per MoM Dated - 23.12.2021)	0.530438
3	Import from BSPTCL	293.514698
	Net Import of BGCL (In MU) (1 + 2 + 3)	441.966464
4	Export to BSPTCL	387.183429
5	Discom Actual drawal	35.82857
1	SBPDCL	14.2155
2	NBPDCL	50.04407
	Total of Discom actual drawal	
	Net Drawl of BGCL (In MU) (4 + 5)	437.227499
	Transmission Loss	Loss of
		Feb-22
	(In MU)	4.738965
	(In %)	1.07

  
 17-03-22  
 Deepak Kumar Ram  
 E.ExE, SLDC  
 BSPTCL, Patna

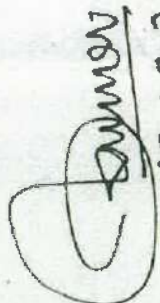
  
 16/03/2022

Mrityunjaya Kumar  
 AEE, SLDC  
 BSPTCL, Patna





Total Import from Regional Grid			
Sl.No.	Line Name	Main Meter No	Energy (MWH)
1	220 KV Patna(PG) - Khagaul Ckt-3	ER-1962-A	44486.224
2	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-2	ER-1380-A	22196.512
3	220 kv Dumraon New - Ara (PG) Ckt-1	ER-1305-A	5970.416
4	220 kv Dumraon New - Ara (PG) Ckt-2	ER-1866-A	5943.504
5	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-1	ER-1375-A	22269.648
6	220 KV Patna(PG) - Khagaul Ckt-2	ER-1963-A	47055.024
	<b>Total</b>		<b>147921.328</b>

  
17-03-22

Deepak Kumar Ram  
E.ExE, SLDC  
BSPTCL, Patna


  
16/03/22


Mrityunjoya Kumar  
AEF  
BSPTCL, Patna



**Sharing of ISTS Transformer Loss For February 2022**

Sl. No.	Name of Metering Point	Meter No.	Metering end	Energy in MU
<b>A</b>				
<b>PGCIL ICT Injection Points to be shared</b>				
1	400 KV BSF_ ICHV1	NP 6063 A	PG end	25 887031
2	400 KV BSF_ ICHV2	NP 6069 A	PG end	70 25749
3	400 KV BSF_ ICHV3	NP 6008 A	PG end	28 279891
4	400 KV BSF_ ICHV4	ER 1386 A	PG end	109 174399
5	400 KV GYA_ ICT 2	ER 1419 A	PG end	52 523315
6	400 KV GYA_ ICT 3	ER 1442 A	PG end	86 153315
7	400 KV GYA_ ICT 1	ER 1411 A	PG end	91 357276
8	400 KV PAT_ ICT 1	ER 1877 A	PG end	123 737798
9	400 KV PAT_ ICT-2	ER 1407 A	PG end	125 558541
10	400 KV PAT_ ICT-3	ER-1231 A	PG end	118 116908
	<b>Total of PGCIL ICT Injection Points to be shared</b>			<b>832.1114</b>
<b>B</b>				
<b>Drawal points used for calculating sharable PGCIL ICT loss</b>				
1	220 KV Patna(PG)- Khagaul Ckt-3	ER-1962 A	PG end	44 486224
2	220 KV Patna(PG)- Khagaul Ckt-2	ER-1963 A	PG end	47 055974
3	220 KV Gaya (PG)- Dehri -2 T/L	NP-6098-A	PG end	36 424032
4	220 KV Gaya (PG)- Dehri -1 T/L	NP-7857-A	PG end	35 697952
5	220 KV Gaya (PG)- Bodhgaya -1 T/L	ER 1893-A	PG end	57 152112
6	220 KV Gaya (PG)- Bodhgaya -2 T/L	NP-8661-A	PG end	58 093468
7	220 KV Patna (PG)- Fathua -1 T/L	NP-5865-A	PG end	31 14056
8	220 KV Patna (PG)- Sipara -3 T/L	NP-8862-A	PG end	85 834176
9	220 KV Patna (PG)- Sipara -1 T/L	NP-7864-A	PG end	62 179552
10	220 KV Patna (PG)- Sipara -2 T/L	NP-7838 A	PG end	52 547072
11	220 KV Patna (PG)- Khagaul -1 T/L	NP-5832 A	PG end	42 940992
12	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-1	ER-1375-A	PG end	22 269648
13	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-2	ER-1380-A	PG end	22 196512
14	220 KV Biharsharif- Biharsharif (PG)-1 T/L	Q0384389	BSPTCL	25 55241
15	220 KV Biharsharif- Biharsharif (PG)-2 T/L	Q0384358	BSPTCL	69 38169
16	220 KV Biharsharif- Biharsharif (PG)-4 T/L	Q0384392	BSPTCL	108 42523
17	220 KV Biharsharif- Biharsharif (PG)-3 T/L	Q0384406	BSPTCL	27 96661
	<b>Total of Drawal points used for calculating sharable PGCIL ICT loss</b>			<b>830.34326</b>
				<b>1.7681274</b>
<b>C</b>				
	<b>Sharable PGCIL ICT Loss(A-B)</b>			<b>0.530438</b>
<b>D</b>				
	<b>BGCL Share (30%)(C*0.3)</b>			<b>1.2376891</b>
<b>E</b>				
	<b>BSPTCL Share (70%)(C*0.7)</b>			

  
 17-03-22  
 Deepak Kumar Ram  
 E.ExE, SLDC  
 BSPTCL, Patna

  
 16/03/2022

M. J. K.  
 16-03-22  
 Mrityunjaya Kumar  
 AEE, SLDC  
 BSPTCL, Patna





**Monthly T-T Energy Drawl total for the period FEB 2022**

Sl. No.	Substation	Transmission Line	Meter S.No	Total Energy	
				Total Export (BSPTCL to BGCL)	Total Import (BGCL to BSPTCL)
1	RTPS	220 KV RTPS Mokama ckt-1	Q0201227	21 137401	0 5216
2	RTPS	220 KV RTPS Mokama ckt-2	Q0200889	22 756936	0 588179
3	132/33 KV Jamalpur	132 KV JAMALPUR (NEW) GIS CKT-1	Q0201459	0	18 325704
4	132/33 KV Jamalpur	132 KV JAMALPUR (NEW) GIS CKT-2	Q0201128	0	0
5	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW) Sultanganj CKT-1	ABB07205	0	0 001
6	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW) Lakhisarai CKT-1	ABB07211	0	0 12
7	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW) Lakhisarai CKT-2	ABB07210	0	0 01
8	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW) Sultanganj CKT-2	ABB07209	0	5 884
9	132/33 KV Sabour	132 KV SABOUR (NEW) GIS CKT-1	Q0200873	3 0653	0
10	132/33 KV Sabour	132 KV SABOUR (NEW) GIS CKT-2	Q0238423	3 067421	0
11	220/132 KV Sabour New GIS(BGCL)	32 KV SABOUR (NEW) GIS-SULTANGANJ CKT-1	ABB07241	0 002	0 006
12	220/132 KV Sabour New GIS(BGCL)	132 KV SABOUR (NEW) -Kahalgaon CKT-1	ABB07242	0	0 005
13	220/132 KV Sabour New GIS(BGCL)	132 KV SABOUR (NEW) -Kahalgaon CKT-2	ABB07244	0 001	0
14	220/132 KV Sabour New GIS(BGCL)	32 KV SABOUR (NEW) GIS-SULTANGANJ CKT-2	ABB07240	0 001	0 005
15	132/33 KV Dumraon	132KV DUMRAON New(GIS)-DUMRAON CKT-2	Q0332763	0	29 57074
16	220/132/33 KV Pusouli	220KV DUMRAON New(GIS)- Pusouli CKT-1	Q0200798	12 802408	0 136375
17	220/132/33 KV Pusouli	220KV DUMRAON New(GIS)-Pusouli CKT-2	Q0201378	12 753001	0 136178
18	220/132/33 KV Biharsharif(SG)	132 KV Shekhpura (New) GIS CKT-1	Q0384385	0	0
19	220/132/33 KV Biharsharif(SG)	220 KV KHIZERSARAI GIS CKT-1	Q0384362	54 214624	0
20	220/132/33 KV Biharsharif(SG)	220 KV KHIZERSARAI GIS CKT-2	Q0384399	54 036077	0
21	132/33 KV Nawada	132 KV GIS NARHAT LINE-1	Q0200525	0 001236	11 67122
22	132/33 KV Nawada	132 KV GIS NARHAT LINE-2	Q0200687	0 001001	10 295878
23	132/33 KV Shekhpura	132 KV Shekhpura (New) GIS CKT-1	Q0384442	0	7 114018
24	132/33 KV Shekhpura	132 KV Shekhpura (New) GIS CKT-2	Q0384417	0	7 200552
25	220/132 KV Khizersarai GIS(BGCL)	132 KV KHIZERSARAI - Bodhgaya CKT-1	XS581465	0	0 00698
26	220/132 KV Khizersarai GIS(BGCL)	132 KV KHIZERSARAI - Wajirganj	XS581825	0	18 053
27	220/132/33 KV Bodhgaya	220 KV KHIZERSARAI GIS CKT-1	Q0200713	7 573445	0 500094
28	220/132/33 KV Bodhgaya	220 KV KHIZERSARAI GIS CKT-2	Q0201012	7 488159	0 593758
29	132/33 KV Hulsganj	132 KV KHIZERSARAI-2	Q0200554	0	8 620185
30	132/33 KV Jehanabad	132 KV Jehanabad - Khizersara: GIS CKT-1	Q0303062	0	27 36626
31	132/33 KV Jehanabad	132 KV Jehanabad - Khizersarai GIS CKT-2	Q0287788	0	27 329967
32	132/33 KV Hatidah	132KV Hatidah - Mokama (BGCL) ckt-1	Q0332765	0 000036	18 318124
33	132/33 KV Hatidah	132KV Hatidah - Mokama (BGCL) ckt-2	Q0332773	0 000099	18 486239
34	Mokama BGCL	220KV Biharsharif - Mokama (BGCL) ckt-2	XE485931	1 858	5 715
35	Mokama BGCL	220KV Biharsharif - Mokama (BGCL) ckt-1	XE485935	1 893	5 642
36	220/132/33 KV Khagaul	220KV Patna(PG)-Khagaul ckt-II	ER-1961-A	0	44 16704
37	220/132/33 KV Khagaul	220KV Patna(PG)-Khagaul ckt-III	ER-1958-A	0	46 88672
38	132/33 KV Chapra	132 KV AMNOUR-1	Q0238486	0 000002	20 150001
39	132/33 KV Chapra	132 KV AMNOUR-2	Q0201457	0	20 807771
40	132/33 KV Siwan	132 KV AMNOUR-1	Q0201412	0 000002	15 79302
41	132/33 KV Siwan	132 KV AMNOUR-2	Q0201620	0 000001	17 151426
42	220/132/33 KV Hazipur	220 KV AMNOUR CKT-1	Q0287786	44 47763	0
43	220/132/33 KV Hazipur	220 KV AMNOUR CKT-2	Q0287797	44 38385	0 00043
		<b>BSPTCL-BGCL (I)</b>		<b>293.514698</b>	
		<b>BGCL-BSPTCL (II)</b>			<b>387.183429</b>

*(Signature)*  
17-03-22  
Deepak Kumar Ram  
E.Exe, SLDC  
BSPTCL, Patna

*(Signature)*  
16/03/2022

*(Signature)*

16/03/22  
Mrityunjaya Kumar  
AEE, SLDC  
BSPTCL, Patna



Energy Drawl from 33 kV side of Transformers of BGCL

Monthly Energy Drawl Total of SBPDCL Discom for the period FEB 2022

Sl. No.	Substation	Transformer	Meter S.No.	Energy (MU)		Energy Drawal (In (MU))
				Actual Energy		
				From BGCL to DISCOMS	To BGCL	
<b>BGCL-DISCOM POINTS</b>						
1	220/132 KV Jamalpur GIS	50 MVA 132/33 KV TRANSFORMER No. 1	XC579642	0	0	0
2	220/132 KV Jamalpur GIS	50 MVA 132/33 KV TRANSFORMER No. 2	XC579645	3.649	0	3.649
3	220/132 KV Sabour New GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-1	X0383272	2.5453	0	2.5453
4	220/132 KV Sabour New GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-2	X0383223	3.5263	0	3.5263
5	Dumraon New(BGCL)	80 MVA 132/33 KV TRANSFORMER No.-1	19007483	2.978	0	2.978
6	Dumraon New(BGCL)	80 MVA 132/33 KV TRANSFORMER No.-2	19001312	4.332	0	4.332
7	220/132 KV Nawada GIS (BGCL)	50 MVA 132/33 KV TRANSFORMER No.-1	XB426777	2.1696	0	2.1696
8	220/132 KV Nawada GIS (BGCL)	50 MVA 132/33 KV TRANSFORMER No.-2	XB426776	5.6604	0	5.6604
9	220/132 KV Sheikhpura GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-1	XC579637	0.3936	0	0.3936
10	220/132 KV Sheikhpura GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-2	XC579636	4.1082	0	4.1082
11	220/132 KV Khisersarai GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-2	XB426797	1.0476	0	1.0476
12	220/132 KV Khisersarai GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-3	XB426798	5.3922	0	5.3922
13	Mokama BGCL	80 MVA 132/33 KV TRANSFORMER No.-2	XF466571	0.02637	0	0.02637
		<b>SUB TOTAL-BGCL Transformers</b>				<b>35.82857</b>

Monthly Energy Drawl Total of NBPDC Discom for the period FEB 2022

1	220/132/33 KV Amnour GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No. 1	XB426779	6.9405	0	6.9405
2	220/132/33 KV Amnour GIS(BGCL)	50 MVA 132/33 KV TRANSFORMER No.-2	XB426778	7.275	0	7.275
		<b>SUB TOTAL-BGCL Transformers</b>				<b>14.2155</b>

Total Drawal from 33 kV side of Transformers of BGCL to DISCOMS

						<b>50.0</b>
--	--	--	--	--	--	-------------



**Deepak Kumar Ram**  
E.E.E, SLDC  
NEOTCL, Patna

**16/02/2022**

**Mrityunjaya Kumar**  
A.E.E, SLDC  
BSPTCL, Patna





**Bihar State Power Transmission Company Ltd., Patna**  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U74110BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021,

Letter No. 155 .....  
File no. BGCL Loss Transmission 06/2022

*Manjorey* Dated 17.03.22  
PI note BGCL.

From,

**Chief Engineer (System Operation)**  
**Bihar State Power Transmission Co. Ltd.**

To

**AGM- O&M (Commercial)**  
**Bihar Grid Company Limited**  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Regd

*[Signature]*  
21/3/22

**Sub:** Certification of Energy accounting of BGCL power system for the month of January'2022.

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance of Directive 6: Metering and Energy Audit of "Transmission Tariff for FY 2021-22 for BGCL" dated:12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL power system.

BGCL loss report for the month of Jan.2022 has been verified on the basis of energy meter data received from BGCL as well as in our system via AMR in SAMAST. In compliance of the above mentioned directive, BGCL transmission loss % for the month of January'22 is calculated as 1.37%.

**Encl: as above**

Yours faithfully

*[Signature]*  
4/10/22


(A. K. Chaudhary)  
Chief Engineer (System Operation)

*[Signature]*





## MONTHLY BGCL LOSS ACCOUNTING REPORT FOR THE MONTH OF JAN 2022

Sl. No.	Name of Injecting/Drawee Entities	Energy
		(In MU)
1	Total import from regional grid (purchases from ISGS, PX, bilateral etc.)	170.858288
2	Sharing Of ISTS Transformer Loss (as per MoM Dated - 23.12.2021)	0.658282
3	Import from BSPTCL	337.835385
	Net Import of BGCL (In MU) (1 + 2 + 3)	509.351956
4	Export to BSPTCL	443.614369
5	Discom Actual drawal	
1	SBPDCL	41.11611
2	NBPDCL	17.6669
	Total of Discom actual drawal	58.78301
	Net Drawl of BGCL (In MU) (4 + 5)	502.397379
	Transmission Loss (In MU)	6.954576
	Transmission Loss (In %)	1.37

  
 14.03.22  
 Deepak Kumar Ram  
 E.ExE, SLDC  
 BSPTCL, Patna

Mrityunjaya Kumar  
 AEE, SLDC  
 BSPTCL, Patna

  
 14/03/2022  
 Priyadarshini Shrutika  
 AEE, SLDC  
 BSPTCL, Patna

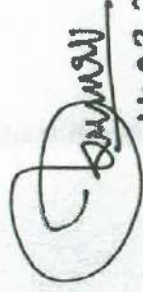
  
 14.03.22  
 SWETA  
 ESE, SLDC  
 BSPTCL, PATNA




## Total Import from Regional Grid

Sl.No.	Line Name	Main Meter No	Energy (MWH)
1	220 KV GAYA(PG)-KHIZIRSARA(BGCL)LINE-1	ER-1375-A	30934.992
2	220 KV Dumraon New - Ara (PG) Ckt-2	ER-1866-A	4117.104
3	220 KV Patna(PG) - Khagaul Ckt-3	ER-1962-A	49995.216
4	220 KV Patna(PG) - Khagaul Ckt-2	ER-1963-A	49680.608
5	220 KV Dumraon New - Ara (PG) Ckt-1	ER-1305-A	4145.664
6	220 KV GAYA(PG)-KHIZIRSARA(BGCL)LINE-2	ER-1380-A	31984.704
	<b>Total</b>		<b>170858.288</b>

  
 Sweta  
 14.03.22  
 SWETA  
 ESE, SLDC  
 BSPTCL, PATNA

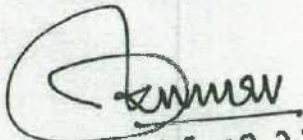
  
 14.03.22  
 Deepak Kumar Ram  
 E.ExE, SLDC  
 BSPTCL, Patna

Wnty  
 Mrityunjaya Kumar  
 AEE, SLDC  
 BSPTCL, Patna

  
 14/03/2022  
 Priyadarshini Shrutika  
 AEE, SLDC  
 BSPTCL, Patna

**SHARING OF ISTS TRANSFORMER LOSS BETWEEN BSPTCL AND BGCL**


Sl. No.	Name of Metering Point	Metering No.	Meter End	Energy in MU
<b>A</b>	<b>PGCIL ICT Injection Points to be shared</b>			
1	400 KV BSF_ICHV1	NP-6063-A	PG end	17.821727
2	400 KV BSF_ICHV2	NP-6069-A	PG end	83.795508
3	400 KV BSF_ICHV3	NP-6068-A	PG end	19.749545
4	400 KV BSF_ICHV4	ER-1386-A	PG end	134.807962
5	400 KV GYA_ICT-1	ER-1411-A	PG end	112.732859
6	400 KV GYA_ICT-2	ER-1419-A	PG end	67.056107
7	400 KV GYA_ICT-3	ER-1442-A	PG end	106.134043
8	400 KV PAT_ICT-1	ER-1877-A	PG end	140.553744
9	400 KV PAT_ICT-2	ER-1419-A	PG end	148.167999
10	400 KV PAT_ICT-3	ER-1442-A	PG end	136.382399
	<b>Total of PGCIL ICT Injection Points to be shared</b>			<b>967.20184</b>
<b>B</b>	<b>Drawal points used for calculating sharable PGCIL ICT loss</b>			
1	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-1	ER-1375-A	PG end	30.934992
2	220 KV Patna(PG) - Khagaul Ckt-3	ER-1962-A	PG end	49.995216
3	220 KV Patna(PG) - Khagaul Ckt-2	ER-1963-A	PG end	49.680608
4	220 KV GAYA(PG)-KHIZIRSARAI(BGCL)LINE-2	ER-1380-A	PG end	31.984704
5	220 KV Gaya (PG)- Dehri -2 T/L	NP-6098-A	PG end	41.847568
6	220 KV Gaya (PG)- Dehri -1 T/L	NP-7857-A	PG end	41.512896
7	220 KV Gaya (PG)- Bodhgaya -1 T/L	ER-1893-A	PG end	69.836048
8	220 KV Gaya (PG)- Bodhgaya -2 T/L	NP-8661-A	PG end	71.171088
9	220 KV Patna (PG)- Fathua -1 T/L	NP-5865-A	PG end	36.187264
10	220 KV Patna (PG)- Sipara -3 T/L	NP-8862-A	PG end	99.746464
11	220 KV Patna (PG)- Sipara -1 T/L	NP-7864-A	PG end	76.743936
12	220 KV Patna (PG)- Sipara -2 T/L	NP-7838-A	PG end	65.723664
13	220 KV Patna (PG)- Khagaul -1 T/L	NP-5832-A	PG end	45.600064
14	220 KV Biharsharif- Biharsharif (PG)-1 T/L	Q0384389	BSPTCL	17.6991
15	220 KV Biharsharif- Biharsharif (PG)-2 T/L	Q0384358	BSPTCL	82.96212
16	220 KV Biharsharif- Biharsharif (PG)-4 T/L	Q0384392	BSPTCL	133.80246
17	220 KV Biharsharif- Biharsharif (PG)-3 T/L	Q0384406	BSPTCL	19.57932
	<b>Total of Drawal points used for calculating sharable PGCIL</b>			<b>965.00757</b>
<b>C</b>	<b>Sharable PGCIL ICT Loss(A-B)</b>			<b>2.194275</b>
<b>D</b>	<b>BGCL Share (30%)(C*0.3)</b>			<b>0.6582825</b>
<b>E</b>	<b>BSPTCL Share (70%)(C*0.7)</b>			<b>1.5359924</b>

  
14-03-22

Deepak Kumar Ram  
E.ExE, SLDC  
BSPTCL, Patna

Mnty. P.  
Mrityunjaya Kumar  
AEE, SLDC  
BSPTCL, Patna

S-15  
14-03-22  
SWETA  
ESE, SLDC  
BSPTCL, PATNA

  
14/03/2022  
Priyadarshini Shrivastava  
AEE, SLDC  
BSPTCL, Patna





Monthly T-T Energy Drawl total for the period JAN 2022

Sl. No.	Circle	Division	Substation	Transmission Line	Meter S.No.	Total Energy (in MU)	
						Total Export	Total Import
1	BEGUSARAI(N)	Begusarai	BTPS	220 KV BTPS- Mokama ckt-1	Q0201277	21.414839	3.326956
2	BEGUSARAI(N)	Begusarai	BTPS	220 KV BTPS- Mokama ckt-2	Q0200889	21.568926	3.416663
3	BEGUSARAI(S)	Munger	132/33 KV Jamalpur	132 KV JAMALPUR (NEW) GIS CKT-1	Q0201459	0	23.078001
4	BEGUSARAI(S)	Munger	132/33 KV Jamalpur	132 KV JAMALPUR (NEW) GIS CKT-2	Q0201128	0	0
7	BEGUSARAI(S)	Munger	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW)- Sultanganj CKT-1	ABB07205	0.001	0.692
8	BEGUSARAI(S)	Munger	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW)- Lakhisarai CKT-1	ABB07211	0	0
9	BEGUSARAI(S)	Munger	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW)- Lakhisarai CKT-2	ABB07210	0	0
10	BEGUSARAI(S)	Munger	220/132 KV Jamalpur GIS	132 KV JAMALPUR (NEW)- Sultanganj CKT-2	ABB07209	0	7.037
13	BHAGALPUR	Bhagalpur	132/33 KV Sabour	132 KV SABOUR (NEW) GIS CKT-1	Q0200873	4.0329	0
14	BHAGALPUR	Bhagalpur	132/33 KV Sabour	132 KV SABOUR (NEW) GIS CKT-2	Q0238423	4.036715	0.20687
19	BHAGALPUR	Bhagalpur	220/132 KV Sabour New GIS(BGCL)	32 KV SABOUR (NEW) GIS-SULTANGANJ CKT	ABB07241	0.001	0.006
20	BHAGALPUR	Bhagalpur	220/132 KV Sabour New GIS(BGCL)	132 KV SABOUR (NEW) -Kahaigaon CKT-1	ABB07242	0	0.087
21	BHAGALPUR	Bhagalpur	220/132 KV Sabour New GIS(BGCL)	132 KV SABOUR (NEW) -Kahaigaon CKT-2	ABB07244	0	0.086
22	BHAGALPUR	Bhagalpur	220/132 KV Sabour New GIS(BGCL)	32 KV SABOUR (NEW) GIS-SULTANGANJ CKT-2	ABB07240	0.001	0.005
23	BHOJPUR	ARA	132/33 KV Dumraon	132KV DUMRAON New(GIS)-DUMRAON CKT-2	Q0332763	0	34.916574
24	BHOJPUR	MOHANIA	220/132/33 KV Pusouli	220KV DUMRAON New(GIS)- Pusouli CKT-1	Q0200798	17.742099	0.028341
25	BHOJPUR	MOHANIA	220/132/33 KV Pusouli	220KV DUMRAON New(GIS)-Pusouli CKT-2	Q0201378	17.87917	0.028197
26	BIHARSARIF	BIHARSARIF	220/132/33 KV Biharsharif(SG)	132 KV Sheikhupura (New) GIS CKT-1	Q0384385	0	0
27	BIHARSARIF	BIHARSARIF	220/132/33 KV Biharsharif(SG)	220 KV KHIZERSARAI GIS CKT-1	Q0384362	55.846852	0
28	BIHARSARIF	BIHARSARIF	220/132/33 KV Biharsharif(SG)	220 KV KHIZERSARAI GIS CKT-2	Q0384399	55.404222	0.000009
29	BIHARSARIF	NAWADA	132/33 KV Nawada	132 KV GIS NARHAT LINE-1	Q0200525	0.001743	13.904619
30	BIHARSARIF	NAWADA	132/33 KV Nawada	132 KV GIS NARHAT LINE-2	Q0200687	0.005649	12.292316
31	BIHARSARIF	NAWADA	132/33 KV Shekhpura	132 KV Sheikhupura (New) GIS CKT-1	Q0384442	0	8.345831
32	BIHARSARIF	NAWADA	132/33 KV Shekhpura	132 KV Sheikhupura (New) GIS CKT-2	Q0384417	0	8.361772
34	GAYA (MAGADH)	GAYA	220/132 KV Khisersarai GIS(BGCL)	132 KV KHIZERSARAI - Bodhgaya CKT-1	XC581465	0	0.008
35	GAYA (MAGADH)	GAYA	220/132 KV Khisersarai GIS(BGCL)	132 KV KHUIARSARAI- Wajirganj	XC581825	0	18.34194
37	GAYA (MAGADH)	GAYA	220/132/33 KV Bodhgaya	220 KV KHIZERSARAI GIS CKT-1	Q0200713	12.165243	0.834782
38	GAYA (MAGADH)	GAYA	220/132/33 KV Bodhgaya	220 KV KHIZERSARAI GIS CKT-2	Q0201017	10.334956	1.122341
39	GAYA (MAGADH)	JEHANABAD	132/33 KV Hulasganj	132 KV KHUIARSARAI-2	Q0200554	0	8.691239
40	GAYA (MAGADH)	JEHANABAD	132/33 KV Jehanabad	132 KV Jehanabad -Khizersarai GIS CKT-1	Q0303062	0	32.66625
41	GAYA (MAGADH)	JEHANABAD	132/33 KV Jehanabad	132 KV Jehanabad -Khizersarai GIS CKT-2	Q0287788	0	32.596854
42	PATNA(EAST)	BARH	132/33 KV Hatidih	132 KV Hatidah - Mokama (BGCL) ckt-1	Q0332765	0.000012	15.477993
43	PATNA(EAST)	BARH	132/33 KV Hatidih	132KV Hatidah - Mokama (BGCL) ckt-2	Q0332773	0.000011	15.701237
44	PATNA(EAST)	BARH	Mokama BGCL	220KV Biharsharif - Mokama (BGCL) ckt-1	XE485931	8.198	10.436
45	PATNA(EAST)	BARH	Mokama BGCL	220KV Biharsharif - Mokama (BGCL) ckt-1	XE485935	7.96	10.557
46	PATNA(WEST)	Patna(West)	220/132/33 KV Khagaul	220KV Patna(PG)-Khagaul ckt-II	ER-1961-A	0	49.8256
47	PATNA(WEST)	Patna(West)	220/132/33 KV Khagaul	220KV Patna(PG)-Khagaul ckt-III	ER-1958-A	0	49.30144
48	SARAN(Chapra)	Chapra	132/33 KV Chapra	132 KV AMNOUR-1	Q0238486	0.000013	18.741243
49	SARAN(Chapra)	Chapra	132/33 KV Chapra	132 KV AMNOUR-2	Q0201457	0.000014	18.247343
50	SARAN(Chapra)	Gopalganj	132/33 KV Siwan	132 KV AMNOUR-1	Q0201412	0	21.06757
51	SARAN(Chapra)	Gopalganj	132/33 KV Siwan	132 KV AMNOUR-2	Q0201620	0	24.228388
52	VAISHALI(Hajipur)	Hajipur	220/132/33 KV Hazipur	220 KV AMNOUR CKT-1	Q0287786	51.192831	0
53	VAISHALI(Hajipur)	Hajipur	220/132/33 KV Hazipur	220 KV AMNOUR CKT-2	Q0287797	50.04819	0
				BSPTCL-BGCL (I)		337.835385	443.614368
				BGCL-BSPTCL (II)			

Monthly k/c  
Mritunjaya Kumar  
AEE S.L.D.C

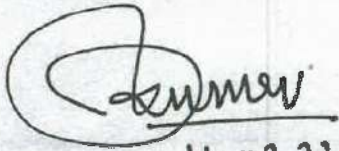
15/03/2022  
Riyadarashini Sharma  
AEE, S.L.D.C

Deepak Kumar

S. S. WETA





BGCL-DISCOM POINTS				
Sl. No.	BGCL Substations	Metering Point	Meter S.No.	Energy Drawal (in M
1	220/132 KV Jamalpur GIS	50 MVA 132/33 kv TRANSFORMER No.-1	XC579642	0.6793
2	220/132 KV Jamalpur GIS	50 MVA 132/33 kv TRANSFORMER No.-2	XC579645	3.3353
3	220/132 KV Sabour New GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-1	X0383222	1.1196
4	220/132 KV Sabour New GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-2	X0383223	7.0027
5	Dumraon New(BGCL)	80 MVA 132/33 kv TRANSFORMER No.-1	19007483	8.418
6	Dumraon New(BGCL)	80 MVA 132/33 kv TRANSFORMER No.-2	19001312	0.012
7	220/132 KV Nawada GIS (BGCL)	50 MVA 132/33 kv TRANSFORMER No.-1	XB426777	2.397
8	220/132 KV Nawada GIS (BGCL)	50 MVA 132/33 kv TRANSFORMER No.-2	XB426776	6.1234
9	220/132 KV Sheikhpura GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-1	XC579637	0.9761
10	220/132 KV Sheikhpura GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-2	XC579636	4.332
11	220/132 KV Khisersarai GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-2	XB426797	1.7132
12	220/132 KV Khisersarai GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-3	XB426798	4.9764
13	Mokama BGCL	80 MVA 132/33 kv TRANSFORMER No.-2	XF466571	0.03111
14	220/132/33 KV Amnour GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-1	XB426779	8.9486
15	220/132/33 KV Amnour GIS(BGCL)	50 MVA 132/33 kv TRANSFORMER No.-2	XB426778	8.7183
		<b>Total</b>		<b>58.78301</b>




14.02.22

Deepak Kumar Ram  
E.ExE, SLDC  
BSPTCL, Patna

  
Mrityunjaya Kumar  
AEE, SLDC  
BSPTCL, Patna

  
14/03/2022  
Priyadarshini Shrutika  
AEE, SLDC  
BSPTCL, Patna

  
14.03.22  
SWETA  
ESE, SLDC  
BSPTCL, PATNA



Bihar State Power Transmission Company Ltd., Patna  
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna  
CIN - U74110BR2012SGC018889  
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]  
Head Office, Vidyut Bhawan, Bailey Road, Patna - 800021,

Letter No. ....  
File no. BGCL/Loss/Transmission/06/2022

Dated.....

From,

Chief Engineer (System Operation)  
Bihar State Power Transmission Co. Ltd.

To

AGM- O&M (Commercial)  
Bihar Grid Company Limited  
2nd floor, Alankar place, Boring Road  
Patna, 800001

Sub: Certification of Energy accounting of BGCL power system for the month of March'2022.  
Ref: (i) Your office letter no. JV/PT/BG/O&M/Energy meter/March'22/314 dated:08.04.2022.  
(ii) M.O.M held at SLDC, BSPTCL, Patna on dated: 23.12.2021

Sir,

With reference to the subject mention above, monthly energy loss in the transmission system of BGCL is prepared as per the compliance of Directive 6: Metering and Energy Audit of "Transmission Tariff for FY 2021-22 for BGCL" dated:12.03.2021 of BERC. All the interface points of BGCL and BSPTCL are considered in the calculation of transmission loss of BGCL.

Monthly energy accounting and hence loss in BGCL system has been verified on the basis of energy meter data received from BGCL as well as from AMR in SAMASAT. In compliance of the above mentioned directive, transmission loss % in the BGCL power system for the month of March 2022 is calculated as 1.21%.

Encl: as above

Yours faithfully

Sd/-

(Kumar Prasant)

Chief Engineer (System Operation)

Date.....

254  
Memo No.....

Copy forwarded to CE (STU), BSPTCL/Director(operation), BSPTCL/OSD to MD, BSPTCL for kind information.

(Kumar Prasant)

Chief Engineer (System Operation)