

Bihar Electricity Regulatory Commission



**Case No. 22 of 2023 (NBPDCCL)
and
Case No. 23 of 2023 (SBPDCL)**

Tariff Order

**True up for FY 2022-23,
Annual Performance Review for FY 2023-24,
Annual Revenue Requirement (ARR) and Determination of Retail
Tariff for FY 2024-25**

**for
North Bihar Power Distribution Company Limited (NBPDCCL)
South Bihar Power Distribution Company Limited (SBPDCL)**

**Issued on 1st March 2024
(With effect from 1st April 2024)**

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ABBREVIATIONS

A&G	Administration and General Expenses
ACT	Electricity Act. 2003
ARR	Aggregate Revenue Requirement
BERC	Bihar Electricity Regulatory Commission
BSHPC	Bihar State Hydro Power Corporation
BSEB	Bihar State Electricity Board
BSPHCL	Bihar State Power (Holding) Company Limited
BSPTCL	Bihar State Power Transmission Company Limited
BTPS	Barauni Thermal Power Station
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Station
CTU	Central Transmission Utility
CWIP	Capital Work in Progress
DISCOM	Distribution Company
FC	Fixed Charges
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GFA	Gross Fixed Asset
KBUNL	Kanti Bijlee Utpadan Nigam Limited
KVA	Kilo Volt Ampere
KVAH	Kilo Volt Ampere Hour
KWH	Kilo Watt Hour
MoP	Ministry of Power
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NBPDCCL	North Bihar Power Distribution Company Limited
NFA	Net Fixed Asset
NHPC	National Hydro Power Corporation
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PLF	Plant Load Factor
R&M	Repairs and Maintenance
RE	Revised Estimates
RoE	Return on Equity
SAC	State Advisory Committee
SBPDCL	South Bihar Power Distribution Company Limited
SERC	State Electricity Regulatory Commission
TPS	Thermal Power Station



Bihar Electricity Regulatory Commission

Ground floor, Vidyut Bhawan –II
Nehru Marg, Patna – 800021

Case No. 22 of 2023 (NBPDCL)

and

Case No.23 of 2023 (SBPDCL)

In the matter of :

Petitions for approval of Truing-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24, Annual Revenue Requirement (ARR) and determination of Retail Tariff for sale of electricity to the consumers for the Financial Year 2024-25 in the State of Bihar filed by North Bihar Power Distribution Company Limited (NBPDCL) and South Bihar Power Distribution Company Limited (SBPDCL).

and

North Bihar Power Distribution Company Limited ----- Petitioner

South Bihar Power Distribution Company Limited ----- Petitioner

Present:

Arun Kumar Sinha – Member (Technical)

Parshuram Singh Yadav – Member (Legal)

ORDER

(Passed on 1st March 2024)

In accordance with the BERC (Multi Year Distribution Tariff) Regulations 2021, the North Bihar Power Distribution Company Limited (NBPDCL) and South Bihar Power Distribution Company Limited (SBPDCL) have filed petitions on 14th November, 2023 for Truing-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24 and for determination of Aggregate Revenue Requirement (ARR) and Retail Tariff for sale of electricity to the consumers for the FY 2024-25.

The Commission, in exercise of the powers vested in it under Sections 61, 62 and 86 of the Electricity Act, 2003 and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by petitioners and stakeholders and material on record has approved the Truing-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24 and determined the ARR and Retail Tariff for sale of electricity to the consumers for the Financial Year 2024-25.

1. Background

The two Discoms in the State of Bihar namely North Bihar Power Distribution Company Limited (NBPDC) & South Bihar Power Distribution Company Limited (SBPDCL) came into existence on 01.11.2012 after restructuring of erstwhile Bihar State Electricity Board vide Notification No. 17 dated 30.10.2012 issued by Energy Department, Government of Bihar.

2. Common order for SBPDCL & NBPDC

The Commission, considering the common issues, common Tariff structure for both the Discoms, similarities in Tariff format and nature of major comments & suggestions received from consumers and stakeholders, is issuing common Tariff Order for both the Discoms (NBPDC and SBPDCL) for FY 2024-25 in order to obviate duplication of work and to present a holistic power scenario of the entire state at one place.

3. Regulatory Provision

The tariff orders are being passed in exercise of the powers vested in Bihar Electricity Regulatory Commission (hereinafter referred as the 'Commission') under section 62 (1) (d) read with Section 62 (3) and Section 64 (3) (a) of the Electricity Act, 2003 and BERC (Multi Year Distribution Tariff) Regulations, 2021.

4. Filing of Tariff Petitions

The NBPDC & SBPDCL had filed petitions on 14.11.2023 for True up of ARR for FY 2022-23, APR for FY 2023-24, ARR and determination of Retail Tariff for FY 2024-25. The Commission admitted the respective tariff petitions on 19.12.2023 as Case No.22 of 2023 and Case No.23 of 2023 for NBPDC and SBPDCL respectively.

5. Public Notice and Consultation Process

The Section 64(3) of the Electricity Act, 2003, read with Regulation 12.9 and 12.10 of the BERC (Multi Year Distribution Tariff) Regulations 2021, provides for giving adequate

opportunities to all stakeholders and general public for making comments, suggestions and objections on the Tariff Petitions. Accordingly, the Commission directed both the Petitioner Discoms (NBPDCCL & SBPDCL) to publish public notices showing the contents of the ARR and Tariff Petitions in an abridged form in the leading newspapers having wide circulations in the State of Bihar to invite comments, suggestions and objections thereon. Accordingly, the Discoms (NBPDCCL and SBPDCL) issued their respective public notices of their Tariff Petitions in abridged versions in various newspapers and the same were also uploaded on the websites of the Commission as well as respective Discoms. The last date of submission of comments, suggestions and objections was fixed as 15th January 2024.

The Commission, in order to ensure transparency in the tariff determination process and for affording convenient opportunity to wide section of stakeholders and general public for offering their comments, suggestions and objections on the tariff petitions held public hearings at Motihari on 19.01.2024, Sasaram on 23.01.2024, Bihar sharif on 24.01.2024, Purnea on 29.01.2024 and in Commission's Court Room at Patna on 02.02.2024.

In the mean while some additional information appearing necessary to the Commission for evaluating the tariff petitions were also sought from the petitioners and the reply submitted by them in response thereof has also been taken in to consideration while evaluating both the tariff petitions.

The Commission, after taking into consideration the facts presented by the Discoms in their petitions and various subsequent filings, the comments, suggestions and objections received from across all section of stakeholders, consumer organizations, general public and response of the Discoms to those comments, suggestions and objections, has true up the ARRs for FY 2022-23, reviewed the APRs for FY 2023-24, approved ARRs and determined the common tariff for retail sale of electricity for FY 2024-25 for the Discoms within their respective jurisdictions.

6. True up for FY 2022-23

The ARRs for FY 2022-23 as claimed by both the Discoms on the basis of the audited annual accounts vide their tariff petitions and approved by the Commission in true up after careful examination of the claims in the light of laid down norms and exercising prudence check are as under:

True up of FY 2022-23 for NBPDCCL & SBPDCL**(Rs. Crore)**

Name of the Discom	Claimed by the Discoms in true up for FY 2022-23				Approved by the Commission in true up for FY 2022-23			
	ARR	Past period trued up Gap/(surplus) with carrying cost	Revenue from sale of power	Net Gap/(surplus) claimed	ARR approved	Past period trued up Gap/(surplus) with carrying cost	Revenue from sale of power	Net Gap/(Surplus) approved
1	2	3	4	5=(2+3-4)	6	7	8	9=(6+7+8)
NBPDCCL	10529.59	400.63	9810.53	1119.69	10162.20	399.33	9810.53	751.00
SBPDCL	10730.35	(166.15)	11319.12	(754.92)	10439.89	(165.61)	11319.12	(1044.84)
Total	21259.94	234.48	21129.65	364.77	20602.09	233.72	21129.65	(293.84)

The Commission after true up exercise of the ARR of 2022-23 of both Discoms has approved combined ARR of Rs.20602.09 crore (including AT&C loss subsidy) and surplus of Rs.293.84 crore as against the petitioners' claim of combined ARR of Rs.21259.94 crore and combined revenue gap of Rs.364.77 crore. The revenue surplus of FY 2022-23 along with applicable carrying cost is carried forward to the ARR of FY 2024-25 as per the regulatory provisions.

7. Annual Performance Review (APR) for FY 2023-24

The Commission, after examination of projected expenditure for revised ARR by the NBPDCCL and SBPDCL in their Annual Performance Review petitions for FY 2023-24 has approved the combined revised ARR and surplus as under:

APR for FY 2023-24 for NBPDCCL & SBPDCL**(Rs. Crore)**

Name of the Discom	Projected by the Discoms in review For FY 2023-24				Approved by the Commission in review for FY 2023-24			
	ARR	Past period trued up Gap/(surplus) with carrying cost	Revenue from sale of power	Net Gap/(surplus) projected	ARR Approved	Past period trued up Gap/(surplus) with carrying cost	Revenue from sale of power	Net Gap/(surplus) approved
1	2	3	4	5=(2+3-4)	6	7	8	9=(6+7+8)
NBPDCCL	13134.08	(195.02)	14226.90	(1287.84)	11848.94	379.14	14299.28	(2071.20)
SBPDCL	16042.12	3515.37	17244.44	2313.05	14391.06	4548.14	17261.91	1677.29
Total	29176.20	3320.35	31471.34	1025.21	26240.00	4927.28	31561.19	(393.91)

However, the Commission in accordance with the Regulation 14.1 (f) of BERC (Multi Year Distribution Tariff) Regulations 2021, has considered it appropriate not to carry forward this revenue surplus of Rs.393.91 Crore of FY 2023-24 in the proposed ARR of

FY 2024-25 as the surplus arrived in review for FY 2023-24 is based on estimates submitted by the Petitioners and may vary with reference to audited accounts for FY 2023-24.

8. ARR for FY 2024-25

The Commission, taking into consideration the comments, objections and suggestions of the stakeholders, general public vis-a vis the reply of petitioners there upon and after strict scrutiny and prudence check of the proposed revenue & expenses and other submissions of the Petitioners (NBPDCCL & SBPDCL), determined the net revenue requirement as under:

ARR for 2024-25 for NBPDCCL & SBPDCL

(Rs. Crore)

Name of the Discom	Claimed by the Discoms in ARR for FY 2024-25				Approved by the Commission in ARR for FY 2024-25			
	ARR	Past period trued up Gap/(surplus) with carrying cost	Revenue from sale of power	Net Gap /(surplus) claimed	ARR approved by the Commission	Past period trued up Gap/(surplus)with carrying cost	Revenue from sale of power	Net Gap/(Surplus) approved
1	2	3	4	5=(2+3-4)	6	7	8	9=(6+7+8)
NBPDCCL	16060.11	1345.00	15743.65	1661.46	15180.16	899.14	15832.48	246.82
SBPDCL	18802.38	(903.82)	18523.05	(624.49)	17912.78	(1250.94)	18522.78	(1860.94)
Total	34862.49	441.18	34266.70	1036.97	33092.94	(351.80)	34355.26	(1614.12)

The Discoms have projected combined revenue gap of Rs.1036.97 crore (revenue gap of Rs.1661.46 Crore for NBPDCCL and revenue surplus of Rs.624.49 Crore for SBPDCL). It has been proposed to recover this gap through Tariff hike

However, after detailed scrutiny and prudence check of the Annual Revenue Requirement filed by the Discoms, the Commission has arrived at a combined revenue surplus of Rs.1614.12 Crore (revenue gap of Rs.246.82 Crore for NBPDCCL and revenue surplus of Rs.1860.94 Crore for SBPDCL) for FY 2024-25.

9. Approved Retail Tariff for 2024-25

The Discoms, on the basis of their projected combined revenue gap, have proposed increase of 3.03% in the energy charges for all categories of consumers for FY 2024-25

The Commission, based on the approved revenue surplus of Discoms and after taking all facts, views and circumstances into account, has decided to reduce the energy

charge rate by 15 (fifteen) paise/unit for all the consumer categories for FY 2024-25. The Commission has also agreed to reduce the fixed charges for Street Lights Un-metered category to Rs.4250/kW/per month from existing Rs. 7500/kW/per month.

The fixed charge in respect of other category of consumers is retained unchanged for FY 2024-25.

The Commission has also taken the following decisions after due deliberations and consultations;

- i. The Commission has created new consumer categories under HTIS-400kV, HTS-400kV and HTSS-132kV/220kV.
- ii. In view of the importance of Oxygen for human life in general, the Commission has reduced the limit of load factor incentive to 70% from existing 75% for Oxygen Gas Manufacturers.
- iii. The Commission has modified the ToD structure duly aligning the peak and off-peak period as per the Electricity (Rights of Consumers) Amendment Rules 2023.
- iv. Discoms proposal for implementation of kVAh tariff for NDS and IAS-I category of consumers is not accepted.
- v. The proposal for increase in contract demand for billing from existing 75% to 85% is not accepted.
- vi. Withdrawal of load factor incentive for HTSS consumers is not accepted.
- vii. The proposal to fix a ceiling of Rs.20,000/- towards online payment incentive is not accepted.
- viii. Proposal for change in due date for payment of bills for Government departments/establishment/local bodies is not accepted.
- ix. The proposal for including Homestay Establishments under Domestic Category is accepted.
- x. The proposal for rationalizing the Billing structure for Agriculture consumers as per their harvesting season is accepted.

10. Open access charges

The Commission has determined the wheeling charges for FY 2024-25 as given below:

- i. Wheeling charges at 33 kV voltage level 51 (fifty-one) paisa/kWh

- ii. Wheeling charges at 11 kV voltage level 56 (fifty-six) paisa/kWh

The Commission in terms of Rule 13 of the Electricity (Amendment) Rules, 2022 dated 06.06.2023, has determined the Cross-subsidy surcharge at 20% of the Average Cost of Supply/ Average Billing Rate for FY 2024-25 as given below:

1. For 132 kV consumers..... Rs.1.81/kWh
2. For 33 kV consumers (other than HTSS)..... Rs.1.81/kWh
3. For 11 kV consumers (other than HTSS)..... Rs.1.81/kWh
4. For HTSS consumers (33 kV & 11 kV) Rs.1.44/kWh

11. Power Purchase Cost and Average Cost of Supply

The Average Power Purchase cost for both Discoms at ex-bus of Generators for FY 2024-25 is Rs.5.03/kWh and that at the state periphery (including PGCIL and Grid-India (POSOCO) charges and CTU Losses) comes to Rs.5.63/kWh for FY 2024-25.

The Average Cost of Supply (ACoS) for both Discoms for FY 2024-25 comes to Rs.9.04/kWh on the gross ARR of FY 2024-25.

The Average Revenue Realisation with approved tariff for both Discoms in FY 2024-25 is Rs.9.18/kWh.

12. Compliance of Directives

The Commission has reviewed the directives issued in its earlier Tariff Orders and noted that some of these directives have been complied and some are partially attended to. Accordingly, the Commission has decided to drop directives that are fully or substantially complied with and has further directed the Discoms to comply the remaining directions along with fresh ones added in the instant order. The Commission will monitor the compliance of the directives quarterly.

13. General

The Commission has been determining the Retail Tariff without considering the Government subsidy and accordingly approved the retail tariff for FY 2024-25 also without considering Government subsidy.

The Government of Bihar has been announcing direct subsidy to consumers. The State Government announces tariff subsidy, if any to any category of consumers after the pronouncement of retail tariff for FY 2024-25 by the Commission, the DISCOMs shall immediately bring the same to the notice of the Commission intimating the tariff rates

at which the DISCOMs proposes to bill the energy charges for such category of consumers and also ensure adequate publicity of the same. Further, the details such as the energy charges as per the tariff rates, reduction of energy charges due to government subsidy and net energy charges to be paid by the consumers shall be clearly exhibited in the electricity bill to be served to the consumers.

The Discoms shall ensure implementation of the order from the effective date after issuance of a Public Notice, within a week in at least two daily newspapers having wide circulation in the State of Bihar in such a font which is clearly visible and compliance of the same shall be submitted to the Commission by the Discoms.

This Order shall be effective from 1st April 2024 and shall remain in force till 31st March 2025 or till the next Tariff Order of the Commission.

This order will be placed on the website of the Commission and copies will be sent to BGCL, BSPHCL, BSPTCL, NBPDCL, SBPDCL, Department of Energy of Government of Bihar, Central Electricity Regulatory Commission and Central Electricity Authority.

Pronounced in the open Court on the day of 1st March 2024.

Sd/-
(Parshuram Singh Yadav)
Member (Legal)

Sd/-
(Arun Kumar Sinha)
Member (Technical)

1. Introduction

1.1. Bihar Electricity Regulatory Commission (BERC)

The Bihar Electricity Regulatory Commission (herein after referred to as “Commission “or “BERC”) was constituted by the Government of Bihar under Section 17 of the Electricity Regulatory Commission Act, 1998 vide Government of Bihar notification No.1284 dated 15th April 2002.

Section 82(1) of the Electricity Act 2003 specifies that the State Electricity Regulatory Commission established by the State Government under Section 17 of the Electricity Regulatory Commission Act, 1998 and functioning as such, immediately before the appointed date, shall be the State Electricity Regulatory Commission for the purpose of the Act.

1.2. Functions of BERC:

As per Section 86(1) of the Electricity Act 2003, the State Commission shall discharge the following functions, namely:

- a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail within the State. Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- b) Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- c) Facilitate intra-state transmission and wheeling of electricity;
- d) Issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- e) Promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

- f) Adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration
- g) Levy fee for the purposes of this Act;
- h) Specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards;
- i) Specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- j) Fix the trading margin in the intra-state trading of electricity, if considered, necessary; and
- k) Discharge such other functions as may be assigned to it under this Act.

1.3. Brief history and Profile of DISCOMs

Discoms (North Bihar Power Distribution Company Limited (NBPDC) and South Bihar Power Distribution Company Limited (SBPDCL) have been formed under the 'Bihar State Electricity Reforms Transfer Scheme 2012' duly segregating the Distribution business of the then Bihar State Electricity Board.

The Discoms/South Bihar Power Distribution Company Limited and North Bihar Power Distribution Company Limited (SBPDCL and NBPDC) are companies registered under the Companies Act 1956 and are subsidiary companies of Bihar State Power (Holding) Company Limited (BSPHCL). Both the above named companies are licensee as per section 14 of the Electricity Act, 2003.

Discoms have the universal obligation to supply electricity to all the consumers of the State. The table below presents status of key data relating to power supply by the Discoms in Bihar as on 31st March, 2022.

Table 1.1: Existing Distribution infrastructure as on 31st March, 2023

Sl. No	Particulars	Unit	SBPDCL	NBPDC
1	Number of electrified villages	Nos.	18521	20552
2	Number. of Consumers	Nos.	70.05 Lakhs	119.49 Lakhs
3	Number & Capacity of 33/11kV Substations	Nos./MVA	608/(_____)	625/9742.40
4	Number & Capacity of 11/0.4 kV 3 phase Transformers	Nos. /MVA	141233/(_____)	192712/11477
5	Length of 33kV Line	CKM	8878	9631

Sl. No	Particulars	Unit	SBPDCL	NBPDC
6	Length of 11kV Line	CKM	60991.50	77365
7	Length of LT Line	CKM	147179	195031

1.4. Admission of Current Petition and Public Hearing Process

Discoms have filed the current petitions dated 14.11.2023 for Truing-up of FY 2022-23, Annual Performance Review for FY 2023-24 and Annual Revenue Requirement (ARR) and determination of Tariff for Retail sale of Electricity for FY 2024-25 Under Section 62 of the Electricity Act 2003 read with Bihar Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2021. These petitions were admitted as Case No-22/2023 and Case No-23/2023 respectively. The Commission is issuing the combined order for ARR and Tariff (Case No.22 of 2023 (NBPDC) and 23 of 2023 (SBPDCL) for FY 2024-25.

The Commission after admitting the aforesaid Petitions directed the Petitioner Discoms under Section-64 of the Act and Regulation 11(10) of BERC Multi Year Distribution Tariff Regulations-2021.to publish the Tariff Petition in an abridged form in at least two daily newspapers, one in English and the other in Hindi, having wide circulation in the State of Bihar inviting objections and suggestions from the stakeholders on Tariff Petition. Discoms were also directed to publish the schedule for Public Hearing along with the public notice inviting comments / suggestions / objections. The Public notice was issued in the following newspapers as given below.

Table 1.2: Details of Publication of Public Notice

Sl. No	Name of utility	Name of News Paper	Language	Date of Publication
1	NBPDC	Dainik Bhaskar, Bhagalpur	Hindi	25.12.2023
2		Hindustan, Patna	Hindi	25.12.2023
3		Hindustan, Muzaffarpur	Hindi	25.12.2023
4		Hindustan, Gaya	Hindi	25.12.2023
5		Indian Express, Patna	English	25.12.2023
9		Prabhat Khabar, Muzaffarpur	Hindi	29.12.2023
10		Prabhat Khabar, Patna	Hindi	29.12.2023
11		Prabhat Khabar, Bhagalpur	Hindi	29.12.2023
1	SBPDCL	Hindustan	Hindi	23.12.2023
2		Prabhat Khabar	Hindi	23.12.2023
3		Dainik Bhasker, Patna	Hindi	24.12.2023
4		Hindustan, Patna	Hindi	29.12.2023
5		Dainik Jagran	Hindi	29.12.2023
6		Indian Express	English	29.12.2023

The Tariff Petitions were also placed on the website of the Discoms (NBPDCCL and SBPDCL) for inviting objections and suggestions on the petitions and copies of the Petitions along with annexures were also made available for sale in the Office of the Chief Engineer (Commercial), NBPDCCL, 3rd Floor, Vidyut Bhawan-I, Bailey Road, Patna and Chief Engineer (Commercial), SBPDCL, 2nd Floor, Vidyut Bhawan-I, Bailey Road, Patna. The interested stakeholders were requested to file their objections/suggestions on the Petition on or before 15th January 2024.

On preliminary verification of the Petition, the Commission vide Letter No. BERC-Case No.22/2022/1001 dated 30.11.2023 (NBPDCCL) and Letter No BERC-Case No.23/2023/1011 dated 30.11.2023 (SBPDCL) directed the Petitioner to submit some additional information/clarification data on the Tariff Petition filed by them. NBPDCCL and SBPDCL submitted the replies vide Letter No. NB/COM/BERC/TP-40/2023-987 dated 13.12.2023 and Letter No.SBC-168/2023 (Tariff) (Part-I)-1565 dated 12.12.2023 respectively.

On further careful examination of this tariff petitions, the petitioners (NBPDCCL and SBPDCL) were directed to submit some more data/ clarification:

1. Letter No.40 dated 08.01.2024 (NBPDCCL)
2. Letter no.41 dated 08.01.2024 (SBPDCL)
3. Letter No.48 dated 11.01.2024 (NBPDCCL)
4. Letter no.49 dated 11.01.2024 (SBPDCL)

Discoms have replied vide the following letters

1. NBPDCCL –Letter No-20 dated 16.01.2024
2. SBPDCL-Letter No-101 dated 19.01.2024

The Commission, informed the Discoms vide Letter No- BERC-Tariff (Corr)-45 dated 09.01.2024 read with letter no.46 dated 10.01.2024 the dates of Technical Validation session with the representative of Discoms. Accordingly , Technical Validation session was conducted on 31.01.2024 with the officers of the DISCOMs and officers of the Commission and carried out the necessary corrections wherever necessary.

All the additional information/ clarifications were taken on record for consideration and determination of ARR and the retail tariff.

The Commission has received all together several written objections/ suggestions from consumers and other stakeholders The Commission directed the Discoms to

submit the replies/ responses to these suggestions/ objections of the stakeholders with a copy to the Commission. The Discoms have submitted the replies/ responses to the Commission as per the details mentioned below:

Table 1.3: Reply to Stakeholder's Comments/ Suggestions/ Objections

Sl. No	Name of Persons/ Stake Holders/ Organization which raised objection	Name of Organization	Letter No and date through which Objections sent to DISCOMs	Letter No and date of Reply received from DISCOMs
1	Shri. Anagha Pujari	Individual	Lr-No-61 dated 16.01.2024	Lr. No 108 dated 31.01.2024
2	Shri. Nand Sharma	Consumer, Patna		
3	Prof. Pramod Kumar Sharma	Social Worker, Vidyuth Upabokta Sangh, Dilwarpur, (West), Pro- Vidupur, Vaishali	Lr- No 71 dated 22.01.2024	Lr-No 190 dated 07.02.2024
4	Shri. O.P. Singh	Bihar Gas Manufacturer Association	Lr. No 81 dated 30.01.2024	
5	Representative Bharti Airtel	Bharati Airtel Ltd		
6	Representative BIA	Bihar Industries Association (BIA)		
7	Joint Secretary	Bihar Chamber of Commerce & Industries (BCCI)	BERC Lr-No -105 dated 05.02.2024	Lr. No-108 dated 31.01.2024 Lr. No-160 dated 13.02.2024 Lr. No 161 dated 13.02.2024
8	President	Bihar Steel Manufacturer Association (BSMA)		
9	Er. Nand Sharma	Purandarpur, Patna		
10	Director	Dept. of Agriculture, Govt. of Bihar		
11	Shri. Santosh Kumar	Gram Swaraj Sanagh, Khagaria		
12	Shri Sarwan Kumar Bajoriya	Eastern Bihar Chamber of Commerce & Industries		
13	Shri. Keshav Pathak	Vidyuth Upboktha Sangarsh Samiti, Gaya		
14	Dr. Sanjay Kumar	Individual		
15	Shri. Gaurav Maheshwari	Indian Energy Exchange	Lr. No 78 Dated 25.01.2024	SBPDCL Lr. No 190 dated 07.02.2024 Lr.No 230 dated 13.02.2024
16	Shri. Chanderdhan Prasad Pandey	Consumer, Patna		
17	Shri. Sunil Kumar Srivastav	Secretary, Motihari Chamber of Commerce		
18	Shri. Anil Kumar Akela	Nalanda Chamber of Commerce & Industries		
19	Shri. Anil Kumar Sinha	Bihar Industries Association		
20	Shri. Manoj Patel			
21	Director	Patwari steels Pvt Ltd		Letter no.230 dt.15.02.2024
22	Shree Cement		Lr. 89 dated 31.01.2024	Lr. No 206 dated 09.02.2024
23	Director General	COAI	Lr. No-118 dated 07.02.2024	

As per information given in the public notice, the Commission has conducted the public hearings at Motihari on 19.01.2024, Sasaram on 23.01.2024, Biharsharif on 24.01.2024, Purnea on 29.01.2024 and Patna for both Discoms on 02.02.2024.

1.5. Approach of this Order

The Commission examined the petitions and additional information submitted by the petitioners and observed that further additional data/ information and clarifications are required for conducting detailed analysis of the petitions. The Commission directed the Discoms to submit the additional data/information and clarifications vide following letters.

NBPDCCL:

Letter No BERC-Case No.22/2023/1010 dated 30.11.2023

Letter No BERC-Case No.22/2023/40 dated 08.01.2024

Letter No BERC-Case No.22/2023/48 dated 11.01.2024

SBPDCL:

Letter No BERC-Case No.23/2023/1011 dated 30.11.2023

Letter No BERC-Case No.23/2023/41 dated 08.01.2024

Letter No BERC-Case No.23/2023/49 dated 11.01.2024

The Discoms submitted additional information/data/clarifications vide following letters:

NBPDCCL:

Lr. No 987 dated 13.12.2023

Lr. No 20 dated 16.01.2024

SBPDCL :-

Lr. No 1565 dated 13.12.2023

Lr. No 101 dated 19.01.2024

The Commission has undertaken Truing-up for FY 2022-23, Annual performance Review (APR) for FY 2023-24 and determination of ARR and Retail Sale of Electricity for FY 2024-25 in accordance to the BERC (Multi Year Distribution Tariff) Regulations, 2021 based on the Tariff petitions and additional information submitted by the Discoms.

1.6. Organisation of Order

This order is divided into Ten (10) chapters as detailed below:

- i). **First Chapter** provides introduction to Discoms
- ii). **Second Chapter** contains a summary of Tariff petitions
- iii). **Third Chapter** provides a brief account of the Public Hearing process objections raised by stakeholders, Petitioner's response and Commission's views on the same.
- iv). **Fourth Chapter** deals with the Truing up for FY 2022-23
- v). **Fifth Chapter** deals with the Annual Performance Review for FY 2023-24
- vi). **Sixth Chapter** deals with Annual Revenue Requirement for FY 2024-25
- vii). **Seventh Chapter** deals with the Voltage wise cost of supply
- viii). **Eighth Chapter** deals with the Transmission and Wheeling charges for Open Access customers
- ix). **Ninth Chapter** deals with Tariff Principles, Design and Tariff Schedule for FY 2024-25
- x). **Tenth Chapter** deals with the Directives

2. Summary of Petition filed for Truing up for FY 2022-23, APR for FY2023-24 and ARR for FY 2024-25

2.1. Petitions filed by DISCOMs

The summary of Petitions filed by DISCOMs for truing up for FY 2022-23, Annual Performance Review for FY 2023-24 and Aggregate Revenue Requirement (ARR) and Revenue Gap projected for FY 2024-25 are as given in Tables below:

Table 2.1: Summary of the Tariff Petition filed by NBPDC

(Rs. Crore)

Sl. No	Particulars	FY 2022-23 (Actuals)		FY 2023-24 (Estimated)		FY 2024-25 (Projected)	
		Approved in Tariff Order Dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 23.03.2023	Revised estimates for FY 2023-24 for APR	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
1	No. of consumers	11,576,807	11,949,924	12,041,203	12,587,610	12,098,293	13,220,456
2	Connected Load (KW)	12,220,540	12,152,255	13,109,925	13,240,538	13,718,652	14,265,716
3	Sales (MU)	13,779	13361	14,752	14919	16,459	16621
4	Intra-state Transmission Loss (%)	3%	3.32%	3%	3%	3%	3%
5	Distribution loss (%)	15.00%	15.18%	15.00%	16.60%	15.00%	14.55%
6	Energy required at state Trans. Periphery (MU)	16,588	16,909	17,809	18,765	19,827	20,376
7	Capital Expenditure	1021	456	2094	1555		3716
8	Capitalization	1021	1063	913	1584	-	3992
9	Power purchase cost	7,249	10,059	8,981	11,110	8,537	12,920
10	Less: Revenue from Power traded at exchange	-	1,810	-	1,950.88	-	1,688
11	Net power purchase cost	7249	8249	8981	9168	8537	11232
12	Transmission charges	1,408	1,641	1,538	1,869	1,910	2,056
A	O & M Expenses (A+B+C+D)	899	1,112	990	1,215	987	1,495
B	Employee expenses	437	452	481	490	504	527
C	R&M expenses	260	253	265	267	272	286
D	A&G expenses	185	383	219	433	194	654
13	Holding company expenses	17	24	25	26	18	28
14	Depreciation	369	447	362	484	369	566
15	Interest on loan	606	572	604	603	540	710
16	Other finance charges						
17	Return on equity	412	391	413	444	412	551

Sl. No	Particulars	FY 2022-23 (Actuals)		FY 2023-24 (Estimated)		FY 2024-25 (Projected)	
		Approved in Tariff Order Dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 23.03.2023	Revised estimates for FY 2023-24 for APR	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
18	Interest on SD	19	5	23	31	21	32
19	Interest on working capital	34	-	-	-	39	66
20	Bad and Doubtful debts	-	-	-	-	-	-
21	Energy Savings Certificate (ESCerts)	-	-	-	10	-	12
22	Demand Side Management	-	-	-	-	-	30
23	Aggregate Revenue Requirement (ARR) (sum 11 to 22)	10,997	12,416	12,912	13,823	12,816	16,750
24	Less: Non-tariff income	796	750	1170	690	1167	690
25	Net ARR (23-24)	10,202	11,666	11,742	13,134	11,649	16,060
26	Revenue from Sale of Energy	9,940	9,811	13,996	14,227	9,940	*15,744
27	Gap / (Surplus) (25-26)	262	1,855	(2254)	(1,093)	1,710	316
28	Less: (Gains)/ Loss on account of controllable factors absorbed by the Licensee	-	123	-	-	-	-
29	Less: Treatment of AT&C loss subsidy	-	1010	-	-	-	-
30	Add: Revenue Gap/ (Surplus) of earlier FY	399	401	379	(195)	-	1,345
31	Net Gap/ (Surplus) (27-28-29)+30	661	1,123	(1875)	(1,288)	-	1,661

Table 2.2: Summary of the Tariff Petition filed by SBPDCL

S. No	Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
		Approved in Tariff Order Dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 23.03.2023	Revised estimates for FY 2023-24 for APR	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
1	No. of consumers	6,603,641	7,005,640	7,042,850	7,340,310	6,869,741	7,617,547
2	Connected Load (KW)	12,718,801	11,833,827	13,499,408	12,701,745	14,961,351	13,295,499
3	Energy Sales to consumers (MU)	16,055	15,719	16,654	18,204	19,167	19,679
4	Intra-state Transmission Loss (%)	3%	3.32%	3%	3%	3%	3%
5	Distribution loss (%)	15.00%	22.02%	15.00%	19.91%	15.00%	17.49%
6	Energy required	19,473	21,142	20,199	23,432	23,247	24,588

S. No	Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
		Approved in Tariff Order Dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 23.03.2023	Revised estimates for FY 2023-24 for APR	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
	at state Trans. Periphery (MU)						
7	Capital expenditure	1021	575	1915	787		2890.39
8	Capitalization	541	1259	760	1886	-	2,623
9	Power purchase Cost	8,510	12,580	10,419	13,043	10,015	15,167
10	Less: Revenue from Power traded at exchange	-	2263	-	1566	-	1636
11	Net power purchase cost	8,510	10,317	10,419	11,487	10,015	13,531
12	Transmission charges	1653	2053	1806	2194	2244	2413
A	O & M Expenses (A+B+C+D)	1031	1228	1166	1273	1145	1474
B	Employee expenses	624	656	710	711	722	764
C	R&M expenses	250	252	274	274	258	303
D	A&G expenses	140	296	155	262	145	379
13	Holding company expenses	18	24	27	27	19	29
14	Depreciation	331	335	365	376	331	411
15	Interest on loan						
16	Other finance charges	492	476	515	551	440	638
17	Return on equity	338	308	379	373	338	446
18	Interest on SD	32	11	41	55	36	58
19	Interest on working capital	14	0	0	0	14	63
20	Bad and Doubtful debts	-	2	-	-	-	-
21	Energy Savings Certificate (ESCerts)	-	-	-	26	-	32
22	Demand Side Management	-	-	-	-	-	30
23	Aggregate Revenue Requirement (ARR) (sum 11 to 22)	12,402	14,731	14,690	16,335	14,563	19,096
24	Less: Non-tariff income	1057	668	758	293	1589	293
25	Net ARR (23-24)	11,344	14,063	13,932	16,042	12,974	18,802
26	Revenue from Sale of Energy	11,833	11,319	16,610	17,244	-	18,523*
27	Gap / (Surplus) (25-26)	(489)	2744	(2678)	(1203)	-	279
28	Less: (Gains)/ Loss on account of controllable factors absorbed by the petitioner	-	690	-	-	-	-
29	Less: Treatment of AT&C loss subsidy	-	2,643	-	-	-	-
30	Add: Revenue Gap/ (Surplus) of	(166)	(166)	4548	3515	-	(904)

S. No	Particulars	FY 2022-23		FY 2023-24		FY 2024-25	
		Approved in Tariff Order Dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 23.03.2023	Revised estimates for FY 2023-24 for APR	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
	earlier FY						
31	Net Gap/ (Surplus) (27-28-29)+30	(655)	(755)	1870	2312	-	(624)

2.2. Tariff Proposals

The Discoms have proposed the tariffs for FY 2024-25 as shown in the table below:

Table 2.3: Tariff Rates Existing (FY 2023-24) and Proposed for FY 2024-25 by Discoms for Retail Sale of Electricity

Category/Sub category of Consumers	BERC approved Tariff for FY 2023-24 (Existing tariff)			Proposed Tariff for FY 2024-25		
	Fixed charge	Energy Charge	Unit slabs	Fixed charge	Energy Charge	Unit slabs
LOW TENSION SUPPLY						
Domestic						
Kutir Jyoti	Rs.20/Month/Connection	Rs.7.57/unit	0-50 units	Rs.20/ Month/ Connection	Rs.7.90/unit	0-50 units
		As per DS-I or DS-II	Above 50 units		As per DS-I or DS- II	Above 50 units
DS-I (Demand based)	Rs. 40/kW or part/month	Rs.7.57/Unit	0-50	Rs. 40/kW or part/month	Rs.7.90/Unit	0-50
		Rs.8.11/Unit	Above 50 units		Rs.8.47/Unit	Above 50 units
DS-II (Demand based)	Rs.80/kW or part/month	Rs.7.57/Unit	1-100	Rs.80/kW or part/month	Rs.7.90/Unit	1-100
		Rs.9.10/Unit	Above 100		Rs.9.50/Unit	Above 100 units
DS-III (Demand based) (Optional)	Rs.80/kW or part/month	Rs.9.18/Unit	All Units	Rs.80/kW or part/month	Rs.9.58/Unit	All Units
Non-Domestic						
NDS-I Rural (Demand based)	Rs. 60/kW or part/month	Rs.7.94/Unit	1-100	Rs. 60/KVA or part/month	Rs.8.29/kVAh	1-100
		Rs.8.36/Unit	Above 100 units		Rs.8.73/kVAh	Above 100 units
NDS-II Contract Load upto 0.5 kW	Rs. 200/month/ connection	Rs.7.88/Unit	All Units	Rs. 200 / month / connection	Rs.8.23/kVAh	All Units
NDS-II Contract demand above 0.5 kW upto 70kW (Demand based)	Rs. 300/kW or part/month	Rs.7.88/Unit	1-100	Rs. 300/kVA or part/month	Rs.8.23/kVAh	1-100
		Rs.9.08/Unit	Above 100 units		Rs.9.48/kVAh	Above 100 units
Irrigation and Agriculture Services						
IAS-I (Unmetered)	Rs.1350/HP or part/month	-		Rs.1350/HP or part/month	-	

Category/Sub category of Consumers	BERC approved Tariff for FY 2023-24 (Existing tariff)			Proposed Tariff for FY 2024-25		
	Fixed charge	Energy Charge	Unit slabs	Fixed charge	Energy Charge	Unit slabs
IAS-I(Metered)	Rs. 100/HP or part/month	Rs.6.89/Unit	All Units	Rs. 100/HP or part/month	Rs.7.19/Unit	All Units
IAS-II(Metered) (Demand based)	Rs. 500/kVA or part/month	Rs.7.32/kVAh	All Units	Rs. 500/kVA or part/month	Rs.7.64/kVAh	All Units
Low Tension Industrial (Demand Based, kVAh)						
LTIS-I (0 - 19 kW)	Rs.288/kVA or part/month	Rs.7.94/kVAh	All Units	Rs.288/kVA or part/month	Rs.8.29/kVAh	All Units
LTIS-II (>19 kW - 74 kW)	Rs 360/kVA or part/month	Rs.7.94/kVAh	All Units	Rs 360/kVA or part/month	Rs.8.29/kVAh	All Units
Public Water Works						
PWW (Demand based)	Rs 630/kVA or part/month	Rs.9.87/kVAh	All Units	Rs 630/kVA or part/month	Rs.10.30/kVAh	All Units
Har Gar Nal	Rs 100/HP or part/month	Rs.8.31/kWh	All Units	Rs 100/HP or part/month	Rs.8.67/kWh	All Units
Street Light Services						
SS-Metered	Rs 100/kW or part/month	Rs.9.18/Unit	All Units	Rs 100/kW or part/month	Rs.9.58/Unit	All Units
SS- Unmetered	Rs 750/100W or part/month			Rs 4250/kW or part/month		
LT Electrical Vehicle Charging Stations		Rs.8.87/Unit	All Units		Rs.9.26/KVAh	All Units
HIGH TENSION – General						
HTS-I (11 KV)	Rs.550/kVA/M onth	Rs.8.13/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.49/kVAh	All Units
HTS-II (33 KV)	Rs.550/kVA/M onth	Rs.8.07/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.42/kVAh	All Units
HTS-III (132 KV)	Rs.550/kVA/M onth	Rs.8.00/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.35/kVAh	All Units
HTS-IV (220 KV)	Rs.550/kVA/M onth	Rs.7.94/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.29/kVAh	All Units
HTS -V (400 KV)	-	-	-	Rs.550/kVA/ Month	Rs.8.20/kVAh	All Units
HIGH TENSION SUPPLY– INDUSTRIAL SERVICE						
HTIS-I (11 KV)	Rs.550/kVA/M onth	Rs.8.13/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.49/kVAh	All Units
HTIS-II (33 KV)	Rs.550/kVA/M onth	Rs.8.07/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.42/kVAh	All Units
HTIS-III (132 KV)	Rs.550/kVA/M onth	Rs.8.00/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.35/kVAh	All Units
HTIS-IV (220 KV)	Rs.550/kVA/M onth	Rs.7.94/kVAh	All Units	Rs.550/kVA/ Month	Rs.8.29/kVAh	All Units

Category/Sub category of Consumers	BERC approved Tariff for FY 2023-24 (Existing tariff)			Proposed Tariff for FY 2024-25		
	Fixed charge	Energy Charge	Unit slabs	Fixed charge	Energy Charge	Unit slabs
HTS -V (400 KV)	-	-	-	Rs.550/kVA/ Month	Rs.8.20/kVAh	All Units
HTSS (33KV & 11 KV)	Rs.1000/kVA/ Month	Rs.5.09/kVAh	All Units	Rs.800/kVA/ Month	Rs.5.38/kVAh	All Units
HTSS (132KV & 220 KV)	-	-	-	Rs.800/kVA/ Month	Rs.5.32/kVAh	All Units
HTS-I (Oxygen manufacturers) - 11KV	Rs.1000/kVA/ Month	Rs.5.58/kVAh	All Units	Rs.1000/kVA/ Month	Rs.5.82/kVAh	All Units
HTS-I (Oxygen manufacturers) - 33 KV	Rs.1000/kVA/ Month	Rs.5.52/kVAh	All Units	Rs.1000/kVA/ Month	Rs.5.82/kVAh	All Units
RTS (132kV)	Rs.540/kVA/M onth	Rs.8.31/kVAh	All Units	Rs.540/kVA/ Month	Rs.8.67/kVAh	All Units
HT Electrical Vehicle Charging Stations		Rs.8.00/ kVAh	All Units		Rs.8.35/ kVAh	All Units

3. Stakeholders' Objections / Suggestion, Petitioners' Response and Commission Observation

3.1. Introduction

Under section 64 (2) and (3) of Electricity Act, 2003 Commission directed the petitioner to publish an abridged form of the petition in the newspapers and upload the tariff petition along with additional information for inviting comments, suggestions, objections from general public and stakeholders. Public hearings on the petitions were conducted on the following dates and places:

Discom	Date	Place
NBPDC	19.01.2024	Motihari
NBPDC	29.01.2024	Purnea
SBPDCL	23.01.2024	Sasaram
SBPDCL	24.01.2024	Biharshariff
NBPDC and SBPDCL combined	02.02.2024	Patna

3.2. List of Names of the Objectors / Stakeholders

The following stakeholders and general public submitted their written comments/suggestions and objections either before the scheduled date of public hearing or during the public hearings on tariff petitions of NBPDC and SBPDCL:

Sl. No.	Name of the Objectors/Stakeholder
1.	Shri. Anil Kumar Sinha, Bihar Industries Association, Patna
2.	Bihar Chamber of Commerce & Industries, Patna
3.	Bihar Gas Manufacturer Association
4.	Bihar Steel Manufacturer Association
5.	Shri. Manoj Patel, Director, Patwari Steels Private Limited
6.	Eastern Bihar Chamber of Commerce and Industries
7.	Shri. Anil Kumar Akela, Member, Nalanda Chamber of Commerce and Industries
8.	Shri. Sunil Srivastav, General Secretary, Motihari Chamber of Commerce
9.	Shri. Abhishek Kumar, I.F.S Director Horticulture
10.	Shri. Keshav Pathak, Member, Vidyuth Upaboktha Sangarshana Samithi
11.	Shri. Dr. Sanjay Kumar, Consumer, Patna
12.	Shri. Er. Nand Sharma, Consumer, Patna
13.	Shri. Chanderdhan Prasad Pandey, Consumer, Patna
14.	Shri. Gaurav Maheshwari, AVP-Regulatory Affairs-IEX
15.	Shri. Santosh Kumar, Chairman, Grama Swaraj Sangh
16.	Shri. Amarjit Singh, Joint Vice President-Power Business
17.	Shri. Anagha Pujari

3.3. Comments/Suggestions of Stakeholders, reply by Petitioner and views of the Commission:

The Commission is issuing common tariff order for NBPDCCL and SBPDCL. The comments/suggestions and objections submitted by stakeholders/general public for NBPDCCL and SBPDCL separately are being classified and grouped issue-wise and are being examined and considered jointly in the light of the responses received from the Discoms as under:

3.3.1 Additional surcharge:**Stakeholders' submission**

Additional surcharge shall be recovered from open access consumer only, in case of the obligation of the licensee in terms of power purchase commitments constitutes to remain stranded due to shift in consumers to open access. However, unrecovered power cost obligation due to lower demand growth of Discoms compared to the projected demand growth, cannot be the ground for levying additional surcharge to open access consumers.

Discoms have to produce satisfactory justification for the stranded cost due to shift in open access consumers. Discoms must indicate the quantum of stranded cost and the period over which it would be stranded for determination of additional surcharge. Further, Discoms must demonstrate the demand charges payable by open access consumers to Discoms does not compensate fully the fixed cost payable by Discoms to Generators.

The Licensees have not conclusively demonstrated that stranded power is attributable to open access.

The Commission while determining Additional Surcharge may consider the fact that there is negligible Open Access in the state of Bihar. Therefore, the question of stranded capacity on account of Open Access may not arise.

Petitioners' response:

Additional surcharge of Rs 0.82/kWh for FY 2024-25 was calculated as per the guidelines issued by the Commission in the Tariff Order dated 23.3.2023. The data and calculations is voluminous and exhaustive and has been provided in soft copy to

the Commission along with the Petition. The Commission is requested to approve the additional surcharge of Rs 0.82/kWh for FY 24-25.

Commission's view:

The Commission has noted the stakeholders' views and the petitioners' response. The Commission observes that the petitioner has not considered all the open access consumers capacities for computing additional surcharge. Further, no details are available for stranded capacity, details of station-wise fixed charges paid, caused due to Open access consumers.

The Commission, in the absence of required data has not considered additional surcharge.

3.3.2 Cross subsidy surcharge:

Discoms should consider transmission, distribution and wheeling charge (D) and transmission, distribution and wheeling losses (L) while computing the cross-subsidy surcharge in accordance with the National Tariff Policy 2016. The Discoms have omitted the inter-state transmission charges & losses and wheeling charges & losses in computations of CSS. The same may be rectified and CSS be approved at reasonable levels to encourage open access in the state.

The Ministry of Power has amended the Electricity Rules, 2005 and notified the Electricity (Amendment) Rules, 2022 on 29th Dec 2022, which specify the surcharge on open access shall be capped at 20% of the Average Cost of Supply (ACoS). The Commission is requested to cap the cross-subsidy surcharge on open access with reference to the ACoS, in line with the Electricity (Amendment) Rules, 2022.

Petitioners' response:

The Petitioners have submitted that cross subsidy surcharge for the open access consumers is calculated as per the recommended formula in the BERC MYT Distribution Tariff Regulations, 2021 which is in accordance with CSS calculation formula as specified in the National Tariff Policy 2016. The petitioners have aligned the cap on CSS to 20% of ACoS as specified in the instant tariff Petition. Detailed calculations are provided in Format-36 of the tariff Petition.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The Cross-subsidy surcharge is calculated in accordance with the BERC (Multi Year Distribution Tariff) Regulations 2021 as well as the applicable Rules of the Government and has been aptly deliberated in the relevant paragraph of this order.

3.3.3 Renewable Purchase Obligation (RPO)

The Commission vide Suo-Moto Order dated 27.06.2023 issued Renewable Purchase Obligation, its compliance and REC Framework Implementation, 4th Amendment, Regulation 2022, wherein format (Annexure-I) is provided for submission of compliance of RPO. It is requested to evaluate and issue RPO compliance details in line with the Regulations

Petitioner's response:

RPO has been computed considering the percentage of energy sale excluding inter-state sale in accordance with Suo-moto order dated 27.06.2023.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The RPO compliance is considered in accordance with the applicable regulations and aptly deliberated in the relevant paragraph of this order.

3.3.4 Wheeling charges

Discoms have computed wheeling charges at 33 kV and 11 kV voltage level considering full wheeling ARR amount for 33 kV and 11 kV levels. It is requested to rectify the computation of wheeling charges in the final order.

Petitioner's response:

The Discoms have submitted that they have computed wheeling charges for 33 kV and 11 kV voltage levels for FY 2024-25 by considering 50% of wheeling ARR amount only and not the total charges.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The Wheeling charges have been computed in accordance with the applicable regulations and is aptly deliberated in the relevant paragraph of this order.

3.3.5 Increase in Power purchase cost/rate:

Power purchase is made for sales to consumers and consumers have to face unexpected increase in tariff. Bihar was getting electricity from central institutions at a higher rate than other states and expected action on the principle of "One Nation One Electricity Tariff". Therefore, it is requested to form a committee, with Senior officials of the Commission, Discoms, representatives of Industries Association and other knowledgeable persons to study the tariff orders of other states and make a comparative chart of power purchase rates and assess why consumers in other states are getting electricity at lower rates than Bihar. The committee may also study whether GENCO's are billing to Discoms at reasonable rates and the reasons for increase in such rate.

Petitioners' response:

Bihar Discoms purchase power from the central sector generating stations of which major share is from NTPC stations. Tariff of Central Generating Stations is determined by CERC. Power procurement is done strictly in accordance with the Regulations specified by the BERC/CERC.

It is to state that power purchase cost is being determined in accordance with BERC MYT Regulations 2021 and as per applicable norms/guidelines issued by the Ministry of Power. Further, the Power purchase cost claimed by the Petitioners is audited during the finalization of the Annual Accounts pursuant to verifications of the actual power purchase bills.

Bihar DISCOMs are dedicated towards optimizing power purchase cost including transmission charges in the state and proactively monitors the available options in getting low-cost power as compared to its higher cost long term PPAs.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The power purchase cost is considered on due prudence check, validation of claims, capacity allocations, etc. and in accordance with the applicable regulations. The Commission has aptly deliberated in the relevant paragraph of this order.

3.3.6 Increase in Transmission charges:

It is observed from the tariff petitions the transmission charges are increasing and the consumers will have to pay higher per unit cost including power purchase and transmission charges.

The Commission appointed Bihar Grid Company Limited (BGCL) in addition to the transmission licensee of the state government with the aim of reducing transmission charges. But the trend of increasing transmission charges continued in the state. The Commission should consider rate of transmission charge per unit in other States and the benefit received from BGCL.

Petitioners' response:

Discoms are billed by the PGCIL and other transmission companies as per the Regulatory provisions. The state transmission charges are determined by BERC and the inter-state transmission charge are determined by CERC in accordance with the applicable regulations. Discoms are dedicated towards optimizing power purchase cost including transmission charges in the State.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The PGCIL is central transmission utility and the inter-state transmission charges are determined by the CERC. The Commission determines the intra-state (BSPTCL and BGCL) transmission charges after due prudence check, validation of claims strictly in accordance with the BERC (Multi Year Transmission Tariff and SLDC charges) regulations 2021. The Commission has explicitly deliberated each ARR parameter in the BSPTCL and BGCL tariff orders issued separately.

3.3.7 Distribution Loss:

The Commission has been directing the Discoms to bring down the line losses to 15%. Distribution loss remains above 20%. Apart from this, there is transmission loss of PGCIL (3%), BSPTCL (4%) and BGCL (1%). The consumers are bearing the burden of about 28-30 percent power loss.

Billing is not being done 100% and many consumers are being billed on the basis of average without taking readings resulting in higher distribution losses.

It is suggested that 100% bill issuance should be ensured and Divisions should be identified whose line loss is more than fifteen percent and appropriate steps should be taken to reduce it.

Distribution loss is a controllable factor and losses above 15% should not be passed on to the consumers.

Petitioner' response:

It is to state that Discoms have been able to bring down the distribution losses through implementation of various initiatives over the years. The distribution loss for NBPDCCL reduced from 25.62% in FY 16-17 to 15.18% in FY 22-23, and for SBPDCL reduced from 35.56% in FY 16-17 to 21.92% in FY 22-23.

Discoms serves predominantly LT consumers and domestic consumers constitute around 85%. The addition of consumer base under SAUBHAGYA and Har Ghar Bijli Yojana was predominantly in rural areas and on LT network. As a result, there was an increased volume of energy consumption on long low-tension distribution networks, thereby increasing both the length of the LT line as well as corresponding increase in losses and having a cascading effect due to an increase in consumer profile having very low power consumption scattered length and breadth of Discoms area.

Discoms are implementing Smart Prepaid metering project under RDSS to all its urban and rural consumers and is expected to enhance the billing and collection of both the Discoms.

The MoP has directed all the SERC, including BERC to adopt the AT&C loss trajectory for tariff determination in accordance with the trajectory agreed by the respective State Government and approved by the Central Government (under RDSS). Accordingly, Discoms have requested the Commission to approve the Distribution Loss, Billing Efficiency, Collection Efficiency, AT&C Loss for FY 2024-25 as approved under RDSS scheme.

Commission's view:

The Commission has noted the stakeholders' views and petitioners' response. The Commission has considered the distribution loss in accordance with the MoP , Govt

of India Rules under Electricity (Second Amendment) Rules 2023, dated 26.07.2023 notified in connection with the RDSS scheme. The power purchase cost is controllable expenditure and variation in power purchase cost is appropriately dealt with in terms of relevant regulations.

3.3.8 Rural Domestic category tariff:

No increase in tariff shall be envisaged considering the pitiful condition of the villagers, the unit charge should be reduced by 10%.

Petitioners' response:

No increase in fixed charge of all consumer categories, including rural domestic category (DS-I) have been proposed.

It is to state that tariff petition is filed based on the actual Audited Accounts and all other applicable regulations and accordingly determined the revenue gap. To recover the revenue gap, Discoms have proposed 3.03% tariff hike on the existing tariff uniformly across all the tariff categories.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission determines and approves the ARR based on validation of claims, prudence check and scrupulously adhering to the BERC (Multi Year Distribution Tariff) Regulations 2021 and other Rules or relevant Regulations.

3.3.9 Urban Domestic category tariff:

Provision was made that if the consumption is more than one watt then the fixed charge will be charged at double the rate. It is submitted that till the year 2017-18, there was a provision that below 500 watt of demand will be rounded to nearest lower whole digit and 500 and above will be billed at nearest upper round digit. This provision was removed.

Another facility available to the consumers was that the billing demand was 75% of the Contract Demand or actual Demand whichever was higher, accordingly if a 4 kW consumer registers 2.5 kW then he would be charged $80 \times 3 = \text{Rs } 240$ for a 3 kW consumer. Now there is a proposal to increase that 75% billing demand to 85%. In such a situation, if the consumer registers 2.5 KW, then he will have to pay Rs 320

for (4×0.85) 3.4 KW (80×4) because the part thereof is charged.

If billing demand is kept at 85% of the contract demand, then consumers of 1 kW to 6 kW will not get any benefit. As per the contract demand, they will have to pay Rs.80 per kilowatt without any concession.

Petitioners' response:

It is to state that for Urban Domestic category, the fixed charge has been on the basis of load in KW or part thereof for FY 2017-18. In the instant petition billing demand is proposed at 85% of the Contract Demand or actual Demand whichever is higher. This is necessary to develop and maintain the distribution infrastructure in line with the contracted load of the consumer.

In many states/utilities the billing demand as a percentage of contract demand is higher than Bihar (75%). BRPL- Delhi (100%), Madhya Pradesh State Discoms (90%), BESCOM Karnataka State Discom (85%) and TANGEDCO Tamil Nadu (90%) and Haryana State Discoms (100%).

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has dealt the issue in Chapter 9 of this order.

3.3.10 Contract demand:

Discoms proposed to automatically enhance the contract demand, if the recorded load exceeds the Contract Demand of the consumer by 105% continuously for three months. It is to state during the summer months (April to July) demand is high due to AC and fan and due to higher demand consumer pays double the rate. But demand reduces significantly from August to March, so consumers get some relief. Discom proposes to end this. The Commission should not make any changes in the Tariff and Terms and Conditions of Domestic-II because an unexpected increase has been made in the last year itself.

Petitioners' response:

Discoms have proposed to Suo-moto enhance the load based on average load of last three months if it exceeds 105% of the contract demand continuously for 3 months. The proposition is essential to develop and maintain its distribution infrastructure as per the contract demand to supply quality and interrupted power to its consumers.

The Electricity (Rights of Consumers) Amendment Rules, 2023 dated 14th June 2023 specify;

..... (5B) In case maximum demand recorded by the smart meter exceeds the Sanctioned Load in a month, the bill, for that billing cycle, shall be calculated based on the actual recorded maximum demand and consumers shall be informed of this change in calculation through Short Message Service or mobile application:

Provided that the revision of the Sanctioned Load, if any, based on the actual recorded maximum demand shall be as under:

(a) in case of increase in recorded maximum demand, the lowest of the monthly maximum demand, where the recorded maximum demand has exceeded the sanctioned load limit atleast three times during a financial year, shall be considered as the revised Sanctioned Load, and the same shall be automatically reset from the billing cycle in next financial year;

....

In view of the above, the Discoms have proposed suo-moto load enhancement based on average load of last three months if it exceeds 105% of the contract demand continuously for 3 months.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has dealt the issue in Chapter 9 of this order.

3.3.11 Private Agriculture Category (IAS-I Unmetered category):

Tariff for this category of consumers is Rs.1350/HP/PM and without State Government subsidy, a 2 HP consumer will have to pay Rs.32,400 ($1350 \times 2 \times 12$) per year. The motor can run only for a maximum of 1000 hours in a year and apart from Kharif (i.e. paddy season), there is very little use in other two seasons. During summer, the water level also goes down and farming is done in limited fields. It is suggested that the Commission should take appropriate decision on this issue.

Petitioners' response:

The prevailing fixed charge for IAS-I unmetered category is Rs.1350 per HP per month

for FY 2023-24; out of this, Rs.1266 per HP per month is provided as tariff subsidy by the State Government. This means that IAS-I unmetered category are required to pay only Rs.84 per HP per month for FY 2023-24.

It is proposed to retain the unmetered class till the time metering arrangements are introduced covering all the consumers. In the absence of the meters, tariff to be levied on the connected/sanctioned load. No increase in tariff/fixed charges are proposed for IAS-I unmetered category.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has already directed both the Discoms to provide meters to all unmetered connections.

3.3.12 Loss from Distribution franchisee (DF):

Distribution franchise (DF) was restored for Muzaffarpur, Bhagalpur and Gaya and were given electricity at lower rates from FY 2013-14 to FY 2017-18. DFs have not created any electrical infrastructure and left taking compensation. Hundreds of crores of rupees are still pending with them. If the outstanding amount is received from DFs, the consumers can be benefitted and increase the tariff is not needed. The Commission may take cognizance of the matters of DF and monitor.

Petitioners' response:

The arbitration process between erstwhile Muzaffarpur, Gaya and Bhagalpur DFs and respective Discom is under process as per the provisions under the Distribution Franchisee Agreement (DFA) executed between the parties and yet to be decided.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response.

3.3.13 Increase in tariff, Collection efficiency:

It is understood that Discom operations have resulted in earning profits (during the current financial year) deserves appreciation which indirectly benefit the consumers. The Commission is expected to review the progress of revenue collections and the consumers should also be benefitted from the company's profits and there is no

reason for increase in tariff.

Increase in tariff rates increase the production cost for industries.

Petitioners' response:

It is to submit that the tariff petition has been prepared based on the actual Audited Accounts for FY 2022-23, BERC MYT Distribution Tariff Regulations 2021 and all other applicable regulations and determined the revenue gap for FY 2024-25 at Bihar level. This revenue gap has been arrived after considering the profit gained by the SBPDCL during FY 2022-23. In order to recover the overall revenue gap at Bihar level, the State Discoms have proposed tariff hike on the existing tariff uniformly across all the categories.

The industrial consumers are allowed incentives towards load factor rebate for incremental consumption in the energy charge.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission approves/determines the ARR based on validation of claims, prudence check and scrupulously adhering to the BERC (Multi Year Distribution Tariff) Regulations 2021.

3.3.14 Security Deposit:

Security deposit had to be deposited with the Discoms while taking electricity connection. Now prepaid meters are being provided and collecting SD is stopped. The SD shall be refunded to the consumers who were provided with prepaid meters.

Petitioners' response:

Security deposit of consumers, where smart prepaid meter has been installed is being refunded/adjusted in the monthly bills of respective consumers. Further where new connection is being issued with smart prepaid meter, SD is not collected from the consumers.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission explicitly specified "in case of smart prepaid connection, security deposit is not applicable" in Part C – Miscellaneous and General charges of Chapter 9 Tariff principles of this Order, Design and Tariff Structure.

3.3.15 Tariff for cold storage, poultry farms, horticulture:

Cold storage, Poultry farms and Horticulture may be considered under Agriculture and agriculture tariff may be made applicable.

Petitioners' response:

The Discoms provide electricity connections as per the applicability clause defined by the Commission in respective year tariff order.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. In course of deciding the tariff schedule for different category of consumers, the Commission apart from other important aspects, also takes into consideration and use of the electricity and user based categorization of consumers is done accordingly. On the basis of pleadings put forth in this regard, the Commission could not find any plausible reason to treat users of aforesaid Category as agricultural consumer.

3.3.16 Service line charges:

Responsibility of power supply lies with Discoms, hence the financial burden of the cost of construction and dismantling of service lines should not be passed on to the consumers.

Petitioners' response:

Discoms are releasing the new connections as per the guidelines stipulated under the "Chapter-4: New Service Connection" of "Bihar Electricity Supply Code".

Commission's view:

The Commission has noted the stakeholders' submission and the Commission takes note of the fact that the process of Supply Code Review has been taken up by the Committee formed by the Commission for this purpose. If any consumer/ stakeholder has to suggest any change, in the Supply code, they may submit their view before the committee.

3.3.17 Fixed charges:

Recovery of fixed charges shall be in proportion to the actual hours of supply. If the supply of power is less than 24 hrs., the demand charges should be collected on prorate basis.

Petitioners' response:

It is submitted that in the tariff order dated 25th March 2022, the Commission had linked the recovery of fixed charges in full only if the supply of power duly recorded by a consumer meter (except streetlights, Agriculture and all unmetered categories of consumers) is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/ day, then the demand charge for that month shall be levied on pro-rata basis. Same provisions prevail currently as well.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response.

3.3.18 kVAh billing for IAS-I:

Billing should not be changed from Kilowatt to kVAh as this will lead to at least 10% to 20% increase in non-domestic and IAS-1 category billing without revision in tariff.

Petitioners' response:

kVAh based billing system is always beneficial for the consumers as well as for the Discoms to plan the development of electrical systems in a better way because kVAh measures the apparent energy which represents the actual loading on the system. Without knowing the actual loading of the system, planning of electrical generation, transmission and distribution is difficult.

It is also to submit that through kVAh billing system, the electricity bill of consumers neither increases nor decreases if the power factor is suitably maintained by the consumers. All the meters installed for Non-Domestic and IAS-I category consumers are compatible for kVAh based Billing and the meters can record the kVAh based consumption of the consumers thereby incentivizing the consumers who maintain better power factor.

The proposed kVAh based tariff has an inbuilt mechanism for incentivizing the consumers who maintain better power factor. This tends the consumer category, to save in their electricity bills. Further, kVAh based billing simplifies the tariff as power factor rebate or penalty need not be calculated separately.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response.

3.3.19 Load factor incentive:

Discoms have proposed to withdraw load factor incentive for HTSS consumers.

HT Industrial category consumers (except HTSS category) with load factor more than 30% will be incentivized for better load factor utilization on incremental consumption monthly through rebate in their energy charges.

The incentives encourage consumers for higher consumption higher load factor. Withdrawal of incentives will lead to negative growth of industry and send an adverse message for industrialization.

Surplus energy may be sold to HTSS and other industries.

Petitioners' response:

Considering the pros and cons of the load factor incentives, load factor incentives for HTSS consumers are not proposed as the energy rate of HTSS consumers is much discounted. Further, the load factor maintained by such consumers had always been better than 90% because such industries are continuous processing industries which run on full load capacity. The load factor incentives given to such consumer has further decreased the energy charges significantly below the variable cost of power purchase of the Discoms thereby the higher is the consumption by such consumers, the higher is the losses to the Discoms.

Further, the objective behind the Load Factor Incentive to HT was to promote the increase in consumption as well as better load utilization by HT consumers. However, it has been observed that in 1st six months of FY 2023-24 (April- Sept 2023) there has been no increase in the consumption with respect to the consumption in 1st six months of FY 2022-23 (April- Sept 2022) but the amount of incentive required to pay by the Discoms is significantly high. As a result, there has been decrease in the net revenue collection of the Discoms through considerable disbursement of incentive to this category of consumers.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has dealt the issue in Chapter 9 of this order.

3.3.20 Time of Day (ToD) tariff:

Discoms have proposed to change the period of time and rate of concession and surcharge.

Suggest change in the peak period (05:00 PM -11:00 PM) energy charges: - 110% of the normal rate of energy charge instead of 120% of the normal rate of energy charge.

Petitioners' response:

The Electricity (Rights of Consumers) Amendment Rules, 2023 dt.14.06.2023 specify that the TOD Tariff, specified by the State Commission, for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff. Further the tariff for solar hours of the day, specified by the State Commission shall be at least twenty percent less than the normal tariff for consumers and "solar hours" means duration of eight hours in a day.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has been dealt the issue in Chapter 9 of this order.

3.3.21 Rebate for online payment:

Online payment has encouraged almost all the consumers and are making online payment of bills and it is convenient for the Discoms also. Small consumers are not the only ones making online payments. After system becomes operational smoothly, the same system should be continued. The incentive amount should not be withdrawn or reduced.

Petitioners' response:

Online payment system has been devised to encourage majorly the domestic and commercial consumers. Industrial and other large consumers have adapted online payment system completely and enjoying rebate of 1%.

The HTS-III and HTSS consumers bills range from Rs.2 crore and above. By making

online payment their monthly Bills, these consumers are enjoying rebate of around 2-3 lakhs per consumer per month. It is pertinent to note that such online payment rebate is ultimately passed on to the other categories of consumers and need to limit the extravagant rebate. Hence, proposed to limit the online payment rebate for HT consumers upto Rs 20,000 or 1% whichever is lower.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has been dealt the issue in Chapter 9 of this order.

3.3.22 Billing Demand:

Billing demand should remain same at 75% as it was introduced recently and should not be withdrawn. It is not relevant that the billing demand till FY 2019-20 was 85% of the contract demand or the actual demand, whichever is higher, although, the Commission has reduced the billing demand from 85% to 75%. If minimum billing is again revised from 75% to 85%, it will send a bad message to the consumers.

It is suggested that if the actual demand of a consumer is more than 110% of his contracted demand for 3 consecutive months, then the contracted demand of such consumer should be increased on the basis of the average demand of the last 3 months and consumers should not be penalized if demand exceeds 110%.

Petitioners' response:

Billing demand is proposed to be 85% of the Contract Demand or actual Demand whichever is higher. This is necessary to develop and maintain the distribution infrastructure in line with the contracted load of the consumer.

In many states/utilities, the billing demand as a percentage of contract demand is higher than Bihar (currently - 75%). BRPL- Delhi (100%), Haryana State DISCOMs (100%), Madhya Pradesh State DISCOMs (90%), TANGEDCO Tamil Nadu (90%) and BESCOM Karnataka State DISCOM (85%).

The Electricity (Rights of Consumers) Amendment Rules, 2023 dated 14th June 2023 provisions the automatic revision of sanctioned load in the event of maximum demand recorded by the smart meter exceeds the Sanctioned Load in a month, excerpts the said Rules are as follows:

(5B) In case maximum demand recorded by the smart meter exceeds the Sanctioned

Load in a month, the bill, for that billing cycle, shall be calculated based on the actual recorded maximum demand and consumers shall be informed of this change in calculation through Short Message Service or mobile application:

Provided that the revision of the Sanctioned Load, if any, based on the actual recorded maximum demand shall be as under:

(a) in case of increase in recorded maximum demand, the lowest of the monthly maximum demand, where the recorded maximum demand has exceeded the sanctioned load limit atleast three times during a financial year, shall be considered as the revised Sanctioned Load, and the same shall be automatically reset from the billing cycle in next financial year.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The HT consumers should continuously monitor their connected load, contract demand and recorded maximum demand and shall approach the Discoms officials concerned for increase of their contracted demand suitably.

3.3.23 Terms and Conditions:

It is not proper and justified for the Discoms to propose different terms and condition of billing for recovery of charges each year. It is suggested that the terms and conditions for the recovery of charges should be specified in the Bihar Electricity Supply Code notified under the provision of Section 50 of the Act.

Petitioners' response:

It is to submit that tariff petition is filed in accordance with the BERC (Multi Year Distribution Tariff) Regulations 2021, guidelines and directives issued by the BERC from time to time and under Section 45, 46, 47, 61, 62, 64 and 86 of the Electricity Act 2003 read with the relevant guidelines. And the same practice is being followed by all the electricity utilities in the Country.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The terms and conditions of supply are notified in the tariff orders year on year. The Bihar Supply Code explicitly defines the methodology/procedure for billing and recovery of electricity charges.

3.3.24 FPPCA:

Discoms in Case No.03/2023 have proposed changes in the provisions of Regulation 20 of BERC (MYDT) Regulations 2021 in respect of FPPCA. It has been proposed that the FPPCA should be charged without the approval of the BERC and stated that as per Electricity (Amendment) Rules 2022 notified by Ministry of Power on 29.12.2022, the FPPCA is to be charged automatically.

Allowing FPPCA without approval of the State Commission and passing the increased rate of energy charge to the consumer without any prior notice to the consumer will tantamount to denial of right of consumers and no charge can be levied on the consumers without approval of the Commission.

FPPCA was previously charged because of the facts that the tariff for retail sale of electricity was not notified timely for each year. Since 2012, BERC is issuing Tariff Order for each year well in advance and also truing up of ARR of previous year on the basis of the audited annual accounts. Any gap/surplus in the ARR of previous year along with carrying cost are taken into consideration for determining the tariff for ensuing year.

It is not proper and expedient to allow charging of FPPCA in spite of the fact that any gap in the revenue is carried forward with carrying cost in the ARR of ensuing year. The amount of FPPCA cannot be recovered from the products which has been dispatched or sold earlier. Truing up of ARR takes care of the extra Power Purchase Cost. The Discoms and Power Management Cell of BSPHCL should examine and scrutinize the rate of power purchase from Central agency instead of paying them as per their claim.

Petitioners' response:

The Ministry of Power, Govt. of India vide notification dated 29.12.2022, had issued the Electricity (Amendment) Rules, 2022 in which Rule 14 regarding "Timely recovery of power purchase costs by distribution licensee" was inserted. According to the newly inserted Rule 14, the Commission has to specify a price adjustment formula for the recovery of costs arising from variations in the price of fuel or power purchase costs and the impact in the cost due to such variation shall be automatically passed through in the consumer tariff on a monthly basis.

The existing FPPCA recovery mechanism involving prior approval of the Commission is not in line with the Rules/Orders set out by the REC (GoI) vide its letter dated 01.07.2022 and 29.12.2022 which stipulates that all States/DISCOMs need to create a mechanism for automatic pass through of fuel cost adjustment on monthly/quarterly basis in retail tariffs without the need for any prior approval of the Commission.

The existing provision for FPPCA in terms of non- automatic pass through of the same is becoming a hurdle for the Petitioners in achieving the Standard Operating Procedures (SOPs) laid down by the Ministry in the RDSS scheme. So, the Petitioners have requested the Commission to amend the relevant provisions of the BERC MYT Distribution Regulations, 2021 for automatic recovery of the FPPCA by the DISCOMs as per the formula specified in the Regulations and thereafter submission of the FPPCA computation to the Commission. The “BERC (Multi Year Distribution Tariff) Regulations 2021” clauses 20.1 and 20.2 specify FPPCA allowed on monthly basis. The Ministry of Power in its Letter dated 09.11.2021 has stipulated the following:

3. *Learning from the recent experience and in order to ensure that the power sector does not face any constraints in maintaining assured power supply to meet the demand, **all the stakeholders in the value chain of power sector must ensure that there is timely recovery of cost.** This involves two steps:*
 - a. *The cost pass through by the generating companies to the distribution companies.*
 - b. *The cost pass through from distribution companies to the consumer.*
4. ***For the lack of a robust mechanism of timely automatic pass through of fuel cost and transportation cost, the generating companies face constraints in maintaining stock of fuel during such periods. This results in shortage of supply in the grid which may affect the power supply to the consumer.***
5. *Distribution companies face revenue constraints as the corresponding pass through of cost is not done regularly and timely in the retail tariff. **Timely collection of revenue from consumer would ensure timely payment by the distribution company to the generating stations and coal companies. This will also help in ensuring availability of supply to meet the expected increase in demand.***

In the backdrop of the above, the petitioners have submitted FPPCA for approval of the Commission.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response. The first proviso of the Rule-14 of Electricity Amendment Rule dated 29th December-2022 provides that till the Methodology and Formula specified by the appropriate Commission, the Methodology and Formula specified in Schedule-II of the Rules shall be applicable. The Discoms are directed to charge FPPCA accordingly.

3.3.25 HTIS tariff and Cross Subsidization:

Tariff rate for high tension industrial supply should be lower than that of HT General supply categories to encourage the industrial activities in the state, which will also reduce the cross subsidy being paid by the industries to other categories of consumers. Cross-subsidization by the industries to other categories will be extra burden to industries which will be a hurdle in the operation of industries and that will lead to increase in the unemployment. According to Section 61 (g) of the Act the cross subsidization has to be progressively reduced.

Petitioners' response:

Discoms have been striving to align the cost and revenue structure with the guidelines provided in the National Tariff Policy, however, the skewed consumer mix towards the domestic consumer base has been a constricting factor for the Discoms to achieve the same.

The Domestic consumers are around 90% of consumer base while Industrial consumers form less than 2% of the total consumer base. The sales (to Domestic consumers are around 55% of sales mix while the sales of industrial consumers are around 15% of Sales mix. The LT:HT ratio in terms of Sales is 90:10. Wide domestic consumer base in the State and highly skewed sales mix makes it a limiting factor for the Discoms to formularize a roadmap for reduction of Cross Subsidy at this point of time, however, the Discoms strive for gradual reduction of the same.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners'

response. The Commission endeavors to keep the cross-subsidy level within +/- 20% of the Average Cost of Supply (ACoS). The issue is dealt in the Chapter 6 of this order.

3.3.26 Voltage Rebate

The existing tariff for high tension supply (HT Industrial Service) has different voltage level of 11kV, 33kV, 132kV, 220 kV. It is suggested that the Commission should determine only one rate for 11kV supply and each higher voltage a rebate of 6% at each higher voltage level should be allowed for availing supply at higher voltage levels.

Petitioners' response:

It is to submit that the Commission has been determining the energy charge/rate for High Tension 11 kV, 33 kV, 132 kV and 220 kV voltage level categories by considering lesser energy rate per unit as the voltage level of the consumer increases which provides the built-in incentives to HT consumers in the form of lower tariff as the voltages goes higher.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response while determining the Tariff for HT Consumers of different Voltage level.

3.3.27 Billing and Collection efficiency

Sale of energy and revenue thereon is lower due to billing efficiency of around 80% and if the billing efficiency had been close to 100%, the sale of energy (MU) would have been more than appearing in their tariff petition, specifically for FY 2022-23.

Petitioners' response:

Discoms are implementing Smart Prepaid metering project under RDSS to all consumers. This is expected to enhance the billing and collection of both the Discoms. Discoms are committed to improve its billing and collection efficiency and also to comply with the directions received in the Tariff Orders.

Commission's view:

The Commission has noted the stakeholders' submission and the petitioners' response.

3.3.28 Audited Annual Accounts

True up should be on the basis of audited accounts duly certified by the C&AG and

the observation of the auditors should be considered while truing up.

Petitioner's response:

It is submitted that the instant tariff petition has been filed in accordance with the BERC (Multi Year Distribution Tariff) Regulations 2021, guidelines and directives issued by the BERC from time to time and under Section 45, 46, 47, 61, 62, 64 and 86 of the Electricity Act 2003.

Commission's view:

The Commission has noted the views of the stakeholders. The Commission only after due analysis, validation and prudence check considers the capex and capitalisation and the dependent other parameters year on year in true up based on the audited accounts in terms of the BERC (Multi Year Distribution Tariff) Regulations 2021.

3.3.29 Asset Register

Discoms have not considered the closing GFA approved by the Commission in truing up for FY 2021-22 as opening GFA for FY 2022-23. All dependent ARR parameters of depreciation, etc. shall be considered based on asset register.

Petitioners' submission:

It is submitted that Regulation 23 of BERC (MYDT) regulations deals with the computation of depreciation and depreciation is calculated after excluding depreciation on assets created out of grant/consumer contributions.

Discoms have planned to implement Enterprise Resource Planning (ERP) which is mandatory under Revamped Distribution Sector Scheme (RDSS) of Government of India. It is endeavoring to create and maintain component wise fixed asset register showing full details of item wise assets. ERP for all areas of both DISCOMs has been floated by NBPDC on behalf of both the Discoms and the same is under process.

Commission's view:

The Commission has noted stakeholders' suggestions and the petitioners' response. The Commission has dealt the issued in chapter 10 – Directives.

3.3.30 Interest on loan

Interest on loan is calculated on normative Debt. Allowing interest on normative debt is not appropriate and interest should be allowed after confirming the loan amount by the loaning agency.

Petitioners' response:

Interest on loan is calculated in accordance with the Regulation 25 (g) of the BERC (Multi Year Distribution Tariff) Regulations 2021 as provided hereunder.

25. Treatment of loan and other finance charges.

(g) Provided further that the interest on loan shall be calculated on the normative weighted 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;

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission approves/determines the ARR based on validation of claims, prudence check and scrupulously adhering to the BERC (Multi Year Distribution Tariff) Regulations 2021.

3.3.31 Return on Equity

As per Regulation 27 of MYDT Regulations, Return on Equity (RoE) shall be computed on 30% of the capital base or actual equity, whichever is lower. It is not proper to allow the amount of equity without confirming the source.

Petitioners' response:

Equity is considered at 30% of capitalisation excluding grants. Return on Equity (RoE) is calculated in accordance with the Regulation 27 of the BERC (Multi Year Distribution Tariff) Regulations 2021.

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission approves/determines the ARR based on validation of claims, prudence check and scrupulously adhering to the BERC (Multi Year Distribution Tariff) Regulations 2021. The Commission has aptly deliberated every ARR parameter in the relevant paragraphs of this order.

3.3.32 Increase in A & G charges

A&G expenses have increased even after prepayment meters installations, online payment, etc. The Commission shall proportionately reduce the A&G expenses. A&G expenses shall not be allowed on normative basis.

Petitioners' response:

A&G expense has been calculated on normative basis in accordance with the Regulation 22.3 of BERC MYT Regulations, 2021. In addition, monthly rental charges on account of installation of the smart meters is claimed as per the orders of the Commission in Case No. 05/2020.

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response. However, the submission made by the Stakeholder may be considered while framing Regulations for the next control period. The Commission is guided by MYT Regulations 2021 and FY 2024-25 will be the last financial year of the Control period under BERC MYT Regulations, 2021, therefore it will not be appropriate to make change in the aforesaid Regulations at this stage, when the Commission is in the process of determining Tariff for FY 2024-25.

3.3.33 Non tariff income

Non-Tariff Income should be considered taking into account the increase in the number of consumers and the supervision charges under the deposits scheme.

Petitioners' response:

Non-tariff income for the True up is calculated based on the Audited Annual Accounts. The Non-tariff income estimated/projected for current year and ensuing year duly considering the business operations and shall be trued up by the Commission subsequently based on the Audited Annual Accounts for the respective years.

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response.

3.3.34 Savings due to Prepaid metering system

Savings on account of implementing prepaid system may be worked out taking into

consideration the total consumers brought under prepaid system.

Petitioner's response:

Smart Prepaid metering is implemented across the entire state of Bihar in phased manner. The benefit of pre-paid Smart metering project shall be realized in terms of significant improvement in metering, billing & collection operations, thereby reducing the commercial losses to near zero levels.

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission approves/determines the ARR based on validation of claims, prudence check and scrupulously adhering to the BERC (Multi Year Distribution Tariff) Regulations 2021. The Commission has dealt the issue in Chapter 10 Directives.

3.3.35 Subsidy from State Government

Sate Govt is providing subsidy to consumers for sale of power, subsidy for excess distribution loss/AT&C loss, so it is suggested to collect the details from Discoms and may like to confirm from finance dept of Govt. of Bihar.

Petitioner's response:

The Tariff subsidy received from the GoB is on account of reducing the burden of cost of electricity for consumers and accordingly the targeted consumers are provided with the power supply at the subsidized electricity. Further, Discoms received AT&C loss subsidy from the GoB in view of higher distribution loss than the target approved by the Commission. Subsidy received and accounted are mentioned in the Audited books of accounts. All the details are submitted to the Commission.

Commissions' views:

The Commission has noted the stakeholders' submission and the petitioners' response. The Commission has aptly deliberated the issue and disclosed the details in the relevant paragraph of this order.

3.3.36 Creation of new HTSS 132 kV category

Discoms have proposed new category for HTSS at 132 KV for load above 15000 KVA. It will attract new bulk consumers. There are existing HTSS Consumers in the range of 10000 - 15000 KVA contract demand and for streamlining their production there

may be need to enhance contract demand above 15000 KVA. Therefore, we suggest that existing HTSS consumers at 33 KV may be allowed to enter into agreement for contract demand up to 20000 KVA at existing 33 KV system as it will be difficult to change their system from 33 KV system to 132 KV system as it will require huge investment

Petitioner's response:

It is submitted that as per the norms, HTSS tariff is allowable at 33/11 kV and the maximum supply permissible is 15 MVA. So, the only possible way out is carving out a separate consumer category of HTSS 132 kV to provide 30 MVA connection. As such Discoms have proposed new tariff consumer category HTSS at 132 kV in the instant tariff Petition.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response. The Commission has dealt the issue in Chapter 9 Tariff Principle, Design and Tariff Schedule of this order.

3.3.37 Surplus power and its utilization

Power availability as per share allocation of Bihar is in surplus and excess power has to be surrendered and the Discoms have to pay the fixed cost of surrendered power. Further the surrendered power is as low as Rs.3/unit. In the above scenario, it is suggested that whenever power becomes surplus, consumers may be allowed to avail power at the rate the power is sold.

Adequate rebate should be given for higher consumption to the High-Tension Industrial Consumers as is being allowed by OERC and JERC to attract bulk consumers.

Petitioner's response:

Based on the continuous monitoring of the power portfolio (viz power available viz-a-viz power demand) of the Discom's on the RTC basis, the surplus power available is managed judiciously on best effort basis through power surrender (as per the IEGC grid code) and/or Sale of power mainly in the spot market.

Surplus condition occurs only when the internal demand is met fully. The surplus power whenever available is managed with an overall objective of optimizing the

power purchase cost of Discom's as envisaged in BERC Power Purchase and Procurement Process of Licensee Regulation without adversely affecting the power supply position to the consumers.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response. The Commission opines that Discoms should follow MoD principle for scheduling of power.

3.3.38 Representation of stakeholder in the Board of Discoms

BSEB was restructured into various companies with the objective of making the successor companies commercially Viable. For achieving the objectives of restructuring, Boards of these companies should be broad based to include industry & consumer representative.

Petitioner's response:

It is to submit that consumers and industrial entities are considered to be the most important stakeholders for Bihar Discoms and while formulating any of the distribution operational procedure, Regulations, Policies etc., the consultations of all the stakeholders including consumer's representatives are sought and incorporated appropriately.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response. The issue of representation of any section in the Board of Directors of any company is beyond the purview of the Commission.

3.3.39 Electricity Duty

Electricity Duty is charged @6% on all consumers which is an unbearable burden, particularly on industrial consumers and should be reduced to 2 paise per unit for industrial consumers to make Industrial unit competitive.

Petitioner's response:

Rate of Electricity duty is prescribed by the State Government under the Bihar Electricity Duty Act 2018.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners'

response. Levy and collection of Electricity Duty is beyond the purview of the Commission.

3.3.40 Open Access

Open access should be actively promoted, and the regulations should be rationalized by BERC to introduce pro-rata KVA charges to make viable for the Consumer to purchase open access power.

Petitioner's response:

It is submitted that various charges applicable to the open access consumers are calculated in accordance with BERC (Term and Conditions of Intra-State Open Access) Regulations 2018.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response. The BERC intra-state Open Access Regulations 2018 read with The Electricity Amendment Rules, 2024 provides for determination of open access charges.

3.3.41 Capacitors to reduce losses

Transmission and distribution company should install power improvement capacitors to reduce losses.

Petitioner's response:

It is submitted that all the operational activities pertaining to distribution and supply of electricity to its consumers are guided by the SOPs in place.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response.

3.3.42 Energy Savings Certificates (ESCerts)

ESCerts is a mechanism introduced under the PAT program to reduce specific energy consumption in energy intensive large industries. ESCerts are issued to plant or consumers that have overachieved their energy saving targets and are purchased by those who have failed to meet their targets.

Procuring ESCerts is a consequence of not achieving the targets making it a penalty. Such penal charges imposed on the petitioner for not achieving targets should not be passed on to the consumers.

Petitioners' response:

Perform, Achieve and Trade (PAT) is a regulatory instrument to reduce specific energy consumption in energy intensive industries with an associated market based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. PAT is a mechanism for improvements in energy efficiency of energy intensive industries specific high energy intensive industries are identified as Designated Consumers (DCs) within certain key sectors.

Distribution licensee was also included as DCs under second cycle of PAT. PAT cycle II commenced from 01.04.2016 and was completed on 31.03.2019. Implementation of PAT cycle II has resulted into total energy savings of about 14.08 MTOE translating into avoiding of about 68 million tonne of CO2 emission.

Discoms has submitted to Bureau of Energy Efficiency (BEE) that Discoms do not contribute to Green House Gas emissions and are in continuously evolving phase on account of various projects under RDSS and requested to exempt from PAT Cycle II. No response was heard BEE and last date of transaction was 01.08.2023, the Discoms have bought ESCerts. The expenses are in the nature of RECs and requested to be passed on in the ARR of Discoms.

Commissions' views:

The Commission has noted the stakeholders' suggestions and the petitioners' response. The Commission has aptly deliberated the subject in the relevant paragraph of this order.

3.3.43 Holding Company expenses

Discoms have claimed holding company expenses. There is no provision in tariff regulations 2021 and claiming such expenses is contravention to the provisions of the tariff regulations.

Petitioners' response:

Discoms have considered holding company expenses in terms of Bihar State Electricity Reforms Transfer Scheme 2012.

Commission's view:

The Commission has noted the views of the stakeholders and Petitioner's response.

The Commission has considered holding company expenses after validation and prudence check in terms of Bihar State Electricity Reforms Transfer Scheme 2012 and aptly deliberated in the relevant paragraph of this order.

3.3.44 RPO Reserve

The RPO reserve is created for shortfall in purchase of power from Renewable power generators. Discoms may be directed to mobilize the said reserve fund for funding of capex pending adjudication of appeal before the APTEL.

Petitioner's response:

No response is received from Discoms.

Commission's view:

The Commission has noted the stakeholders' views. The Commission has explicitly deliberated in the relevant paragraph of this order.

10.3.45 Current initiatives

AI/ML analytics technologies currently used across various departments viz. theft detection algorithms, demand forecasting, etc. cost of these initiatives considered in OPEX or Capex.

Petitioner's response:

Discoms are currently use several IT tools, such as SAMEEKSHA for monitoring of revenue. SAMADHAAN for monitoring Deviation Settlement Mechanism, Merit Order Dispatch (MOD) and other key power procurement parameters and RFMS tool for Raid and FIR management for theft prevention. The cost developing such systems are considered in the Opex.

Commission's view:

The Commission has noted the view of stakeholders and the response of the petitioner.

10.3.46 Future plans and road map

Capex projects planned and approved for incorporating advanced analytics in future. Provide insights into the planned initiatives, technologies and road map for their implementation.

Petitioner's response:

Discoms have planned capex under RDSS scheme for loss reduction and objectives of

the scheme are as follows:

- a. Improve quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.
- b. Reduce the AT&C losses to pan-India levels of 12 – 15% by FY 2024-25
- c. Reduce ACS-ARR gap to zero by FY 2024-25.

The RDSS scheme has two parts namely:

Part A – Financial Support of Upgradation of the Distribution Infrastructure & Prepaid Smart Metering & System Metering

Part B—Training & Capacity Building and other enabling & supporting activities.

Installation of over 8 million smart meters nationwide, Bihar State stands at the forefront of embracing this emerging technology, making up 33% of the total smart meters installed across India. Bihar State has decided to implement Universal Smart Prepaid Metering across the State by FY 2026. Works awarded for 171.5 lakhs to various vendors for implementation of smart prepaid metering across the State under Opex and hybrid mode and around 26.4 lakh smart prepaid meters have been installed till 2nd January 2024. Once implemented, it would help to increase billing & collection efficiency, thereby reducing the AT&C loss and ACS-ARR gap in line with RDSS. Consumers can also monitor their daily usage of energy & its charges along with his usage optimization.

Commission's view:

The Commission has noted the view of stakeholders and the response of the petitioner. Implementation of works under the RDSS scheme and capex/opex mode is approved for operational efficiency and financial efficiency in terms of reduction in AT&C losses and improvement in billing and collection efficiency.

10.3.47 Cross departmental implementation

Analytical technologies are being utilised uniformly across different departments within Discoms and plans to expand their usage.

Petitioner's response:

The analytics technologies are being utilized across different departments within NBPDCCL and SBPDCL ex. SAMEEKSHA for monitoring of revenue, SAMADHAAN for

monitoring Deviation Settlement Mechanism, Merit-Order-Dispatch (MoD) and other key power procurement parameters and RFMS tool for Raid and FIR Management for theft preventions. Both the Discoms are committed for larger uptake of IT based interventions in business operation and process monitoring and continuously aims for expanding their usage at large.

Commission's view:

The Commission has noted the view of stakeholders and the response of the petitioner.

10.3.48 Setting up an Analytics - Center for excellence

Establishing center for excellence dedicated to analytics applications. Feasibility study for setting up a center for comprehensive data driven decision making.

Petitioner's response:

Several monitoring and analytical applications (SAMEEKSHA, SAMADHAAN, RFMS tool for Raid and FIR Management for theft preventions etc.) are developed based on the feasibility studies which helps the management in decision making based on the comprehensive data.

Commission's view:

The Commission has noted the view of stakeholders and the response of the petitioner.

4. Truing-up for FY 2022-23

4.1. Background

The Commission vide its Order dated 25th March 2022 had approved Multi Year Aggregate Revenue Requirement (ARR) for the control period of FY 2022-23 to FY 2024-25 for Bihar Power Distribution Companies viz., North Bihar Power Distribution Company Limited (NBPDCCL) and South Bihar Power Distribution Company Limited (SBPDCL). Further, the Commission vide its Order dated 23rd March 2023 had also reviewed the Annual Performance of NBPDCCL and SBPDCL for FY 2022-23. The Petitioners, i.e., NBPDCCL and SBPDCL have filed the present Petitions dated 14th November 2023 for True-up of FY 2022-23, Annual Performance Review for FY 2023-24 and Annual Revenue Requirement for FY 2024-25.

This Chapter deals with the Truing-up of FY 2022-23 for both the Discoms in accordance with the Regulation 14 of the BERC (Multi Year Distribution Tariff) Regulations, 2021 which stipulate;

“14. True-up and Annual Performance Review

14.1 The Commission shall True-Up expenses of the previous year either as part of the Tariff order or issue Order/s for True-Up of expenses preceding the Tariff order of ensuing year.

- a). An order for True-Up of expenses shall be issued on annual basis.*
- b). An order for True-Up of expenses shall be on the basis of expense estimates made in the beginning of the year under consideration, actual expenses booked in the audited books of accounts of the Distribution Licensee, for the year, and after prudence check of data by the Commission.*
- c). Where audited books of account are not available at the time of true-up, provisional books of annual (regulatory) accounts duly approved by the Board of Directors of the applicant company shall be used for the provisional True-up process.*
- d). The Commission shall undertake review of estimates of expenses for the current year as a part of the tariff order on the basis of the actual expenses incurred during the period April – September of the current year and*

corresponding figures in the order for Annual Revenue Requirement (ARR) of the current year approved by the Commission.

- e). Estimates of expenses for the ensuing year shall be on the basis of corresponding figures in the order for True-up of expenses of the previous year and Annual Performance Review or Tariff Order of the current year, as the Commission may consider reasonable and deem fit.*
- 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 shall not be passed in the ARR of ensuing year."*

Accordingly, the Commission has undertaken the "Truing-up" exercise for NBPDCCL and SBPDCL for FY 2022-23 on the basis of Audited Annual Accounts and relevant provisions of the BERC (Multi Year Distribution Tariff) Regulations, 2021. However, wherever deemed necessary, the Commission has considered expenses based on prudence check.

The Petitioners in the petition for truing-up for FY 2022-23 have furnished the actual energy sales, revenue and expenditure for FY 2022-23 based on the audited annual accounts for FY 2022-23 and accordingly, the revised ARR and consequent revenue gap/(surplus) for FY 2022-23 is claimed.

The Commission has analysed the components of the actual performance parameters, expenses, revenue and computed gains/ (losses) in the process of Truing-up for FY 2022-23. The Commission's analysis during the approval for Truing-up of FY 2022-23 is set out in following sections.

4.2. Number of Consumers, Connected Load and Energy Sales for FY 2022-23

NBPDCCL's Submission

NBPDCCL submitted the actual category wise number of consumers, connected load and sales for FY 2022-23 as shown in the Table below:

Table 4.1: Number of Consumers, Connected Load (KW) and Sales (MU) Claimed by NBPDCCL for FY 2022-23

Category of Consumers	Number of Consumers	Connected Load (KW)	Sales (MUs)
Domestic	10785533	8,659,527	8,544.97
Kutir Jyoti	4217514	1,045,760	2,704.94
DS I Rural	5177639	5,256,907	3,827.97
DS II Demand Based	1390297	2,356,372	2,011.72
DS III	83	488	0.34
Non-Domestic Service	834977	1,682,088	1,844.82
NDS I - Metered Now Demand Based	457453	631,207	598.87
NDS II - Demand Based	377524	1,050,881	1,245.94
Street Light Services	2239	25,457	99.13
Street Light 1	522	4,099	9.81
Street Light 2	1717	21,358	89.32
Irrigation & Allied Services	190341	421,645	1,006
IAS I	183992	368,711	915.85
IAS II	6349	52,934	89.87
Public Service Connections	56269	152,250	436.14
Public Water Works	2014	29,403	37.36
Har Ghar Nal	54255	122,847	398.77
Low Tension Industrial Services	79109	724,067	439
LTIS I (0-19 kW)	77807	658976	402.48
LTIS II (>19 kW - 74 kW)	1198	64973	36.78
LT Electric Vehicle Charging Station	104	299	0.05
High Tension	1447	427,222	884.85
HTS I - 11 kV	1378	282,710	549.74
HTS II - 33 kV	62	85,942	219.45
HTS III -132 kV	4	49,170	73.40
HTS IV - 220 kV	-	-	-
HTSS	3	9400	42.27
HTIS (Oxygen Manufacturers)	0	0	0
HT Electric Vehicle Charging Station	0	0	0
Railway Traction Services	8	60000	99.34
Nepal	1	0	314.22
SLDC Deviation	0	0	226.92
Sugar Mills & Others	0	0	5.67
Sale to Solar Companies	0	0	0.63
Sale of Power to IEX through PTC	0	0	2177.12
Sale of Power to IEX through BSPHCL	0	0	1446.28
Total	11949924	12,152,255	17525.12

NBPDCCL has submitted that the increase in number of consumers has although not as planned by the Petitioner, however, there has still been a significant addition in number of consumers during the year and the actual number of consumers is in fact higher by almost 5% over the previous year. Major Increase can be observed in certain categories like IAS-I (45.77%), NDS-I (26.50%), SS (24.29%) and LTIS (20.49%) over the previous year.

SBPDCL's submission

SBPDCL has submitted the actual category wise number of consumers, connected load and sales for FY 2022-23 as shown in the table below:

**Table 4.2: Number of Consumers, Connected Load (KW), Energy Sales (MU)
Claimed by SBPDCL for FY 2022-23**

Category of Consumers	Number of Consumers	Connected Load	Sales (Mus)
Domestic	5988814	7568702	7526.86
Kutir Jyoti	1556541	387322	1335.24
DS I Rural	2904828	3021580	3286.10
DS II Demand Based	1527445	4159800	2905.52
DS III	0	0	0
Non-Domestic Service	590371	1645182	1537.33
NDS I - Metered Now Demand Based	212100	331870	415.66
NDS II - Demand Based	378271	1313312	1121.67
Street Light Services	2265	30789	191.78
Street Light 1	1000	9672	57.98
Street Light 2	1265	21117	133.81
Irrigation & Allied Services	305007	620261	2774.04
IAS I	300283	579970	2443.21
IAS II	4724	40291	330.82
Public Service Connections	31859	115939	469.58
Public Water Works	3247	47733	142.20
Har Ghar Nal	28612	68206	327.39
Low Tension Industrial Services	84698	923612	465.74
LTIS I (0-19 kW)	79149	635425	280.09
LTIS II (>19 kW - 74 kW)	5549	288187	185.48
LT Electric Vehicle Charging Station	91	0	0.17
High Tension	2497	868673	2569.75
HTS I - 11 kV	2304	460034	1032.03
HTS II - 33 kV	175	236440	560.18
HTS III -132 kV	5	60030	260.83
HTS IV - 220 kV	0	0	0
HTSS	13	112169	716.71
HTIS (Oxygen Manufacturers)	32	5769	19.14
HT Electric Vehicle Charging Station	0	0	0
Railway Traction Services	6	54900	164.39
SLDC Deviation	0	0	283.70
IEX through PMC	0	0	1808.18
Sale of Power through PTC	0	0	2721.90
Total	7005640	11833827	20532.38

Regarding increase in number of consumers, SBPDCL submitted that there has been a significant addition in number of consumers during the year and the actual number of consumers is in fact higher by almost 7.2% over the previous year. Increase can be observed in certain major categories like NDS-I (~12%), Har Ghar Nal (~10%), Domestic (~6%) and LT Industrial (~9%) over the previous year.

Commission's analysis

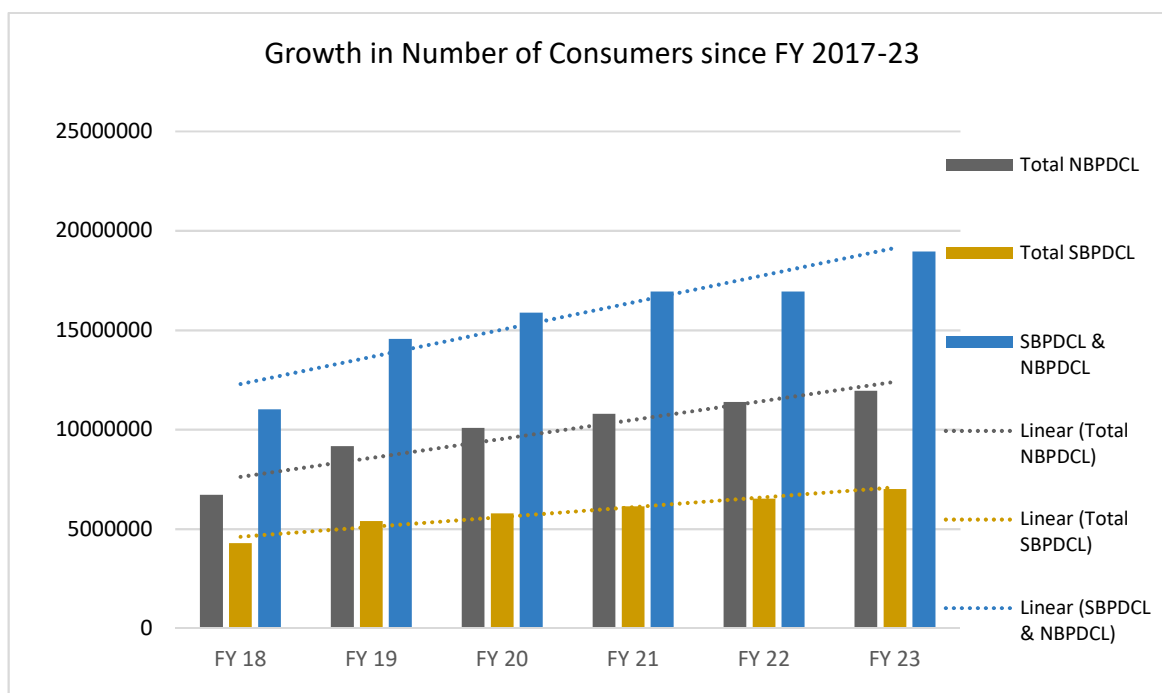
Number of Consumers

For truing-up of FY 2022-23, the Commission has reviewed the actual number of consumers submitted by the Petitioners in their petitions. The Commission observes that there is deviation in actual numbers of consumers as compared to ARR approved figures for FY 2022-23 as well as with figures considered in APR of FY 2022-23 as shown below:

Discoms	ARR	APR	True-up
NBPDCCL	11576807	11764837	11949924
SBPDCL	6603641	6906353	7005640

The deviations in actual vis-à-vis approved numbers are mainly due to fact that in the Order dated 25th March, 2022 the number of consumers were approved based on the estimations and in the Review Order the same were based on the first six months actual and next six months provisional data. However, as against this, the actual numbers of consumers reported during the FY 2022-23 have been claimed by the Discoms in Truing-up of FY 2022-23. In this regard, the Commission has analysed the historical trend for number of consumers as shown in the Figure given below:

Figure 1: Growth in Number of Consumers since FY 2017-18 to FY 2022-23



Historical Trend for Number of Consumers

Year	NBPDCCL	SBPDCL	Total
2017-18	7074536	4284972	11359508
2018-19	9165384	5400462	14565846
2019-20	10087527	5789783	15877310
2020-21	10794893	6149737	16944630
2021-22	11382948	6536456	17919404
2022-23	11949924	7005640	18955564

From the above, it can be seen that both the Discoms have witnessed positive trend with number of consumers showing a 3-year CAGR of around 5.81% for NBPDCCL and around 6.56% for SBPDCL.

Further, for FY 2022-23 the Commission has verified the actual number of consumers from the Audited Accounts of each Discom and found them to be in order. Accordingly, the Commission has considered the actual number of consumers in Truing-up FY 2022- 23 as submitted by the Petitioners as shown in the Table below:

Table 4.3: Number of Consumers approved for NBPDCCL & SBPDCL in True-up for FY 2022-23

Category of Consumers	NBPDCCL	SBPDCL	Total
Domestic	10785533	5988814	16774347
Kutir Jyoti	4217514	1556541	5774055
DS I Rural	5177639	2904828	8082467
DS II Demand Based	1390297	1527445	2917742
DS III	83	0	83
Non-Domestic Service	834977	590371	1425348
NDS I - Metered Now Demand Based	457453	212100	669553
NDS II - Demand Based	377524	378271	755795
Street Light Services	2239	2265	4504
Street Light 1	522	1000	1522
Street Light 2	1717	1265	2982
Irrigation & Allied Services	190341	305007	495348
IAS I	183992	300283	484275
IAS II	6349	4724	11073
Public Service Connections	56269	31859	88128
Public Water Works	2014	3247	5261
Har Ghar Nal	54255	28612	82867
Low Tension Industrial Services	79005	84698	163703
LTIS I (0-19 kW)	77807	79149	156956
LTIS II (>19 kW - 74 kW)	1198	5549	6747
LT Electric Vehicle Charging Station	104	91	195
High Tension	1447	2497	3944
HTS I - 11 kV	1378	2304	3682
HTS II - 33 kV	62	175	237
HTS III -132 kV	4	5	9
HTS IV - 220 kV	0	0	0

Category of Consumers	NBPDCCL	SBPDCL	Total
HTSS	3	13	16
HTIS (Oxygen Manufacturers)	0	32	32
HT Electric Vehicle Charging Station	0	0	0
Railway Traction Services	8	6	14
Nepal	1	0	1
Total	11949924	7005640	18955564

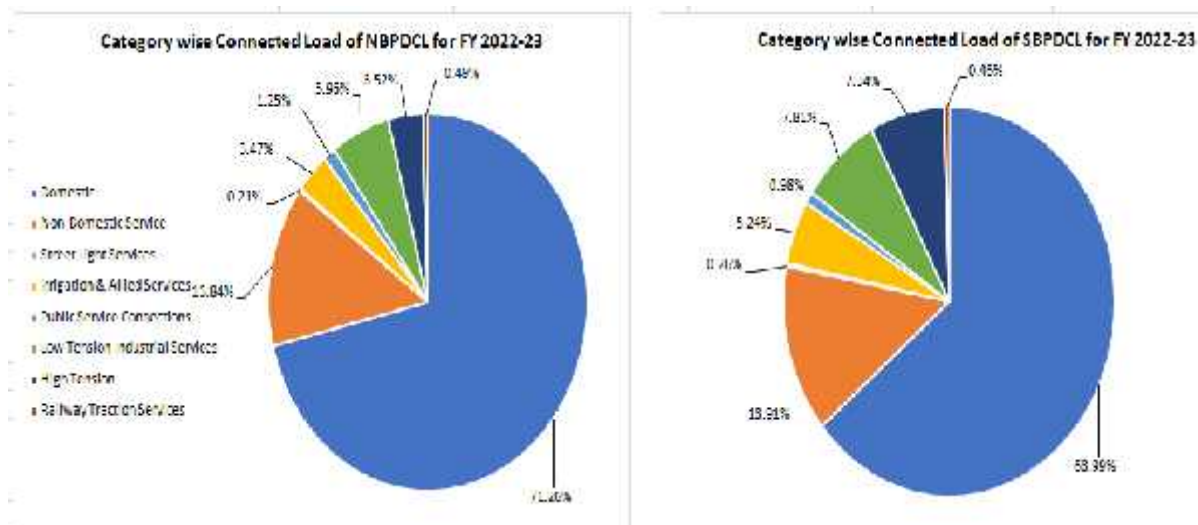
The Commission has approved the category wise number of consumers totaling 11949924 and 7005640 for NBPDCCL and SBPDCL respectively in True-up for FY 2022-23 as shown in the Table above.

Connected Load

The Commission in the Tariff Order dated 20th March, 2020, had directed the Discoms to get the category- wise connected load audited by 3rd Party and exhibit the same in the Audited Annual Accounts in future.

Accordingly, NBPDCCL has provided the category-wise connected load in the audited annual accounts of FY 2022-23. SBPDCL even though specifically directed in the Tariff Order dated 25th March, 2022 and again in the Tariff Order dated 23rd March, 2023 has not provided the category wise connected load in the audited annual accounts for FY 2022-23. The Commission expresses its dissatisfaction over the non-compliance of aforesaid directive by SBPDCL. The Commission hereby reiterates its direction that the Discoms shall get the category-wise connected load also audited by 3rd Party and exhibit the same in the Audited Annual Accounts of FY 2023-24 without fail. However, in absence of category wise the connected load in the audited annual accounts of SBPDCL for FY 2022-23, the Commission has taken those figures as mentioned in the Tariff petition and Format-I.

The Commission notes that NBPDCCL and SBPDCL have claimed total connected load of 12152255 kW and 11833827 kW, respectively, for FY 2022-23. The Commission has analysed the category wise connected load for each of the Discoms as represented in the Figure given below:

Figure 2: Category wise Connected Load of NBPDC & SBPDCL for FY 2022-23

From the above figures, it is noted that out of the total connected load, the domestic category consumers contribute majority of share which is around 71.26% and 63.99% of total connected load for NBPDC and SBPDCL, respectively. The share of HT category consumers stands at around 3.52% for NBPDC whereas for SBPDCL the share of HT category consumers is around 7.34%

For the purpose of True-up for FY 2022-23, the Commission has considered the connected load as submitted by the Petitioners as detailed in the Table Below:

Table 4.4: Connected Load (kW) approved in True-up for FY 2022-23

Category of Consumers	NBPDC	SBPDCL	Total
Domestic	8659527	7568702	16228229
Kutir Jyoti	1045760	387322	1433082
DS I Rural	5256907	3021580	8278487
DS II Demand Based	2356372	4159800	6516172
DS III	488	0	488
Non-Domestic Service	1682088	1645182	3327270
NDS I - Metered Now Demand Based	631207	331870	963077
NDS II - Demand Based	1050881	1313312	2364193
Street Light Services	25457	30789	56246
Street Light 1	4099	9672	13771
Street Light 2	21358	21117	42475
Irrigation & Allied Services	421645	620261	1041906
IAS I	368711	579970	948681
IAS II	52934	40291	93225
Public Service Connections	152250	115939	268189
Public Water Works	29403	47733	77136
Har Ghar Nal	122847	68206	191053
Low Tension Industrial Services	723769	923612	1647381
LTIS I (0-19 kW)	658976	635425	1294401

Category of Consumers	NBPDCCL	SBPDCL	Total
LTIS II (>19 kW - 74 kW)	64793	288187	352980
LT Electric Vehicle Charging Station	299	0	299
High Tension	427222	868673	1295895
HTS I - 11 kV	282710	460034	742744
HTS II - 33 kV	85942	236440	322382
HTS III -132 kV	49170	60030	109200
HTS IV - 220 kV	0	0	0
HTSS	9400	112169	121569
HTIS (Oxygen Manufacturers)	0	5769	5769
HT Electric Vehicle Charging Station	0	0	0
Railway Traction Services	60000	54900	114900
Total	12152257	11833827	23986084

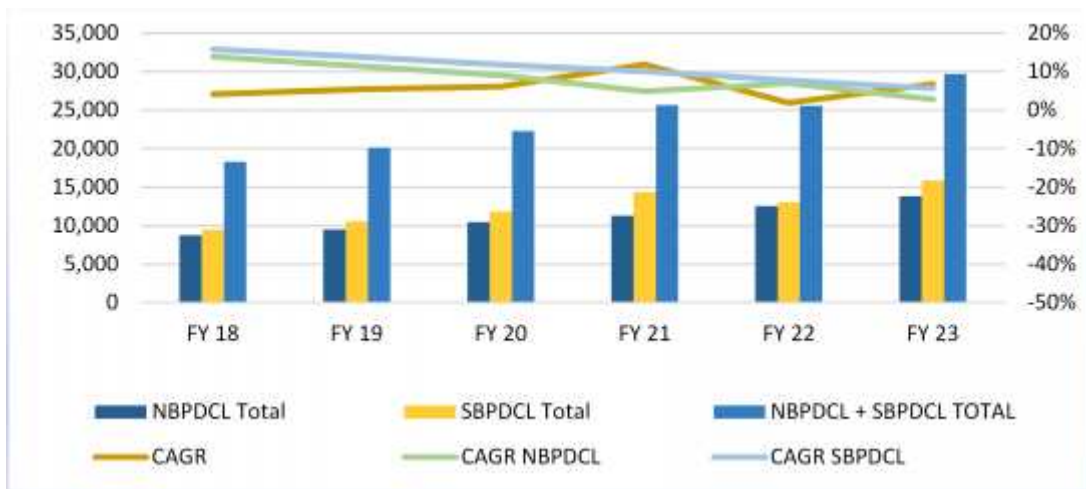
The Commission has approved the category wise connected load for NBPDCCL and SBPDCL in True- up of FY 2022-23 as shown in the Table above.

Energy Sales

The Commission has analysed the submission made by the Petitioners. The sales approved in the Order dated 25th March, 2022 for FY 2022-23 were based on the projection of the Petitioners which in turn were based on the then existing trends and on-ground conditions expected to drive the demand of the consumers. However, the sales submitted for approval in present petitions for FY 2022-23 are based on the actual consumption of the consumers of the Petitioners in FY 2022-23.

The Commission has analysed trend of the energy sales for NBPDCCL and SBPDCL since FY 2017-18 till FY 2022-23 as shown the figure below:

Figure 3: Growth in sales from FY 2017-18 to FY 2022-23



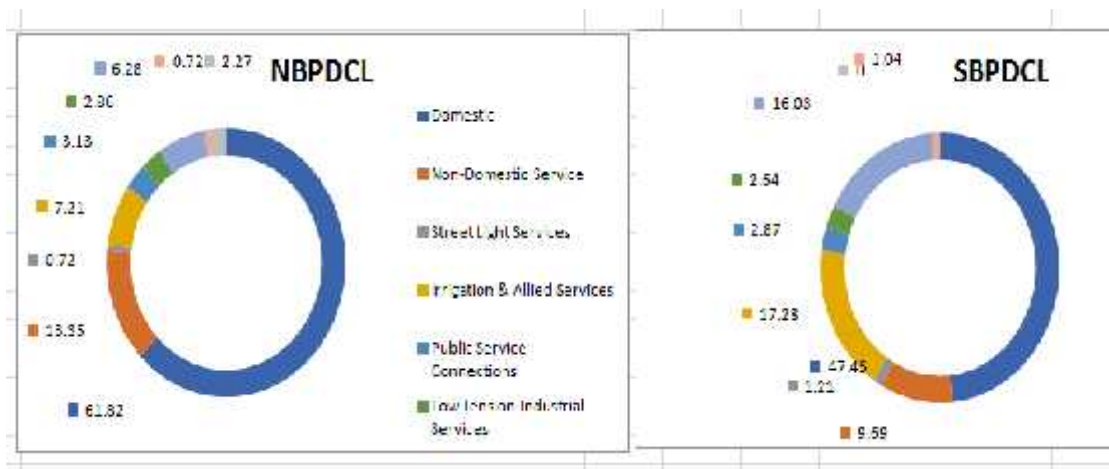
The category wise sales to consumers for NBPDC have increased from 8745 MU in FY 2017-18 to 13668 MU in FY 2022-23, (excluding surplus power, SLDC, Sale to Sugar Mills) resulting in 3-year CAGR of 9.39%. Similarly, the sales for SBPDCL have increased from 8332 MU in FY 2017-18 to 15719 MU (excluding surplus power, SLDC, Sale to Sugar Mills) in FY 2022-23, with a 3-year CAGR of 9.95%. Further, the Commission observed that the total energy sales for FY 2022-23 has increased by 9.47% and 11.98% for NBPDC and SBPDCL respectively over previous year energy sales.

Historical Trend for Category wise Consumer Energy Sales (MU)

Year	NBPDC	SBPDCL	Total
2017-18	8745	8332	17077
2018-19	9493	10586	20079
2019-20	10443	11827	22270
2020-21	11288	13054	24342
2021-22	12486	14038	26524
2022-23	13828	15881	29709

The category-wise sales mix for NBPDC and SBPDCL are as shown in the figure below:

Figure 4: Category wise sales mix (%) of NBPDC and SBPDCL for FY 2022-23



As seen from the figure above, the maximum energy consumption for both Petitioners pertaining to domestic consumers is around 61.82% for NBPDC and 47.45% for SBPDCL. HT categories consumption being a major cross-subsiding consumer category, contributes around 6.28% in the energy consumption of NBPDC and about 16.03% in the energy consumption of SBPDCL.

The energy sales in LT categories have grown with YoY increase of 17.73% and 8.21% in FY 2022-23 for NBPDC & SBPDCL respectively. For High Tension categories, sales

are increased with YoY growth of 13.69% for NBPDCCL and 33.52% for SBPDCL.

The Commission has verified the category wise energy sales to consumers submitted by the DISCOMs and has found that the same are in accordance with the Audited Annual accounts for FY 2022-23. However, it is noted that for some categories such as IAS-II, PWW, LTIS and HTS for which tariff is in Rs/kVAh, billing is done at kVAh, but units are not converted into kWh while computing the sales. On a query of the Commission, the petitioners submitted revised energy sales for such categories as below:

NBPDCCL has submitted the revised sales in Million kWh vide their letter dated 13.12.2023 in the additional submission as follows:

Sl. No	Category	Sales (Million kVAh)	Power Factor	Sales (Million kWh)
1	IAS-II	89.87	0.90	80.88
2	PWW	37.36	0.90	33.62
3	LTIS-I	402.48	0.90	362.23
4	LTIS-II	36.78	0.90	33.10
5	HTS-II	219.45	0.97	212.87
6	HTS-III	73.40	0.86	63.12

SBPDCL has also submitted the revised sales in Million kWh vide their letter dated 12.12.2023 in the additional submission as follows:

Sl. No	Category	Sales (Million kVAh)	Power Factor	Sales (Million kWh)
1	IAS-II	330.82	0.90	297.74
2	PWW	142.20	0.90	127.98
3	LTIS-I	280.09	0.90	252.08
4	LTIS-II	185.48	0.90	166.93
5	HTS-II	560.18	0.97	543.37
6	HTS-III	260.83	0.99	258.22
7	HTS Oxygen	19.14	0.97	18.57
8	HTSS	716.71	0.99	709.54

The revised energy sales for the above categories are considered accordingly in Truing up for FY 2022-23.

The Commission has noted that now only two unmetered sub categories i.e. street light (SS-I) and IAS-I are still remaining. It is also noted that for Kutir Jyoti, the consumption per consumer per month is exceeding stipulated norm for SBPDCL. The

Petitioners have submitted that the consumption over and above 50 units / month / consumer has been billed under DS-I or DS-II tariff rate as the case may be.

The applicability of KJ category is specifically defined by National Tariff Policy read with National Electricity Policy and related notification of the Rural Development Department of Bihar. Wherever, the deviation is noticed category of KJ may be converted into appropriate category i.e. DS-I or DS-II.

The Commission has observed that Petitioners have included sales of 226.92 MUs and 283.70 MUs for NBPDCCL and SBPDCL respectively under head of SLDC deviation. Regarding nature of SLDC deviation, petitioners have clarified that SLDC deviation is the adjustment done by BSPTCL with the DISCOMs on account of UI deviation for the Railway Traction Services. The energy shown under SLDC deviation is actually excess drawal of Railways from its schedule quantity from energy drawal to the Discoms as the Railways is an embedded entity of Bihar Discom for the purpose of power drawal. BSPTCL calculates and raises bills to Railways for their respective deviation in schedule and withdrawals. The amount recovered from Railways then refunded to the Discoms and is booked under the revenue head under SLDC deviation charges.

Both NBPDCCL and SBPDCL have shown the surplus energy sold through IEX through PTC, PMC of BSPHCL under energy sales. The Commission has excluded this figure from that of Energy Sales to consumers and has considered this to reduce the Power Purchase cost since T&D losses are not applicable on these energy sales.

The Commission, accordingly, approves the energy sales for the Petitioners in True-up for FY 2022-23 as per actual as detailed in the Table Below:

Table 4.5: Energy Sales (MU) approved in True-up for FY 2022-23, by the Commission

Category of Consumers	NBPDCCL	SBPDCL	Total
Domestic	8544.97	7526.86	16071.83
Kutir Jyoti	2530.51	933.92	3464.43
DS I Rural	4002.40	3687.42	7689.82
DS II Demand Based	2011.72	2905.52	4917.24
DS III	0.34	0.00	0.34
Non-Domestic Service	1844.81	1537.33	3382.14
NDS I - Metered Now Demand Based	598.87	415.66	1014.53
NDS II - Demand Based	1245.94	1121.67	2367.61
Street Light Services	99.13	191.79	290.92
Street Light 1	9.81	57.98	67.79

Category of Consumers	NBPDCCL	SBPDCL	Total
Street Light 2	89.32	133.81	223.13
Irrigation & Allied Services	996.73	2740.95	3737.68
IAS I	915.85	2443.21	3359.06
IAS II	80.88	297.74	378.62
Public Service Connections	432.39	455.37	887.76
Public Water Works	33.62	127.98	161.60
Har Ghar Nal	398.77	327.39	726.16
Low Tension Industrial Services	395.33	419.01	814.34
LTIS I (0-19 kW)	362.23	252.08	614.31
LTIS II (>19 kW - 74 kW)	33.10	166.93	200.03
LT Electric Vehicle Charging Station	0.05	0.17	0.22
High Tension	868.00	2543.16	3411.16
HTS I - 11 kV	549.74	1032.03	1581.77
HTS II - 33 kV	212.87	543.37	756.24
HTS III -132 kV	63.12	258.22	321.34
HTS IV - 220 kV	0.00	0.00	0.00
HTSS	42.27	709.54	751.81
HTIS (Oxygen Manufacturers)	0.00	18.57	18.57
HT Electric Vehicle Charging Station	0.00	0.00	0.00
Railway Traction Services	99.34	164.39	263.73
Nepal	314.22	0.00	314.22
SLDC Deviation	226.92	283.70	510.62
Sugar Mills & Others	5.67	0.00	5.67
Sale to Solar Companies	0.63	0.00	0.63
Total	13828.19	15881.30	29709.49

The Commission has approved Energy Sale of 13828.19 MU and 15881.30 MU for NBPDCCL and SBPDCL respectively in True-up of FY 2022-23 as shown in Table above.

4.3. Distribution losses

Petitioners' submission

AT&C Loss

The Monitoring Committee for RDSS constituted under Chairmanship of Secretary (Power), Govt of India, in its 9th meeting held on 28.04.2022, has approved the Action Plan and Loss Reduction DPR of North Bihar Power Distribution Company Limited and South Bihar Power Distribution Company Limited under Revamped Distribution Sector Scheme (RDSS). Accordingly, the Monitoring Committee approved the following trajectory for AT&C loss for the Petitioners.

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
SBPDCL	35%	31%	25%	20%

The Petitioner had been able to bring down the AT&C losses by more than 7% from FY 2018-19 to FY 2022-23. This has been made possible through a multitude of initiatives on improving the network performance as well as on the services side to enhance billing and collection efficiency.

Further, since, most of the consumers connected to the network of the Petitioner are LT consumers, therefore, the LT network length is significantly higher for the Petitioner as compared to the HT network length. The impact of the extended LT networks, especially in rural areas, directly leads to increase in losses on the low voltage network. Despite continuous multiple efforts, with the addition of such large number of consumers over the past few years, has led to a decreasing HT:LT network ratio, However, despite these raging challenges, Discoms are geared up to bring down the AT&C losses in line with the target approved by the Monitoring Committee.

Distribution Loss:

The Petitioners submitted that the Commission has approved the distribution loss of 15% in its MYT Order dated 25th March 2022 for FY 2022-23 to FY 2024-25 and same trajectory has been approved for APR in the Tariff Order dated 23rd March, 2023 for FY 2022-23. However, the actual distribution losses for the Petitioners are higher than the approved loss trajectory as shown in Table below:

Distribution Company	Approved in MYT Order for FY 2022-23	Approved in APR Order for FY 2022-23	Actual Claimed for FY 2022-23
NBPDCCL	15%	15%	15.18%
SBPDCL	15%	15%	22.02%

The Petitioners further submitted that difference in the approved loss target and the actual loss levels is practically impossible to achieve in the given period, and therefore this shall add on to the burden of the DISCOM.

Petitioners requested the Commission to consider the challenging operating scenario of the Petitioner wherein most consumers being added are in rural and remote areas further adding to network losses, ongoing measures, and regulatory precedents to approve the actual distribution loss for FY 2022-23.

Collection Efficiency:

The Petitioners submitted that based on the circle wise collection efficiency, the

Petitioners have computed the collection efficiency for FY 2022-23 as shown in Table Below:

Table 4.6: Collection Efficiency for FY 2022-23, as claimed by NBPDCCL & SBPDCL

Distribution Company	Approved in MYT Order for FY 2022-23	Actual Claimed for FY 2022-23
NBPDCCL	100%	95.36%
SBPDCL	100%	92.01%

The Petitioners submitted that the Commission had approved the collection efficiency of 100% in the ARR for FY 2022-23 as per the UDAY scheme. However, the per capita income of Bihar, especially for the domestic consumer is very low which restricts their paying capacity, and this has proven to be a challenge to recover the billed amount despite taking various measures for timely billing and easy payment of the bill.

Calculation of AT&C Loss:

The Petitioners have submitted the AT&C loss for the year FY 2022-23 as shown in the Table below:

Table 4.7: AT&C losses for FY 2022-23 (excluding Nepal), as claimed by NBPDCCL & SBPDCL

Distribution Company	Approved in ARR for FY 2022-23	Actual for FY 2022-23
NBPDCCL	15%	19.12%
SBPDCL	15%	28.25%

Table 4.8: AT&C loss for FY 2022-23 submitted by NBPDCCL& SBPDCL

Particulars	Unit	Legend	NBPDCCL	SBPDCL
Gross Energy Purchased at State Periphery	MU	A	16910	21142
Transmission Losses	MU	B	561	701
Energy at Distribution Periphery	MU	C=A-B	16349	20441
SLDC deviation	MU	D	227	284
Net Energy at Distribution Periphery	MU	E=C-D	16122	20157
Distribution losses	MU	F=E-G	2447	4439
Distribution losses (inc Nepal Sales)	%	F/E*100	15.18%	22.02%
Energy Sold	MU	G	13675	15719
Revenue actually realized from sale of power without subsidy	Rs Cr	H		
Tariff Subsidy actually received	Rs Cr	I		
Net Revenue from sale of energy on subsidy received basis	Rs Cr	J=H+I	10669	11889
Tariff Subsidy booked	Rs Cr	K		
Revenue from sale of energy on subsidy booked basis	Rs Cr	L=H+K	10669	11889

Particulars	Unit	Legend	NBPDCCL	SBPDCL
Opening Debtors for Sale of Energy	Rs Cr	M	2658	8753
Closing Debtors for Sale of Energy	Rs Cr	N	3153	9703
Any amount written off during the year directly from "L" above	Rs Cr	O		
Adjusted closing Debtors for Sale of Energy	Rs Cr	P=N+O	3153	9703
Collection efficiency	%	$Q=(J+M-P)/L*100$	95.36%	92.01%
Unit realized	MU	$R=G*Q$	13041	14463
Unit Un-realized	MU	$S=E-R$	3082	5695
AT&C loss	%	T=S*100/E	19.12%	28.25%

Commission's analysis:**AT&C Loss:**

The Govt. of India introduced Revamped Distribution Sector Scheme (RDSS) scheme- A reform based and results linked scheme in July, 2021. The DISCOMs have participated in the scheme and submitted the action plan and DPR. The Monitoring Committee for RDSS has approved the action plan and AT&C loss reduction of NBPDCCL and SBPDCL for FY 2021-22 to FY 2024-25 as given in the table below;

Table 4.9: AT& C Loss Target Under RDSS Scheme

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%
SBPDCL	35%	31%	25%	20%

The Electricity Amendment Rules issued vide its GSR 558 (E) dated 26th July 2023 has the provision that the AT&C loss reduction trajectory adopted by the SERC for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government under RDSS and the BERC may adopt the trajectory in accordance with the Rules.

It is observed from the submission of the Discoms, that they have achieved AT&C loss level of 19.12% and 28.25% by NBPDCCL and SBPDCL respectively which is lower than the respective targets for the petitioner-Discoms as agreed by the State Government of Bihar and approved by the Central Government under RDSS SCHEME specified.

Table 4.10: AT&C losses for FY 2022-23 target vs Actuals

Distribution Company	Target under RDSS for FY 2022-23 FY 2022-23	Actual as per audited accounts FY 2022-23
NBPDCCL	22%	19.12%
SBPDCL	31%	28.25%

The Commission also observes that petitioners have not computed AT&C losses as per the formula and methodology specified in BERC (Multi Year Distribution Tariff) Regulations, 2021. The Discoms have considered the revenue billed which includes other charges also instead of considering only revenue billed from energy sales.

Further consequent to revision of energy sales for some consumer categories by both Discoms the distribution losses, AT&C losses have been revised.

The sales figures in respect of certain categories for which kVAh tariff is prescribed were not properly reported by the Discoms.

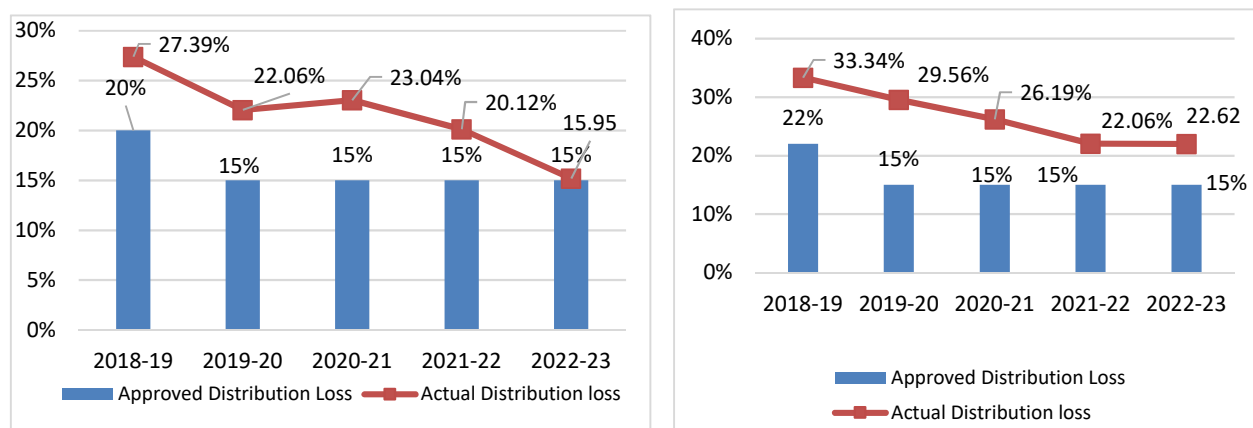
On a query, the Discoms have submitted the sales figures in kWh in respect of IAS-II, PWW, LTIS and HTS categories for which the billing is based on kVAh tariff but the Discoms had not reported the sales in kWh earlier and accordingly submitted the revised sales details as deliberated above.

It is also noted that SBPDCL has not taken opening and closing Debtors as per annual accounts.

Distribution Loss:

The following graph shows the trend of actual distribution losses achieved by the Petitioners as compared to the distribution loss targets stipulated by the Commission in last 5 financial years i.e. from FY 2018-19 to FY 2022-23.

Figure 5:NBPDCCL & SBPDCL Distribution Losses for FY 2018-19 to FY 2022-23



From the above graphs, the Commission observes that the actual distribution losses of NBPDCCL and SBPDCL have reduced from 27.39% and 33.34% in FY 2018-19, to 15.95% (sale of power to Nepal also) and 22.62% respectively in FY 2022-23. NBPDCCL has nearly achieved the stipulated target which is appreciated whereas SBPDCL is yet to achieve the stipulated distribution loss target .

The Commission, following the approach for computation of Distribution losses, Collection efficiency and AT&C losses as per the methodology specified in BERC (Multi Year Distribution Tariff) Regulations, 2021 has computed Distribution losses, Collection efficiency and AT&C losses as per the format specified in the Regulation as below:

Table 4.11: AT&C losses for FY 2022-23 for NBPDCCL & SBPDCL, as computed by the Commission

Sl. No	Particular	Legend	Units	NBPDCCL	SBPDCL
1	Gross Power Purchase			21,211.83	26,519.56
2	Less: Surplus power sold through Exchange			3624.21	4530.08
3	Total Power Purchase (excluding sales of surplus power)	A	MU	17,587.62	21,989.48
4	Central Transmission losses (as claimed)	B	MU	677.85	847.46
5	Gross Energy Purchased at State Periphery	C = (A-B)	MU	16,909.77	21,142.02
6	Energy Traded (Inter State Sales & SLDC Deviation)	D	MU	541.14	283.70
7	State Transmission Loss (as claimed)	E	MU	560.68	700.97
8	State Transmission Loss (%)		%	3.32	3.32
9	Net Energy at Distribution Periphery	F=C-D-E	MU	15,807.95	20,157.35
10	Distribution Loss (Mus)	G	MU	2,520.90	4,559.75
11	Distribution loss %	G*100/F	%	15.95%	22.62%
12	Energy Sold (MUs) (Excluding Nepal SLDC Deviation units)	H	MU	13,287.05	15,597.60
13	Revenue from sale of power without subsidy		(Rs. Cr)	0	0
14	Tariff Subsidy actually received		(Rs. Cr)	4016.05	4204.44
15	Net Revenue from sale of energy on subsidy received basis	I	(Rs. Cr)	9,580.71	11,031.79
16	Tariff Subsidy booked		(Rs. Cr)	4016.05	4204.44
17	Revenue from sale of energy on subsidy booked basis	J = (I)	(Rs. Cr)	9,580.71	11,031.79
18	Opening Debtors for Sale of Energy	K	(Rs. Cr)	2657.98	7204.42
19	Closing Debtors for Sale of Energy	L	(Rs. Cr)	3152.80	7537.89
23	Any amount written off during the year directly from "L" above	M	(Rs. Cr)		

Sl. No	Particular	Legend	Units	NBPDCCL	SBPDCL
24	Adjusted closing debtor for sales of energy	$N = (L+M)$	(Rs. Cr)	3,152.80	7,537.89
25	Collection Efficiency	$O = (J+K-N) * 100 / J$	%	94.84%	96.98%
26	Units Realised	$P = H * O$	MU	12600.81	15126.11
27	Unit Un-Realised	$Q = F - P$	MU	3207.14	5031.24
28	AT&C loss	$R = Q / F$	%	20.29%	24.96%

Accordingly, the Commission has computed and considered the Distribution loss, Collection efficiency and AT&C losses for the Discoms in True-up of FY 2022-23 as shown in Table Below:

Table 4.12: Summary of AT&C losses for NBPDCCL & SBPDCL, computed by the Commission for FY 2022-23

Particular	NBPDCCL			SBPDCL		
	Approved Target	Claimed for FY 2022-23	Computed by Commission	Approved Target	Claimed for FY 2022-23	Computed by Commission
Distribution loss	15%	18.18%	15.95%	15%	22.02%	22.62%
Collection Efficiency	100%	95.36%	94.84%	100%	92.01%	96.98%
AT&C loss	15%	19.12%	20.29%	15%	28.25%	24.96%

Transmission Losses

NBPDCCL's submission:

Petitioner submitted that the Intra-State transmission loss is taken as per actuals i.e. 560.68 MUs from the audited accounts for FY 2022-23 and it has taken the Central Transmission loss as per actuals i.e. 677.85 MUs from the audited accounts for FY 2022-23.

SBPDCL's submission:

Petitioner submitted that the Intra-State transmission loss is taken as per actuals, i.e. 700.97 MUs from the audited accounts for FY 2022-23. Petitioner and it has taken the Central Transmission loss as per actuals, i.e., 874.46 MUs from the audited accounts for FY 2022-23.

Commission's analysis:

In response to the clarification sought by the Commission, Petitioners submitted the month-wise computation of billed energy to Discoms in Central Sector and

Scheduled energy of Discoms and others and computation of inter-state and intra-state Transmission losses for FY 2022-23 as shown below.

Sl. No	Particular	Legend	Unit	Value
A	Total Energy for Discoms in Central Sector Purchase including UI	A	MU	35901.53
B	UI	B	MU	59.43
C	Billed Energy for Discoms in Central Sector Purchase (exc. UI)	C=A-B	MU	35842.10
D	Scheduled Energy for Discoms	D	MU	34316.79
E	Difference against Billed Energy and Schedule Drawal of DISCOM	E=C-D	MU	1525.31
F	Billed Energy for Renewable central	F	MU	3591.11
G	Inter-State Transmission losses	$E/(A-F)*100$	%	4.72%
H	Losses allocated to NBPDCCL (44.44%)		MU	677.85
I	Losses allocated to SBPDCL (55.56%)		MU	847.46

The Commission carried out the prudence check of Petitioners' submission and found it to be in line with Regional Energy Accounting (REA) and UI deviation accounts for the period FY 2022-23 for Bihar from the ERPC website. Energy scheduled is considered after reducing STOA and Railway schedule units. Discoms have excluded Billed energy of Renewable Central Sources to arrive at CTU losses. For the purpose of computing average percentage of CTU losses on the total purchase is considered by the Commission. The computation of inter-state Transmission loss is as shown in Table below:

Table 4.13: Inter-state Transmission losses computed by Commission for FY 2022-23

Sl. No	Particulars	Legend	Unit	Value
A	Billed Energy for Discoms in Central Sector Purchase	A	MUs	35842.10
B	Scheduled Energy for Discoms	B	MUs	34316.79
C	Difference against Billed Energy and Schedule Drawal of DISCOM (Losses)	C= A-B	MUs	1525.31
D	Inter-State Transmission losses	$C/A*100$	%	4.26%
E	Losses allocated to NBPDCCL (44.44%)		MU	677.85
F	Losses allocated to SBPDCL (55.56%)		MU	847.46

Accordingly, the Commission considers Inter-state transmission loss at 1525.31 MU in Truing up for FY 2022-23 allocated among NBPDCCL & SBPDCL in the power sharing ratio i.e. 677.85 MU for NBPDCCL and 847.46 MU for SBPDCL.

The Petitioners have computed the state transmission loss at 3.32% for

FY 2022-23 based on the total energy available and energy drawn by Discoms as shown below.

Table 4.14: Intra-state Transmission losses for FY 2022-23

Sl. No	Particulars	MU
1	Scheduled Energy (Net Energy from central sector source)	34316.79
2	UI drawal	59.43
3	Energy from State and Others (excluding embedded purchase if any)	3639.31
4	Total energy available (1+2+3)	38015.53
5	Energy consumed in NBPDCCL	16333.43
6	Energy consumed in SBPDCL	20420.46
7	Total energy utilized by Discoms (5+6)	36753.89
8	Losses in STU (4-7)	1261.65
9	Losses in STU- NBPDCCL (44.44%)	560.68
10	Losses in STU-SBPDCL (55.56%)	700.97
11	Percentage STU Losses ((8/4)*100)	3.32%

* Excluding embedded energy purchase

The Commission noted that Intra-State transmission loss for DISCOMs is 1261.65 MU i.e., 560.68 MU for NBPDCCL and 700.97 MU for SBPDCL which works out to 3.32% which are inline as per Annual Audited accounts. Therefore, the Commission, has considered the Intra-state Transmission loss at 3.32% for computation of energy requirement for FY 2022-23.

4.4. Power Purchase for FY 2022-23

Petitioners' submission

Petitioners have submitted that the Bihar is an underdeveloped power generation state. As a result, the State power distribution companies rely heavily on central generating stations and other inter-state power purchase to meet consumers demand within the State. This dependence consequently creates uncertainty in terms of reliability and also significantly pushes up the power purchase costs. Power procurement for both the petitioners is executed by the power management cell of BSP(H)CL, and this is allocated between the two DISCOMs, NBPDCCL and SBPDCL, in the energy sharing ratio based on the demand growth requirement and consequent power supply requirement.

Long Term Power Purchase from existing source has primarily been NTPC, NHPC and the same has been considered based on the actual quantum with adjustments to capture overall power purchase cost in a reasonable manner. Other sources of power

include power procured from State Generating companies (RE and Non-RE Sources) and IPPs.

Medium / Short Term power purchase from sources namely IEX, DEEP Portal etc and these have been adequately considered as per the actual power purchase data provided.

The details of actual power purchased from various sources in FY 2022-23 as submitted by NBPDCCL on 18.12.2023 and SBPDCL is on 12.12.2023 in their additional information submitted are as shown in Table below:

Table 4.15: Actual Power Purchase for FY 2022-23, as claimed by NBPDCCL & SBPDCL

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Stations injecting at CTU	4056.32	16120.54	4761.76	20154.31
FSTPP I & II	224.04	1185.69	263	1482.38
FSTPP III	44.74	224.9	52.52	281.18
KHSTPP I	158.46	911.39	186.02	1139.44
KHSTPP II	29.26	212.15	34.34	265.24
Barh Stage I (Unit I & II)	352.18	1016.77	413.42	1271.19
Barh Stage I Unit III	175.26	0	205.74	0
Barh Stage II	525.9	3417.9	617.36	4273.14
Nabinagar (BRBCL)	46	283.56	54	354.52
Talcher Stage I	185.79	1306.84	218.11	1633.84
KBUNL Stage II	132.97	919.55	156.1	1149.64
NPGCL	754.23	4726.19	885.4	5908.8
North Karanpura Unit I	136.53	75.91	160.27	94.9
North Karanpura Unit II	135.7	0	159.3	0
North Karanpura Unit III	135.7	0	159.3	0
Darlipali STPS	148.75	605.64	174.61	757.18
Buxar TPP U1	258.06	0	302.94	0
Buxar TPP U2	258.06	0	302.94	0
Chuka	42.82	208.07	50.27	260.13
Rangit	10.59	49.4	12.43	61.76
Tala	119.65	269.17	140.45	336.52
Teesta	49.22	265.22	57.78	331.59
Mangdechhu	130.86	442.2	153.61	552.85
Kurichu	1.56	0	1.84	0
Stations injecting at STU	356.18	1476.44	418.12	1845.89
BSPHC	24.98	10.38	29.32	12.98
BTPS Stage I	101.2	11.65	118.8	14.57
BTPS Stage II	230	1454.41	270	1818.34
IPPs	224.48	1461.49	263.52	1827.2
GMR	119.6	844.02	140.4	1055.22
JITPL	104.88	617.47	123.12	771.98

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Renewables	1721.87	1752.12	1831.46	2190.55
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.6	6.81	5.4	8.55
M/s Response renewable Energy Ltd, Kolkata.	4.6	8.17	5.4	10.26
M/s Avantika Contractors Ltd., Hyderabad	2.3	2.89	2.7	3.64
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.32	1.62	2.91
Alfa Infraprop Pvt. Ltd.	9.2	14.65	10.8	17.88
Udipta Energy & Equipment Pvt. Ltd.	2.3	3.24	2.7	4.05
Azure Power India Pvt. Ltd.	4.6	6.08	5.4	7.66
Welspun Renewables Project – I	4.6	6.89	5.4	8.68
Welspun Renewables Project – II	6.9	10.07	8.1	12.67
Welspun Renewables Project – III	6.9	10.37	8.1	13.09
Acme Cleantech Project (Nalanda)	6.9	10.21	8.1	12.71
Acme Cleantech Project (Magadh)	4.6	7.11	5.4	8.93
SECI (Focal)	4.6	8.49	5.4	10.61
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	69	0	81	0
SECI Phase-III (Renew Sunwaves)	138	329.12	162	411.47
SB Energy Six Pvt. Ltd. (NTPC)	138	338.09	162	422.69
GRT Jewellers (SECI-V)	69	110.66	81	138.35
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92	197.64	108	247.11
Wind ISTS Scheme Tranche II (SECI) (Orange)	46	121.3	54	151.65
Avada (BREDA), Dharbhanga	0.74	0	0.87	0
SECI Phase-III Wind	0	0	0	0
SECI Green Infra	46	120.23	54	150.31
Alfanar	23	61.45	27	76.83
Betam	23.09	57.78	27.11	72.24
SECI Phase-VI Wind	161	0	0	0
Ostro Kannad	138	236.36	162	295.5
Morjar Windfarm	23	14.97	27	18.72
SBE Renewable (SECI Phase-V)	151.8	0	178.2	0
SJVN Ltd (BREDA)	92	0	108	0
Avada (BREDA)	23	0	27	0
Adani Green Energy	276	0	324	0
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.6	0	113.4	0
New Swadeshi Sugar Mill, Narkataganj	4.6	5.49	5.4	6.86
Hasanpur Sugar Mill, Dalsinghsarai	6.67	6.87	7.83	8.59
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.9	10.49	8.1	13.12
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.56	7.83	24.45
HPCL Biofuels Ltd., Sugauli, East Champaran	9.2	7.12	10.8	8.9

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
HPCL Biofuels Ltd., Lauria, West Champaran	9.2	8.7	10.8	10.88
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	0.08	0.54	0.1
Bihar Distillers & Bottlers Pvt Ltd	4.32	2.25	5.08	2.81
Tirupati Sugar	2.76	6.65	3.24	8.31
Others	92	401.24	108	501.63
PTC(IEX)	0	147.13	0	183.95
GTAM IEX	0	0	0	0
Prior Period Expenses	0		0	
UPPCL	0	1.24	0	1.55
NEA	0	0.08	0	0.1
UI	0	26.41	0	33.02
PTC JITPL	57.5	154.06	67.5	192.6
PTC SKS Power	34.5	72.32	40.5	90.42
Total	6450.85	*21211.84	7342.37	*26519.58

* Figures revised in additional submission

Commission's analysis

The Commission has noted the power purchased quantum from the Central Generating Stations and other sources from ERPC website compared and validated the same with power purchase bills submitted by the petitioners and found it to be in order.

The Commission recognizes the sources of power purchase outlined by the Petitioners which is based on audited annual accounts for FY 2022-23.

The approved power purchase quantum from various sources for FY 2022-23 is given in the Table below:

Table 4.16: Source-wise Power Purchase (MUs) approved for NBPDCCL & SBPDCL for FY 2022-23

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Stations injecting at CTU	3091.99	16120.55	3629.69	20154.30
FSTPP I & II	224.04	1185.69	263	1482.38
FSTPP III	44.74	224.9	52.52	281.18
KHSTPP I	158.46	911.39	186.02	1139.44
KHSTPP II	29.26	212.15	34.34	265.24
Barh Stage I (Unit I & II)	352.18	1016.77	413.42	1271.19
Barh Stage II	525.9	3417.9	617.36	4273.14

Name of The Source	NBPDC		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Nabinagar (BRBCL)	46	283.56	54	354.52
Talcher Stage I	185.79	1306.84	218.11	1633.84
KBUNL Stage II	132.97	919.55	156.1	1149.64
NPGCL	754.23	4726.19	885.4	5908.8
North Karanpura Unit I	136.53	75.91	160.27	94.9
Darlipali STPS	148.75	605.64	174.61	757.18
Chuka	42.82	208.07	50.27	260.13
Rangit	10.59	49.4	12.43	61.76
Tala	119.65	269.17	140.45	336.52
Teesta	49.22	265.22	57.78	331.59
Mangdechhu	130.86	442.2	153.61	552.85
Stations injecting at STU	356.18	1476.44	418.12	1845.89
BSPHC	24.98	10.38	29.32	12.98
BTPS Stage I	101.2	11.65	118.8	14.57
BTPS Stage II	230	1454.41	270	1818.34
IPPs	224.48	1461.49	263.52	1827.20
GMR	119.6	844.02	140.4	1055.22
JITPL	104.88	617.47	123.12	771.98
Renewables	850.35	1752.11	998.25	2190.53
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.60	6.81	5.40	8.55
M/s Response renewable Energy Ltd, Kolkata.	4.60	8.17	5.40	10.26
M/s Avantika Contractors Ltd., Hyderabad	2.30	2.89	2.70	3.64
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.32	1.62	2.91
Alfa Infraprop Pvt. Ltd.	9.20	14.65	10.80	17.88
Udipta Energy & Equipment Pvt. Ltd.	2.30	3.24	2.70	4.05
Azure Power India Pvt. Ltd.	4.60	6.08	5.40	7.66
Welspun Renewables Project - I	4.60	6.89	5.40	8.68
Welspun Renewables Project – II	6.90	10.07	8.10	12.67
Welspun Renewables Project – III	6.90	10.37	8.10	13.09
Acme Cleantech Project (Nalanda)	6.90	10.21	8.10	12.71
Acme Cleantech Project (Magadh)	4.60	7.11	5.40	8.93
SECI (Focal)	4.60	8.49	5.40	10.61
SECI Phase-III (Renew Sunwaves)	138.00	329.12	162.00	411.47
SB Energy Six Pvt. Ltd. (NTPC)	138.00	338.09	162.00	422.69
GRT Jewellers (SECI-V)	69.00	110.66	81.00	138.35
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92.00	197.64	108.00	247.11
Wind ISTS Scheme Tranche II (SECI) (Orange)	46.00	121.30	54.00	151.65
SECI Green Infra	46.00	120.23	54.00	150.31
Alfanar	23.00	61.45	27.00	76.83
Betam	23.09	57.78	27.11	72.24
Ostro Kannad	138.00	236.36	162.00	295.50

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Morjar Windfarm	23.00	14.97	27.00	18.72
New Swadeshi Sugar Mill, Narkataganj	4.60	5.49	5.40	6.86
Hasanpur Sugar Mill, Dalsinghsarai	6.67	6.87	7.83	8.59
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.90	10.49	8.10	13.12
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.56	7.83	24.45
HPCL Biofuels Ltd., Sugauli, East Champaran	9.20	7.12	10.80	8.90
HPCL Biofuels Ltd., Lauria, West Champaran	9.20	8.70	10.80	10.88
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	0.08	0.54	0.10
Bihar Distillers & Bottlers Pvt Ltd	4.32	2.25	5.08	2.81
Tirupati Sugar	2.76	6.65	3.24	8.31
Others	92.00	401.24	108.00	501.64
PTC(IEX)	0.00	147.13	0.00	183.95
UPPCL	0.00	1.24	0.00	1.55
NEA	0.00	0.08	0.00	0.10
UI	0.00	26.41	0.00	33.02
PTC JITPL	57.50	154.06	67.50	192.60
PTC SKS Power	34.50	72.32	40.50	90.42
Total	4615.00	21211.83	5417.58	26519.56

Note: The sources from which the Power is drawn for Discoms is only considered while totaling Capacity MW and Energy MU.

The Commission considers the total quantum of power purchase of 21211.83 MU for NBPDCCL and 26519.56 MU for SBPDCL for the purpose of working out the energy balance and for further computation of the power purchase cost as part of the truing-up exercise for FY 2022-23.

4.5. Energy Balance

Petitioners' submission

Petitioners have submitted that energy balance is calculated based on the actual sales, distribution losses and power availability during FY 2022-23. NBPDCCL and SBPDCL have submitted revised Energy Balance Tables vide their letters dated 13.12.2023 and 12.12.2023 respectively. Detailed computation as submitted by the petitioner is shown in Table below:

Table 4.17: Energy Balance for Truing-up of FY 2022-23, as submitted by NBPDCCL & SBPDCL

Sl. No.	Particulars	Unit	NBPDCCL	SBPDCL
A	Energy Requirement			
1	Energy sales	MU	13,901.70	16,002.31
2	Less: SLDC deviation	MU	226.92	283.7
3	Less: Inter-State Sales	MU		-
4	Energy sales (excl. SLDC deviation and interstate Sales)		13,674.78	15,718.61
5	Distribution Loss	%	15.18%	22.02%
6	Add: Distribution Loss	MU	2,447.41	4,438.77
7	Energy required at Distribution periphery	MU	16,122.19	20,157.38
8	Add: sales corresponding to SLDC deviation	MU	226.92	283.7
9	Add: interstate sales	MU	-	-
10	Total energy required at Distribution periphery	MU	16,349.11	20,441.08
11	State Transmission Loss	%	3.32%	3.32%
12	Add: State Transmission Loss	MU	560.68	700.97
13	Total energy required at State Transmission Periphery	MU	16,909.78	21,142.05
14	Losses in Regional Transmission system	%	3.85%	3.85%
15	Losses in Regional Transmission system	MU	677.85	847.46
16	Total Energy Requirement at ex-bus	MU	17,587.63	21,989.51
17	Total energy Purchased (inc surplus power)	MU	*21,211.84	26,519.58
18	Energy Surplus/(Deficit) at State Periphery	MU	*3,624.21	4,530.07

* Figures revised in additional submission

It is submitted that as shown above, NBPDCCL has 3,624.21 MU of surplus which is also shown in the audited accounts as Sale of Power to IEX. The corresponding revenue of this surplus power is Rs 1,810.36 Cr as per the audited accounts that has been deducted from the net ARR. SBPDCL has calculated 4530.07 MU Energy Surplus at state periphery which is also shown in the audited accounts as Sale of Power to PTC/IEX. The corresponding revenue of this surplus power is Rs 2263.36 Cr as per the audited accounts that has been deducted from the net ARR.

Commission analysis:

The Energy Balance for FY 2022-23 has been computed based on the approved energy sales in Table 4.5 in the True-up of the year at 13828.19 MU for NBPDCCL and at 15881.30 MU for SBPDCL.

Sales at distribution network are determined by deducting inter-state sales (i.e., Sales to Nepal & SLDC Deviation). Distribution loss at 15.95% and 22.62% for NBPDC & SBPDCL respectively is approved for FY 2022-23, is added in distribution network sales to arrive at the energy requirement at distribution network periphery.

Further, Energy required in state transmission periphery is computed based on the inter- state Transmission loss at 4.26% as approved in para 4.3.1.

The Commission has arrived at the CTU losses at 1525.31 MU on power purchased from Central Stations, IPP etc., from outside the State. For estimating the additional power purchase due to excess distribution loss, the total power purchase from various sources has been worked out considering the impact of average regional transmission loss applicable on the total power purchase i.e. including intra state power purchase as below.

1.	Power Purchase from Central Sources excluding UI (35901.54 – 59.43)	35842.11 MU
2	CTU Losses	1525.31 MU
3	Total Power Purchase including State Purchase excluding UI (21211.83 + 26519.56-59.43)	47671. 96 MU
4	Average Percentage of CTU losses on total power purchase (1525.31÷47671.96)	3.20%

The reason for applying the average regional transmission loss is that the power purchase quantum also includes sources of power on which the regional transmission losses are not applicable i.e., State Generating stations, Renewable Energy sources, Nepal etc., The details of energy requirement and energy availability during FY 2022-23 is computed in Table below:

Table 4.18: Energy Balance for Truing-up for FY 2022-23, as computed by the Commission

Sl. No	Particulars	Unit	NBPDC Actual FY 2022-23	SBPDCL Actual FY 2022-23
A	Energy Requirement			
1	Energy sales	MU	13,828.19	15,881.30
2	Less: Inter-state sales to Nepal	MU	314.22	0.00
3	Less: SLDC Deviation	MU	226.92	283.70
4	Energy sales excluding Inter-state sales & SLDC Deviation	MU	13,287.05	15,597.60
5	Distribution Loss	%	15.95%	22.62%

Sl. No	Particulars	Unit	NBPDCCL Actual FY 2022-23	SBPDCL Actual FY 2022-23
6	Add: Distribution Loss	MU	2,520.90	4,559.75
7	Total energy required at Distribution periphery (excluding inter-state sales)	MU	15,807.95	20,157.35
8	Add: Inter-state sales	MU	314.22	0.00
9	Add: SLDC Deviation	MU	226.92	283.70
10	Energy required at Transmission periphery	MU	16,349.09	20,441.05
11	State Transmission Loss	%	3.32%	3.32%
12	Add: State Transmission Loss	MU	561.43	701.95
13	Total energy required at State Transmission Periphery	MU	16,910.52	21,143.00
14	Losses in Regional Transmission System	%	3.20%	3.20%
15	Add: Losses in Regional Transmission System	MU	559.03	698.94
16	Total Energy Requirement at Ex-Bus	MU	17,469.54	21,841.94
17	Total Energy Purchased	MU	21,211.83	26519.56
18	Surplus Energy Purchased	MU	3,742.29	4,677.62

As shown in the above Table, the Commission has arrived at surplus energy purchase by NBPDCCL at 3742.99 MU and SBPDCL at 4677.62 MU based on the energy sales and approved Distribution losses.

4.6. Power Purchase Cost Petitioners' submission

Petitioners have submitted that power purchase cost mainly comprises of fixed charges and energy charges for two-part Tariff essentially with NTPC, NHPC, GMR Kamalanga, Sugar mills, biomass, bagasse and only energy charges in case of single part Tariff based PPAs, which are typically for BSHPC, Solar and short-term power purchase, etc. The Petitioner has presented the actual expenditure incurred on power purchase based on bills raised by the various power sellers. The actual amount has been considered as per the audited accounts.

NBPDCCL has submitted that, it has suffered an DSM of 26.41 MU which has resulted into a DSM charge of Rs.41.40 Crore. NBPDCCL has submitted revised Power Purchase Cost Table-14 vide their letter dated 18.12.2023. NBPDCCL has claimed power purchase cost to an amount of Rs 11700.10 Crore for FY 2022- 23. The summary of power purchase cost details submitted by the NBPDCCL for FY 2022-23 are shown in Table below:

Table 4.19: Power Purchase Cost for FY 2022-23, as claimed by NBPDCCL

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc. cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
Stations injecting at CTU	4056.32	16120.54	2895.30	4753.47	148.46	7797.22	4.84
FSTPP I & II	224.04	1185.69	116.08	451.35	46.35	613.79	5.18
FSTPP III	44.74	224.90	44.90	82.25	9.46	136.61	6.07
KHSTPP I	158.46	911.39	107.48	337.91	15.73	461.12	5.06
KHSTPP II	29.26	212.15	18.12	74.79	4.38	97.29	4.59
Barh Stage I (Unit I & II)	352.18	1016.77	277.08	322.75	5.24	605.08	5.95
Barh Stage I Unit III	175.26	0.00	0.00	0.00	0.00	0.00	0.00
Barh Stage II	525.90	3417.90	679.62	1173.22	24.60	1877.45	5.49
Nabinagar (BRBCL)	46.00	283.56	67.87	83.28	-0.23	150.91	5.32
Talcher Stage I	185.79	1306.84	121.29	250.65	19.11	391.05	2.99
KBUNL Stage II	132.97	919.55	240.21	258.42	11.46	510.09	5.55
NPGCL	754.23	4726.19	1075.77	1300.40	1.10	2377.27	5.03
North Karanpura Unit I	136.53	75.91	18.23	12.21	0.01	30.45	4.01
North Karanpura Unit II	135.70	0.00	0.00	0.00	0.00	0.00	0.00
North Karanpura Unit III	135.70	0.00	0.00	0.00	0.00	0.00	0.00
Darlipali STPS	148.75	605.64	100.81	69.73	6.27	176.81	2.92
Buxar TPP U1	258.06	0.00	0.00	0.00	0.00	0.00	0.00
Buxar TPP U2	258.06	0.00	0.00	0.00	0.00	0.00	0.00
Chuka	42.82	208.07	0.00	49.97	0.00	49.97	2.40
Rangit	10.59	49.40	10.36	9.70	0.77	20.83	4.22
Tala	119.65	269.17	0.00	61.10	0.00	61.10	2.27
Teesta	49.22	265.22	33.64	30.44	4.19	68.28	2.57
Mangdechhu	130.86	442.20	0.00	185.28	0.00	185.28	4.19
Kurichu	1.56	0.00	0.00	0.00	0.00	0.00	0.00
Prior period adjustment	0.00	0.00	-16.17	0.00	0.00	-16.17	0.00
Stations injecting at STU	356.18	1476.44	279.91	409.22	0.93	690.06	4.67
BSPHC	24.98	10.38	0.00	2.58	0.00	2.58	2.49
BTPS Stage I	101.20	11.65	3.84	5.34	0.14	9.31	7.99
BTPS Stage II	230.00	1454.41	276.07	401.30	0.79	678.17	4.66
IPPs	224.48	1461.49	368.56	201.68	1.61	571.85	3.91
GMR	119.60	844.02	147.07	128.63	47.91	323.61	3.83
JITPL	104.88	617.47	221.49	73.05	-46.30	248.24	4.02
Renewables	1721.87	1752.12	0.00	527.34	0.00	527.34	3.01
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.60	6.81	0.00	4.79	0.00	4.79	7.02
M/s Response renewable Energy Ltd, Kolkata.	4.60	8.17	0.00	5.73	0.00	5.73	7.02
M/s Avantika Contractors Ltd., Hyderabad	2.30	2.89	0.00	2.22	0.00	2.22	7.68
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.32	0.00	1.63	0.00	1.63	7.03

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc. cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
Alfa Infraprop Pvt. Ltd.	9.20	14.65	0.00	11.53	0.00	11.53	7.87
Udipta Energy & Equipment Pvt. Ltd.	2.30	3.24	0.00	2.58	0.00	2.58	7.98
Azure Power India Pvt. Ltd.	4.60	6.08	0.00	5.10	0.00	5.10	8.39
Welspun Renewables Project – I	4.60	6.89	0.00	6.00	0.00	6.00	8.70
Welspun Renewables Project – II	6.90	10.07	0.00	8.70	0.00	8.70	8.64
Welspun Renewables Project – III	6.90	10.37	0.00	8.87	0.00	8.87	8.56
Acme Cleantech Project (Nalanda)	6.90	10.21	0.00	8.92	0.00	8.92	8.73
Acme Cleantech Project (Magadh)	4.60	7.11	0.00	6.21	0.00	6.21	8.73
SECI (Focal)	4.60	8.49	0.00	5.03	0.00	5.03	5.93
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	69.00	0.00	0.00	0.00	0.00	0.00	0.00
SECI Phase-III (Renew Sunwaves)	138.00	329.12	0.00	86.23	0.00	86.23	2.62
SB Energy Six Pvt. Ltd. (NTPC)	138.00	338.09	0.00	90.27	0.00	90.27	2.67
GRT Jewellers (SECI-V)	69.00	110.66	0.00	22.62	0.00	22.62	2.04
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92.00	197.64	0.00	66.78	0.00	66.78	3.38
Wind ISTS Scheme Tranche II (SECI) (Orange)	46.00	121.30	0.00	32.87	0.00	32.87	2.71
Avada (BREDA), Dharbhanga	0.74	0.00	0.00	0.00	0.00	0.00	0.00
SECI Green Infra	46.00	120.23	0.00	30.18	0.00	30.18	2.51
Alfanar	23.00	61.45	0.00	15.49	0.00	15.49	2.52
Betam	23.09	57.78	0.00	14.56	0.00	14.56	2.52
SECI Phase-VI Wind	161.00	0.00	0.00	0.00	0.00	0.00	0.00
Ostro Kannad	138.00	236.36	0.00	51.64	0.00	51.64	2.19
Morjar Windfarm	23.00	14.97	0.00	3.27	0.00	3.27	2.19
SBE Renewable (SECI Phase-V)	151.80	0.00	0.00	0.00	0.00	0.00	0.00
SJVN Ltd (BREDA)	92.00	0.00	0.00	0.00	0.00	0.00	0.00
Avada (BREDA)	23.00	0.00	0.00	0.00	0.00	0.00	0.00
Adani Green Energy	276.00	0.00	0.00	0.00	0.00	0.00	0.00
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.60	0.00	0.00	0.00	0.00	0.00	0.00

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc. cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
New Swadeshi Sugar Mill, Narkataganj	4.60	5.49	0.00	2.82	0.00	2.82	5.14
Hasanpur Sugar Mill, Dalsinghsarai	6.67	6.87	0.00	4.27	0.00	4.27	6.22
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.90	10.49	0.00	5.36	0.00	5.36	5.11
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.56	0.00	9.97	0.00	9.97	5.10
HPCL Biofuels Ltd., Sugauli, East Champaran	9.20	7.12	0.00	3.55	0.00	3.55	4.98
HPCL Biofuels Ltd., Lauria, West Champaran	9.20	8.70	0.00	4.44	0.00	4.44	5.10
Riga Sugar Company Ltd.	1.38	0.00	0.00	0.00	0.00	0.00	0.00
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	0.08	0.00	0.06	0.00	0.06	7.55
Bihar Distillers & Bottlers Pvt Ltd	4.32	2.25	0.00	1.43	0.00	1.43	6.36
Tirupati Sugar	2.76	6.65	0.00	4.23	0.00	4.23	6.36
Others	92.00	401.24	0.00	225.44	246.98	472.42	11.77
PTC(IEX)	0.00	147.13	0.00	128.66	0.00	128.66	8.74
GTAM IEX	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prior Period Expenses	0.00	0.00	0.00	0.00	204.14	204.14	0.00
UPPCL	0.00	1.24	0.00	0.00	1.04	1.04	8.39
NEA	0.00	0.08	0.00	0.00	0.06	0.06	7.26
UI	0.00	26.41	0.00	0.00	41.40	41.40	15.68
PTC JITPL	57.50	154.06	0.00	65.82	0.29	66.11	4.29
PTC SKS Power	34.50	72.32	0.00	30.96	0.06	31.02	4.29
Transmission and Other Charges	0.00	0.00	1641.21	0.00	0.00	1641.21	0.00
SLDC	0.00	0.00	2.20	0.00	0.00	2.20	0.00
BGCL	0.00	0.00	77.60	0.00	0.00	77.60	0.00
BSPTCL	0.00	0.00	540.77	0.00	0.00	540.77	0.00
POSOCO	0.00	0.00	4.11	0.00	0.00	4.11	0.00
Pr Pd PGCIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PGCIL	0.00	0.00	1016.52	0.00	0.00	0.00	0.00
Total	6450.85	21211.84	5184.97	6117.15	397.98	11700.10	5.52

Note: Revised Table submitted in the additional information provided.

Similarly, SBPDCL has submitted that it has suffered DSM of 33.02 MU which has resulted into a DSM charge of Rs. 51.76 Crore. SBPDCL has submitted the revised Power Purchase Cost Table -14 in their letter dated 12.12.2023. Accordingly, SBPDCL has claimed power purchase cost to an amount of Rs 14633.88 Crore for FY 2022-23. The Summary of power purchase submitted by the SBPDCL for FY 2022-23 are shown in Table below:

Table 4.20: Power Purchase Cost for FY 2022-23, as claimed by SBPDCL

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs/kWh)
Stations injecting at CTU	4761.76	20154.31	3848.19	5942.90	185.60	9976.69	4.95
FSTPP I & II	263.00	1482.38	145.13	564.29	57.95	767.38	5.18
FSTPP III	52.52	281.18	56.13	102.83	11.83	170.79	6.07
KHSTPP I	186.02	1139.44	134.38	422.47	19.66	576.51	5.06
KHSTPP II	34.34	265.24	22.65	93.50	5.48	121.63	4.59
Barh Stage I (Unit I & II)	413.42	1271.19	346.41	403.52	6.56	756.48	5.95
Barh Stage I Unit III	205.74	0.00	0.00	0.00	0.00	0.00	
Barh Stage II	617.36	4273.14	849.68	1466.79	30.75	2347.23	5.49
Nabinagar (BRBCL)	54.00	354.52	84.85	104.12	-0.29	188.68	5.32
Talcher Stage I	218.11	1633.84	151.64	313.37	23.89	488.90	2.99
KBUNL Stage II	156.10	1149.64	300.31	323.08	14.33	637.73	5.55
NPGCL	885.40	5908.80	1344.95	1625.80	1.37	2972.13	5.03
North Karanpura Unit I	160.27	94.90	22.79	15.26	0.01	38.07	4.01
North Karanpura Unit II	159.30	0.00	0.00	0.00	0.00	0.00	0.00
North Karanpura Unit III	159.30	0.00	0.00	0.00	0.00	0.00	0.00
Darlipali STPS	174.61	757.18	126.04	87.17	7.84	221.05	2.92
Buxar TPP U1	302.94	0.00	0.00	0.00	0.00	0.00	0.00
Buxar TPP U2	302.94	0.00	0.00	0.00	0.00	0.00	0.00
Chuka	50.27	260.13	0.00	62.47	0.00	62.47	2.40
Rangit	12.43	61.76	12.95	12.13	0.96	26.04	4.22
Tala	140.45	336.52	0.00	76.39	0.00	76.39	2.27
Teesta	57.78	331.59	42.06	38.06	5.24	85.37	2.57
Mangdechhu	153.61	552.85	0.00	231.64	0.00	231.64	4.19
Kurichu	1.84	0.00	0.00	0.00	0.00	0.00	0.00
Prior period adjustment	0.00	0.00	208.20	0.00	0.00	208.20	0.00
Stations injecting at STU	418.12	1845.89	349.95	511.62	1.16	862.73	4.67
BSPHC	29.32	12.98	0.00	3.23	0.00	3.23	2.49
BTPS Stage I	118.80	14.57	4.80	6.68	0.17	11.64	7.99
BTPS Stage II	270.00	1818.34	345.15	501.72	0.99	847.86	4.66
IPPs	263.52	1827.20	460.78	252.15	2.02	714.95	3.91
GMR	140.40	1055.22	183.87	160.82	59.90	404.59	3.83
JITPL	123.12	771.98	276.91	91.33	-57.88	310.36	4.02
Renewables	1831.46	2190.55	0.00	669.94	0.00	669.94	3.06
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	5.40	8.55	0.00	6.01	0.00	6.01	7.02
M/s Response renewable Energy Ltd, Kolkata.	5.40	10.26	0.00	7.20	0.00	7.20	7.02
M/s Avantika Contractors Ltd., Hyderabad	2.70	3.64	0.00	2.80	0.00	2.80	7.68
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.62	2.91	0.00	2.05	0.00	2.05	7.03

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs/kWh)
Alfa Infraprop Pvt. Ltd.	10.80	17.88	0.00	14.07	0.00	14.07	7.87
Udipta Energy & Equipment Pvt. Ltd.	2.70	4.05	0.00	3.23	0.00	3.23	7.98
Azure Power India Pvt. Ltd.	5.40	7.66	0.00	6.42	0.00	6.42	8.39
Welspun Renewables Project – I	5.40	8.68	0.00	7.55	0.00	7.55	8.70
Welspun Renewables Project – II	8.10	12.67	0.00	10.95	0.00	10.95	8.64
Welspun Renewables Project – III	8.10	13.09	0.00	11.20	0.00	11.20	8.56
Acme Cleantech Project (Nalanda)	8.10	12.71	0.00	11.10	0.00	11.10	8.73
Acme Cleantech Project (Magadh)	5.40	8.93	0.00	7.80	0.00	7.80	8.73
SECI (Focal)	5.40	10.61	0.00	6.29	0.00	6.29	5.93
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	81.00	0.00	0.00	0.00	0.00	0.00	0.00
SECI Phase-III (Renew Sunwaves)	162.00	411.47	0.00	118.45	0.00	118.45	2.88
SB Energy Six Pvt. Ltd. (NTPC)	162.00	422.69	0.00	112.86	0.00	112.86	2.67
GRT Jewellers (SECI-V)	81.00	138.35	0.00	28.27	0.00	28.27	2.04
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	108.00	247.11	0.00	83.49	0.00	83.49	3.38
Wind ISTS Scheme Tranche II (SECI) (Orange)	54.00	151.65	0.00	41.10	0.00	41.10	2.71
SECI Phase-III Wind	0.00	0.00	0.00	0.00	0.00	0.00	
SECI Green Infra	54.00	150.31	0.00	37.73	0.00	37.73	2.51
Alfanar	27.00	76.83	0.00	19.36	0.00	19.36	2.52
Betam	27.11	72.24	0.00	18.20	0.00	18.20	2.52
SECI Phase-VI Wind	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ostro Kannad	162.00	295.50	0.00	64.57	0.00	64.57	2.19
Morjar Windfarm	27.00	18.72	0.00	4.09	0.00	4.09	2.19
SBE Renewable (SECI Phase-V)	178.20	0.00	0.00	0.00	0.00	0.00	0.00
SJVN Ltd (BREDA)	108.00	0.00	0.00	0.00	0.00	0.00	0.00
Avada (BREDA)	27.00	0.00	0.00	0.00	0.00	0.00	0.00
Adani Green Energy	324.00	0.00	0.00	0.00	0.00	0.00	0.00
Greenko Energy Pvt. Ltd. (SECI Hybrid)	113.40	0.00	0.00	0.00	0.00	0.00	0.00

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs/kWh)
New Swadeshi Sugar Mill, Narkataganj	5.40	6.86	0.00	3.53	0.00	3.53	5.14
Hasanpur Sugar Mill, Dalsinghsarai	7.83	8.59	0.00	5.34	0.00	5.34	6.22
Bharat Sugar Mills, Sidhwalia, Gopalganj	8.10	13.12	0.00	6.70	0.00	6.70	5.11
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	7.83	24.45	0.00	12.46	0.00	12.46	5.10
HPCL Biofuels Ltd., Sugauli, East Champaran	10.80	8.90	0.00	4.44	0.00	4.44	4.98
HPCL Biofuels Ltd., Lauria, West Champaran	10.80	10.88	0.00	5.54	0.00	5.54	5.10
Riga Sugar Company Ltd.	1.62	0.00	0.00	0.00	0.00	0.00	0.00
Siddhashram Rice Mill Cluster Pvt Ltd	0.54	0.10	0.00	0.08	0.00	0.08	7.55
Bihar Distillers & Bottlers Pvt Ltd	5.08	2.81	0.00	1.79	0.00	1.79	6.36
Tirupati Sugar	3.24	8.31	0.00	5.28	0.00	5.28	6.36
Others	108.00	501.63	0.00	281.85	74.34	356.19	7.10
PTC(IEX)	0.00	183.95	0.00	160.85	0.00	160.85	8.74
GTAM IEX	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prior Period Expenses	0.00	0.00	0.00	0.00	20.78	0.00	0.00
UPPCL	0.00	1.55	0.00	0.00	1.30	0.00	0.00
NEA	0.00	0.10	0.00	0.00	0.07	0.00	0.00
UI	0.00	33.02	0.00	0.00	51.76	0.00	0.00
PTC JITPL	67.50	192.60	0.00	82.29	0.36	82.65	4.29
PTC SKS Power	40.50	90.42	0.00	38.71	0.07	38.78	4.29
Transmission and Other Charges			2053.39				
SLDC			2.75				
BGCL			97.02				
BSPTCL			676.09				
POSOCO			5.14				
Prior Period Transmission charges			1.51				
PGCIL			1270.88				
Total	*7342.37	*26519.58	6712.30	7658.46	263.12	14633.88	5.52

* Figures revised in the additional information submitted

The Petitioners also like to highlight that the Deviation (inc. Additional Deviation) Charges are specified under CERC DSM and are not penal in nature. This is quite evident from the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2014 (CERC DSM Regulations) that defines the deviation as a commercial settlement mechanism for settlement of energy/power that is

drawn/injected in deviation of the schedule with an overall objective of maintaining the grid discipline and security. This is clear from the Objectives mentioned in Regulation 3 of the CERC DSM Regulations which is reproduced below: -

*“The objective of these regulations is to maintain grid discipline and grid security as envisaged under the Grid Code **through the commercial mechanism for Deviation Settlement** through drawl and injection of electricity by the users of the grid.”*

Further, petitioner also submitted the summary of the expenses towards inter-state and intra-state Transmission Charges for FY 2022-23 based on actual audited accounts is given in the table below:

Table 4.21: PGCIL and POSCO charges claimed for FY 2022-23

(Rs. Crores)			
Source	NBPDCCL	SBPDCL	Total
POWERGRID	1016.52	1270.88	2287.40
POSO CO Charges	4.11	5.14	9.25
Prior Period PGCIL	0	1.51	1.51

The charges payable to State Transmission Utility i.e., BSPTCL, BGCL, SLDC based on actuals for FY 2022-23 is shown below.

Table 4.22: State transmission charges claimed for FY 2022-23

(Rs. Crores)			
Source	NBPDCCL	SBPDCL	Total
BSPTCL Charges	540.77	676.09	1216.86
BGCL Charges	77.60	97.02	174.62
SLDC Charges	2.20	2.75	4.95

Commission analysis:

The power purchase cost claimed by the petitioners in their petition is in line with the power purchase cost provided in their Audited Accounts for FY 2022-23 as shown in the Table below:

Table 4.23: Power Purchase cost claimed vis-à-vis Power Purchase cost as per audited account for FY 2022-23

Sl. No	Particulars	NBPDCCL		SBPDCL	
		Claimed for FY 2022-23	As per Audited Accounts of FY 2022-23	Claimed for FY 2022-23	As per Audited Accounts of FY 2022-23
1	Energy Purchase (MU)	21211.84	21211.84	26519.58	26519.58
2	Total Power Purchase Cost (Rs. Crore)	11700.10	11699.64	14633.88	14633.88
a)	Power Purchase Cost (Rs. Cr.)	10058.89	10058.43	12580.49	12580.49

Sl. No	Particulars	NBPDCCL		SBPDCL	
		Claimed for FY 2022-23	As per Audited Accounts of FY 2022-23	Claimed for FY 2022-23	As per Audited Accounts of FY 2022-23
b)	BSPTCL Charges (Rs. Cr) (Including	542.97	542.98	678.84	678.84
c)	BGCL Charges (Rs. Cr)	77.60	77.60	97.02	97.02
d)	PGCIL Charges (Rs. Cr.)	1020.63	1020.63	1277.53	1277.53

The Commission has got the copies of power purchase bills submitted by the Petitioners and noted that the power purchase quantum and cost shown in the petitions are in accordance with the power purchase bills for FY 2022-23 except for some deviations as given below:

For BSPTCL and SLDC

Even though the sum of BSPTCL and SLDC charges are as per the Bills, the charges claimed in the Petition are differing from the bills as detailed below;

Items	As per Petition (Rs. Crores)		As per Bills (Rs. Crores)	
	NBPDCCL	SBPDCL	NBPDCCL	SBPDCL
BSPTCL	540.77	676.09	538.40	673.13
SLDC	2.20	2.75	4.57	5.71
Total	542.97	678.84	542.97	678.84

Accordingly, the BSPTCL & SLDC charges are considered as per bills

UI Charges:

The Commission observes that NBPDCCL has shown Rs. 41.40 Crore for net UI over drawal of 26.41 MU and SBPDCL has shown Rs. 51.76 Crore against net UI over drawal of 33.02 MU totaling of Rs. 93.16 Crores for net UI drawal of 59.43 MU.

The Commission after due verification of the data submitted by the DISCOMs and from ERPC website, noted the UI charges combinedly for both Discoms are as given below:

Sl. No	Particulars	Amount (Rs. Crores)	Remark
A	From 01.04.2022 to 04.12.2022		
1	Deviation Charges	111.58	Payable
2	Additional Deviation Charges	32.30	Payable
3	Sign Change violations charges	31.02	Payable
B	From 05.12.2022 To 31.03.2023 (As per New Regulations)		
4	Deviation Charges	5.76	Payable

Sl. No	Particulars	Amount (Rs. Crores)	Remark
5	Deviation Charges	19.56	Receivable
6	Sub-Total (1+2+3+4-5)	161.10	
7	Bhutan DSM charges	73.04	Receivable
8	Net UI Charges (6-7)	88.06	Payable
9	Net Deviation Charges considered by the Commission in true-up for FY 2022-23 (8-2-3)	24.74	

Note: Rs.1.14 Crore for SBPDCL and Rs.0.92 Crore for NBPDCCL differs from audited accounts with claimed UI charges.

UI rate is frequency dependent. The licensee, while drawing power from regional pool are required to ensure that under drawal / over drawal of energy is strictly within the specified limit stipulated by CERC to avoid any additional deviation charges. No over drawal of energy is permitted when grid frequency is below 49.85 Hz. The Commission is of the view that the under drawal and/or over drawal of Energy above the allowable limit and/ or beyond the allowable time block can be controlled through the better power planning improved power portfolio management and efficient Grid operation and for this reason the Commission is of the view that imposition of additional deviation charges on account of deviation in volume and sign change are penal in nature. Hence, it is not prudent to allow such charges to pass on to consumers. The Commission therefore does not consider additional deviation charges of Rs. 32.30 Crore and Rs. 31.02 Crore of additional charges on Sign Change Violation and considers only net deviation charges of Rs. 24.74 Crore. This amount is to be shared among NBPDCCL & SBPDCL in their power purchase ratio under UI (over drawal MUs) at Rs. 10.99 Crores for NBPDCCL and Rs. 13.74 Crore for SBPDCL.

Based on the above, the summary of Power Purchase cost and quantum approved by the Commission in True-up of FY 2022-23 is provided in the Tables below:

Table 4.24: Power Purchase Quantum and Cost of NBPDCCL for FY 2022-23 as approved by the Commission

Sl.No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
A	Stations with injection at CTU	3091.99	16120.55	0.94	2895.29	2.95	4753.45	148.44	7797.18	4.84
1	FSTPP I & II	224.04	1185.69	0.52	116.08	3.81	451.35	46.35	613.78	5.18
2	FSTPP III	44.74	224.90	1.00	44.90	3.66	82.25	9.46	136.61	6.07
3	KHSTPP I	158.46	911.39	0.68	107.48	3.71	337.91	15.73	461.12	5.06
4	KHSTPP II	29.26	212.15	0.62	18.12	3.53	74.79	4.38	97.29	4.59
5	Barh Stage I (Unit I & II)	352.18	1016.77	0.79	277.08	3.17	322.75	5.24	605.07	5.95
6	Barh Stage II	525.90	3417.90	1.29	679.62	3.43	1173.22	24.60	1877.44	5.49
7	Nabinagar (BRBCL)	46.00	283.56	1.48	67.87	2.94	83.28	-0.23	150.92	5.32
8	Talcher Stage I	185.79	1306.84	0.65	121.29	1.92	250.65	19.11	391.05	2.99
9	KBUNL Stage II	132.97	919.55	1.81	240.21	2.81	258.42	11.46	510.09	5.55
10	NPGCL	754.23	4726.19	1.43	1075.77	2.75	1300.40	1.10	2377.27	5.03
11	North Karanpura Unit I	136.53	75.91	0.13	18.23	1.61	12.21	0.01	30.45	4.01
12	Darlipali STPS	148.75	605.64	0.68	100.81	1.15	69.73	6.27	176.81	2.92
13	Chuka	42.82	208.07	0.00	0.00	2.40	49.97	0.00	49.97	2.40
14	Rangit	10.59	49.40	0.98	10.36	1.96	9.70	0.77	20.83	4.22
15	Tala	119.65	269.17	0.00	0.00	2.27	61.10	0.00	61.10	2.27
16	Teesta	49.22	265.22	0.68	33.64	1.15	30.44	4.19	68.27	2.57
17	Mangdechhu	130.86	442.20	0.00	0.00	4.19	185.28	0.00	185.28	4.19
18	Prior period adjustment				-16.17				-16.17	
B	Stations with injection at STU	356.18	1476.44	0.79	279.91	2.77	409.22	0.93	690.06	4.67
1	BSPHC	24.98	10.38	0.00	0.00	2.49	2.58	0.00	2.58	2.49
2	BTPS Stage I	101.20	11.65	0.04	3.84	4.58	5.34	0.14	9.32	8.00
3	BTPS Stage II	230.00	1454.41	1.20	276.07	2.76	401.30	0.79	678.16	4.66
C	IPPs	224.48	1461.49	1.64	368.56	1.38	201.68	1.61	571.85	3.91
1	GMR	119.60	844.02	1.23	147.07	1.52	128.63	47.91	323.61	3.83
2	JITPL	104.88	617.47	2.11	221.49	1.18	73.05	-46.30	248.24	4.02

Sl.No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
D	Renewables	849.35	1752.11	0.00	0.00	3.01	527.35	0.00	527.35	3.01
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.60	6.81		0.00	7.03	4.79	0.00	4.79	7.03
2	M/s Response renewable Energy Ltd, Kolkata.	4.60	8.17		0.00	7.01	5.73	0.00	5.73	7.01
3	M/s Avantika Contractors Ltd., Hyderabad	2.30	2.89		0.00	7.68	2.22	0.00	2.22	7.68
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.32		0.00	7.03	1.63	0.00	1.63	7.03
5	Alfa Infraprop Pvt. Ltd.	9.20	14.65		0.00	7.87	11.53	0.00	11.53	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	2.30	3.24		0.00	7.96	2.58	0.00	2.58	7.96
7	Azure Power India Pvt. Ltd.	4.60	6.08		0.00	8.39	5.10	0.00	5.10	8.39
8	Welspun Renewables Project I	4.60	6.89		0.00	8.71	6.00	0.00	6.00	8.71
9	Welspun Renewables Project – II	6.90	10.07		0.00	8.64	8.70	0.00	8.70	8.64
10	Welspun Renewables Project – III	6.90	10.37		0.00	8.55	8.87	0.00	8.87	8.55
11	Acme Cleantech Project (Nalanda)	6.90	10.21		0.00	8.74	8.92	0.00	8.92	8.74
12	Acme Cleantech Project (Magadh)	4.60	7.11		0.00	8.73	6.21	0.00	6.21	8.73
13	SECI (Focal)	4.60	8.49		0.00	5.92	5.03	0.00	5.03	5.92
14	SECI Phase III (Renew Sunwaves)	138.00	329.12		0.00	2.62	86.23	0.00	86.23	2.62
15	SB Energy Six Pvt. Ltd. (NTPC)	138.00	338.09		0.00	2.67	90.27	0.00	90.27	2.67
16	GRT Jewellers (SECIV)	69.00	110.66		0.00	2.04	22.62	0.00	22.62	2.04
17	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92.00	197.64		0.00	3.38	66.78	0.00	66.78	3.38
18	Wind ISTS Scheme Tranche II (SECI) (Orange)	46.00	121.30		0.00	2.71	32.87	0.00	32.87	2.71
19	SECI Green Infra	46.00	120.23		0.00	2.51	30.18	0.00	30.18	2.51
20	Alfanar	22.00	61.45		0.00	2.52	15.49	0.00	15.49	2.52
21	Betam	23.09	57.78		0.00	2.52	14.56	0.00	14.56	2.52

Sl.No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
22	Ostro Kannad	138.00	236.36		0.00	2.18	51.64	0.00	51.64	2.18
23	Morjar Windfarm	23.00	14.97		0.00	2.18	3.27	0.00	3.27	2.18
24	New Swadeshi Sugar Mill, Narkataganj	4.60	5.49		0.00	5.14	2.82	0.00	2.82	5.14
25	Hasanpur Sugar Mill, Dalsinghsarai	6.67	6.87		0.00	6.22	4.27	0.00	4.27	6.22
26	Bharat Sugar Mills, Sidhwalia, Gopalganj	6.90	10.49		0.00	5.11	5.36	0.00	5.36	5.11
27	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.56		0.00	5.10	9.97	0.00	9.97	5.10
28	HPCL Biofuels Ltd., Sugauli, East Champaran	9.20	7.12		0.00	4.99	3.55	0.00	3.55	4.99
29	HPCL Biofuels Ltd., Lauria, West Champaran	9.20	8.70		0.00	5.10	4.44	0.00	4.44	5.10
30	Siddhashram Rice Mill Cluster Pvt Ltd	0.46	0.08		0.00	7.50	0.06	0.00	0.06	7.50
31	Bihar Distillers & Bottlers Pvt Ltd	4.32	2.25		0.00	6.36	1.43	0.00	1.43	6.36
32	Tirupati Sugar	2.76	6.65		0.00	6.36	4.23	0.00	4.23	6.36
E	Others	92.00	401.24		0.00	5.62	225.44	219.77	445.21	11.10
1	PTC(IEX)	0.00	147.13		0.00	8.74	128.66	0.00	128.66	8.74
2	UPPCL	0.00	1.24		0.00		0.00	1.04	1.04	8.39
3	NEA	0.00	0.08		0.00		0.00	0.06	0.06	7.50
4	UI	0.00	26.41		0.00		0.00	10.99	10.99	4.16
5	PTC JITPL	57.50	154.06		0.00	4.27	65.82	0.29	66.11	4.29
6	PTC SKS Power	34.50	72.32		0.00	4.28	30.96	0.06	31.02	4.29
7	Reactive Energy charges							3.19	3.19	
8	Prior Period Expenses				0.00		0.00	204.14	204.14	
9	Sub Total	4614.00	21211.83	0.77	3543.76	2.88	6117.14	370.75	10031.65	4.73
F	Transmission and Other Charges	0.00	0.00		1641.20		0.00	0.00	1641.20	
1	SLDC				4.57				4.57	

Sl.No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
2	BGCL				77.60				77.60	
3	BSPTCL				538.40				538.40	
4	POSOCO				4.11				4.11	
5	PGCIL				1016.52				1016.52	
6	Total	4614.00	21211.83	1.12	5184.96	0.29	6117.14	370.75	11672.85	5.50

Table 4.25: Power Purchase Quantum and Cost of SBPDCL for FY 2022-23 as approved by the Commission

Sl. No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
A	Stations with injection at CTU	3629.69	20154.30	1.06	3848.17	2.95	5942.89	185.58	9976.64	4.95
1	FSTPP I & II	263.00	1482.38	0.55	145.13	3.81	564.29	57.95	767.37	5.18
2	FSTPP III	52.52	281.18	1.07	56.13	3.66	102.83	11.83	170.79	6.07
3	KHSTPP I	186.02	1139.44	0.72	134.38	3.71	422.47	19.66	576.51	5.06
4	KHSTPP II	34.34	265.24	0.66	22.65	3.53	93.50	5.48	121.63	4.59
5	Barh Stage I (Unit I & II)	413.42	1271.19	0.84	346.41	3.17	403.52	6.56	756.49	5.95
6	Barh Stage II	617.36	4273.14	1.38	849.68	3.43	1466.79	30.75	2347.22	5.49
7	Nabinagar (BRBCL)	54.00	354.52	1.57	84.85	2.94	104.12	-0.29	188.68	5.32
8	Talcher Stage I	218.11	1633.84	0.70	151.64	1.92	313.37	23.89	488.90	2.99
9	KBUNL Stage II	156.10	1149.64	1.92	300.31	2.81	323.08	14.33	637.72	5.55
10	NPGCL	885.40	5908.80	1.52	1344.95	2.75	1625.80	1.37	2972.12	5.03
11	North Karanpura Unit I	160.27	94.90	0.14	22.79	1.61	15.26	0.01	38.06	4.01
12	Darlipali STPS	174.61	757.18	0.72	126.04	1.15	87.17	7.84	221.05	2.92
13	Chuka	50.27	260.13	0.00	0.00	2.40	62.47	0.00	62.47	2.40
14	Rangit	12.43	61.76	1.04	12.95	1.96	12.13	0.96	26.04	4.22
15	Tala	140.45	336.52	0.00	0.00	2.27	76.39	0.00	76.39	2.27
16	Teesta	57.78	331.59	0.73	42.06	1.15	38.06	5.24	85.36	2.57
17	Mangdechu	153.61	552.85	0.00	0.00	4.19	231.64	0.00	231.64	4.19
18	Prior period adjustment	0.00	0.00		208.20		0.00	0.00	208.20	
B	Stations with injection at STU	418.12	1845.89	0.84	349.95	2.77	511.63	1.16	862.74	4.67
1	BSPHC	29.32	12.98	0.00	0.00	2.49	3.23	0.00	3.23	2.49
2	BTPS Stage I	118.80	14.57	0.04	4.80	4.58	6.68	0.17	11.65	8.00
3	BTPS Stage II	270.00	1818.34	1.28	345.15	2.76	501.72	0.99	847.86	4.66
C	IPPs	263.52	1827.20	1.75	460.78	1.38	252.15	2.02	714.95	3.91
1	GMR	140.40	1055.22	1.31	183.87	1.52	160.82	59.90	404.59	3.83
2	JITPL	123.12	771.98	2.25	276.91	1.18	91.33	-57.88	310.36	4.02

Sl. No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
D	Renewables	998.25	2190.53		0.00	3.06	669.95	0.00	669.95	3.06
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	5.40	8.55		0.00	7.03	6.01	0.00	6.01	7.03
2	M/s Response renewable Energy Ltd, Kolkata.	5.40	10.26		0.00	7.02	7.20	0.00	7.20	7.02
3	M/s Avantika Contractors Ltd., Hyderabad	2.70	3.64		0.00	7.69	2.80	0.00	2.80	7.69
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.62	2.91		0.00	7.04	2.05	0.00	2.05	7.04
5	Alfa Infraprop Pvt. Ltd.	10.80	17.88		0.00	7.87	14.07	0.00	14.07	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	2.70	4.05		0.00	7.98	3.23	0.00	3.23	7.98
7	Azure Power India Pvt. Ltd.	5.40	7.66		0.00	8.38	6.42	0.00	6.42	8.38
8	Welspun Renewables Project I	5.40	8.68		0.00	8.70	7.55	0.00	7.55	8.70
9	Welspun Renewables Project – II	8.10	12.67		0.00	8.64	10.95	0.00	10.95	8.64
10	Welspun Renewables Project – III	8.10	13.09		0.00	8.56	11.20	0.00	11.20	8.56
11	Acme Cleantech Project (Nalanda)	8.10	12.71		0.00	8.73	11.10	0.00	11.10	8.73
12	Acme Cleantech Project (Magadh)	5.40	8.93		0.00	8.73	7.80	0.00	7.80	8.73
13	SECI (Focal)	5.40	10.61		0.00	5.93	6.29	0.00	6.29	5.93
14	SECI Phase III (Renew Sunwaves)	162.00	411.47		0.00	2.88	118.45	0.00	118.45	2.88
15	SB Energy Six Pvt. Ltd. (NTPC)	162.00	422.69		0.00	2.67	112.86	0.00	112.86	2.67
16	GRT Jewellers (SECIV)	81.00	138.35		0.00	2.04	28.27	0.00	28.27	2.04
17	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	108.00	247.11		0.00	3.38	83.49	0.00	83.49	3.38
18	Wind ISTS Scheme Tranche II (SECI) (Orange)	54.00	151.65		0.00	2.71	41.10	0.00	41.10	2.71
19	SECI Green Infra	54.00	150.31		0.00	2.51	37.73	0.00	37.73	2.51
20	Alfanar	27.00	76.83		0.00	2.52	19.36	0.00	19.36	2.52
21	Betam	27.11	72.24		0.00	2.52	18.20	0.00	18.20	2.52
22	Ostro Kannad	162.00	295.50		0.00	2.19	64.57	0.00	64.57	2.19
23	Morjar Windfarm	27.00	18.72		0.00	2.18	4.09	0.00	4.09	2.18
24	New Swadeshi Sugar Mill, Narkataganj	5.40	6.86		0.00	5.15	3.53	0.00	3.53	5.15

Sl. No	Particulars	Share Allocated (MW)	Unit purchased (MU)	Fixed Cost (Rs. Crore / MW)	Fixed Charges (Rs. Cr)	Energy Cost (Rs/kWh)	Energy Charges (Rs. Cr)	Misc. Cost (Rs. Cr)	Total Charges (Rs. Crore)	Average Cost (Rs/kWh)
25	Hasanpur Sugar Mill, Dalsinghsarai	7.83	8.59		0.00	6.22	5.34	0.00	5.34	6.22
26	Bharat Sugar Mills, Sidhwalia, Gopalganj	8.10	13.12		0.00	5.11	6.70	0.00	6.70	5.11
27	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	7.83	24.45		0.00	5.10	12.46	0.00	12.46	5.10
28	HPCL Biofuels Ltd., Sugauli, East Champaran	10.80	8.90		0.00	4.99	4.44	0.00	4.44	4.99
29	HPCL Biofuels Ltd., Lauria, West Champaran	10.80	10.88		0.00	5.09	5.54	0.00	5.54	5.09
30	Siddhashram Rice Mill Cluster Pvt Ltd	0.54	0.10		0.00	8.00	0.08	0.00	0.08	8.00
31	Bihar Distillers & Bottlers Pvt Ltd	5.08	2.81		0.00	6.37	1.79	0.00	1.79	6.37
32	Tirupati Sugar	3.24	8.31		0.00	6.35	5.28	0.00	5.28	6.35
E	Others	108.00	501.64		0.00	5.62	281.85	40.30	322.15	6.42
1	PTC (IEX)	0.00	183.95		0.00	8.74	160.85	0.00	160.85	8.74
2	UPPCL	0.00	1.55		0.00	0.00	0.00	1.30	1.30	8.39
3	NEA	0.00	0.10		0.00	0.00	0.00	0.07	0.07	7.00
4	UI	0.00	33.02		0.00	0.00	0.00	13.74	13.74	4.16
5	PTC JITPL	67.50	192.60		0.00	4.27	82.29	0.36	82.65	4.29
6	PTC SKS Power	40.50	90.42		0.00	4.28	38.71	0.07	38.78	4.29
7	Reactive Energy Charges							3.98	3.98	
8	Prior Period Expenses	0.00	0.00		0.00		0.00	20.78	20.78	
9	Sub-Total	5417.58	26519.56	0.86	4658.90	2.89	7658.47	229.06	12546.43	4.73
F	Transmission and Other Charges	0.00	0.00		2053.39		0.00	0.00	2053.39	
1	SLDC	0.00	0.00		5.71		0.00	0.00	5.71	
2	BGCL	0.00	0.00		97.02		0.00	0.00	97.02	
3	BSPTCL	0.00	0.00		673.13		0.00	0.00	673.13	
4	POSOCO	0.00	0.00		5.14		0.00	0.00	5.14	
5	Prior Period Transmission charges	0.00	0.00		1.51		0.00	0.00	1.51	
6	PGCIL	0.00	0.00		1270.88		0.00	0.00	1270.88	
7	Total	5417.58	26519.56		6712.29		7658.47	229.06	14599.82	5.51

Net Power Purchase Cost

As per Regulation 19 (b) of BERC (Multi Year Distribution Tariff Regulations 2021), the power purchase cost for the power purchase quantum calculated as per Regulation 19 (a) of the said regulation shall be net of rebate at such rate as specified in CERC Tariff Regulations. In view of this the Commission has considered the net power purchase cost after deducting 1% rebate on power purchase cost including transmission charges. Accordingly, 1% Rebate is deducted on the total power purchase cost excluding prior period expenses and UI cost as detailed in the Table below:

Table 4.26: Net Power Purchase Cost approved for FY 2022-23

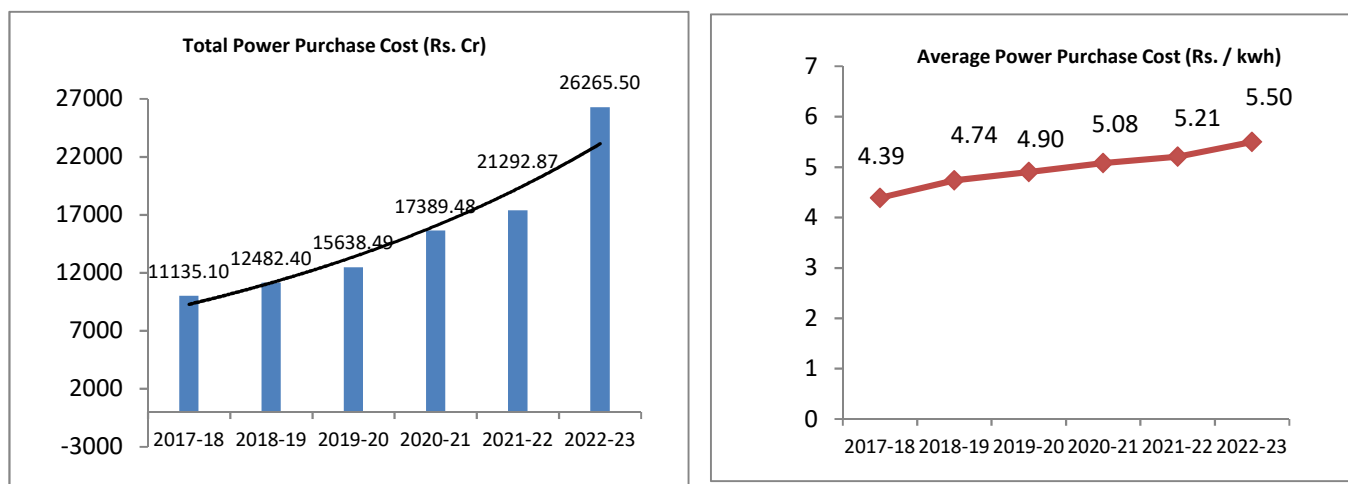
Sl. No	Particulars	Unit	NBPDCCL	SBPDCL
1	Energy Purchase	MU	21211.83	26,519.56
2	Power Purchase Cost	Rs. Cr	10,031.65	12,546.43
3	Transmission Charges	Rs. Cr	1641.20	2,053.39
	a) PGCIL	Rs. Cr	1,020.63	1,277.53
	b) BSPTCL	Rs. Cr	538.40	673.13
	c) BGCL	Rs. Cr	77.60	97.02
	d) SLDC	Rs. Cr	4.57	5.71
4	Total Power Purchase Cost (2+3)	Rs. Cr	11,672.85	14,599.82
5	Less: 1% Rebate	Rs. Cr	116.73	146.00
6	Net Power Purchase Cost (4-5)	Rs. Cr	11,556.12	14,453.83
7	Less: Surplus Energy Sold (As per actuals)	Rs. Cr	1810.36	2263.36

Accordingly, the Commission has approved power purchase quantum of 21211.83 MUs and net power purchase cost of Rs.11556.12 Crore, for NBPDCCL and power purchase quantum of 26519.56 MUs and net power purchase cost of Rs. 14453.83 Crore, for SBPDCL in True-up of FY 2022-23.

The total power purchase cost for the Discoms during the past 6 years i.e. FY 2017-18 to FY 2022-23 is as given Table below;

Table 4.27: Power Purchase Cost for past 6 Year (FY 2017-18 to FY 2022-23)

Year	Power Purchase		Transmission Charges (Rs. Cr)			Transmission Charges	Total Power Purchase Cost (Rs.Cr)	Average Cost (Rs./kwh)
	(MU)	(Rs. Cr)	BSPTCL	BGCL	PGCIL			
2017-18	25392.68	9403.9	623.77	204.49	902.94	1731.2	11135.1	4.39
2018-19	26311.27	9908.22	1194.37	276.04	1103.77	2574.18	12482.4	4.74
2019-20	31907.5	13278.7	989.14	207.84	1162.81	2359.79	15638.49	4.90
2020-21	34207.58	14754.9	855.25	460.2	1319.13	2634.58	17389.48	5.08
2021-22	40798.54	17787.36	1116.6	452.62	1936.29	3505.51	21292.87	5.22
2022-23	47,731.39	22,578.08	1221.81	174.62	2,298.16	3694.59	26272.67	5.50

Figure 6: Power Purchase Cost of Discoms for FY 2017-18 to FY 2022-23

4.7. Additional Power Purchase due to excess distribution loss

Petitioners' submission

The Petitioners have submitted that in view of the efforts made to reduce the losses with increased supply hours and growth in domestic consumers, the Commission is requested to adopt the actual distribution loss of 15.18% for NBPDC and 22.02% of SBPDCL for FY 2022-23 for calculation of disallowance of power purchase cost due to excess distribution loss than that approved.

The Petitioner in compliance to the BERC MYT Distribution Regulations, 2021, has shown the surplus energy on account of power purchase corresponding to the Distribution losses more than that approved by the Commission and the Petitioners have considered the average power purchase rate (APPC) (excluding transmission cost) of FY 2022-23 to arrive at the additional power purchase cost on account of the Distribution losses more than that approved by the Commission. The Table below provides summary of the Power purchase corresponding to the Distribution losses more than that approved by the Commission.

Table 4.28: Power purchase corresponding to the Distribution losses more than that claimed for NBPDCCL & SBPDCL**(Rs. Crore)**

Sl No	Particulars	Unit	NBPDCCL		SBPDCL	
			With Actual Distribution Loss	With Approved Distribution Loss	With Actual Distribution Loss	With Approved Distribution Loss
1	Energy Requirement					
2	Energy sales	MU	13,901.70	13,901.70	16,002.31	16,002.31
3	Less: Sales corresponding to SLDC deviation	MU	226.92	226.92	283.7	283.7
4	Less: Inter-State Sales	MU	314.22	314.22	-	-
5	Energy sales (exc SLDC deviation and interstate Sales)	%	13,360.57	13,360.57	15,718.61	15,718.61
6	Distribution Loss	%	15.18%	15.00%	22.02%	15.00%
7	Add: Distribution Loss	MU	2,391.17	2,357.75	4,438.77	2,773.87
8	Energy required at Distribution periphery	MU	15,751.74	15,718.31	20,157.38	18,492.48
9	Add: sales corresponding to SLDC deviation		226.92	226.92	283.7	283.7
10	Add: interstate sales		314.22	314.22	-	-
11	Total energy required at Distribution periphery	MU	16,292.87	16,259.45	20,441.08	18,776.18
12	Additional Energy Required to meet the actual Distribution losses	MU		33.42		1,664.90
13	Average Power Purchas Cost (excl Transmission)	Rs/kWh		5.52		5.52
14	Additional PP Cost @APPC	Rs. Cr		18.44		918.71

As above, the additional power purchase requirement for meeting the actual Energy requirement at actual Distribution losses more than the approved Distribution losses is Rs 18.44 Cr for NBPDCCL and Rs. 918.71 Cr for SBPDCL. As per the BERC MYT Distribution Regulations 2021, in case of controllable factors, losses are to be absorbed by the licensee in the ratio of 2/3 while any gains will be absorbed by the licensee in the ratio of 1/3. So, 2/3rd of the total loss due to additional power purchase cost of Rs 18.44 Cr is to be absorbed by NBPDCCL which comes to be Rs 12.30 Cr and rest will be passed on to the consumers.

Similarly, 2/3rd of the total loss due to additional power purchase cost of 918.71 Cr. is to be absorbed by SBPDCL which come to Rs. 612.48 Cr. and rest will be passed on to the consumer.

In view of the aforementioned Regulatory provisions, the Petitioner is hereby submitting the summary of the Gain/(Loss) on account of controllable and uncontrollable factors of power purchase as per the regulatory provisions specified in the BERC MYT Distribution Regulations, 2021, in the Table below:

Table 4.29: Gains/(Loss) on account of controllable and uncontrollable factors for Power Purchase for FY 2022-23 submitted by Petitioners

(Rs. Crore)

Particulars	Approved in the Tariff Order dated 25.03.2022	Actual Claimed in Truing up	Gains/ (Loss)	Gain/(Loss) due to controllable factors to be absorbed by the licensee	Pass through on account of uncontrollable factors
NBPDCCL					
Purchase of power	7,248.99	10,058.44	(2,809.45)	(12.30)	6.15
Transmission Charges	1,408.25	1,641.21	(232.96)		232.96
Revenue from Sale of Surplus Power	0.00	1,810.36	1,810.36		(1,810.36)
Total	8,657.24	13,510.00	(1,232.04)	(12.30)	(1,571.26)
SBPDCL					
Purchase of power	8509.58	12,580.49	(4,070.91)	612.48	306.24
Transmission Charges	1653.16	2,053.39	(400.23)		400.23
Revenue from Sale of Surplus Power	0	2,263.36	2,263.36		(2,263.36)
Total	10162.74	16897.24	(2207.78)	(612.48)	(1556.89)

The Petitioners submitted that the Bihar Govt. provided AT&C loss subsidy of Rs.4276.92 Cr (SBPDCL- 3255.00 and NBPDCCL- 1021.92) for FY 2022-23 for meeting the power purchase requirement as per the actual Distribution losses. While NBPDCCL received Rs 1021.92 Cr as AT&C loss subsidy against the disallowance made in the Power purchase corresponding to the Distribution losses more than that approved by the Commission, the disallowance as computed above is Rs 12.30 Cr only. So, the excess amount of Rs 1009.62 Cr has been reduced from the ARR of the Petitioner for FY 2022-23.

Similarly, while SBPDCL received Rs. 3255.00 Cr. as AT&C loss subsidy against the disallowance made in the Power purchase corresponding to the Distribution losses more than that approved by the Commission, the disallowance as computed above is Rs 612.48 Cr only. So, the excess amount of Rs 2642.52 Cr has been reduced from the ARR of the Petitioner for FY 2022-23. The treatment of the same has been done while computing the Net Revenue gap for FY 2022-23.

Commission's analysis:

The Commission has been approving the power purchase quantum and its cost based on the energy requirement computed considering the approved distribution loss target of 15% for both the Discoms. The Discoms are not able to achieve the approved distribution loss target and therefore purchasing more quantum of power than approved by the Commission.

As per Regulation 9.2 (b) of BERC (Multi Year Distribution Tariff) Regulations 2021, Variations in distribution losses which shall be measured as the difference between the units input into the distribution system and the units billed for the same year are considered as Controllable factor.

Accordingly, the Commission has computed the variation in power purchase incurred by the petitioners due to higher actual distribution losses as compared to power purchased that would have been incurred at the target distribution loss for FY 2022-23.

The Commission has computed additional energy procured by the Petitioners due to excess distribution loss as shown in the Table 4.30 below. The Commission is of the opinion that this additional energy requirement due to higher distribution loss than the stipulated target leads to incremental power purchase from various sources, the Petitioners would not have required such incremental power purchase, had they met the distribution loss target. Consequently, it also leads to higher Transmission charges and line losses incidental to additional energy requirement.

Therefore, the DISCOMs are once again directed to take all the needful measures to control the losses within the prescribed limit with better performance.

Accordingly, the Commission has computed additional power purchase cost due to excess distribution loss as shown in the Table below:

Table 4.30: Additional Power Purchase Cost for FY 2022-23 as computed by the Commission

Sl. No	Particulars	Unit	NBPDCCL Actual FY 2022-23	SBPDCL Actual FY 2022-23
A	Energy Requirement			
1	Energy sales	MU	13,828.19	15,881.30
2	Less: Inter-state sales to Nepal	MU	314.22	0.00
3	Less: SLDC Deviation	MU	226.92	283.70
4	Energy sales excluding Inter-state sales & SLDC Deviation	MU	13,287.05	15,597.60
5	Distribution Loss	%	15.95%	22.62%
6	Add: Distribution Loss	MU	2,520.90	4,559.75
7	Total energy required at Distribution periphery (excluding inter-state sales)	MU	15,807.95	20,157.35
8	Add: Inter-state sales	MU	314.22	0.00
9	Add: SLDC Deviation	MU	226.92	283.70
10	Energy required at Transmission periphery	MU	16,349.09	20,441.05
11	State Transmission Loss	%	3.32%	3.32%
12	Add: State Transmission Loss	MU	561.43	701.95
13	Total energy required at State Transmission Periphery	MU	16,910.52	21,143.00
14	Losses in Regional Transmission System (CTU loss)	%	3.20%	3.20%
15	Add: Losses in Regional Transmission System	MU	559.03	698.94
16	Total Energy Requirement at Ex-Bus	MU	17,469.54	21,841.94
17	Total Energy Purchased	MU	21,211.83	26519.56
18	Surplus Energy Purchased	MU	3,742.29	4,677.62
19	Surplus Energy Sold	MU	3624.21	4530.08
20	Balance Additional Power Purchase	MU	118.08	147.54
21	Additional power purchase cost @APPC including Tr.charges (Rs. 5.50/kWh)	Rs Crore	64.94	81.15

Note: The Commission has arrived at the CTU losses at 1525.31 MU on power purchased from Central Stations, IPP etc., from outside the State. For estimating the additional power purchase cost due to excess distribution loss, the total power purchase from various sources has been worked out considering the impact of average regional transmission loss $[3.20\% = (1525.31/47671.96) \times 100]$ applicable on the total power purchase. The reason for applying the average regional transmission loss is that the power purchase quantum also includes sources of power on which the regional transmission losses are not applicable i.e., State Generating stations, Renewable Energy sources, Nepal etc.,

The losses incurred due to controllable factor (i.e., distribution loss in this case) are to be shared in terms of Regulation 11.1 (b) (i) of BERC (Multi Year Distribution Tariff) Regulation, 2021 which is reproduced below:

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 Distribution Licensee 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 Distribution Licensee;
- (ii) The balance two-third of the amount of such loss shall be on account of Distribution Licensee.

Explanation:- If the State Government is providing resource gap grant, Aggregate Loss shall be reduced by that amount for the purpose of computation of Aggregate Loss to be qualified for a pass through.

The Commission has computed the sharing of gain / (loss) on account of additional power purchase due to excess distribution loss as shown below:

Table 4.31: Sharing of Gain/(loss) on account of variation in distribution losses for FY 2022-23

(Rs. Crore)				
Particulars	Approved Power purchase Expense of FY 2022-23	Gain/(Loss) due to Controllable Factors	1/3rd (Loss) to be passed on to Consumers	2/3rd (Loss) to be absorbed by petitioner
A	B	C	F	G
NBPDCCL				
Power Purchase Cost (including Transmission & SLDC charges)	11669.96	64.94	21.65	43.29
SBPDCL				
Power Purchase Cost (including Transmission & SLDC charges)	14596.22	81.15	27.05	54.10
Total	26266.18	146.09	48.70	97.39

The Commission has approved the loss of Rs.43.29 Crore and Rs.54.10 Crore for NBPDCCL and SBPDCL to be absorbed by the licensee on account of additional power purchase expenses due to excess distribution losses.

Treatment of Subsidy from GoB for Power Purchase

The Government of Bihar has extended a subsidy to the Discoms to meet their financial losses arising due to higher AT&C loss beyond the trajectory fixed by the Commission. This Financial support is primarily to facilitate the Discoms to pay the power purchase bills and accordingly the Government has arranged a subsidy of Rs.4276.92 Crore for FY 2022-23 for both Discoms combinedly.

On a query SBPDCL, vide letter No.41 dated 08.01.2024, has provided the details of subsidy and stated that both the Discoms have received a Combined Tariff Subsidy of Rs.7800.86 Crore and AT&C Loss Subsidy of Rs.1093.94 Crore for FY 2022-23. Further, the Discoms have also received arrear AT&C Loss Subsidy of Rs.3182.98 Crore pertaining to FY18, FY19, FY20 and FY21. The AT&C Loss subsidy is revenue in nature and therefore recognized as revenue in the books of account. The summary of Discom wise Tariff Subsidy and AT&C Loss Subsidy received and allocated is represented below:

Nature of Subsidy	Total Subsidy Received (Rs Crore)	Allocation of Subsidy	
		NBPDCCL (Rs Crore)	SBPDCL (Rs Crore)
Tariff Subsidy	7,800.96	3,623.04	4,177.92
AT&C Loss Subsidy	1,093.92	1,021.92	3,255.00
Arrear AT&C Loss Subsidy (FY18 to FY21)	3,183.00		
Total	12,077.88	4,644.96	7,432.92

The audited accounts of Discoms also depict the subsidy amount of Rs.1021.92 Crore for NBPDCCL and Rs. 3255.00 Crore for SBPDCL totaling to Rs.4276.92 Crore for FY 2022-23.

The Commission has approved billing efficiency of 85% (i.e., Distribution loss of 15%) and collection efficiency of 100% for both Discoms for FY 2022-23. In MYT Order dated FY 25.02.2022.

However, The actual distribution losses are at 15.94% for NBPDCCL and 22.62% for SBPDCL and collection efficiency are at 94.84% for NBPDCCL and 96.98% for SBPDCL in FY 2022-23.

However as stated above, Accordingly, in truing up of FY 2022-23, an amount of above-said subsidy which are in excess of Rs. 828.40 Cr (i.e. actual financial loss of both the DISCOMs due to higher AT&C loss) has been considered as passed through as detailed in the Table below:

Table 4.32: Sharing of subsidy on account of variation in distribution losses for FY 2022-23

Particulars	(Rs. Crore)		
	NBPDCCL	SBPDCL	Total
Total Subsidy provided by the State Government to the DISCOMs to compensate their financial loss due to higher AT&C loss	1021.92	3255	4276.92
Less: Actual financial loss of DISCOMs due to higher AT&C loss	43.29	54.10	97.39
Amount of Subsidy considered as passed through	978.63	3200.90	4179.53

4.8. Renewable Power Purchase Obligation**Petitioners' submission:**

It is submitted that the Commission has notified the BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 and BERC (Terms and Conditions for Tariff Determination from Solar Energy Sources) Regulations, 2010. Further Hon'ble Commission initiated a Suo-Motu proceedings no. 42/2016 dated 24.11.2016 to bring in 2nd amendment in the BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 dated 29.03.2017 to incorporate the various new/amended provisions specified in the revised Tariff Policy, 2016 notified by the Ministry of Power Govt. of India vide gazette notification dated 28.01.2016. The Commission has also come up with its 3rd amendment in due course BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010. Further, Ministry of Power, Govt. of India, through its order no. 09/13/2021-RCM dated 22.07.2023 specified separate Wind RPO, HPO and other RPO within the overall RPO target for the FY 2022-23 to FY 2029-30. Subsequently, BERC has adopted the RPO target as specified by the MoP for the year FY 2022-23 to FY 2029-30. Further Hon'ble Commission through a Suo-Motu proceedings brought in 4th amendment in the BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010. Minimum quantum of electricity to be procured from Renewable Sources by Obligated Entity as percentage of total consumption is provided in table below.

Table 4.33: Renewable Purchase Obligation (%)

FY	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.60%
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

In line with the above, the details of the Renewable Energy based power procured during FY 2022-23, has been given in the table below as per the Regulation and amendments issued therein:

Table 4.34: RPO met for FY 2022-23 (in MU)

Particulars	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	13,360.57	15,718.61
Hydro Power Purchase	1,244.32	1,555.84
Hydro Power purchase by Bhutan under deviation	0	0
Total Hydro Power Purchase	1,244.23	1,555.84
Inter-State Transmission Loss (%)	3.85%	3.85%
Inter-State Transmission Loss (MU)	47.96	59.96
Intra-State Transmission Loss (%)	3.32%	3.32%
Intra-State Transmission Loss (MU)	39.67	49.6
Distribution Loss	15.18%	22.02%
Distribution Loss	175.59	318.48
Hydro Power Consumed	981.11	1,127.80
Conventional Power Consumed	12,379.46	14,590.81
RPO Targets (%)	24.60%	24.60%
Wind RPO (%)	0.81%	0.81%
HPO (%)	0.35%	0.35%
Other RPO (%)	23.44%	23.44%
RPO Targets (MU)	3,045.35	3,589.34
Wind RPO	100.27	118.19
HPO	43.33	51.07
Other RPO	2,901.75	3,420.09
Renewable Power Purchased (MU)	2,976.24	3,727.16
Wind RPO	758.79	948.66
HPO	0	0
Other RPO	2,217.45	2,778.50
RPO Shortfall (MU)	69.11	-137.82
Wind RPO shortfall/ (surplus)	-658.52	-830.47
HPO shortfall/ (surplus)	-615.19	-779.4
Other RPO shortfall/ (surplus)	69.11	-137.82
RPO Target Achieved (%)		
Wind RPO	100%	100%
HPO	100%	100%
Other RPO	98%	100%

NBPDCCL submitted that Wind RPO and HPO target altogether is tune to 143.6 MU in FY 2022-23. However, Petitioner has purchased total of 758.79 MU under these heads. Therefore, Petitioner hereby submit that it has achieved the RPO targets in combination of Wind RPO and HPO altogether.

SBPDCL submitted that Wind RPO and HPO target altogether is tune to 169.25 MU in FY 2022-23. However, Petitioner has purchased total of 948.66 MU under these heads. Therefore, Petitioner hereby submit that it has achieved the RPO targets in combination of Wind RPO and HPO altogether.

It is submitted further submitted that the Discoms in the Tariff Petition for FY 2020-21 (SBPDCL vide letter dated 18.01.2020 and NBPDCCL vide letter no.67 of 20.01.2020) have submitted the details of RECs purchased earlier (SBPDCL Rs.149.39 Crore and NBPDCCL Rs.106.50 Crore) and cost of which was already factored into the ARR of respective Discoms till FY 2017-18 in truing up. It was submitted by the Discoms that they have fulfilled their RPO Obligations till 2018-19 and requested the Hon'ble Commission to adjudge the RPO related decisions based on units to be purchased instead of the cost associated to it.

Commission's analysis:

On a clarification sought by the Commission, the Discoms have submitted revised RPO computation Tables vide Annexures 1 & 2 in their additional information as below:

Sl. No.	Source	Capacity (MW)	Date of Commissioning of Project	Energy purchased (MU) BSPHCL	
				Apr-22 to Jul'22	Aug-22 to Mar-23
1	SECI (Ostro Kannada Power Private Limited)	300	63 MW 25.09.2021 10.50 MW 12.10.2021 10.50 MW 20.10.2021 16.80 MW 27.10.2021 14.70 MW 13.11.2021 10.50 MW 01.12.2021 10.50 MW 18.12.2021	184584948	189422930.7
	SECI (Ostro Kannada Power Private Limited)		37.8MW 03.08.2022	0	113653758.4
	SECI (Ostro Kannada		14.7MW 27.07.2022	0	44198683.84

Sl. No.	Source	Capacity (MW)	Date of Commissioning of Project	Energy purchased (MU) BSPHCL	
				Apr-22 to Jul'22	Aug-22 to Mar-23
	Power Private Limited)				
2	SECI (Morjar Windfarm development pvt. ltd.)	150	67.50 MW 10.08.2022, 24.30 MW 02.06.2023, 16.20 MW 03.06.2023, 13.50 MW 09.06.2023, 02.70 MW 17.06.2023	33690128	
3	SECI (VIVID SOLAIRE ENERGY PVT. LTD.) BETAMWIND	50.2	24.11.2019	130023778	
4	SECI (GREEN INFRA WIND ENERGY PVT. LTD.)	300.3	73.50 MW 06.07.2019 50.40 MW 07.09.2019 52.50 MW 04.11.2019 50.40 MW 04.01.2020 73.50 MW 20.06.2020	270541375	
5	SECI (ORANGE SIRONJ WIND POWER PVT. LTD.)	200	100 MW 07.03.2019	272946063	
6	PTC (OSTRO KUTCH WIND PRIVATE LIMITED)	250	25.20 MW 24.08.2018, 10.00 MW 02.11.2018, 10.00 MW 29.12.2018, 04.80 MW 30.03.2019	149421773	
7	PTC (MYTRAH VAYU SABARMATI PRIVATE LIMITED)	250	128.70 MW 30/01/2019 58.32 MW 16/04/2019 62.89 MW 11/05/2019	106210438	
8	PTC (WIND FIVE RENERGY PRIVATE LIMITED)	50	50.00 MW 07.08.2019	46903310	
9	SECI (ALFANAR ENERGY PVT. LTD.)	300	29-07-2020 88 MW	138286585	
			03-08-2020 50.6 MW		
			05-09-2020 29.6 MW		
			12-09-2020 15.4 MW		
			02-10-2020 15.4 MW		
			21.10.2020 15.4 MW		
			19-11-2020 20.2 MW		
			30-12-2020 15.6MW		
			23-02-2021 11.40 MW		
			05-03-2021 11 MW		
			26-03-2021 15.40 MW		
			01-04-2021 12 MW		

Sl. No.	Source	Capacity (MW)	Date of Commissioning of Project	Energy purchased (MU) BSPHCL	
				Apr-22 to Jul'22	Aug-22 to Mar-23
10	PTC (GREEN INFRA RENEWABLE ENERGY LIMITED)	249.9	08.10.2018	141665370	

Total Wind Power Purchase before 31.03.2022	A= 1+3+4+5+6+7+8+9+10	1630.01
NBPDC@44.44%	B=A*44.44%	724.37
SBPDCL @55.56%	C=A*55.56%	905.63
93% of NBPDC Total Wind Purchase	D=B*93%	673.67
93% of SBPDCL Total Wind Purchase	E=C*93%	842.24
Total Wind Purchase from Ostro Kannad and Wind, August 22 onwards	F=1+2	191.54
NBPDC@44.44%	G=F*44.44%	85.12
SBPDCL @55.56%	H=F*55.56%	106.42
Total Wind Purchase of NBPDC	I=D+G	758.79
Total Wind Purchase of NBPDC	J=E+H	948.66

NBPDC vide Letter No-156 dated 12th February 2024 submitted the revised Source-wise RPO Compliance for FY 2022-23:

Particulars	Bihar (kWh)	NBPDC (kWh)	SBPDCL (kWh)
Solar	1969455007	875225805	1094229202
Small Hydro	38776481	17232268	21544213
Biomass	5330680	2368954	2961726
Sugar	147028012	65339249	81688763
Big Hydro	2776912691	1234060000	1542852691
Wind 7%	114100460	50706244	63394216
Total	5051603331	2244932520	2806670811
MU	5051.60	2244.93	2806.67

It is observed that both SBPDCL & NBPDC have considered for RPO, the energy generated and injected into the grid by the new small hydro plants viz., Shrikhinda, Sabari, Arwal, Belsar and Kosigi for which there is no approval by the Commission and bills are not admitted. Notwithstanding this the Commission considered small hydro energy as shown in the Petitions.

The Commission vide BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) Regulations, 2010 and its amendment has notified the Renewable Purchase Obligation (RPO) percentages up to FY 2021-22.

The Ministry of Power, Government of India vide Order No F.No.09/13/2021-RCM dated 22.07.2022 has specified the RPO trajectory for period from FY 2022-23 to FY 2029-30 as given below:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.60%
2023-24	1.60%	0.66%	24.81%	27.07%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

The Commission has notified the BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) (4th amendment) Regulations, 2022 duly aligning the targets with the MoP RPO trajectory specified vide Order No F.No.09/13/2021-RCM dated 22.07.2022.

As per the BERC 4th Amendment of RPO Regulations, the targets were determined for wind, HPO and other RPO. The Regulation 4.1 (Amended) specify:

- a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31st March 2022 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022;*
- (b) HPO shall be met only by energy produced from LHPs (including PSPs and small hydro projects (SHPs)), commissioned after 8th March 2019;*
- (c) Other RPO may be met by energy produced from any RE based / green energy based power project not mentioned in (a) and (b) above.*

On a query, the Discoms could not furnish the details of Hydel Power Purchases from the Hydel power projects commissioned after 8th March, 2019. As such, the Hydel RPO Compliance is considered as Nil and accordingly computed the short fall in the RPO for FY 2022-23.

The Commission accordingly has considered the RPO targets for FY 2022-23 in this Tariff order and computed the RPO Compliance for FY 2022-23 as shown in the Table below.

Table 4.35: RPO Considered for NBPDC & SBPDCL for FY 2022-23

Sl. No	Particular	Units	NBPDC	SBPDCL
1	Energy Sales (Excluding Interstate and SLDC deviation)	MU	13287.05	15597.60
2	RPO Targets	%	24.61%	24.61%
3	Wind RPO	%	0.81%	0.81%
4	HPO	%	0.35%	0.35%
5	OTHER	%	23.44%	23.44%
6	RPO Targets	MU	3269.81	3838.41
7	Wind RPO	MU	107.63	126.34
8	HPO	MU	47.10	55.29
9	Other	MU	3115.08	3656.78
10	Renewable Power Purchase (A)	MU	3003.72	3755.33
11	Wind Power Purchased	MU	758.79	948.66
12	Hydro Power Purchased	MU	0.00	0.00
13	Other	MU	2244.93	2806.67
14	Captive Consumption BREDA (Solar) (B)	MU	4.98	14.32
	BREDA Solar Off-grid solar	MU	0.04	0.13
	BREDAGCRT	MU	0.09	1.54
	NBPDC DDG Standalone	MU	1.70	0.48
	NBPDC DDG Minigrid	MU	2.51	0.00
	NBPDC IPDS		0.00	0.00
	Net/Gross Meter Consumer	MU	0.64	12.17
	SPV Plant Solar Generation	MU	0.00	0.00
15	Captive Consumption BREDA (Non-Solar) (C)	MU	72.79	64.89
16	REC Purchase (D)	MU	0.00	0.00
17	Total RE Compliance (A+B+C+D)	MU	3081.49	3834.54
18	Wind RPO Compliance	MU	758.79	948.66
19	Hydro RPO Compliance	MU	0.00	0.00
20	Other RPO Compliance (17-18-19)	MU	2322.70	2885.88
21	RPO Shortfall (without shuffling the excess)	MU		
22	Wind Shortfall/(Surplus) (7-18)	MU	-651.16	-822.32
23	Hydel Shortfall/(Surplus) (8-19)	MU	47.10	55.29
24	Other Shortfall/(Surplus) (9-20)	MU	792.38	770.90
25	RPO Target Achieved			
26	Wind RPO (22/7) *100	%	100%	100%
27	Hydro RPO	%	0.00%	0.00%
28	Other RPO	%	74.56%	78.92%

It is observed from the Table above that the Discoms have fulfilled the wind RPO for

FY 2022-23, However the RPO target in respect of Hydro and others(i.e., HPO and others) have not been fully complied with . The Commission directs the NBPDCCL and SBPDCL to fulfill the RPO shortfall as indicated in the Table above vide Sl. No 23 &24 as specified in regulation 7.1 of 4th amendment.

The Commission in Tariff order dated 23.03.2023 had directed the Discoms to fulfill the RPO Obligation relating to short fall observed for FY 2019-20 to FY 2021-22 as detailed below.

Financial Year (true up)	NBPDCCL			SBPDCL		
	Solar	Non-solar	Total	Solar	Non-solar	Total
2019-20	159.20		159.20	192.29		192.29
2020-21	524.23	70.65	594.88	642.03	80.98	723.01
2021-22	229.19	165.63	394.82	282.69	199.45	482.14
Total	912.62	236.28	1148.90	1117.01	280.43	1397.44

Further, The Commission in its Tariff order dated 21.03.2020 (Case no.30 of 2019 NBPDCCL and Case no.31 of 2019 SBPDCL) read with Order dated 25.04.2019 in Case 06/2019 had directed the Discoms *to deposit the Regulatory fund (NBPDCCL Rs.147.67 Crore and SBPDCL Rs.209.89 Crore) in a separate bank account and submit compliance to the Commission without fail. Noncompliance of it shall be taken seriously by the Commission and failure to comply it will compel the Commission to impose penalty along with recover of such fund in the ARR of subsequent years.*

The Commission further directed the petitioner to fulfill the RPO shortfall, relating to FY 2019-20 to FY 2021-22.

4.9. Capital Expenditure

Petitioners' submission:

NBPDCCL and SBPDCL have submitted the details of opening CWIP, investment and capitalisation during the year and funding of capitalisation showing details of Grants, Equity and Loan for FY 2022-23. The Discoms have requested the Commission to approve the CWIP, capitalisation and funding of capitalisation for FY 2022-23 as given in the Table below:

Table 4.36: CWIP, Capitalisation and Funding of capitalisation claimed for FY 2022-23
(Rs. Crore)

Sl. No.	Particulars	Claimed in true up by NBPDCCL for FY 2022-23	Claimed in true up by SBPDCL for FY 2022-23
1	Opening CWIP	1703.52	2400.57
2	Add: New Investment	456.52	574.93
3	Less: Capitalisation (A+B)	1062.61	1258.59
A	Opening CWIP capitalization	850.09	1006.87
B	New Investment capitalization	212.52	251.72
4	Closing CWIP (1+2-3)	1097.43	1716.91
5	Funding of Capitalisation		
A	CWIP capitalization	850.09	1006.87
I	Grant	125.14	146.67
li	Equity	693.41	822.44
lii	Loans	31.54	37.77
B	New Investment capitalization	212.52	251.72
I	Grant	31.29	36.67
li	Equity	173.35	250.61
lii	Loans	7.88	9.44
7	Total Grants	156.43	183.33
8	Total Equity	866.76	1028.04
9	Total Loans	39.42	47.21

Commission's analysis:

The Discoms have considered opening CWIP, capital investment and capitalisation for FY 2022-23 as per the audited annual accounts of FY 2022-23. The CWIP opening balance is considered as per accounts instead of the CWIP closing balance approved in true up for FY 2021-22 in Tariff Order dated 23.03.2023.

The Discoms have provided the details of scheme-wise capitalisation and source of funding of capitalisation for FY 2022-23 in format 11 and format 14 of the petition respectively.

The Commission, based on the audited figures of opening CWIP, closing CWIP and capitalisation, has derived the value of new investment made during FY 2022-23 as detailed below:

Table 4.37: Calculation of new capital investment based on accounts for FY 2022-23
(Rs. Crore)

Sl. No.	Particulars	NBPDCCL	SBPDCL
1	Closing CWIP	1097.48	1717.56
2	Add: Capitalization	1168.39	1257.95
3	Less: Opening CWIP	1703.51	2478.07
4	New capital investment (1+2-3)	562.36	497.44

The Commission had approved closing CWIP at Rs.2773.36 Crore for NBPDCCL and Rs.3859.87 crore for SBPDCL in truing up for FY 2021-22 in Tariff order dated 23.03.2023 and the same shall be considered as opening CWIP for FY 2022-23. However, the Discoms (NBPDCCL and SBPDCL) have adopted opening CWIP as per the audited annual accounts for FY 2022-23 in spite of the decision/ruling of the Commission in Tariff order dated 25.03.2022 which is reproduced hereunder:

“.....the Discoms vide letter dated 11.12.2021 have submitted that that Ind AS–16 Property, Plant and Equipment defines carrying cost as the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses. As such, the value of Property, Plant and Equipment have been taken at their carrying value and not at the historical cost and hence, there is a difference in the opening balance adopted in the tariff petition for FY 2020-21 with the closing balance of 2019-20 approved in Tariff order dated 26.03.2021. The petitioner hereby contends that by adopting closing balances approved in truing up for FY 2019-20 in TO dated 26.03.2021, there will be complete deviation from the books of accounts. The Petitioners in response to query vide letter no. Case No.16/2021-25 dated 07.01.2022 has replied that they intend to adopt the opening balances as per the audited accounts of FY 2020-21.

Regulation 14 (b) of BERC (Multi Year Distribution Tariff) Regulations 2018 specify true up of expenses shall be on the basis of expense estimates made in the beginning of the year under consideration, actual expenses booked in the audited books of accounts of the Distribution Licensee for the year, and after prudence check of data by the Commission.

Regulation 2 (3)(1)(4) specify “Audited accounts or Audited Accounting Statements” for the purpose of licensed or regulated business shall mean (Audited) Regulatory Accounts prepared in accordance with BERC (Power Regulatory Accounting) Regulations, 2018.

Regulation 3.1(6) specify "Books of Accounts" for the purpose of licensed or regulated business shall mean Regulatory Books of Accounts drawn up in accordance with BERC (Power Regulatory Accounting) Regulations, 2018.

Regulation 8.1 of the BERC (Power Regulatory Accounting) Regulations 2018 specify every licensee shall prepare the Regulatory Accounts under the Historical Cost Convention in accordance with the provisions of the Act and the Regulations notified by the Commission from time to time, Generally Accepted Accounting Principles in India, applicable Accounting Standards as notified by the Central Government within the provisions of section 133 and other relevant provisions of the Companies Act, 2013 and its amendments thereof as well as rules made or refereed under the Act in this regard, wherever applicable. Regulation 9 specify the Accounting Policies for regulatory accounts which specify fixed assets, capital works in progress, etc. shall be considered at historical cost/at cost.

The Commission in Tariff order dated 25.02.2019 has opined that the adjustments made by Discoms due to adoption of Ind AS101 in the annual accounts as per change in accounting policy is the presentation requirement to present net value of assets as on 1st April 2016 and there is no impact on the overall historical value of the GFA.

Conjoint reading of regulation 14 (b), 3.1(4) and 3.1(6) of BERC (Multi Year Distribution Tariff) Regulations 2018, Regulation 8.1 of the BERC (Power Regulatory Accounting) Regulations 2018 and ruling in Tariff order dated 25.02.2019 emphasis that historical cost shall be considered in respect of opening balances to be carried forward year on year”.

The Commission has observed that even after emphasizing this point year after year in course of disposing the tariff petitions, the licensees are following the same procedure in the tariff petitions.

On a query, NBPDCCL vide letter no.1010 dated 30.11.2023 and SBPDCL vide letter no.1011 dated 30.11.2023, have submitted that Ind AS – 16 Property, Plant and Equipment defines carrying cost as the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses. As such, the value of Property, Plant and Equipment have been taken at their carrying value and not at the historical cost and hence, there is a difference in the opening balance adopted in the tariff petition FY 2022-23 with the closing balance of 2021-22 approved in Tariff order dated 23.03.2023.

Discoms have replied that by adopting closing balances approved in truing up for FY 2021-22 in TO dated 23.03.2023, there will be complete deviation from the books of accounts. It is also replied that opening balance of equity and loan for FY 2022-23 is considered for per the closing balance approved by the Commission for FY 2021-22. However, the matter regarding adoption of opening balances is pending with the APTEL.

The Commission, in view of the above, has considered the opening CWIP (Rs.2773.36 crore for NBPDCCL and Rs.3859.87 crore for SBPDCL) for FY 2022-23 based on the closing CWIP approved in truing up for FY 2021-22 in Tariff order dated 23.03.2023.

NBPDCCL – Capex and Capitalisation:

It is observed from Note 2 of audited annual accounts for FY 2022-23, the assets capitalised are at Rs.1168.39 crore, however, additions to GFA is considered at Rs.1062.61 crore (Table 20 of the petition) and directed the petitioner to reconcile the difference and actual values reported duly indicating the direct additions to the GFA without routing through the CWIP.

NBPDCCL vide letter no.1010 dated 30.11.2023 has submitted that total assets reversal through inter unit against double capitalization of GFA for FY 2021-22 is Rs.1251.50 Crore; out of which Rs.1172.36 Crore was adjusted during FY 2022-23 and balance of Rs.79.15 Crore (105.78–26.62) is adjusted in addition to GFA during FY 2022-23 as provided below:

(Rs. Crore)				
Sl. No.	Particulars	As per tariff petition	As per audited accounts	Difference
1	Closing balance as on 31.03.2022	21533.79	22706.16	1172.37
2	Opening balance as on 01.4.2022	21541.25	21462.11	79.14
3	Difference (1-2)	-7.46	1244.04	1251.51
4	Addition during FY 2022-23	1062.61	1168.39	105.78
5	Reversal/adjustment during FY 2022-23	42.39	69.01	26.63
6	Closing balance as on 31.03.2023 (2+4-5)	22561.48	22561.49	0.01

SBPDCL - Capex and capitalisation:

The Capital expenditure as per Note 2 and Note 3 of audited annual accounts for FY 2022-23 is at Rs.498.08 crore, however, SBPDCL has claimed Rs.574.93 crore. On a query, SBPDCL vide letter no.1011 dated 30.11.2023 has submitted that Capitalisation is at Rs.1257.95 Crore (excl direct additions of Rs.0.64 crore). SBPDCL has furnished the reconciliation of capital investment during FY 2022-23 as given hereunder:

Sl. No.	Particulars	Rs. Crore
1	Closing balance of CWIP	1717.56
2	Add: Capitalisation (Actual Routed through CWIP head as per our tariff petition in Format-11)	1257.95
3	sub-total (1+2)	2975.51
4	Less: Opening balance of CWIP	2478.07
5	Capital investment during the year (3-4)	497.44
6	New Investment Considered in Tariff Petition	574.93
7	Difference due to Adjustment entries taken in current financial year to reconcile the project head balance	77.49

Details of adjustments made to Capex in FY 2022-23 by SBPDCL:

Date	Particular	Adjustments (Rs. Crore)
30-Jun-22	ACA STATE PLAN-Lines, Cable Networks, Etc	23.34
01-Jan-23	BRGF-Phase-I-Lines, Cable Networks, etc.	0.39
01-Jan-23	BRGF-Phase-I-Lines, Cable Networks, etc.	0.45
01-Jan-23	Payment on Behalf of Circle (RE)	53.32
Total		77.49

The Commission has not considered afore mentioned Rs.77.49 crore representing adjustments made to CWIP to reconcile the project head balance as the adjustment entries are taken in current financial year i.e. FY 2023-24.

In view of the above, the Commission considers capex and capitalisation for FY 2022-23 in truing up as given in the tables below:

(Rs. Crore)			
Sl. No.	Particulars	NBPDCCL	SBPDCL
1	Closing CWIP as per audited accounts	1097.48	1717.56
2	Add: Capitalization	1168.39	1257.95
3	Less: Opening CWIP	1703.51	2478.07
4	Capital investment as per audited accounts (1+2-3)	562.36	497.44
5	Less: Adjustments	-105.78	77.49
6	Less: other adjustments	-0.06	
7	Capex considered in truing up for FY 2022-23	456.52	574.93
	Capitalisation		
8	Capitalisation as per audited accounts	1168.39	1257.95
9	Less: Adjustments	-105.78	

Sl. No.	Particulars	NBPDCCL	SBPDCL
10	Capitalisation considered in truing up for FY 2022-23	1062.61	1257.95
11	Add: Direct additions		0.64
12	Capex considered in truing up for FY 2022-23	1062.61	1258.59
13	Asset disposal	42.39	0.80

The Discoms have furnished the work/project wise details of capitalization and source of funding in Format 11 and Format 14 respectively.

NBPDCCL has claimed scheme-wise capex and capitalisation for FY 2022-23 in truing up as given in the table below:

Table 4.38: Capex and capitalisation claimed by NBPDCCL for FY 2022- 23

(Rs. Crore)

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23	Capex during FY 2022-23	Capitalisation during FY 2022-23	Closing CWIP for FY 2022-23
1	BRGF	41.12	56.86	87.88	10.10
2	R-APDRP	23.29			23.29
3	NABARD Phase XI	0.74	0.62	1.36	-
4	MP/CM LAD	0.04	0.5	0.54	-
5	Deposit Scheme	4.88	1.89	1.79	4.98
6	State Plan -Others	552.93	390.63	420.66	522.90
7	Reconductoring	557.16		300.87	256.29
8	IPDS	11.09	91.17	82.74	19.52
9	RGVY	15.83	38.21	54.04	-
10	DDUGJY	14.22	37.16	30.67	20.71
11	RDSS		4.82		4.82
12	MKVYS	88.22	45.16	59.01	74.37
13	Own Sources (incl. reconciliation difference)	394.00	-210.50	23.02	160.48
	Total	1703.52	456.52	1062.58	1097.46

The Commission has observed from the table above, NBPDCCL has claimed capitalisation of Rs.300.87 crore in respect of Reconductoring Scheme/project in truing up for FY 2022-23.

The Commission, in Tariff Order dated 26.03.2021 had mentioned that capex under *Reconductoring scheme is not approved by the Commission. It was opined that implementation of Reconductoring Scheme is for strengthening of distribution network to provide quality and uninterrupted 24x7 power to all. The Commission noted the fact that, the petitioners have already incurred investment against the scheme without taking prior approval, the Commission after thoughtful consideration has considered capitalisation of Reconductoring Scheme for FY 2019-20.*

It is also clarified and reiterated its direction to petitioners to take prior approval for each scheme to be undertaken by the DISCOMs.

The Commission, in view of submission of DPRs for reconductoring scheme has considered capitalisation as reported through audited accounts for FY 2022-23 claimed in truing up subject to approval of the scheme.

The Commission has considered scheme-wise capital expenditure and capitalisation for FY 2022-23 in truing up as given in the Table below for NBPDCCL.

Table 4.39: Capex and capitalisation approved for NBPDCCL for FY 2022-23 in true up (Rs. Crore)

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23 (CB as approved in Tariff order dated 23.03.2023)	Capex during FY 2022-23	Capitalisation during FY 2022-23	Closing CWIP for FY 2022-23
1	BRGF	41.11	56.86	87.88	10.09
2	R-APDRP	4.20			4.20
3	NABARD Phase XI	0.74	0.62	1.36	-
4	MP/CM LAD	0.04	0.5	0.54	-
5	Deposit Scheme	4.90	1.89	1.79	5.00
6	State Plan -Others	552.93	390.63	420.66	522.90
7	APL Connection	88.22			88.22
8	Reconductoring	122.77		300.87	(178.10)
9	IPDS	438.48	91.17	82.74	446.91
10	RGGVY	176.94	38.21	54.04	161.11
11	DDUGJY	951.86	37.16	30.67	958.35
12	RDSS		4.82		4.82
13	MKVYS		45.16	59.01	(13.85)
14	Own Sources (incl. reconciliation difference)	388.18	-210.5	23.02	154.66
	Total	2770.37	456.52	1062.58	2164.31

SBPDCL has claimed scheme-wise capex and capitalisation for FY 2022-23 in truing up as given in the table below:

Table 4.40: Capex and Capitalisation claimed by SBPDCL for FY 2022-23 (Rs. Crore)

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23	Capex during FY 2022-23	Capitalisation during FY 2022-23	Closing CWIP for FY 2022-23
1	BRGF	765.50	3.39	68.52	700.37
2	R-APDRP	-0.20	0.22		0.02
3	NABARD Phase VIII		1.55	1.55	-
4	MP/CM LAD	0.77	0.20	0.20	0.77
5	Deposit Scheme	3.13	12.71	10.72	5.12
6	ADB	79.74	-0.11		79.63
7	ACA State Plan	15.69	23.34		39.03
8	Burnt DTR State Plan	1.12	-0.94		0.18
9	State Plan -Others	945.44	293.88	617.67	621.65
10	APL Connection	99.46	36.83	31.29	105.00
11	Reconductoring	182.46	145.60	283.83	44.23
12	IPDS	179.12	-0.83	123.45	54.84
13	RGGVY	3.86	14.42	18.20	0.08
14	DDUGJY	112.31	32.07	95.17	49.21
15	Infrastructure works – RDSS		1.54		1.54

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23	Capex during FY 2022-23	Capitalisation during FY 2022-23	Closing CWIP for FY 2022-23
16	Own Sources (incl. reconciliation difference)	12.16	11.08	7.36	15.88
	Total	2400.56	574.93	1257.95	1717.55

The Commission, in view of submission of DPRs has considered the capex and capitalisation for reconductoring scheme as reported through audited accounts for FY 2022-23 subject to approval of the scheme.

The Commission has considered scheme-wise capitalisation for FY 2022-23 in true up as given in the Table below for SBPDCL.

Table 4.41: Capex and Capitalisation approved for SBPDCL for FY 2022-23 in true up (Rs. Crore)

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23 (CB as approved in Tariff order dated 23.03.2023)	Capex during FY 2022-23	Capitalisation during FY 2022-23	Closing CWIP for FY 2022-23
1	BRGF	765.50	3.39	68.52	700.37
2	R-APDRP	-0.20	0.22		0.02
3	NABARD Phase VIII	0.07	1.55	1.55	0.07
4	MP/CM LAD	0.96	0.20	0.20	0.96
5	Deposit Scheme	3.19	12.71	10.72	5.18
6	ADB	79.74	-0.11		79.63
7	ACA State Plan	15.69	23.34		39.03
8	Burnt DTR State Plan	1.13	-0.94		0.19
9	State Plan -Others	818.43	293.88	617.67	494.64
10	APL Connection	99.46	36.83	31.29	105.00
11	Reconductoring	528.52	145.60	283.83	390.29
12	IPDS	416.97	-0.83	123.45	292.69
13	RGGVY	315.66	14.42	18.20	311.88
14	DDUGJY	802.87	32.07	95.17	739.77
15	Infrastructure works – RDSS		1.54		1.54
16	Own Sources (incl. reconciliation difference)	11.89	11.08	7.36	15.61
	Total	3859.88	574.95	1257.96	3176.87

The Commission, accordingly, considers the funding of capitalization for FY 2022-23 in true up.

Table 4.42: Funding of Capitalisation approved for FY 2022-23 in true up for NBPDCCL (Rs. Crore)

Sl. No.	Name of scheme /Project	Funding pattern			Funding			
		Equity	Loan	Grant	Capitalisation	Equity	Loan	Grant
1	BRGF	30%	70%		87.88	26.36	61.52	-
2	R-APDRP		100%			-	-	-
3	NABARD Phase VIII			100%		-	-	-
4	NABARD Phase XI			100%	1.36	-	-	1.36
5	MP/CM LAD			100%	0.54	-	-	0.54

Sl. No.	Name of scheme /Project	Funding pattern			Funding			
		Equity	Loan	Grant	Capitalisation	Equity	Loan	Grant
6	Deposit Scheme			100%	1.79	-	-	1.79
7	ADB		100%			-	-	-
8	ACA State Plan	100%				-	-	-
9	Burnt DTR State Plan	100%				-	-	-
10	State Plan -Others	20%	80%		420.66	84.13	336.53	-
11	APL Connection			100%		-	-	-
12	CM Seven Resolutions (Har Ghar Bijili)			100%		-	-	-
13	Reconductoring	30%	70%		300.87	90.26	210.61	-
14	IPDS	10%	30%	60%	82.74	8.27	24.82	49.64
15	RGGVY		10%	90%	54.04	-	5.40	48.64
16	DDUGJY	10%	30%	60%	30.67	3.07	9.20	18.40
17	RDSS	20%	80%			-	-	-
18	Infrastructure works- RDSS	20%	20%	60%		-	-	-
19	IT/OT- RDSS	20%	20%	60%		-	-	-
20	PMA – RDSS	20%	20%	60%		-	-	-
21	MKVYS			100%	59.01	-	-	59.01
22	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex		100%			-	-	-
23	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex		100%			-	-	-
24	Own Sources (incl. reconciliation difference)		100%		23.02	-	23.02	-
25	Total				1,062.58	212.10	671.10	179.38

Table 4.43: Funding of Capitalisation approved for FY 2022-23 in true up for SBPDCL (Rs. Crore)

Sl. No.	Name of scheme /Project	Funding pattern			Funding			
		Equity	Loan	Grant	Capitalisation	Equity	Loan	Grant
1	BRGF	30%	70%		68.52	20.56	47.96	-
2	R-APDRP		100%			-	-	-
3	NABARD Phase VIII			100%	1.55	-	-	1.55
4	NABARD Phase XI			100%		-	-	-
5	MP/CM LAD			100%	0.20	-	-	0.20
6	Deposit Scheme			100%	10.72	-	-	10.72
7	ADB		100%			-	-	-
8	ACA State Plan	100%				-	-	-
9	Burnt DTR State Plan	100%				-	-	-
10	State Plan -Others	20%	80%		617.67	123.53	494.14	-
11	APL Connection			100%	31.29	-	-	31.29
12	CM Seven Resolutions (Har Ghar Bijili)			100%		-	-	-
13	Reconductoring	30%	70%		283.83	85.15	198.68	-
14	IPDS	10%	30%	60%	123.45	12.35	37.04	74.07
15	RGGVY		10%	90%	18.20	-	1.82	16.38

Sl. No.	Name of scheme /Project	Funding pattern			Funding			
		Equity	Loan	Grant	Capitalisation	Equity	Loan	Grant
16	DDUGJY	10%	30%	60%	95.17	9.52	28.55	57.10
17	RDSS	20%	80%			-	-	-
18	Infrastructure works- RDSS	20%	20%	60%		-	-	-
19	IT/OT- RDSS	20%	20%	60%		-	-	-
20	PMA – RDSS	20%	20%	60%		-	-	-
21	MKVYS			100%		-	-	-
22	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex		100%			-	-	-
23	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex		100%			-	-	-
24	Own Sources (incl. reconciliation difference)		100%		7.36	-	7.36	-
	Total				1,257.96	251.10	815.55	191.31

The Commission, accordingly, has considered the opening CWIP, capex and capitalisation during FY 2022-23 and funding of capitalisation as detailed in the table below:

Table 4.44: Opening CWIP, Capex, Capitalisation and funding of capitalisation approved for FY 2022-23 in true up

(Rs. Crore)

Sl. No.	Particulars	Approved in truing up for FY 2022-23 for NBPDCCL	Approved in truing up for FY 2022-23 for SBPDCL	Total
1	Opening CWIP (as per closing CWIP approved in true up for FY 2021-22)	2773.36	3859.87	6633.23
2	Add: New Investment	456.52	574.95	1031.47
3	Less: Capitalisation	1062.58	1257.96	2320.54
4	Closing CWIP (1+2-3)	2167.30	3176.86	5344.16
5	Funding of Capitalisation (a+b+c)	1062.58	1257.96	2320.54
A	Grant	179.38	191.31	370.69
B	Equity	212.10	251.10	463.20
C	Loans	671.10	815.55	1486.65

The Commission accordingly approves the Opening CWIP, New Investment, Capitalisation, Closing CWIP and funding of capitalisation for FY 2022-23 in truing up as detailed in the Table above.

Variation in capex and capitalisation:

Regulation 9.2 of BERC (Multi Year Distribution Tariff) Regulations, 2021 specify the “controllable factors” shall comprise but not limited to the following factors which are within the control of, and are attributable to the applicant:

- (a) Variations in capital expenditure on account of time and/or cost overruns/ efficiencies in the implementation of a capital project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;
- (b) Variations in distribution losses which shall be measured as the difference between the units input into the distribution system and the units billed for the same year;
- (c) Variations in Return on Equity (RoE), depreciation and working capital requirements. However, if the Commission is satisfied that the variation in the working capital requirement is attributable to any uncontrollable factors, the same may be considered as uncontrollable factor;
- (d) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted;
- (e) Variations in operation & maintenance expenses, except those attributable to directions of the Commission or to change in Government policy/law;
- (f) Variation in Wires Availability and Supply Availability, within the control of Distribution Licensee.

Regulation 11 specifies that variation in capitalisation is subject to mechanism of sharing of gain and losses. The Commission accordingly has decided to undertake detailed analysis of scheme-wise deviation in project cost.

The Discoms have submitted the scheme-wise capex and capitalisation details, however, the work-wise details under each scheme were not provided to verify, whether the works have been carried out and completed within the scheduled time period, material and cost variations due to change/modifications in specifications, etc. to ascertain cost due to uncontrollable factors, etc. In the absence of required information, determining the variation in capitalisation is on account of performance

efficiencies / inefficiencies of the utilities or due to uncontrollable / controllable factors is not feasible.

As such the variation in capex and capitalisation is considered to be due to uncontrollable force majeure factors and dependent ARR factors of Depreciation, Interest on Loan, Return on Equity, etc. are also considered as uncontrollable and pass through in the ARR.

4.10. Gross Fixed Assets

Petitioners' submission

The Discoms have submitted that Opening GFA is considered as per the audited annual accounts and computed the GFA based on the capitalisation for FY 2022-23 as detailed in the table below:

Table 4.45: Gross Fixed Assets claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed in true up by NBPDCCL	Claimed in true up by SBPDCL	Total
1	Opening GFA	21541.25	16300.88	37842.13
2	Additions during the year	1062.61	1258.59	2321.2
3	Less: Disposal/Sale/Transfer	42.39	0.80	43.19
4	Closing GFA (1+2-3)	22561.47	17558.68	40120.14

Commission's analysis:

The Discoms have submitted that Opening GFA is considered as per the audited annual accounts as on 31st March 2022. The Commission has comprehensively deliberated the issue of adjustments made in the books of accounts by the Discoms due to adoption of Ind AS 101 and adoption of opening balances for the purpose of tariff in the earlier paragraph 4.9 above which is not stated here due to brevity. The Commission, in view of the deliberations, has adopted the opening GFA based on the closing GFA approved in the truing up for FY 2021-22.

The Commission had approved closing GFA at Rs.21009.39 Crore for NBPDCCL and Rs.15420.89 Crore for SBPDCL in true up for FY 2021-22 in the Tariff Order dated 23.03.2023 and the same is considered as opening GFA for true up for FY 2022-23. Additions to GFA during FY 2022-23 is considered as deliberated and approved in paragraph 4.9 above.

The Commission, accordingly, has considered the opening GFA, additions to GFA and closing GFA as detailed in the table below:

Table 4.46: Gross Fixed Assets approved for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in True up by NBPDCCL	Approved in True up by SBPDCL	Total
1	Opening GFA	21009.39	15420.89	36430.28
2	Additions during the year	1062.58	1257.96	2320.54
3	Direct additions		0.64	0.64
4	Less: Disposal/Sale/Transfer	42.39	0.80	43.19
5	Closing GFA (1+2+3-4)	22029.58	16678.69	38708.27

The Commission, accordingly, approves Gross Fixed Assets for FY 2022-23 in true up as above.

4.11. Depreciation

Petitioners' submission:

NBPDCCL and SBPDCL have submitted that depreciation is claimed as per regulation 23 of BERC (Multi Year Distribution Tariff) Regulations 2021 after reducing the value of land, depreciation on grants and consumer contribution amortized in the ratio of depreciation. The Discoms have claimed the depreciation for FY 2022-23 as detailed in the table below:

Table 4.47: Depreciation claimed for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Claimed in truing up by NBPDCCL for FY 2022-23	Claimed in truing up by SBPDCL for FY 2022-23	Total
1	Opening GFA	21541.25	16300.88	37842.13
2	Less: Value of land	1048.55	1546.29	2594.84
3	Net Opening GFA (1-2)	20492.70	14754.60	35247.29
4	Net Additions during the year (excl. land)	1063.79	1258.59	2322.38
5	Adjustment for assets sold/discarded, etc	42.39	0.80	43.19
6	Closing GFA (3+4-5)	21514.10	16012.39	37526.48
7	Average GFA $\{(3+6)/2\}$	21003.40	15383.50	36386.89
8	Weighted average rate of depreciation	4.83%	4.87%	
9	Depreciation (7*8)	1013.94	748.86	1762.80
10	Opening Grants	11755.28	6970.09	18725.37
11	Grants during the year	157.69	183.33	341.02
12	Less: Grants utilised for Land during the year (as reported in Format 14)	14.57		14.57
13	Closing Grants (10+11-12)	11898.40	7153.42	19051.82

Sl. No.	Particulars	Claimed in truing up by NBPDCCL for FY 2022-23	Claimed in truing up by SBPDCL for FY 2022-23	Total
14	Average Grants $\{(10+13)/2\}$	11826.84	7061.76	18888.60
15	Weighted average rate of depreciation	4.80%	5.85%	
16	Depreciation for GFA on Grants (14*15)	567.14	413.46	980.60
17	Net Depreciation (9-16)	446.80	335.40	782.21

The Discoms have proposed the gains/(loss) on account of depreciation for FY 2022-23 as given in the table below:

Table 4.48: Gains/(Loss) on account of Depreciation for FY 2022-23

(Rs. Crore)

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Pass through on account of Uncontrollable Factors
NBPDCCL	369.30	446.80	(77.50)		77.50
SBPDCL	331.43	335.40	(3.97)		3.97

Commission's analysis:

The Commission has examined the computation of depreciation claimed by the Discoms for FY 2022-23.

Regulation 23 of BERC (Multi Year Distribution Tariff) Regulations 2021, specify;

"23. Treatment of Depreciation

- Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year.*
- Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.*
- 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 at rate not exceeding the rate specified by the Central Electricity Regulatory Commission for Transmission utility.*
- 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 Distribution Licensee 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 cost of leasehold land shall be amortized evenly within the leased period.

- e) Depreciation shall be charged from the first year of commercial operation of the asset. Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.*
- f) A provision of replacement of assets shall be made in the capital investment plan.”*

Regulation 23 (a) specify, depreciation shall be calculated annually on the assets capitalised/put to use (from the date of commercial operation) on straight line method over the useful life of the asset at rates specified by the CERC for Transmission utility. Depreciation shall not be allowed on assets funded by capital subsidies, grants or consumer contributions and the cumulative depreciation shall be limited to 90% of the original cost of the asset. Land is not depreciable asset and cost of land shall be excluded for computing depreciation. The Commission has verified the procedures being followed by the Discoms from the Notes to Accounts – Significant Accounting Policies specified in the Audited accounts of the Discoms.

According to the audited accounts for FY 2022-23, the opening GFA includes land of Rs.1546.28 crore for SBPDCL and Rs.1047.14 crore for NBPDCCL. During the year FY 2022-23, NBPDCCL has land addition of Rs.0.22 crore and SBPDCL has no addition to land. The Commission accordingly considered the land value as above to calculate weighted average rate of depreciation for FY 2022-23.

The Commission, in order to arrive effective weighted average rate of depreciation, has considered the opening GFA (historical cost) for FY 2022-23 based on the closing GFA as approved in the truing up for FY 2021-22 in Tariff order dated 23.03.2023. The opening GFA and addition to GFA during the year 2022-23 includes value of land. Land is not a depreciable asset and accordingly, the Commission has reduced the value of land for arriving at the effective weighted average rate of depreciation for FY 2022-23. The Commission has considered addition to GFA as deliberated in

paragraph 4.9. The effective weighted average rate of depreciation is worked out on the depreciable assets for FY 2022-23 as detailed hereunder in table below:

Table 4.49: Effective weighted average rate of depreciation on Assets

Sl. No.	Particulars	NBPDCCL	SBPDCL
1	Opening GFA balance of depreciable assets for FY 2022-23 (as per closing depreciable assets approved in true up for FY 2021-22 Table 4.47 of Tariff order dated 23.03.2023)	23198.62	15942.46
2	Additions during the year (Net of Assets Sold/Transfer/Disposed)	1099.38	1257.79
3	Less: Value of land added during the year	0.22	0.00
4	Closing GFA (Closing depreciable assets) (1+2-3)	24297.78	17200.25
5	Average GFA (3+6)/2	23748.20	16571.36
6	Net Depreciation as per accounts	1022.59	748.86
7	Weighted average rate of Depreciation (6/5)*100	4.31%	4.52%

The Discoms have furnished the details of grants utilised for creation of assets and depreciation charged thereon in Format No.14 and Format No.15 for true up for FY 2022-23 of the tariff petition.

The Commission, observes that opening balance of depreciable assets created out of grant is neither in agreement with the closing balance approved in true up for FY 2021-22 nor in agreement with audited figures. Hence, the Commission, in the absence of the information, has adopted the rate of depreciation on assets created through grants exactly same as that approved for depreciable assets.

The Commission has approved the closing depreciable assets at Rs.19961.24 Crore for NBPDCCL and Rs.13874.61 Crore for SBPDCL in true up for FY 2021-22 in Tariff Order dated 23.03.2023. The Commission has also approved the closing grants utilised for creation of assets at Rs.12011.42 Crore for NBPDCCL and Rs.7524.87 Crore for SBPDCL in true up for FY 2021-22 in Tariff Order dated 23.03.2023. Accordingly, the Commission, for the purpose of computation of depreciation for FY 2022-23, has considered the opening depreciable assets and opening grants for FY 2022-23 based on the closing depreciable assets and closing grants approved for FY 2021-22 in true up in Tariff Order dated 23.03.2023.

The opening GFA, additions to GFA, closing GFA, rate of depreciation and depreciation on assets, depreciation on assets created out of grants and net depreciation considered as pass through in the ARR by the Commission in true up for FY 2022-23 is as detailed in the table below:

Table 4.50: Depreciation approved for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in truing up for NBPDCCL	Approved in truing up for SBPDCL	Total
1	Opening depreciable assets (as per closing depreciable assets approved in true up for FY 2021-22 Table 4.47 in TO dated 23.03.2023)	19961.24	13874.61	33835.85
2	Net Additions during the year (excl. land and disposal/withdrawal of assets)	1019.97	1257.80	2277.77
3	Closing depreciable assets (1+2)	20981.21	15132.41	36113.62
4	Average depreciable assets $\{(1+3)/2\}$	20471.23	14503.51	34974.74
5	Weighted average rate of depreciation	4.31%	4.52%	
6	Depreciation (4*5)	881.48	655.41	1536.90
7	Opening Grants (as per closing grants approved in true up for FY 2021-22)	12011.42	7524.87	19536.29
8	Grants during the year	179.38	191.31	370.69
9	Less: Grants used for Land during the year (as reported in Format 14)	12.51		12.51
10	Closing Grants for depreciable assets (7+8-9)	12178.29	7716.18	19894.47
11	Average Grants for Depreciable Assets $\{(7+10)/2\}$	12094.86	7620.53	19715.39
12	Weighted average rate of depreciation	4.31%	4.52%	
13	Depreciation on assets created out of grants (11*12)	520.80	344.37	865.17
14	Net Depreciation (6-13)	360.68	311.04	671.73

The Commission, accordingly, approves depreciation for FY 2022-23 in true up as above.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, as deliberated in paragraph 4.9 above, the variation in capex and capitalisation is considered to be due to uncontrollable force majeure factors and dependent ARR factors of Depreciation, Interest on Loan, Return on Equity, etc. are also considered as uncontrollable and pass through in the ARR.

The Commission accordingly has not considered sharing of gains/(losses) on account of variation in depreciation approved vis-à-vis depreciation trued up for FY 2022-23.

4.12. Interest on Loans

Petitioners' submission:

Discoms have submitted that interest on loans include loans against schemes, Central and state Government loans, Bank overdrafts, public bonds, etc. Repayment is considered equivalent to depreciation claimed for FY 2022-23. The weighted average rate of interest on actual loan portfolio is calculated for computing interest on normative loan as given in the tables below:

Table 4.51: Weighted Average Rate of Interest for SBPDCL

Particulars	Rol	OB	Additions	Repayment	CB	Average Loan	Interest
REC (RGGVY) Term Loan	11.00%	133.09		13.85	119.24	126.17	16.70
REC (R-APDRP) Term Loan	10.40%	323.58		34.93	288.65	306.12	30.27
PFC (R-APDRP) Term Loan	9.00%	132.30		9.10	123.20	127.75	13.06
REC (DDUGJY) Term Loan	10.19%	745.29			745.29	745.29	68.51
REC (IPDS) Term Loan	10.19%	302.63	33.82		336.45	319.54	29.21
State Govt.-Non-Plan Loan	13.00%	112.61	30.59		143.20	127.91	16.53
BSPHCL (ADB) Loan	13.00%	6.28			6.28	6.28	0.82
Total		1755.78	64.41	57.88	1762.31	1759.05	175.10
Weighted average rate of interest							10.41%

Table 4.52: Weighted Average Rate of Interest for NBPDC

Particulars	Rol	OB	Additions	Repayment	CB	Average Loan	Interest
REC (RGGVY) Term Loan	10.50%	230.18		23.57	206.61	218.40	30.03
REC (R-APDRP) Part B Term Loan	9.00%	27.41		3.90	23.51	25.46	4.14
PFC (counterpart)	10.63%	83.32		7.15	76.17	79.75	8.42
REC (IPDS) Term Loan	8.83%	302.59		0.05	302.54	302.57	25.93
REC (DDUGJY) Term Loan	9.56%	1033.16		0.30	1032.86	1033.01	98.05
State Govt.-Non-Plan Loan	10.50%	242.05	53.93		295.98	269.02	35.04
BSPHCL (ADB) Loan	10.50%	56.08			56.08	56.08	7.28
Total		1974.79	53.93	34.97	1993.75	1984.27	208.89
Weighted average rate of interest							9.74%

Discoms have claimed interest charges for FY 2022-23 in truing up as detailed in the table below:

Table 4.53: Interest on loans claimed for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Claimed in True up by NBPDCCL	Claimed in True up by SBPDCL
1	Opening loan	5188	3488
2	Addition during the year	634	753
3	Less: Repayment during the year	447	335
4	Closing loan (1+2-3)	5376	3906
5	Average Loan (1+4)/2	5282	3697
6	Weighted average rate of Interest	9.74%	10.41%
7	Interest on loan (5*6)	514.58	384.94

The Discoms have proposed the gains/(loss) on account of interest on loans for FY 2022-23 as given in the table below:

Table 4.54: Gains/(Loss) on account of interest on loans for FY 2022-23**(Rs. Crore)**

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	560.61	514.58	46.03		(46.03)
SBPDCL	425.74	384.94	40.80		(40.80)

Commission's analysis:

The Commission has approved closing loans at Rs.5188.47 Crore for NBPDCCL and Rs.3488.22 Crore for SBPDCL in truing up to end of FY 2021-22 in the Tariff Order dated 23.03.2023 and the same is considered as opening loan for FY 2022-23 for NBPDCCL and SBPDCL respectively. Addition to loan is considered to the extent of permitted Debt Equity ratio under regulation 25 (j) read with regulation 27 (a) of BEREC (Multi Year Distribution Tariff) Regulations, 2021, based on capitalisation approved for FY 2022-23. Funding of capitalisation is considered based on actual funding and in respect of 100% equity funded schemes in Debt Equity Ratio of 70 : 30 in respect of BRGF scheme and 80 : 20 in respect of new schemes of net capitalisation of grants as shown Table 4.42 and 4.43 above.

The Commission has accordingly considered the debt equity for FY 2022-23 in truing up as given below:

Table 4.55: Debt Equity approved for FY 2022-23 in truing up

Particulars	(Rs. Crore)	
	NBPDCCL	SBPDCL
Net Capitalisation during FY 2022-23 (incl. withdrawal/disposal/transfer of assets) – A	1020.19	1257.80
Less: Capitalisation through Grants – B	179.38	191.31
Net capitalisation – C = (A-B)	840.81	1066.49
Equity	212.10	251.10
Debt	628.71	815.39

Regulation 25 (e) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify repayment shall be deemed to be equal to the depreciation allowed for the year. The Commission accordingly considered the repayment of loan equal to the depreciation allowed for the year.

Regulation 25 (g) of BERC (Multi Year Distribution Tariff) Regulations, 2021 specify:

“(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 non-convertible 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 weighted 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;”

Regulation 25 specify interest shall be provided loan-wise, project-wise and utilisation-wise, accordingly interest on project loans only shall be considered for computing the weighted average rate of interest for the purpose of ARR.

The Commission has examined the weighted average rate of interest computed by the Discoms for FY 2022-23 and observed that SBPDCL has considered weighted average rate of interest of 10.41%. However, the Commission has worked out the weighted average interest rate at 10.22% for SBPDCL as given in the table below.

Table 4.56: SBPDCL – Weighted average rate of interest for FY 2022-23

Sl. No	Particulars	Roi	Opening Balance	Additions	Repayment	CB	Average Loan	Interest
1	REC (RGGVY) Term Loan	11.00%	133.09		13.85	119.24	126.17	13.88
2	REC (R-APDRP) Term Loan	10.40%	323.58		34.93	288.65	306.12	31.84
3	PFC (R-APDRP) Term Loan	9.00%	132.30		9.10	123.20	127.75	11.50
4	REC (DDUGJY) Term Loan	10.19%	745.29			745.29	745.29	75.95
5	REC (IPDS) Term Loan	10.19%	302.63	33.82		336.45	319.54	32.56
6	State Govt.-Non-Plan Loan	10.50%	112.61	30.59		143.20	127.91	13.43
7	BSPHCL (ADB) Loan	10.50%	6.28			6.28	6.28	0.66
8	Total		1755.78	64.41	57.88	1762.31	1759.05	179.81
9	Weighted average rate of interest							10.22%

The weighted average rate of interest is claimed at 9.74% by NBPDCCL in truing up for FY 2022-23. The Commission has checked the calculations and found in order and accordingly considered weighted average rate of interest at 9.74% for NBPDCCL in truing up for FY 2022-23 as claimed by the NBPDCCL.

Table 4.57: NBPDCCL - Weighted average rate of interest for FY 2022-23

Sl. No	Particulars	Roi	OB	Additions	Repayment	CB	Average Loan	Interest
1	REC (RGGVY) Term Loan	10.50%	230.18		23.57	206.61	218.40	22.93
2	REC (R-APDRP) Part B Term Loan	9.00%	27.41		3.90	23.51	25.46	2.29
3	PFC (counterpart)	10.63%	83.32		7.15	76.17	79.75	8.48
4	REC (IPDS) Term Loan	8.83%	302.59		0.05	302.54	302.57	26.72
5	REC (DDUGJY) Term Loan	9.56%	1033.16		0.30	1032.86	1033.01	98.76
6	State Govt.-Non-Plan Loan	10.50%	242.05	53.93		295.98	269.02	28.25
7	BSPHCL (ADB) Loan	10.50%	56.08			56.08	56.08	5.89
8	Total		1974.79	53.93	34.97	1993.75	1984.27	193.31
9	Weighted average rate of interest							9.74%

The Commission, accordingly, has considered the weighted average rate of interest on loan at 10.22% for SBPDCL and 9.74% for NBPDCCL for computation of interest on normative loan for FY 2022-23 in truing up as detailed in the Table below:

Table 4.58: Interest on loans approved for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in Truing up for NBPDCCL	Approved in Truing up for SBPDCL	Total
1	Opening loan balance	5188.47	3488.22	8676.69
2	Additions during the year	628.71	815.39	1444.10
3	Normative Repayment	360.68	311.04	671.73
4	Closing Loans (1+2-3)	5456.50	3992.57	9449.06
5	Average Loans $\{(1+4)/2\}$	5322.48	3740.39	9062.88
6	Interest rate	9.74%	10.22%	
7	Interest Charges (5*6)	518.41	382.27	900.68

The Commission, accordingly, approves interest on loans for FY 2022-23 in true up as above.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, as deliberated in paragraph 4.9 above, has considered the variation in capex and capitalisation is considered to be due to uncontrollable force majeure factors and dependent ARR factors of Depreciation, Interest on Loan, Return on Equity, etc. are also considered as uncontrollable and pass through in the ARR. The Commission accordingly has not considered sharing of gains/(losses) on account of variation in interest on loans approved vis-à-vis interest on loans trued up for FY 2022-23.

4.13. Other Interest and Finance Charges

Petitioners' submission:

NBPDCCL and SBPDCL have submitted that other finance charges include discount to consumers for timely payment of bills, interest to suppliers, bank charges, etc. and claimed based on audited annual accounts for FY 2022-23 as detailed in the Table below:

Table 4.59: Other Interest and Finance Charges claimed for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Claimed in true up by NBPDCCL	Claimed in true up by SBPDCL	Total
1	Discount/Rebate to consumers for timely payment of bills	47.15	78.66	125.81
2	Load/Power factor incentive/Rebate	0.63		0.63
3	Interest on bill discounting	6.37	6.20	12.57
4	Other Bank charges	0.72	5.87	6.59
5	LC Commission	2.20		2.20
6	Total	57.06	90.73	147.80

The Discoms have proposed the gains/(loss) on account of other finance charges for FY 2022-23 as given in the table below:

Table 4.60: Gains/(Loss) on account of other finance charges for FY 2021-22**(Rs. Crore)**

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	45.66	57.06	(11.40)		11.40
SBPDCL	66.07	90.73	(24.66)		24.66

Commission's analysis:**Discount/Rebate to consumers for timely payment of bills**

The Commission in Tariff Principles, Design and Tariff Schedule notified through the Tariff Order dated 25.03.2022 for FY 2022-23 has specified that *Rebate for prompt payment of energy bills on or before due date by the LT and HT consumers shall be allowed as per the rates prescribed in the tariff order.* As per the audited accounts for FY 2022-23, the NBPDCCL and SBPDCL have allowed discount to consumers for timely payment of bills (Rebate) of Rs.47.15 Crore and Rs.78.66 Crore respectively.

The Commission, accordingly, approves rebate to consumers for prompt payment of bills for FY 2022-23 in truing up.

Power factor rebate to consumers

The Commission in Tariff Principles, Design and Tariff Schedule – Terms and Conditions of LT Tariff and HT Tariff notified through the Tariff Order dated 25.03.2022 for FY 2022-23 has specified that *power factor rebate/incentive for load factor will be allowed as per the rates prescribed in the tariff order.* As per the audited

accounts for FY 2022-23, the NBPDCCL has allowed Power factor rebate of Rs.0.63 crore to consumers.

SBPDCL has allowed Power factor rebate/incentive of Rs.18.64 crore for FY 2022-23, however has included in the A&G expenses. The Commission has considered PF incentive/rebated of Rs.18.64 crore under other finance charges and accordingly reduced the amount from A&G expenses for FY 2022-23.

The Commission, accordingly, approves power factor rebate for FY 2022-23 in truing up.

Bill discounting finance charges

NBPDCCL and SBPDCL have claimed Rs.6.37 crore and Rs.6.20 Crore respectively towards bill discounting finance charges for FY 2022-23 based on the audited accounts. These charges represent working capital financing charges. **The Commission has considered and allowed interest on working capital separately, hence the bill discounting finance charges are not approved for FY 2022-23 in true up.**

LC Commission

NBPDCCL has claimed Rs.2.20 Crore towards LC commission based on the audited accounts for FY 2022-23. The LC commission is paid to the Banks for opening LC for arranging payment of power purchase bills. **The Commission, accordingly considers Rs.2.20 Crore for NBPDCCL towards LC commission in truing up for FY 2022-23 based on the audited accounts.**

Bank charges

NBPDCCL and SBPDCL have claimed Rs.0.72 crore and Rs.5.87 Crore respectively towards bank charges for FY 2022-23 based on the audited accounts. These bank charges represent bank collection charges, other finance charges, etc. **The Commission, accordingly considers Rs.0.72 Crore for NBPDCCL and Rs.5.87 Crore for SBPDCL towards bank charges in truing up for FY 2022-23 based on the audited accounts.**

Thus, the Commission considers other finance charges for FY 2022-23 as given in the Table below:

Table 4.61: Other Finance Charges approved for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in true up for NBPDCCL	Approved in true up for SBPDCL	Total
1	Discount/Rebate to consumers for timely payment of bills	47.15	78.66	125.81
2	Power factor rebate	0.63	18.64	19.27
3	Bill discounting finance charges of power purchase	0.00	0.00	0.00
4	Other Bank charges	0.72	5.87	6.59
5	Bank/LC charges	2.20		2.20
6	Total	50.70	103.17	153.87

The Commission, accordingly, approves other finance charges to the Discoms for FY 2022-23 in true up as above.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission has approved other finance charges at Rs.45.65 crore for NBPDCCL and Rs.66.07 crore for SBPDCL for FY 2022-23 in Tariff Order dated 25.03.2022

Regulation 9.1 (d) of BERC (Multi Year Distribution Tariff) Regulations 2021 specifies; variations in metered sales are uncontrollable. Similarly, the bank charges and LC charges are payable for drawal of funds which are beyond the control of the Discoms/ borrowers/beneficiaries.

The Commission, accordingly in terms of regulation 10, has considered sharing of gains/(losses) on account of other finance charges approved vis-à-vis trued up expenses approved for FY 2022-23 as given in the table below.

Table 4.62: Gains/(Loss) on account of other finance charges for FY 2022-23**(Rs. Crore)**

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	45.65	50.70	5.05		(5.05)
SBPDCL	66.07	103.17	37.10		(37.10)

4.14. Return on Equity

Petitioners' submission:

Discoms have submitted that as per regulation 27 of the BERC MYT Distribution Regulations 2021, Return on Equity is claimed for FY 2022-23 in truing up. It is further submitted that the actual equity infused in the company is greater than the norm of 30% of capital base. However, in line with the regulation 27, the return on equity is calculated on 30% of the capital base.

Discoms have claimed the return on equity for FY 2022-23 as detailed in the table below:

Table 4.63: Return on Equity claimed for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Claimed in true up by NBPDCCL	Claimed in true up by SBPDCL	Total
1	Closing equity to end of 31.03.2016	440.86	638.06	1078.92
2	Rate of return on equity %	14.00%	14.00%	
3	Return on Equity	61.72	89.33	151.05
	Equity with effect from 1st April 2016			
4	Opening equity	1989.90	1249.40	3239.30
5	Equity addition during the year	271.85	322.58	594.43
6	Closing equity (4+5)	2261.75	1571.98	3833.73
7	Average equity (4+6)/2	2125.83	1410.69	3536.52
8	Rate of return on equity with effect from 1.4.2016	15.50%	15.50%	
9	Return on equity (7*8)	329.50	218.66	548.16
10	Total Return on equity (3+9)	391.22	307.99	699.21

The Discoms have proposed the gains/(loss) on account of Return on Equity for FY 2022-23 as given in the table below:

Table 4.64: Gains/(Loss) on account of Return on equity for FY 2022-23**(Rs. Crore)**

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	412.39	391.22	21.17		(21.17)
SBPDCL	338.21	307.99	30.22		(30.22)

Commission's analysis

Regulation 27 (c) of the BERC (Multi Year Distribution Tariff) Regulations 2021 specify; Return on Equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2016. However, Return on Equity for the projects commissioned prior to 01.04.2016 shall be allowed at the rate of 14%.

The Commission, in truing up for FY 2021-22, has approved closing Equity for the projects commissioned prior to the end of 31.03.2016 and equity for the projects commissioned w.e.f. from 1st April 2016 onwards and to end of 31.03.2022 for NBPDCCL and SBPDCL as given in the table below:

Table 4.65: Details of Closing Equity approved in truing up for FY 2021-22

Particulars	UoM	NBPDC	SBPDCL
Equity to end of 31.3.2016	Rs. Crore	440.86	638.06
Equity from 1.4.2016 to end of 31.3.2022	Rs. Crore	1989.90	1249.40

Accordingly, the above equity is considered as opening equity for FY 2022-23 for computing RoE. Addition to equity during FY 2022-23 is considered to the extent of permitted Debt-equity ratio, under regulation 27 of BERC (Multi Year Distribution Tariff) Regulation 2021, based on the actual funding of capitalization approved in Table 4.55 for FY 2022-23.

The Commission in terms of Regulation 27 (c) of the BERC (Multi Year Distribution Tariff) Regulations 2021 has considered rate of Return on Equity at 14% on closing equity as on 31.03.2016 and Rate of Return on Equity at 15.50% in respect of equity for the projects commission w.e.f. from 1st April 2016 onwards and to end of 31.03.2023. Accordingly, the Commission has computed return on equity for FY 2022-23 as detailed in the table below:

Table 4.66: Return on Equity approved for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in truing up for NBPDC	Approved in truing up for SBPDCL	Total
1	Closing equity to end of 31.03.2016	440.86	638.06	1078.92
2	Rate of return on equity %	14.00%	14.00%	
3	Return on Equity	61.72	89.33	151.05
	Equity with effect from 1st April 2016			
4	Opening equity	1989.90	1249.40	3239.30
5	Equity addition during the year	212.10	251.10	463.20
6	Closing equity (4+5)	2202.00	1500.5	3702.50
7	Average equity (4+6)/2	2095.95	1374.95	3470.90
8	Rate of return on equity	15.50%	15.50%	15.50%
9	Return on equity (7*8)	324.87	213.12	537.99
10	Total Return on equity (3+9)	386.59	302.45	689.04

The Commission, accordingly, approves Return on Equity as above in true up for FY 2022-23 for the Discoms.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, as deliberated in paragraph 4.9 above, has considered the variation in capex and capitalisation is considered to be due to uncontrollable force majeure

factors and dependent ARR factors of Depreciation, Interest on Loan, Return on Equity, etc. are also considered as uncontrollable and pass through in the ARR.

The Commission accordingly has not considered sharing of gains/(losses) on account of variation in Return on Equity approved vis-à-vis Return on Equity tried up for FY 2022-23.

4.15. Employees Cost

Petitioners' submission:

Discoms have submitted that the employee expenses were determined based on norms in accordance with regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021 for the control period of FY 2022-23 to FY 2024-25 in Tariff order dated 25.03.2022.

Employee expense norm approved in Tariff order dated 25.03.2022

Particulars	Base employee expense norm for NBPDC	Base employee expense norm for SBPDCL
No. of personnel per substation	6.765	9.4117
No. of personnel per 1000 consumers	0.0629	0.1504
Annual expenses per personnel (Rs. Crore)	0.0854	0.0914

Regulation 22.1 specify employee cost shall be computed as per the approved norm escalated by consumer price index (CPI) based on average increase in CPI for immediately preceding three years i.e. FY 2019-20, FY 2020-21, FY 2021-22 and base year of FY 2018-19. The average CPI inflationary increase is computed as given below:

Particulars	2018-19	2019-20	2020-21	2021-22
Average CPI index points for FY	299.9	322.5	338.7	356.1
Increase in CPI index over the previous year		7.53%	5.02%	5.13%
Average CPI inflationary inc.				5.89%

The Discoms have computed the employee expenses and claimed in truing up for FY 2022-23 as detailed in the table below:

Table 4.67: Employee expenses claimed by the Discoms for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	NBPDCCL			SBPDCL		
		Base Value	Approved in TO dated 25.03.2022	Claimed in true up for FY 2022-23	Base Value	Approved in TO dated 25.03.2022	Claimed in true up for FY 2022-23
1	Average annual CPI index		6.00%	5.89%		6.00%	5.89%
2	Norms-Number of personnel per 1000 consumers	0.0629	0.0629	0.0629	0.1504	0.1504	0.1504
3	Norms-Number of personal per substation	6.765	6.765	6.765	9.4117	9.4117	9.4117
4	No. of consumers (1000)		11577	11950		6604	7006
5	No of substations		606	628		579	608
6	Annual expenses per personnel (Rs. Cr)	0.0854	0.0905	0.09043	0.0914	0.0969	0.0968
7	Employee cost per 1000 consumers		65.90	67.97		96.24	101.98
8	Employee cost per substation		371.01	384.20		528.04	553.84
9	Total Employee cost		436.91	452.17		624.28	655.82

The Discoms have proposed the gains/(loss) on account of employee expenses for FY 2022-23 as given in the table below:

Table 4.68: Gains/(Loss) on account of employee expenses for FY 2022-23**(Rs. Crore)**

Name of the Discom	Approved in Tariff Order dated 25.03.2022	Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	436.91	452.17	(15.26)	(10.17)	5.09
SBPDCL	624.28	655.82	(31.54)	(21.03)	10.51

Commission's analysis:

The Commission in accordance with the regulation 22 and regulation 22.1 had determined the norms for employee expenses for the MYT control period of FY 2022-23 to FY 2024-25 in Tariff order dated 25.03.2022. The base value of employee expense norms determined is as given below:

Table 4.69: Employee expense norm approved for NBPDCCL & SBPDCL in TO dated 25.03.2022

Particulars	Base employee expense norm for NBPDCCL	Base employee expense norm for SBPDCL
No. of personnel per 1000 consumers	0.0629	0.1504
No. of personnel per substation	6.765	9.4117
Annual expenses per personnel (Rs. Crore)	0.0854	0.0914

Regulation 22.1 specify employee cost shall be computed as per the approved norm escalated by consumer price index (CPI). The CPI inflation shall be considered based on the average increase in CPI for immediately preceding three years i.e. FY 2019-20, FY 2020-21, FY 2021-22 and base year of FY 2018-19. The average CPI inflationary increase is computed as given below:

Table 4.70: CPI inflationary increase for FY 2022-23

Particulars	2018-19	2019-20	2020-21	2021-22
Average CPI index points for FY	299.92	322.50	338.69	356.06
Increase in CPI index over the previous year		7.53%	5.02%	5.13%
Average CPI inflationary increase				5.89%

Discoms have furnished the actual no. of substations and no. of consumers in Format 7 of the petition for the year FY 2022-23 (names of 22 new substations (NBPDC) and 12 SS (SBPDCL) are furnished in Annexure 8 and Annexure 7 respectively vide reply to letter no.1010 dt.30.11.2023 (NBPDC) and letter no.1011 dt.30.11.2023 (SBPDCL). No. of substations to end of FY 2022-23 in NBPDC are at 628 and SBPDCL at 608. Accordingly, the no. of substations are considered as given below.

Particulars	NBPDC	SBPDCL
No. of substations (Format 7)	628	608
No. of consumers (Format 7)	11950.924	7005.640

The Commission in terms of regulation 22.1 has computed the employee expenses considering the base value of norms (no. of personnel per substation and no of personnel per 1000 consumers), no. of Substations, no. of consumers and annual expenses per personnel for FY 2022-23 in truing up as given below:

Table 4.71: Normative Employee expenses approved for FY2022-23**(Rs. Crore)**

Sl. No.	Particulars	NBPDC		SBPDCL	
		Base value of norm	Normative expenses computed in truing up	Base value of norm	Normative expenses computed in truing up
1	Average annual CPI index		5.89%		5.89%
2	Norms-Number of personnel per 1000 consumers	0.0629	0.0629	0.1504	0.1504
3	Norms-Number of personal per substation	6.765	6.765	9.4117	9.4117
4	No. of consumers (1000)		11,950		7,006
5	No of substations		628		608
6	Annual expenses per personnel (Rs. Crore)	0.0854	0.09043	0.09140	0.09678

Sl. No.	Particulars	NBPDC		SBPDCL	
		Base value of norm	Normative expenses computed in true up	Base value of norm	Normative expenses computed in true up
7	Employee cost per 1000 consumers		67.97		101.98
8	Employee cost per substation		384.18		553.83
9	Total Employee cost		452.15		655.81

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, in Tariff Order dated 25.03.2022, has approved employee expenses of Rs.436.91 crore for NBPDC and Rs.624.28 crore for SBPDCL for FY 2022-23.

Regulation 9.2 (e) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in operation and maintenance expenses, except those attributable to directions of the Commission or to change in Government policy/law. The Commission observes that the Discoms have not claimed any uncontrollable expenses towards change in Government policy/law. The Discoms have considered the variation in employee expenses as controllable factor.

According to the audited annual accounts for FY 2022-23, the employee expenses are at Rs.503.79 crore for NBPDC and Rs.711.83 crore for SBPDCL.

The Commission, accordingly has considered sharing of gains/(losses) on account of variation in actual employee expenses incurred vis-à-vis normative employee expenses approved in true up for FY 2022-23 as given in the table below.

Table 4.72: Gains/(Loss) on account of Employee expenses for FY 2022-23

(Rs. Crore)

Name of the Discom	Actual employee expenses for FY 2022-23	Normative employee expenses computed in True up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC	503.79	452.15	(51.64)	(51.64)	
SBPDCL	711.83	655.81	(56.02)	(56.02)	

4.16. Repairs and Maintenance (R&M) Expenses

Petitioners' submission:

Discoms have submitted that R&M expenses are claimed as a percentage of GFA excluding land cost in terms of Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2021. It was submitted that the Commission had determined R&M norm i.e. K factor at 1.24% for NBPDCCL and 1.71% for SBPDCL for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022 and accordingly the R&M expenses were claimed as per norm in truing up for FY 2022-23 by the Discoms as given in the table below:

Table 4.73: Repairs and Maintenance expenses claimed for FY 2022-23

(Rs. Crore)

Particulars	Claimed in truing up by NBPDCCL	Claimed in truing up by SBPDCL	Total
Opening GFA	21462.11	16300.88	37762.99
Less: Opening land cost	1047.14	1546.28	2593.42
Opening GFA (excl. land cost)	20414.97	14754.60	35169.57
K factor	1.24%	1.71%	
R&M expenses	253.15	252.30	505.45

The Discoms have proposed the gains/(loss) on account of R&M expenses for FY 2022-23 as given in the table below:

Table 4.74: Gains/(Loss) on account off R&M expenses for FY 2022-23

(Rs. Crore)

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	259.90	253.15	6.75	2.25	(4.50)
SBPDCL	249.64	252.30	(2.66)	(1.78)	0.89

Commission's analysis

Regulation 22.2 specifies, R&M expenses shall be calculated as per the norm determined of Opening Gross Fixed Assets excluding land cost for year governed by following formulae:

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

Where:

R&M_n : Repairs & Maintenance expense for nth year

GFA_n : Opening Gross Fixed Assets for nth year

K_b : Percentage point as per the norm"

The Commission, in terms of regulation 22(b) of the BERC (Multi Year Distribution Tariff) Regulations 2021, has approved 'K' factor at 1.24% for NBPDC and 1.71% for SBPDCL for the MYT control period of FY 2022-23 to FY 2024-25 in Tariff order dated 25.03.2022. The Commission accordingly considers approved 'K' factor FY 2022-23 and approves R&M expenses on opening GFA as detailed in the table below:

Table 4.75: Normative R&M expenses computed for FY 2022-23

(Rs. Crore)				
Sl. No.	Particulars	Approved in true up for NBPDC	Approved in true up for SBPDCL	Total
1	Opening GFA excluding land (Table 4.50)	19961.24	13874.61	33835.85
2	'K' factor	1.24%	1.71%	
3	R & M Cost (1*2)	247.52	237.26	484.78

Sharing of Gain/(Loss) on account of controllable factors:

The Commission has approved R&M expenses of Rs.259.90 crore for NBPDC and Rs.249.64 crore for SBPDCL for FY 2022-23 in Tariff Order dated 25.03.2022.

Regulation 9.2 (e) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in R&M expenses, except those attributable to directions of the Commission or to change in Government policy/law. The R&M expenses is a component of O&M expenses and the O&M expenses is controllable factor. The Discoms have also considered the variation in R&M expenses as controllable factor. According to the audited annual accounts for FY 2022-23, the R&M expenses are at Rs.197.34 crore for NBPDC and Rs.216.31 crore for SBPDCL. The Commission due prudence check considers the actual R&M expenses as reported in the annual accounts for FY 2022-23

The Commission, accordingly has considered sharing of gains/(losses) on account of variation in actual R&M expenses vis-à-vis R&M expenses approved in true up for FY 2022-23 as given in the table below.

Table 4.76: Gains/(Loss) on account of R&M expenses for FY 2022-23

(Rs. Crore)					
Name of the Discom	Actual R&M expenses for FY 2022-23	Normative R&M expenses computed in True up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC	197.34	247.52	50.18	50.18	

Name of the Discom	Actual R&M expenses for FY 2022-23	Normative R&M expenses computed in True up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
SBPDCL	216.31	237.26	20.95	20.95	

4.17. Administrative and General (A&G) Expenses

Petitioners' submission

Discoms have submitted that A&G expenses are claimed based on norms determined by the Commission as per the Regulation 22.3 of BERC (Multi Year Distribution Tariff) Regulations 2021. It is submitted that the Commission had determined A&G expense norm for the MYT control period FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022 as given below:

Table 4.77: A&G expense norm approved in Tariff order dated 25.03.2022

Particulars	Base A&G expense norm for NBPDC	Base A&G expense norm for SBPDCL
No. of personnel per 1000 consumers	0.420	1.000
A&G expenses per personal	0.360	0.850
Annual expenses per 1000 consumers (Rs. Crore)	0.0077	0.0099
A&G expenses per employee (Rs. Crore)	0.0225	0.0121

Regulation 22.3 specifies A&G expenses shall be computed as per the approved norm escalated by wholesale price index (WPI). The WPI inflation shall be considered based on the average increase in WPI for immediately preceding three years. The WPI inflationary increase for FY 2022-23 is computed as given below:

WPI inflationary increase

Years	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Average WPI index points for FY	119.79	121.80	123.38	139.41
Increase in WPI index over previous year		1.68%	1.29%	13.00%
Average WPI inflationary increase				5.32%

In addition, the Discoms have additionally claimed rental charges for smart prepaid meter (Rs. 44.21 crore by NBPDC & Rs.59.01 crore by SBPDCL) based on monthly rental per meter and the consideration of meter installed.

The Petitioner has considered the monthly rental of Rs.86.23 per meter as per the order of the Commission in Case No.05/2020. These expenses were not taken into account at the time of computation of A&G norm for the MYT control period of

FY 2022-23 to FY 2024-25. The detailed calculation on account of the rental charge claimed by Discoms is provided below.

Phase 1: The total number of smart meters proposed to be installed under phase 1 is 23,50,000 out which 10,30,000 lakhs belongs to NBPDCCL. The total smart meters under Phase 1 are under Opex mode which will be booked under A&G expenses:

Smart Prepaid Meters under A&G expenses	Month	NBPDCCL			SBPDCL		
		Meters installed	Monthly Meter Rent	A&G Cost	Meters installed	Monthly Meter Rent	A&G Cost
Phase I: 23.5 lakhs NBPDCCL 10.30 lakhs SBPDCL 13.20 lakhs	Op. Balance	240421	86.23	24.88	372155	86.23	38.51
	April	37271	86.23	3.54	42986	86.23	4.08
	May	31749	86.23	2.74	37402	86.23	3.23
	June	35752	86.23	2.77	48676	86.23	3.78
	July	35548	86.23	2.45	52680	86.23	3.63
	August	25615	86.23	1.55	35218	86.23	2.13
	September	29247	86.23	1.51	23368	86.23	1.21
	October	14227	86.23	0.61	11201	86.23	0.48
	November	24392	86.23	0.84	23600	86.23	0.81
	December	33824	86.23	0.87	26229	86.23	0.68
	January	20031	86.23	0.35	17210	86.23	0.30
	February	12720	86.23	0.11	20651	86.23	0.18
	March	16028	86.23	-	21712.00		
Total		556825		42.22	733088		59.01

Phase-II:

Under phase-II, 36 lakhs of smart prepaid meters are scheduled to be installed across the Bihar by the end of March-2024. In Phase-II smart prepaid meters are scheduled to be installed under hybrid mode i.e., CAPEX + OPEX mode in the ratio of 70:30.

26,00,000 smart prepaid meters are scheduled to be installed in North Bihar.

Below table shows the expected expenditure under the OPEX mode for installation of 26 lakhs smart

Smart Prepaid Meters under A&G expenses	Month	NBPDCCL		
		Meters installed	Monthly Meter Rent	Total A&G cost
Phase II: 36 lakhs North 26 Lakhs (70% Opex)	Op. Balance			
	April			
	May			
	June			
	July			
	August			
	September			
	October			

Smart Prepaid Meters under A&G expenses	Month	NBPDCCL		
		Meters installed	Monthly Meter Rent	Total A&G cost
	November			
	December			
	January	7287	80.44	0.12
	February	16665	80.44	0.13
	March	19537	80.44	
Total				0.25

The Discoms have claimed total rental charges for smart prepaid meter for FY 2022-23 is shown in the table below:

Table 4.78: Rental charges for smart prepaid meters claimed by Discoms for FY 2022-23

(Rs. Crore)

Particulars	NBPDCCL	SBPDCL
Rent Charges for Smart Prepaid Meter (Phase 1) 23.5 Lakhs	42.22	59.01
Rent Charges for Smart Prepaid Meter (Phase 2) 36 Lakhs- 70% Opex	0.25	--
Rent Charges for Smart Prepaid Meter (Phase 3) 1.12 crores- 70% Opex	--	--
Rent Charge for Smart prepaid Meter FY 2021-22	1.74	15.34
Total Rental Charges	44.21	74.35

Discoms, accordingly have claimed total A&G expenses in truing up for FY 2022-23 as given in the table below:

Table 4.79: Administration and General Expenses claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	NBPDCCL			SBPDCL		
		Base Value	Approved in TO dated 25.03.2022	Claimed for in truing up	Base Value	Approved in TO dated 25.03.2022	Claimed for in truing up
1	Average annual WPI index		2.42%	5.32%		2.42%	5.32%
2	Norms-A&G expenses per 1000 consumers	0.420	0.420	0.420	1.000	1.000	1.000
	Norms-A&G expenses per personal	0.360	0.360	0.360	0.85	0.85	0.85
3	No. of consumers (1000)		11577	11950		6604	7006
4	No. of employees		4074	10223		5860	11680
5	Annual expenses per 1000 consumers (Rs. Cr)	0.0077	0.0079	0.0081	0.0099	0.0101	0.0104
6	Annual expenses per employee (Rs. Cr)	0.0225	0.0230	0.0237	0.0121	0.0124	0.0127
7	A&G cost per 1000 consumers		91.30	96.91		66.96	73.05

Sl. No.	Particulars	NBPDCCL			SBPDCL		
		Base Value	Approved in TO dated 25.03.2022	Claimed for in truing up	Base Value	Approved in TO dated 25.03.2022	Claimed for in truing up
8	A&G cost per employees		93.88	242.26		72.62	148.85
9	Normative A&G cost		185.18	339.17		139.58	221.90
	Rental charges for smart prepaid meter			44.21			74.35
	Total A&G cost		185.18	383.38		139.58	296.24

The Discoms have proposed the gains/(loss) on account of A&G expenses for FY 2022-23 as given in the table below:

Table 4.80: Gains/(Loss) on account of A&G expenses for FY 2022-23
(Rs. Crore)

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	185.18	339.17	(153.99)	(102.66)	51.33
SBPDCL	139.58	221.90	(82.32)	(54.88)	27.44

Commission analysis:

The Commission in Tariff Order dated 25.03.2022 had determined the A&G expense norms (in accordance with the regulation 22 and regulation 22.1) and accordingly considered/allowed the A&G expenses based on the norms for the MYT control period of FY 2022-23 to FY 2024-25.

The Commission has considered the base value of A&G expense norm per 1000 consumers and A&G expense per employee and annual A&G expenses per 1000 consumers and per employee as determined for FY 2022-23 in the Tariff Order dated 25.03.2022 as detailed in the table below:

Table 4.81: A&G expense norm approved in Tariff order dated 25.03.2022

Particulars	Base A&G expense norm for NBPDCCL	Base A&G expense norm for SBPDCL
No. of personnel per 1000 consumers	0.420	1.000
Annual expenses per 1000 consumers (Rs. Crore)	0.0077	0.0099
A&G expenses per employee (Rs. Crore)	0.0225	0.0121

Regulation 22.3 specifies A&G expenses shall be computed as per the approved norm escalated by wholesale price index (WPI). The WPI inflation shall be considered based

on the average increase in WPI for immediately preceding three years. The WPI inflationary increase for FY 2022-23 is computed as given below:

Table 4.82: WPI inflationary increase for FY 2022-23

Particulars	2018-19	2019-20	2020-21	2021-22
Average WPI index points for FY	119.79	121.80	123.38	139.41
Increase in WPI index over the previous year		1.68%	1.30%	13.00%
Average WPI inflationary increase				5.32%

It is observed that the Discoms have considered the no of employees including the manpower working for line and operation maintenance of distribution network through agency. No of employees considered for computing normative A&G expenses vis-à-vis the actual no of employees furnished in Format 6 are given below:

Year	NBPDCCL		SBPDCL	
	Claimed in petition (incl. Manavbal/ manpower engaged through Agency)	Actual no. of employees of NBPDCCL	Claimed in petition (incl. Manavbal/ manpower engaged through Agency)	Actual no. of employees of SBPDCL
2022-23	10223	4153	11680	5760
2023-24	10520	4145	11619	5699
2024-25	11098	4673	11568	5648

The Commission opines that the cost of manual working for line and operation maintenance of power grid, etc. through agency shall form part of R&M expenses. It is evident from the Note 32 of the audited annual accounts for FY 2022-23, these expenses are booked under R&M – Manavbal (Manpower working for line and operation maintenance of power grid through agency) expenses. Further, the Commission has determined norms for R&M expenses “K” factor considering the total actual R&M expenses including manavbal expenses reported through audited accounts for FY 2018-19 to FY 2020-21 (Table 6.101 of Tariff order dated 25.03.2022).

The A&G norm is determined considering actual no. of employees of relevant Discom considering the actual A&G expenses reported through audited accounts for FY 2018-19 to FY 2020-21 (Table 6.95 (NBPDCCL) and Table 6.97 (SBPDCL) of Tariff order dated 25.03.2022).

In view the fact, considering no. of employees including manual working for line and operation maintenance of power grid through agency results in considering the manavbal expenses twice i.e. once in R&M expenses and secondly under A&G expenses.

The Commission addressed the NBPDCCL vide letter no.40 dated 08.01.2024 and SBPDCL vide letter no.41 dated 08.01.2024 to justify claim. In response the NBPDCCL vide letter no.20 dated 16.01.2024 and SBPDCL vide letter no.101 dated 19.01.2024 submitted as follows:

".... R&M expense is calculated in accordance with the norms as specified in BERC MYT Regulation 2021. The key extract of the same is provided below:

.....

22.2 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:

$$R\&Mn = Kb * GFAn$$

Where:

R&Mn : Repairs & Maintenance expense for nth year

GFAn : Opening Gross Fixed Assets for nth year

Kb : Percentage point as per the norm

.....

The aforesaid norms clearly suggests that the R&M expense claimed by the Petitioner has not factored in the number of Manavbals deployed for R&M activities. Moreover, it is pertinent to mention that R&M activities require manpower with specialized skill sets which Manavbals usually do not possesses.

Moreover, number of manavbal (manpower working for operation and maintenance) is considered by the Petitioner while computing normative A&G expenses (Refer Format-6 of the Tariff Petition).

Therefore, it is clear that the Petitioner has considered nos. of manavbal for calculating A&G expense (only once and not twice) and the same is not considered for calculating the R&M expense".

The reply furnished by Discoms is not justifiable as it is not in consonance with the Relevant provisions of the BERC (MYT Distribution tariff Regulations, 2021) As stated above, the Commission has determined R&M expenses norm “K” factor considering the actual R&M expenses (incl. manavbal expenses) and A&G norm is determined considering actual no. of regular employees of respective Discom considering the actual A&G expenses reported through audited accounts for FY 2018-19 to FY 2020-21. It is pertinent to state that if the manavbal expense are reduced from the R&M expenses while determining the norm, the “K” factor (dividend/faction) should have been less and similarly, the A&G expense norm if total no. of employees including manavbal is considered the dividend/faction should have been less.

The Commission, in view of the deliberations above, has considered the actual no. of employees for computing the normative A&G expenses for FY 2022-23 in truing up.

The Commission in terms of regulation 22.3 has computed the A&G expenses considering the base value of norms, no. of employees and no. of consumers for FY 2021-22 in truing up as given below:

Table 4.83: Normative A&G expenses approved for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	NBPDCCL		SBPDCL	
		Base value of norm	Normative expenses computed in truing up for NBPDCCL	Base value of norm	Normative expenses computed in truing up for SBPDCL
1	Average annual WPI index		5.32%		5.32%
2	Norms-A&G expenses per 1000 consumers	0.42	0.42	1.00	1.778
3	No. of consumers (1000)		11,950		7,006
4	No of employees		4153		5760
5	Annual expenses per 1000 consumers (Rs. Crore)	0.0077	0.00811	0.0099	0.01043
6	Annual expenses per employee (Rs. Crore)	0.0225	0.02370	0.0121	0.01274
7	A&G cost for 1000 consumers (2*4*6)		96.91		73.05
8	A&G cost for employees (3*5*7)		98.41		73.40
9	Total A&G expenses (G+H) (Rs. Crore)		195.32		146.45

The Commission vide orders dated 25.04.2023 in Case no.05/2020 has accorded approval for Smart Metering Project for single & three phase whole current meters

for urban areas (IPDS Towns) rural areas single & three phase whole current meters for metered consumers of NDS and LTIS categories, unmetered consumers, agriculture consumers & connection under Har Ghar Nal Jal Yojana and Recovery of Smart Metering Cost and Expenses. Installation of 23.50 Lacs Smart Pre-Paid Meters is allowed, at a monthly meter rent of Rs.86.23/-, subject to variation on account of;

Budgetary support for smart metering project to be received from Government.

Any change in cost, information and quantitative data, which are basis of derivation of such monthly meter charges for the eight years of project life.

Expenses of smart metering solutions may be allowed as a part of A&G expenses over and above the norms specified under MYT Order, subject to following conditions which are to be met by Discoms / Licensees;

- a) Statutory Auditors certificate showing allocation of audited expenses like Meter reading and Bill Distribution cost, Collection Franchisee Commission, Replacement of Defective meters or any other expenses incurred on consumers without Smart Meters for determination of initial base value of such A&G norms by the Commission. The certificate shall also mention same expenses incurred after implementation of smart prepaid meter;
- b) Discoms shall provide quarterly Statement of reduction of AT&C losses in respect of Consumer Group, separately for each Division, who are supplied electricity by Smart Meters.
- c) Commission satisfies about prudence and correctness of above expenses, and it is practical to allow such smart prepaid metering cost (after netting off above expenses) as a part of A&G expenses over and above the norms specified under MYT Order;
- d) Separate Statement of realization from sale of power for prepaid metered consumers is prepared as a part of audited account showing atleast, number of consumers, connected load, revenue from sale of energy and unit sold in kWh.

- e) Discoms shall inform Commission about prudent utilisation plan of employees who would become free from metering, billing and collection activities post smart meter installation.

The Commission vide letter no.1010 dated 30.11.2023 (NBPDCCL) and letter no.1011 dated 30.11.2023 (SBPDCL) directed the petitioners to submit the information as required above to consider the rental charges for smart prepaid meters in truing up for FY 2022-23.

The Discoms in response have submitted that *“regarding the statutory auditors certificate showing allocation of audited expenses like Meter reading and Bill Distribution cost, Collection Franchisee Commission, Replacement of Defective meters or any other expenses incurred on consumers without Smart Meters for determination of initial base value of such A&G norms by the Commission this is to submit that the Annual Audited Accounts containing all the above components are certified by the statutory auditors and are submitted to the Commission along with the Tariff Petition”*.

The Commission, in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021, has determined/approved Norms for A&G expenses for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff order dated 25.03.2022.

It is pertinent to state that the Commission, while determining the A&G norm has considered the total actual A&G expenses as per the audited accounts for FY 2018-19 to FY 2020-21. The actual A&G expenses reported through audited accounts includes Meter reading and bill distribution expenses, computer billing, franchisee commission, etc. for existing/prevaling service connections prior to installation of smart prepaid meters. As such the expenses relating to the existing service connections/meters being replaced/installed/provided with smart prepaid meters also been considered in the A&G expense norm per employee. If such cost is not adjusted/reduced from the A&G expense it may tantamount to considering the same expenses twice i.e. first through meter reading and bill distribution, etc. expenses under normative A&G expenses and secondly allowing rentals on smart prepaid meters. The Commission in para 6.2(a) of the order dated 25.04.2023 in Case no.05/2020 has directed the Discoms to furnish details of expenses like meter

reading and bill distribution cost, collection franchisee commission, replacement of defective meters or any other expenses incurred on consumers without smart meters. In spite of the directive, the Discoms have not furnished the details.

The issue was again raised during the Technical Validation Session on 31.01.2024 wherein it was informed by the Discoms that as and when the old meters were replaced and provided with Pre-paid Smart Meters, the expenses incurred towards meter reading, billing, bill distribution, commission to collection franchisee, etc. get stopped and no expenses are being incurring towards above stated activities. The increase in expenditure of meter reading, bill distribution, franchisee commission in FY 2022-23 over FY 2021-22 reported in audited accounts is due to increase in rates payable to agencies, i.e. the rate of spot billing and bill distribution has increased from Rs.6.39/connection/pm plus taxes to Rs.12.15/connection/pm.

The Commission vide orders dated 28.04.2023 in Case no.26/2022 (NBPDCCL) and orders dated 28.04.2023 in Case no.27/2022 (SBPDCL) has accorded in-principle approval for implementation of Phase II and Phase III Smart Metering Project. However, the rental charges have not been determined by the Commission. The Discoms are directed to file a separate petition for approval of rental charges in respect of Phase II and Phase III smart prepaid meters project.

The Commission provisionally considers rental charges on smart prepaid meters for FY 2022-23, subject to adjustment of actual savings based on Statutory Auditors Certificate showing allocation of audited expenses as directed in order dated 25.04.2023 in Case No.05/2020 and order dated 28.04.2023 in Case No.26/2022 and Case No.27/2022.

Table 4.84: Rental charges on smart prepaid meters approved for FY 2022-23
(Rs. Crore)

Sl. No.	Particulars	A&G expenses approved in truing up for NBPDCCL	A&G expenses approved in truing up for SBPDCL	Total
1	Rental charges for smart prepaid meters Phase I	42.22	59.01	101.23
2	Rental charges for smart prepaid meters Phase II	0.25		0.25
3	Rental charges for smart prepaid meters Phase I for FY 2021-22	1.74	15.34	17.08
4	Rental charges for smart prepaid meters approved for FY 2022-23	44.21	74.35	118.56

The Commission thus approves total A&G expenses for FY 2022-23 in true up as given in the table below:

Table 4.85: Total A&G expenses approved for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	A&G expenses approved in truing up for NBPDC	A&G expenses approved in truing up for SBPDCL	Total
1	Normative A&G expenses approved	195.32	146.45	341.77
2	Rental charges for smart prepaid meters	44.21	74.35	118.56
3	Total A&G expenses	239.53	220.80	460.33

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, in Tariff Order dated 22.03.2022, has approved A&G expenses of Rs.185.18 crore for NBPDC and Rs.139.58 crore for SBPDCL for FY 2022-23.

Regulation 9.2 (e) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in operation and maintenance expenses, except those attributable to directions of the Commission or to change in Government policy/law. The Commission observes that the Discoms have not claimed any uncontrollable expenses towards change in law, etc. The Discoms have considered the variation in A&G expenses as controllable factor.

According to the audited annual accounts for FY 2022-23, the A&G expenses are at Rs.407.11 crore for NBPDC and Rs.337.42 crore for SBPDCL. The Commission due prudence check considers the actual R&M expenses as reported in the annual accounts for FY 2022-23 as given below:

Table 4.86: Actual A&G expenses considered for sharing of Loss/(Gains) for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	NBPDC	SBPDCL	Remarks
1	A&G expenses as per audited accounts for FY 2022-23	407.11	337.42	
	Less:			
2	Rental charges for smart prepaid meters	45.09	61.05	Considered separately
3	Penalty charges		5.43	Penal charges are not to be allowed as pass through
4	Interest on delayed payment statutory dues		4.11	
5	PF Incentive		18.64	Considered separately under other finance charges
6	Sub-total (2 to 5)	45.09	89.23	
7	Total A&G expenses	362.02	248.19	

The Commission has approved the normative A&G expenses at Rs.195.32 crore for NBPDCCL and Rs.146.45 crore for SBPDCL in true up for FY 2022-23. The Rental charges for Prepaid smart meters is considered as they are not part of norms and normative A&G expenses.

The Commission, accordingly has considered sharing of gains/(losses) on account of variation in A&G expenses approved trued up for FY 2022-23 vis-à-vis actuals reported through audited accounts in terms of regulation 10.2 as given in the table below.

Table 4.87: Gains/(Loss) on account of A&G expenses for FY 2022-23

(Rs. Crore)

Name of the Discom	Actual A&G expenses for FY 2022-23	Normative A&G expenses approved in True up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	362.02	195.32	(166.70)	(166.70)	
SBPDCL	248.19	146.45	(101.74)	(101.74)	

4.18. Total O & M expenses

Table 4.88: Gains/(Loss) on account of total O&M expenses for FY 2022-23 approved for NBPDCCL

(Rs. Crore)

Sl. No	Particulars	Actual expenses considered as per audited accounts for FY 2022-23	Normative expenses computed in truing up	Deviation Gains / (loss)	Controllable	Uncontrollable	2/3rd Gain or 1/3rd (Loss) of controllable expenses to be passed on to Consumers	1/3rd Gain or 2/3rd (Loss) controllable expenses to be absorbed by licensee
1	Employee expenses	503.79	452.15	(51.64)	(51.64)		(17.21)	(34.43)
2	R&M expenses	197.34	247.52	50.18	50.18		33.46	16.72
3	A&G expenses	362.02	195.32	(166.70)	(166.70)		(55.57)	(111.13)
	Total O&M expenses	1063.15	894.99	(168.16)	(168.16)	0.00	(39.32)	(128.84)

Table 4.89: Gains/(Loss) on account of total O&M expenses for FY 2022-23 approved for SBPDCL

(Rs. Crore)

Sl. No.	Particulars	Actual expenses considered as per audited accounts for FY 2022-23	Normative expenses computed in truing up	Deviation Gains / (loss)	Controllable	Uncontrollable	2/3rd Gain or 1/3rd (Loss) of controllable expenses to be passed on to Consumers	1/3rd Gain or 2/3rd (Loss) controllable expenses to be absorbed by licensee
1	Employee expenses	711.83	655.81	(56.02)	(56.02)		(18.67)	(37.35)

Sl. No.	Particulars	Actual expenses considered as per audited accounts for FY 2022-23	Normative expenses computed in true up	Deviation Gains / (loss)	Controllable	Uncontrollable	2/3rd Gain or 1/3rd (Loss) of controllable expenses to be passed on to Consumers	1/3rd Gain or 2/3rd (Loss) controllable expenses to be absorbed by licensee
2	R&M expenses	216.31	237.26	20.95	20.95		13.96	6.99
3	A&G expenses	248.19	146.45	(101.74)	(101.74)		(33.91)	(67.83)
	Total O&M expenses	1176.33	1039.52	(136.81)	(136.81)	0.00	(38.62)	(98.19)

Summary of O & M expenses:

The summary of O&M expenses approved for FY 2022-23 in true up are as detailed in the table below:

Table 4.90: Summary of O & M expenses approved for FY 2022-23 in true up (Rs. Crore)

Sl. No.	Particulars	NBPDCCL		SBPDCL	
		Actual expenses considered as per accounts for FY 2022-23	Normative expenses approved in true up	Actual expenses considered as per accounts for FY 2022-23	Normative expenses approved in true up
1	Employee expenses	503.79	452.15	711.83	655.81
2	R&M expenses	197.34	247.52	216.31	237.26
3	A&G expenses	323.40	239.53*	233.31	220.80*
4	Total O&M expenses	1024.53	939.20	1161.45	1113.87

Note: includes rental charges for smart prepaid meters as detailed in Table 4.82

The Commission in accordance with regulation has considered the sharing of gains in the ARR for FY 2022-23 in true up.

4.19. Holding Company Expenses

Petitioners' submission

Discoms have submitted that Holding Company expenses for FY 2022-23 are claimed as per the provisions of Transfer Scheme, 2012 and the actual claim based on the audit accounts as furnished are given in Table 4.91 below:

Table 4.91: Holding Company Expenses claimed for FY 2022-23 (Rs. Crore)

Particulars	Claimed by NBPDCCL in true up	Claimed by SBPDCL in true up	Total
Holding company expenses	23.19	24.10	47.29

The Discoms have proposed the gains/(loss) on account of holding company expenses for FY 2022-23 as given in the table below:

Table 4.92: Gains/(Loss) on account of holding company expenses for FY 2022-23

(Rs. Crore)					
Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	16.99	23.19	6.20		(6.20)
SBPDCL	17.87	24.10	6.23		(6.23)

Commission's analysis:

The Bihar State Electricity Reforms Transfer Scheme, 2012 Schedule 'D' Holding undertaking Part-III defines the Functions and Duties of Bihar State Power (Holding) Company Limited. As per Clause (i) of the schedule 'D', the Holding Company shall handle all issues relating to the subsidiary companies in respect of business of purchasing, importing, exporting and trading of power subject to the provision of Electricity Act, 2003 and to supply electric power generated by other plants to transmission companies, distribution companies, trading companies, other generation companies and other persons, and in this regard execute agreements with Central and State Generating authorities, departments or companies, independent Power Producers and other persons. Schedule 'F' specifies, the Holding Company shall handle all issues relating to the subsidiary companies in respect of "Common Services". BSPHCL provides common services to all the segregated entities. Clause (i) of the Schedule-D of the Bihar State Electricity Reforms Transfer Scheme, 2012, also states the operating expenses of BSPHCL (Holding Company) shall be shared between all the subsidiary Companies in the ratio of their respective equity.

NBPDCCL and SBPDCL have claimed the holding company expenses of Rs.23.19 Crore and Rs.24.10 Crore in truing up for FY 2022-23 based on the audited accounts.

The Commission therefore in terms of Bihar State Electricity Reforms Transfer Scheme 2012 has considered the holding company expenses based on audited accounts for FY 2022-23 as detailed in the table below:

Table 4.93: Holding Company expenses approved for FY 2022-23

(Rs. Crore)			
Particulars	Approved in truing up for NBPDCCL	Approved in truing up for SBPDCL	Total
Holding company expenses	23.19	24.10	47.29

The Commission approves Holding Company Expenses for FY 2022-23 in True up as above.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, in Tariff Order dated 25.03.2022, has approved holding company expenses of Rs.16.99 crore for NBPDCCL and Rs.17.87 crore for SBPDCL for FY 2022-23.

Regulation 9.2 (e) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in operation and maintenance expenses, except those attributable to directions of the Commission or to change in Government policy/law. The petitioners have submitted that as per the Clause (i) of the Schedule-D of the Bihar State Electricity Reforms Transfer Scheme 2012, the operating expenses of BSPHCL (Holding Company) shall be shared between all the subsidiary Companies in the ratio of their respective equity. Hence the expenses allocated to SBPDCL are beyond the control of the company as these are incurred by BSPHCL.

The Commission, accordingly does not consider sharing of gains/(losses) on account of variation in holding company expenses for FY 2022-23.

4.20. Interest on Security Deposit

Petitioners' submission

Discoms have submitted that section 47(1) (a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person. BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle.

The BERC (Multi Year Distribution Tariff) Regulations 2021, Regulation 26 (iii) specifies that *"Provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution system users held during the year at*

the Bank Rate as of the date on which the petition for determination of tariff is accepted by the Commission”.

The Discoms have submitted that as per the regulations interest on consumer’s security deposit is being passed on to the consumers. Discoms have claimed interest on security deposit for FY 2022-23 as details in the table below:

Table 4.94: Interest on security deposit claimed for FY 2022-23

(Rs. Crore)			
Sl. No.	Particulars	Claimed by NBPDCCL in truing up	Claimed by SBPDCL in truing up
1	Opening Security Deposit	438.61	726.04
2	Addition / (Deletion)	18.70	47.76
3	Closing Security Deposit (1+2)	457.31	773.80
4	Average Security Deposit (1+3)/2	447.96	749.92
5	RBI Bank Rate	4.25%	4.25%
6	Interest on Security Deposit (5*6)	19.04	31.87
7	Opening balance of interest payable to consumers	150.75	246.14
8	Interest payable during FY 2020-21	25.35	42.84
9	Sub-total (7+8)	176.10	288.98
10	Closing balance of interest payable to consumers	171.20	278.40
11	Interest actually paid to the consumers (9-10)	4.91	10.58

The Discoms have proposed the gains/(loss) on account of interest on consumer security deposits for FY 2022-23 as given in the table below:

Table 4.95: Gain/(Loss) on account of interest on consumer SD for FY 2022-23

(Rs. Crore)					
Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	19.04	4.91	14.13		14.13
SBPDCL	31.87	10.58	21.29		21.29

Commission’s analysis

Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person.

BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the

consumers. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle.

The BERC (Multi Year Distribution Tariff) Regulations 2021, Regulation 26 (iii) specifies that “Provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution system users held during the year at the Bank Rate as of the date on which the petition for determination of tariff is filed”.

According to the audited accounts for FY 2022-23, the interest on consumer security deposit is at Rs.25.35 crore for NBPDCCL and Rs.42.84 crore for SBPDCL.

The Commission observes that Discoms have made provision towards interest on security deposit to consumers in the accounts and actually not passed on to the consumers and hence not considered as pass through in the ARR in true up for FY 2022-23. As such, the Commission considers actual interest payout to the consumers in true up for FY 2022-23 as detailed hereunder:

Table 4.96: Interest on SD to the consumers

Sl. No.	Particulars	(Rs. Crore)		
		NBPDCCL	SBPDCL	Total
1	Opening balance of interest payable to consumers (Note 20 (NBPDCCL) & Note 19 (SBPDCL)-Other current liabilities of the annual accounts)	150.75	246.14	396.89
2	Interest payable during FY 2022-23 (Note 30 of NBPDCCL and Note 29 of SBPDCL annual accounts)	25.35	42.84	68.19
3	Sub-total (1+2)	176.10	288.98	465.08
4	Closing balance of interest payable to consumers (Note 20 (NBPDCCL) & Note 19 (SBPDCL)-Other current liabilities of the annual accounts)	171.20	278.40	449.60
5	Interest actually paid to consumers (3-4)	4.90	10.58	15.48

The Commission, accordingly, considers the interest on consumers’ security deposit for FY 2022-23 in truing up as given in the table below:

Table 4.97: Interest on security deposit approved for FY 2022-23

Particulars	(Rs. Crore)		
	Approved for NBPDCCL in truing up	Approved for SBPDCL in truing up	Total
Interest on Security Deposit	4.90	10.58	15.48

The Commission approves interest on Consumer's Security Deposit for FY 2022-23 in true up.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, in Tariff Order dated 25.03.2022, has approved interest on consumer Security Deposit of Rs.19.04 crore for NBPDCCL and Rs.31.87 crore for SBPDCL for FY 2022-23.

The Consumers Security Deposits represent *security in respect of the electricity supplied to such person and collected in accordance with Section 47(1)(a) of the Electricity Act, 2003*. Regulation 9.2 (d) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in variation in metered sales i.e. sale of power to consumers as uncontrollable factor.

The Commission, accordingly has considered sharing of gains/(losses) on account of variation in interest on consumer's security deposit approved vis-à-vis trued up for FY 2022-23 as given in the table below.

Table 4.98: Sharing of Gains/(Loss) of interest on consumers security deposit for FY 2022-23

(Rs. Crore)					
Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	19.04	4.90	14.14		14.14
SBPDCL	31.87	10.58	21.29		21.29

4.21. Bad debts claimed by SBPDCL

Petitioners' submission

SBPDCL has claimed bad debts of Rs.1.93 crore in truing up for FY 2022-23, however no details were provided in the tariff petition.

Commission's analysis:

It is observed from the audited accounts for FY 2022-23 of SBPDCL, Rs.1.93 crore is appearing under Miscellaneous losses and write offs.

The Commission directed the petitioner to furnish the details of the amount claimed towards bad debts. No details were furnished by the SBPDCL. In the absence of details, the Commission could not validate, prudence checks the claim and accordingly no considered in true up for FY 2022-23.

The Commission does not approve bad debts in true up for FY 2022-23 for SBPDCL.

4.22. Non-Tariff Income

Petitioners' submission:

Discoms have claimed non-tariff income for FY 2022-23 as detailed in the table below:

Table 4.99: Non-tariff Income claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	SBPDCL		NBPDCCL	
		Approved in Tariff order dated 25.03.2022	Claimed in true up for FY 2022-23	Approved in Tariff order dated 25.03.2022	Claimed in true up for FY 2022-23
1	Interest on Advances to Suppliers/Contractors	0.18	1.02	9.96	217.11
2	Interest on Saving Accounts	70.81	31.67	47.62	11.29
3	interest on mobilization advance		1.20		
4	Interest income			2.87	24.06
5	Delayed Payment Surcharge from Consumers	418.98	319.08	690.10	632.33
6	Income from sale of Tender paper			0.31	0.16
7	Miscellaneous Receipts	2.90	1.05	2.99	16.83
8	reimbursement from disaster management				26.09
9	Rebate and Discount Received	108.93	37.42	92.79	33.89
10	SCED Benefits	310.25	18.25	54.38	14.62
11	Consumer Contribution Income *	1.88	1.47	10.65	6.92
12	Rental Income		5.15	1.68	2.31
13	Supervision Charges	30.50	22.79	43.68	15.04
14	Misc. charges	134.08	100.68	69.77	43.19
15	Misc. recoveries				22.28
16	Sale of scrap	37.64	30.05		5.53
17	Rebate special COVID-19				
18	Meter rent/service line rentals	28.76	2.74		4.95
19	excess provision written back				0.46
20	interest on TDS refund	3.53	0.82		
21	Liquidated damages recovery from Agencies		77.35		
22	income from Power Region		181.59		
23	Additional income due to release of new connections	5.00		8.11	
24	1% rebate on total power purchase	101.63		86.57	
25	Total Non-tariff income (1 to 24)	1255.07	832.35	1121.48	1077.06
26	Delayed Payment Surcharge from Consumers	418.98	319.08	690.10	632.33
27	Principal amount on which DPS Charged (18/18%)	2327.67	1772.67	3833.89	3512.94
28	Interest Rate of funding DPS	8.50%	9.30%	8.50%	9.30%
29	Interest on funding Principal (27*28)	197.85	164.84	325.88	326.66
30	Net Non-Tariff Income (25-29)	1057.22	667.52	795.60	750.40

Commission's analysis:

The Non-tariff income as per the audited annual accounts of NBPDCCL is at Rs.1656.43 Crore (including Amortization of grant of Rs.579.38 crore i.e. depreciation on assets created out of grants which is considered separately in the paragraph related to Depreciation).

The Commission has also not considered revenue subsidy of Rs.1021.92 crore and Grant in aid for pole painting Rs.2.46 crore as non-tariff income as the amounts are directly considered and adjusted in the ARR for FY 2022-23 in truing up. Accordingly, the revenue subsidy, grant in aid for pole painting and Amortization of grant are not considered under non-tariff income.

Non-tariff income of SBPDCL is at Rs.1223.44 crore (including Amortization of grant of Rs.391.09 crore i.e. depreciation on assets created out of grant which is considered separately in the paragraph related to depreciation). The Commission has also not considered revenue subsidy of Rs.3255.00 crore as non-tariff income as this amount is received from GoB to meet the revenue loss due to higher AT&C losses. Accordingly, the revenue subsidy and Amortization of grant are not considered as non-tariff income.

The APTEL in Appeal no.153 of 2009 (North Delhi Power Ltd. Vs Delhi Electricity Regulatory Commission) has adjudged that rebate only to the extent of 1% is to be considered as non-tariff income.

According to the audited accounts for FY 2022-23 of NBPDCCL and SBPDCL, the rebate received for timely payment of power purchase bills is at Rs.33.89 Crore and Rs.37.42 Crore respectively. The Commission has considered rebate @1% of the total power purchases (including transmission charges) for FY 2022-23 in the true up.

The Discoms have considered the financing cost on DPS and adjusted the same against the non-tariff income and net non-tariff income claimed in truing up for FY 2022-23 which is in line with the methodology considered by the Commission for financing of outstanding dues in line with the judgment of the Hon'ble Appellate Tribunal for Electricity (APTEL) dated 12.07.2011 in case No.142 & 147 of 2009.

As per the audited annual accounts for FY 2022-23, the Non-tariff income includes Delayed Payment Surcharge (DPS) from consumers. The Discoms charge DPS @ 18% per annum (1.5% per month) in accordance with the DPS specified in the Tariff Order dated 25.03.2022. The Commission has allowed rate of interest of 9.30% (7.80% being the weighted average MCLR (1 year tenor) during FY 2022-23 plus 150 basis points i.e.1.50%) in accordance with regulation 26 (iii) of BERC (Multi Year Distribution Tariff) Regulations 2021 towards the financing cost of DPS. The Commission accordingly computed and allowed the financing cost as shown in the table below:

Table 4.100: Financing cost of DPS

Particulars	(Rs. Crore)	
	Approved for NBPDCCL	Approved for SBPDCL
DPS as per audited accounts (@1.5% pm)	632.33	319.08
Principal amount on which DPS charged	3512.94	1772.67
Interest rate for funding Principal of DPS	9.30%	9.30%
Interest on funding of Principal DPS	326.70	164.86

The Commission, in its earlier true-ups (FY 2017-18 to FY 2021-22) had considered the interest earned/(refunded) on capital funds as a part of Non-Tariff Income for NBPDCCL and SBPDCL. It was directed (in true up for FY 2017-18) to maintain proper records for/of actual interest earned/utilised on scheme wise grant, equity and loan fund and to claim separately the refund or utilization made in the year in which such amount is actually refunded or utilized. It is observed from the figures reported in the audited accounts of SBPDCL for FY 2022-23, accretion of interest is at Rs.14.78 crore during FY 2022-23 as detailed hereunder.

Sl. No.	Particulars	SBPDCL
1	Closing balance as on 31.03.2023 stated in Note no.19 of the audited annual accounts for FY 2022-23 (Rs. Cr.)	306.99
2	Interest earned on Capital fund already recognised in Regulatory Accounts as on 31.03.2022 (Rs. Cr.)	292.21
3	Net Interest earned/(refunded/utilised) on Capital fund during FY 2022-23 (a-b) (Rs. Cr.)	14.78

Accordingly, the amount of Rs.14.78 crore is considered under Non-tariff income for SBPDCL.

Accordingly, the non-tariff income is computed for FY 2022-23 as detailed in the table below:

Table 4.101: Non-tariff income approved for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in truing up for FY 2022-23 for NBPDCCL	Approved in truing up for FY 2022-23 for SBPDCL	Total
1	Interest on Advances to Suppliers/Contractors	217.11	1.02	218.13
2	Interest from Banks	11.29	31.67	42.96
3	interest on mobilization advance		1.20	1.20
4	Interest from others	24.06		24.06
5	Delayed Payment Surcharge from Consumers	632.33	319.08	951.41
6	Income from sale of Tender paper	0.16		0.16
7	Miscellaneous Receipts	16.83	1.05	17.88
8	Subsidy from PFC			0.00
9	Rebate and Discount Received	33.89	37.42	71.31
10	SCED Benefits	14.62	18.25	32.87
11	Consumer Contribution Income	6.92	1.47	8.39
12	income from power regulation		181.60	181.60
13	Rental Income	2.32	5.15	7.47
14	Supervision Charges	15.04	22.79	37.83
15	Misc. charges	22.28		22.28
16	Misc. charges from consumers	43.19	100.68	143.87
17	Sale of scrap	5.53	30.05	35.58
18	Rebate special COVID-19			0.00
19	Meter rent/service line rentals	4.95	2.74	7.69
20	interest on TDS refund		0.83	0.83
21	Reimbursement from disaster management	26.09		26.09
22	Liquidated damages recovery from Agencies		77.35	77.35
23	Excess provision written back	0.46		0.46
24	Sub-total (1 to 24)	1077.07	832.35	1909.42
25	Less: Financing cost of DPS	(326.70)	(164.86)	(491.56)
26	Less: Interest income on capital funds		14.78	14.78
27	Less: Rebate as per audited accounts for FY 2022-23	(33.89)	(37.42)	(71.31)
28	Add: Rebate @1% on power purchase (incl. transmission charges)	116.73	146.00	262.73
29	Non-tariff income	833.20	790.85	1624.05

The Commission, accordingly, approves non-tariff income as above for FY 2022-23 in true up.

4.23. Interest on working capital**Petitioners' submission:**

Discoms have submitted that it has arrived at the working capital requirement according to applicable norms for Distribution function provided in Regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations 2021. The regulations are reproduced hereunder:

"The Distribution Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:

a) Two months equivalent of expected revenue

b) Maintenance spares@40% of R&M expenses for one month:

Less:

(i) Power purchase cost, transmission charges and load dispatch charges of one month

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

(iii) Security deposits from consumers, if any

Provided that the 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.

Provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution System users held during the year at the Bank Rate as of the date on which petition for determination is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.

Provided also that if, the State Government is providing resource gap grant and/or direct subsidy to consumers, the working capital shall be reduced by two months equivalent of that amount."

Discoms have submitted that, maintenance spares at 40% of R&M expense for one month and two months equivalent revenue requirement after deducting non-tariff income has been considered for calculation of gross working capital requirement.

The Gross working capital requirement is then reduced by closing Security deposits from consumers in FY 2022-23. Depreciation and RoE equivalent to two months and the power purchase cost inclusive of transmission charges for one month is reduced from the gross working capital requirement. Interest rate @ 9.30% at weighted average MCLR 7.80% + plus 150 basis points for FY 2022-23 is considered.

Discoms have claimed interest on working capital for FY 2022-23 computed as per norms as detailed in the table below:

Table 4.102: Interest on working capital claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by NBPDCCL in truing up	Claimed by SBPDCL in truing up
1	Maintenance spares 40% of R&M expenses for one month	8.44	8.41
2	Receivables - 2 months	1635.09	1886.52
3	Total working capital (1+2)	1643.53	1894.93
4	Less: a. Power purchase cost, transmission charges and load dispatch charges of one month	974.84	1219.34
	b. Depreciation, RoE and contingency reserve	139.67	107.23
	c. Security deposit from consumers	450.71	783.59
	d. Grant received from State Govt. for purchaser of power and other O&M expenses	2437.10	1243.24
	Sub-total (a+b+c+d)	4002.32	3353.40
5	Net working capital requirement (3-4)	(2358.79)	(1458.62)
6	Rate of interest %	9.30%	9.30%
7	Interest on working capital (5*6)	--	--

Table 4.103: Gains/(Loss) on account of interest on working capital claimed for FY 2022-23

(Rs. Crore)

Name of the Discom	Approved in the Tariff Order for FY 2022-23	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDCCL	33.99	--	33.99		33.99
SBPDCL	14.17	--	14.17		14.17

Commission's analysis

The Discoms have computed the interest on working capital as per the norms prescribed in Regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations, 2021. Maintenance spares is considered @40% of the R&M expenses for FY 2022-23.

Receivables equivalent to two months is considered based on the ARR (net of non tariff income). The working capital requirement for FY 2022-23 is considered after deducting one month power purchase cost (incl. transmission and SLDC charges), two months equivalent of depreciation and RoE and closing balance of consumer SD approved in the truing up for FY 2022-23.

Regulation 26 of BERC (Multi Year Distribution Tariff) Regulations 2021 specify that *“provided also that if the State Government is providing resource gap grant and/or direct subsidy to consumers, the working capital shall be reduced by two months equivalent of that amount”*.

SBPDCL vide letter No.41 dated 08.01.2024 has submitted the details of subsidy received from the State Government towards tariff subsidy and AT&C loss subsidy as given below:

Nature of Subsidy	Total Subsidy Received (Rs Crore)	Allocation of Subsidy	
		NBPDCCL (Rs Crore)	SBPDCL (Rs Crore)
Tariff Subsidy	7,800.96	3,623.04	4,177.92
AT&C Loss Subsidy	1,093.92	1,021.92	3,255.00
Arrear AT&C Loss Subsidy (FY18 to FY21)	3,183.00		
Total	12,077.88	4,644.96	7,432.92

The Commission, in accordance with regulation 26 has considered two months equivalent of subsidy and reduced from the working capital requirement.

Regulation 26 specify that 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. The weighted average SBI 1-year MCLR is calculated at 7.80% for FY 2022-23 and accordingly considered the rate of interest on working capital at 9.30% (weighted average SBI MCLR of 7.80% plus 1.50%).

Based on the expenses/costs approved, the working capital requirement and interest on working capital is computed in truing up for FY 2022-23 as detailed in the table below:

Table 4.104: Interest on working capital approved for FY 2022-23

(Rs. Crore)			
Sl. No.	Particulars	Approved for NBPDC in Truing up	Approved for SBPDCL in Truing up
1	Maintenance spares 40% of R&M expenses for one month	8.25	7.91
2	Receivables - 2 months	1878.28	2289.83
3	Total working capital (1+2)	1886.53	2297.74
4	Less:		
	a). Power purchase cost, transmission charges and load dispatch charges of one month	972.74	1216.65
	b). Depreciation, RoE and contingency reserve	124.55	102.25
	c). Security deposit from consumers	450.71	783.59
	d). Subsidy/Grant received from State Govt. for purchase of power and tariff subsidy	774.16	1238.82
	Sub-total (a+b+c+d)	2322.15	3341.31
5	Net working capital requirement (3-4)	(435.62)	(1043.57)
6	Rate of interest %	9.30%	9.30%
7	Interest on working capital (5*6)	--	---

The Commission, accordingly, approves 'NIL' interest on working capital as above in true up for FY 2022-23.

Sharing of Gain/(Loss) on account of controllable factors:

The Commission, in Tariff Order dated 25.03.2022, has approved interest on working capital of Rs.33.99 crore for NBPDC and Rs.14.17 crore for SBPDCL for FY 2022-23.

Regulation 9.2 (c) of BERC (Multi Year Distribution Tariff) Regulations 2021 specify; variations in variation in RoE, depreciation and working capital requirement as controllable factor. However, if the Commission is satisfied that the variation in the working capital requirement is attributable to any uncontrollable factors, the same may be considered as uncontrollable factor.

The Commission opines that around 90% of the working capital requirement constitutes power purchase cost which is uncontrollable. The regulation 9.1 (d) specifies, the sale of power is also uncontrollable factor. As such the working capital requirement and interest there on is considered as uncontrollable factor.

The Commission, accordingly has not considered sharing of gains/(losses) on account of variation in interest on working capital for FY 2022-23.

4.24. Revenue from sale of power with existing tariff for FY 2022-23**Petitioners' submission**

Petitioners submitted details of category wise revenue based on the tariff approved for FY 2022-23 as shown in the Table below:

Table 4.105: Revenue from sales of power claimed by NBPDC for FY 2022-23

Sl. No	Category of Consumers	Sales (MU)	Revenue (Rs Crores)	ABR (Rs/kWh)
1	Domestic	8,544.96	5,670.33	6.64
A	Kutir Jyoti	2,704.94	1,756.89	6.50
i	Unmetered (Now Metered)		-	-
ii	Metered 0-50	2,704.94	1,756.89	6.50
B	DS I Rural	3,827.97	2,554.62	6.67
i	Unmetered (Now Metered)		-	-
ii	Metered (Now Demand Based)	3,827.97	2,554.62	6.67
a	First 50 Units	2,830.96	1,726.88	6.10
b	51-100 Units		505.15	-
c	Above 100 Units		139.17	-
C	DS II Demand Based	2,011.71	1,358.54	6.75
i	First 100 Units		1,014.05	-
ii	101-200 Units		175.14	-
iii	Above 200 Units		78.24	-
D	DS III	0.34	0.27	7.89
2	Non-domestic Service	1,844.82	1,493.40	8.10
A	NDS I - Metered Now Demand Based	598.88	433.25	7.23
i	First 100 Units		314.70	-
ii	101-200 Units		47.68	-
iii	Above 200 Units		29.27	-
B	NDS II - Demand Based	1,245.94	1,061.67	8.52
i	Contract Demand <0.5 kW	1.83	1.66	9.09
ii	Contract Demand >0.5 kW	1,244.11	1,058.49	8.51
a	First 100 Units	923.12	632.35	6.85
b	101-200 Units	98.77	73.09	7.40
c	Above 200 Units	222.23	164.45	7.39
3	Street Light Services	99.13	99.14	10.00
A	SS Metered	9.81	7.46	7.60
B	SS Unmetered	89.32	91.69	10.27
4	Irrigation & Allied Services	1,005.72	594.55	5.91
A	IAS I	915.85	526.65	5.75
i	Unmetered	4.62	3.97	8.60
ii	Metered	911.23	522.68	5.74
B	IAS II	89.87	67.89	7.55
i	Metered (Now Demand Based)	89.87	67.89	7.55
A	Public Water Works	37.36	41.18	11.02
B	Har Ghar Nal	398.77	276.43	6.93
5	Low Tension Industrial Services	439.26	377.06	8.58
A	LTIS I (0-19 kW)	402.48	347.50	8.63
B	LTIS II (>19 kW - 74 kW)	36.78	29.56	8.04
6	LT Electric Vehicle Charging Station	0.05	0.04	7.20
7	High Tension	884.85	716.61	8.10

Sl. No	Category of Consumers	Sales (MU)	Revenue (Rs Crores)	ABR (Rs/kWh)
A	HTS I - 11 kV	549.74	449.54	8.18
B	HTS II - 33 kV	219.45	172.21	7.85
C	HTS III -132 kV	73.40	70.56	9.61
D	HTS IV - 220 kV	-	-	-
E	HTSS	42.27	24.30	5.75
8	Railway Traction Services	99.34	79.55	8.01
9	Nepal	314.22	228.59	7.27
10	HT Electric Vehicle Charging Stations.		-	
11	SLDC Deviation	226.92	229.82	10.13
12	Sale to other state	-	-	
13	Sale to Sugar Mills	5.67	3.32	5.86
14	Sale to Solar Companies	0.63	0.51	8.10
15	Sale of Power to IEX through PTC	2,177.12	1,066.99	4.90
16	Sale of Power to IEX through BSPHCL	1,446.28	743.37	5.14
17	Others	-	-	
18	Total	17,525.11	11,620.89	6.63

Table 4.106: Revenue from sales of power claimed by SBPDCL for FY 2022-23

Sl. No	Category of Consumers	Sales (MU)	Revenue (Rs Crores)	ABR (Rs/kWh)
1	Domestic	7,526.86	5,200.43	6.91
A	Kutir Jyoti	1,335.24	871.82	6.53
i	Unmetered (Now Metered)	-	-	-
ii	Metered 0-50	1,335.24	872	6.53
B	DS I Rural	3,286.10	2,189.59	6.66
i	Unmetered (Now Metered)	-	-	-
ii	Metered (Now Demand Based)	3,286.10	2,190	6.66
a	First 50 Units	1,288.34	825	6.40
b	51-100 Units	1,997.76	1,365	6.83
c	Above 100 Units	-	-	-
C	DS II Demand Based	2,905.52	2,139.02	7.36
i	First 100 Units	1,282.27	952	7.43
ii	101-200 Units	1,623.25	1,187	7.31
iii	Above 200 Units	-	-	-
D	DS III	-	-	-
2	Non_Domestic Service	1,537.33	1,301.05	8.46
A	NDS I – Metered Now Demand Based	415.66	309.6	7.45
i	First 100 Units	145.15	105	7.21
ii	101-200 Units	270.51	205	7.58
iii	Above 200 Units	-	-	-
B	NDS II – Demand Based	1,121.67	991.46	8.84
i	Contract Demand <0.5 kW	5.18	5	8.75
ii	Contract Demand >0.5 kW	1,116.48	987	8.84
a	First 100 Units	232.32	147	6.35
b	101-200 Units	884.16	626	7.08

Sl. No	Category of Consumers	Sales (MU)	Revenue (Rs Crores)	ABR (Rs/kWh)
c	Above 200 Units	-	-	-
3	Street Light Services	191.78	150.776	7.86
A	SS Metered	57.98	43.049	7.43
B	SS Unmetered	133.81	107.727	8.05
4	Irrigation & Allied Services	2,774.04	1,750.746	6.31
A	IAS I	2,443.21	1,537.004	6.29
i	Unmetered	611.90	398.473	6.51
ii	Metered	1,831.31	1,138.532	6.22
B	IAS II	330.82	213.742	6.46
i	Metered (Now Demand Based)	330.82	213.742	6.46
5	Public Service Connections	469.58	344.38	7.33
A	Public Water Works	142.20	122.71	8.63
B	Har Ghar Nal	327.39	221.67	6.77
6	Low Tension Industrial Services	465.57	396.572	8.52
A	LTIS I (0-19 kW)	280.09	243.405	8.69
B	LTIS II (>19 kW – 74 kW)	185.48	153.167	8.26
7	LT Electric Vehicle Charging Station	0.17	0.126	7.50
8	High Tension	2,588.89	1,737.88	6.71
A	HTS I – 11 kV	1,032.03	702.22	6.80
B	HTS II – 33 kV	560.18	458.29	8.18
C	HTS III -132 kV	260.83	170.41	6.53
D	HTS IV – 220 kV	-	-	-
E	HTSS	716.71	389.60	5.44
F	this (Oxygen Manufacturers)	19.14	17.35	9.07
9	Railway Traction Services	164.39	149.84	9.12
A	RTS	164.39	149.84	9.12
10	Nepal	-	-	-
A	Nepal	-	-	-
11	DF			-
12	HT Electric Vehicle Charging Stations.	-		
13	SLDC Deviation	283.70	287.33	
14	IEX through PMC	1,808.18	929.38	5.14
15	Sale of Power to PTC	2,721.90	1,333.98	4.90
16	Sale to Solar Companies	-		
17	Sale of Power to IEX through PTC	-		
18	Sale of Power to IEX through BSPHCL	-		0
19	Others	-		0
	Total	20,532.38	13,582.48	6.62

Commission's analysis

The Petitioner under Format-30A of the petition has furnished slab-wise/sub-category wise/ category wise, number of consumers, connected load, energy sales, energy charges billed, and fixed charges billed etc.

As per audited annual accounts of FY 2022-23 the revenue for sale of power is Rs.11620.85 for NBPDCCL and Rs.13582.48 Crore for SBPDCL and the petitioners have adopted the same values for FY 2022-23 in truing up.

The revenue from sale of surplus power to IEX through PTC and BSPTCL is adjusted against the cost of power purchase in truing up of ARR separately as given below:

Table 4.107: Revenue from sale of surplus power approved for FY 2022-23

Particulars	NBPDCCL			SBPDCL			Total		
	Sales (MU)	Energy Charges (Rs. Crore)	Avg. Energy Charges Rs/kWh	Sales (MU)	Energy Charges (Rs. Crore)	Avg. Energy Charges Rs/kWh	Sales (MU)	Energy Charges (Rs. Crore)	Avg. Energy Charges Rs/kWh
Sales to IEX through PTC	2,177.12	1,066.99	4.90	2,721.90	1,333.98	4.90	4,899.02	2,400.97	4.90
Sales to IEX through BSPHCL	1,446.28	743.37	5.14	1,808.18	929.38	5.14	3,254.46	1,672.75	5.14
Total	3,623.40	1,810.36	5.00	4,530.08	2,263.36	5.00	8,153.48	4,073.72	5.00

The actual revenue from sales to consumer categories is approved in truing up for FY 2022-23 as shown in Table below:

Table 4.108: Revenue from sale of power from Consumers approved for FY 2022-23

Name of the Discom	Consumers	Connected Load (KW)	Sales (MU)	Fixed Charges (Rs. crore)	Energy Charges (Rs. crore)	Other Charges (Rs. crore)	Total Revenue (Rs. crore)	Avg. Energy Charges Rs/kWh
NBPDCCL	11949924	12152255	13,901.71	997.48	8,813.05		9,810.53	7.06
SBPDCL	7005640	11833827	16,002.30	1,429.58	9,855.21	34.33	11,319.12	7.07
Total	18955564	23986082	29,904.01	2,427.06	18,668.26	34.33	21,129.65	7.07

4.25. Annual Revenue Requirement and sharing of gains/(losses) for FY 2022-23

Petitioners' submission:

Discoms have submitted that the gross ARR consists of the power purchase costs, interest and finance cost; O&M cost, depreciation and interest on working capital duly adjusted for non-tariff income and other income. The Discoms have computed the total revenue requirement for FY 2022-23 as detailed in the table below:

Table 4.109: ARR, Gains/(Losses) due to controllable & uncontrollable variations claimed by SBPDCL for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2022-23	Claimed by SBPDCL for FY 2022-23 in truing up	Deviation	Gain/(Loss) due to controllable factors	Gain/(Loss) due to uncontrollable factors
1	Purchase of power (excluding rebate)	8509.58	12578.64	(4,070.91)	612.48	306.24
2	Transmission charges	1653.16	2053.39	(400.23)		400.23
3	Revenue from Surplus Power	-	2263.36	2,263.36		(2,263.36)
4	O & M Expenses (A+B+C+D)	1031.36	1228.47	(122.75)		
A	Employee expenses	624.28	655.82	(31.54)	21.03	10.51
B	R&M expenses	249.64	252.30	(2.66)	1.78	0.89
C	A&G expenses	139.58	296.24	(82.32)	54.88	27.44
D	Holding company expenses	17.87	24.10	(6.23)		6.23
5	Depreciation	331.43	335.40	(3.97)		3.97
6	Interest on loan	491.81	475.67	16.14		(16.14)
7	Other finance charges					
8	Return on equity	338.21	307.99	30.22		(30.22)
9	Interest on SD	31.87	10.58	21.99		(21.29)
10	Interest on working capital	14.17	0.00	14.17		14.17
11	Bad & doubtful debts	0.00	1.93	1.93		
12	Total Revenue requirement (1 to 11)	12401.60	14,730.55	(2,252.68)		
13	Less: Non-tariff income	1057.22	667.52	389.70		
14	Net Revenue requirement (12-13)	11344.38	14063.04	(2,642.38)		

Table 4.110: ARR, Gains/(Losses) due to controllable & uncontrollable variations claimed by NBPDCCL for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2022-23	Claimed by NBPDCCL for FY 2022-23 in truing up	Deviation	Gain/(Loss) due to controllable factors	Gain/(Loss) due to uncontrollable factors
1	Purchase of power	7,248.99	10,058.89	(2,807.92)	12.30	6.15
2	Transmission Charges	1,408.25	1,641.21	(232.96)		232.96
3	Revenue from Sale of Surplus Power	0.00	1,810.36	1,810.36		(1,810.36)
4	O & M Expenses (A+B+C+D)	898.98	1,067.68	(168.70)		
A	Employee expenses	436.91	452.17	(15.26)	10.17	5.09
B	R&M expenses	259.90	253.15	6.75	(2.25)	(2.25)
C	A&G expenses (normative)	185.18	339.17	(153.99)	102.66	51.33
D	Holding company expenses	16.99	23.19	(6.20)		(6.20)
5	Depreciation	369.30	446.80	(77.50)		77.50

Sl. No.	Particulars	Approved for FY 2022-23	Claimed by NBPDC for FY 2022-23 in truing up	Deviation	Gain/(Loss) due to controllable factors	Gain/(Loss) due to uncontrollable factors
6	Interest on loan and other finance charges	606.26	571.65	34.61		(34.61)
7	Return on equity	412.39	391.22	21.17		(21.17)
8	Interest on SD	19.04		14.13		14.13
9	Interest on working capital	33.99	-	33.99		33.99
10	Total Revenue requirement (1 to 9)	10,997.20	12,372.00	1,375)		
11	Less: Non-tariff income	795.60	750.40	45		45.20
12	Net Revenue requirement (10-11)	10,201.60	11,621.60	(1,420)		

Commission's analysis:

Regulation 10 and 11 of the BERC (Multi Year Distribution Tariff) Regulations, 2021 specify the procedure for sharing of the gains/losses on account of controllable and uncontrollable factors. The relevant Regulations are extracted hereunder:

“Regulation 10. Mechanism for pass-through of gains or losses on account of uncontrollable factors

10.1 The approved aggregate gain or loss to the Distribution Licensee on account of uncontrollable factors shall be a pass through as an adjustment in the tariff of the Distribution Licensee as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations.

10.2 The Distribution Licensee shall submit such details of the variation between actual and the figures approved by the Commission along with the detailed computations and supporting documents as may be required by the Commission.

Regulation 11. Mechanism for sharing of gains or losses on account of controllable factors

11.1 The approved aggregate gain to the Distribution Licensee 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 Distribution licensee, as specified in these

regulation and as may be determined in the order of the Commission passed under these regulation;

- (ii) The balance one third of the amount of such gain shall be on account of Distribution licensee and such amount shall be utilized at the discretion of Distribution Licensee.*

(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 Distribution Licensee 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 Distribution licensee:*
- (ii) The balance two third of the amount of such loss shall be on account of Distribution licensee.*

Explanation: *If the State Government is providing resource gap grant, aggregate loss shall be reduced by that amount for the purpose of computation of aggregate loss to be qualified for a pass through.*

- 11.2** *The Distribution licensee shall submit such details of variation for sharing of approved aggregate gain or loss on account of controllable factors along with the detailed computations and supporting documents as may be required for verification by the Commission.*

The Commission based on the Aggregate Revenue Requirement (ARR) approved for FY 2022-23 in the Tariff order dated 25.03.2022, actuals expenses claimed in truing up by the Discoms and as approved by the Commission in truing up, has computed the variations due to controllable and uncontrollable factors and sharing of Gains/(Losses) in accordance with the BERC (Multi Year Distribution Tariff) Regulations, 2021 as given in the Table below:

Table 4.111: ARR approved in truing up for FY 2022-23 for Discoms**(Rs. Crore)**

Sl. No.	Particulars	NBPDC			SBPDCL		
		Approved in Tariff order dated 25.03.2022	Claimed in truing up for FY 2022-23	Now approved in truing up for FY 2022-23	Approved in Tariff order dated 25.03.2022	Claimed in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Purchase of power	7248.99	10058.89	10031.65	8509.58	12578.64	12546.43
2	PGCIL & Other transmission charges	755.95	1020.64	1020.63	887.42	1277.53	1277.53
3	BSPTCL transmission charges	566.43	540.77	538.40	664.93	676.09	673.13
4	BGCL transmission charges	80.34	77.60	77.60	94.32	97.02	97.02
5	SLDC charges	5.53	2.20	4.57	6.49	2.75	5.71
6	Sale of surplus power		(1810.36)	(1810.36)		(2263.36)	(2263.36)
7	Gains/(Loss) on account of power purchase cost to be absorbed by licensee			(43.29)			(54.10)
8	O & M Expenses (A+B+C+D)	898.98	1067.68	962.39	1031.37	1228.46	1137.97
A	Employee expenses	436.91	452.17	452.15	624.28	655.82	655.81
B	R&M expenses	259.90	253.15	247.52	249.64	252.30	237.26
C	A&G expenses	185.18	339.17	239.53	139.58	296.24	220.80
D	Holding company expenses	16.99	23.19	23.19	17.87	24.10	24.10
9	Depreciation	369.30	446.80	360.68	331.43	335.40	311.04
10	Interest on loan	560.61	514.58	518.41	425.74	384.94	382.27
11	Other finance charges	45.65	57.06	50.70	66.07	90.73	103.17
12	Return on equity	412.39	391.22	386.59	338.21	307.99	302.45
13	Interest on SD	19.04	4.91	4.90	31.87	10.58	10.58
14	Bad & doubtful debts					1.93	
15	Interest on working capital	33.99	--	--	14.17	--	--
16	Less: Non-tariff income	(795.60)	(750.40)	(833.20)	(1057.22)	(667.52)	(790.85)
17	ARR for the year	10201.60	11621.60	11269.67	11344.37	14061.18	13738.98

The Commission, accordingly approves the net ARR for FY 2022-23 in truing up for Discoms as detailed in the table above.

Figure 6: The Share of each component of ARR (%) for FY 2022-23 for NBPDC

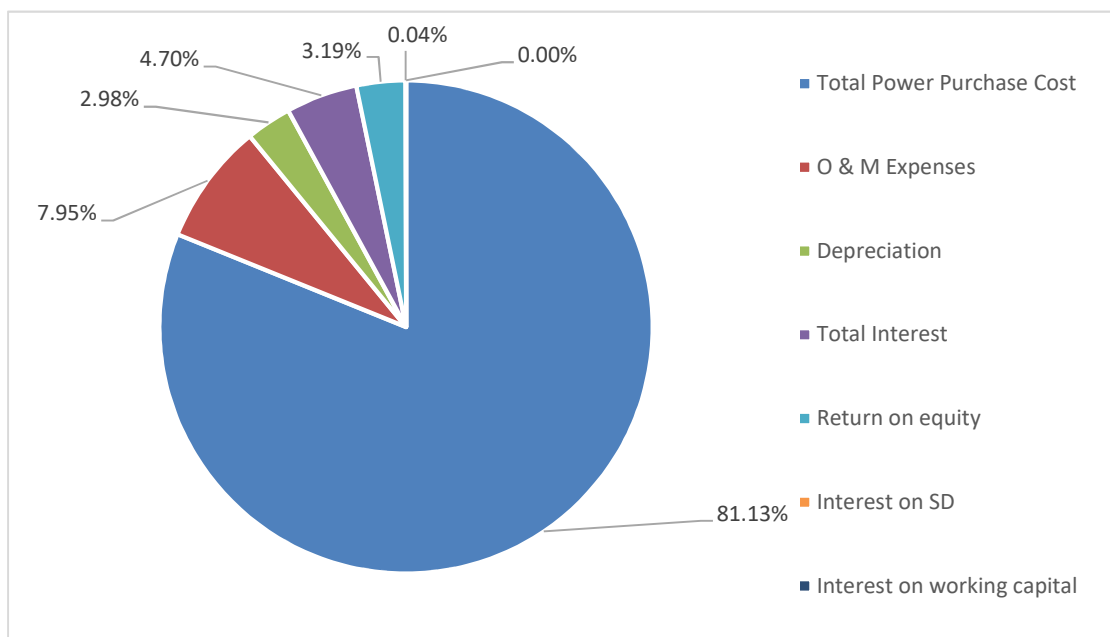
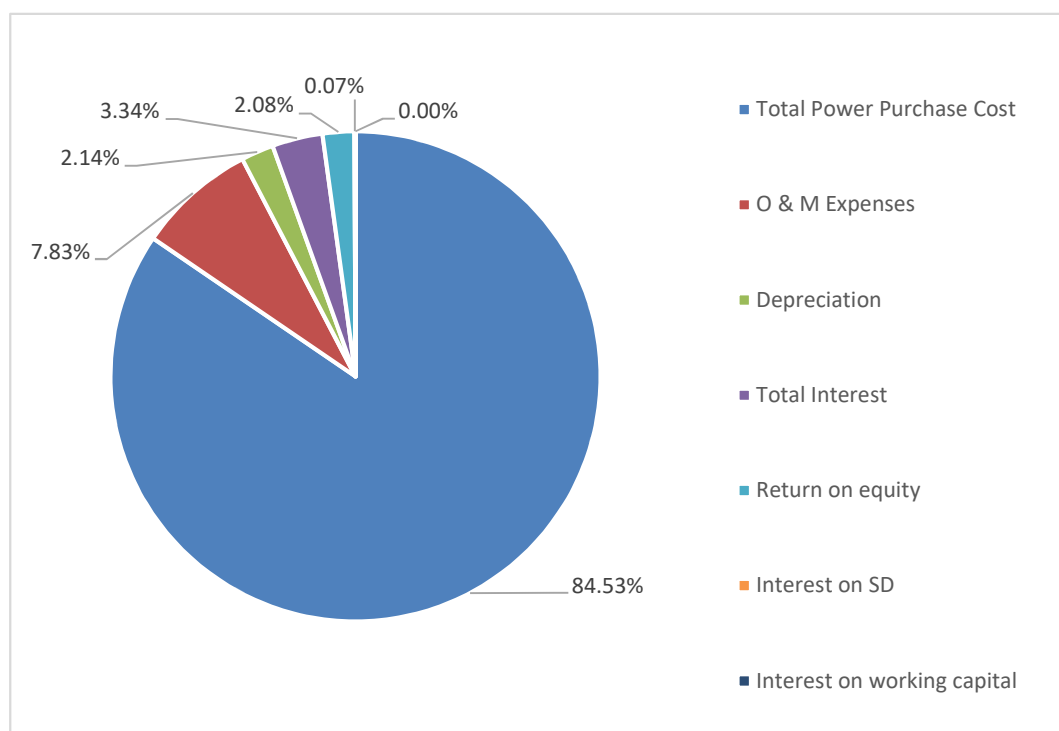
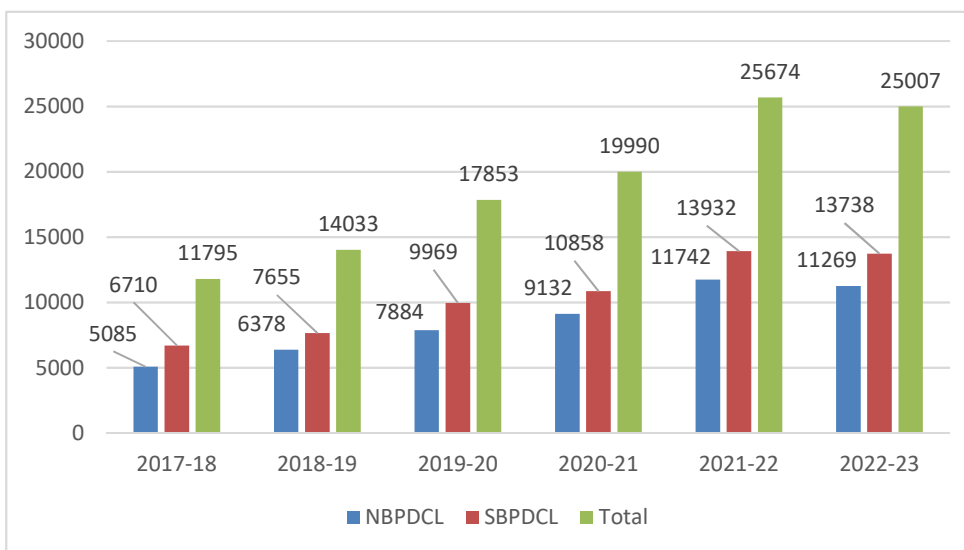
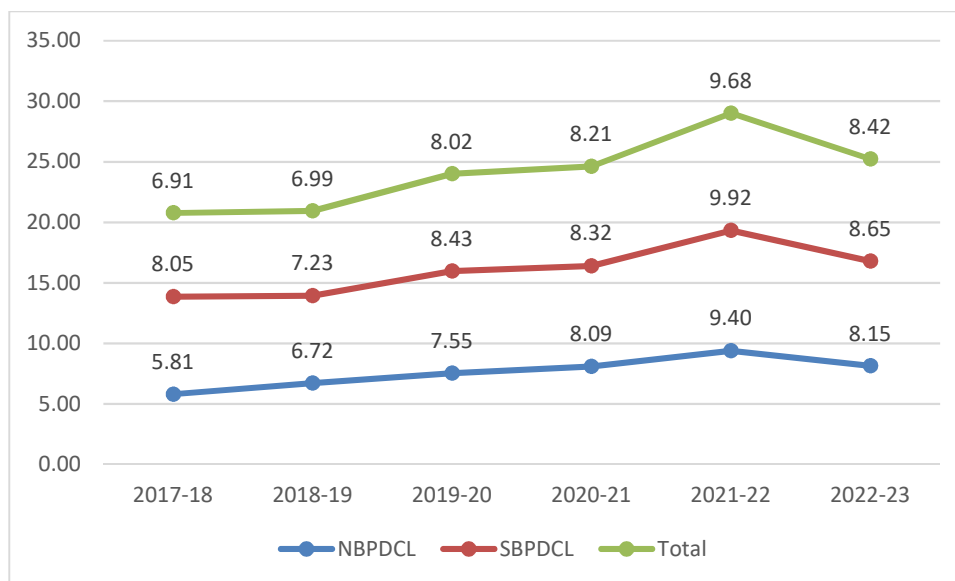


Figure 7: The Share of each component of ARR (%) for FY 2022-23 for SBPDCL



The 6-year trend of ARR & Average Cost of Supply (ACoS) of NBPDC & SBPDCL for FY 2017-18 to FY 2022-23 are shown below:

Figure 8: Net ARR from FY 2017-18 to FY 2022-23 (Rs. Crore)**Figure 9: Average cost of supply from FY 2017-18 to FY 2022-23 (Rs/kWh)****4.26. Revenue Gap/(Surplus) for FY 2022-23****Petitioner's submission:**

The Discoms have claimed the revenue gap/(surplus) for FY 2022-23 as detailed in the Table below:

Table 4.112: Revenue Gap/(Surplus) claimed by the Discoms for FY 2022-23
(Rs. Crore)

Sl. No.	Particulars	Claimed by NBPDCCL in truing up for FY 2022-23	Claimed by SBPDCL in truing up for FY 2022-23	Total
1	Actual net ARR for FY 2022-23	11662.09	14063.04	25725.13
2	Carried forward trued up revenue gap/(Surplus) of FY 2020-21 along with carrying cost	400.63	(166.15)	234.48
3	Total revenue requirement (1+2)	12062.72	13896.89	25959.61
4	Less: Gains /(Loss) on account of controllable factor to be passed in tariff	(122.87)	(690.16)	(813.03)
5	Less: Treatment of excess AT&C loss subsidy for meeting power purchase requirement	(1009.63)	(2642.52)	(3652.15)
6	Total revenue requirement (3+4-5)	10930.22	10564.22	21494.43
7	Less: Revenue from existing tariff	9810.53	11319.12	21129.65
8	Revenue Gap / (Surplus) for FY 2022-23 (6-7)	1119.69	(754.92)	364.78

Commission's analysis:

The Government of Bihar vide **Memo Pragyan 02/Board Misc.-21/2010 (Part-III)-1410 / Patna, dated 19.04.2022** has extended subsidy of Rs.1093.94 crore (@Rs.91.16 crore/pm) for purchase of power for FY 2022-23. Further, the GoB, vide said memo, has also extended Rs.7800.96 crore (@Rs.650.08 crore/pm) towards tariff subsidy to be credited directly to the consumers for FY 2022-23. Thus, the GoB has extended a total subsidy of Rs.8894.90 crore (7800.96+1093.94) for FY 2022-23.

The audited accounts of Discoms (SBPDCL Rs.3255 crore and NBPDCCL Rs.1021.92 crore totaling to Rs.4276.92 crore) depict the amount of subsidy for FY 2022-23. The SBPDCL has adjusted Rs.2642.52 crore and NBPDCCL Rs.1009.63 crore against the ARR to arrive at the net revenue gap for FY 2022-23.

The Commission has considered total power purchase cost in the ARR for truing up for FY 2022-23 and accordingly the subsidy received by Discoms towards AT&C loss is considered and arrived the net revenue gap/(Surplus) in true up for FY 2022-23.

The Commission based on the expenses and sharing of Gains/(Losses) due to controllable and uncontrollable factors has approved the ARR for FY 2022-23 in truing up as detailed in the table below.

4.113: Revenue Gap/(Surplus) approved in true up for FY 2022-23**(Rs. Crore)**

Sl. No.	Particulars	Approved in truing up for FY 2022-23 for NBPDCCL	Approved in truing up for FY 2022-23 for SBPDCL	Total
1	ARR approved in True up for FY 2022-23	11269.67	13738.98	25008.65
2	Add: Gains /(Loss) on account of O&M expenses to be passed in to tariff	(128.84)	(98.19)	(227.03)
3	Add: Carried forward trued up revenue Gap/(Surplus) of FY 2020-21 with carrying cost as per TO dated 25.03.2022	399.33	(165.61)	233.72
4	Less: Subsidy Received (Amount in excess of financial loss of DISCOMs due to higher AT&C loss)	(978.63)	(3200.90)	(4179.53)
5	Revised Revenue Requirement (1 to 4)	10561.53	10274.28	20835.81
6	Less: Revenue from existing tariff	9810.53	11319.12	21129.65
7	Revenue Gap approved in true up for FY 2022-23 to be carried forward	751.00	(1044.84)	(293.84)

The Commission approves the **total net consolidated revenue surplus of Rs.293.84 Crore** (NBPDCCL revenue gap of Rs.751.00 Crore and SBPDCL revenue surplus of Rs.1044.84 Crore) for Discoms in True up for FY 2022-23.

The Regulation 14(f) of the BERC (Multi Year Distribution Tariff) Regulations 2021, specifies “*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*”.

Accordingly, the net consolidated revenue surplus of Rs.293.84 Crore (NBPDCCL revenue gap of Rs.751.00 Crore and SBPDCL revenue surplus of Rs.1044.84 Crore) for Discoms arising out of the truing up for FY 2022-23 is adjusted in the ARR for FY 2024-25 along with applicable carrying cost.

5. Annual Performance Review for FY 2023-24

5.1. Background

The Commission had issued MYT Order dated 25th March, 2022 approving Aggregate Revenue Requirement (ARR) for the control period FY 2022-23 to FY 2024-25 to the Bihar Distribution Companies, viz., NBPDCCL and SBPDCL. The Commission has also issued the Tariff Order for FY 2023-24 dated 23rd March, 2023, re-determining the ARR for FY 2023-24. The distribution licensees have now filed the present Tariff Petitions for FY 2024-25 on 14th November, 2023, which also includes Annual Performance Review (APR) for FY 2023-24. Discoms have stated that the APR for FY 2023-24 is projected based on the actual figures for 6 months (i.e. April 2023 to September 2023) for power purchase, sales and pro-rata projections and escalations over previous year has been considered.

Annual Performance Review (APR) for FY 2023-24 shall be carried out in accordance with the Regulation 8.1 of the BERC (Multi Year Distribution Tariff) Regulations, 2021. Accordingly, the “Review” exercise for FY 2023-24 has been undertaken by the Commission on the basis of Audited Annual Accounts for FY 2022-23 and revised estimates for FY 2023-24 submitted by the Petitioners and as per BERC (Multi Year Distribution Tariff) Regulations, 2021.

However, as per Regulation 14 (f) of BERC (Multi Year Distribution Tariff) Regulations, 2021 the revised estimated gap/surplus as a result of Review (APR) shall not be passed in to the ARR of ensuing year

5.2. Number of Consumers, Energy Sales and Connected Load for FY 2023-24

Petitioners’ submission:

Number of Consumers

The Petitioners have submitted that while projecting the number of consumers for FY 2023-24, the impact due to Central schemes like Saubhagya and UDAY were considered. The Successful implementation of these schemes ensured that all the willing households are connected to the grid, leaving little scope for addition of new consumers from KJY, DS-I and DS-II categories. These initiatives aim for the overall development of the power sector in the State.

These plans were mainly targeted for rural consumers in KJ, DS-I category and for IAS-I category, many policies at state level were adopted, hence the growth rate in previous years under this category was above the normal CAGR growth as large number of new connections were to be released in the ensuing years. However, since the state of Bihar has achieved 100% electrification, the growth in consumers have normalized in the past 2 years. Considering the same, the Petitioner has considered growth pattern in the last 2-3 years as well as the 6 months provisional data of FY 2023-24 for revising the growth in number of consumers for FY 2023-24. The category-wise number of consumers approved in the Tariff Order dated 23.03.2023 and now projected in APR for FY 2023-24 are as given in Table below:

Table 5.1: Category-wise number of consumers projected by NBPDCCL & SBPDCL for FY 2023-24

Category of Consumers	NBPDCCL		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
Domestic	10915513	11231149	6000429	6232419
Kutir Jyoti	4386822	4301864	1585325	1533124
Unmetered (Now Metered)	0	0	0	0
Metered 0-50	438682	4301864	1585325	1533124
DS I Rural	5129605	5492088	2897667	3084813
Unmetered (Now Metered)	0	0	0	0
Metered (Now Demand Based)	5129605	5492088	2897668	3084813
First 50 Units	2912964	2669784	846260	1516455
51-100 Units	1163312	2822304	1179515	1568358
101-200 Units	1053329	0	871893	0
Above 200 Units	0	0	0	0
DS II Demand Based	1399001	1437110	1517239	1614320
First 100 Units	905428	1202301	842402	605427
101-200 Units	264407	234809	519264	1008894
201-300 Units	229166	0	155573	0
Above 300 Units	0	0	0	0
DS III	85	87	198	162
Non-Domestic Service	814544	925530	619450	642382
NDS I - Metered Now Demand Based	432357	523119	243128	237547
First 100 Units	257536	239807	87499	85463
101-200 Units	55753	283312	85890	152083
Above 200 Units	119068	-	69739	0
NDS II - Demand Based	382187	402410	376322	404836
Contract Demand <0.5 kW	548	2500	8994	9494
Contract Demand >0.5 kW	381640	399910	367328	393386
First 100 Units	134832	90120	155819	74032
101-200 Unit	29882	309790	44464	319354
Above 200 Units	216927	-	167046	0
Street Light Services	2255	2608	2417	2279
SS Metered	553	603	1087	1095

Category of Consumers	NBPDCCL		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
SS Unmetered	1703	2005	1330	1184
Irrigation & Allied Services	165398	272741	301330	337560
IAS I	158638	266108	296555	332918
Unmetered	4815	6768	137821	154885
Metered	153823	259339	158734	178033
IAS II	6761	6634	4775	4642
Metered (Now Demand Based)	6761	6634	4775	4642
Public Service Connections	61192	64725	43898	33956
Public Water Works	2048	2198	3365	3317
Har Ghar Nal	59145	62528	40533	30638
Low Tension Industrial Services	80803	8913	73042	88703
LTIS I (0-19 kW)	79120	87750	68282	83039
LTIS II (>19 kW - 74 kW)	1682	1264	4760	5664
LT Electric Vehicle Charging Station	3	224	5	335
High Tension	1487	1602	2238	2630
HTS I - 11 kV	1410	1513	2035	2393
HTS II - 33 kV	68	80	185	219
HTS III -132 kV	3	6	5	5
HTS IV - 220 kV	0	0	0	0
HTSS - 33/11 kV	3	3	13	13
HT-Industrial Services	0	5	34	34
HTIS (Industrial) – I (11 kV)	0	2	0	0
HTIS (Industrial)– II (33 kV)	0	1	0	0
HTIS (Industrial) – III (132 kV)	0	0	0	0
HTIS (Industries)-IV (220 kV)	0	1	0	0
HTIS (Oxygen Manufacturers)	0	1	34	34
Railway Traction Services	5	8	4	10
Nepal	1	1	0	0
HT Electric Vehicle Charging Stations.	3	3	3	2
Total	12041203	12587610	7042850	7340310

Category wise Energy Sales

Petitioners submitted that the DISCOMs have already provided electricity access to all willing BPL households in urban areas and both APL & BPL households in rural areas under Saubhagya Scheme.

The category-wise sales are projected based on the CAGR of the previous years' data, the provisional sales for the first half of FY 2023-24 as well as considering factors like available average consumption per consumer per month, new consumers to be added, population data, expected conversion of unauthorized connections, connected load factor and specific growth factors and wherever the data was incongruous such incongruity was ignored while projecting the load growth for the ensuing years.

The Petitioner submitted that the forecast model projects the specific consumption level (consumption per consumer) appropriate for each customer category. This forecast is based on expected growth relationships to income and price, effect of Demand Side Management and impact of hours of service.

Petitioners also submitted that the units sold are projected by taking average consumption per consumer per month and multiplying the same to the projected number of consumers to arrive at units sold for a FY 2023-24.

The category wise sales approved in the Tariff Order dated 23.03.2023 and now projected in APR for FY 2023-24 are as shown in the Table below:

Table 5.2: Energy Sales (MU) projected by NBPDCCL & SBPDCL for FY 2023-24

Category of Consumers	NBPDCCL		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
Domestic	9690.92	9038.07	9474.32	8064
Kutir Jyoti	2358.09	2815.61	945.35	1391
Metered 0-50	2358.09	2815.61	945.35	1390.7
DS I Rural	4868.19	4101.05	5305.86	3189
First 50 Units	2764.52	1993.58	1549.57	1568
51-100 Units	1104.03	2107.47	2159.78	1622
101-200 Units	999.65	0	1596.51	0
Above 200 Units	0	0	0	0
DS II Demand Based	2464.24	2121.04	3222.74	3484
First 100 Units	1594.84	1774.48	1789.33	1306
101-200 Units	465.73	346.56	1102.96	2177
201-300 Units	403.66	0	330.45	0
Above 300 Units	0	0	0	0
DS III	0.39	0.36	0.37	0.27
Non-Domestic Service	1887.62	2053.59	1833.4	1732
NDS I - Metered Now Demand Based	539.95	712.24	581.43	427
First 100 Units	321.63	326.5	209.25	153.8
101-200 Units	69.63	385.74	205.4	273.68
Above 200 Units	148.7	0	166.78	0
NDS II - Demand Based	1347.67	1341.35	1251.97	1304
Contract Demand <0.5 kW	1.93	2.05	6.17	5
Contract Demand >0.5 kW	1345.73	1339.31	1245.8	1299
First 100 Units	475.44	301.81	528.46	244.46
101-200 Units	105.37	1037.49	150.8	1054.53
Above 200 Units	764.92	0	566.54	0
Street Light Services	74.45	119.11	161.35	252
SS Metered	11.21	11.68	57.74	66
SS Unmetered	63.23	107.44	103.61	186
Irrigation & Allied Services	508.59	1448.15	1532.63	3985
IAS I	404.93	1352.37	1392.29	3623

Category of Consumers	NBPDCCL		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
Unmetered	3.27	8.69	453.28	844
Metered	401.66	1343.68	939.01	2780
IAS II	103.66	95.77	140.34	361
Public Service Connections	410.86	510.35	523.82	441.65
Public Water Works	54.86	41.59	152.92	162
Har Ghar Nal	356	468.76	370.9	280
Low Tension Industrial Services	632.73	502.56	477.36	445.86
LTIS I (0-19 kW)	511.66	463	281.61	303
LTIS II (>19 kW - 74 kW)	121.08	39.57	195.75	143
LT Electric Vehicle Charging Station	0.09	9.63	0.12	5.2
High Tension	1006.66	1058.1	2529.81	2,986
HTS I - 11 kV	646.64	615.7	813.04	1,105
HTS II - 33 kV	265.37	288.1	655.18	778
HTS III -132 kV	58.72	111.2	273.16	272
HTS IV - 220 kV	0	0	0	0
HTSS- (33kV/11kV)	35.92	43.11	788.43	830.3
HT-Industrial Services	0	24	5.23	9.62
HTIS (Industrial) – I (11 kV)	0	2.49	0	0
HTIS (Industrial)– II (33 kV)	0	3.47	0	0
HTIS (Industrial) – III (132 kV)	0	0	0	0
HTIS (Industries)-IV (220 kV)	0	18.25	0	0
HTIS (Oxygen Manufacturers)	0	0.1	5.23	9.62
HT EV charging station	0	0	0.34	0
Railway Traction Services	81.2	132.21	115.72	*283.51
Nepal	458.95	314.22	0	0
HT Electric Vehicle Charging Stations.	0.38	22.58	0	0
Sale of Power to IEX through PTC	0	3901.76	0	*3132.06
Total	14752.43	19134.65	16654.10	21336.13

* Figures revised in the additional information submitted

Connected load

The Petitioners have submitted that the connected load is calculated considering average Load per consumer as per the actuals, analysing CAGR of past years and multiplying it by projected number of consumers to arrive at the connected load for FY 2023-24.

The category wise connected load approved in Tariff Order dated 23.03.2023 and now projected in APR are as shown in the Table below:

Table 5.3: Connected Load (KW) projected by NBPDC & SBPDCL for FY 2023-24

Category of Consumers	NBPDC		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
Domestic	9320549	9169299	8534863	7,973,754
Kutir Jyoti	1096706	1077342	396331	380,952
Metered 0-50	1096706	1077342	396331	380,952
DS I Rural	5518374	5631932	3443829	3212007
First 50 Units	3133736	2737765	1005765	1578982
51-100 Units	1251479	2894168	1401834	1633025
101-200 Units	1133160	0	1036230	0
Above 200 Units	0	0	0	0
DS II Demand Based	2705041	2459508	4694217	4380345
First 100 Units	1750691	2057649	2606324	1642952
101-200 Units	511245	401858	1606562	2737393
201-300 Units	443105	0	481331	0
Above 300 Units	0	0	0	0
DS III	428	518	486	450
Non-Domestic Service	1830096	1860435	1915086	1768966
NDS I - Metered Now Demand Based	610555	729034	430390	383914
First 100 Units	363681	334202	154893	138123
101-200 Units	78732	394832	152044	245792
Above 200 Units	168142	0	123453	0
NDS II - Demand Based	1219540	1131402	1484696	1385052
Contract Demand <0.5 kW	544	1383	6229	5688
Contract Demand >0.5 kW	1218996	1130019	1478467	1379364
First 100 Units	430666	254650	627159	259584
101-200 Units	95445	875369	178962	1119779
Above 200 Units	692885	0	672346	0
Street Light Services	26368	29974	47287	33862
Street Light 1	5310	4782	24023	10591
Street Light 2	21059	25192	23264	23270
Irrigation & Allied Services	442438	594646	737416	678249
IAS I	362037	538786	679497	637926
Unmetered	18591	24514	338094	323415
Metered	343446	514272	341403	314511
IAS II	80401	55860	57919	40323
Public Service Connections	173131	175400	197666	122198
Public Water Works	31654	32406	54325	50167
Har Ghar Nal	141477	142994	143341	72031
Low Tension Industrial Services	810406	819641	941260	964942
LTIS I (0-19 kW)	709767	750617	649593	669775
LTIS II (>19 kW - 74 kW)	100639	69024	291667	295167
LT Electric Vehicle Charging Stations	173	645	259	1950
High Tension	464558	509233	1070738	1056321
HTS I - 11 kV	305012	313525	497152	524177
HTS II - 33 kV	102992	111722	347434	322830
HTS III -132 kV	45,543	74493	73721	75500
HTS IV - 220 kV	0	0	0	0
HTSS - 33/11 kV	10375	9494	144780	133814
HT-Industrial Services	0	15217	7017	7003
HTIS (Industrial) – I (11 kV)	0	1414	0	0

Category of Consumers	NBPDC		SBPDCL	
	Approved in TO, Dt 23.03.2023	Now Projected in APR	Approved in TO, Dt 23.03.2023	Now Projected in APR
HTIS (Industrial)– II (33 kV)	0	1111	0	0
HTIS (Industrial) – III (132 kV)	0	0	0	0
HTIS (Industries)-IV (220 kV)	0	12500	0	0
HTIS (Oxygen Manufacturers)	0	192	7017	7003
Railway Traction Services	42207	60000	54833	94500
Nepal	0	0	0	0
HT Electric Vehicle Charging Stations	636	6048	633.62	0
Total	13,109,925	13,240,538	13499408	12701745

Commission's analysis:

Number of Consumers

Discoms have stated that since the State of Bihar has achieved 100% electrification, the growth, in consumers have normalized in the past 2 years as well as in the 6 months provisional data of FY 2023-24 for revising the number of consumers for FY 2023-24

The Commission therefore opines that at present the Discoms are in best position to estimate the growth in number of consumers. Hence, the Commission has provisionally considered the submission of Discoms in this regard. Based on above, the Commission has considered the same projections as requested by the Petitioners and approved the number of consumers for each consumer category in APR of FY 2023-24 as shown in the Table below:

Table 5.4: Number of Consumers considered for NBPDC & SBPDCL for FY 2023-24 (RE)

Category of Consumers	NBPDC		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
Domestic	11231149	11231149	6232420	6232420
Kutir Jyoti	4301864	4301864	1533124	1533124
DS I Rural - Demand Based	5492088	5492088	3084813	3084813
First 50 Units	2669784	2669784	1516455	1516455
Above 50 Units	2822304	2822304	1568358	1568358
DS II Demand Based	1437110	1437110	*1614321	1614321
First 100 Units	1202301	1202301	605427	605427
Above 100 Units	234809	234809	1008894	1008894
DS III	87	87	162	162
Non-Domestic Service	*925530	925529	*642382	640426
NDS I - Demand Based	523119	523119	237546	237546
First 100 Units	239807	239807	85463	85463
101-200 Units	283312	283312	152083	152083
NDS II - Demand Based	402410	402410	*404836	402880
Contract Demand <0.5 kW	2500	2500	9494	9494

Category of Consumers	NBPDC		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
Contract Demand >0.5 kW	399910	399910	393386	393386
First 100 Units	90120	90120	74032	74032
Above 100 Units	309790	309790	319354	319354
Above 200 Units	0	0	0	0
Street Light Services	2608	2608	2279	2279
SS Metered	603	603	1095	1095
SS Unmetered	2005	2005	1184	1184
Irrigation & Allied Services (IAS)	272741	272741	337560	337560
IAS I	*266108	266107	332918	332918
Unmetered	6768	6768	154885	154885
Metered	259339	259339	178033	178033
IAS II	6634	6634	4642	4642
Metered (Now Demand Based)	6634	6634	4642	4642
Public Service Connections	*64725	64726	33955	33955
Public Water Works	2198	2198	3317	3317
Har Ghar Nal	62528	62528	30638	30638
Low Tension Industrial Services	*8913	89014	88703	88703
LTIS I (0-19 kW)	87750	87750	83039	83039
LTIS II (>19 kW - 74 kW)	1264	1264	5664	5664
LT Electric Vehicle Charging Station	224	224	335	335
High Tension – General	1602	1602	2630	2630
HTS I - 11 kV	1513	1513	2393	2393
HTS II - 33 kV	80	80	219	219
HTS III -132 kV	6	6	5	5
HTS IV - 220 kV	0	0	0	0
HTSS - 33/11 kV	3	3	13	13
HT-Industrial Services	5	5	34	34
HTIS (Industrial) – I (11 kV)	2	2	0	0
HTIS (Industrial)– II (33 kV)	1	1	0	0
HTIS (Industrial) – III (132 kV)	0	0	0	0
HTIS (Industries)-IV (220 kV)	1	1	0	0
HTIS (Oxygen Manufacturers)	1	1	34	34
Railway Traction Services	8	8	10	10
HT Electric Vehicle Charging Stations.	3	3	2	2
Nepal	1	1	0	0
Total	12041203	12,587,610	7340310	7,338,354

* Summation done wrongly

Connected Load

The Petitioners have submitted that the category-wise connected load is projected considering average connected load per consumer as per actual, CAGR of past years and multiplying it by projected number of consumers to arrive at the connected load. The Commission has verified the computation of connected load as submitted by the Discoms and found them to be in order.

The Commission has approved the connected load in review of FY 2023-24 as shown in the Table below:

Table 5.5: Connected Load (KW) considered for NBPDC & SBPDCL for FY 2023-24 (RE)

Category of Consumers	NBPDC		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
Domestic	9169299	9169299	7973754	7973754
Kutir Jyoti	1077342	1077342	380,952	380,952
DS I Rural Demand Based	5631932	5631933	3212007	3212007
First 50 Units	2737765	2737765	1578982	1578982
51-100 Units	2894168	2894168	1633025	1633025
DS II Demand Based	2459508	2459507	4380345	4380345
First 100 Units	2057649	2057649	1642952	1642952
Above 200 Units	401858	401858	2737393	2737393
DS III	518	518	450	450
Non-Domestic Service	1860435	1860435	1768966	1768966
NDS I - Demand Based	729034	729034	383914	383915
First 100 Units	334202	334202	138123	138123
Above 200	394832	394832	245792	245792
NDS II - Demand Based	1131402	1131402	1385052	1385051
Contract Demand <0.5 kW	1383	1383	5688	5688
Contract Demand >0.5 kW	1130019	1130019	1379364	1379363
First 100 Units	254650	254650	259584	259584
Above 200 Units	875369	875369	1119779	1119779
Street Light Services	29974	29974	33862	33861
Street Light 1	4782	4782	10591	10591
Street Light 2	25192	25192	23270	23270
Irrigation & Allied Services (IAS)	594646	594646	678249	678249
IAS I	538786	538786	637926	637926
Unmetered	24514	24514	323415	323415
Metered	514272	514272	314511	314511
IAS II	55860	55860	40323	40323
Public Service Connections	175400	175400	122198	122198
Public Water Works	32406	32406	50167	50167
Har Ghar Nal	142994	142994	72031	72031
Low Tension Industrial Services	819641	819641	964942	964942
LTIS I (0-19 kW)	750617	750617	669775	669775
LTIS II (>19 kW - 74 kW)	69024	69024	295167	295167
LT Electric Vehicle Charging Stations	645	645	1950	1950
High Tension – General	509234	509234	1056321	1056321
HTS I - 11 kV	313525	313525	524177	524177
HTS II - 33 kV	111722	111722	322830	322830
HTS III -132 kV	74493	74493	75500	75500
HTS IV - 220 kV	0	0	0	0
HTSS - 33/11 kV	9494	9494	133814	133814
HT-Industrial Services	15217	15217	7003	7003
HTIS (Industrial) – I (11 kV)	1414	1414	0	0
HTIS (Industrial)– II (33 kV)	1111	1111	0	0
HTIS (Industrial) – III (132 kV)	0	0	0	0
HTIS (Industries)-IV (220 kV)	12500	12500	0	0

Category of Consumers	NBPDCCL		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
HTIS (Oxygen Manufacturers)	192	192	7003	7003
Railway Traction Services	60000	60000	94500	94500
HT Electric Vehicle Charging Stations	6048	6048	0	0
Nepal	0	0	0	0
Total	13240538	13240539	12701745	12701744

Energy Sales

The Commission notes that the Petitioners have projected category-wise sales for the year by taking average consumption per consumer per month and multiplying the same to the projected number of consumers. The Commission also notes the submission of the Petitioners wherein they have mentioned that the forecast for FY 2023-24 is based on expected growth relationships to income and price, effect of Demand Side Management and impact of hours of service.

For the purpose of estimation of sales for FY 2023-24, the Commission finds the methodology considered by the Petitioners is acceptable. The Commission has verified the detailed working of sales projections as submitted by Discoms and found them to be in order except for Kutir Jyoti. It is observed that for Kutir Jyoti category NBPDCCL has considered 54.54 units / consumer / month whereas SBPDCL has considered 75.59 units / consumer / month as against the norm of 50 units / consumer / month, for projecting total energy sales for this category. However, the Commission has considered 50 units/ consumer / month for estimating the energy sales for Kutir Jyoti.

Accordingly, the Commission approves sales (MU) for FY 2023-24 as shown in Table below:

Table 5.6: Energy Sales (MU) considered for NBPDCCL & SBPDCL for FY 2023-24 (RE)

Category of Consumers	NBPDCCL		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
Domestic	9038.07	9038.06	8064.08	8064.09
Kutir Jyoti	2815.61	2581.12	1390.70	919.87
DS I Rural Demand Based	4101.05	4335.54	3189.45	3660.28
First 50 Units	1993.58	2228.07	1567.89	2038.72
Above 100 Units	2107.47	2107.47	1621.56	1621.56
DS II Demand Based	2121.04	2121.04	3483.67	3483.67
First 100 Units	1774.48	1774.48	1306.50	1306.50
Above 100 Units	346.56	346.56	2177.17	2177.17

Category of Consumers	NBPDC		SBPDCL	
	Projected by Petitioner	Considered by the Commission	Projected by Petitioner	Considered by the Commission
DS III	0.36	0.36	0.27	0.27
Non-Domestic Service	2053.59	2053.59	1731.96	1731.96
NDS I - Demand Based	712.24	712.24	427.48	427.48
First 100 Units	326.50	326.50	153.80	153.80
Above 100 Units	385.74	385.74	273.68	273.68
NDS II - Demand Based	1341.35	1341.35	1304.48	1304.48
Contract Demand <0.5 kW	2.05	2.05	5.49	5.49
Contract Demand >0.5 kW	1339.31	1339.30	1298.99	1298.99
First 100 Units	301.81	301.81	244.46	244.46
Above 200 Units	1037.49	1037.49	1054.53	1054.53
Street Light Services	119.11	119.12	251.76	251.76
SS Metered	11.68	11.68	66.04	66.04
SS Unmetered	107.44	107.44	185.72	185.72
Irrigation & Allied Services (IAS)	1448.15	1448.14	3984.82	3984.82
IAS I	1352.37	1352.37	3623.49	3623.49
Unmetered	8.69	8.69	843.63	843.63
Metered	1343.68	1343.68	2779.87	2779.87
IAS II	95.77	95.77	361.33	361.33
Public Service Connections	510.35	510.35	441.65	441.65
Public Water Works	41.59	41.59	162.05	162.05
Har Ghar Nal	468.76	468.76	279.6	279.60
Low Tension Industrial Services	502.56	502.57	445.86	445.86
LTIS I (0-19 kW)	463	463.00	302.55	302.55
LTIS II (>19 kW - 74 kW)	39.57	39.57	143.31	143.31
LT Electric Vehicle Charging Station	9.63	9.63	5.20	5.20
High Tension - General	1058	1058.11	2985.61	2985.62
HTS I - 11 kV	615.70	615.70	1,105.22	1,105.22
HTS II - 33 kV	288.10	288.10	778.08	778.08
HTS III -132 kV	111.20	111.20	272.07	272.07
HTS IV - 220 kV	0	0.00	0	0
HTSS- (33kV/11kV)	43.11	43.11	830.25	830.25
HT-Industrial Services	24.00	24.31	9.62	9.62
HTIS (Industrial) – I (11 kV)	2.49	2.49	0	0
HTIS (Industrial)– II (33 kV)	3.47	3.47	0	0
HTIS (Industrial) – III (132 kV)	0	0.00	0	0
HTIS (Industries)-IV (220 kV)	18.25	18.25	0	0
HTIS (Oxygen Manufacturers)	0.10	0.10	9.62	9.62
HT EV charging station	0	0.00	0	0
Railway Traction Services	132.21	132.21	283.51	283.51
HT Electric Vehicle Charging Stations.	22.58	22.58	0	0
Nepal	314.22	314.22	0	0
Total	15232.58	15232.89	18204.07	18204.09

The above category - wise number of consumers, connected load and energy sales considered for FY 2023-24 (RE) are provisional and while truing up for FY 2023-24, the actual figures based on Audited Annual Accounts and prudence check will be considered.

The Discoms are directed to get the category - wise connected load also audited by a 3rd party and exhibit the same in the audited annual accounts of FY 2023-24 along with category -wise number of consumers and energy sales.

5.3. Distribution Losses for FY 2023-24

Petitioners' submission:

The Petitioners have submitted that Government of India, through Ministry of Power introduced "Revamped Distribution Sector Scheme – A Reform based, and Results linked scheme" in July 2021. The scheme is applicable for all the State/UTs Utilities or Power Departments to avail such financial assistance under the revamped scheme. The scheme has a total outlay of Rs 3,03,758 Crores with an estimated gross budgetary support of Rs 97,631 Crores (~32% of total outlay) from the Government of India.

It is submitted that the Petitioners participated in the said scheme and submitted the action plan, DPR of the total project outlay & roadmap for AT&C Loss to the State Government for its approval in the month of March 2022. The Monitoring Committee for RDSS constituted under the Chairmanship of Secretary (Power), Govt of India, in its 9th meeting held on 28.04.2022, has approved the Action Plan and Loss Reduction DPR under Revamped Distribution Sector Scheme. Accordingly, the Monitoring Committee approved the following trajectory for AT&C loss for the Petitioner.

Discom	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%
SBPDCL	35%	31%	25%	20%

Hence, it would be appropriate and realistic for the Discoms that the projections for the AT&C losses be approved by the Commission in line with the trajectory approved in the RDSS.

Accordingly, the Petitioners have requested to consider the below revised projections as shown in Table below:

Table 5.7: Distribution loss, Billing Efficiency and AT&C losses projected by NBPDCCL & SBPDCL for FY 2023-24

Sl. No.	Particular	NBPDCCL		SBPDCL	
		Approved in ARR for FY 2023-24	Projected in APR for FY 2023-24	Approved in ARR for FY 2023-24	Projected in APR for FY 2023-24
1	Distribution loss	15%	16.60%	15.00%	19.91%
2	Billing Efficiency	85%	83.40%	85.00%	80.09%
3	Collection	100%	97.12%	100.00%	93.65%
4	AT&C Losses	15%	19.00%	15.00%	25.00%

Commission's analysis:

The Govt. of India introduced Revamped Distribution Sector Scheme (RDSS) scheme- A reform based and results linked scheme. The DISCOMs have participated in the scheme and submitted the action plan and DPR. The Monitoring Committee for RDSS has approved the action plan and AT&C loss reduction of NBPDCCL and SBPDCL for FY 2021-22 to FY 2024-25 as given in the table below

Table 5.8: AT& C Loss Target Under RDSS Scheme

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%
SBPDCL	35%	31%	25%	20%

The Ministry of Power, Govt of India, vide letter F.No.24/3/3/2019-PFC (MoP)-Part(2)-(E-263367) dated 28.08.2023 and also the Rules issued vide its GSR 558 (E) dated 26th July 2023 stated that the AT&C loss reduction trajectory adopted by the SERC for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government under RDSS and the BERC may adopt the trajectory in accordance with the Rules. Accordingly, the Commission considers the AT&C loss trajectory for FY 2023-24 as specified in the RDSS scheme as given below.

Table 5.9: Distribution and AT& C Loss Target for FY 2023-24

Particulars	NBPDCCL	SBPDCL
Distribution Loss	16.60%	19.91%
Collection Efficiency	97.12%	93.65%
AT&C Loss	19.00%	25.00%

The Commission has considered the Distribution loss at 16.60% and 19.91% for FY 2023-24 for NBPDCCL and SBPDCL respectively for computation of Energy Requirement.

5.4. Transmission Losses for FY 2023-24**Petitioners' submission:**

The Petitioners have considered Transmission Loss of 3.00% for FY 2023-24 as approved by the Commission in its previous Tariff Order.

Commission's analysis:

The Commission observed that, Petitioners claim of Transmission Loss of 3% is in line to the approved Transmission Loss of BSPTCL for FY 2023-24 as approved in Tariff Order dated 23rd March, 2023. Therefore, the Commission has considered the State Transmission loss at 3.00% for FY 2023-24.

5.5. Central Transmission Loss for FY 2023-24**Petitioners' submission:**

The Petitioners have considered transmission Loss of 3.14% as per latest 52 weeks as per <https://posoco.in/side-menu-pages/applicabletransmissionlosses/transmissionlosses-2022-23/> and accordingly requested the Commission to consider the same.

Commission's analysis:

The Commission has considered the CTU loss at 3.14% for FY 2023-24 as projected by the Petitioner. However, while truing up for FY 2023-24 the actual CTU loss based on audited accounts and prudence check will be considered.

5.6. Power Purchase for FY 2023-24**Petitioners' submission:**

The DISCOMs rely on allocation from central generating stations and state projects for procuring power for sale in the state. This power has been proposed to be allocated between North and South Bihar in the proportion as determined by the Board resolution as detailed below.

Bihar State Power Holding Company Ltd (BSPHCL) issued vide its Resolution No.55 - 10 dated 14th July 2017 for approval regarding distribution of power purchase agreement between NBPDCCL and SBPDCL. The notification states that, *"RESOLVED THAT Power Purchase & Transmission charges bills are to be admitted and payment by both DISCOMs i.e. NBPDCCL and SBPDCL in the ratio 46:54 respectively w.e.f.1-4-2017subjected to the final reconciliation of actual consumption"*

RESOLVED FURTHER THAT Chairman cum Managing Director, BSHPCL are here by authorized for deciding the power consumption ratio subsequently as per the actual consumption of both the DISCOMS based on the average consumption of the last 6 months of power drawal of both the DISCOMs i.e. NBPDC & SBPDCL”

NHPC, NTPC & PTC: The power purchase for existing sources has been NTPC, NHPC and PTC has been considered based on the 24 x 7 Power for All (PFA) projection and recent trends of the power plant. The power purchase is further segregated into NBPDC & SBPDCL as per allocation ratio.

Open Market Purchase: Petitioner is currently procuring power from IEX, on the basis of Demand.

New Sources: The power purchase for the new sources has been considered based on the commissioning status received from generators and CEA reports. Some of the new plants that are scheduled for Commissioning in FY 2023-24 are as follows:

Sl. No	Name of Unit	Expected COD	Quantum (MW)	Plant type
1	North Karanpura Unit II	Jan-24	295	Thermal
2	Buxar TPP U1	Mar-24	561	Thermal
3	SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	Mar-24	150	Solar
4	SBE Renewable (SECI Phase-V)	Mar-24	330	Solar
5	SJVN Ltd (BRED)	Nov-23	200	Solar
6	Avada (BRED)	Mar-24	50	Solar

Further the allocation of power from the new projects will be in the ratio of 46:54 for NBPDC & SBPDCL as per the Board resolution.

It is also submitted that for Projecting the Power Purchase Quantum for FY 2023-24, The Petitioner has considered the actual Power Purchase quantum for the period April to September 2023 and projected for remaining months based on the following methodology.

- Share allocation has been considered as per Eastern Regional Power Committee.
- The Plant Load Factor (PLF) for each plant has been considered as per CEA Report- Monthly/Annual Report for existing conventional plants based on

average of average PLF of last 4 years as applicable and the current six months PLF of FY 2023-24. For new and upcoming plants, the minimum technical level PLF of 60% is considered for projection.

- iii). Normative auxiliary consumption provided by Central Electricity Regulatory Commission (CERC) for the Thermal and Hydro plants and the auxiliary consumptions specified for plants.
- iv). For the state plants PLF highest among the PLF norms specified by BERC and the plant wise auxiliary consumption determined by BERC for thermal, and biomass has been considered. For the solar plants CUF has been considered as specified in their respective Power Purchase Agreement/ Power Supply Agreements
- v). Considering the PLF as mentioned above and using the power purchase allocation data mentioned in the above table total number of units purchased were calculated from every source/ plant for every month separately.

The following additional information is submitted vide letter dated 12.12.2023.

- vi). The Commission vide Order dt. 23.06.2023 in Case No. 12/2023 in the matter of “Petition for approval on Procurement of 150 MW Power from Unallocated Quota of various regions on RTC basis in the Month of May 2023” accorded its Regulatory approval on procurement of 150 MW power by Bihar allocated by Ministry of Power, Govt. of India from Unallocated Quota of various regions on RTC basis from 00:00 hrs. of 03.05.2023 to 24:00 hrs. of 31.05.2023. The relevant extract of the Order is as follows:

*“This commission observes that the state of Bihar has made efforts by way of sending request to the MoP for changing the allocation from RTC to peak hour only and seeing no response in this direction, de-allocate the entire 150 MW power thus allocated to it on RTC basis was requested. This was accordingly done by the MoP vide its letter dated 30.05.2023 and no dispatch was done after 31st May 2023. **In between 52.34 MU power was dispatched to Bihar for a total billed amount of Rs. 21.95 Cr.** The average cost of power availed under the aforesaid allocation from 3rd May 2023 to*

31st May 2023 comes to Rs 4.19 per KWh which is less than the average rate of power purchase approved in MYT Tariff order for FY 2023-24.

Considering the facts, figures & circumstances mentioned above, Commission accords its Regulatory approval on procurement of 150 MW power allocated by Ministry of Power, Govt. of India from Unallocated Quota of various regions on RTC basis from 00:00 hrs. of 03.05.2023 to 24:00 hrs. of 31.05.2023. The Petition is accordingly disposed off.”

As above, the Commission approved the power purchased from unallocated quota of 52.34 MU (28.26 MU- SBPDCL and 24.08 MU- NBPDCCL) with power purchase cost of Rs 21.95 Cr (11.85 Cr- SBPDCL and 10.10 Cr- NBPDCCL). Accordingly, the Petitioner has now considered the impact of power purchase from unallocated quota for FY 2023-24.

vii). Further, in compliance to the Commission’s Order dt. 09.11.2023 in the matter of “Petition seeking regulatory approval on Procurement of 107.751 MW and 51.520 MW Power allocated by ERPC, MoP, GoI vide letter dated 20.10.2023 from Farakka-I & II and Kahalgaon-I respectively on RTC basis” wherein the Hon’ble Commission has allowed regulatory approval on procurement of 159.271 MW power (107.751 MW from Farakka STPS Stage I & II units and 51.520 MW from Kahalgaon STPS stage I units of NTPC) on Round The Clock (RTC) basis wef Oct, 2023, the Petitioner has considered the procurement of power from Farakka-I & II and Kahalgaon-I as per the Regulatory approval, i.e., 107.751 MW from Farakka STPS Stage I & II units and 51.520 MW from Kahalgaon STPS stage I units.

The month wise projections data for the months of October 2023 to March 2024 is added to the actuals of April 2023 to September 2023.

Accordingly, the projections of power purchase for FY 2023-24 is tabulated below:

Table 5.10: Power purchase allocation projected by NBPDC & SBPDCL for FY 2023-24

Name of The Source	NBPDC		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Stations injecting at CTU	3,756.51	17,947.64	4,409.82	21,068.96
FSTPP I & II	49.57	883.13	58.19	1,036.72
FSTPP III	44.74	261.36	52.52	306.81
KHSTPP I	23.7	581.28	27.82	682.37
KHSTPP II	29.26	193.31	34.34	226.93
Barh Stage I (Unit I & II)	352.18	1,517.22	413.42	1,781.09
Barh Stage I Unit III	176.09	0.00	206.71	0.00
Barh Stage II	525.9	3,336.39	617.36	3,916.63
Nabinagar (BRBCL)	46	282.03	54	331.08
Talcher Stage I	185.79	1,289.29	218.11	1,513.51
KBUNL Stage II	132.97	866.71	156.1	1,017.45
NPGCL	754.23	4,973.56	885.4	5,838.52
North Karanpura Unit I	136.53	904.4	160.27	1,061.68
North Karanpura Unit II	105.5	175.25	123.85	205.73
North Karanpura Unit III	105.5	0.00	123.85	0.00
Darlipali STPS	148.75	922.03	174.61	1,082.38
Buxar TPP U1	258.06	136.12	302.94	159.8
Buxar TPP U2	258.06	0.00	302.94	0.00
Chuka	42.82	224.76	50.27	263.85
Rangit	10.59	58	12.43	68.09
Tala	119.65	271.34	140.45	318.52
Teesta	49.22	313.51	57.78	368.03
Mangdechu	130.86	731.22	153.61	858.39
Kurichu	1.56	2.66	1.84	3.12
Unallocated power	69	24.08	81	28.26
Stations injecting at STU	356.18	1,238.19	418.12	1,453.53
BSPHC	24.98	14.01	29.32	16.45
BTPS Stage I	101.2	136.78	118.8	160.57
BTPS Stage II	230	1,087.40	270	1,276.51
IPPs	224.48	1,606.84	263.52	1,886.29
GMR	119.6	862.5	140.4	1,012.50
JITPL	104.88	744.34	123.12	873.79
Renewables	1,560.87	2,193.06	1,832.33	2,575.46
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.6	7.42	5.4	8.71
M/s Response renewable Energy Ltd, Kolkata.	4.6	8.01	5.4	9.4
M/s Avantika Contractors Ltd., Hyderabad	2.3	3.5	2.7	4.11
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.38	1.62	2.8
Alfa Infraprop Pvt. Ltd.	9.2	15.13	10.8	17.76
Udipta Energy & Equipment Pvt. Ltd.	2.3	3.63	2.7	4.27
Azure Power India Pvt. Ltd.	4.6	7.21	5.4	8.46
Welspun Renewables Project – I	4.6	7.29	5.4	8.55

Name of The Source	NBPDCCL		SBPDCL	
	Share allocated (MW)	Units purchased (MU)	Share allocated (MW)	Units purchased (MU)
Welspun Renewables Project – II	6.9	11.01	8.1	12.92
Welspun Renewables Project – III	6.9	11	8.1	12.92
Acme Cleantech Project (Nalanda)	6.9	10.9	8.1	13.8
Acme Cleantech Project (Magadh)	4.6	7.5	5.4	8.8
SECI (Focal)	4.6	8.72	5.4	10.23
SECI Phase-III (Renew Sunwaves)	138	350.12	162	411.01
SB Energy Six Pvt. Ltd. (NTPC)	138	342.92	162	402.56
GRT Jewellers (SECI-V)	69	139.24	81	163.46
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92	246.45	108	289.31
Wind ISTS Scheme Tranche II (SECI) (Orange)	46	141.24	54	165.8
Avada (BREDA), Dharbhanga	0.74	1.13	0.86	1.33
SECI Green Infra	46	154.42	54	181.27
Alfanar	23	75.98	27	89.2
Betam	23.09	73.96	27.11	86.83
Ostro Kannad	138	362.02	162	424.98
Morjar Windfarm	23	58.42	27	68.58
SBE Renewable (SECI Phase-V)	151.8	0.00	178.2	0.00
SJVN Ltd (BREDA)	92	58.34	108	68.48
Avada (BREDA)	23	0.00	27	0.00
Adani Green Energy	276	0.00	324	0.00
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.6	0.00	113.4	0.00
New Swadeshi Sugar Mill, Narkataganj	4.6	9.01	5.4	10.58
Hasanpur Sugar Mill, Dalsinghsarai	6.67	15.39	7.83	18.07
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.9	14.74	8.1	17.31
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.32	7.83	22.68
HPCL Biofuels Ltd., Sugauli, East Champaran	9.2	7.16	10.8	8.4
HPCL Biofuels Ltd., Lauria, West Champaran	9.2	7.82	10.8	9.18
Riga Sugar Company Ltd.	1.38	0.00	1.62	0.00
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	-0.03	0.54	-0.04
Bihar Distillers & Bottlers Pvt Ltd	4.32	5.38	5.08	6.31
Tirupati Sugar	2.76	6.34	3.24	7.44
Others	0.00	290.47	0.00	340.98
PTC(IEX)	0.00	281.05	0.00	329.93
GTAM IEX	0.00	9.42	0.00	11.05
Total	5,898.04	*23,276.19	6,923.79	*27,325.21

*Figures revised in the additional submission

Commission's analysis:**Power Purchase Quantum**

From the Energy Balance Table 5.13 it is observed that NBPDCCL has sold 3901.36 MU and SBPDCL has proposed to sell 3132.06 MU which is surplus at an average rate of Rs. 5 Per kWh.

The Commission has compared the power purchase projected by the Petitioners from various sources for FY 2023-24 (RE) with the Power Purchase approved for FY 2023-24 in Tariff Order dated 23rd March, 2023 as detailed in the Table below:

Table 5.11: Comparison of Power Purchase as claimed by petitioner for FY 2023-24

Name of the Discom	Power Purchase approved in T.O. dated 23.03.2023	Power Purchase projected in present Petition	(MU)
			Power Purchase Excluding Surplus Power Sales
NBPDCCL	18297.32	23276.19	19374.43
SBPDCL	20747.74	27325.21	24193.15
Total	39045.06	50601.40	43567.58

The above variations are mainly due to the reason that in previous Tariff Orders the power purchase requirement for entire year was based on the estimation. Whereas, in APR of FY 2023-24, the same has been determined based on the six-month actual data and six-month projections in line with the Regulation 14.1 (d) of the BERC (Multi Year Distribution Tariff) Regulations, 2021.

For Projecting the Power Purchase for FY 2023-24, the Petitioners have considered the actual Power Purchase quantum for the period April 2023 to September 2023 and projected for remaining months based on the following methodology:

The Commission has noted from the Energy Balance (Table 5.13) as projected by Discoms, that there will be a surplus Energy of 3901.76 MU for NBPDCCL and 3132.06 MU for SBPDCL.

The Commission has noted from the computation of power purchase quantum from various sources, Bihar's allocation of power (MW) from various Central Sector Sources as shown in the MoP communication vide No. ERPC/Comm-1/Gen/Share/2023-24/108, dated 20.10.2023.

The power availability from various sources for FY 2023-24 has been worked out by

the Commission, based on the PLF and auxiliary consumption as estimated by the Petitioner.

Table 5.12: Power Purchase Availability considered by the Commission for NBPDCCL & SBPDCL for FY 2023-24

(MU)						
Sl. No	Particulars	Bihar share allocation (MW)	Avg. PLF %	Energy (MU)	SBPDCL (54%)	NBPDCCL (46%)
I	Stations with injection at CTU	7087.14		37063.00	20014.02	17048.99
1	FSTPP I & II	107.75	62.37	590.32	318.77	271.55
2	FSTPP III	97.23	66.69	569.59	307.58	262.01
3	KHSTPP I	51.52	67.78	306.74	165.64	141.10
4	KHSTPP II	63.67	75.43	421.84	227.80	194.05
5	Barh Stage I Unit I & II	791.92	49.18	3421.08	1847.38	1573.69
6	Barh Stage II	1143.30	72.50	7280.99	3931.73	3349.26
7	Nabinagar (BRBCL)	100.00	69.99	614.79	331.99	282.80
8	Talcher Stage I	403.90	79.22	2810.61	1517.73	1292.88
9	KBUNL Stage II	289.07	74.41	1889.40	1020.28	869.12
10	NPGCL	1639.57	75.28	10841.81	5854.58	4987.23
11	North Karanpura Unit I	296.82	75.62	1971.59	1064.66	906.93
12	North Karanpura Unit II	296.82	18.96	494.33	266.94	227.39
13	Buxar Unit-I	561.00	85%	295.92	159.80	136.12
14	Darlipali STPS	323.42	70.76	2010.21	1085.52	924.70
15	Chuka	93.11	59.91	489.97	264.58	225.39
16	Rangit	23.02	62.52	126.44	68.28	58.16
17	Tala	260.10	25.89	591.51	319.42	272.10
18	Teesta	107.01	72.71	683.45	369.06	314.39
19	Mangdechhu	284.52	63.79	1594.26	860.90	733.36
20	Kurichu	3.41	19.43	5.81	3.14	2.67
21	Un-allocated power	150.00		52.34	28.26	24.08
II	Stations with injection at STU	774.30		2699.07	1457.50	1241.57
1	BSPHC	54.30	6.40	30.53	16.48	14.04
2	BTPS Stage I	220.00	15.43	298.18	161.02	137.16
3	BTPS Stage II	500.00	53.97	2370.36	1280.00	1090.37
III	IPPs	488.00		3502.69	1891.45	1611.24
1	GMR	260.00	82.32	1880.06	1015.23	864.83
2	JITPL	228.00	81.02	1622.63	876.22	746.41
IV	Renewables	2050.20		4418.26	2385.86	2032.40
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	10.00	18.41	16.17	8.73	7.44
2	M/s Response renewable Energy Ltd, Kolkata.	10.00	19.87	17.45	9.43	8.03
3	M/s Avantika Contractors Ltd., Hyderabad	5.00	17.37	7.63	4.12	3.51
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	3.00	19.73	5.20	2.81	2.39
5	Alfa Infraprop Pvt. Ltd.	20.00	18.77	32.98	17.81	15.17

Sl. No	Particulars	Bihar share allocation (MW)	Avg. PLF %	Energy (MU)	SBPDCL (54%)	NBPDCCL (46%)
6	Udipta Energy & Equipment Pvt. Ltd.	5.00	18.04	7.92	4.28	3.64
7	Azure Power India Pvt. Ltd.	10.00	17.89	15.71	8.49	7.23
8	Welspun Renewables Project - I	10.00	18.08	15.88	8.58	7.31
9	Welspun Renewables Project – II	15.00	18.21	23.99	12.96	11.04
10	Welspun Renewables Project – III	15.00	18.20	23.98	12.95	11.03
11	Acme Cleantech Project (Nalanda)	15.00	18.03	23.76	12.83	10.93
12	Acme Cleantech Project (Magadh)	10.00	18.60	16.34	8.82	7.52
13	SECI (Focal)	10.00	21.63	19.00	10.26	8.74
14	SECI Phase-III (Renew Sunwaves)	300.00	28.96	763.15	412.10	351.05
15	SB Energy Six Pvt. Ltd (NTPC)	300.00	28.37	747.61	403.71	343.90
16	GRT Jewellers (SECI-V)	150.00	23.04	303.58	163.93	139.64
17	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	200.00	30.58	537.23	290.10	247.13
18	Wind ISTS Scheme Tranche II (SECI) (Orange)	100.00	35.05	307.88	166.25	141.62
19	Avada (BREDA) Dharbhanga	1.60	17.54	2.47	1.33	1.13
20	SECI Green Infra	100.00	12.77	112.17	60.57	51.60
21	Alfanar	50.00	6.29	27.63	14.92	12.71
22	Betam	50.20	36.56	161.21	87.06	74.16
23	SECI phase-VI Wind					
24	Ostro Kannad	300.00	29.95	789.24	426.19	363.05
25	Morjar Windfarm	50.00	28.99	127.32	68.76	58.57
26	SBE Renewable (SECI Phase-V)	0.00	0.00	0.00	0.00	0.00
27	SJVN Ltd (BREDA)	200.00	7.24	127.19	68.68	58.51
28	New Swadeshi Sugar Mill, Narkataganj	10.00	22.37	19.65	10.61	9.04
29	Hasanpur Sugar Mill, Dalsinghsarai	14.50	26.35	33.56	18.12	15.44
30	Bharat Sugar Mills, Sidhwalia, Gopalganj	15.00	24.39	32.14	17.35	14.78
31	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	14.50	33.06	42.11	22.74	19.37
32	HPCL Biofuels Ltd., Sugauli, East Champaran	20.00	8.88	15.60	8.42	7.18
33	HPCL Biofuels Ltd., Lauria, West Champaran	20.00	9.70	17.04	9.20	7.84
34	Siddhashram Rice Mill Cluster Pvt Ltd	1.00	-0.84	-0.07	-0.04	-0.03
35	Bihar Distillers & Bottlers Pvt Ltd	9.40	14.20	11.72	6.33	5.39
36	Tirupati Sugar	6.00	26.22	13.82	7.46	6.36
V	Others	0.00	0.00	631.45	340.98	290.47
1	PTC(IEX)			610.98	329.93	281.05
2	GTAM IEX			20.47	11.05	9.42
	TOTAL	10399.64		48314.47	26089.81	22224.66

5.7. Energy Balance for FY 2023-24

Petitioners' submission:

Based on elements such as sales, losses and power availability, the Petitioners submitted the revised energy balance projected for FY 2022-23 as under:

Table 5.13: Energy Balance Projected by NBPDCCL & SBPDCL for FY 2024-25

Sl. No	Particulars	Unit	NBPDCCL	SBPDCL
A	Energy Requirement			
1	Energy sales	MU	15,232.89	18,204.07
2	Less: Inter-state sales	MU	314.22	
3	Energy sales excluding Inter-state sales	MU	14,918.67	18,204.07
4	Distribution Loss	%	16.60%	19.91%
5	Add: Distribution Loss	MU	2,969.42	4,525.45
6	Energy required at Distribution periphery	MU	17,888.09	22,729.52
7	Add: Inter-state sales	MU	314.22	-
8	Total energy required at Distribution periphery	MU	18,202.31	22,729.52
9	State Transmission Loss	%	3.00%	3.00%
10	Add: State Transmission Loss	MU	562.96	702.97
11	Total energy required at State Transmission Periphery	MU	18,765.27	23,432.50
12	Losses in Regional Transmission system	%	3.14%	3.14%
13	Losses in Regional Transmission system	MU	609.16	760.66
14	Total Energy Requirement at ex-bus	MU	19,374.43	24,193.16
15	Total energy Purchased (inc surplus power)	MU	*23276.19	*27,325.22
16	Energy Surplus/(Deficit) at State Periphery	MU	*3901.76	*3132.06

*Figures revised in the additional submission

Discoms have proposed to sell the above shown surplus power at Rs. 5.00/kWh and the revenue from the surplus power has been reduced from ARR. NBPDCCL has shown Rs. 1950.88 Crore and SBPDCL has shown Rs. 1566.03 Crore revenue from sales of surplus power.

Commission's analysis:

The Commission observed that both NBPDCCL and SBPDCL have projected higher power purchase requirement for FY 2023-24 resulting in surplus energy availability as shown in the above table.

The Energy Balance for FY 2023-24 has been computed based on the approved energy sales for FY 2023-24 and revised power availability considered in the Table 5.12 in this Order.

Distribution loss has been considered at 16.60% and 19.91% for NBPDCCL and SBPDCL respectively as projected by the Discoms for FY 2023-24. Further, Energy required at State transmission periphery is computed based on the intra- State Transmission loss

of 3.00% as approved in paras 5.4 above. The Central Transmission loss has been considered based on the CTU losses approved at 3.14% in paras 5.5 above.

The details of energy requirement, energy availability and surplus energy during FY 2023-24 are as given in the Table below:

Table 5.14:Energy Balance for FY 2023-24 as considered by the Commission

Sl. No	Particulars	Unit	NBPDCCL (MU)	SBPDCL (MU)
A	Energy Requirement			
1	Energy sales (Excluding surplus power sales)	MU	15232.89	18204.09
2	Less: Inter-state sales (including banking)	MU	314.22	0.00
3	Energy sales excluding Inter-state sales	MU	14918.67	18204.09
4	Distribution Loss	%	16.60%	19.91%
5	Add: Distribution Loss	MU	2969.42	4525.45
6	Total energy required at Distribution periphery	MU	17888.10	22729.54
7	Add: Inter-state sales	MU	314.22	0.00
8	Total energy required at Distribution periphery	MU	18202.32	22729.54
9	State Transmission Loss	%	0.03	0.03
10	Add: State Transmission Loss	MU	546.07	681.89
11	Total energy required at State Transmission Periphery	MU	18765.27	23432.52
12	CTU losses	%	3.14%	3.14%
13	CTU Losses	MU	608.33	759.63
14	Total energy requirement at Ex-Bus	MU	19373.60	24192.15
15	Total Energy Purchased	MU	22224.66	26089.81
16	Surplus/ (Deficit)	MU	2851.06	1897.66

Both the Discoms have proposed to sell the surplus power considering the rate at Rs. 5.00 / kWh and the corresponding revenue from this surplus power has been deducted from the net ARR. Commission has considered the same and arrived at the revenue from sale of above shown surplus power at Rs. 1425.53 Crore for NBPDCCL and at Rs. 948.83 Crores for SBPDCL.

5.8. Power Purchase Cost for FY 2023-24

Petitioners' submission:

The Petitioners have submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two-part Tariff stations i.e. NTPC, NHPC & PTC. The energy charges and fixed cost for these power stations are considered based on actual 6 months data for FY 2023-24:

Further, SBPDCL has submitted as follows;

The MoP has accepted there is sharp increase in electricity demand some areas and the country is facing power shortage. There is a gap between the requirement of coal and the supply of coal, because of which the coal stock at the generating stations is depleting at a worrisome rate. And the gap in demand and supply of domestic coal is anticipated to continue in next few months. To fulfil the requirement of coal the MoP allowed imported coal for blending by such domestic coal-based power plant up to 31.03.2023.

Further, due to variable monsoon rainfall in H1 of FY 2023-24 compared to the corresponding period of FY 2022-23, hydro generation has dropped by almost 11%. Accordingly, the Petitioner has considered the impact of increase in variable cost of the Plants due to coal blending while determining the power purchase cost in FY 2023-24 and FY 2024-25 in this Tariff Petition.

The Petitioner has considered the actual fixed cost as prevailing in FY 2022-23 for existing power stations and has considered 4% increase on the same to arrive at the fixed charges for FY 2023-24.

Further, as there has been increase in Variable cost of the plants due to coal blending allowed by the Ministry of Power as explained above, 10% increase in the Variable cost has been considered in FY 2023-24 over the variable charges for FY 2022-23. Transmission charges for FY 2023-24 have been considered with 10% increase over the transmission charges for FY 2022-23.

Petitioner has considered the new plants as per information available with the Petitioner. The new plants for which cost details are not available, the cost break-up of similar capacity plants has been considered for projection.

NBPDCCL has submitted as below;

Due to the impact of coal blending the variable cost of the Thermal Power Plants increased upto as high as 50% with respect to the cost prevailing in April. Further, the variable cost continues to increase at a much higher rate for Quarter-II of FY 2022-23 as compared to Q-I.

Transmission charges have been increased 10% with respect to that approved by the Hon'ble Commission for FY 23-24 in MYT Order dated 23.03.2023.

The new plants for which cost details are not available, the cost break-up of similar capacity plants has been considered for projection.

Power purchase cost projection submitted by NBPDCCL and SBPDCL for APR period FY 2023-24 (revised in additional submission) is summarized as shown in Table below:

Table 5.15: Power Purchase Cost Projected by NBPDCCL for FY 2023-24

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Avg Cost (Rs/kWh)
Stations injecting at CTU	3,756.51	17,947.64	3,605.60	5,053.20	164.88	8,823.68	4.92
FSTPP I & II	49.57	883.13	79.44	306.75	66.18	452.37	5.12
FSTPP III	44.74	261.36	47.35	87.07	3.43	137.85	5.27
KHSTPP I	23.7	581.28	60.81	191.63	6.02	258.46	4.45
KHSTPP II	29.26	193.31	18.16	61.79	0.79	80.73	4.18
Barh Stage I (Unit I & II)	352.18	1,517.22	374.57	488.66	7.79	871.03	5.74
Barh Stage I Unit III	176.09	0	95.97	0	0	95.97	0
Barh Stage II	525.9	3,336.39	702.59	1,186.39	22.99	1,911.96	5.73
Nabinagar (BRBCL)	46	282.03	69.7	85.76	-0.03	155.43	5.51
Talcher Stage I	185.79	1,289.29	126.8	263.93	14.99	405.73	3.15
KBUNL Stage II	132.97	866.71	242.77	261.46	-14.74	489.48	5.65
NPGCL	754.23	4,973.56	1,150.67	1,286.52	24.18	2,461.38	4.95
North Karanpura Unit I	136.53	904.4	114.2	179.76	12.83	306.79	3.39
North Karanpura Unit II	105.50	175.25	7.58	25.8	0	33.38	1.9
North Karanpura Unit III	105.50	0	7.58	0	0	7.58	
Darlipali STPS	148.75	922.03	130.26	100.92	14.03	245.21	2.66
Buxar TPP U1	258.06	136.12	140.64	45.76	0	186.4	13.69
Buxar TPP U2	258.06	0	179.51	0	0	179.51	
Chuka	42.82	224.76	0	53.98	0	53.98	2.4
Rangit	10.59	58	11.87	11.57	0.01	23.45	4.04
Tala	119.65	271.34	0	61.59	0	61.59	2.27
Teesta	49.22	313.51	35.91	36.43	0.05	72.39	2.31
Mangdechhu	130.86	731.22	0	306.38	0	306.38	4.19
Kurichu	1.56	2.66	9.22	0.46	6.35	16.04	60.26

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Avg Cost (Rs/kWh)
Prior period adjustment	0	0	0	10.61	0	10.61	
Unallocated power	69.00	24.08					
Stations injecting at STU	356.18	1,238.19	292.36	389.52	13.03	694.91	5.61
BSPHC	24.98	14.01	9.22	3.49	12.71	25.42	18.14
BTPS Stage I	101.20	136.78	7.52	67.91	0.08	75.51	5.52
BTPS Stage II	230	1,087.40	275.62	318.12	0.24	593.98	5.46
IPPs	224.48	1,606.84	393.77	208.53	50.43	652.73	4.06
GMR	119.60	862.5	158.28	122.53	75.02	355.83	4.13
JITPL	104.88	744.34	235.5	86	-24.59	296.9	3.99
Renewables	1,560.87	2,193.06	0	656.51	0	656.51	2.99
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.60	7.42	0	5.21	0	5.21	7.02
M/s Response renewable Energy Ltd, Kolkata.	4.60	8.01	0	5.62	0	5.62	7.02
M/s Avantika Contractors Ltd., Hyderabad	2.30	3.5	0	2.69	0	2.69	7.69
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.38	0	1.68	0	1.68	7.03
Alfa Infraprop Pvt. Ltd.	9.20	15.13	0	11.9	0	11.9	7.87
Udipta Energy & Equipment Pvt. Ltd.	2.30	3.63	0	2.9	0	2.9	7.98
Azure Power India Pvt. Ltd.	4.60	7.21	0	6.05	0	6.05	8.39
Welspun Renewables Project - I	4.60	7.29	0	6.34	0	6.34	8.7
Welspun Renewables Project – II	6.90	11.01	0	9.51	0	9.51	8.64
Welspun Renewables Project – III	6.90	11	0	9.42	0	9.42	8.56
Acme Cleantech Project (Nalanda)	6.90	10.9	0	9.52	0	9.52	8.73
Acme Cleantech	4.60	7.5	0	6.55	0	6.55	8.73

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Avg Cost (Rs/kWh)
Project (Magadh)							
SECI (Focal)	4.60	8.72	0	5.15		5.15	5.91
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	69.00	0	0	0	0	0	
SECI Phase-III (Renew Sunwaves)	138.00	350.12	0	96.09	0	96.09	2.74
SB Energy Six Pvt. Ltd. (NTPC)	138.00	342.92	0	91.56	0	91.56	2.67
GRT Jewellers (SECI-V)	69.00	139.24	0	33.04	0	33.04	2.37
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92.00	246.45	0	85.06	0	85.06	3.45
Wind ISTS Scheme Tranche II (SECI) (Orange)	46.00	141.24	0	38.28	0	38.28	2.71
Avada (BREDA), Dharbhanga	0.74	1.13	0	0.47	0	0.47	4.15
SECI Green Infra	46.00	154.42	0	38.76	0	38.76	2.51
Alfanar	23.00	75.98	0	19.15	0	19.15	2.52
Betam	23.09	73.96	0	18.64	0	18.64	2.52
Ostro Kannad	138.00	362.02	0	79.1	0	79.1	2.19
Morjar Windfarm	23.00	58.42	0	9.1	0	9.1	1.56
SBE Renewable (SECI Phase-V)	151.8	0	0	0	0	0	
SJVN Ltd (BREDA)	92	58.34	0	18.14	0	18.14	3.11
Avada (BREDA)	23	0	0	0	0	0	
Adani Green Energy	276	0	0	0	0	0	
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.6	0	0	0	0	0	
New Swadeshi Sugar Mill, Narkataganj	4.6	9.01	0	4.63	0	4.63	5.14
Hasanpur Sugar Mill, Dalsinghsarai	6.67	15.39	0	9.56	0	9.56	6.21
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.9	14.74	0	7.57	0	7.57	5.14

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Avg Cost (Rs/kWh)
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.32	0	9.85	0	9.85	5.1
HPCL Biofuels Ltd., Sugauli, East Champaran	9.2	7.16	0	3.56	0	3.56	4.97
HPCL Biofuels Ltd., Lauria, West Champaran	9.2	7.82	0	3.98	0	3.98	5.09
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	-0.03	0	-0.03	0	-0.03	8.05
Bihar Distillers & Bottlers Pvt Ltd	4.32	5.38	0	3.44	0	3.44	6.4
Tirupati Sugar	2.76	6.34	0	4.02	0	4.02	6.35
Others	0	290.47	0	291	0	291	10.02
PTC(IEX)	0	281.05	0	284.2	0	284.2	10.11
GTAM IEX	0	9.42	0	6.8	0	6.8	7.22
Prior Period Expenses		0			0		
UPPCL		0			0		
NEA	0	0	0	0	0	0	
UI	0	0	0	0	0	0	
PTC JITPL		0	0	0	0	0	
PTC SKS Power		0		0	0	0	
Transmission and Other Charges	0	0	1,868.70	0	0	1,868.70	
SLDC	0	0	2.5	0	0	2.5	
BGCL	0	0	88.36	0	0	88.36	
BSPTCL	0	0	615.73	0	0	615.73	
POSOCO	0	0	4.68	0	0	4.68	
Pr Pd PGCIL	0	0			0		
PGCIL	0	0	1,157.42	0	0	1,157.42	
Total	5,898.04	23,276.19	6,160.44	6,598.77	228.33	12,987.54	5.58

Table 5.16: Power Purchase Cost Projected by SBPDCL for FY 2023-24

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
Stations injecting at CTU	4,409.82	21,068.96	4,232.66	5,932.02	193.55	10,358.24	4.92
FSTPP I & II	58.19	1,036.72	93.25	360.1	77.68	531.04	5.12
FSTPP III	52.52	306.81	55.59	102.21	4.03	161.82	5.27
KHSTPP I	27.82	682.37	71.39	224.96	7.07	303.41	4.45

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
KHSTPP II	34.34	226.93	21.32	72.53	0.93	94.77	4.18
Barh Stage I (Unit I & II)	413.42	1,781.09	439.72	573.65	9.15	1,022.51	5.74
Barh Stage I Unit III	206.71	0	112.66	0	0	112.66	
Barh Stage II	617.36	3,916.63	824.78	1,392.71	26.98	2,244.48	5.73
Nabinagar (BRBCL)	54	331.08	81.82	100.67	-0.04	182.46	5.51
Talcher Stage I	218.11	1,513.51	148.85	309.83	17.6	476.29	3.15
KBUNL Stage II	156.1	1,017.45	284.99	306.93	-17.31	574.61	5.65
NPGCL	885.4	5,838.52	1,350.79	1,510.26	28.39	2,889.44	4.95
North Karanpura Unit I	160.27	1,061.68	134.07	211.02	15.06	360.14	3.39
North Karanpura Unit II	123.85	205.73	8.9	30.28	0	39.18	1.9
North Karanpura Unit III	123.85	0	8.9	0	0	8.9	
Darlipali STPS	174.61	1,082.38	152.91	118.47	16.47	287.86	2.66
Buxar TPP U1	302.94	159.8	165.1	53.72	0	218.82	13.69
Buxar TPP U2	302.94	0	210.72	0	0	210.72	
Chuka	50.27	263.85	0	63.37	0	63.37	2.4
Rangit	12.43	68.09	13.93	13.58	0.01	27.52	4.04
Tala	140.45	318.52	0	72.3	0	72.3	2.27
Teesta	57.78	368.03	42.15	42.77	0.06	84.98	2.31
Mangdechu	153.61	858.39	0	359.66	0	359.66	4.19
Kurichu	1.84	3.12	10.82	0.54	7.46	18.83	60.26
Prior period adjustment	0	0	0		0	0	
Unallocated power	81	28.26	0	12.45	0	12.45	4.41
Stations injecting at STU	418.12	1,453.53	343.21	457.27	15.29	815.77	5.61
BSPHC	29.32	16.45	10.82	4.1	14.92	29.84	18.14
BTPS Stage I	118.8	160.57	8.83	79.72	0.09	88.65	5.52
BTPS Stage II	270	1,276.51	323.55	373.45	0.28	697.28	5.46
			0		0	0	
IPPs	263.52	1,886.29	462.26	244.8	59.2	766.25	4.06
GMR	140.4	1,012.50	185.8	143.84	88.07	417.71	4.13
JITPL	123.12	873.79	276.45	100.96	-28.87	348.54	3.99
Renewables	1,832.33	2,575.46	0	770.68	0	770.68	2.99
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	5.4	8.71	0	6.11	0	6.11	7.02
M/s Response renewable Energy Ltd, Kolkata.	5.4	9.4	0	6.6	0	6.6	7.02
M/s Avantika Contractors Ltd., Hyderabad	2.7	4.11	0	3.16	0	3.16	7.69
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.62	2.8	0	1.97	0	1.97	7.03
Alfa Infraprop Pvt. Ltd.	10.8	17.76	0	13.97	0	13.97	7.87
Udipta Energy & Equipment Pvt. Ltd.	2.7	4.27	0	3.4	0	3.4	7.98

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
Azure Power India Pvt. Ltd.	5.4	8.46	0	7.1	0	7.1	8.39
Welspun Renewables Project – I	5.4	8.55	0	7.44	0	7.44	8.7
Welspun Renewables Project – II	8.1	12.92	0	11.17	0	11.17	8.64
Welspun Renewables Project – III	8.1	12.92	0	11.05	0	11.05	8.56
Acme Cleantech Project (Nalanda)	8.1	13.8	0	11.17	0	11.17	8.1
Acme Cleantech Project (Magadh)	5.4	8.8	0	7.68	0	7.68	8.73
SECI (Focal)	5.4	10.23	0	6.05		6.05	5.91
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	81	0	0	0	0	0	
SECI Phase-III (Renew Sunwaves)	162	411.01	0	112.8	0	112.8	2.74
SB Energy Six Pvt. Ltd. (NTPC)	162	402.56	0	107.48	0	107.48	2.67
GRT Jewellers (SECI-V)	81	163.46	0	38.79	0	38.79	2.37
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	108	289.31	0	99.86	0	99.86	3.45
Wind ISTS Scheme Tranche II (SECI) (Orange)	54	165.8	0	44.93	0	44.93	2.71
SECI Phase-III Wind	0.86	1.33	0	0.55	0	0.55	4.15
SECI Green Infra	54	181.27	0	45.5	0	45.5	2.51
Alfanar	27	89.2	0	22.48	0	22.48	2.52
Betam	27.11	86.83	0	21.88	0	21.88	2.52
SECI Phase-VI Wind	0	0	0	0	0	0	
Ostro Kannad	162	424.98	0	92.86	0	92.86	2.19
Morjar Windfarm	27	68.58	0	10.69	0	10.69	1.56
SBE Renewable (SECI Phase-V)	178.2	0	0	0	0	0	
SJVN Ltd (BREDA)	108	68.48	0	21.3	0	21.3	3.11
Avada (BREDA)	27	0	0	0	0	0	
Adani Green Energy	324	0	0	0	0	0	
Greenko Energy Pvt. Ltd. (SECI Hybrid)	113.4	0	0	0	0	0	
New Swadeshi Sugar Mill, Narkataganj	5.4	10.58	0	5.44	0	5.44	5.14
Hasanpur Sugar Mill, Dalsinghsarai	7.83	18.07	0	11.22	0	11.22	6.21
Bharat Sugar Mills, Sidhwalia, Gopalganj	8.1	17.31	0	8.89	0	8.89	5.14
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	7.83	22.68	0	11.56	0	11.56	5.1
HPCL Biofuels Ltd., Sugauli, East Champaran	10.8	8.4	0	4.18	0	4.18	4.97

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misc cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
HPCL Biofuels Ltd., Lauria, West Champaran	10.8	9.18	0	4.67	0	4.67	5.09
Siddhashram Rice Mill Cluster Pvt Ltd	0.54	-0.04	0	-0.03	0	-0.03	8.05
Bihar Distillers & Bottlers Pvt Ltd	5.08	6.31	0	4.04	0	4.04	6.4
Tirupati Sugar	3.24	7.44	0	4.72	0	4.72	6.35
Others	0	340.98	0	341.61	0	341.61	10.02
PTC(IEX)	0	329.93		333.62		333.62	10.11
GTAM IEX	0	11.05	0	7.98		7.98	7.22
Prior Period Expenses	0	0					
UPPCL	0	0					
NEA	0	0	0	0		0	
UI	0	0	0	0		0	
PTC JITPL		0	0	0		0	
PTC SKS Power			0	0		0	
Transmission and Other Charges			2,193.69			2,193.69	
SLDC			2.94			2.94	
BGCL			103.72			103.72	
BSPTCL			722.82			722.82	
POSO			5.5			5.5	
Prior Period Transmission charges			0			0	
PGCIL			1,358.72			1,358.72	
Total	6,923.79	27,325.21	7,231.82	7,746.38	268.04	15,246.24	5.58

Commissions analysis

Petitioners have provided detailed estimate of power purchase quantum and cost from various sources showing fixed costs, energy costs and other costs in Format -5 of the Petition.

On a query from the Commission, the Petitioners have clarified in the additional information submitted as to how the fixed costs and energy costs are projected for FY 2023-24 as below;

10% increase in Variable charges has been considered over the actual six months' cost of FY 2023-24 and 4% increase in fixed charges has been considered over the actual fixed cost of FY 2022-23.

Further, in view of the change in methodology of computation of Transmission charges have been increased 10% with respect to that approved by the Commission for FY 2023-24 in MYT Order dated 23.03.2023.

The details of new plants have been considered as per information available with the Petitioner.

For all sources, the fixed costs and miscellaneous costs are considered as projected by the petitioners.

The variable charges are considered as projected by the petitioners.

For renewable energy sources, the energy rates are considered as projected by the Petitioner which are as per the PPAs.

The Commission has computed the quantum (MUs) and cost (Rs. Crore) of power purchase as shown in the Tables below. However, the actual power purchase cost for FY 2023-24 for NBPDCL & SBPDCL will be considered at actual as per audited annual accounts and prudence check while truing up of ARR for FY 2023-24 in next Tariff Order.

Table 5.17: Power Purchase Cost for NBPDC for FY 2023-24 as computed by Commission.

Sl. No	Particulars	Share allocation (MW)	Units approved NBPDC (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
I	Stations with injection at CTU	3563.02	17048.99	3322.54		4733.53	164.87	8220.94	4.82
1	FSTPP I & II	49.57	271.55	79.44	3.47	94.35	66.18	239.97	8.84
2	FSTPP III	44.73	262.01	47.35	3.33	87.28	3.43	138.06	5.27
3	KHSTPP I	23.70	141.10	60.81	3.30	46.52	6.02	113.35	8.03
4	KHSTPP II	29.29	194.05	18.16	3.20	62.02	0.79	80.97	4.17
5	Barh Stage I Unit I & II	364.28	1573.69	374.57	3.22	506.86	7.79	889.22	5.65
6	Barh Stage II	525.92	3349.26	702.59	3.56	1191.03	22.99	1916.61	5.72
7	Nabinagar (BRBCL)	46.00	282.80	69.70	3.04	85.99	-0.03	155.66	5.50
8	Talcher Stage I	185.79	1292.88	126.80	2.05	264.67	14.99	406.46	3.14
9	KBUNL Stage II	132.97	869.12	242.77	3.02	262.19	-14.74	490.22	5.64
10	NPGCL	754.20	4987.23	1150.67	2.59	1290.05	24.18	2464.90	4.94
11	North Karanpura Unit I	136.54	906.93	114.20	1.99	180.26	12.83	307.29	3.39
12	North Karanpura Unit II	136.54	227.39	7.58	1.47	33.47	0.00	41.05	1.81
13	Darlipali STPS	148.77	924.70	130.26	1.09	101.22	14.03	245.51	2.66
14	Buxar TPP Unit-I	561.00	136.12	140.64	3.36	45.76		186.40	13.69
15	Chuka	42.83	225.39	0.00	2.40	54.13	0.00	54.13	2.40
16	Rangit	10.59	58.16	11.87	1.99	11.60	0.01	23.48	4.04
17	Tala	119.65	272.10	0.00	2.27	61.77	0.00	61.77	2.27
18	Teesta	49.22	314.39	35.91	1.16	36.53	0.05	72.49	2.31
19	Mangdechu	130.88	733.36	0.00	4.19	307.28	0.00	307.28	4.19
20	Kurichu	1.57	2.67	9.22	1.74	0.47	6.35	16.04	59.97
21	Un-allocated power	69.00	24.08			10.10		10.10	4.19
II	Stations with injection at STU	356.18	1241.57	283.14		390.59	0.32	674.05	13.46
1	BSPHC	24.98	14.04		2.49	3.50		3.50	2.49
2	BTPS Stage I	101.20	137.16	7.52	4.97	68.10	0.08	75.70	5.52
3	BTPS Stage II	230.00	1090.37	275.62	2.93	318.99	0.24	594.85	5.46
III	IPPs	224.48	1611.24	393.78		209.11	50.43	653.32	8.10
1	GMR	119.60	864.83	158.28	1.42	122.87	75.02	356.17	4.12

Sl. No	Particulars	Share allocation (MW)	Units approved NBPDC (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
2	JITPL	104.88	746.41	235.50	1.16	86.24	-24.59	297.15	3.98
IV	Renewables	943.09	2032.40			518.86	0.00	518.86	2.55
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.60	7.44		7.02	5.22		5.22	7.02
2	M/s Response renewable Energy Ltd, Kolkata.	4.60	8.03		7.02	5.64		5.64	7.02
3	M/s Avantika Contractors Ltd., Hyderabad	2.30	3.51		7.69	2.70		2.70	7.69
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.39		7.03	1.68		1.68	7.03
5	Alfa Infraprop Pvt. Ltd.	9.20	15.17		7.87	11.94		11.94	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	2.30	3.64		7.98	2.91		2.91	7.98
7	Azure Power India Pvt. Ltd.	4.60	7.23		8.39	6.06		6.06	8.39
8	Welspun Renewables Project - I	4.60	7.31		8.70	6.36		6.36	8.70
9	Welspun Renewables Project – II	6.90	11.04		8.64	9.54		9.54	8.64
10	Welspun Renewables Project – III	6.90	11.03		8.56	9.44		9.44	8.56
11	Acme Cleantech Project (Nalanda)	6.90	10.93		8.73	9.54		9.54	8.73
12	Acme Cleantech Project (Magadh)	4.60	7.52		8.73	6.56		6.56	8.73
13	SECI (Focal)	4.60	8.74		5.91	5.17		5.17	5.91
14	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)		351.05						
15	SECI Phase-III (Renew Sunwaves)	138.00	343.90		2.74	94.23		94.23	2.74
16	SB Energy Six Pvt. Ltd (NTPC)	138.00	139.64		2.67	37.29		37.29	2.67

Sl. No	Particulars	Share allocation (MW)	Units approved NBPDCCL (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
17	GRT Jewellers (SECI-V)	69.00	247.13		2.37	58.57		58.57	2.37
18	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92.00	141.62		3.45	48.86		48.86	3.45
19	Wind ISTS Scheme Tranche II (SECI) (Orange)	46.00	1.13		2.71	0.31		0.31	2.71
20	Avada (BREDA) Dharbhanga	0.74	51.60		4.15	21.41		21.41	4.15
21	SECI Green Infra	46.00	12.71		2.51	3.19		3.19	2.51
22	Alfanar	23.00	74.16		2.52	18.69		18.69	2.52
23	Betam	23.09	0.00		2.52	0.00		0.00	0.00
24	Ostro Kannad	138.00	363.05		2.19	79.51		79.51	2.19
25	Morjar Windfarm	23.00	58.57		1.56	9.14		9.14	1.56
26	SBE Renewable (SECI phase v)		0.00						
27	SJVN Ltd (BREDA)	92.00	58.51		3.11	18.20		18.20	3.11
28	New Swadeshi Sugar Mill, Narkataganj	4.60	9.04		5.14	4.65		4.65	5.14
29	Hasanpur Sugar Mill, Dalsinghsarai	6.67	15.44		6.21	9.59		9.59	6.21
30	Bharat Sugar Mills, Sidhwalia, Gopalganj	6.90	14.78		5.14	7.60		7.60	5.14
31	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	19.37		5.10	9.88		9.88	5.10
32	HPCL Biofuels Ltd., Sugauli, East Champaran	9.20	7.18		4.97	3.57		3.57	4.97
33	HPCL Biofuels Ltd., Lauria, West Champaran	9.20	7.84		5.09	3.99		3.99	5.09
34	Siddhashram Rice Mill Cluster Pvt Ltd	0.46	-0.03		8.05	-0.03		-0.03	8.05
35	Bihar Distillers & Bottlers Pvt Ltd	4.32	5.39		6.40	3.45		3.45	6.40
36	Tirupati Sugar	2.76	6.36		6.35	4.04		4.04	6.35

Sl. No	Particulars	Share allocation (MW)	Units approved NBPDC (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
V	Others	0.00	290.47		17.33	290.94	0.00	290.94	10.02
1	PTC(IE)		281.05		10.11	284.14		284.14	10.11
2	GTAM IEX		9.42		7.22	6.80		6.80	7.22
	TOTAL	5086.77	22224.66	3999.46		6143.02	215.62	10358.10	4.66

Table 5.18: Power Purchase Cost for SBPDCL for FY 2023-24 as computed by Commission

Sl. No	Particulars	Share allocation (MW)	Units approved SBPDCL (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
I	Stations with injection at CTU	4085.09	20014.02	3900.38		5556.74	186.08	9643.20	4.82
1	FSTPP I & II	58.19	318.77	93.25	3.47	110.76	77.68	281.69	8.84
2	FSTPP III	52.51	307.58	55.59	3.33	102.46	4.03	162.08	5.27
3	KHSTPP I	27.82	165.64	71.39	3.30	54.61	7.07	133.07	8.03
4	KHSTPP II	34.38	227.80	21.32	3.20	72.81	0.93	95.06	4.17
5	Barh Stage I Unit I & II	427.64	1847.38	439.72	3.22	595.00	9.15	1043.87	5.65
6	Barh Stage II	617.38	3931.73	824.78	3.56	1398.16	26.98	2249.92	5.72
7	Nabinagar (BRBCL)	54.00	331.99	81.82	3.04	100.95	-0.04	182.73	5.50
8	Talcher Stage I	218.11	1517.73	148.85	2.05	310.69	17.60	477.14	3.14
9	KBUNL Stage II	156.10	1020.28	284.99	3.02	307.79	-17.31	575.47	5.64
10	NPGCL	885.37	5854.58	1350.79	2.59	1514.40	28.39	2893.58	4.94
11	North Karanpura Unit I	160.28	1064.66	134.07	1.99	211.61	15.06	360.74	3.39
12	North Karanpura Unit II	160.28	266.94	8.90	1.47	39.29	0.00	48.19	1.81
13	Darlipali STPS	174.64	1085.52	152.91	1.09	118.82	16.47	288.20	2.65
14	Buxar Unit-I	561.00	159.80	165.10	3.36	53.72		218.82	13.69
15	Chuka	50.28	264.58		2.40	63.54	0.00	63.54	2.40
16	Rangit	12.43	68.28	13.93	1.99	13.62	0.01	27.56	4.04
17	Tala	140.45	319.42		2.27	72.51	0.00	72.51	2.27
18	Teesta	57.78	369.06	42.15	1.16	42.89	0.06	85.10	2.31
19	Mangdechhu	153.61	860.90		4.19	360.72	0.00	360.72	4.19
20	Kurichu	1.84	3.14	10.82	1.74	0.55		11.37	36.21
21	Un-allocated power	81.00	28.26		0.00	11.85		11.85	4.19
II	Stations with injection at STU	418.12	1457.50	332.38		458.51	0.37	791.26	5.43
1	BSPHC	29.32	16.48		2.49	4.10		4.10	2.49
2	BTPS Stage I	118.80	161.02	8.83	4.97	79.95	0.09	88.87	5.52
3	BTPS Stage II	270.00	1280.00	323.55	2.93	374.46	0.28	698.29	5.46
III	IPPs	263.52	1891.45	462.25		245.47	59.20	766.92	8.10

Sl. No	Particulars	Share allocation (MW)	Units approved SBPDCL (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
1	GMR	140.40	1015.23	185.80	1.42	144.23	88.07	418.10	4.12
2	JITPL	123.12	876.22	276.45	1.16	101.24	-28.87	348.82	3.98
IV	Renewables	1107.11	2385.86			609.10	0.00	609.10	2.55
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	5.40	8.73		7.02	6.13		6.13	7.02
2	M/s Response renewable Energy Ltd, Kolkata.	5.40	9.43		7.02	6.62		6.62	7.02
3	M/s Avantika Contractors Ltd., Hyderabad	2.70	4.12		7.69	3.17		3.17	7.69
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.62	2.81		7.03	1.97		1.97	7.03
5	Alfa Infraprop Pvt. Ltd.	10.80	17.81		7.87	14.01		14.01	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	2.70	4.28		7.98	3.41		3.41	7.98
7	Azure Power India Pvt. Ltd.	5.40	8.49		8.39	7.12		7.12	8.39
8	Welspun Renewables Project - I	5.40	8.58		8.70	7.46		7.46	8.70
9	Welspun Renewables Project – II	8.10	12.96		8.64	11.19		11.19	8.64
10	Welspun Renewables Project – III	8.10	12.95		8.56	11.08		11.08	8.56
11	Acme Cleantech Project (Nalanda)	8.10	12.83		8.73	11.20		11.20	8.73
12	Acme Cleantech Project (Magadh)	5.40	8.82		8.73	7.70		7.70	8.73
13	SECI (Focal)	5.40	10.26		5.91	6.06		6.06	5.91
14	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)		412.10						
15	SECI Phase-III (Renew Sunwaves)	162.00	403.71		2.74	110.62		110.62	2.74
16	SB Energy Six Pvt. Ltd(NTPC)	162.00	163.93		2.67	43.77		43.77	2.67
17	GRT Jewellers(SECI-V)	81.00	290.10		2.37	68.75		68.75	2.37
18	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	108.00	166.25		3.45	57.36		57.36	3.45
19	Wind ISTS Scheme Tranche II (SECI) (Orange)	54.00	1.33		2.71	0.36		0.36	2.71
20	Avada(BREDA) Dharbhanga	0.86	60.57		4.15	25.14		25.14	4.15

Sl. No	Particulars	Share allocation (MW)	Units approved SBPDCL (MU)	Total Fixed cost (Rs. Crs)	Energy Cost (RS/kwh)	Total Energy Cost (RS. Crs)	Misc. Cost (RS. Crs)	Total Cost (RS. Crs)	Ave. Tariff (Rs. /kwh)
21	SECI Green Infra	54.00	14.92		2.51	3.74		3.74	2.51
22	Alfanar	27.00	87.06		2.52	21.94		21.94	2.52
23	Betam	27.11	0.00		2.52	0.00		0.00	0.00
24	Ostro Kannad	162.00	426.19		2.19	93.34		93.34	2.19
25	Morjar Windfarm	27.00	68.76		1.56	10.73		10.73	1.56
26	SBE Renewable(SECI phase v)		0.00						
27	SJVN Ltd (BREDA)	108.00	68.68		3.11	21.36		21.36	3.11
28	New Swadeshi Sugar Mill, Narkataganj	5.40	10.61		5.14	5.45		5.45	5.14
29	Hasanpur Sugar Mill, Dalsinghsarai	7.83	18.12		6.21	11.25		11.25	6.21
30	Bharat Sugar Mills, Sidhwalia, Gopalganj	8.10	17.35		5.14	8.92		8.92	5.14
31	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	7.83	22.74		5.10	11.60		11.60	5.10
32	HPCL Biofuels Ltd., Sugauli, East Champaran	10.80	8.42		4.97	4.19		4.19	4.97
33	HPCL Biofuels Ltd., Lauria, West Champaran	10.80	9.20		5.09	4.68		4.68	5.09
34	Siddhashram Rice Mill Cluster Pvt Ltd	0.54	-0.04		8.05	-0.03		-0.03	8.05
35	Bihar Distillers & Bottlers Pvt Ltd	5.08	6.33		6.40	4.05		4.05	6.40
36	Tirupati Sugar	3.24	7.46		6.35	4.74		4.74	6.35
V	Others	0.00	340.98			341.54		341.54	10.02
1	PTC(IEX)		329.93		10.11	333.56		333.56	10.11
2	GTAM IEX		11.05		7.22	7.98		7.98	7.22
	TOTAL	5873.84	26089.81	4695.01		7211.36	245.65	12152.02	4.66

5.9. Transmission Charges for FY 2023-24**Petitioners' submission:**

The Petitioners have submitted that they have to pay transmission charges to POWERGRID, BSPTCL, BGCL for use of transmission facilities. Further, the Petitioners have to pay charges to GRID INDIA and SLDC.

SBPDCL has stated that the Transmission charges with 10% escalation on the actual transmission charges for FY 2022-23 are considered for FY 2023-24.

NBPDCCL has stated that Transmission charges for FY 2023-24 considered as approved by the Commission for FY 2022-23 in Order for Discoms dated 23.03.2023 with 10% escalation.

The Petitioners requested the Commission to approve the transmission and related charges for inter-state as well as intra-state transmission transactions for FY 2023-24 as per the below given table.

Table 5.19: Transmission charges projected in APR for FY 2023-24

Particulars	(Rs. Crore)	
	NBPDCCL	SBPDCL
SLDC	2.50	2.94
BGCL	88.36	103.72
BSPTCL	615.73	722.82
GRID INDIA	4.68	5.50
PGCIL	1157.42	1358.7
Total	1868.69	2193.70

Commission's analysis:

It is observed that NBPDCCL has estimated the PGCIL and GRID INDIA charges with an escalation of 13.86% over that of actuals of FY 2022-23 and SBPDCL has estimated the same with an escalation of 6.91%. When the transmission charges of NBPDCCL and SBPDCL are clubbed and allocated in the ratio of 46:54 the escalation consider comes to 10% for both Discoms. The Commission considers the PGCIL and POSOCO charges for FY 2023-24 as projected by the Petitioners.

BGCL, BSPTCL and SLDC charges are considered as approved for FY 2023-24 in the relevant Tariff Order dated 23rd March, 2023 as the same are being billed during FY 2023-24. The transmission charges considered in the APR for FY 2023-24 as are given in the Table below:

Table 5.20: Transmission charges considered for FY 2023-24 (RE)

(Rs. Crore)			
Particulars	NBPDC	SBPDCL	Total
BSPTCL	541.25	635.37	1176.62
BGCL	100.91	118.47	219.38
SLDC	6.15	7.22	13.37
PGCIL	1157.42	1358.72	2516.14
POSCO	4.68	5.50	10.18
Total	1810.41	2125.28	3935.69

Table 5.21: Total Power Purchase Cost considered for FY 2023-24 (RE)

Sl No	Particulars	NBPDC		SBPDCL		Total	
		MU	Rs Crs	MU	Rs Crs	MU	Rs Crs
1	Power Purchase	22224.66	10358.10	26089.81	12152.02	48314.47	22510.12
2	Transmission charges		1810.41		2125.28	0.00	3935.69
3	Total Power Purchase cost		12168.51		14277.30	0.00	26445.81
4	Less: Rebate at 1%		121.69		142.77	0.00	264.46
5	Net Power Purchase cost	22224.66	12046.83	26089.81	14134.53	48314.47	26181.36
6	Less: Sale of Surplus Power	2851.06	1425.53	1897.66	948.83	3799.89	2374.36

5.10. Renewable Purchase Obligation (RPO)

Petitioners' submission:

The Commission initiated the Suo-motu proceeding for 4th amendment in BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010. The Draft BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4th Amendment) Regulations, 2022 was also floated by the Commission for comments from the Stakeholders. The Commission in the draft Regulations has specified the following:

“Further, Ministry of Power, Govt. of India, through its order no. 09/13/2021- RCM dated 22.07.2022 has specified separate Wind RPO, HPO and other RPO within the overall RPO target for the FY 2022-23 to FY 2029-30.

In view of above, the Commission has decided to adopt the RPO target as specified by the Ministry of Power through its order no. 09/13/2021-RCM dated 22.07.2022 for the FY 2022-23 to FY 2029-30, including introduction of a separate hydro purchase obligation (HPO) as recommended previously by the ministry through MoP Notification F No. 15/2/2016-H-I(Pt.) dated 08.03.2019.

In line with the directions from MoP, the Commission proposes to specify separate Wind RPO, HPO and other RPO within the overall RPO target.

Provided that Wind RPO shall be met through energy produced from wind power projects commissioned after 31st March 2022; HPO shall be met only by energy produced from Large Hydro Projects (including pump storage plants) commissioned after 8th March 2019; other RPO target may be met by energy produced from any RE power project not qualifying for meeting Wind RPO and HPO. Further, as the directives of the MoP, the Commission proposes to specify separate Energy Storage Obligation for the energy consumed from solar/wind along with /through storage. The Energy Storage obligation to the extent of energy stored from RE sources shall be considered as part of fulfilment of the total RPO.”

The Commission in the draft Regulations has adopted the RPO trajectory specified by the MoP. So, the Petitioner has computed RPO for FY 2023-24 as per the trajectory specified by the MoP. The details of RPO to be met by the Petitioner for FY 2023-24 are given in the table below:

Table 5.22: RPO submitted by NBPDCCL & SBPDCL for FY 2023-24 (APR)

Particular	Units	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	MU	14918.67	18204.07
RPO Targets (%)		27.07%	27.07%
Wind % (B)	%	1.60%	1.60%
HPO % (C)	%	0.66%	0.66%
Other RPO % (D)		24.81%	24.81%
RPO Targets		4038.48	4927.85
Wind (A*B)	MU	238.7	291.27
HPO (A*C)	MU	98.46	120.15
Other RPO (A*D)	MU	3701.32	4516.43
Renewable Power Purchase		3817.97	4482.96
Wind	MU	1,094.00	1284.26
HPO	MU		0
Other RPO	MU	2723.97	3198.7
RPO Shortfall/ (Surplus)	MU		
Wind	MU	-855.3	-992.99
HPO	MU	-756.84	-872.84
Other RPO		220.51	444.89
Carried forward of FY 22-23	MU		
Balance RPO	MU		

As above, the Petitioner has complied the RPO trajectory specified by the MoP for FY 2023-24 as there is NIL shortfall for Wind, HPO and other RPO.

The Petitioners have already been drawing solar power from a few sources like SECI, Welspun, ACME clean tech, Avantika and Azure Power. The Petitioner has also accounted the RE purchases from new sources coming in FY 2023-24, i.e., SECI Phase-II Solar, Adani Green, Ecoren Energy, Ostro kannad, Morjar Windfarm, BREDA floating Solar.

Commission's analysis:

The Commission vide BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) Regulations, 2010 and its amendment has notified the Renewable Purchase Obligation (RPO) percentages up to FY 2021-22.

The Ministry of Power, Government of India vide Order No F.No.09/13/2021-RCM dated 22.07.2022 has specified the RPO trajectory for period from FY 2022-23 to FY 2029-30 as given below:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.60%
2023-24	1.60%	0.66%	24.81%	27.07%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

The Commission has notified the BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) (4th amendment) Regulations, 2022 duly aligning the targets with the MoP RPO trajectory specified vide Order No F.No.09/13/2021-RCM dated 22.07.2022.

As per the BERC 4th Amendment of RPO Regulations, the targets were determined for wind, HPO and other RPO. The Regulation 4.1 (Amended) specify:

- a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31st March 2022 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022;*
- (b) HPO shall be met only by energy produced from LHPs (including PSPs and small hydro projects (SHPs)), commissioned after 8th March 2019;*

(c) Other RPO may be met by energy produced from any RE based / green energy based power project not mentioned in (a) and (b) above.

On a query from the Commission, SBPDCL vide its Letter No-94 dated 09.02.2024 submitted the Revised RPO figures.

The Commission accordingly has considered the RPO targets for FY 2023-24 in this Tariff order and computed the RPO Compliance for FY 2023-24 as shown in the Table below.

Table 5.23:RPO Considered for NBPDCCL & SBPDCL for FY 2023-24 (RE)

Sl.No.	Particulars	Units	NBPDCCL	SBPDCL
1	Energy sale (excluding inter-state sales)	MU	14918.67	18204.09
2	RPO Targets	%	0.27	0.27
3	Wind RPO	%	0.02	0.02
4	HPO	%	0.01	0.01
5	Other HPO		0.25	0.25
6	RPO Targets	MU	4039.83	4929.49
7	Wind RPO	MU	238.70	291.27
8	HPO	MU	99.13	120.97
9	Other RPO	MU	3701.99	4517.25
10	Renewable power purchase (A)	MU	3817.97	4482.97
11	Wind Power Purchased	MU	1094.00	1214.55
12	Hydro Power Purchased	MU	0.00	0.00
13	Others	MU	2723.97	3268.42
14	Captive Consumption BREDA (Non- Solar) (C)	MU	0.00	0.00
15	REC Purchase (D)	MU	0.00	0.00
16	Total RE Compliance (A+B+C+D)	MU	3817.97	4482.97
17	Wind RPO Compliance	MU	1094.00	1214.55
18	Hydro RPO Compliance	MU	0.00	0.00
19	Other RPO Compliance (17-18-19)	MU	2723.97	3268.42
20	RPO Shortfall (without Shuffling the Excess)	MU		
21	Wind Shortfall / (Surplus) (7-18)	MU	(855.30)	(923.28)
22	Hydro Shortfall / (Surplus) (8-19)	MU	99.13	120.97
23	Others Shortfall / (Surplus) (9-20)	MU	978.02	1248.83
24	RPO Target Achieved			
25	Wind Power Purchased	%	100%	100%
26	Hydro Power Purchased	%	0.00%	0.00%
27	Other	%	73.58%	72.35%

The Commission has observed from the above table that both the Discoms NBPDCCL and SBPDCL have fulfilled Wind RPO, However, the trajectory in respect of Hydro and others RPO have not been complied with fully. The Commission directs the NBPDCCL and SBPDCL to fulfil the RPO shortfall as indicated in the Table above vide Sl. No 22 & 23 as specified in regulation 7.1 of 4th amendment .

5.11. Capital Expenditure**Petitioners' submission:**

Discoms have submitted that they have estimated capital expenditure, capitalisation and funding taking into account the recent developments and targets to be achieved under various schemes during FY 2023-24.

The BERC (Multi Year Distribution Tariff) Regulations 2021 specify that the Distribution Licensee must file a Business Plan which shall comprise of detailed capital investment plan, financing plan and physical targets. Relevant extract of the Distribution MYT Regulations 2021 is as follows:

- 5.1 The Distribution Licensee shall file a Business Plan, for the Control Period by a Petition in accordance with BERC (Conduct of Business) Regulations, 2005 and its amendments from time to time, by 15th September of the year prior to the commencement of the Control Period...*
- 5.2 Such Business Plan shall comprise but not limited to detailed category/sub-category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets...*
- 5.3 The Distribution Licensee shall make assessment of infrastructure requirement and prepare capital investment plan in accordance with BERC (Procedure for Filing Capital Investment and Capitalization Plan) Regulations, 2018 that will spill into the year(s) under review and new projects that will commence and may be completed within or beyond the tariff period...*

It is submitted that the petitioners didn't submit any projections for the control period 2022-23 to 2024-25 as the said projections for the control period to be submitted post approval under the Revamped Distribution Sector Scheme (RDSS) by the Monitoring Committee as it will form the core of total plan for creation of infrastructure both for AT&C loss reduction and supplying quality, reliable 24x7 power to the consumers. The CAPEX petition was filed separately by the Discoms (Case No. 26/2022 of NBPDCCL and 27/2022 of SBPDCL) for approval of schemes- Reconductoring, Mukhyamantri Krishi Vidyut Sambandh Yojana (MKVYS), Smart Metering and RDSS.

The Commission vide Order dt.28.04.2023, in Case No.26/2022 and 27/2022 has granted in-principal approval for implementation of the CAPEX Plan for the control period FY 2022-23 to FY 2024-25.

It is submitted that they have computed the capitalisation of investment of all ongoing schemes except MKVYS and Reconductoring schemes shall get capitalised during FY 2023-24 as detailed hereunder:

Table 5.24: Scheme-wise capitalisation projected for FY 2023-24

Name of the Scheme	(Rs. Crore)		
	NBPDCCL	SBPDCL	Total
BRGF	41.12	765.50	806.62
R-APDRP	23.29	-0.20	23.09
NABARD Phase VIII		0.00	0.00
NABARD Phase XI	0.74	-	0.74
MP/CM LAD	0.04	0.77	0.81
Deposit Scheme	4.88	3.13	8.01
ADB		79.74	79.74
ACA State Plan		15.69	15.69
Burnt DTR State Plan		1.12	1.12
State Plan -Others	552.93	945.44	1498.37
Reconductoring	1438.06	497.95	1936.01
IPDS	13.56	179.12	192.68
RGVY	15.83	81.36	97.19
DDUGJY	14.22	112.31	126.53
APL Connection/Saubhagya	88.22	99.46	187.68
LT Line New Service Connection		-	0.00
Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex	67.16	67.83	134.99
MKVYS	413.56	383.23	796.79
Own Sources	394.00	-	394.00
Total	3,067.60	3,232.46	6,300.06

It is further submitted that the Monitoring Committee for RDSS constituted under Chairmanship of Secretary (Power), Govt. of India, in its 9th meeting held on 28.04.2022, has approved the Action plan and Loss Reduction DPR of NBPDCCL and SBPDCL under Revamped Distribution Sector Scheme (RDSS) as detailed below:

SI No.	Particulars	NBPDCCL (Rs. Crore)			SBPDCL (Rs. Crore)		
		Approved Amount	Central Govt. Grant-GBS (60%)	State Govt. Finance Share (40%)	Approved Amount	Central Govt. Grant-GBS (60%)	State Govt. Finance Share (40%)
1	Loss Reduction						
1.a	Infrastructure Works	3050.89	1830.53	1220.36	500.00	300.00	200.00
1.b	IT/OT	200.00	120.00	80.00	50.00	30.00	20.00
2	PMA	48.76	29.26	19.50	22.35	13.41	8.94
	Total	3299.65	1979.79	1319.86	572.35	343.41	228.94

Under Loss reduction plan of RDSS, no capex and subsequent capitalization is expected to take place in FY 2023-24. Hence proposed capex and capitalization under Loss reduction plan of RDSS is considered NIL for FY 2023-24.

Prepaid Smart Metering:**Phase 1:**

The total number of smart meters proposed to be installed under phase 1 is 23,50,000 (NBPDCCL 10,30,000 lakhs and SBPDCL 13,20,000). The total smart meters under Phase 1 are under Opex mode which will be booked under A&G expenses. Hence the entire expenditure proposed under Phase I has been considered under A&G expenditure.

Phase-II:

36 lakhs (NBPDCCL 26 lakhs and SBPDCL 10 lakhs) of smart prepaid meters are scheduled to be installed across the State of Bihar by the end of March, 2024 under hybrid mode i.e., CAPEX + OPEX mode in the ratio of 70:30. Discoms have furnished the expected expenditure under CAPEX mode for installation of smart prepaid meters as given below:

NBPDCCL:

Smart Prepaid Meters under Capex	Month	2023-24			2024-25		
		Meters installed	Meter cost	Capex	Meters installed	Meter cost	Capex
Phase II: 36 lakhs North 26 Lakhs (30% Capex)-	Op. Balance	19537					
	April	34288	10342.2	10.64	0	10342.2	-
	May	33294	10342.2	10.33	78022	10342.2	24.21
	June	31127	10342.2	9.66	347202	10342.2	107.72
	July	64851	10342.2	20.12	347200	10342.2	107.72
	August	72397	10342.2	22.46	347201	10342.2	107.72
	September	76813	10342.2	23.83	347200	10342.2	107.72
	October	84356	10342.2	26.17	347201	10342.2	107.72
	November	164232	10342.2	50.96	347201	10342.2	107.72
	December	164232	10342.2	50.96	347201	10342.2	107.72
	January	164232	10342.2	50.96	347200	10342.2	107.72
	February	164232	10342.2	50.96	347201	10342.2	107.72
	March	164232	10342.2	50.96	347201	10342.2	107.72
	Less: 7.5% to be given after 6 months			28.35			82.61
	Total Capex			350.66			1,047.19

SBPDCL:

Smart Prepaid Meters under A&G expense	Month	Meters installed	Meter cost	Capital expenditure (Rs crores)
Phase II: 36 lakhs South: 10 Lakhs (30% Capex)	Op. Balance	18098	9777.14	5.31
	April	11734	9777.14	3.44
	May	7469	9777.14	2.19
	June	15480	9777.14	4.54
	July	20366	9777.14	5.97
	August	16838	9777.14	4.94

Smart Prepaid Meters under A&G expense	Month	Meters installed	Meter cost	Capital expenditure (Rs crores)
	September	13546	9777.14	3.97
	October	12000	9777.14	3.52
	November	12000	9777.14	3.52
	December	12000	9777.14	3.52
	January	12000	9777.14	3.52
	February	12000	9777.14	3.52
	March	18098	9777.14	5.31
Less: 7.5% to be given after 6 months		163531		3.60
Total				44.37

Phase-III:

In the final Phase-III, 1.12 Crore (77 lakhs in NBPDCCL and 35 lakhs SBPDCL) of smart prepaid meters are scheduled to be installed across the Bihar by the end of March, 2024 under hybrid mode i.e. CAPEX + OPEX mode in the ratio of 70:30. Discoms have furnished the expected expenditure under CAPEX mode for installation of smart prepaid meters as given below:

Smart Prepaid Meters under A&G expenses	Month	NBPDCCL			SBPDCL		
		Meters installed	Meter cost	Capex @30% (Rs. Crore)	Meters installed	Meter cost	Capex @30% (Rs. Crore)
Phase III: 1.12 crore NBPDCCL 77 Lakhs SBPDCL 35 lakhs	Op.Balance						
	April		10342.198				
	May	78022	10342.198	24.21			
	June	347202	10342.198	107.72			
	July	347200	10342.198	107.72			
	August	347201	10342.198	107.72			
	September	347200	10342.198	107.72			
	October	347201	10342.198	107.72	77000	9777.14	22.59
	November	347201	10342.198	107.72	77000	9777.14	22.59
	December	347201	10342.198	107.72	77000	9777.14	22.59
	January	347200	10342.198	107.72	77000	9777.14	22.59
	February	347201	10342.198	107.72	77000	9777.14	22.59
	March	347201	10342.198	107.72	77000	9777.14	22.59
Total		3550030		1101.45	462000		135.51
Less: 7.5% to be given after 6 months				82.61			10.16
Total capex				1018.84			125.35

Discoms have submitted the details of opening CWIP, investment during the year, capitalisation and funding of capitalisation for FY 2023-24 as detailed in the table below:

Table 5.25: CWIP, Capitalisation and Funding of capitalisation projected for FY 2023-24**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL	Projected by SBPDCL	Total
1	Opening CWIP	1097.47	1716.91	2814.38
2	New Investment	1555.82	786.87	2342.69

Sl. No.	Particulars	Projected by NBPDCCL	Projected by SBPDCL	Total
3	Less: Capitalisation (4+5)	1584.04	1885.74	3469.78
4	Opening CWIP	1267.00	1509.00	2776.00
5	New Investment	317.04	376.74	693.78
6	Closing CWIP (1+2-3)	1069.25	618.04	1687.29
	Funding			
7	Total Grant	229.00	173.00	402.00
8	Total Equity	454.00	1432.00	1886.00
9	Total Loan	901.04	281.74	1182.78

Commission's analysis:

Discoms have projected the capex and capitalisation for FY 2023-24 as given in the following table and furnished the scheme-wise details in Format 11 enclosed to the petition. As per the details, the projected capex and capitalisation for FY 2023-24 is as under:

Particulars	NBPDCCL	SBPDCL
Capital investment	1555.82	786.87
Capitalisation	1584.08	1885.74

The Commission has approved the capital investment plan and capitalisation in Tariff Order dated 25.03.2022 for the control period FY 2022-23 to FY 2024-25. The Commission vide order dated 28.04.2023 in case no.26/2022 (NBPDCCL) and case no.27/2022 (SBPDCL) has approved the capex and capitalisation in respect of Reconductoring Scheme disallowed in true up for FY 2019-20 and also the investment plan relating to RDSS scheme for the control period FY 2022-23 to FY 2024-25. The cumulative capex and capitalisation shall be validated and action appropriate shall be taken at the end of the control period while carrying out the true up.

The petitioners have submitted scheme-wise details of capex and capitalisation in Format 11 along with the petition. The petitioners have claimed capex and capitalisation for FY 2023-24 as detailed in the table below:

Table 5.26: Capex and Capitalisation projected for FY 2023-24

(Rs. Crore)

Sl. No.	Name of scheme / Project	NBPDC		SBPDCL	
		Capital expenditure	Capitalisation	Capital expenditure	Capitalisation
1	BRGF		10.09		700.38
2	R-APDRP		23.29		0.02
3	MP/CM LAD				0.77
4	Deposit Scheme		4.98		5.13
5	ADB				79.62
6	ACA State Plan				39.03
7	Burnt DTR State Plan				0.18
8	State Plan -Others		522.91		621.66
9	Reconductoring		256.29		44.23
10	IPDS		19.52		54.84
11	RGGVY				0.08
12	DDUGJY		20.70		49.20
13	APL Connection				105.00
14	Own Sources				15.87
15	State Plan -RDSS	396.02		44.80	
16	Infrastructure works- RDSS	549.15		500.00	
17	IT/OT- RDSS	36.00		50.00	
18	PMA - RDSS	8.88		22.35	
19	MKVYS	215.11	215.11		
20	Smart prepaid meters (Phase 2)	350.66	350.66	44.37	44.37
21	Smart prepaid meters (Phase 3)			125.35	125.36
	Total	1555.82	1423.55	786.87	1885.74

The Commission provisionally considers the capex and capitalisation as estimated by the Discoms for FY 2023-24 in review.

The Commission has approved closing CWIP at Rs.2167.30 crore for NBPDC in truing up for FY 2022-23 and the same is considered as opening CWIP for FY 2023-24. The scheme-wise capital expenditure and capitalisation considered for FY 2023-24 in review for NBPDC is as given in the table below:

Table 5.27: Capex and capitalisation considered for NBPDC for FY 2023-24 in review**(Rs. Crore)**

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2023-24	Capex during FY 2023-24	Capitalisation during FY 2023-24	Closing CWIP for FY 2023-24
1	BRGF	10.09		10.09	0.00
2	R-APDRP	4.20		23.29	19.09
3	Deposit Scheme	5.00		4.98	0.02
4	State Plan -Others	522.90		522.91	-0.01
5	APL Connection	88.22			88.22
6	Reconductoring	-178.10		256.29	-434.39
7	IPDS	446.91		19.52	427.39

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2023-24	Capex during FY 2023-24	Capitalisation during FY 2023-24	Closing CWIP for FY 2023-24
8	RGGVY	161.11			161.11
9	DDUGJY	958.35		20.71	937.64
10	RDSS	4.82	396.02		400.84
11	Infrastructure works- RDSS		549.15		549.15
12	IT/OT- RDSS		36.00		36.00
13	PMA - RDSS		8.88		8.88
14	MKVYS	-13.85	215.11	215.11	-13.85
15	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex		350.66	350.66	-
16	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex	-			-
17	Own Sources (incl. reconciliation difference)	154.66		160.49	-5.83
	Total	2,164.31	1,555.82	1,584.05	2,136.08

The Commission has approved closing CWIP at Rs.3176.86 crore for SBPDCL in truing up for FY 2022-23 and the same is considered as opening CWIP for FY 2023-24. The scheme-wise capital expenditure and capitalisation considered for FY 2023-24 in review for SBPDCL is as given in the table below:

Table 5.28: Capex and capitalisation considered for SBPDCL for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23	Capex during FY 2023-24	Capitalisation during FY 2023-24	Closing CWIP for FY 2023-24
1	BRGF	700.37		700.38	-0.01
2	R-APDRP	0.02		0.02	-0.00
3	NABARD Phase VIII	0.07			0.07
5	MP/CM LAD	0.96		0.77	0.19
6	Deposit Scheme	5.18		5.13	0.05
7	ADB	79.63		79.62	0.01
8	ACA State Plan	39.03		39.03	-
9	Burnt DTR State Plan	0.19		0.18	0.01
10	State Plan -Others	494.64		621.66	-127.02
11	APL Connection	105.00		105.00	-
12	Reconductoring	390.29		44.23	346.06
13	IPDS	292.69		54.84	237.85
14	RGGVY	311.88		0.08	311.80
15	DDUGJY	739.77		49.20	690.57
16	State Plan - RDSS	-	44.80		44.80
17	Infrastructure works - RDSS	1.54	500.00		501.54
18	IT/OT - RDSS	-	50.00		50.00
19	PMA - RDSS	-	22.35		22.35
20	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex	-	44.37	44.37	-

Sl. No.	Name of scheme / Project	Opening CWIP for FY 2022-23	Capex during FY 2023-24	Capitalisation during FY 2023-24	Closing CWIP for FY 2023-24
21	Smart Prepaid Meter (Phase 3) 1.12 crores-30% Capex	-	125.35	125.35	-
22	Own Sources (incl. reconciliation difference)	15.61		15.88	-0.27
	Total	3,176.86	786.87	1,885.74	2,077.99

The Commission, as deliberated above, considers the opening CWIP, new investment, capitalisation and funding as detailed in the table below:

Table 5.29: CWIP, Capitalisation and funding of capitalization considered for FY 2023-24 (Rs. Crore)

Sl. No.	Particulars	Approved in review for NBPDC for FY 2023-24 (RE)	Approved in review for SBPDCL for FY 2023-24 (RE)	Total
1	Opening CWIP	2167.30	3176.86	5344.16
2	Add: New Investment	1555.82	786.87	2342.69
3	Less: Capitalisation (3a+3b)	1584.04	1885.74	3469.78
4	Closing CWIP (1+2-3)	2139.08	2077.99	4217.07
5	Funding of Capitalisation (A+B+C)			
A	Grant	244.23	173.40	417.63
B	Equity	188.52	397.33	585.85
C	Loans	1151.29	1315.01	2466.30

5.12. Gross Fixed Assets Petitioners' submission

Discoms have submitted the computation of GFA based on the opening GFA and capitalisation schedule for FY 2023-24 as detailed in the table below:

Table 5.30: Gross Fixed Assets projected for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDC	Projected by SBPDCL	Total
1	Opening GFA	22561.47	17558.68	40120.15
2	Additions during the year	1584.04	1885.74	3469.78
3	Closing GFA (1+2)	24145.51	19444.42	43589.93

Commission's analysis:

The Commission has considered opening GFA at Rs.22029.58 Crore for NBPDC and Rs.16678.69 Crore for SBPDCL based on the closing GFA approved in true up for FY 2022-23. Addition to the GFA during FY 2023-24 is considered as considered Table

5.29 above. The opening GFA, additions to assets during the year and closing GFA for FY 2023-24, arrived at by the Commission is as detailed in the table below:

Table 5.31: Gross Fixed Assets considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Opening GFA	22029.58	16678.69	38708.27
2	Additions during the year	1584.04	1885.74	3469.78
3	Closing GFA (1+2)	23613.62	18564.43	42178.05

5.13. Depreciation

Petitioners' submission:

Discoms have submitted that depreciation is computed as per regulation 23 of BERC (Multi Year Distribution Tariff) Regulations 2021 on the GFA reduced by value of land and Grants for FY 2023-24.

Discoms have projected the depreciation for FY 2023-24 as detailed in the table below:

Table 5.32: Depreciation projected for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
1	Opening GFA	22561.47	16012.39	38573.86
2	Less: Value of land	1047.37		1047.37
3	Net Opening GFA (1-2)	21514.10	16012.40	37526.49
4	Additions during the year	1584.04	1885.73	3469.77
5	Closing GFA (3+4)	23098.15	17898.13	40996.26
6	Average GFA $\{(3+5)/2\}$	22306.13	16955.27	39261.38
7	Weighted average rate of depreciation	4.79%	4.68%	
8	Depreciation (6*7)	1068.89	794.12	1863.01
9	Opening Grants	11898.40	7153.42	19051.82
10	Grants during the year	215.45	158.03	373.48
11	Closing Grants (9+10)	12113.85	7311.45	19425.30
12	Average Grants $\{(9+11)/2\}$	12006.13	7232.44	19238.56
13	Weighted average rate of depreciation	4.88%	5.78%	
14	Depreciation for GFA on Grants (12*13)	585.32	418.03	1003.35
15	Net Depreciation (8-14)	483.56	376.09	859.65

Commission's analysis:

The Commission has considered the opening depreciable assets and opening grants for FY 2023-24 based on the closing GFA and Grants approved in the truing up for FY 2022-23 as given hereunder:

Particulars	NBPDCCL	SBPDCL
Opening Depreciable Assets	20981.21	15132.40
Opening Grants	12178.29	7716.17

Capitalisation and Grants during the year FY 2023-24 are considered based on the capitalisation and funding for FY 2023-24 as shown in Table 5.29 above.

Regulation 23 (d) of the BERC (Multi Year Distribution Tariff) Regulations 2021, specifies that *“Provided that freehold land shall not be treated as a depreciable asset and its cost shall be excluded from the original cost of the asset”*. The Commission has provisionally considered the value of land addition at Rs.57.91 crore for NBPDCCL and Rs.181.14 crore for SBPDCL as reported in Format 14 of the petition for FY 2023-24 and accordingly reduced the same from capitalisation for the purpose of computing depreciation for FY 2023-24. Same procedure is followed by the Discoms for computing the grants utilised for land addition during FY 2022-23. The Commission has considered addition to grants based on the funding of capitalisation for FY 2022-23. The grants utilised for land addition is considered provisionally at Rs.15.37 crore for SBPDCL and Rs.13.63 crore for NBPDCCL based on the details furnished in Format 14.

The Commission has considered weighted average rate of depreciation on assets and grants for Discoms (NBPDCCL and SBPDCL) in line with the weighted average rate of depreciation considered in true up for FY 2022-23.

The opening GFA, additions to GFA, closing GFA, rate of depreciation and depreciation on assets created out of grants and depreciation considered by the Commission for FY 2023-24 in review is as detailed in the table below:

Table 5.33: Depreciation considered for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Considered in review for NBPDCCL (RE)	Considered in review for SBPDCL (RE)	Total
1	Opening depreciable assets	20981.21	15132.40	36113.61
2	Net Additions during the year (excl. land)	1526.13	1704.60	3230.73
3	Closing GFA (1+2)	22507.34	16837.00	39344.34
4	Average GFA $\{(1+3)/2\}$	21744.28	15984.70	37728.98
5	Weighted average rate of depreciation	4.31%	4.52%	
6	Depreciation (4*5)	936.30	722.35	1658.65
7	Opening Grants	12178.29	7716.17	19894.46

Sl. No.	Particulars	Considered in review for NBPDCCL (RE)	Considered in review for SBPDCL (RE)	Total
8	Grants during the year	244.23	173.40	417.63
9	Less: Grants used for Land during the year	13.63	15.37	29.00
10	Net Closing Grants for depreciable assets (7+8-9)	12408.89	7874.20	20283.09
11	Average Grants for Depreciable Assets $\{(7+10)/2\}$	12293.59	7795.19	20088.78
12	Weighted average rate of depreciation	4.31%	4.52%	
13	Depreciation on assets created out of grants (11*13)	529.36	352.26	881.62
14	Net Depreciation (6-13)	406.94	370.08	777.03

The Commission, accordingly, considers the depreciation in review for FY 2023-24.

5.14. Interest on Loans

Petitioners' submission:

Discoms have submitted that addition to debt is considered at 70% of the addition to GFA excluding contribution from grants. The weighted average rate of interest is considered @9.63% by NBPDCCL and 10.46% by SBPDCL for FY 2023-24 as given below.

Table 5.34: Weighted average rate of interest considered by NBPDCCL for FY 2023-24 (RE)

Sl. No	Particulars	Opening balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Average balance	Amount of interest paid
1	REC (RGGVY) Term Loan	10.50%	207		21	186	197	21
2	REC (R-APDRP) Part B Term Loan	9.00%	24		2	22	23	5
3	PFC (counterpart)	10.63%	76		7	69	72	8
4	REC (IPDS) Term Loan	8.83%	303		1	302	302	26
5	REC (DDUGJY) Term Loan	9.56%	1033		1	1032	1033	95
6	State Govt.- Non-Plan Loan	10.50%	296	42		338	317	
7	BSPHCL (ADB) Loan	10.50%	56			56	56	7
8	Smart metering	9.30%		1384		1384	692	43
9	Total		1995	1426	32	3389	2692	205
Weighted average rate of interest								9.63%

Table 5.35: Weighted average rate of interest considered by SBPDCL for FY 2023-24 (RE)

Particulars	Purpose of loan	Opening balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Average Balance	Amount of interest paid
REC (RGGVY) Term Loan	Project	119.24	11.00%		13.85	105.39	112.32	12.05
REC (R-APDRP) Term Loan	Project	288.65	10.40%		34.93	253.72	271.19	26.69
PFC (R-APDRP) Term Loan	Project	123.20	9.00%		9.96	113.24	118.22	26.28
REC (IPDS) Term Loan	Project	745.29	10.19%		48.66	696.63	720.96	75.74
REC (DDUGJY) Term Loan	Project	336.45	10.19%		22.25	314.20	325.33	34.19
State Govt.-Non-Plan Loan	Project Support	143.20	13.00%	25.90		169.10	156.15	20.30
BSPHCL (ADB) Loan	Project	6.28	13.00%			6.28	6.28	0.82
Total		1762.31		25.90	129.65	1658.56	1710.44	196.07
Weighted average rate of interest								10.46%

Discoms have projected the interest charges for FY 2023-24 as detailed in the table below:

Table 5.36: Interest on loans projected by Discoms for FY 2023-24 (RE)
(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL	Projected by SBPDCL	Total
1	Opening loan	5376	3905	9281
2	Addition to loan	948	1199	2147
3	Less: Repayment	484	376	860
4	Closing loan	5840	4728	10568
5	Average loans	5608	4316	9925
6	Interest rate/weighted average rate	9.63%	10.46%	
7	Interest Charges	540.32	451.58	992

Commission's analysis:

The Commission has considered opening loan for FY 2023-24 in review based on the closing loan approved for NBPDCCL Rs.5456.50 Crore and SBPDCL Rs.3992.57 Crore in true up for FY 2022-23. Addition to loan is considered in net capitalisation (after reducing the grants) based on the funding of capitalisation considered in Table 5.29 in terms of regulation 25(j) read with regulation 27 (a) as given hereunder:

Table 5.37: Debt Equity considered for FY 2023-24 in review

Sl. No.	Particulars	(Rs. Crore)	
		NBPDCCL	SBPDCL
1	Capitalisation during FY 2023-24	1584.04	1885.74
2	Less: Capitalisation through Grants	244.23	173.40
3	Net capitalisation (1-2)	1339.81	1712.34
4	Equity	188.52	397.33
5	Debt	1151.29	1315.01

The Commission, in terms of regulation 25(e) of BERC (Multi Year Distribution Tariff) Regulations 2021, has considered repayment of loan equal to the depreciation considered for the year 2023-24.

The Commission has considered weighted average rate of interest at 9.74% for NBPDCCL and 10.22% for SBPDCL in true up for FY 2022-23 and the same rate is considered in review for FY 2023-24.

The Commission provisionally considers the weighted average rate of interest for FY 2023-24 in line with the interest rate considered in true up for FY 2022-23, subject to true up based on audited accounts for FY 2023-24.

The Commission, considering the above, has computed interest on loans for FY 2023-24 in review as detailed in the table below:

Table 5.38: Interest on loan considered for FY 2023-24 (RE)

Sl. No.	Particulars	(Rs. Crore)		
		Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Opening loan	5456.50	3992.57	9449.06
2	Additions during the year	1151.29	1315.01	2466.30
3	Normative repayment	406.94	370.08	777.03
4	Closing loan (1+2-3)	6200.84	4937.49	11138.34
5	Average loans (1+4)/2	5828.67	4465.03	10293.70
6	Interest rate/weighted average rate	9.74%	10.22%	
7	Interest Charges (5x6)	567.71	456.33	1024.04

The Commission, accordingly, has considered interest on loans for FY 2023-24 in review.

5.15. Other finance charges**Petitioners' submission:**

Discoms have projected other finance charges for FY 2023-24 based on the charges claimed in true up for FY 2022-23 with escalation by 10% as given in the table below:

Table 5.39: Other finance charges projected for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
1	Other finance charges for the base year	57.06	90.73	147.79
2	Escalation percentage	10%	10%	
3	Add: increase in finance charges	5.71	9.07	14.78
4	Total Other finance charges	62.77	99.80	162.57

Commission's analysis:

The Commission, based on the audited accounts for FY 2022-23 of Discoms, has approved other finance charges at Rs.50.70 Crore for NBPDCCL and Rs.103.17 Crore for SBPDCL in true up for FY 2022-23. The Commission has considered escalation of 10% year on year in respect of other finance charges for the MYT control period of FY 2022-23 to FY 2024-25 in Tariff Order dated 25.03.2022 and accordingly has considered the escalation at 10% for FY 2023-24 in review. The Commission has considered other finance charges for FY 2023-24 as given in the table below:

Table 5.40: Other finance charges considered for FY 2023-24 in review**(Rs. Crore)**

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Other finance charges as approved in true up for FY 2022-23	50.70	103.17	152.87
2	Escalation percentage	10.00%	10.00%	
3	Add: increase in finance charges	5.07	10.32	15.39
4	Other finance charges	55.77	113.49	169.26

The Commission, accordingly, has considered other finance charges in review for FY 2023-24.

5.16. Return on Equity**Petitioners' submission:**

Discoms have submitted that RoE is calculated on the basis of closing balance of fixed assets as claimed in true up for FY 2022-23. It is submitted that RoE shall be allowed @14% on the net capital base as on 31.03.2016 and @15.50% on the net capital base with effect from 1st April 2016 onwards.

Discoms have computed the return on equity for FY 2023-24 as detailed in the table below:

Table 5.41: Return on Equity projected for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
1	Equity to the end of 31.3.2016	440.86	638.06	1078.92
2	Rate of Return on Equity	14.00%	14.00%	
3	Return on equity (1*2)	61.72	89.33	151.05
4	Opening Equity w.e.f.1.4.2016	2261.75	1571.98	3833.73
5	Additions	406.49	513.70	920.19
6	Closing equity (4+5)	2668.24	2085.68	4753.92
7	Average equity (4+6)/2	2465.00	1828.83	4293.83
8	Rate of Return on Equity	15.50%	15.50%	
9	Return on Equity (7*8)	382.07	283.47	665.54
10	Total Return on Equity (3+9)	443.79	372.80	816.59

Commission's analysis

The Commission has considered the opening equity based on the closing equity approved in true up for FY 2022-23 as given below:

Particulars	NBPDCCL	SBPDCL
Closing equity to end of 31.03.2016	440.86	638.06
Closing equity in respect of projects commissioned w.e.f.01.04.2016	2202.00	1500.50

The Commission accordingly has considered opening equity and in terms of regulation 27(c) has considered Rate of RoE at 14% on equity upto 31.3.2016 and 15.50% on equity w.e.f.01.04.2016. Addition to equity for FY 2023-24 is considered based on funding of capitalisation as shown in Table 5.37 above.

Regulation 29 of BERC (Multi Year Distribution Tariff) Regulations 2021, specify *the base rate of return on equity allowed under Regulation 27 shall be grossed up with the effective tax rate of the respective financial year. 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. The Discoms have not projected pre-tax RoE for FY 2023-24.

The Commission observes that the Discoms (NBPDCCL and SBPDCL) have not paid/incurred any expenditure towards Income tax/MAT for FY 2022-23 and hence RoE is considered without considering the IT/MAT for FY 2023-24 in review.

The Commission, accordingly, has computed Return on Equity for FY 2023-24 as detailed in the table below:

Table 5.42: Return on Equity considered for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Closing equity to end of 31.03.2016	440.86	638.06	1078.92
2	Rate of return on equity %	14.00%	14.00%	
3	Return on Equity (1x2)	61.72	89.33	151.05
	Equity with effect from 1st April 2016			
4	Opening equity	2202.00	1500.50	3702.50
5	Equity addition during the year	188.52	397.33	585.85
6	Closing equity (4+5)	2390.52	1897.83	4288.35
7	Average equity (4+6)/2	2296.26	1699.17	3995.43
8	Rate of return on equity with effect from 1.4.2016	15.50%	15.50%	15.50%
9	Return on equity (7*8)	355.92	263.37	619.29
10	Total Return on equity (3+9)	417.64	352.70	770.34

The Commission, accordingly, considers Return on Equity in review for FY 2023-24.

5.17. Operation and Maintenance (O&M) Expenses

5.17.1. Employee Cost

Petitioners' submission:

Discoms have submitted that the Commission, in terms of Regulation 22, had determined the norms for computation of employee expenses and accordingly based on the determined norms employee cost is estimated with CPI inflation indexation of 5.40% for FY 2023-24 (RE) as detailed in the table below:

Table 5.43: Employee Cost projected for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	NBPDCCL		SBPDCL	
		Base value	Projected Employee expenses	Base value	Projected Employee expenses
1	Average annual CPI index		5.40%		5.40%

Sl. No.	Particulars	NBPDCCL		SBPDCL	
		Base value	Projected Employee expenses	Base value	Projected Employee expenses
2	Norms-No. of personnel per 1000 consumers	0.0629	0.0629	0.1504	0.1504
3	Norms-No. of personnel per Substation	6.765	6.765	9.4117	9.4117
4	No. of consumers		12588		7340
5	No. of substations		643		623
6	Annual expenses per personnel (Rs. Crore)	0.09043	0.0953	0.0914	0.1020
7	Employee cost per 1000 consumers (Rs. crore)		75.47		112.62
8	Employee cost per substation (Rs. crore)		414.62		598.16
9	Total Employee cost (Rs. crore)		490.09		710.78

Commission's analysis:

The Commission, in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021, had determined Employee norm for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022. The base value of determined employee expense norm is as given below:

Particulars	Base Value for NBPDCCL	Base Value for SBPDCL
No. of personnel per 1000 consumers	0.0629	0.1504
No. of personnel per Sub-Station	6.765	9.4117
Annual expenses per personnel (Rs. Crore)	0.0854	0.0914

Regulation 22.1 of BERC (Multi Year Distribution Tariff) Regulations 2021 specifies, employee cost shall be computed as per the approved norm escalated by CPI. CPI inflation is defined as the average increase in the CPI for immediately preceding three years. Accordingly, the Commission has worked out average CPI inflation based on the available CPI index points as given below:

Table 5.44: CPI Inflation considered for FY 2022-23

Particulars	2019-20	2020-21	2021-22	2022-23
Annual Average CPI Index	322.50	338.69	356.06	377.62
CPI Inflation		5.02%	5.13%	6.05%
Weighted average CPI inflation				5.40%

The Discoms have furnished the details of projected total number of consumers and total no. of substations for FY 2023-24 as given below:

Particulars	NBPDCCL	SBPDCL
No. of substations	643	623
No. of consumers	12587610	7340310

Regulation 22 (g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation. Accordingly, the Commission has considered the weighted average increase in the Consumer Price Index (CPI) at 5.40% Table 5.44 for immediately preceding three years in terms of regulation 22.1 and escalated the base annual expenses per personnel to arrive the normative annual expenses for personnel for FY 2023-24.

The Commission considering the base value of employee expense norm has computed the employee expenses with CPI inflationary indexation of 5.40% for FY 2023-24 as detailed in the table below:

Table 5.45: Employee expenses based on norm considered for FY 2023-24 for Discoms

(Rs. Crore)						
Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
1	Average annual CPI index		5.40%		5.40%	
2	Norms-Number of personnel per 1000 consumers	0.0629	0.0629	0.1504	0.1504	
3	Norms-Number of personal per substation	6.765	6.765	9.4117	9.4117	
4	No. of consumers (1000)		12,588		7,340	
5	No of substations		643		623	
6	Annual expenses per personnel (Rs. Crore)	0.09043	0.09531	0.09678	0.10201	
7	Employee cost on the norm of 1000 consumers (2*5*6) (Rs. Crore)		75.47		112.62	
8	Employee cost on the norms of substation (4*5*6) (Rs. crore)		414.60		598.13	
9	Total Employee cost (7+8) (Rs. Crore)		490.07		710.75	1200.82

The Commission, accordingly, considers the employee expenses for FY 2023-24 in review as given in the table above.

5.17.2. Administrative and General (A&G) Expenses**Petitioners' submission:**

Discoms have submitted that the Commission, in terms of Regulation 22, had determined the norms for computation of A&G expenses and accordingly based on the determined norms A&G expenses are estimated with 7.86% WPI inflation indexation as detailed in the table below:

Table 5.46: A & G Expenses projected for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
1	Average annual WPI index		7.86%		7.86%	
2	Norms-A&G expenses per 1000 consumers	0.42	0.42	1.000	1.000	
3	A&G expenses per personnel	0.36	0.36	0.85	0.85	
4	No. of consumers (1000)		12588		7340	
5	No of employees		10520		11619	
6	Annual expenses per 1000 consumers (Rs. Crore)	0.0081	0.00875	0.0099	0.0112	
7	Annual expenses per employee (Rs. Crore)	0.0237	0.02556	0.0121	0.0137	
8	A&G cost per 1000 consumers		110.11		82.55	
9	A&G cost per employees		268.89		159.71	
10	Total A&G expenses (8+9)		379.00		242.27	621.27

In addition to the normative A&G expenses, the Discoms have projected rent charges for smart prepaid meter under phase-II. The total A&G expenses projected for FY 2023-24 are as given below:

Table 5.47: Total A & G Expenses projected for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	Total A&G expenses projected by NBPDCCL	Total A&G expenses projected by SBPDCL	Total
1	Normative A&G expenses	379.00	242.27	621.27
2	Rent charges for Smart prepaid meter (Ph-II)	53.95	20.11	74.06
3	Total A&G expenses	432.95	262.38	695.33

Commission's analysis:

The Commission, in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021, had determined A&G expense norm for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022. The base value of determined A&G expense norm is as given below:

Particulars	Base Value for NBPDCCL	Base Value for SBPDCL
Norm-A&G expense per 1000 consumers	0.420	1.000
Norm-A&G expense per personal/employee	0.360	0.850
Annual A&G expenses per 1000 consumers (Rs. Crore)	0.0077	0.0099
Annual A&G expenses per employee (Rs. Crore)	0.0225	0.0121

Regulation 22.3 of BERC (Multi Year Distribution Tariff) Regulations 2021 specifies, A&G expenses shall be computed as per the approved norm escalated by WPI. WPI inflation is defined as the average increase in the WPI for immediately preceding three years. Accordingly, the Commission has worked out average WPI inflation based on the available WPI index points as given hereunder.

Table 5.48: Weighted average WPI index inflation

Particulars	2019-20	2020-21	2021-22	2022-23
Average annual WPI index	121.80	123.38	139.41	152.53
Year on year increase		1.29%	13.00%	9.41%
Average increase	7.90%			

Discoms have furnished the no. of employees in Format 10 and no. of consumers in Format 7 of the petition for the year FY 2022-23 as given below.

Particulars	NBPDCCL	SBPDCL
No. of employees	4145	5699
No. of consumers	12587610	7340310

The Commission considering the base year A&G expense norm and no. of consumers has computed the A&G expenses with WPI inflationary indexation of 7.90% for FY 2023-24 as detailed in the table below:

Table 5.49: A&G expenses based on norm considered for FY 2023-24 for Discoms (Rs. Crore)

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
1	Average annual WPI index		5.32%		5.32%	
2	Norms-A&G expenses per 1000 consumers	0.42	0.42	1.000	1.000	
3	No. of consumers (1000)		12,588		7,340	
4	No of employees		4145		5699	
5	Annual expenses per 1000 consumers (Rs. Crore)	0.00811	0.00875	0.01043	0.01125	
6	Annual expenses per employee (Rs. Crore)	0.02370	0.02557	0.01274	0.01375	

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
7	A&G cost for 1000 consumers (3*5)		110.15		72.01	
8	A&G cost for employees (4*6)		105.98		74.73	
9	Normative A&G expenses (7+8) (Rs. Crore)		216.13		160.95	377.08
10	Rental charges for smart prepaid meters		53.95		20.11	74.06
11	Total A&G expenses (10+11) (Rs. Crore)		270.08		181.06	451.13

The Commission has provisionally considered the rental charges for smart prepaid meters as estimated by the Discoms in review for FY 2023-24 subject to true-up based on actual expenses reported through audited accounts due prudence check and validation as directed in Order dated 25.04.2023 in Case No . 05/2020 and Order dated 28.04.2023 in Case No 26/2022 and Case No 27/2022.

The Commission, accordingly, considers the A&G expenses for FY 2022-23 in review as given in the table above.

5.17.3. Repairs and Maintenance (R&M) Expenses

Petitioners' submission:

Discoms have submitted that Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2021, specify R&M expenses as percentage (as per the norm determined) of Gross Fixed Assets excluding land cost for the year. The Commission has determined the R&M norm i.e. 'K' factor at 1.24% for NBPDCCL and 1.71% for SBPDCL for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022. Discoms have projected the R&M expenses for FY 2023-24 as shown in the table below:

Table 5.50: R & M expenses projected for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
1	Opening GFA	22561.49	17558.68	40120.17
2	Opening land cost	1047.36	1546.29	2593.65
3	Opening GFA excl. land cost	21514.12	16012.39	37526.52
4	K factor	1.24%	1.71%	
5	R & M expenses	266.78	273.81	540.59

Commission's analysis

The Commission has examined the R&M expenses projected the by the Petitioner for FY 2023-24.

Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2021, specify R&M expenses as a percentage (as per the norm determined) of Gross Fixed Assets excluding land cost for the year.

The Commission had determined the R&M norm i.e. 'K' factor at 1.24% for NBPDCCL and 1.71% for SBPDCL for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022.

The Commission has considered the opening GFA net of land value for FY 2023-24 in Table 5.33 above and accordingly considers R&M expenses adopting 'K' factor for FY 2023-24 (RE) as detailed in the table below:

Table 5.51: R&M expenses considered for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Opening GFA	20981.21	15132.40	36113.61
2	K factor	1.24%	1.71%	
3	R & M expenses	260.17	258.76	518.93

The Commission, accordingly, considers R&M expenses in review for FY 2023-24.

5.17.4. Allocation of Holding Company Expenses**Petitioners' submission**

Discoms have submitted that as per Schedule 'F', the Holding Company shall continue to provide services to all successor entities during the interregnum period, until issue of further transfer notifications allocating the employees to respective companies.

Discoms have estimated the Holding Company expenses for FY 2023-24 duly escalating at 10% over the actual holding company expenses claimed in true up for FY 2022-23 as given in table below:

Table 5.52: Holding Company Expenses projected for FY 2023-24 (RE)**(Rs. Crore)**

Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
Base Holding company expenses	23.19	24.09	47.28

Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review	Total
Escalation %	10.00%	10.00%	
Increase	2.32	2.42	4.74
Total Holding company expenses	25.51	26.51	52.02

Commission's analysis:

The Commission has considered the holding company expenses approved in truing up for FY 2022-23 as base holding company expenses and further escalated with CPI inflationary increase of 5.40% (as adopted for Employee expenses since the holding company expenses majorly represent employee/Manpower expenses) and considered holding company expenses for FY 2023-24.

The Commission, in terms of Bihar State Electricity Reforms Transfer Scheme, 2012, has considered the holding company expenses for FY 2023-24 in review, as detailed in the table below:

Table 5.53: Holding Company expenses considered for FY 2023-24 (RE)
(Rs. Crore)

Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
Base Holding company expenses	23.19	24.10	47.29
Escalation %	5.40%	5.40%	
Increase	1.25	1.30	2.55
Total Holding company expenses	24.44	25.40	49.84

5.17.5. Summary of Operation and Maintenance (O&M) Expenses

The summary of the revised O & M expenses considered in review for FY 2023-24 (RE) are tabulated in table below:

Table 5.54: Total O&M cost considered for FY 2023-24 (RE)
(Rs. Crore)

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Employee cost	490.07	710.75	1200.82
2	R&M expenses	260.17	258.76	518.93
3	A&G Expenses	270.08	181.06	451.13
4	Holding company Expenses	24.44	25.40	49.85
5	Total O & M cost	1044.76	1175.97	2220.74

The Commission considers total O&M expenses in review for FY 2023-24 (RE).

5.18. Interest on Security Deposit**Petitioners' submission:**

Discoms have submitted that interest on Security Deposit has been considered as per prevailing RBI Bank Rate of 6.75%. The opening balance is considered as per the audited accounts for FY 2022-23 and the additions to SD for FY 2023-24 is considered equivalent to the amount of actual addition during FY 2022-23. The Discoms have projected interest on security deposit for FY 2023-24 as detailed in the table below:

Table 5.55: Interest on security deposit projected for FY 2023-24 (RE)

(Rs. Crore)				
Sl. No.	Particulars	Projected by NBPDCCL	Projected by SBPDCL	Total
1	Opening Security Deposit	450.71	783.59	1234.30
2	Net Addition	14.25	52.81	67.06
3	Closing Security Deposit	464.96	836.40	1301.36
4	Average Security Deposit	457.84	810.00	1267.83
5	RBI Bank Rate	6.75%	6.75%	
6	Interest on Security Deposit	30.90	54.67	85.58

Commission's analysis:

The BERC (Multi Year Distribution Tariff) Regulations 2021, Regulation 26 (iii) specifies that “..... interest shall be allowed on consumer security deposits and security deposits from Distribution system users held during the year at the Bank Rate as of the date on which the petition for determination is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year”.

Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person. The BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers.

The Commission has considered opening Security Deposit (SD) from consumers based on the closing SD approved in the true up for FY 2022-23 and net addition to SD is considered as projected by the Discoms for FY 2023-24. The Commission provisionally considers the RBI rate at 6.75% as projected by the Discoms.

The Commission considers the interest on consumer's security deposit in review for FY 2023-24 as given in the table below:

Table 5.56: Interest on security deposit considered for FY 2023-24 (RE)**(Rs. Crore)**

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Opening Security Deposit	450.71	783.59	1234.30
2	Addition during the year	14.26	52.81	67.07
3	Closing Security Deposit (1+2)	464.97	836.40	1301.37
4	Average Security Deposit (1+3)/2	457.84	810.00	1267.84
5	RBI Bank Rate	6.75%	6.75%	
6	Interest on Security Deposit (4*5)	30.90	54.67	85.58

The Commission considers interest on Consumer's Security Deposit for FY 2023-24 in review.

5.19. Non-Tariff Income

Petitioners' submission:

Discoms have submitted that Non-Tariff income includes bank charges, interest on investments and bank balances, miscellaneous recoveries etc. and projected the non-tariff income for FY 2023-24 with an overall escalation of around 10% on the non-tariff income of FY 2022-23 (except for rebate on power purchase which has been calculated as 1% of the total cost of power purchase, DPS is expected 100% growth and meter rent and excess provision written back).

Discoms have projected the non-tariff income in FY 2023-24 as detailed in the Table below:

Table 5.57: Non-tariff Income projected by Discoms for FY 2023-24 (RE)**(Rs. Crore)**

Particulars	Projected by NBPDCCL	Projected by SBPDCL
Interest on Advances to Suppliers/Contractors	217.11	1.02
Interest on Saving & Fixed Deposit from Bank	11.29	31.67
Interest on staff loans and advances	24.06	1.20
Delayed Payment Surcharge from Consumers	569.09	287.17
Income from Sale of tender paper	0.16	
Consumer Contribution Income	6.92	1.47
Rebate in Capacitive Charge & SECD Benefit	14.62	18.25
Income from Interest on TDS Refund		0.82
Miscellaneous Receipts	16.83	1.05
Reimbursement from disaster management	26.09	
Sale of Scrap	4.42	24.04
Rebate/Discount/Incentive for timely payment of power purchase bills	35.59	39.29
Liquidated damages from agencies		54.15

Particulars	Projected by NBPDCCL	Projected by SBPDCL
Rental income from Board property	2.31	5.15
Supervision Income	13.54	20.51
Miscellaneous recoveries from consumers	43.19	
Miscellaneous recoveries	22.28	
Total Non-tariff income	1007.50	485.79
Delayed Payment Surcharge from Consumers	569.09	287.17
Principal amount on which DPS Charged	3161.61	1914.48
Interest Rate of funding DPS	10.05%	10.05%
Less: Interest on funding Principal	317.74	192.41
Net Non-Tariff Income	689.76	293.38

Commission analysis:

The Commission in true up for FY 2022-23 has considered non-tariff income (excluding rebate on payment of power purchase bills and financing cost of DPS) of Rs.716.48 Crore for NBPDCCL and Rs.644.85 Crore for SBPDCL.

The Commission considers rebate @1% of the power purchase cost including PGCIL and transmission charges for FY 2023-24. The Commission, accordingly, has considered non-tariff income for FY 2023-24 in review as detailed in the table below.

Table 5.58: Non-tariff income considered for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Non-tariff income projected by the petitioner	833.48	790.81	1623.99
2	Less: Rebate on power purchase considered by the Petitioners	117.00	145.96	262.66
	Sub-total	716.48	644.85	1361.33
2	Add: Rebate @1% on power purchase	121.69	142.77	264.46
3	Total Non-tariff income	838.16	787.63	1625.79

The Commission, accordingly, considered non-tariff income for FY 2023-24 (RE) as detailed in the Table above.

5.20. Energy Saving Certificate (ESCs)

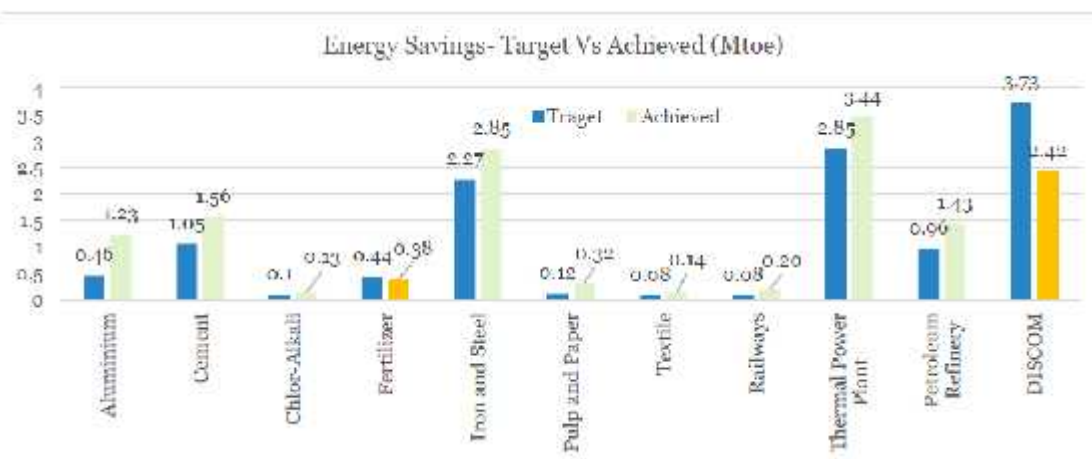
Petitioners' submission:

Discoms have submitted that, Perform, Achieve and Trade (PAT) is a regulatory instrument to reduce Specific Energy Consumption in energy intensive industries, with an associated market-based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. PAT is a

mechanism for improvements in energy efficiency of energy intensive industries. Specific high energy intensive industries are identified as Designated Consumers (DCs) within certain key sectors.

The 'Distribution Licensee' was also included as DCs under second cycle of PAT. PAT Cycle II commenced from 1st April, 2016 and was completed on 31st March 2019. Implementation of PAT cycle -II has resulted into total energy savings of about 14.08 MTOE translating into avoiding of about 68 million tonne of CO₂ emission.

PAT Sector (Demand side)	PAT Sector (Supply side)	No. of PAT DCs analysed for M&V	Energy Savings achieved (Mtoe)	% share of savings (Sector wise)	% share of savings (Demand & Supply wise)
Aluminium		11	1.226	8.7%	48.24%
Cement		99	1.559	11.1%	
Chlor-Alkali		24	0.133	0.9%	
Fertiliser		36	0.383	2.7%	
Iron & Steel		67	2.845	20.2%	
Pulp and paper		24	0.315	2.2%	
Textile		85	0.135	2.2%	
Railways		22	0.196	1.4%	51.76%
	Thermal power plant	118	3.435	24.4%	
	Petroleum Refinery	17	1.430	10.2%	
	Discoms	39	2.423	17.2%	
Grand Total		544	14.08	100%	100%



The Monitoring and Verification (M&V) Audit of the Petitioners has been carried out by FICCI in accordance with the Energy Conservation (Energy Consumption Norms and standards for Designated Consumers, Forms, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy

Consumed) Rules, 2012, Amendment Rules 2016, Amendment Rules 2018 and Monitoring and Verification Guidelines for DISCOM sector.

Bureau of Energy Efficiency (BEE), during M&V Audit has inferred that the Petitioners have not achieved the PAT Target in PAT Cycle-II and eligible for penalty of 45758 nos for NBPDCCL and 97658 nos. for SBPDCL of Energy Savings Certificates (ESCs). The detailed calculation is furnished below.

Sl. No.	Particulars	NBPDCCL	SBPDCL	UoM
a.1	Energy consumptions norms & standards in % of T&D losses for baseline year FY 2014-15 as notified	33.66	45.07	% of T&D Loss
a.2	Energy consumptions norms & standards in % of T&D losses for baseline year FY 2014-15 as Revised by BEE	37.89	49.73	% of T&D Loss
b.1	Net input Energy (baseline) as notified	6019.00	10148.00	Million kWh
b.2	Net input Energy (baseline) as notified (Revised)	6847.71	10148.00	Million kWh
c.1	Energy consumptions norms & standards in % of T&D losses for Target year FY 2018-19 as notified	30.81	39.95	% of T&D Loss
c.2	Energy consumptions norms & standards in % of T&D losses for Target year FY 2018-19 as Revised by BEE	20.00	22.00	% of T&D Loss
d.1	Difference of % of T&D Losses in Baseline Year and % of T&D Losses in Target Year as notified	2.85	5.12	% of T&D Loss (a.1-c.1)
d.2	Difference of % of T&D Losses in Baseline Year and % of T&D Losses in Target Year as Revised by BEE	17.89	27.73	% of T&D Loss (a.2-c.2)
d.3	Normalised % of T&D Losses (Achieved in the target year)	27.77	33.19	% of T&D Loss
e.	Energy Saving Certificates to be issued or deficit	-45758	-97658	Nos [(c.2-d.3)*b2*860/10/100]

Monitoring & Verification Audit was completed as per PAT Rules and guidelines given by BEE using the latest DISCOM specific pro forma filled by DC team and sent to SDA / BEE for further review and acceptance.

NBPDCCL and SBPDCL submitted to Bureau of Energy Efficiency (BEE) that Discoms do not contribute to Green House Gas emissions and are in continuous evolving phase on account of various projects like Smart Metering, Revamped Distribution Sector Scheme (RDSS) etc. therefore, Discoms may be exempted from PAT Cycle-II. The BEE

office memorandum no.45/01/ESCerts Trading/22-23 dated 27.06.2023 read as under:

“This is with reference to the last OM no 45/01/ESCerts Trading/22-23 issued on 6th February 2023 for resumption of trading from 14th Feb’2023 onwards and OM no. 45/01/ESCerts Trading /22-23 dated 10th March .2023 regarding declaring last date for th trading of ESCerts.

*In this regard, it is to intimate **all the DCs of PAT Cycle II, that Trading of ESCerts is further extended till 1st August, 2023. This will be last and final extension.***

DCs (buyers) who will not comply with the entitled obligations shall be liable to pay penalty after 1st August, 2023.

....“

Discoms have stated that a letter was also received from SDA (State Designated Agency)-BREDA regarding purchase of ESCerts. Since, nothing was heard from BEE and last date of transaction was 01.08.2023, both discoms decided to buy 22500 ESCert for Exchange IEX and informed to BEE.

NBPDCCL has claimed Rs.10.04 crore for 45758 ESCs and SBPDCL claimed Rs.26.30 crore for 97658 ESCs in review for FY 2023-24. It is requested that cost of ESCs may be passed on in to the ARR like RECs.

Commission’s analysis:

The Government of India under the Energy Conservation Act, 2001 has issued “Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Tonne of Oil Equivalent of Energy Consumed) Rule, 2012”. The rules define:

-) The procedure for establishment of energy consumption norms and standards and specify such norms and standards for Designated Consumers (Rule 3 & 4)
-) Scheme for preparation and implementation of efficient use of energy and its conservation. (Rule 5)
-) Assessment of Performance by the Designated Consumers with reference to the energy Consumption Norms and Standards specified for the utility (Rule 6)

-) Procedure for Assessment of performance through Monitoring & Verification (M&V) and Check verification by Empanelled Accredited Energy Auditor (Rule 7 & 8)
-) The Procedure regarding compliance with energy consumption Norms and Standards and for issue of ESCerts (Rule 9, 11, 12 & 13).
-) Role and responsibilities of various stake holders (Rule 10 & 15)
-) Establishment of new Baseline for the next PAT Cycle (Rule 14).
-) The procedure for notifying the price of one tonne of oil equivalent (toe) for purposes of penalty (Rule 16).
-) The reporting and verification format for compliance with Energy Consumption Norms and Standards (Form A, Form B, Form C and Form D).
-) The procedure and formulae for Normalization (Schedule I & II)
-) The timelines for various activities under Perform, Achieve and Trade

The technical committee set up by Bureau of Energy Efficiency verify the data of the previous 3 years submitted by DC and calculate net energy input, annual SEC in the base year and projected SEC for the target year considering the capacity utilization, average energy consumption, etc. factors and submit report to BEE. On validation and scrutiny, the BEE submits report to GoI based which the GoI specify the energy consumption norms and standards for every DCs for compliance.

The DC in consultation with empanelled accredited energy auditor, shall put in place **transparent, independent and credible Monitoring and Verification (M&V) arrangement** for Energy Consumption as per the Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010 for compliance with the Energy Consumption Norms and Standards for;

-) Preparation and Maintenance of Quarterly Data / Yearly Data reports / End of Cycle Data Reports by Designated Consumers
-) On the performance of plant and production process;
-) Internal Field Audit of Plant and Production Process;
-) On outcomes of Internal Field Audit of Plant and Production Process;
-) A Year wise report on Production achieved, Energy Consumed and SEC consumption and reduction achieved, and measures adopted for energy conservation and quantity of savings achieved;

-) All the activities under taken by the designated consumers under these rules shall be scrutinized by the Empanelled Accredited Energy Auditor (EmAEA) for the purpose of verification report, and
-) the DC shall furnish the full and complete data, provide necessary documents and other facilities required by EmAEA for the purpose of performing the function of verification under these rules.

The BEE on verification and correctness of report and satisfying itself, send its recommendation to the Central Government, based on the claim raised by the designated consumer in Form 'A', within two months from the last date of submission of said Form 'A' by the concerned state designated agency, for issuance of energy savings certificates. The exact numbers of ESCerts to be issued to the DC and the entitlement for such ESCerts to be Purchased shall be determined by following formula:

for other Sectors

Number of Escerts = (SEC Notified for the target year – SEC achieved in the target year) X Notified Production in Baseline Year

The designated consumer for the purpose of achieving the compliance with the energy consumption norms and standards during the target year, in the relevant cycle shall take the following action and after completing the said action, furnish the status of compliance to the concerned state designated agency with a copy to the Bureau in Form 'D' by the end of one month from the completion of trading of ESCerts of respective cycle as may be specified by CERC.

- (a) by implementation of energy conservation and energy efficiency improvement measures or;
- (b) where the measures implemented in terms of clause (a) are found inadequate for achieving compliance with the energy consumption norms and standards, the designated consumer shall purchase the energy savings certificates equivalent in full satisfaction of the shortfall in the energy consumption norms and standards worked out in terms of metric ton of oil equivalent.

Clause 3 (A) (v) of the Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of

Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Tonne of Oil Equivalent of Energy Consumed) Amendment Rules, 2018 specify the formulae for computation of ESCs.

(v) for DISCOM sector: Transmission and distribution loss in percentage shall be used to assess energy performance of electricity distribution companies and calculated as per the following formula, namely:

$$\text{Transmission and distribution loss (\%)} = \{1 - (\text{Total energy billed} / \text{Net input energy}) \times 100\}$$

Where:

Total energy billed (Million kWh) is the Net energy billed (adjusted for energy traded);

Net input energy (Million kWh) is the energy received at distribution periphery after adjusting the transmission losses and energy traded.

Perform, Achieve and Trade (PAT) scheme under Energy Conservation Rules 2012.

The Rule 13 specify as follows:

13. Compliance of energy consumption norms and standards. – (1) The designated consumer for the purpose of achieving the compliance with the energy consumption norms and standards during the target year, in the relevant cycle shall take the following action after completing the said action, furnish the status of compliance to the concerned state designated agency with a copy to the Bureau on Form 'D' (twenty four months from the last date of submission of Form A).

- (a) by implementation of energy conservation and energy efficiency improvement measures or;
- (b) where the measures implemented in terms of clause (a) are found inadequate for achieving compliance with the energy consumption norms and standards, the designated consumer shall purchase the energy savings certificates equivalent in full satisfaction of the shortfall in the energy consumption norms and standards worked out in terms of metric ton of oil equivalent.

From the above, the energy conservation target is specified in terms of reducing transmission and distribution loss in percentage to assess energy performance of electricity distribution companies.

The Commission has been prescribing the T&D loss targets for the discoms year on year through Tariff orders. The T&D loss/AT&C loss is controllable factor and losses due to higher T&D loss level than the approved target level shall be borne by the Discoms. The inefficiencies of the petitioners cannot be passed on to the consumers. Further, it is pertinent to state that the GoB is extending the financial support to the Discoms to meet the financial loss due to higher power purchase due to higher T&D losses. As such, the Commission does not consider the cost of ESCs as pass through in to the ARR in review for FY 2023-24.

5.21. Interest on working capital
Petitioners' submission:

Discoms have submitted that, in terms of Regulation 26 of BERC (Multi Year Distribution Tariff) Regulations 2021, the working capital requirement and interest on working capital is computed for FY 2023-24. The rate of interest applied on the proposed working capital is @10.05% as per the SBI 1 year MCLR 8.55% plus 150 basis points in terms of regulation 26. Discoms have submitted that they have not considered grant against disallowed power purchase for low distribution loss, since the support is infused by State Govt. in terms of equity and not in terms of grant.

Discoms have projected interest on working for FY 2023-24 computed based on the norms as detailed in the table below:

Table 5.59: Interest on working capital projected for FY 2023-24 (RE)

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review
1	Two months equivalent of expected revenue	2190.42	2673.69
2	Maintenance spares @40% of R&M expenses for one month	8.89	9.13
3	Sub-total (1+2)	2199.32	2682.81
4	Less:		
	(i) Power purchase cost, transmission charges and load dispatch charges of one month	1262.07	1399.43
	(ii) Depreciation, return on equity and contribution to contingency reserve	154.56	124.81
	(iii) Security Deposits from consumers	464.96	726.03
	(iv) Grant received from the State Govt. for power purchase and other O&M expenses	3050.50	3506.50
5	Sub-total (4(i)+4(ii)+4(iii)+4(iv))	5249.82	5756.77
6	Net working capital requirement (3-5)	(2706.95)	(3073.95)

Sl. No.	Particulars	Projected by NBPDCCL in review	Projected by SBPDCL in review
7	Rate of interest %	10.05%	10.05%
8	Interest on working capital (6*7)	--	--

Commission's analysis

The Commission has computed the interest on working capital as per the norms prescribed in regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations, 2021. The SBI MCLR as on 14.11.2022 (date of the petition) is at 8.55%. The Commission has considered rate of interest at 10.05% (8.55% plus 1.50% basis points (1.50%)) as per regulation 26 and accordingly, the same is applied on the working capital for computing interest on working capital in review for FY 2023-24.

Regulation 26 (iii) specifies that ***“Provided also that if the State Government is providing resource gap grant and/or direct subsidy to consumers, the working capital shall be reduced by two months equivalent of that amount”***.

The State Government is extending financial support/tariff subsidy to the consumers is being released to the Discoms for onward credit to the consumer account and balance (net of tariff subsidy) bill amount shall be payable by the consumers.

The GoB vide **Memo Pragyapan 02/Board Misc.-21/2010 (Part-III)-1487 / Patna, dated 31.03.2023** has sanctioned Rs.13114.08 crore @Rs.1092.84 crore/PM towards the direct tariff subsidy to the consumers for FY 2023-24. The tariff subsidy is allocated among the discoms in their sales ratio as given hereunder:

Particulars	NBPDCCL	SBPDCL	Total
Sales to consumers (MU) estimated for FY 2023-24	14241.99	17244.44	31486.43
% of sales to total sales	45.23%	54.77%	100.00%
Tariff subsidy to consumers	5931.78	7182.30	13114.08

The Commission has considered the State Government financial support to the DISCOMs on monthly basis, for which no working capital is required. Accordingly, the amount equivalent to two months of financial support from the State Government to the DISCOMs is reduced from the working capital requirement of the DISCOMs.

The Commission based on the expenses/costs approved in review for FY 2023-24, has computed the working capital requirement and interest on working capital for FY 2023-24 in review as detailed in the table below:

Table 5.60: Interest on working capital considered for FY 2023-24 (RE)

(Rs. Crore)			
Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review
1	Maintenance spares @40% of R&M expenses for one month	8.67	8.63
2	Two months equivalent of expected revenue	2071.42	2510.68
3	Sub-total (1+2)	2080.10	2519.31
4	Less:		
	(i) Power purchase cost, transmission charges and load dispatch charges of one month	895.25	1110.71
	(ii) Depreciation return on equity and contribution to contingency reserve	137.43	120.46
	(iii) Security Deposits from consumers	464.97	836.40
	(iv) Grant received from the State Govt. for power purchase and other O&M expenses	988.63	1197.05
5	Sub-total (4(i)+4(ii)+4(iii)+4(iv))	2486.28	3264.62
6	Net working capital requirement (3-5)	(406.18)	(745.31)
7	Rate of interest %	10.05%	10.05%
8	Interest on working capital (6*7)	--	--

The Commission, accordingly, considers interest on working capital as “Nil” in review for FY 2023-24.

5.22. Revenue from sale of power at existing tariff Petitioners’ submission

Discoms have submitted the category wise revenue from sale of power based on the existing tariff for FY 2023-24 as detailed in the table below:

Table 5.61: Revenue from sales of Power at existing Tariff projected by Discoms for FY 2023-24 (RE)

Category of consumers	NBPDCCL		SBPDCL		Total	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
Domestic	9,038.06	7,618.43	8,064.09	7,136.75	17,102.15	14,755.18
Kutir Jyoti	2,815.61	2,234.66	1,390.70	1,089.55	4,206.31	3,324.21
DS I Rural	4,101.05	3,488.63	3,189.45	2,656.15	7,290.50	6,144.78
DS II Demand Based	2,121.04	1,894.76	3,483.67	3,390.80	5,604.71	5,285.56
DS III	0.36	0.38	0.27	0.25	0.63	0.63
Non_Domestic Service	2,053.59	2,223.10	1,731.96	2,031.87	3,785.55	4,254.97
NDS I - Metered Now Demand Based	712.24	634.21	427.48	378.55	1,139.72	1,012.76
NDS II - Demand Based	1,341.35	1588.89	1304.48	1653.32	2,645.83	3,242.21
Street Light Services	119.12	238.02	251.76	271.33	370.88	509.35

Category of consumers	NBPDCCL		SBPDCL		Total	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
SS Metered	11.68	11.29	66.04	61.9	77.72	73.19
SS Unmetered	107.44	226.73	185.72	209.43	293.16	436.16
Irrigation & Allied Services	1,448.14	1,133.26	3,984.82	2,989.31	5,432.96	4,122.57
IAS I	1352.37	1018.12	3623.49	2668.55	4,975.86	3,686.67
IAS II	95.77	115.14	361.33	320.76	457.10	435.90
Public Service Connections	510.32	480.82	441.65	446.02	951.97	926.84
Public Water Works	41.56	68.27	162.05	202.08	203.61	270.35
Har GharNal	468.76	412.55	279.6	243.94	748.36	656.49
Low Tension Industrial Services	502.57	764.74	445.86	792.22	948.43	1,556.96
LTIS I (0-19 kW)	463	696.7	302.55	524.11	765.55	1,220.81
LTIS II (>19 kW - 74 kW)	39.57	68.04	143.31	268.11	182.88	336.15
LT Electric Vehicle Charging Station	9.63	9.49	5.2	5.12	14.83	14.61
High Tension-General	1,058.11	1,314.34	2,985.62	3,226.69	4,043.73	4,541.03
HTS I - 11 kV	615.7	786.1	1105.22	1382.77	1,720.92	2,168.87
HTS II - 33 kV	288.1	340.26	778.08	934.42	1,066.18	1,274.68
HTS III -132 kV	111.2	153.47	272.07	297.21	383.27	450.68
HTS IV - 220 kV					0.00	0.00
HTSS	43.11	34.51	830.25	612.29	873.36	646.80
High Tension-Industrial services	24.21	32.49	0.00	0.00	24.21	32.49
HTS I - 11 kV	2.49	3.29			2.49	3.29
HTS II - 33 kV	3.47	3.93			3.47	3.93
HTS III -132 kV					0.00	0.00
HTS IV - 220 kV	18.25	25.27			18.25	25.27
HT Electric Vehicle Charging Stations.	22.58	20.07			22.58	20.07
HTIS (Oxygen manufacturers)	0.1	0.32	9.62	15.3	9.72	15.62
Railway Traction Services	132.21	165.28	283.51	329.82	415.72	495.10
Nepal	314.22	226.55			314.22	226.55
Total	15,232.89	*14,226.90	18,204.07	17,244.44	33,436.96	31,471.34

* Revised in additional submission dated 13.12.2023

Commission's analysis

The Commission has computed category wise revenue on existing tariffs for FY 2023-24 based on the projections of number of consumers, connected load and energy sales as approved by the Commission in this review order for FY 2023-24. The expected revenue from sale of power for NBPDCCL and SBPDCL for FY 2023-24 considered by the Commission is shown in the Table below:

Table 5.62: Summary of Revenue for FY 2023-24 (RE) as considered by Commission

Particulars	NBPDCCL	SBPDCL	Total
Sales (MU)	15232.89	18204.07	33436.96
Revenue (Rs. Crore)	14299.28	17261.91	31561.19

Detailed computation of revenue from sale of power at existing tariff for the Discoms for FY 2023-24 are annexed as Annexure 5.1 and 5.2

5.23. Annual Revenue Requirement and Revenue Gap at existing tariff projected for FY 2023-24 (RE)

Petitioners' submission:

Discoms have submitted that the gross ARR consists of the power purchase costs, interest and finance cost, O&M cost, depreciation and interest on working capital. The Discoms have computed the revenue requirement for FY 2023-24 against approved revenue requirement by the Commission for FY 2023-24 in Tariff Order dated 23.03.2023, as detailed in the table below:

Table 5.63: ARR and Revenue Gap/(Surplus) projected for FY 2023-24 (RE)
(Rs. Crore)

Sl. No	Particulars	NBPDCCL		SBPDCL	
		Approved in Tariff order dated 23.03.2023	Projected by NBPDCCL in review	Approved in Tariff order dated 23.03.2023	Projected by SBPDCL in review
1	Purchase of power	8981.20	11110.93	10418.54	13043.27
2	PGCIL & Other transmission charges	890.11	1162.11	1044.91	1364.21
3	BSPTCL transmission charges	541.25	615.73	635.37	722.82
4	BGCL transmission charges	100.91	88.36	118.47	103.72
5	SLDC charges	6.15	2.50	7.22	2.94
6	Sale of surplus power		-1942.46		-1556.15
7	O & M Expenses (A+B+C+D)	989.99	1215.33	1166.49	1273.48
A	Employee expenses	481.29	490.09	710.44	710.78
B	R&M expenses	264.65	266.78	274.21	273.81
C	A&G expenses	218.77	432.95	155.25	262.38
D	Holding company expenses	25.28	25.51	26.59	26.51
8	Depreciation	362.02	483.56	364.91	376.09
9	Interest on loan	546.77	540.32	444.17	451.58
10	Other finance charges	57.16	62.77	70.79	99.80
11	Return on equity	412.89	443.79	378.74	372.80
12	Interest on SD	23.29	30.90	40.88	54.67
13	Energy saving certificate (ESCs)		10.00		26.30
14	Interest on working capital				
15	Less: Non-tariff income	-1170.01	-689.76	-758.44	-293.40
16	Net Revenue requirement (1 to 15)	11741.75	13134.08	13932.05	16042.12
17	Revenue from Existing tariff	13995.63	14226.90	16610.36	17244.44
18	Add: Impact of Order (review) dated 07.11.2022 in Case no.7/2022 (NBPDCCL) and 8/2022 (SBPDCL) relating to truing up for FY 2020-21 along with carrying cost	574.16		1032.73	
19	Add: Trued up Gap / (Surplus)	-195.02	-195.02	3515.41	3515.37
20	Revenue Gap / (Surplus) for FY 2023-24 (16-17+18+19)	-1874.74	-1287.84	1869.83	2313.05

Commission analysis:

The Commission has computed the net annual revenue requirement based on the costs approved in the preceding paragraphs in the review as detailed in the table below:

Table 5.64: ARR and Revenue Gap/(Surplus) considered in review for FY 2023-24
(Rs. Crore)

Sl. No.	Particulars	Considered for NBPDCCL in review	Considered for SBPDCL in review	Total
1	Purchase of power	10358.10	12152.02	22510.12
2	PGCIL Transmission charges & POSOCO charges	1162.10	1364.22	2526.32
3	BSPTCL transmission charges	541.25	635.37	1176.62
4	BGCL transmission charges	100.91	118.47	219.38
5	SLDC charges	6.15	7.22	13.37
6	Treatment of surplus power	(1425.53)	(948.83)	(2374.36)
7	O & M Expenses (A+B+C+D)	1044.76	1175.97	2220.73
A	Employee expenses	490.07	710.75	1200.82
B	R&M expenses	260.17	258.76	518.93
C	A&G expenses	270.08	181.06	451.13
D	Holding company expenses	24.44	25.40	49.84
8	Depreciation	406.94	370.08	777.03
9	Interest on loan	567.71	456.33	1024.04
10	Other finance charges	55.77	113.49	169.26
11	Return on equity	417.64	352.70	770.34
12	Interest on SD	30.90	54.67	85.58
13	Cost of Energy saving certificates	0.00	0.00	0.00
14	Interest on working capital	0.00	0.00	0.00
15	Non-tariff income	(838.16)	(787.63)	(1625.79)
16	Annual Revenue requirement (1 to 15)	12428.55	15064.09	27492.64
17	Revenue from Existing tariff	14299.28	17261.91	31561.19
18	Add: Impact of Order (review) dated 07.11.2022 in Case no.7/2022 (NBPDCCL) and 8/2022 (SBPDCL) relating to truing up for FY 2020-21 along with carrying cost	574.16	1032.73	1606.89
19	Add: Recovery of (Surplus) FY 2021-22 with carrying cost	(195.02)	3515.41	3320.39
20	Net Gap / (Surplus) for FY 2023-24 (16-17+18+19)	(1491.59)	2350.32	858.73

The Commission considers the **net revenue Gap of Rs.858.73 Crore** for Discoms (**surplus of Rs.1491.59 Crore for NBPDCCL and gap of Rs.2350.32 Crore for SBPDCL**) in review for FY 2023-24 subject to final truing up based on the audited annual accounts for FY 2023-24 submitted by the Discoms.

According to Regulation 14 (f) of BERC (Multi Year Distribution Tariff) Regulations, 2021 specify that *the revised estimated gap/surplus as a result of APR shall not be passed in the ARR of ensuing year*. The Commission accordingly has not considered the estimated revenue Gap/(Surplus) as a result of Annual Performance Review (APR) as pass through in the ARR of ensuing year i.e. FY 2024-25.

Annexure-5.1

NBPDCCL -Revenue for FY 2023-24 Considered by Commission

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Domestic	11231146	9169298.83	9038.06							609.74	7008.70	7618.44	8.43
Kutir Jyoti	4301864	1077341.58	2581.12							103.24	1953.91	2057.15	7.97
Metered 0-50	43,01,864	1077341.58	2581.12	20.00	Connection/Month	7.57	kWh	1.00	1.00	103.24	1953.91	2057.15	7.97
DS I Rural	5492087	5631932.19	4335.54							270.33	3395.81	3666.14	8.46
Metered (Now Demand Based)	5492087	5631932.19	4335.54							270.33	3395.81	3666.14	8.46
First 50 Units	26,69,784	2737764.64	2228.07	40.00	kW/Month	7.57	kWh	1.00	1.00	131.41	1686.65	1818.06	8.16
Above 50 units	28,22,303	2894167.56	2107.47	40.00	kW/Month	8.11	kWh	1.00	1.00	138.92	1709.16	1848.08	8.77
DS II Demand Based	1437108	2459507.53	2121.04							236.11	1658.65	1894.76	8.93
First 100 Units	12,02,300	2057649.39	1774.48	80.00	kW/Month	7.57	kWh	1.00	1.00	197.53	1343.28	1540.82	8.68
Above 100 units	2,34,808	401858.14	346.56	80.00	kW/Month	9.10	kWh	1.00	1.00	38.58	315.37	353.94	10.21
DS III	87	517.52	0.36	80.00	kW/Month	9.18	kWh	1.00	1.00	0.05	0.33	0.38	10.54
Non_Domestic Service	925528	1860435.48	2053.59							459.90	1763.21	2223.10	10.83
NDS I - Metered Now Demand Based	523119	729033.64	712.24							52.49	581.72	634.21	8.90
First 100 Units	2,39,807	334202.06	326.50	60.00	kW/Month	7.94	kWh	1.00	1.00	24.06	259.24	283.31	8.68
Above 100 units	2,83,312	394831.57	385.74	60.00	kW/Month	8.36	kWh	1.00	1.00	28.43	322.48	350.90	9.10

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
NDS II - Demand Based	402409	1131401.85	1341.35							407.41	1181.49	1588.89	11.85
Contract Demand <0.5 kW	2,500	1382.96	2.05	200.00	Connection/Month	7.88	kWh	1.00	1.00	0.60	1.61	2.21	10.81
Contract Demand >0.5 kW	3,99,909	1130018.89	1339.31							406.81	1179.87	1586.68	11.85
First 100 Units	90,119	254650.10	301.81	300.00	kW/Month	7.88	kWh	1.00	1.00	91.67	237.83	329.50	10.92
Above 100 units	3,09,790	875368.79	1037.49	300.00	kW/Month	9.08	kWh	1.00	1.00	315.13	942.04	1257.18	12.12
Street Light Services	2607	29973.93	119.11							227.30	10.72	238.02	19.98
SS Metered	602	4781.72	11.68	100.00	kW/Month	9.18	kWh	1.00	1.00	0.57	10.72	11.29	9.67
SS Unmetered	2,005	25192.21	107.44	7500.00	100 kW/Month		kWh	1.00	1.00	226.73	0.00	226.73	21.10
Irrigation & Allied Services	272740	594645.87	1448.15							173.20	1003.69	1176.89	8.13
IAS I	266107	538785.79	1352.37							135.96	925.79	1061.75	7.85
Unmetered	6,768	24513.84	8.69	1350.00	HP/Month		kWh		1.00	53.23	0.00	53.23	61.23
Metered	2,59,339	514271.95	1343.68	100.00	HP/Month	6.89	kWh		1.00	82.72	925.79	1008.52	7.51
IAS II	6633	55860.08	95.77							37.24	77.90	115.14	12.02
Metered (Now Demand Based)	6,633	55860.08	95.77	500.00	kVA/Month	7.32	kVAh	0.90	1.00	37.24	77.90	115.14	12.02
Public Service Connections	64724	175400.40	510.35							50.22	435.15	485.38	9.51

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Public Water Works	2,197	32406.37	41.59	630.00	kVA/Month	9.87	kVAh	0.90	1.00	27.22	45.61	72.83	17.51
Har Ghar Nal	62,527	142994.02	468.76	100.00	HP/Month	8.31	kWh		1.00	23.00	389.54	412.55	8.80
Low Tension Industrial Services	89012	819641.13	502.56							321.37	443.37	764.74	15.22
LTIS I (0-19 kW)	87,749	750617.27	463.00	288.00	kVA/Month	7.94	kVAh	0.90	1.00	288.24	408.46	696.70	15.05
LTIS II (>19 kW - 74 kW)	1,263	69023.86	39.57	360.00	kVA/Month	7.94	kVAh	0.90	1.00	33.13	34.91	68.04	17.20
LT Electric Vehicle Charging Station	224	644.72	9.63			8.87	kVAh	0.90	1.00	0.00	9.49	9.49	9.86
High Tension (General)	1602	509232.95	1058.10							376.60	937.73	1314.33	12.42
HTS I - 11 kV	1,513	313524.57	615.70	550.00	kVA/Month	8.13	kVAh	0.90	1.00	229.92	556.18	786.10	12.77
HTS II - 33 kV	80	111721.83	288.10	550.00	kVA/Month	8.07	kVAh	0.90	1.00	81.93	258.33	340.26	11.81
HTS III -132 kV	6	74492.55	111.20	550.00	kVA/Month	8.00	kVAh	0.90	1.00	54.63	98.84	153.47	13.80
HTS IV - 220 kV	0	0.00	0.00	550.00	kVA/Month	7.94	kVAh	0.90	1.00	0.00	0.00	0.00	
HTSS	3	9494.00	43.11	800.00	kVA/Month	5.09	kVAh	0.90	1.00	10.13	24.38	34.51	8.00
HT Industrial Services	5	15216.90	24.31		0.00		0.00	5.40	6.00	11.27	21.52	32.80	
HTS I - 11 kV	2.00	1414.00	2.49	550.00	kVA/Month	8.13	kVAh	0.90	1.00	1.04	2.25	3.29	0.02
HTS II - 33 kV	1.00	1111.00	3.47	550.00	kVA/Month	8.07	kVAh	0.90	1.00	0.81	3.11	3.93	0.04
HTS III -132 kV	0.00	0.00	0.00	550.00	kVA/Month	8.00	kVAh	0.90	1.00	0.00	0.00	0.00	#DIV/0!
HTS IV - 220 kV	1.00	12500.00	18.25	550.00	kVA/Month	7.94	kVAh	0.90	1.00	9.17	16.10	25.27	0.02
HTSS (33/11kV)													

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
HTIS (Oxygen Manufacturers) 11kV kV	1	191.90	0.10	1000.00	kVA/Month	5.58	kVAh	0.90	1.00	0.26	0.06	0.32	31.28
Railway Traction Services	8	60000.00	132.21	540.00	kVA/Month	8.31	kVAh	0.90	1.00	43.20	122.08	165.28	12.50
HT Electric Vehicle Charging Stations.	3	6048.00	22.58		0.00	8.00	kVAh	0.90	1.00	0.00	20.07	20.07	8.89
Nepal	1	0.00	314.22			7.98				0.00	250.75	250.75	7.98
Total	12587600	13240538.19	15232.88							2272.81	12026.47	14299.28	9.39

Annexure-5.2

SBPDCL -Revenue for FY 2023-24 Considered by Commission

Category	Considered in APR for FY 2023-24			Tariff				PF	MD	Fixed charges (Crores)	Revenue Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)	Fixed Charge	Unit	Energy Charges	Unit						
Domestic	6232416	7973753.76	8064.09							611.53	6525.23	7136.76	8.85
Kutir Jyoti	1533124	380951.59	919.87							36.79	696.34	733.14	7.97
Metered 0-50	15,33,124	380951.59	919.87	20.00	Connection/Month	7.57	kWh	1.00	1.00	36.79	696.34	733.14	7.97
DS I Rural	3084811	3212007.33	3660.28							154.18	2858.39	3012.57	8.23
Metered (Now Demand Based)	3084811	3212007.33	3660.28							154.18	2858.39	3012.57	8.23
First 50 Units	15,16,454	1578982.06	2038.72	40.00	kW/Month	7.57	kWh	1.00	1.00	75.79	1543.31	1619.10	7.94
Above 50 units	15,68,357	1633025.27	1621.56	40.00	kW/Month	8.11	kWh	1.00	1.00	78.39	1315.08	1393.47	8.59
DS II Demand Based	1614319	4380794.84	3483.67							420.56	2970.24	3390.80	9.73
First 100 Units	6,05,426	1642951.58	1306.50	80.00	kW/Month	7.57	kWh	1.00	1.00	157.72	989.02	1146.74	8.78
Above 100 units	10,08,893	2737843.26	2177.17	80.00	kW/Month	9.10	kWh	1.00	1.00	262.83	1981.22	2244.06	10.31
DS III	162	0.00	0.27	80.00	kW/Month	9.18	kWh	1.00	1.00	0.00	0.25	0.25	9.18
Non_Domestic Service	640424	1768966.43	1731.96							526.49	1505.39	2031.88	11.73
NDS I - Metered Now Demand Based	237546	383914.49	427.48							27.64	350.91	378.55	8.86
First 100 Units	85,463	138122.81	153.80	60.00	kW/Month	7.94	kWh	1.00	1.00	9.94	122.11	132.06	8.59
Above 100 units	1,52,083	245791.68	273.68	60.00	kW/Month	8.36	kWh	1.00	1.00	17.70	228.80	246.49	9.01
NDS II - Demand Based	402878	1385051.94	1304.48							498.85	1154.47	1653.32	12.67

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Revenue Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Contract Demand <0.5 kW	9,494	5688.13	5.49	200.00	Connection/Month	7.88	kWh	1.00	1.00	2.28	4.32	6.60	12.03
Contract Demand >0.5 kW	3,93,384	1379363.81	1298.99							496.57	1150.15	1646.72	12.68
First 100 Units	74,031	259584.49	244.46	300.00	kW/Month	7.88	kWh	1.00	1.00	93.45	192.63	286.08	11.70
Above 100 units	3,19,353	1119779.32	1054.53	300.00	kW/Month	9.08	kWh	1.00	1.00	403.12	957.52	1360.64	12.90
Street Light Services	2278	33861.66	251.76							210.70	60.63	271.33	10.78
SS Metered	1,094	10591.42	66.04	100.00	kW/Month	9.18	kWh	1.00	1.00	1.27	60.63	61.90	9.37
SS Unmetered	1,184	23270.24	185.72	7500.00	100 kW/Month		kWh	1.00	1.00	209.43	0.00	209.43	11.28
Irrigation & Allied Services	337559	678249.04	3984.82							779.80	2209.21	2989.00	7.50
IAS I	332917	637925.75	3623.49							752.91	1915.33	2668.24	7.36
Unmetered	1,54,885	323414.98	843.63	1350.00	HP/Month		kWh		1.00	702.32	0.00	702.32	8.33
Metered	1,78,032	314510.77	2779.87	100.00	HP/Month	6.89	kWh		1.00	50.59	1915.33	1965.92	7.07
IAS II	4642	40323.28	361.33							26.88	293.88	320.76	8.88
Metered (Now Demand Based)	4,642	40323.28	361.33	500.00	kVA/Month	7.32	kVAh	0.90	1.00	26.88	293.88	320.76	8.88
Public Service Connections	33955	122198.48	441.65							53.73	410.07	463.79	10.50
Public Water Works	3,317	50167.27	162.05	630.00	kVA/Month	9.87	kVAh	0.90	1.00	42.14	177.72	219.86	13.57
Har Ghar Nal	30,638	72031.21	279.60	100.00	HP/Month	8.31	kWh		1.00	11.59	232.35	243.94	8.72

Category	Considered in APR for FY 2023-24			Tariff				PF	MD	Fixed charges (Crores)	Revenue Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)	Fixed Charge	Unit	Energy Charges	Unit						
Low Tension Industrial Services	88702	964942.12	445.86							398.87	393.35	792.22	17.77
LTIS I (0-19 kW)	83,038	669775.03	302.55	288.00	kVA/Month	7.94	kVAh	0.90	1.00	257.19	266.92	524.11	17.32
LTIS II (>19 kW - 74 kW)	5,664	295167.09	143.31	360.00	kVA/Month	7.94	kVAh	0.90	1.00	141.68	126.43	268.11	18.71
LT Electric Vehicle Charging Station	335	1949.81	5.20			8.87	kVAh	0.90	1.00	0.00	5.12	5.12	9.86
High Tension (General)	2629	1056320.94	2985.61							819.24	2407.45	3226.69	10.81
HTS I - 11 kV	2,393	524176.74	1105.22	550.00	kVA/Month	8.13	kVAh	0.90	1.00	384.40	998.38	1382.77	12.51
HTS II - 33 kV	218	322830.31	778.08	550.00	kVA/Month	8.07	kVAh	0.90	1.00	236.74	697.68	934.42	12.01
HTS III -132 kV	5	75500.00	272.07	550.00	kVA/Month	8.00	kVAh	0.90	1.00	55.37	241.84	297.21	10.92
HTS IV - 220 kV	0	0.00	0.00	550.00	kVA/Month	7.94	kVAh	0.90	1.00	0.00	0.00	0.00	
HTSS	13	133813.89	830.25	800.00	kVA/Month	5.09	kVAh	0.90	1.00	142.73	469.55	612.29	7.37
HT Industrial Services	34	7002.93	9.62		0.00		0.00	5.40	6.00	9.34	5.96	15.30	
HTS I - 11 kV				550.00	kVA/Month	8.13	kVAh	0.90	1.00				
HTS II - 33 kV				550.00	kVA/Month	8.07	kVAh	0.90	1.00				
HTS III -132 kV				550.00	kVA/Month	8.00	kVAh	0.90	1.00				
HTS IV - 220 kV				550.00	kVA/Month	7.94	kVAh	0.90	1.00				
HTSS (33/11kV)				550.00	kVA/Month	5.09	kVAh	0.90	1.00				
HTIS (Oxygen Manufacturers) 11 kV	34	7002.93	9.62	1000.00	kVA/Month	5.58	kVAh	0.90	1.00	9.34	5.96	15.30	

Category	Considered in APR for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Revenue Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Railway Traction Services	10	94500.00	283.51	540.00	kVA/Month	8.31	kVAh	0.90	1.00	68.04	261.78	329.82	11.63
HT Electric Vehicle Charging Stations.	2				0.00	8.00	kVAh	0.90	1.00	0.00	0.00	0.00	
Nepal										0.00	0.00	0.00	
Total	7338344	12701745.17	18204.08							3477.74	13784.17	17261.91	9.48

6. Aggregate Revenue Requirement for FY 2024-25

6.1. Background

The Commission had determined the Aggregate Revenue Requirement (ARR) for the control period FY 2022-23 to FY 2024-25 for the Discoms viz., SBPDCL & NBPDCCL in the MYT Order dated 25th March, 2022. Discoms have now submitted the Petitions for approval of Aggregate Revenue Requirement for FY 2024-25 and determination of Retail Supply Tariff for FY 2024-25.

The Commission has undertaken determination of ARR for FY 2024-25 on the basis of audited annual accounts for FY 2022-23, revised estimates for FY 2023-24 and projections submitted by the Petitioners for FY 2024-25 as per the provisions of BERC (Multi-Year Distribution Tariff) Regulations, 2021 and other guidelines issued in this context. The component-wise scrutiny of Petitioners' submissions and the Commission's approvals are detailed in the subsequent paragraphs of this section.

6.2. Number of Consumers, Connected Load and Sales for FY 2024-25

Petitioners' submission

The general approach followed for projection of all categories include: -

- i). The consumer numbers for FY 2024-25 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered by the end of FY 2023-24 over the previous year. Thereafter, the overall growth rate has been assumed to be around 5% for FY 2024-25.
- ii). Successful implementation of the Saubhagya scheme ensured that all the willing households are connected. Due to the rise in consumerism among consumers in the country, there will be a rise in the consumption of electricity in the coming years. Gradually the customers currently segregated under the Kutir Jyoti category move on to higher categories.
- iii). For projecting the connected load, an average connected load per consumer has been taken as per the actual data of the past few years. This has then been then multiplied by projected number of consumers to arrive at the connected Load.

- iv). The energy sales have been projected by considering the average consumption per consumer per month and then multiplying the same to the projected number of consumers.
- v). The number of years taken for estimating the CAGR however varies since the trend in certain categories is impacted by multiple other factors and taking a uniform period for calculating the CAGR skews the outcome.
- vi). In addition to the CAGR, it has also been ensured that other factors impacting demand, such as growth in the no. of consumers, enhanced power procurement, strengthening of distribution network for enhancing quality of supply, energy efficiency and DSM measures etc., have been adequately incorporated to reflect a realistic demand scenario.

NBPDCCL further submitted that the following paragraphs capture highlights of the approach and assumptions used for projecting the specific category wise number of consumers, connected load and energy sales for the ensuing year.

- 1). The growth rate in KJY consumers was 1.8% in FY 2023-24. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 2% for FY 2024-25.
- 2). The growth rate in DS-I consumers was 6.95% in FY 2022-23. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 6% for FY 2024-25.
- 3). The growth rate in DS-II consumers was 4.05% in FY 2022-23. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 3% for FY 2024-25.
- 4). Growth rate of 10% is estimated in NDS-I category while projecting number of consumers for FY 2024-25. The sales projections for NDS-I category is done in

a way to rationalize the sales pattern for the category considering that the average consumption per consumer in previous years.

- 5). The half yearly growth rate in the number of consumers in NDS-II category i.e., September 2023 over FY 2022-23, is 2%. Further growth rate of 5% is assumed for FY 2024-25. The sales projections for NDS-II category is done in a way to rationalize the sales pattern for the category considering that the average consumption per consumer in previous years.
- 6). As per the third agricultural roadmap, Bihar has started work to set up dedicated feeders to provide electricity for agriculture. Hence a growth rate of 10% is estimated in the number of consumers for FY 2024-25 in IAS-I category.
- 7). Growth in number of consumers for FY 2024-25 is considered 3% for IAS-II category. A nominal growth rate of 4% is considered for FY 2024-25 to estimated sales under IAS-II category.
- 8). The consumer growth for LTIS-I category in FY 2024-25 is assumed to be a nominal as 10% due to a fluctuant growth rate shown over the years in the LTIS-I category. The average consumption per consumer has decreased over the years and has dipped by 11% in FY 22 and dropped by 10% in FY 2023. Hence the growth in average consumption per consumer is considered to be 20% in 2024-25.
- 9). The consumer growth for LTIS-II in FY 2024-25 is assumed to be 5% even though there has been a sharp increase FY 2024 i.e., 12%.
- 10). Growth rate of 8% is estimated in number of consumers in FY 2024-25 in PWW category. In Har Ghar Nal Yojana a growth rate of 5% in 2024-25.
- 11). The growth in number of consumers in Street Light Services was 7% in the first half year of FY 2023-24. The same 7% is considered for FY 2023-24. However, the projections for the ensuing year i.e., 2024-25 is considered at a normal rate of 4%.
- 12). The petitioner hereby submits that it does not estimate huge growth in number of consumers in HT category, HT industrial Service Category, LT Electric Vehicle Charging Station Category and HT Electric Vehicle Charging Station Category

for FY 2024-25 considering trends in past and as per the data released by Ministry of Statistics and Programme Implementation.

- 13). The petitioner also estimated the number of consumers under the new HTIS (Oxygen manufacturers) category for FY2024-25 and the projections for the ensuing year are as given below.

Consumers	1
Energy Sales	0.42 MU
Connected Load	194 KW

- 14). The Petitioner has considered no projection for consumers for RTS category, load and sales of RTS category for FY 2024-25.

SBPDCL has submitted that the following paragraphs capture highlights of the approach and assumptions used for projecting the specific category wise number of consumers, connected load and energy sales for the ensuing year.

- 1). The growth rate in KJY consumers was 1% in FY 2022-23. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 1% for FY 2024-25.
- 2). The growth rate in DS-I consumers was 7% in FY 2022-23. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 2% for FY 2024-25
- 3). The growth rate in DS-II consumers was 8% in FY 2022-23. The consumer numbers for FY 2023-24 are projected considering the provisional figures as available for September 2023 and thereafter an appropriate growth rate across the categories have been considered. Thereafter, the overall growth rate has been assumed to be around 1% for FY 2023-24
- 4). Growth rate of 10% is estimated in NDS-I category while projecting number of consumers for FY 2024-25. The sales projections for NDS-I category is done in a way to rationalize the sales pattern for the category considering that the average consumption per consumer in previous years.

- 5). In order to keep a conservative approach, a nominal growth rate of 2% in consumers under NDS-II category is assumed for FY 2024-25. The sales projections for NDS-II category is done in a way to rationalize the sales pattern for the category considering that the average consumption per consumer in previous years.
- 6). As per the third agricultural roadmap, Bihar has started work to set up dedicated feeders to provide electricity for agriculture. Hence a growth rate of 3% is estimated in the number of consumers for FY 2024-25 in IAS-I category.
- 7). Growth in number of consumers for FY 2024-25 is considered 2% for IAS-II category. A growth rate of 8% is considered for FY 2024-25 to estimated sales under IAS-II category.
- 8). The consumer growth for LTIS-I category in FY 2024-25 is assumed to be a nominal as 5% due to a fluctuant growth rate shown over the years in the LTIS-I category. The average consumption per consumer has decreased over the years and has dipped by 1% in FY 22. Hence the growth in average consumption per consumer is considered to be 2% in 2024-25.
- 9). The consumer growth for LTIS-II in FY 2024-25 is assumed to be 3% even though there has been a sharp decrease in the first six months of FY 2024 i.e., 14%. It is further assumed that the increase in consumption will directly be reflected through addition of consumers and an increase of 8% is considered to project the sales of FY 2024-25.
- 10). Growth rate of 5% in number of consumers in FY 2024-25 in PWW category. In Har Ghar Nal Yojana a growth rate of 20% in 2024-25 is estimated.
- 11). Growth rate in street light services was 4% in the first half of FY 2023-24. However, the projections for the ensuing year i.e., 2024-25 is considered at a normal rate of 3.5%.
- 12). The petitioner hereby submits that it does not estimate huge growth in number of consumers in HT Category, LT Electric Vehicle Charging Station category and HT Electric Vehicle Charging Station category for FY 2024-25 considering trends in past and as per the data released by Ministry of Statistics and Programme Implementation.

- 13). The petitioner also estimated the number of consumers under the new HTIS (Oxygen manufacturers) category for FY2024-25 and the projections for the ensuing year are as given below.

Consumers	35
Energy Sales	10.79 MU
Connected Load	7286 KW

- 14). The Petitioner has considered no projection for consumers for RTS category, load and sales of RTS category for FY 2024-25.

NBPDCCL has submitted the category wise number of consumers, connected load and sales for FY 2024-25 as shown in the Table below:

Table 6.1: No. of Consumers, Connected Load (KW) and Sales (MU) projected by NBPDCCL for FY 2024-25

Category of Consumers	Number of Consumers	Connected Load (KW)	Sales (MUs)
Domestic	11,693,851	9,702,178	9,575.03
Kutir Jyoti	4,387,902	1,109,877	2,930.81
DS I Rural	5,825,635	6,033,711	4,393.62
DS II Demand Based	1,480,223	2,558,040	2,250.21
DS III	92	549	0.39
Non_Domestic Service	1,001,986	2,021,235	2,250.86
–NDS I - Metered Now Demand Based	575,431	809,956	814.80
–DS II - Demand Based	426,555	1,211,279	1,436.05
Contract Demand <0.5 kW	2,650	1,481	2.19
Contract Demand >0.5 kW	423,905	1,209,798	1,433.86
Street Light Services	2,781	32,125	129.53
SS Metered	675	5,409	13.34
SS Unmetered	2,105	26,716	116.19
Irrigation & Allied Services	353,946	765,215	1,942.17
IAS I	347,180	707,668	1,840.57
IAS II (Metered (Now Demand Based))	6,766	57,547	101.6
Public Service Connections	68,027	186,994	547.86
Public Water Works	2,374	35,349	45.82
Har Ghar Nal	65,654	151,645	502.05
Low Tension Industrial Services	97,852	907,136	561.86
LTIS I (0-19 kW)	96,525	833,936	519.48
LTIS II (–19 kW - 74 kW)	1,327	73,200	42.38
LT Electric Vehicle Charging Station	280	806	12.28
HT-General	1,713	562,445	1,176.54
HTS (General)- I (11 kV)	1,613	337,571	669.48
HTS (General)- II (33 kV)	90	127,508	332.06
HTS (General)- III (132 kV)	7	87,777	131.02
HTS (General)- IV (220 kV)	0	0	0
HTSS – (33 kV/11 kV)	3	9,589	43.97
HT-Industrial Services	5	15,244	81
HTIS (Industrial) – I (11 kV)	2	1,428	2.54
HTIS (Industrial)– II (33 kV)	1	1,122	3.54
HTIS (Industrial) – III (132 kV)	-	-	-

Category of Consumers	Number of Consumers	Connected Load (KW)	Sales (MUs)
HTIS (Industries)-IV (220 kV)	1	12,500	74.46
HTIS (Oxygen Manufacturers)	1	194	0.42
Railway Traction Services	8	60,000	159.5
Nepal	1		314.22
HT Electric Vehicle Charging Stations.	6	12,338	184.25
Sale of Power to IEX through BSPHCL	0	0	3,375.04
Total	13,220,456	14,265,716	20,310.10*

* Additional Submission

SBPDCL has submitted the category wise number of consumers, connected load and sales for FY 2024-25 as shown in the table below:

Table 6.2: No. of Consumers, Connected Load (KW), Energy Sales (MU) projected by SBPDCL for FY 2024-25

Category of Consumers	Number of Consumers	Connected Load (KW)	Sales (MUs)
Domestic	6,435,722	8,289,557	8,428.37
Kutir Jyoti	1,548,455	385,146	1,419
DS I Rural	3,208,205	3,343,828	3,350
DS II Demand Based	1,678,893	4,560,583	3,659
DS III	169	500	0.28
Non-Domestic Service	*694,476	1,894,506	1,917
NDS I - Metered Now Demand Based	261,301	426,529	480
NDS II - Demand Based	*433174	1,467,977	1,438
Contract Demand <0.5 kW	9,589	5,851	6
Contract Demand >0.5 kW	416,989	1,462,126	1,432
Street Light Services	2,378	34,977	285
SS Metered	1,182	11,450	78
SS Unmetered	1,196	23,526	206
Irrigation & Allied Services	353,398	707,754	4,430
IAS I	348,709	666,987	4,047
IAS II (Metered)	4,688	40,767	383
Public Service Connections	36,200	129,559	489.39
Public Water Works	3,417	52,408	175
Har Ghar Nal	32,783	77,150	314
Low Tension Industrial Services	92,137	1,007,613	483.87
LTIS I (0-19 kW)	86,360	703,532	330
LTIS II (>19 kW - 74 kW)	5,777	304,081	153
LT Electric Vehicle Charging Stations	436	2,560	8.11
High Tension - General	2,752	1,127,188	3,336
HTS I - 11 kV	2,489	550,595	1,207
HTS II - 33 kV	245	365,186	934
HTS III -132 kV	5	76,255	280
HTS IV - 220 kV	0	0	0
HTSS (33 KV / 11 KV)	13	135,152	915
HT-Industrial Services	35	7,286	10.79
HTIS (Industrial) – I (11 kV)			
HTIS (Industrial)– II (33 kV)			
HTIS (Industrial) – III (132 kV)			
HTIS (Industries)-IV (220 kV)			
HTIS (Oxygen Manufacturers)	35	7,286	10.79
Railway Traction Services	10	94,500	290.04

Category of Consumers	Number of Consumers	Connected Load (KW)	Sales (MUs)
HT Electric Vehicle Charging Stations	3	-	0.34
Sale of Power to IEX through PTC			3272.33
Total	7,617,547	13,295,499	22951.47

* Summation done wrongly

Commission's analysis

In the above Tables, the Petitioners have not exhibited number of consumers, and connected load for unmetered and metered under IAS-I (Private Wells) category separately. The Commission has however observed from the Format-1 of the Petitions, that the Discoms have projected number of consumers, connected load and energy sales separately for metered and un-metered IAS-I category. Therefore, the data available from the Format-I is considered for these categories.

In the earlier Tariff Order, Discoms were allowed to install meters in the two unmetered categories viz IAS-I and street light till 31st March, 2021. However, based on the request of Discoms, Commission has further allowed to install meters in these two unmetered categories till 31st March 2022. Which however is yet to be achieved.

Discoms have neither submitted reason for not fulfilling this target including any roadmap to complete installing of meters to the unmetered connections to these two unmetered categories i.e. IAS-I and Street Light nor requested to allow further time to continue the unmetered IAS-I and street light categories. Silence of the petitioner on this point is not understandable.

Nonetheless, in view of the difficulties expressed by Discoms in the earlier petitions, the Commission has considered to further allow one more year i.e. upto 31.03.2024 to install meters to the unmetered IAS-I consumers and street light unmetered categories.

The Commission once again directs the Licensees to comply with the directions given by the Commission to put its sincere efforts for converting the unmetered consumers to metered consumers thereby ensuring that 100% metering is achieved, failing which the Commission may take a strict view for appropriate action.

The Commission has analysed the submissions made by Discoms for projecting the category wise number of consumers, connected load and energy sales for the FY 2024-25.

The Category-wise number of consumers and the year on year growth rates in the past five years are as shown in the Tables below:

Table 6.3: Category-wise Number of consumers for the past 5 years and growth rates for NBPDCCL

Category of Consumers	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	8692899	9465335	9984126	10415432	10785533	5.54%	4.45%	3.94%	3.55%
Kutir Jyoti	3788049	4015781	4162883	4237872	4217514	2.72%	1.65%	0.65%	-0.48%
DS I Rural	3685829	4258986	4601721	4841296	5177639	8.87%	6.73%	6.07%	6.95%
DS II Urban	1219021	1190527	1219455	1336193	1390297	3.34%	5.31%	6.78%	4.05%
DS III (Optional)	0	41	67	71	83		26.50%	11.30%	16.90%
Non-Domestic Service	404723	487545	609912	715048	834977	19.85%	19.64%	17.00%	16.77%
NDS I - Rural	128606	195954	274524	361635	457453	37.33%	32.66%	29.09%	26.50%
NDS II – Urban	276117	291591	335388	353413	377524	8.13%	8.99%	6.10%	6.82%
Street Light Services	1253	1044	1255	1884	2239	15.62%	28.96%	33.57%	18.84%
SS Metered	299	301	339	420	522	14.95%	20.14%	24.09%	24.29%
SS Unmetered	954	743	916	1464	1717	15.83%	32.21%	36.91%	17.28%
Irrigation & Allied Services	31894	79818	108224	132548	190341	56.30%	33.60%	32.62%	43.60%
IAS I	27429	74706	101996	126217	183992	60.93%	35.05%	34.31%	45.77%
IAS II	4465	5112	6228	6331	6349	9.20%	7.49%	0.97%	0.28%
Public Service Connections	1239	11453	36322	51049	56269	159.60%	70.00%	24.47%	10.23%
Public Water Works	1239	1586	1669	1799	2014	12.91%	8.29%	9.85%	11.95%
Har Ghar Nal		9867	34653	49250	54255	0	76.50%	25.13%	10.16%
Low Tension Industrial Services	32374	41216	53891	65642	79109	25.03%	24.28%	21.16%	20.52%
LTIS I (0-19 kW)	31626	40314	52823	64577	77807	25.24%	24.51%	21.37%	20.49%
LTIS II (>19 kW - 74 kW)	748	902	1068	1065	1198	12.50%	9.92%	5.91%	12.49%
High Tension	993	1111	1156	1339	1447	9.87%	9.21%	11.88%	8.07%
HTS I - 11 kV	945	1058	1103	1276	1378	9.89%	9.21%	11.77%	7.99%
HTS II – 33 kV	39	46	46	57	62	12.29%	10.46%	16.10%	8.77%
HTS III – 132 kV	4	3	3	3	4	0.00%	10.06%	15.47%	33.33%
HTSS	5	4	4	3	3	-11.99%	-9.14%	-13.40%	0.00%
Railway Traction Services	8	4	6	5	8	0.00%	25.99%	15.47%	60.00%
Total	9165383	10087526	10794892	11382947	11949923	6.86%	5.81%	5.21%	4.98%

Table 6.4: Category-wise Number of consumers for the past 5 years and growth rates for SBPDCL

Consumer Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	4782414	5075789	5342375	5633681	5988814	5.78%	5.67%	5.88%	6.30%
Kutir Jyoti	1422169	1483858	1534746	1547844	1556541	2.28%	1.61%	0.71%	0.56%
DS-I (Rural)	2055959	2274063	2471230	2638966	2904828	9.03%	8.50%	8.42%	10.07%
DS-II (Urban)	1304286	1317764	1336217	1446692	1527445	4.03%	5.05%	6.92%	5.58%
DS III (Optional)		104	182	179	0		-	-	-
							100.00%	100.00%	100.00%
Non-Domestic	357715	406025	462059	528126	590371	13.34%	13.29%	13.04%	11.79%
NDS-I (Rural)	63025	94531	141120	175532	212100	35.44%	30.91%	22.60%	20.83%
NDS-II (Urban)	294690	311494	320939	352594	378271	6.44%	6.69%	8.57%	7.28%
Street Light Services	1230	1376	1483	2119	2265	16.49%	18.07%	23.58%	6.89%
Irrigation & Allied Services	196529	234788	251071	263242	305007	11.61%	9.11%	10.22%	15.87%
IAS-I	192958	231154	246590	258659	300283	11.69%	9.11%	10.35%	16.09%
IAS-II	3571	3634	4481	4583	4724	7.25%	9.14%	2.68%	3.08%
Public Service Connections	2461	5849	18962	29224	31859	89.68%	75.95%	29.62%	9.02%
Public Water Works	2461	2626	2916	3136	3247	7.17%	7.33%	5.52%	3.54%
Har Ghar Nal		3223	16046	26088	28612		107.06%	33.53%	9.67%
Low Tension Industrial Services	58297	64026	71717	77756	84698	9.79%	9.78%	8.67%	8.93%
High Tension Supply	1813	1929	2064	2305	2497	8.33%	8.98%	9.99%	8.33%
HTS-I (11 kV)	1684	1792	1916	2141	2304	8.15%	8.74%	9.66%	7.61%
HTS-II (33 kV)	112	119	130	146	175	11.80%	13.72%	16.02%	19.86%
HTS-III (132 kV)	4	4	4	5	5	5.74%	7.72%	11.80%	0.00%
HTSS	13	14	14	13	13	0.00%	-2.44%	-3.64%	0.00%
Railway Traction Services	3	1	6	3	6	18.92%	81.71%	0.00%	100.00%
Grand Total	5400462	5789783	6149737	6536456	7005640	6.72%	6.56%	6.73%	7.18%

The Category-wise connected load and the year on year growth rates in past five years are as shown in the Tables below:

Table 6.5: Category-wise connected load for the past 5 years and growth rates for NBPDC
(kW)

Category of Consumers	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	6399641	6921189	7853370	8224511	8659527	7.85%	7.76%	5.01%	5.29%
Kutir Jyoti	548952	595038	1042116	1056669	1045760	17.48%	20.68%	0.17%	-1.03%
DS I Rural	3754208	4319966	4674332	4904360	5256907	8.78%	6.76%	6.05%	7.19%
DS II Urban	2096481	2006097	2136733	2263216	2356372	2.96%	5.51%	5.01%	4.12%
DS III Optional		88	189	266	488		77.00%	60.69%	83.46%
Non_Domestic Service	784832	859184	1292781	1456119	1682088	21.00%	25.10%	14.07%	15.52%
NDS I - Rural	142811	220760	333257	469827	631207	44.99%	41.93%	37.62%	34.35%
NDS II - Urban	642021	638424	959524	986292	1050881	13.11%	18.07%	4.65%	6.55%
Street Light Services	14692	12969	15416	20249	25457	14.73%	25.21%	28.50%	25.72%
SS Metered	3584	2839	2784	3491	4099	3.41%	13.02%	21.34%	17.42%
SS Unmetered	11108	10130	12632	16758	21358	17.76%	28.23%	30.03%	27.45%
Irrigation & Allied Services	111321	232775	282384	324193	421645	39.51%	21.90%	22.19%	30.06%
IAS I	62467	180784	229139	270302	368711	55.87%	26.82%	26.85%	36.41%
IAS II	48854	51991	53245	53891	52934	2.03%	0.60%	-0.29%	-1.78%
Public Service Connections	19736	43731	101053	135340	152250	66.66%	51.56%	22.75%	12.49%
Public Water Works	19736	21397	23975	25114	29403	10.48%	11.18%	10.74%	17.08%
Har Ghar Nal		22334	77078	110226	122847		76.52%	26.25%	11.45%
Low Tension Industrial Services	313066	385075	504708	606096	723769	23.31%	23.41%	19.75%	19.41%
LTIS I (0-19 kW)	266175	333145	444997	546047	658976	25.44%	25.53%	21.69%	20.68%
LTIS II (>19 kW - 74 kW)	46891	51930	59711	60049	64793	8.42%	7.66%	4.17%	7.90%
High Tension	299391	310491	324028	389191	427222	9.30%	11.22%	14.82%	9.77%
HTS I - 11 kV	200826	213868	226705	260198	282710	8.93%	9.75%	11.67%	8.65%
HTS II - 33 kV	54378	62323	63023	77923	85942	12.12%	11.31%	16.78%	10.29%
HTS III -132 kV	30500	22500	22500	41670	49170	12.68%	29.77%	47.83%	18.00%
HTSS	13687	11800	11800	9400	9400	-8.97%	-7.30%	10.75%	0.00%
Railway Traction Services	69900	36600	48300	37500	60000	-3.75%	17.91%	11.46%	60.00%
Total	8012579	8802014	10422040	11193199	12152257	10.97%	11.35%	7.98%	8.57%

Table 6.6: Category-wise connected load for the past 5 years and growth rates for SBPDCL
(kW)

Consumer Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	5788901	6239565	6716397	7098210	7568702	6.93%	6.65%	6.16%	6.63%
Kutir Jyoti	168129	188886	383906	386620	387322	23.20%	27.04%	0.44%	0.18%
DS-I (Rural)	2088730	2335509	2543812	2727721	3021580	9.67%	8.96%	8.99%	10.77%
DS-II (Urban)	3532042	3715007	3788380	3983578	4159800	4.17%	3.84%	4.79%	4.42%
DS III (Optional)		163	299	291	0		-	-	-
Non-Domestic	1041976	1132865	1381833	1504310	1645182	12.10%	13.24%	9.11%	9.36%

Consumer Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
NDS-I (Rural)	70385	116050	210622	267325	331870	47.36%	41.94%	25.53%	24.14%
NDS-II Urban	971591	1016815	1171211	1236985	1313312	7.83%	8.90%	5.89%	6.17%
Street Light Services	11549	19001	20418	28081	30789	27.78%	17.46%	22.80%	9.64%
Irrigation & Agriculture Services (IAS)	432864	501513	528275	544994	620261	9.41%	7.34%	8.36%	13.81%
IAS-I	394561	466356	489826	505841	579970	10.11%	7.54%	8.81%	14.65%
IAS-II	38303	35157	38449	39153	40291	1.27%	4.65%	2.37%	2.91%
Public Service Connections	36611	47949	81046	106730	115939	33.40%	34.22%	19.60%	8.63%
Public Water Works	36611	38878	42657	45058	47733	6.86%	7.08%	5.78%	5.94%
Har Ghar Nal		9071	38389	61672	68206		95.91%	33.29%	10.59%
Low Tension Industrial Supply	676257	721979	803166	862016	923612	8.10%	8.56%	7.24%	7.15%
High Tension Supply	674648	701108	745091	813825	868673	6.52%	7.40%	7.98%	6.74%
HTS-I (11 kV)	326242	333635	361457	422132	460034	8.97%	11.30%	12.81%	8.98%
HTS-II (33 kV)	193086	205944	222105	214992	236440	5.19%	4.71%	3.18%	9.98%
HTS-III (132 kV)	46350	46350	46350	60030	60030	6.68%	9.00%	13.80%	0.00%
HTS-IV (220 kV)				0	0				
HTSS	108970	115179	115179	116671	112169	0.73%	-0.88%	-1.32%	-3.86%
HT Oxygen Manufacturers					5769				
Railway Traction Services	27720	9000	24750	25650	54900	18.63%	82.72%	48.94%	114.04%
Grand Total	8690526	9372980	10300976	10983816	11833827	8.02%	8.08%	7.18%	7.74%

The category-wise energy sales and the year on year growth rates in past five years are as shown in the Tables below:

Table 6.7: Category-wise energy sales for the past 5 years and growth rates for NBPDC (MU)

Category of Consumers	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	5512	7516	7947	8191	8545	11.58%	4.37%	3.69%	4.32%
Kutir Jyoti	1421	2539	2368	2663	2705	17.46%	2.13%	6.88%	1.56%
DS I Rural	2067	3421	3855	3645	3828	16.66%	3.82%	-0.35%	5.01%
DS II Urban	2024	1556	1724	1882	2012	-0.15%	8.94%	8.02%	6.89%
DS III Optional	0	0	0	0	0	#DIV/0!	157.13 %	120.39%	30.77%
Non-Domestic Service	1075	1037	1161	1509	1845	14.46%	21.17%	26.05%	22.26%
NDS I -Rural	132	149	234	341	599	45.95%	58.99%	59.98%	75.37%
NDS II - Urban	943	888	927	1167	1246	7.21%	11.95%	15.93%	6.73%
Street Light Services	27	35	31	100	99	38.42%	41.49%	78.82%	-0.77%
SS Metered	5	6	5	11	10	18.35%	17.81%	40.07%	-9.59%
SS Unmetered	22	29	26	89	89	41.95%	45.50%	85.35%	0.30%
Irrigation & Allied Services	152	119	313	467	1006	60.38%	103.69 %	79.25%	115.14 %
IAS I	28	80	276	364	916	139.15%	125.38 %	82.16%	151.78 %
IAS II	124	39	37	104	90	-7.73%	32.08%	55.85%	-
Public Service Connections	27	51	110	240	436	100.48%	104.49 %	99.12%	81.52%
Public Water Works	27	21	36	60	37	8.46%	21.17%	1.87%	-
Har Ghar Nal	0	30	74	181	399		136.88 %	132.14%	120.60 %

Category of Consumers	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Low Tension Industrial Services	214	227	341	372	439	19.70%	24.61%	13.50%	17.96%
LTIS I (0-19 kW)	177	201	310	339	402	22.80%	26.04%	13.94%	18.87%
LTIS II (>19 kW - 74 kW)	37	26	31	34	37	-0.15%	12.26%	8.92%	8.78%
High Tension	593	603	669	768	885	10.52%	13.64%	15.01%	14.86%
HTS I - 11 kV	375	383	416	483	550	10.04%	12.80%	14.96%	16.18%
HTS II - 33 kV	107	118	143	188	219	19.67%	22.98%	23.88%	31.27%
HTS III -132 kV	49	53	62	55	73	10.63%	11.47%	8.81%	-
HTS IV - 220 kV				0	0				
HTSS	62	49	48	43	42	-9.13%	-4.81%	-6.16%	10.67%
Railway Traction Services	223	146	32	68	99	-18.30%	-	76.19%	111.09 %
Nepal	1355	708	632	631	314	-30.61%	-	-29.49%	-0.18%
DF /Others	315					-100.00%			
Total	9493	10442	11236	12347	13668	9.54%	9.39%	10.29%	9.89%

Table 6.8: Category-wise energy sales for the past 5 years and growth rates for SBPDCL

(MU)

Consumer Category	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	4 Years	3 Years	2 Years	YoY
Domestic	5993	7142	8507	8446	7527	5.86%	1.76%	-5.94%	-10.88%
<i>Kutir Jyoti</i>	1156	1160	1235	1404	1335	3.67%	4.80%	3.98%	-4.88%
<i>DS-I (Rural)</i>	2280	2974	4136	4365	3286	9.57%	3.38%	-10.86%	-24.73%
<i>DS-II (Urban)</i>	2557	3008	3136	2676	2906	3.25%	-1.15%	-3.74%	8.56%
<i>DS III (Optional)</i>		0	0	0	0		-100.00%	-100.00%	
Non-Domestic	992	1089	1235	1495	1537	11.57%	12.18%	11.57%	2.82%
<i>NDS-I (Rural)</i>	69	243	379	512	416	56.67%	19.59%	4.72%	-18.78%
<i>NDS-II (Urban)</i>	923	846	856	983	1122	4.99%	9.86%	14.47%	14.05%
Street Light Services	35	72	61	129	192	52.71%	38.91%	77.56%	48.29%
Irrigation & Agriculture Services	574	815	931	1176	2774	48.26%	50.45%	72.62%	135.92%
<i>IAS-I</i>	463	736	816	1066	2443	51.55%	49.19%	73.00%	129.28%
<i>IAS-II</i>	111	79	115	110	331	31.41%	61.33%	69.89%	200.01%
Public Service Connections	78	94	141	332	470	56.60%	70.69%	82.27%	41.37%
<i>Public Water Works</i>	78	79	101	110	142	16.17%	21.45%	18.91%	28.92%
<i>Har Ghar Nal</i>		15	41	222	327		179.15%	183.34%	47.55%
Low Tension Industrial Supply	340	427	365	403	466	8.22%	2.93%	12.90%	15.56%
High Tension Supply	1987	2086	1728	1987	2570	6.64%	7.20%	21.94%	29.32%
<i>HTS-I (11 kV)</i>	629	680	559	649	1032	13.18%	14.94%	35.85%	59.09%
<i>HTS-II (33 kV)</i>	421	426	411	414	560	7.38%	9.58%	16.80%	35.22%
<i>HTS-III (132 kV)</i>	163	172	153	267	261	12.42%	14.95%	30.39%	-2.19%
HTSS	773	809	605	657	717	-1.88%	-3.95%	8.83%	9.02%
Railway Traction Services	307	102	34	61	164	-	17.13%	120.02%	171.45%
Grand Total	10585	11827	13003	14029	15718.61	10.39%	9.95%	5.86%	12.04%

Number of Consumers, Connected load and Energy Sales approved for FY 2024-25

The Petitioners have submitted that electricity access has been already provided to all willing BPL households both in Urban and Rural areas under Saubhagya Scheme. With release of huge number of connections to the rural households and left-over urban households in recent years under various State and Central Government schemes, further scope of adding new consumers is getting minimized. Therefore, lesser number of consumers are expected to be added in FY 2024-25. Taking the same into account the growth in number of consumers for various categories have been considered at a lower rate as compared to previous year.

The Petitioners have submitted that for projecting connected load, the average connected load per consumer has been taken as per the actual data of the past few years and this has been then multiplied by projected number of consumers to arrive at the connected load for that category of consumers.

The Commission has noted that the average connected load per consumer for Kutir Jyoti is projected considering within the stipulated norm of 250 watt per consumer i.e. NBPDCCL has not considered 250 watts per consumer and SBPDCL has considered 248 watts per consumer.

The Petitioners have projected the category-wise sales based on the CAGR of the previous years' data, the provisional sales along with the projected figures of FY 2023-24 as well as considering factors like available average consumption per consumer per month, new consumers to be added, population data, expected conversion of unauthorized connections, connected load factor and specific growth factors and wherever the data was incongruous such incongruity was ignored while projecting the load growth for the ensuing years.

The Petitioners also submitted that the specific consumption level along with the number of consumers in each category gives the sales figure for that particular sub-category.

Segregation of the agricultural feeders will have a positive effect on the overall system stability as well as on demand side management. Hence an appropriate CAGR is assumed in the sales of agricultural category.

Considering that the Discoms might have taken adequate care of all possible options such as electrification of new areas and new households, both in urban and rural areas, improved number of supply hours in rural areas, disposal of pending applications on hand for new connections etc., the Commission has approved the Category-wise number of Consumers, Connected Load and Energy Sales for FY 2024-25 as projected by NBPDCCL and SBPDCL. However the Commission has noted that the average consumption per consumer per month for Kutir Jyoti is projected considering more than the stipulated norm of 50 units per consumer per month i.e. NBPDCCL has considered 55.66 units and SBPDCL has considered 76.37 units per consumer per month. The Commission considers it appropriate to allow specific consumption for Kutir Jyoti category at 50 units per month per consumer only.

NBPDCCL has considered the connected load of Kutir Jyoti 0.253 KW per consumer instead of 0.250 KW. The Commission has accordingly revised the connected load of KutirJyoti of NBPDCCL.

The applicability of Kutir Jyoti category is to those dwelling houses of rural and urban families which are Below Poverty Line (BPL) as per the list notified and published by Rural Development Department of the State Government of Bihar and also fulfilling the norm of connected load not exceeding 250 watts and consumption per month not exceeding 50 units. Therefore, wherever the applicability, is violated, the Kutir Jyoti category has to be converted in to DS-I. This will also improve the revenue to Discoms.

The category-wise number of consumers connected load and energy sale approved for FY 2024-25 is as shown in the Table below:

Table 6.9: Category-wise number consumer approved for NBPDCCL & SBPDCL for FY 2024-25

Category of Consumers	NBPDCCL Consumers	SBPDCL Consumers	Total
Domestic	11,693,852	6,435,722	18,129,574
Kutir Jyoti	4,387,902	1,548,455	5,936,357
DS I Rural	5,825,635	3,208,205	9,033,840
DS II Demand Based	1,480,223	1,678,893	3,159,116
DS III	92	169	261
Non-Domestic Service	1,001,986	687,879	1,689,865
NDS I - Metered Now Demand Based	575,431	261,301	836,732
NDS II - Demand Based	426,555	426,578	853,133

Category of Consumers	NBPDCCL Consumers	SBPDCL Consumers	Total
Contract Demand <0.5 kW	2,650	9,589	12,239
Contract Demand >0.5 kW	423,905	416,989	840,894
Street Light Services	2,780	2,378	5,158
SS Metered	675	1,182	1,857
SS Unmetered	2,105	1,196	3,301
Irrigation & Allied Services	353,946	353,397	707,343
IAS I	347,180	348,709	695,889
Unmetered	7445	156434	163879
Metered	339734	192275	532010
IAS II (Metered (Now Demand Based))	6,766	4,688	11,454
Public Service Connections	68,028	36,200	104,228
Public Water Works	2,374	3,417	5,791
Har Ghar Nal	65,654	32,783	98,437
Low Tension Industrial Services	97,852	92,137	189,989
LTIS I (0-19 kW)	96,525	86,360	182,885
LTIS II (-19 kW - 74 kW)	1,327	5,777	7,104
LT Electric Vehicle Charging Station	280	436	716
High Tension	1,713	2,752	4,465
HTS I - 11 kV	1,613	2,489	4,102
HTS II - 33 kV	90	245	335
HTS III -132 kV	7	5	12
HTS IV - 220 kV	0	0	0
HTSS	3	13	16
HT-Industrial Services	5	35	40
HTIS (Industrial) – I (11 kV)	2	0	2
HTIS (Industrial)– II (33 kV)	1	0	1
HTIS (Industrial) – III (132 kV)	0	0	0
HTIS (Industries)-IV (220 kV)	1	0	1
HTIS (Oxygen Manufacturers)	1	35	36
Railway Traction Services	8	10	18
Nepal	1	0	1
HT Electric Vehicle Charging Stations.	6	3	9
Total	13,220,457	7,610,949	20,831,406

Table 6.10: Category-wise Connected Load approved for NBPDCCL & SBPDCL for FY 2024-25

Category of Consumers	NBPDCCL Connected Load (KW)	SBPDCL Connected Load (KW)	Total
Domestic	97,02,178	82,90,057	1,79,92,235
Kutir Jyoti	10,96,976	3,85,146	14,82,122
DS I Rural	60,46,613	33,43,828	93,90,441
DS II Demand Based	25,58,040	45,60,583	71,18,623
DS III	549	500	1,049
Non-Domestic Service	20,21,235	18,94,506	39,15,741
NDS I - Metered Now Demand Based	8,09,956	4,26,529	12,36,485
NDS II - Demand Based	12,11,279	14,67,977	26,79,256
Contract Demand <0.5 kW	1,481	5,851	7,332
Contract Demand >0.5 kW	12,09,798	14,62,126	26,71,924
Street Light Services	32,125	34,976	67,101
SS Metered	5,409	11,450	16,859
SS Unmetered	26,716	23,526	50,242

Category of Consumers	NBPDC Connected Load (KW)	SBPDCL Connected Load (KW)	Total
Irrigation & Allied Services	7,65,215	7,07,754	14,72,969
IAS I	7,07,668	6,66,987	13,74,655
Unmetered	27,235	326976	354211
Metered	6,80,433	340011	1020444
IAS II (Metered (Now Demand Based)	57,547	40,767	98,314
Public Service Connections	1,86,994	1,29,558	3,16,552
Public Water Works	35,349	52,408	87,757
Har Ghar Nal	1,51,645	77,150	2,28,795
Low Tension Industrial Services	9,07,136	10,07,613	19,14,749
LTIS I (0-19 kW)	8,33,936	7,03,532	15,37,468
LTIS II (-19 kW - 74 kW)	73,200	3,04,081	3,77,281
LT Electric Vehicle Charging Station	806	2,560	3,366
High Tension	5,62,445	11,27,188	16,89,633
HTS I - 11 kV	3,37,571	5,50,595	8,88,166
HTS II - 33 kV	1,27,508	3,65,186	4,92,694
HTS III -132 kV	87,777	76,255	1,64,032
HTS IV - 220 kV	0	0	0
HTSS	9,589	1,35,152	1,44,741
HT-Industrial Services	15,244	7,286	22,530
HTIS (Industrial) – I (11 kV)	1,428	0	1,428
HTIS (Industrial)– II (33 kV)	1,122	0	1,122
HTIS (Industrial) – III (132 kV)	0	0	0
HTIS (Industries)-IV (220 kV)	12,500		12,500
HTIS (Oxygen Manufacturers)	194	7,286	7,480
Railway Traction Services	60,000	94,500	1,54,500
HT Electric Vehicle Charging Stations.	12,338	0	12,338
Total	1,42,65,716	1,32,95,998	2,75,61,714

Table 6.11: Category-wise Energy Sales approved for NBPDC & SBPDCL for FY 2024-25

Category of Consumers	NBPDC Sales (MUs)	SBPDCL Sales (MUs)	Total
Domestic	9,575.03	8,428.37	18,003.40
Kutir Jyoti	2,632.74	929.07	3,561.81
DS I Rural	4,691.69	3,839.78	8,531.47
DS II Demand Based	2,250.21	3,659.24	5,909.45
DS III	0.39	0.28	0.67
Non-Domestic Service	2,250.85	1,917.30	4,168.15
NDS I - Metered Now Demand Based	814.80	479.63	1,294.43
NDS II - Demand Based	1,436.05	1,437.67	2,873.72
Contract Demand <0.5 kW	2.19	6.05	8.24
Contract Demand >0.5 kW	1,433.86	1,431.62	2,865.48
Street Light Services	129.53	284.79	414.32
SS Metered	13.34	78.46	91.80
SS Unmetered	116.19	206.33	322.52
Irrigation & Allied Services	1,942.17	4,430.23	6,372.40
IAS I	1,840.57	4,047.04	5,887.61
Unmetered	9.95	894.66	904.61
Metered	1830.62	3152.38	4983
IAS II (Metered (Now Demand Based)	101.60	383.19	484.79
Public Service Connections	547.87	489.39	1,037.26
Public Water Works	45.82	175.26	221.08
Har Ghar Nal	502.05	314.13	816.18

Category of Consumers	NBPDCCL Sales (MUs)	SBPDCL Sales (MUs)	Total
Low Tension Industrial Services	561.86	483.88	1,045.74
LTIS I (0-19 kW)	519.48	330.39	849.87
LTIS II (-19 kW - 74 kW)	42.38	153.49	195.87
LT Electric Vehicle Charging Station	12.28	8.11	20.39
High Tension	1,176.53	3,335.85	4,512.38
HTS I - 11 kV	669.48	1,206.89	1,876.37
HTS II - 33 kV	332.06	934.10	1,266.16
HTS III -132 kV	131.02	279.81	410.83
HTS IV - 220 kV	0.00	0.00	0.00
HTSS	43.97	915.05	959.02
HT-Industrial Services	80.96	10.79	91.75
HTIS (Industrial) – I (11 kV)	2.54	0.00	2.54
HTIS (Industrial)– II (33 kV)	3.54	0.00	3.54
HTIS (Industrial) – III (132 kV)	0.00	0.00	0.00
HTIS (Industries)-IV (220 kV)	74.46	0.00	74.46
HTIS (Oxygen Manufacturers)	0.42	10.79	11.21
Railway Traction Services	159.50	290.04	449.54
Nepal	314.22	0.00	314.22
HT Electric Vehicle Charging Stations.	184.25	0.34	184.59
Total	16,935.05	19,679.09	36,614.14

6.3. Distribution Loss Petitioners' submission

Government of India, through Ministry of Power introduced “Revamped Distribution Sector Scheme – A Reform based, and Results linked scheme” in July 2021. The scheme is applicable for all the State/UTs Utilities or Power Departments to avail such financial assistance under the revamped scheme. The scheme has a total outlay of Rs 3,03,758 Crores with an estimated gross budgetary support of Rs 97,631 Crores (~32% of total outlay) from the Government of India.

The Petitioners have participated in the said scheme and submitted the action plan, DPR of the total project outlay & roadmap for AT&C Loss to the State Government for its approval in the month of March 2022. The Monitoring Committee for RDSS constituted under Chairmanship of Secretary (Power), Govt of India, in its 9th meeting held on 28.04.2022, has approved the Action Plan and Loss Reduction DPR of North Bihar Power Distribution Company Limited under Revamped Distribution Sector Scheme. Accordingly, the Monitoring Committee approved the following trajectory for AT&C loss for the Petitioners.

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%
SBPDCL	35%	31%	25%	20%

Furthermore, it is pertinent to mention here that MoP has directed the Hon'ble Commission vide letter reference No.24/3/3/2019-PFC(MoP)- Part (2)-E-263367 dated 28th August 2023 Annexure-2 to adopt the AT&C loss trajectory for tariff determination in accordance with the trajectory agreed by the respective State Government and approved by the Central Government (under RDSS). The extract of the said letter is as follows:

Under Rule 20 of the Electricity Rules, it has been prescribed that the AT&C loss reduction trajectory adopted by the SERC for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government.

....

*It has been brought to the notice of the Central Government that BERC has adopted a different trajectory than the one prescribed under the Rules. **This is a violation of the Rules and therefore an offence under the Law. I have been directed to request you that the BERC may adopt the trajectory in accordance with the Rules and correct the tariff accordingly.***

It is further submitted that, the Commission had approved the collection efficiency of 100% in the ARR for FY 2024-25 as per the UDAY scheme. However, the per capita income of Bihar, especially for the domestic consumer is very low which restricts their paying capacity, and this has proven to be a challenge to recover the billed amount despite taking various measures for timely billing and easy payment of the bill.

To improve the metering, billing and collection process, the petitioner has also started implementation of smart pre-paid meter project envisaging that the same shall enable Discoms to significantly improve its metering, billing & collection and minimize the commercial losses.

Accordingly, the Petitioners requests the Commission to approve the Distribution Loss, Billing Efficiency, Collection Efficiency, AT&C Loss for FY 2024-25 as approved under RDSS scheme as provided below:

AT&C loss for FY 2024-25

Sl. No	Particulars	NBPDCCL	SBPDCL
1	Distribution Loss (%)	14.55%	17.49%
2	Billing Efficiency (%)	85.45%	82.51%
3	Collection Efficiency (%)	98.30%	96.96%
4	AT&C Loss (%)	16.00%	20.00%

Commission's analysis

The Govt. Of India introduced Revamped Distribution Sector Scheme (RDSS) scheme- A reform based, and results linked scheme in July, 2021. The Petitioner-DISCOMs have participated in the scheme and submitted their respective action plan and DPR. The Monitoring Committee for RDSS has approved the action plan and proposed AT&C loss reduction trajectory of NBPDCCL and SBPDCL for FY 2021-22 to FY 2024-25 as given in the table below

Table 6.12: AT& C Loss Target Under RDSS Scheme

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
NBPDCCL	25%	22%	19%	16%
SBPDCL	35%	31%	25%	20%

The Ministry of Power, Govt of India, vide letter F.No.24/3/3/2019-PFC (MoP)-Part(2)-(E-263367) dated 28.08.2023 and also the Rules issued vide its GSR 558 (E) dated 26th July 2023 stated that the AT&C loss reduction trajectory adopted by the SERC for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government under RDSS and the BERC may adopt the trajectory in accordance with the Rules. Accordingly, the Commission agrees with the request of the petitioner and considers the AT&C loss trajectory for FY 2024-25 as specified in the RDSS scheme as given below.

Table 6.13: Distribution Loss AT& C Loss Target for FY 2024-25

Particulars	NBPDCCL	SBPDCL
Distribution Loss	14.55%	17.49%
Collection Efficiency	98.30%	99.96%
AT&C Loss	16.00%	20.00%

The Commission has considered the Distribution loss at 14.55% and 17.49% for FY 2024-25 for NBPDCCL and SBPDCL respectively as submitted by them for computation of Energy Requirement.

6.4. Transmission Loss**Petitioners' submission**

The Petitioners have considered intra-state transmission loss at 3.00% for FY 2024-25 as per approved in MYT Order dated 25.03.2022.

Commission's analysis

The Commission has approved the Intra-State Transmission Loss at 3% for

FY 2022-23 to FY 2024-25 in the MYT Order dated 25th March, 2022 of BSPTCL. Therefore, the Commission considers the Intra-State Transmission Loss for FY 2024-25 at 3%, subject to True-up based on actuals.

6.5. Central Transmission Loss (CTU)

Petitioners' submission

The Petitioner has submitted CTU loss of 3.14% as per latest available data for FY 2024-25 and requested the Commission to consider the same.

Commission's analysis

The Commission considers the Central Transmission Loss at 3.14% for FY 2024-25 at same level considered for FY 2023-24 in APR, subject to True-up based on actuals. However, while truing up for the relevant year, the CTU losses will be considered based on the actual energy billed and scheduled from those sources which have injected power into CTU grid.

6.6. Power Purchase

Petitioners' submission

The DISCOMs rely on allocation from central generating stations and state projects for procuring power for sale in the state. This power has been proposed to be allocated between North and South Bihar in the proportion as determined by the Board resolution as detailed below:

Bihar State Power Holding Company Ltd (BSPHCL) issued vide its Resolution No.55-10 dated 14th July 2017 for approval regarding distribution of power purchase agreement between NBPDCCL and SBPDCL. The notification states that,

"RESOLVED THAT Power Purchase & Transmission charges bills are to be admitted and payment by both DISCOMs i.e NBPDCCL and SBPDCL in the ratio 46:54 respectively w.e.f.1-4-2017subjected to the final reconciliation of actual consumption"

RESOLVED FURTHER THAT Chairman cum Managing Director, BSHPCL are here by authorized for deciding the power consumption ratio subsequently as per the actual consumption of both the DISCOMS based on the average consumption of the last 6 months of power drawal of both the DISCOMs i.e. NBPDCCL and SBPDCL"

The following plant addition has been considered by the Petitioner in FY 2024-25:

Upcoming Plant Addition in FY 2024-25

S.No	Name of Unit	Expected COD	Quantum (MW)	Plant type
1	<i>Barh Stage I Unit III</i>	Mar-25	381	Thermal
2	<i>North Karanpura Unit III</i>	Jul-24	295	Thermal
3	<i>Buxar TPP U2</i>	Jun-24	561	Thermal
4	<i>Adani Green Energy</i>	Jul-24	600	Solar
5	<i>Greenko Energy Pvt. Ltd. (SECI Hybrid)</i>	Jul-24	210	Solar

The Petitioners have considered the power purchase computed/ projected for FY 2024-25, which is based on the following methodology.

- a). Share allocation has been considered as per Eastern Regional Power Committee.
- b). The Petitioners have implemented the methodology of Merit Order Despatch (MoD) for projecting its power purchase in order to meet its projected demand. While implementing the MoD, the Petitioner has firstly estimated utilization of its allocated capacity of must run plants i.e., the Solar and Non-solar Renewable generating stations and its hydro stations based on the minimum offtakes or their normative PLF, whichever is maximum. For the purpose of projection, the Petitioner has considered the Medium Term PPAs of the petitioner to be must run due to the fact that the Petitioner has a minimum off-take liability in its Medium Term PPAs. Further, the remaining demand of the Petitioner has been tried to be fulfilled through its conventional power purchase tie-ups. The methodology followed by the Petitioner here is that it has firstly allocated the minimum technical limit to all its conventional plants i.e., up till 60% PLF of the plants based on their variable charge per unit (ECR). Further, the remaining demand of the system has then been tried to be fulfilled through bucket-filling up to a maximum PLF of 85% for the conventional generating stations based on their ECR. If any more demand is remaining unfilled after the process, the same has been tried to be purchased through Open market purchase.

- c). The overall annual projected demand of the system has been distributed on month-on-month basis based on the monthly power supply data published by CEA for Bihar.
- d). Normative auxiliary consumption provided by Central Electricity Regulatory Commission (CERC) for the thermal and hydro plants and the auxiliary consumptions specified for plants.
- e). Considering the methodology as mentioned above and using the power purchase allocation data mentioned in the above table total number of units purchased were calculated from every source/ plant for every month separately.

Total Power purchase projections data for FY 2024-25 is provided in the below table.

Table 6.14: Power Purchase allocation projected by NBPDCCL & SBPDCL for FY 2024-25

Particulars	NBPDCCL		SBPDCL	
	Share allocation for NBPDCCL (MW)	Unit Purchased (MU)	Share Allocation (MW) SB	Unit Purchased (MU)
Stations with injection at CTU	3,643.93	16,527.83	4,277.63	19,402.23
FSTPP I & II	49.57	252.12	58.19	295.97
FSTPP III	44.74	203.69	52.52	239.12
KHSTPP I	23.7	128.87	27.82	151.28
KHSTPP II	29.26	158.21	34.34	185.72
Barh Stage I (Unit I & II)	352.18	1,579.13	413.42	1,853.76
Barh Stage I Unit III	176.09	63.86	206.71	74.96
Barh Stage II	525.9	2,019.00	617.36	2,370.12
Nabinagar (BRBCL)	46	248.76	54.00	292.02
Talcher Stage I	185.79	1,044.28	218.11	1,225.89
KBUNL Stage II	132.97	688.82	156.10	808.61
NPGCL	772.09	3,850.08	906.36	4,519.66
North Karanpura Unit I	136.53	781.15	160.27	917
North Karanpura Unit II	105.5	603.62	123.85	708.6
North Karanpura Unit III	105.5	457.66	123.85	537.25
Darlipali STPS	87.29	540.89	102.47	634.96
Buxar TPP U1	258.06	1,352.99	302.94	1,588.30
Buxar TPP U2	258.06	1,085.14	302.94	1,273.86
Chuka	42.82	189.74	50.27	222.74
Rangit	10.59	54.13	12.43	63.55
Tala	119.65	268.78	140.45	315.53
Teesta	49.22	260.46	57.78	305.76
Mangdechhu	130.86	692.47	153.61	812.9
Kurichu	1.56	3.98	1.84	4.67
Stations with injection at STU	356.18	1148.6	418.122	1348.35
BSPHC	24.98	9.94	29.32	11.67
BTPS Stage I	101.2	161.87	118.80	190.02
BTPS Stage II	230	976.79	270.00	1,146.66

Particulars	NBPDC		SBPDCL	
	Share allocation for NBPDC (MW)	Unit Purchased (MU)	Share Allocation (MW) SB	Unit Purchased (MU)
IPPs	224.48	1373.13	263.52	1611.93
GMR	119.6	720.62	140.40	845.94
JITPL	104.88	652.51	123.12	765.99
Renewables	1,927.49	3,851.42	2,262.71	4,521.23
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.6	7.6	5.40	8.92
M/s Response renewable Energy Ltd, Kolkata.	4.6	7.6	5.40	8.92
M/s Avantika Contractors Ltd., Hyderabad	2.3	3.8	2.70	4.46
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.28	1.62	2.68
Alfa Infraprop Pvt. Ltd.	9.2	15.2	10.80	17.84
Udipta Energy & Equipment Pvt. Ltd.	2.3	3.8	2.70	4.46
Azure Power India Pvt. Ltd.	4.6	7.6	5.40	8.92
Welspun Renewables Project - I	4.6	7.6	5.40	8.92
Welspun Renewables Project – II	6.9	11.4	8.10	13.38
Welspun Renewables Project – III	6.9	11.4	8.10	13.38
Acme Cleantech Project (Nalanda)	6.9	11.4	8.10	13.38
Acme Cleantech Project (Magadh)	4.6	7.6	5.40	8.92
SECI (Focal)	4.6	8.8	5.40	10.33
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	69	131.98	81.00	154.93
SECI Phase-III (Renew Sunwaves)	138	338.11	162.00	396.91
SB Energy Six Pvt. Ltd. (NTPC)	138	347.35	162.00	407.75
GRT Jewellers (SECI-V)	69	113.98	81.00	133.81
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92	255.96	108.00	300.48
Wind ISTS Scheme Tranche II (SECI) (Orange)	46	127.98	54.00	150.24
Avada (BREDA), Dharbhanga	0.74	1.22	0.86	1.43
SECI Green Infra	138	383.94	162.00	450.71
Alfanar	138	383.94	162.00	450.71
Betam	23.09	64.25	27.11	75.42
SECI Phase-VI Wind	161	-	189.00	-
Ostro Kannad	138	359.94	162.00	422.54
Morjar Windfarm	23	43.99	27.00	51.64
SBE Renewable (SECI Phase-V)	151.8	290.35	178.20	340.85
SJVN Ltd (BREDA)	92	175.97	108.00	206.58
Avada (BREDA)	23	43.99	27.00	51.64
Adani Green Energy	276	399.29	324.00	468.74
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.6	123.01	113.40	144.41
New Swadeshi Sugar Mill, Narkataganj	4.6	20.28	5.40	23.81
Hasanpur Sugar Mill, Dalsinghsarai	6.67	29.4	7.83	34.52

Particulars	NBPDCCL		SBPDCL	
	Share allocation for NBPDCCL (MW)	Unit Purchased (MU)	Share Allocation (MW) SB	Unit Purchased (MU)
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.9	30.42	8.10	35.71
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	29.4	7.83	34.52
HPCL Biofuels Ltd., Sugauli, East Champaran	9.2	14.75	10.80	17.31
HPCL Biofuels Ltd., Lauria, West Champaran	9.2	16.22	10.80	19.04
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	2.95	0.54	3.46
Bihar Distillers & Bottlers Pvt Ltd	4.32	3.47	5.08	4.07
Tirupati Sugar	2.76	13.2	3.24	15.49
Others	-	1511.98	-	1774.93
PTC(IEX)	-	1,511.98	-	1,774.93
Total	6,152.08	24,412.96	7,221.98	28,658.67

Commissions' analysis

The Commission has noted that in addition to the existing PPA's, the Petitioner-Discoms have made arrangement to procure power from the following new stations during FY 2023-24.

Sl. No	Name of Unit	Expected COD	Quantum (MW)	Plant type
1	Barh Stage I Unit III	Mar-25	381	Thermal
2	North Karanpura Unit III	Jul-24	295	Thermal
3	Buxar TPP U2	Jun-24	561	Thermal
4	Adani Green Energy	Jul-24	600	Solar
5	Greenko Energy Pvt. Ltd. (SECI Hybrid)	Jul-24	210	Solar

Although the PPA of Buxar plants has not been approved by the Commission, but as per practice Commission is approving procurement from CGS on the basis of Statements/ submissions of the petitioners and terms of PPA also. Therefore, the Commission is considering the request of the petitioner for procurement from all CGS under the provisions of PPAs already executed by them.

However, the Commission directs the petitioner to avoid such practice in future and obtain prior approval of the Commission for PPAs.

For all plants the Commission has considered the data as per the Historical data submitted by the petitioner. For Barh Stage-I Unit-III, the Discoms has projected PLF of 4.14%, however Commission considered it on normative basis as 85%. Similarly, for Buxar Unit I&II which is expected to get commissioned during FY 2024-25, the

Commission has taken the normative Annual PLF of 85% for deriving the Power availability from these plants for the months they are expected to remain under commercial operation in Year FY 2024-25.

Since the fixed costs have to be paid to generators as per the contracted capacity (MW), the energy availability from the generators is considered based on the category wise projected PLF except the above-mentioned plants.

Accordingly, the Commission has computed the energy availability to Petitioners-Discoms and allocated to NBPDCCL and SBPDCL in the ratio 46:54 for FY 2024-25 as shown in the Table below:

Table 6.15: Power Availability for FY 2024-25 computed by the Commission

Sl. No.	Particulars	Bihar share allocation (MW)	Avg. PLF	Energy at Gen. terminal (MU)	Energy (MU)	SBPDCL (54%) (MU)	NBPDCCL (46%) (MU)
I	Stations with injection at CTU	8190.92		39508.22	39508.22	21334.44	18173.78
1	FSTPP I & II	107.75	58.07	548.12	548.12	295.99	252.14
2	FSTPP III	97.23	51.98	442.74	442.74	239.08	203.66
3	KHSTPP I	51.52	62.07	280.13	280.13	151.27	128.86
4	KHSTPP II	63.67	61.73	344.28	344.28	185.91	158.37
5	Barh Stage I Unit (I & II)	791.92	51.19	3551.17	3551.17	1917.63	1633.54
6	Barh Stage I Unit III	395.96	85.00	250.41	250.41	135.22	115.19
7	Barh Stage II	1143.30	43.83	4389.71	4389.71	2370.44	2019.27
8	Nabinagar (BRBCL)	100.00	61.73	540.75	540.75	292.01	248.75
9	Talcher Stage I	403.90	64.16	2270.08	2270.08	1225.84	1044.24
10	KBUNL Stage II	289.07	59.13	1497.31	1497.31	808.55	688.76
11	NPGL	1639.57	56.92	8175.21	8175.21	4414.61	3760.60
12	North Karanpura Unit I	296.82	65.31	1698.13	1698.13	916.99	781.14
13	North Karanpura Unit II	296.82	65.31	1698.13	1698.13	916.99	781.14
14	North Karanpura Unit III	296.82	49.52	966.56	966.56	521.94	444.62
15	Darlipali STPS	323.42	70.74	2004.16	2004.16	1082.24	921.91
16	Buxar TPP U-I	561.00	85.00	4177.21	4177.21	2255.69	1921.51
17	Buxar TPP U-II	561.00	85.00	3479.10	3479.10	1878.71	1600.38
18	Chuka	93.11	50.58	412.53	412.53	222.77	189.77
19	Rangit	23.02	58.35	117.68	117.68	63.55	54.13
20	Tala	260.10	25.64	584.20	584.20	315.47	268.73
21	Teesta	107.01	60.41	566.28	566.28	305.79	260.49
22	Mangdechhu	284.52	60.41	1505.66	1505.66	813.06	692.60
23	Kurichu	3.41	29.06	8.67	8.67	4.68	3.99
II	Stations with injection at STU	774.30		2537.17	2537.17	1370.07	1167.10
1	BSPHC	54.30	13.00	61.84	61.84	33.39	28.44

Sl. No.	Particulars	Bihar share allocation (MW)	Avg. PLF	Energy at Gen. terminal (MU)	Energy (MU)	SBPDCL (54%) (MU)	NBPDC (46%) (MU)
2	BTPS Stage I	220.00	18.26	351.91	351.91	190.03	161.88
3	BTPS Stage II	500.00	48.48	2123.42	2123.42	1146.65	976.78
III	IPPs	488.00		2985.00	2985.00	1611.90	1373.10
1	GMR	260.00	68.78	1566.53	1566.53	845.93	720.61
2	JITPL	228.00	71.02	1418.47	1418.47	765.97	652.50
IV	Renewables	3390.20		6838.35	6838.35	3692.71	3145.64
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	10.00	18.86	16.52	16.52	8.92	7.60
2	M/s Response renewable Energy Ltd, Kolkata.	10.00	18.86	16.52	16.52	8.92	7.60
3	M/s Avantika Contractors Ltd., Hyderabad	5.00	18.86	8.26	8.26	4.46	3.80
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	3.00	18.86	4.96	4.96	2.68	2.28
5	Alfa Infraprop Pvt. Ltd.	20.00	18.86	33.04	33.04	17.84	15.20
6	Udipta Energy & Equipment Pvt. Ltd.	5.00	18.86	8.26	8.26	4.46	3.80
7	Azure Power India Pvt. Ltd.	10.00	18.86	16.52	16.52	8.92	7.60
8	Welspun Renewables Project - I	10.00	18.86	16.52	16.52	8.92	7.60
9	Welspun Renewables Project – II	15.00	18.86	24.78	24.78	13.38	11.40
10	Welspun Renewables Project – III	15.00	18.86	24.78	24.78	13.38	11.40
11	Acme Cleantech Project (Nalanda)	15.00	18.86	24.78	24.78	13.38	11.40
12	Acme Cleantech Project (Magadh)	10.00	18.86	16.52	16.52	8.92	7.60
13	SECI (Focal)	10.00	21.84	19.13	19.13	10.33	8.80
14	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)	150.00	21.84	286.98	286.98	154.97	132.01
15	SECI Phase-III (Renew Sunwaves)	300.00	27.97	735.05	735.05	396.93	338.12
16	SB Energy Six Pvt. Ltd(NTPC)	300.00	28.73	755.02	755.02	407.71	347.31
17	GRT Jewellers (SECI-V)	150.00	18.86	247.82	247.82	133.82	114.00
18	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	200.00	31.76	556.44	556.44	300.48	255.96

Sl. No.	Particulars	Bihar share allocation (MW)	Avg. PLF	Energy at Gen. terminal (MU)	Energy (MU)	SBPDCL (54%) (MU)	NBPDC (46%) (MU)
19	Wind ISTS Scheme Tranche II (SECI) (Orange)	100.00	31.76	278.22	278.22	150.24	127.98
20	Avada(BREDA) Dharbhanga	1.60	18.86	2.64	2.64	1.43	1.22
21	SECI Green Infra	100.00	31.76	278.22	278.22	150.24	127.98
22	Alfanar	50.00	31.76	139.11	139.11	75.12	63.99
23	Betam	50.20	31.76	139.67	139.67	75.42	64.25
24	Ostro Kannad	300.00	29.78	782.62	782.62	422.61	360.00
25	Morjar Windfarm	50.00	21.84	95.66	95.66	51.66	44.00
26	SBE Renewable (SECI phase v)	330.00	21.84	631.35	631.35	340.93	290.42
27	SJVN Ltd (BREDA)	200.00	21.84	382.64	382.64	206.62	176.01
28	Avada (BREDA)	50.00	21.84	95.66	95.66	51.66	44.00
29	Adani Green Energy	600.00	16.52	651.81	651.81	351.98	299.83
30	Greenko Energy Pvt.Ltd (SECI Hybrid)	210.00	14.54	200.79	200.79	108.43	92.36
31	New Swadeshi Sugar Mill, Narkataganj	10.00	50.33	44.09	44.09	23.81	20.28
32	Hasanpur Sugar Mill, Dalsinghsarai	14.50	50.33	63.93	63.93	34.52	29.41
33	Bharat Sugar Mills, Sidhwalia, Gopalganj	15.00	50.33	66.13	66.13	35.71	30.42
34	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	14.50	50.33	63.93	63.93	34.52	29.41
35	HPCL Biofuels Ltd., Sugauli, East Champaran	20.00	18.30	32.06	32.06	17.31	14.75
36	HPCL Biofuels Ltd., Lauria, West Champaran	20.00	20.13	35.27	35.27	19.04	16.22
37	Siddhashram Rice Mill Cluster Pvt Ltd	1.00	73.20	6.41	6.41	3.46	2.95
38	Bihar Distillers & Bottlers Pvt Ltd	9.40	9.15	7.53	7.53	4.07	3.47
39	Tirupati Sugar	6.00	54.59	28.69	28.69	15.49	13.20
	TOTAL	12843.42		51868.74	51868.74	28009.12	23859.62

6.7. Energy Balance

Petitioners' submission

The energy balance projected by NBPDC & SBPDCL for 2024-25 is as shown in the table below:

Table 6.16: Energy Balance projected by NBPDC & SBPDCL for FY 2024-25

Sl No	Particulars	Unit	NBPDC	SBPDCL
A	Energy Requirement			
1	Energy sales	MU	16,935.06	19,679.07
2	Less: Inter-state sales	MU	314.22	-

SI No	Particulars	Unit	NBPDC	SBPDCL
3	Energy sales excluding Inter-state sales	MU	16,620.84	19,679.07
4	Distribution Loss	%	14.55%	17.49%
5	Add: Distribution Loss	MU	2,830.11	4,171.46
6	Energy required at Distribution periphery	MU	19,450.95	23,850.53
7	Add: Inter-state sales	MU	314.22	-
8	Total energy required at Distribution periphery	MU	19,765.17	23,850.53
9	State Transmission Loss	%	3.00%	3.00%
10	Add: State Transmission Loss	MU	611.29	737.65
11	Total energy required at State Transmission Periphery	MU	20,376.46	24,588.18
12	Losses in Regional Transmission system	%	3.14%	3.14%
13	Losses in Regional Transmission system	MU	661.46	798.18
14	Total Energy Requirement at ex-bus	MU	21,037.92	25,386.36
15	Total energy Purchased (inc surplus power)	MU	24,412.96	28,658.69
16	Energy Surplus/(Deficit) at State Periphery	MU	3,375.04	3,272.33

The Petitioners have submitted that the revenue of the aforementioned surplus power is considered at Rs. 5/- per kwh as per the actual during FY 2022-23 and the corresponding revenue of Rs. 1687.52 Crore to NBPDC and Rs. 1636.17 Crore to SBPDCL has been reduced from the ARR.

Commission's analysis

The Commission has noted from the above Table, the Petitioners have computed the energy requirement considering the distribution loss at 14.55% for NBPDC and at 17.49% for SBPDCL as against 15% approved by the Commission.

The Rules issued vide its GSR 558 (E) dated 26th July 2023 , the Commission has considered the distribution loss as projected by the petitioner and STU loss at 3.00% as approved in the order and CTU loss at 3.14% as projected by the Petitioner.

Accordingly, the details of energy requirement, energy availability during FY 2024-25 is computed as shown in the Table below:

Table 6.17: Energy Balance Computed with approved sales and losses for NBPDC and SBPDCL for FY 2024-25 considering power availability

Sl. No	Particulars	Unit	NBPDC	SBPDCL
A	Energy Requirement			
1	Energy sales	MU	16,935.05	19,679.09
2	Less: Inter-state sales	MU	314.22	0.00
3	Energy sales excluding Inter-state sales	MU	16620.83	19679.09
4	Distribution Loss	%	14.55	17.49
5	Add: Distribution Loss	MU	2830.11	4171.46

Sl. No	Particulars	Unit	NBPDCCL	SBPDCL
6	Total Energy required at Distribution periphery	MU	19450.94	23850.55
7	Add: Inter-state sales	MU	314.22	0
8	total energy required at Distribution periphery (including inter-state sales)	MU	19765.16	23850.55
9	State Transmission Loss	%	3.00	3.00
10	Add: State Transmission Loss	MU	611.29	737.65
11	Total energy required at State Transmission Periphery	MU	20376.46	24588.20
12	CTU losses	%	3.14%	3.14%
13	CTU Losses	MU	660.56	797.10
14	Total energy requirement	MU	21037.02	25385.30
15	Total computed Energy Purchase (Excluding short-term purchase)	MU	23859.62	28009.12
16	Surplus/ (Deficit)	MU	2822.60	2623.82

From the above table it is observed that Petitioner-Discoms have arrived at surplus power of 2822.60 MU for NBPDCCL and 2623.82 MU for SBPDCL respectively.

6.8 Power Purchase Requirement

Commission's Analysis

The Commission has considered the Power Purchase Quantity as projected by the Petitioner- Discoms.

The Commission observes that based on power availability from various sources, there will be surplus power availability in FY 2024-25. The Commission directs Discoms to schedule the energy following Least Cost principle duly observing Merit Order Despatch (MoD) principle.

As per MoD principle, the plants which are not "Must Run" are stacked in ascending order of their variable cost (Rs/kWh). The following table shows the details of Merit Order Dispatch considered for FY 2024-25 for estimating the power purchase requirement for FY 2024-25.

Table 6.18: Merit Order Dispatch Considered by the Commission

Sl No	Particulars	Source	Mode of operation	Energy cost (Rs. /kWh)
A	Hydel			
1	Teesta	Hydel	Must Run	1.28
2	Kurichu	Hydel	Must Run	1.97
3	Rangit	Hydel	Must Run	2.19
4	BSPHC	Hydel	Must Run	2.49
5	Tala	Hydel	Must Run	2.50
6	Chuka	Hydel	Must Run	2.64

SI No	Particulars	Source	Mode of operation	Energy cost (Rs. /kWh)
7	Mangdechu	Hydel	Must Run	4.61
B	Renewables			
1	GRT Jewellers (SECI-V)	Solar	Must Run	2.04
2	Ostro Kannad	Non-Solar	Must Run	2.19
3	Morjar Windfarm	Non-Solar	Must Run	2.19
4	SECI Green Infra	Solar	Must Run	2.51
5	Alfanar	Non-Solar	Must Run	2.52
6	Betam	Non-Solar	Must Run	2.52
7	Adani Green Energy	Solar	Must Run	2.57
8	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)	Solar	Must Run	2.57
9	SB Energy Six Pvt. Ltd (NTPC)	Solar	Must Run	2.67
10	Wind ISTS Scheme Tranche II (SECI) (Orange)	Non-Solar	Must Run	2.71
11	SBE Renewable (SECI phase v)	Solar	Must Run	2.72
12	SECI Phase-III (Renew Sunwaves)	Solar	Must Run	2.87
13	SJVN Ltd (BREDA)	Solar	Must Run	3.11
14	Avada (BREDA)	Solar	Must Run	3.11
15	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	Non-Solar	Must Run	3.38
16	Greenko Energy Pvt.Ltd (SECI Hybrid)	Solar	Must Run	3.90
17	Avada (BREDA) Dharbhanga	Solar	Must Run	4.15
18	HPCL Biofuels Ltd., Sugauli, East Champaran	Non-Solar	Must Run	4.98
19	HPCL Biofuels Ltd., Lauria, West Champaran	Non-Solar	Must Run	5.10
20	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	Non-Solar	Must Run	5.10
21	Bharat Sugar Mills, Sidhwalia, Gopalganj	Non-Solar	Must Run	5.11
22	New Swadeshi Sugar Mill, Narkataganj	Non-Solar	Must Run	5.14
23	SECI (Focal)	Solar	Must Run	5.93
24	Hasanpur Sugar Mill, Dalsinghsarai	Non-Solar	Must Run	6.22
25	Tirupati Sugar	Non-Solar	Must Run	6.36

SI No	Particulars	Source	Mode of operation	Energy cost (Rs. /kWh)
26	Bihar Distillers & Bottlers Pvt Ltd	Non-Solar	Must Run	6.36
27	M/s Response renewable Energy Ltd, Kolkata.	Solar	Must Run	7.02
28	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	Solar	Must Run	7.02
29	M/s Glatt Solutions Pvt. Ltd, Kolkata.	Solar	Must Run	7.03
30	M/s Avantika Contractors Ltd., Hyderabad	Solar	Must Run	7.68
31	Alfa Infraprop Pvt. Ltd.	Solar	Must Run	7.87
32	Udipta Energy & Equipment Pvt. Ltd.	Solar	Must Run	7.98
33	Azure Power India Pvt. Ltd.	Solar	Must Run	8.39
34	Welspun Renewables Project – III	Solar	Must Run	8.56
35	Welspun Renewables Project – II	Solar	Must Run	8.64
36	Welspun Renewables Project - I	Solar	Must Run	8.70
37	Acme Cleantech Project (Nalanda)	Solar	Must Run	8.73
38	Acme Cleantech Project (Magadh)	Solar	Must Run	8.73
39	Siddhashram Rice Mill Cluster Pvt Ltd	Non-Solar	Must Run	9.21
C	Thermal			
1	Darlipali STPS	Thermal	Merit	1.26
2	JITPL	Thermal	Merit	1.34
3	North Karanpura Unit III	Thermal	Merit	1.62
4	GMR	Thermal	Merit	1.84
5	North Karanpura Unit I	Thermal	Merit	2.30
6	North Karanpura Unit II	Thermal	Merit	2.30
7	Talcher Stage I	Thermal	Merit	2.37
8	NPGCL	Thermal	Merit	3.01
9	Barh Stage I Unit III	Thermal	Merit	3.29
10	BTPS Stage II	Thermal	Merit	3.39
11	KBUNL Stage II	Thermal	Merit	3.49
12	Nabinagar (BRBCL)	Thermal	Merit	3.50
13	KHSTPP II	Thermal	Merit	3.69
14	Barh Stage I Unit(I & II)	Thermal	Merit	3.70
15	Buxar TPP Unit-I	Thermal	Merit	3.70

SI No	Particulars	Source	Mode of operation	Energy cost (Rs. /kWh)
16	Buxar TPP Unit-II	Thermal	Merit	3.70
17	FSTPP III	Thermal	Merit	3.87
18	KHSTPP I	Thermal	Merit	3.90
19	Barh Stage II	Thermal	Merit	4.10
20	FSTPP I & II	Thermal	Merit	4.11
21	BTPS Stage I	Thermal	Merit	5.61

The Commission approves the power purchase from various sources / stations for FY 2024-25 based on the above Merit Order and considering the energy availability as shown in Table below:

Note 1: The above MOD List is based on the latest Energy cost made available to the Commission from all the aforementioned plants. However, in case of any variation in energy cost the revised merit list may be prepared and be followed while scheduling power from these sources.

2: While analyzing the power purchase requirement of the petitioner vis-a vis expected availability from different sources, the Commission has taken the estimated availability of power from different sources on the basis of certain assumptions as per available data. In this connection it is clarified that in case the availability of power drops due to any reason at any time, then for matching the requirement of providing 24X7 power to all the petitioners' may exercise the possibility of short-term procurement from available options including purchase from exchanges by following the least cost method approach. Here it is also clarified that for any such procurement other than that from power exchange(s) prior approval of the Commission shall be necessary.

Table 6.19: Power Purchase (MU) for NBPDCCL & SBPDCL FY 2024-25 as computed by Commission considering Merit Order

Sl No	Particulars	Bihar Share allocation (MW)	SBPDCL Allocation (MW) (54%)	NBPDCCL Allocation (MW) (46%)	Avg. PLF	Power Procured (MU)	SBPDCL (MU) (54%)	NBPDCCL (MU) (46%)	Energy cost (Rs./kWh)	SBPDCL		NBPDCCL	
A	Hydel									%	MU	%	MU
1	Teesta	107.01	57.78	49.22	60.41	566.28	305.79	260.49	1.28	100	305.79	100	260.49
2	Kurichu	3.41	1.84	1.57	29.06	8.67	4.68	3.99	1.97	100	4.68	100	3.99
3	Rangit	23.02	12.43	10.59	58.35	117.68	63.55	54.13	2.19	100	63.55	100	54.13
4	BSPHC	54.30	29.32	24.98	13.00	61.84	33.39	28.44	2.49	100	33.39	100	28.44
5	Tala	260.10	140.45	119.65	25.64	584.20	315.47	268.73	2.50	100	315.47	100	268.73
6	Chuka	93.11	50.28	42.83	50.58	412.53	222.77	189.77	2.64	100	222.77	100	189.77
7	Mangdechu	284.52	153.64	130.88	60.41	1505.66	813.06	692.60	4.61	100	813.06	100	692.60
	Hydel Total	825.46	445.75	379.71		3256.86	1758.71	1498.16			1758.71		1498.16
B	Renewables	3390.2	1830.71	1559.492		6838.35	3692.71	3145.64			3692.71		3145.64
1	GRT Jewellers (SECI-V)	150.00	81.00	69.00	18.86	247.82	133.82	114.00	2.04	100	133.82	100	114.00
2	Ostro Kannad	300.00	162.00	138.00	29.78	782.62	422.61	360.00	2.19	100	422.61	100	360.00
3	Morjar Windfarm	50.00	27.00	23.00	21.84	95.66	51.66	44.00	2.19	100	51.66	100	44.00
4	SECI Green Infra	100.00	54.00	46.00	31.76	278.22	150.24	127.98	2.51	100	150.24	100	127.98
5	Alfanar	50.00	27.00	23.00	31.76	139.11	75.12	63.99	2.52	100	75.12	100	63.99
6	Betam	50.20	27.11	23.09	31.76	139.67	75.42	64.25	2.52	100	75.42	100	64.25
7	Adani Green Energy	600.00	324.00	276.00	16.52	651.81	351.98	299.83	2.57	100	351.98	100	299.83
8	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)	150.00	81.00	69.00	21.84	286.98	154.97	132.01	2.57	100	154.97	100	132.01
9	SB Energy Six Pvt. Ltd(NTPC)	300.00	162.00	138.00	28.73	755.02	407.71	347.31	2.67	100	407.71	100	347.31
10	Wind ISTS Scheme Tranche II (SECI) (Orange)	100.00	54.00	46.00	31.76	278.22	150.24	127.98	2.71	100	150.24	100	127.98

Sl No	Particulars	Bihar Share allocation (MW)	SBPDCL Allocation (MW) (54%)	NBPDCCL Allocation (MW) (46%)	Avg. PLF	Power Procured (MU)	SBPDCL (MU) (54%)	NBPDCCL (MU) (46%)	Energy cost (Rs./kWh)	SBPDCL		NBPDCCL	
11	SBE Renewable(SECI phase v)	330.00	178.20	151.80	21.84	631.35	340.93	290.42	2.72	100	340.93	100	290.42
12	SECI Phase-III (Renew Sunwaves)	300.00	162.00	138.00	27.97	735.05	396.93	338.12	2.87	100	396.93	100	338.12
13	SJVN Ltd (BREDA)	200.00	108.00	92.00	21.84	382.64	206.62	176.01	3.11	100	206.62	100	176.01
14	Avada(BREDA)	50.00	27.00	23.00	21.84	95.66	51.66	44.00	3.11	100	51.66	100	44.00
15	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	200.00	108.00	92.00	31.76	556.44	300.48	255.96	3.38	100	300.48	100	255.96
16	Greenko Energy Pvt.Ltd (SECI Hybrid)	210.00	113.40	96.60	14.54	200.79	108.43	92.36	3.90	100	108.43	100	92.36
17	Avada(BREDA) Dharbhanga	1.60	0.86	0.74	18.86	2.64	1.43	1.22	4.15	100	1.43	100	1.22
18	HPCL Biofuels Ltd., Sugauli, East Champaran	20.00	10.80	9.20	18.30	32.06	17.31	14.75	4.98	100	17.31	100	14.75
19	HPCL Biofuels Ltd., Lauria, West Champaran	20.00	10.80	9.20	20.13	35.27	19.04	16.22	5.10	100	19.04	100	16.22
20	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	14.50	7.83	6.67	50.33	63.93	34.52	29.41	5.10	100	34.52	100	29.41
21	Bharat Sugar Mills, Sidhwalia, Gopalganj	15.00	8.10	6.90	50.33	66.13	35.71	30.42	5.11	100	35.71	100	30.42
22	New Swadeshi Sugar Mill, Narkataganj	10.00	5.40	4.60	50.33	44.09	23.81	20.28	5.14	100	23.81	100	20.28
23	SECI (Focal)	10.00	5.40	4.60	21.84	19.13	10.33	8.80	5.93	100	10.33	100	8.80

SI No	Particulars	Bihar Share allocation (MW)	SBPDCL Allocation (MW) (54%)	NBPDC Allocation (MW) (46%)	Avg. PLF	Power Procured (MU)	SBPDCL (MU) (54%)	NBPDC (MU) (46%)	Energy cost (Rs./kWh)	SBPDCL		NBPDC	
24	Hasanpur Sugar Mill, Dalsinghsarai	14.50	7.83	6.67	50.33	63.93	34.52	29.41	6.22	100	34.52	100	29.41
25	Tirupati Sugar	6.00	3.24	2.76	54.59	28.69	15.49	13.20	6.36	100	15.49	100	13.20
26	Bihar Distillers & Bottlers Pvt Ltd	9.40	5.08	4.32	9.15	7.53	4.07	3.47	6.36	100	4.07	100	3.47
27	M/s Response renewable Energy Ltd, Kolkata.	10.00	5.40	4.60	18.86	16.52	8.92	7.60	7.02	100	8.92	100	7.60
28	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	10.00	5.40	4.60	18.86	16.52	8.92	7.60	7.02	100	8.92	100	7.60
29	M/s Glatt Solutions Pvt. Ltd, Kolkata.	3.00	1.62	1.38	18.86	4.96	2.68	2.28	7.03	100	2.68	100	2.28
30	M/s Avantika Contractors Ltd., Hyderabad	5.00	2.70	2.30	18.86	8.26	4.46	3.80	7.68	100	4.46	100	3.80
31	Alfa Infraprop Pvt. Ltd.	20.00	10.80	9.20	18.86	33.04	17.84	15.20	7.87	100	17.84	100	15.20
32	Udipta Energy & Equipment Pvt. Ltd.	5.00	2.70	2.30	18.86	8.26	4.46	3.80	7.98	100	4.46	100	3.80
33	Azure Power India Pvt. Ltd.	10.00	5.40	4.60	18.86	16.52	8.92	7.60	8.39	100	8.92	100	7.60
34	Welspun Renewables Project – III	15.00	8.10	6.90	18.86	24.78	13.38	11.40	8.56	100	13.38	100	11.40
35	Welspun Renewables Project – II	15.00	8.10	6.90	18.86	24.78	13.38	11.40	8.64	100	13.38	100	11.40
36	Welspun Renewables Project - I	10.00	5.40	4.60	18.86	16.52	8.92	7.60	8.70	100	8.92	100	7.60

SI No	Particulars	Bihar Share allocation (MW)	SBPDCL Allocation (MW) (54%)	NBPDCCL Allocation (MW) (46%)	Avg. PLF	Power Procured (MU)	SBPDCL (MU) (54%)	NBPDCCL (MU) (46%)	Energy cost (Rs./kWh)	SBPDCL		NBPDCCL	
37	Acme Cleantech Project (Nalanda)	15.00	8.10	6.90	18.86	24.78	13.38	11.40	8.73	100	13.38	100	11.40
38	Acme Cleantech Project (Magadh)	10.00	5.40	4.60	18.86	16.52	8.92	7.60	8.73	100	8.92	100	7.60
39	Siddhashram Rice Mill Cluster Pvt Ltd	1.00	0.54	0.46	73.20	6.41	3.46	2.95	9.21	100	3.46	100	2.95
C	Thermal	8627.75	4658.99	3968.77		41773.53	22557.71	19215.82			19933.89		16393.22
1	Darlipali STPS	323.42	174.64	148.77	70.74	2004.16	1082.24	921.91	1.26	100	1082.24	100	921.91
2	JITPL	228.00	123.12	104.88	71.02	1418.47	765.97	652.50	1.34	100	765.97	100	652.50
3	North Karanpura Unit III	296.82	160.28	136.54	49.52	966.56	521.94	444.62	1.62	100	521.94	100	444.62
4	GMR	260.00	140.40	119.60	68.78	1566.53	845.93	720.61	1.84	100	845.93	100	720.61
5	North Karanpura Unit I	296.82	160.28	136.54	65.31	1698.13	916.99	781.14	2.30	100	916.99	100	781.14
6	North Karanpura Unit II	296.82	160.28	136.54	65.31	1698.13	916.99	781.14	2.30	100	916.99	100	781.14
7	Talcher Stage I	403.90	218.11	185.79	64.16	2270.08	1225.84	1044.24	2.37	100	1225.84	100	1044.24
8	NPGCL	1639.57	885.37	754.20	56.92	8175.21	4414.61	3760.60	3.01	100	4414.61	100	3760.60
9	Barh Stage I Unit III	395.96	213.82	182.14	85.00	250.41	135.22	115.19	3.29	100	135.22	100	115.19
10	BTPS Stage II	500.00	270.00	230.00	48.48	2123.42	1146.65	976.78	3.39	100	1146.65	100	976.78
11	KBUNL Stage II	289.07	156.10	132.97	59.13	1497.31	808.55	688.76	3.49	100	808.55	100	688.76
12	Nabinagar (BRBCL)	100.00	54.00	46.00	61.73	540.75	292.01	248.75	3.50	100	292.01	100	248.75
13	KHSTPP II	63.67	34.38	29.29	61.73	344.28	185.91	158.37	3.69	100	185.91	100	158.37
14	Barh Stage I Unit(I & II)	791.92	427.64	364.28	51.19	3551.17	1917.63	1633.54	3.70	100	1917.63	100	1633.54
15	Buxar TPP Unit-I	561.00	302.94	258.06	85.00	4177.21	2255.69	1921.51	3.70	85.93	1938.36	55.35	1063.70
16	Buxar TPP Unit-II	561.00	302.94	258.06	85.00	3479.10	1878.71	1600.38	3.70	55	1033.29	55	880.21
17	FSTPP III	97.23	52.51	44.73	51.98	442.74	239.08	203.66	3.87	55	131.49	55	112.01

SI No	Particulars	Bihar Share allocation (MW)	SBPDCL Allocation (MW) (54%)	NBPDC Allocation (MW) (46%)	Avg. PLF	Power Procured (MU)	SBPDCL (MU) (54%)	NBPDC (MU) (46%)	Energy cost (Rs./kWh)	SBPDCL		NBPDC	
18	KHSTPP I	51.52	27.82	23.70	62.07	280.13	151.27	128.86	3.90	55	83.20	55	70.87
20	Barh Stage II	1143.30	617.38	525.92	43.83	4389.71	2370.44	2019.27	4.10	55	1303.74	55	1110.60
19	FSTPP I & II	107.75	58.19	49.57	58.07	548.12	295.99	252.14	4.11	55	162.79	55	138.68
21	BTPS Stage I	220.00	118.80	101.20	18.26	351.91	190.03	161.88	5.61	55	104.52	55	89.03
	Total	12843.42	6935.44	5907.97	0.00	51868.74	28009.12	23859.62			25385.30		21037.02

The Discoms are required to procure power in economical manner following the Merit Order Dispatch which is integral part of power procurement.

Table 6.20: Revised Energy Balance Computed with approved energy availability for NBPDCCL & SBPDCL FY 2024-25

Sl. No	Particulars	Unit	NBPDCCL	SBPDCL
A	Energy Requirement			
1	Energy sales	MU	16,935.05	19,679.09
2	Less: Inter-state sales	MU	314.22	0.00
3	Energy sales excluding Inter-state sales	MU	16620.83	19679.09
4	Distribution Loss	%	14.55	17.49
5	Add: Distribution Loss	MU	2830.11	4171.46
6	Total Energy required at Distribution periphery	MU	19450.94	23850.55
7	Add: Inter-state sales	MU	314.22	0
8	Total energy required at Distribution periphery	MU	19765.16	23850.55
9	State Transmission Loss	%	3.00	3.00
10	Add: State Transmission Loss	MU	611.29	737.65
11	Total energy required at State Transmission Periphery	MU	20376.46	24588.20
12	CTU losses	%	3.14%	3.14%
13	CTU Losses	MU	660.56	797.10
14	Total energy requirement at Ex-Bus	MU	21037.02	25385.30
15	Total projected Energy Purchase (Excluding short-term purchase)	MU	21037.02	25385.30
16	Surplus/ (Deficit)	MU	0.00	0.00

6.8. Power Purchase Cost for FY 2024-25

Petitioners' submission

The power purchase cost mainly comprises of fixed charges and energy charges for two-part tariff stations i.e. NTPC, NHPC & PTC in case of Petitioners. NBPDCCL submitted that they considered the actual fixed cost as prevailing in FY 2023-24 for existing power stations. No increase in fixed charges has been considered in FY 2024-25 with respect to the fixed charges in FY 2023-24.

Further, as there has been increase in Variable cost of the plants due to coal blending allowed by the MoP as explained in the previous Chapter, no increase in the Variable cost has been considered in FY 2024-25 and same variable cost has been considered as assumed for 2nd half (September 2023-March 2024) for FY 2024-25.

Transmission charges have been increased 10% with respect to that approved by the Commission for FY 2023-24 in the Order dated 23.03.2023.

SBPDCL has submitted as follows;

The power purchase cost mainly comprises of fixed charges and energy charges for two-part tariff stations i.e. NTPC, NHPC & PTC in case of Petitioner. The Petitioner has considered the actual fixed cost as prevailing in FY 2023-24 for existing power stations and has considered 4% increase on the same to arrive at the fixed charges for FY 2024-25.

Further, as there has been increase in Variable cost of the plants due to coal blending allowed by the Ministry of Power as explained in the previous Chapter, 10% increase in the Variable cost has been considered in FY 2024-25 over the variable charges for FY 2023-24.

The Petitioner has considered the Transmission charges for FY 2024-25 after considering 10% escalation rate on the transmission charges derived for FY 2023-24.

The Petitioners have considered the new plants as per information available with them. The new plants for which cost details are not available, the cost break-up of similar capacity plants has been considered for projection.

The Petitioners have considered the upcoming conventional projects power purchase cost as per the approved PPA/PSA. For Non-Conventional, it has considered as per tariff discovered.

The detailed projected power purchase costs of different Power generating stations for FY 2024-25 is as given in the tables below:

Table 6.21: Power Purchase Cost projected by NBPDCCL for FY 2024-25

Particulars	Share allocation for NBPDCCL (MW)	Total Purchase by (MU)	NBPDCCL Total Cost for FY 2024-25 (Rs Crores)			NBPDCCL Total Cost for FY 2024-25 (Paisa/kWh)		
			Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
Stations with injection at CTU	3,643.91	16,527.83	3,601.21	5,300.86	8,902.08	217.89	320.72	538.61
FSTPP I & II	49.57	252.12	28.75	103.5	132.25	114.04	410.51	524.56
FSTPP III	44.74	203.69	50.27	78.85	129.12	246.78	387.11	633.89
KHSTPP I	23.7	128.87	18	50.25	68.25	139.65	389.97	529.63
KHSTPP II	29.26	158.21	20.29	58.45	78.73	128.22	369.43	497.65
Barh Stage I (Unit I & II)	352.18	1,579.13	399.23	583.93	983.15	252.81	369.78	622.59
Barh Stage I Unit III	176.09	63.86	149.71	21.04	170.75	2,344.44	329.45	2,673.89
Barh Stage II	525.9	2,019.00	760.89	828.4	1,589.28	376.86	410.3	787.17
Nabinagar (BRBCL)	46	248.76	75.98	87.12	163.1	305.44	350.24	655.67
Talcher Stage I	185.79	1,044.28	135.79	247.2	382.99	130.03	236.72	366.75
KBUNL Stage II	132.97	688.82	268.93	240.71	509.64	390.42	349.45	739.87
NPGCL	772.09	3,850.08	1,232.91	1,157.00	2,389.91	320.23	300.51	620.74
North Karanpura Unit I	136.53	781.15	20.41	179.47	199.89	26.13	229.76	255.89

Particulars	Share allocation for NBDCL (MW)	Total Purchase by (MU)	NBDCL Total Cost for FY 2024-25 (Rs Crores)			NBDCL Total Cost for FY 2024-25 (Paisa/kWh)		
			Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
North Karanpura Unit II	105.5	603.62	11.83	138.69	150.52	19.6	229.76	249.35
North Karanpura Unit III	105.5	457.66	-	74.1	74.1	-	161.92	161.92
Darlipali STPS	87.29	540.89	66.24	68.23	134.46	122.46	126.14	248.6
Buxar TPP U1	258.06	1,352.99	219.4	500.31	719.71	162.16	369.78	531.94
Buxar TPP U2	258.06	1,085.14	93.34	401.26	494.6	86.02	369.78	455.8
Chuka	42.82	189.74	-	50.12	50.12	-	264.18	264.18
Rangit	10.59	54.13	11.6	11.88	23.47	214.21	219.36	433.57
Tala	119.65	268.78	-	67.11	67.11	-	249.7	249.7
Teesta	49.22	260.46	37.66	33.29	70.96	144.61	127.82	272.43
Mangdechhu	130.86	692.47	-	319.16	319.16	-	460.9	460.9
Kurichu	1.56	3.98	-	0.79	0.79	-	197.21	197.21
Stations with injection at STU	356.18	1,148.60	309.08	424.49	733.57	269.1	369.57	638.66
BSPHC	24.98	9.94	-	2.72	2.72	-	273.9	273.9
BTPS Stage I	101.2	161.87	-	90.81	90.81	-	561.02	561.02
BTPS Stage II	230	976.79	309.08	330.95	640.03	316.43	338.81	655.24
IPPs	224.48	1,373.13	412.63	220.07	632.7	300.5	160.27	
GMR	119.6	720.62	164.65	132.89	297.54	228.49	184.41	412.9
JITPL	104.88	652.51	247.98	87.18	335.16	380.03	133.61	513.64
Renewables	1,927.49	3,851.42	-	1,137.21	1,137.21	-	295.27	
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	4.6	7.6	-	5.34	5.34	-	702.35	702.35
M/s Response renewable Energy Ltd, Kolkata.	4.6	7.6	-	5.33	5.33	-	701.88	701.88
M/s Avantika Contractors Ltd., Hyderabad	2.3	3.8	-	2.92	2.92	-	768.08	768.08
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.38	2.28	-	1.6	1.6	-	703.06	703.06
Alfa Infraprop Pvt. Ltd.	9.2	15.2	-	11.96	11.96	-	786.91	786.91
Udipta Energy & Equipment Pvt. Ltd.	2.3	3.8	-	3.03	3.03	-	797.53	797.53
Azure Power India Pvt. Ltd.	4.6	7.6	-	6.37	6.37	-	838.58	838.58
Welspun Renewables Project - I	4.6	7.6	-	6.61	6.61	-	870.21	870.21
Welspun Renewables Project – II	6.9	11.4	-	9.85	9.85	-	864.25	864.25
Welspun Renewables Project – III	6.9	11.4	-	9.75	9.75	-	855.61	855.61
Acme Cleantech Project (Nalanda)	6.9	11.4	-	9.95	9.95	-	873.33	873.33
Acme Cleantech Project (Magadh)	4.6	7.6	-	6.64	6.64	-	873.46	873.46
SECI (Focal)	4.6	8.8	-	5.22	5.22	-	593	593
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	69	131.98	-	33.95	33.95	-	257.26	257.26
SECI Phase-III (Renew Sunwaves)	138	338.11	-	97.33	97.33	-	287.86	287.86
SB Energy Six Pvt. Ltd. (NTPC)	138	347.35	-	92.74	92.74	-	267	267
GRT Jewellers (SECI-V)	69	113.98	-	23.29	23.29	-	204.36	204.36
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	92	255.96	-	86.48	86.48	-	337.87	337.87

Particulars	Share allocation for NBDCL (MW)	Total Purchase by (MU)	NBDCL Total Cost for FY 2024-25 (Rs Crores)			NBDCL Total Cost for FY 2024-25 (Paisa/kWh)		
			Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
Wind ISTS Scheme Tranche II (SECI) (Orange)	46	127.98	-	34.68	34.68	-	271	271
Avada (BREDa), Dharbhanga	0.74	1.22	-	0.5	0.5	-	415	415
SECI Green Infra	138	383.94	-	96.37	96.37	-	251	251
Alfanar	138	383.94	-	96.75	96.75	-	252	252
Betam	23.09	64.25	-	16.19	16.19	-	252	252
SECI Phase-VI Wind	161	-	-	-	-	-	-	-
Ostro Kannad	138	359.94	-	78.65	78.65	-	218.5	218.5
Morjar Windfarm	23	43.99	-	9.61	9.61	-	218.5	218.5
SBE Renewable (SECI Phase-V)	151.8	290.35	-	78.98	78.98	-	272	272
SJVN Ltd (BREDa)	92	175.97	-	54.73	54.73	-	311	-
Avada (BREDa)	23	43.99	-	13.68	13.68	-	311	-
Adani Green Energy	276	399.29	-	102.62	102.62	-	257	-
Greenko Energy Pvt. Ltd. (SECI Hybrid)	96.6	123.01	-	47.91	47.91	-	389.5	-
New Swadeshi Sugar Mill, Narkataganj	4.6	20.28	-	10.42	10.42	-	513.89	513.89
Hasanpur Sugar Mill, Dalsinghsarai	6.67	29.4	-	18.28	18.28	-	621.59	621.59
Bharat Sugar Mills, Sidhwalia, Gopalganj	6.9	30.42	-	15.54	15.54	-	510.75	510.75
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	6.67	29.4	-	14.99	14.99	-	509.8	509.8
HPCL Biofuels Ltd., Sugauli, East Champaran	9.2	14.75	-	7.35	7.35	-	498.31	498.31
HPCL Biofuels Ltd., Lauria, West Champaran	9.2	16.22	-	8.27	8.27	-	509.63	509.63
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	2.95	-	2.72	2.72	-	921.1	921.1
Bihar Distillers & Bottlers Pvt Ltd	4.32	3.47	-	2.2	2.2	-	635.98	635.98
Tirupati Sugar	2.76	13.2	-	8.39	8.39	-	635.9	635.9
Others	-	1,511.98	-	1,514.76	1,514.76	-	1,001.84	-
PTC(IEX)	-	1,511.98	-	1,514.76	1,514.76	-	1,001.84	1,001.84
GTAM IEX	-	-	-	-	-	-	-	-
Prior Period Expenses	-	-	-	-	-	-	-	-
UPPCL	-	-	-	-	-	-	-	-
NEA	-	-	-	-	-	-	-	-
UI	-	-	-	-	-	-	-	-
PTC JITPL	-	-	-	-	-	-	-	-
PTC SKS Power	-	-	-	-	-	-	-	-
Transmission and Other Charges		-	2,055.57	-	2,055.57			
SLDC			2.75		2.75	-	-	-
BGCL			97.19		97.19	-	-	-
BSPTCL			677.31		677.31	-	-	-
POSOCO			5.15		5.15	-	-	-
Prior Period Transmission charges			-		-	-	-	-
PGCIL			1,273.17		1,273.17	-	-	-
Total	6,152.06	24,412.96	6,378.49	8,597.39	14,975.88	261.27	352.16	613.44

Table 6.22: Power Purchase Cost Projected by SBPDCL for FY 2024-25

Particulars	Share Allocation (MW) SBPDCL	SBPDCL Net (MUs)	SBPDCL Total Cost for FY 2024-25 (Rs Crores)			SBPDCL Total Cost for FY 2024-25 (Paisa/kWh)		
		Total	Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
Stations with injection at CTU	4277.63	19,402.24	4,227.51	6,222.75	10,450.27			
FSTPP I & II	58.18554	295.97	33.75	121.5	155.25	114.04	410.51	524.56
FSTPP III	52.515	239.12	59.01	92.57	151.57	246.78	387.11	633.89
KHSTPP I	27.8208	151.28	21.13	58.99	80.12	139.65	389.97	529.63
KHSTPP II	34.344	185.72	23.81	68.61	92.43	128.22	369.43	497.65
Barh Stage I (Unit I & II)	413.424	1,853.76	468.66	685.48	1,154.14	252.81	369.78	622.59
Barh Stage I Unit III	206.712	74.96	175.75	24.7	200.44	2,344.44	329.45	2,673.89
Barh Stage II	617.3561	2,370.12	893.21	972.47	1,865.68	376.86	410.3	787.17
Nabinagar (BRBCL)	54	292.02	89.19	102.28	191.47	305.44	350.24	655.67
Talcher Stage I	218.106	1,225.89	159.41	290.2	449.6	130.03	236.72	366.75
KBUNL Stage II	156.0967	808.61	315.7	282.57	598.27	390.42	349.45	739.87
NPGL	906.363	4,519.66	1,447.33	1,358.22	2,805.54	320.23	300.51	620.74
North Karanpura Unit I	160.2731	917	23.96	210.69	234.65	26.13	229.76	255.89
North Karanpura Unit II	123.849	708.6	13.89	162.81	176.69	19.6	229.76	249.35
North Karanpura Unit III	123.849	537.25	-	86.99	86.99	-	161.92	161.92
Darlipali STPS	102.4704	634.96	77.76	80.09	157.85	122.46	126.14	248.6
Buxar TPP U1	302.94	1,588.30	257.56	587.32	844.88	162.16	369.78	531.94
Buxar TPP U2	302.94	1,273.86	109.58	471.05	580.62	86.02	369.78	455.8
Chuka	50.27184	222.74	-	58.84	58.84	-	264.18	264.18
Rangit	12.43188	63.55	13.61	13.94	27.55	214.21	219.36	433.57
Tala	140.454	315.53	-	78.79	78.79	-	249.7	249.7
Teesta	57.77892	305.76	44.22	39.08	83.3	144.61	127.82	272.43
Mangdechhu	153.6149	812.9	-	374.67	374.67	-	460.9	460.9
Kurichu	1.836	4.67	-	0.92	0.92	-	197.21	197.21
Stations with injection at STU	418.12	1,348.35	362.84	498.31	861.14	269.1	369.57	638.66
BSPHC	29.322	11.67	-	3.2	3.2	-	273.9	273.9
BTPS Stage I	118.8	190.02	-	106.61	106.61	-	561.02	561.02
BTPS Stage II	270	1,146.66	362.84	388.51	751.34	316.43	338.81	655.24
IPPs	263.52	1,611.93	484.39	258.34	742.73	300.5	160.27	
GMR	140.4	845.94	193.29	156	349.29	228.49	184.41	412.9
JITPL	123.12	765.99	291.1	102.34	393.44	380.03	133.61	513.64
Renewables	2264.33	4,521.23	-	1,334.98	1,334.98	-	295.27	
M/s Sunmark Energy Projects Limited (Formerly MBCEL)	5.4	8.92	-	6.27	6.27	-	702.35	702.35
M/s Response renewable Energy Ltd, Kolkata.	5.4	8.92	-	6.26	6.26	-	701.88	701.88
M/s Avantika Contractors Ltd., Hyderabad	2.7	4.46	-	3.43	3.43	-	768.08	768.08
M/s Glatt Solutions Pvt. Ltd, Kolkata.	1.62	2.68	-	1.88	1.88	-	703.06	703.06
Alfa Infraprop Pvt. Ltd.	10.8	17.84	-	14.04	14.04	-	786.91	786.91
Udipta Energy & Equipment Pvt. Ltd.	2.7	4.46	-	3.56	3.56	-	797.53	797.53
Azure Power India Pvt. Ltd.	5.4	8.92	-	7.48	7.48	-	838.58	838.58
Welspun Renewables Project - I	5.4	8.92	-	7.76	7.76	-	870.21	870.21
Welspun Renewables Project - II	8.1	13.38	-	11.56	11.56	-	864.25	864.25

Particulars	Share Allocation (MW) SBPDCL	SBPDCL Net (MUs)	SBPDCL Total Cost for FY 2024-25 (Rs Crores)			SBPDCL Total Cost for FY 2024-25 (Paisa/kWh)		
		Total	Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
Welspun Renewables Project – III	8.1	13.38	-	11.45	11.45	-	855.61	855.61
Acme Cleantech Project (Nalanda)	8.1	13.38	-	11.69	11.69	-	873.33	873.33
Acme Cleantech Project (Magadh)	5.4	8.92	-	7.79	7.79	-	873.46	873.46
SECI (Focal)	5.4	10.33	-	6.12	6.12	-	593	593
SECI Phase-II Solar (ACME Deoghar/ Acme Dhaulapur)	81	154.93	-	39.86	39.86	-	257.26	257.26
SECI Phase-III (Renew Sunwaves)	162	396.91	-	114.25	114.25	-	287.86	287.86
SB Energy Six Pvt. Ltd. (NTPC)	162	407.75	-	108.87	108.87	-	267	267
GRT Jewellers (SECI-V)	81	133.81	-	27.34	27.34	-	204.36	204.36
Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	108	300.48	-	101.52	101.52	-	337.87	337.87
Wind ISTS Scheme Tranche II (SECI) (Orange)	54	150.24	-	40.71	40.71	-	271	271
Avada (BREDA), Dharbhanga	0.864	1.43	-	0.59	0.59	-	415	415
SECI Green Infra	162	450.71	-	113.13	113.13	-	251	251
Alfanar	162	450.71	-	113.58	113.58	-	252	252
Betam	27.108	75.42	-	19.01	19.01	-	252	252
SECI Phase-VI Wind	189	-	-	-	-	-	-	-
Ostro Kannad	162	422.54	-	92.33	92.33	-	218.5	218.5
Morjar Windfarm	27	51.64	-	11.28	11.28	-	218.5	218.5
SBE Renewable (SECI Phase-V)	178.2	340.85	-	92.71	92.71	-	272	272
SIVN Ltd (BREDA)	108	206.58	-	64.25	64.25	-	311	
Avada (BREDA)	27	51.64	-	16.06	16.06	-	311	
Adani Green Energy	324	468.74	-	120.47	120.47	-	257	
Greenko Energy Pvt. Ltd. (SECI Hybrid)	113.4	144.41	-	56.25	56.25	-	389.5	
New Swadeshi Sugar Mill, Narkataganj	5.4	23.81	-	12.23	12.23	-	513.89	513.89
Hasanpur Sugar Mill, Dalsinghsarai	7.83	34.52	-	21.46	21.46	-	621.59	621.59
Bharat Sugar Mills, Sidhwalia, Gopalganj	8.1	35.71	-	18.24	18.24	-	510.75	510.75
Hari Nagar Sugar Mills, Hari Nagar, West Champaran	7.83	34.52	-	17.6	17.6	-	509.8	509.8
HPCL Biofuels Ltd., Sugauli, East Champaran	10.8	17.31	-	8.63	8.63	-	498.31	498.31
HPCL Biofuels Ltd., Lauria, West Champaran	10.8	19.04	-	9.71	9.71	-	509.63	509.63
Riga Sugar Company Ltd.	1.62	-	-	-	-	-	-	-
Siddhashram Rice Mill Cluster Pvt Ltd	0.54	3.46	-	3.19	3.19	-	921.1	921.1
Bihar Distillers & Bottlers Pvt Ltd	5.076	4.07	-	2.59	2.59	-	635.98	635.98
Tirupati Sugar	3.24	15.49	-	9.85	9.85	-	635.9	635.9
Others	0	1,774.93	-	1,778.20	1,778.20	-	1,001.84	
PTC (IEX)	0	1,774.93	-	1,778.20	1,778.20	-	1,001.84	1,001.84

Particulars	Share Allocation (MW) SBPDCL	SBPDCL Net (MUs)	SBPDCL Total Cost for FY 2024-25 (Rs Crores)			SBPDCL Total Cost for FY 2024-25 (Paisa/kWh)		
		Total	Fixed Charges	Energy Charges	Total	Fixed Charges	Energy Charges	Total
GTAM IEX	0	-	-	-	-	-	-	-
Prior Period Expenses		-	-	-	-	-	-	-
UPPCL		-	-	-	-	-	-	-
NEA	0	-	-	-	-	-	-	-
UI	0	-	-	-	-	-	-	-
PTC JITPL	0	-	-	-	-	-	-	-
PTC SKS Power	0	-	-	-	-	-	-	-
Transmission and Other Charges	0	-	2,413.06	-	2,413.06			
SLDC	0		3.23		3.23	-	-	-
BGCL	0		114.1		114.1	-	-	-
BSPTCL	0		795.1		795.1	-	-	-
POSOCO	0		6.04		6.04	-	-	-
Prior Period Transmission charges	0		-		-	-	-	-
PGCIL	0		1,494.59		1,494.59	-	-	-
Total	7223.6	28,658.69	7,487.80	10,092.58	17,580.38			

Commission's analysis

The Commission has noted the submissions of Petitioners regarding power purchase costs projected in FY 2024-25. It is observed that the Petitioners have considered the fixed costs for the two-part thermal stations of NTPC, NHPC, IPPs by escalating 4% on the fixed costs (Rs/MW) of FY 2023-24. The same is accepted by the Commission.

The energy charges for NTPC, NHPC, IPPs are considered as projected by the Discoms. The energy charges for the single part tariff sources are considered as per their PPA which are also as projected by the Petitioners.

The power purchase cost approved by the Commission for FY 2024-25 is as shown in Tables below:

Table 6.23: Power Purchase Cost for FY 2024-25 as computed by Commission for NBPDC

Sl. No	Particulars	Bihar share allocation (MW)	NBPDC allocation (MW)	Units considered (MU)	Energy cost (Rs/kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
I	Stations with injection at CTU	8190.92	3767.82	15424.03		3601.23	4737.67	8338.90	5.41
1	FSTPP I & II	107.75	49.57	138.68	4.11	28.75	56.93	85.68	6.18
2	FSTPP III	97.23	44.73	112.01	3.87	50.27	43.36	93.63	8.36
3	KHSTPP I	51.52	23.70	70.87	3.90	18.00	27.64	45.64	6.44
4	KHSTPP II	63.67	29.29	158.37	3.69	20.29	58.51	78.80	4.98
5	Barh Stage I Unit(I & II)	791.92	364.28	1633.54	3.70	399.23	604.05	1003.28	6.14
6	Barh Stage I Unit III	395.96	182.14	115.19	3.29	149.71	37.95	187.66	
7	Barh Stage II	1143.30	525.92	1110.60	4.10	760.89	455.68	1216.57	10.95
8	Nabinagar (BRBCL)	100.00	46.00	248.75	3.50	75.98	87.12	163.10	6.56
9	Talcher Stage I	403.90	185.79	1044.24	2.37	135.79	247.19	382.98	3.67
10	KBUNL Stage II	289.07	132.97	688.76	3.49	268.93	240.69	509.62	7.40
11	NPGCL	1639.57	754.20	3760.60	3.01	1232.91	1130.10	2363.01	6.28
12	North Karanpura Unit I	296.82	136.54	781.14	2.30	20.41	179.47	199.88	2.56
13	North Karanpura Unit II	296.82	136.54	781.14	2.30	11.83	179.47	191.30	2.45
14	North Karanpura Unit III	296.82	136.54	444.62	1.62	0.00	71.99	71.99	1.62
15	Darlipali STPS	323.42	148.77	921.91	1.26	66.24	116.29	182.53	1.98
16	Buxar TPP U-I	561.00	258.06	1063.70	3.70	219.40	393.33	612.73	5.76
17	Buxar- TPP-U-II	561.00	258.06	880.21	3.70	93.34	325.48	418.82	4.76
18	Chuka	93.11	42.83	189.77	2.64	0.00	50.13	50.13	2.64
19	Rangit	23.02	10.59	54.13	2.19	11.60	11.87	23.47	4.34
20	Tala	260.10	119.65	268.73	2.50	0.00	67.10	67.10	2.50
21	Teesta	107.01	49.22	260.49	1.28	37.66	33.30	70.96	2.72
22	Mangdechu	284.52	130.88	692.60	4.61	0.00	319.22	319.22	4.61
23	Kurichu	3.41	1.57	3.99	1.97	0.00	0.79	0.79	1.97
II	Stations with injection at STU	774.30	356.18	1094.25		309.08	387.97	697.05	6.37
1	BSPHC	54.30	24.98	28.44	2.49	0.00	7.08	7.08	2.49

Sl. No	Particulars	Bihar share allocation (MW)	NBPDC allocation (MW)	Units considered (MU)	Energy cost (Rs/ kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
2	BTPS Stage I	220.00	101.20	89.03	5.61	0.00	49.95	49.95	5.61
3	BTPS Stage II	500.00	230.00	976.78	3.39	309.08	330.94	640.02	6.55
III	IPPs	488.00	224.48	1373.10		412.63	220.07	632.70	4.61
1	GMR	260.00	119.60	720.61	1.84	164.65	132.89	297.54	4.13
2	JITPL	228.00	104.88	652.50	1.34	247.98	87.18	335.16	5.14
IV	Renewables	3390.20	1559.49	3145.64		0.00	954.64	954.64	3.03
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	10.00	4.60	7.60	7.02		5.34	5.34	7.02
2	M/s Response renewable Energy Ltd, Kolkata.	10.00	4.60	7.60	7.02		5.33	5.33	7.02
3	M/s Avantika Contractors Ltd., Hyderabad	5.00	2.30	3.80	7.68		2.92	2.92	7.68
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	3.00	1.38	2.28	7.03		1.60	1.60	7.03
5	Alfa Infraprop Pvt. Ltd.	20.00	9.20	15.20	7.87		11.96	11.96	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	5.00	2.30	3.80	7.98		3.03	3.03	7.98
7	Azure Power India Pvt. Ltd.	10.00	4.60	7.60	8.39		6.37	6.37	8.39
8	Welspun Renewables Project - I	10.00	4.60	7.60	8.70		6.61	6.61	8.70
9	Welspun Renewables Project – II	15.00	6.90	11.40	8.64		9.85	9.85	8.64
10	Welspun Renewables Project – III	15.00	6.90	11.40	8.56		9.75	9.75	8.56
11	Acme Cleantech Project (Nalanda)	15.00	6.90	11.40	8.73		9.96	9.96	8.73
12	Acme Cleantech Project (Magadh)	10.00	4.60	7.60	8.73		6.64	6.64	8.73
13	SECI (Focal)	10.00	4.60	8.80	5.93		5.22	5.22	5.93
14	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)	150.00	69.00	132.01	2.57		33.96	33.96	2.57
15	SECI Phase-III (Renew Sunwaves)	300.00	138.00	338.12	2.87		97.06	97.06	2.87
16	SB Energy Six Pvt. Ltd(NTPC)	300.00	138.00	347.31	2.67		92.73	92.73	2.67
17	GRT Jewellers(SECI-V)	150.00	69.00	114.00	2.04		23.30	23.30	2.04
18	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	200.00	92.00	255.96	3.38		86.48	86.48	3.38
19	Wind ISTS Scheme Tranche II (SECI) (Orange)	100.00	46.00	127.98	2.71		34.68	34.68	2.71

Sl. No	Particulars	Bihar share allocation (MW)	NBPDC allocation (MW)	Units considered (MU)	Energy cost (Rs/ kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
20	Avada(BREDA) Dharbhanga	1.60	0.74	1.22	4.15		0.50	0.50	4.15
21	SECI Green Infra	100.00	46.00	127.98	2.51		32.12	32.12	2.51
22	Alfanar	50.00	23.00	63.99	2.52		16.13	16.13	2.52
23	Betam	50.20	23.09	64.25	2.52		16.19	16.19	2.52
24	Ostro Kannad	300.00	138.00	360.00	2.19		78.66	78.66	2.19
25	Morjar Windfarm	50.00	23.00	44.00	2.19		9.61	9.61	2.19
26	SBE Renewable(SECI phase v)	330.00	151.80	290.42	2.72		78.99	78.99	2.72
27	SJVN Ltd (BREDA)	200.00	92.00	176.01	3.11		54.74	54.74	3.11
28	Avada(BREDA)	50.00	23.00	44.00	3.11		13.69	13.69	3.11
29	Adani Green Energy	600.00	276.00	299.83	2.57		77.06	77.06	2.57
30	Greenko Energy Pvt.Ltd (SECI Hybrid)	210.00	96.60	92.36	3.90		35.98	35.98	3.90
31	New Swadeshi Sugar Mill, Narkataganj	10.00	4.60	20.28	5.14		10.42	10.42	5.14
32	Hasanpur Sugar Mill, Dalsinghsarai	14.50	6.67	29.41	6.22		18.28	18.28	6.22
33	Bharat Sugar Mills, Sidhwalia, Gopalganj	15.00	6.90	30.42	5.11		15.54	15.54	5.11
34	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	14.50	6.67	29.41	5.10		14.99	14.99	5.10
35	HPCL Biofuels Ltd., Sugauli, East Champaran	20.00	9.20	14.75	4.98		7.35	7.35	4.98
36	HPCL Biofuels Ltd., Lauria, West Champaran	20.00	9.20	16.22	5.10		8.27	8.27	5.10
37	Siddhashram Rice Mill Cluster Pvt Ltd	1.00	0.46	2.95	9.21		2.72	2.72	9.21
38	Bihar Distillers & Bottlers Pvt Ltd	9.40	4.32	3.47	6.36		2.20	2.20	6.36
39	Tirupati Sugar	6.00	2.76	13.20	6.36		8.39	8.39	6.36
	Grand Total	12843.42	5907.97	21037.02		4322.94	6300.35	10623.29	5.05

Table 6.24: Power Purchase Cost for FY 2024-25 as computed by Commission for SBPDCL

Sl. No	Particulars	Bihar share allocation (MW)	SBPDCL allocation (MW)	Units considered (MU)	Energy cost (Rs/ kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
I	Stations with injection at CTU	8190.92	4423.09	18796.13		4227.53	5816.64	10044.17	5.34
1	FSTPP I &II	107.75	58.19	162.79	4.11	33.75	66.83	100.58	6.18
2	FSTPP III	97.23	52.51	131.49	3.87	59.01	50.90	109.91	8.36
3	KHSTPP I	51.52	27.82	83.20	3.90	21.13	32.44	53.57	6.44
4	KHSTPP II	63.67	34.38	185.91	3.69	23.81	68.68	92.49	4.98
5	Barh Stage I Unit(I & II)	791.92	427.64	1917.63	3.70	468.66	709.10	1177.76	6.14
6	Barh Stage I Unit III	395.96	213.82	135.22	3.29	175.75	44.55	220.30	
7	Barh Stage II	1143.30	617.38	1303.74	4.10	893.21	534.93	1428.14	10.95
8	Nabinagar (BRBCL)	100.00	54.00	292.01	3.50	89.19	102.27	191.46	6.56
9	Talcher Stage I	403.90	218.11	1225.84	2.37	159.41	290.18	449.59	3.67
10	KBUNL Stage II	289.07	156.10	808.55	3.49	315.70	282.55	598.25	7.40
11	NPGCL	1639.57	885.37	4414.61	3.01	1447.33	1326.64	2773.97	6.28
12	North Karanpura Unit I	296.82	160.28	916.99	2.30	23.96	210.69	234.65	2.56
13	North Karanpura Unit II	296.82	160.28	916.99	2.30	13.89	210.69	224.58	2.45
14	North Karanpura Unit III	296.82	160.28	521.94	1.62		84.51	84.51	1.62
15	Darlipali STPS	323.42	174.64	1082.24	1.26	77.76	136.51	214.27	1.98
16	Buxar TPP U-I	561.00	302.94	1938.36	3.70	257.56	716.77	974.33	5.03
17	Buxar- TPP-U-II	561.00	302.94	1033.29	3.70	109.58	382.09	491.67	4.76
18	Chuka	93.11	50.28	222.77	2.64	0.00	58.85	58.85	2.64
19	Rangit	23.02	12.43	63.55	2.19	13.61	13.94	27.55	4.34
20	Tala	260.10	140.45	315.47	2.50	0.00	78.77	78.77	2.50
21	Teesta	107.01	57.78	305.79	1.28	44.22	39.09	83.31	2.72
22	Mangdechu	284.52	153.64	813.06	4.61	0.00	374.74	374.74	4.61
23	Kurichu	3.41	1.84	4.68	1.97	0.00	0.92	0.92	1.97
II	Stations with injection at STU	774.30	418.12	1284.56		362.84	455.45	818.29	6.37
1	BSPHC	54.30	29.32	33.39	2.49	0.00	8.31	8.31	2.49
2	BTPS Stage I	220.00	118.80	104.52	5.61	0.00	58.64	58.64	5.61

Sl. No	Particulars	Bihar share allocation (MW)	SBPDCL allocation (MW)	Units considered (MU)	Energy cost (Rs/ kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
3	BTPS Stage II	500.00	270.00	1146.65	3.39	362.84	388.50	751.34	6.55
III	IPPs	488.00	263.52	1611.90		484.39	258.34	742.73	4.61
1	GMR	260.00	140.40	845.93	1.84	193.29	156.00	349.29	4.13
2	JITPL	228.00	123.12	765.97	1.34	291.10	102.34	393.44	5.14
IV	Renewables	3390.20	1830.71	3692.71		0.00	1120.66	1120.66	3.03
1	M/s Sunmark Energy Projects Limited (Formerly MBCEL)	10.00	5.40	8.92	7.02		6.27	6.27	7.02
2	M/s Response renewable Energy Ltd, Kolkata.	10.00	5.40	8.92	7.02		6.26	6.26	7.02
3	M/s Avantika Contractors Ltd., Hyderabad	5.00	2.70	4.46	7.68		3.43	3.43	7.68
4	M/s Glatt Solutions Pvt. Ltd, Kolkata.	3.00	1.62	2.68	7.03		1.88	1.88	7.03
5	Alfa Infraprop Pvt. Ltd.	20.00	10.80	17.84	7.87		14.04	14.04	7.87
6	Udipta Energy & Equipment Pvt. Ltd.	5.00	2.70	4.46	7.98		3.56	3.56	7.98
7	Azure Power India Pvt. Ltd.	10.00	5.40	8.92	8.39		7.48	7.48	8.39
8	Welspun Renewables Project - I	10.00	5.40	8.92	8.70		7.76	7.76	8.70
9	Welspun Renewables Project – II	15.00	8.10	13.38	8.64		11.57	11.57	8.64
10	Welspun Renewables Project – III	15.00	8.10	13.38	8.56		11.45	11.45	8.56
11	Acme Cleantech Project (Nalanda)	15.00	8.10	13.38	8.73		11.69	11.69	8.73
12	Acme Cleantech Project (Magadh)	10.00	5.40	8.92	8.73		7.79	7.79	8.73
13	SECI (Focal)	10.00	5.40	10.33	5.93		6.13	6.13	5.93
14	SECI Phase-II Solar (ACME Deoghar/Acme Dhaulapur)	150.00	81.00	154.97	2.57		39.87	39.87	2.57
15	SECI Phase-III (Renew Sunwaves)	300.00	162.00	396.93	2.87		113.94	113.94	2.87
16	SB Energy Six Pvt. Ltd(NTPC)	300.00	162.00	407.71	2.67		108.86	108.86	2.67
17	GRT Jewellers(SECI-V)	150.00	81.00	133.82	2.04		27.35	27.35	2.04
18	Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)	200.00	108.00	300.48	3.38		101.52	101.52	3.38

Sl. No	Particulars	Bihar share allocation (MW)	SBPDCL allocation (MW)	Units considered (MU)	Energy cost (Rs/ kwh)	Total Fixed charges (Rs. Crs.)	Total Energy charges (Rs. Crs.)	Total charges (Rs. Crs.)	Ave cost (Rs.)
19	Wind ISTS Scheme Tranche II (SECI) (Orange)	100.00	54.00	150.24	2.71		40.71	40.71	2.71
20	Avada(BREDA) Dharbhanga	1.60	0.86	1.43	4.15		0.59	0.59	4.15
21	SECI Green Infra	100.00	54.00	150.24	2.51		37.71	37.71	2.51
22	Alfanar	50.00	27.00	75.12	2.52		18.93	18.93	2.52
23	Betam	50.20	27.11	75.42	2.52		19.01	19.01	2.52
24	Ostro Kannad	300.00	162.00	422.61	2.19		92.34	92.34	2.19
25	Morjar Windfarm	50.00	27.00	51.66	2.19		11.29	11.29	2.19
26	SBE Renewable(SECI phase v)	330.00	178.20	340.93	2.72		92.73	92.73	2.72
27	SJVN Ltd (BREDA)	200.00	108.00	206.62	3.11		64.26	64.26	3.11
28	Avada(BREDA)	50.00	27.00	51.66	3.11		16.07	16.07	3.11
29	Adani Green Energy	600.00	324.00	351.98	2.57		90.46	90.46	2.57
30	Greenko Energy Pvt.Ltd (SECI Hybrid)	210.00	113.40	108.43	3.90		42.23	42.23	3.90
31	New Swadeshi Sugar Mill, Narkataganj	10.00	5.40	23.81	5.14		12.23	12.23	5.14
32	Hasanpur Sugar Mill, Dalsinghsarai	14.50	7.83	34.52	6.22		21.46	21.46	6.22
33	Bharat Sugar Mills, Sidhwalia, Gopalganj	15.00	8.10	35.71	5.11		18.24	18.24	5.11
34	Hari Nagar Sugar Mills, Hari Nagar, West Champaran	14.50	7.83	34.52	5.10		17.60	17.60	5.10
35	HPCL Biofuels Ltd., Sugauli, East Champaran	20.00	10.80	17.31	4.98		8.63	8.63	4.98
36	HPCL Biofuels Ltd., Lauria, West Champaran	20.00	10.80	19.04	5.10		9.71	9.71	5.10
37	Siddhashram Rice Mill Cluster Pvt Ltd	1.00	0.54	3.46	9.21		3.19	3.19	9.21
38	Bihar Distillers & Bottlers Pvt Ltd	9.40	5.08	4.07	6.36		2.59	2.59	6.36
39	Tirupati Sugar	6.00	3.24	15.49	6.36		9.85	9.85	6.36
	Grand Total	12843.42	6935.44	25385.30	0.00	5074.76	7651.09	12725.85	5.01

6.9. Transmission Charges

Petitioners' submission

It is submitted that the Petitioners have to pay transmission charges to CTU for use of transmission facilities enabling power drawl from Eastern Region. Further the Petitioner also pays BSPTCL, BGCL and SLDC charges as approved by the Commission for FY 2024-25.

The Petitioners have considered the Transmission charges for FY 2024-25 after considering 10% escalation on transmission charges derived for FY 2023-24 and requested to approve the transmission and related charges for inter-state as well as intra-state transmission transactions for FY 2024-25 as per the below table:

Table 6.25: Transmission charges projected for FY 2024-25

	NBPDCCL	SBPDCL	(Rs. Crore) Total
SLDC	2.75	3.23	5.98
BGCL	97.19	114.10	211.29
BSPTCL	677.31	795.10	1472.41
POSOCO	5.15	6.04	11.19
POWERGRID	1273.17	1494.59	2767.76
Total Transmission Purchase	2055.57	2413.06	4468.63

Commission's analysis

PGCIL & Grid-India (POSOCO) Charges

NBPDCCL & SBPDCL have projected PGCIL charges at Rs. 1273.17 Crore and Rs. 1494.59 Crore and Grid-India (POSOCO) charges at Rs. 5.15 Cr and 6.04 for FY 2024-25 after escalating the PGCIL and Grid-India (POSOCO) charges by considering 10% escalation on the projected charges for FY 2023-24. The Commission approves the PGCIL and Grid-India (POSOCO) charges for NBPDCCL & SBPDCL for FY 2024-25 as projected by the Petitioners.

Table 6.26: PGCIL and Grid India (POSOCO) Charges approved for FY 2024-25

Sl. No	Particulars	NBPDCCL	SBPDCL	(Rs.Crore) Total
1	PGCIL Charges	1273.17	1494.59	2767.76
2	Grid India (POSOCO) Charges	5.15	6.04	11.19
	Total	1278.32	1500.63	2778.95

BSPTCL Transmission Charges

The Commission has approved the transmission charges of BSPTCL for FY 2024-25 to in BSPTCL Tariff Order dated 01.03.2024 (Case No: 25/2023) as given in the Table below. The Commission has allocated the same among SBPDCL and NBPDCCL in their power purchase sharing ratio of 54:46 respectively. Accordingly, the Commission has considered the BSPTCL Transmission charges for FY 2024-25 and included the same in the power purchase cost of Discoms.

Table 6.27: BSPTCL Charges approved for Discoms for FY 2024-25

(Rs. Crore)		
Sl. No	Particulars	Total
1	BSPTCL Charges approved in its Tariff Order for FY 2024-25	1720.84
2	NBPDCCL (46%)	791.59
3	SBPDCL (54%)	929.25

Bihar Grid Company Limited (BGCL) Transmission Charges

The Commission has approved the transmission charges of BGCL for FY 2024-25 in BGCL Tariff Order dated 01.03.2024 (Case No: 26/2023) as given in the Table below. The Commission has allocated the same to SBPDCL and NBPDCCL in their power purchase sharing ratio of 54:46 respectively. Accordingly, the Commission has considered the BGCL transmission charges for FY 2024-25 and included the same in the Power purchase cost of Discoms.

Table 6.28: BGCL Charges approved for Discoms for FY 2024-25

(Rs. Crore)		
Sl. No	Particulars	Total
1	BGCL Charges approved in its Tariff Order for FY 2024-25	408.68
2	NBPDCCL (46%)	187.99
3	SBPDCL (54%)	220.68

SLDC Charges

The Commission has approved the SLDC charges for FY 2024-25 in SLDC Tariff Order dated 01.03.2024 (Case No: 24/2023) as given in Table below. The Commission has allocated to SBPDCL and NBPDCCL in their power purchase sharing ratio of 54 : 46 respectively. Accordingly, the Commission has considered SLDC charges for FY 2024-25 and included in their power purchase cost.

Table 6.29: SLDC Charges approved for Discoms for FY 2024-25

(Rs. Crore)		
Sl. No	Particulars	Total
1	SLDC Charges approved in its Tariff Order for FY 2024-25	20.78
2	NBPDCCL (46%)	9.56
3	SBPDCL (54%)	11.22

6.10. Total Power Purchase Cost

The total power purchase cost approved for the Discoms for the FY 2024-25 are given in the Table below:

Table 6.30: Total Power Purchase Cost approved for FY 2024-25

(Rs. Crore)				
Sl. No.	Particulars	NBPDCCL	SBPDCL	Total
1	Power Purchase Cost	10623.29	12725.85	23349.14
2	PGCIL Charges	1273.17	1494.59	2767.76
3	POSOCO Charges	5.15	6.04	11.19
4	BSPTCL Charges	791.59	929.25	1720.84
5	SLDC Charges	9.56	11.22	20.78
6	BGCL Charges	187.99	220.69	408.68
7	Total	12890.75	15387.64	28278.39
8	Less: 1% Rebate	128.91	153.88	282.78
9	Net Power Purchase Cost (7-8)	12761.84	15233.76	27995.60

The Commission approves total power purchase cost of for both companies put together for FY 2024-25 as shown in the table herein above.

6.11. Renewable Power Purchase Obligation**Petitioners' submission**

The Commission initiated the Suo-motu proceeding for 4th amendment in BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010. The Draft BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4thAmendment) Regulations, 2022 was also floated by the Commission for comments from the Stakeholders. The Commission in the draft Regulations has specified the following:

“Further, Ministry of Power, Govt. of India, through its order no. 09/13/2021 -RCM dated 22.07.2022 has specified separate Wind RPO, HPO and other RPO within the overall RPO target for the FY 2022-23 to FY 2029-30.

In view of above, the Commission has decided to adopt the RPO target as specified by the Ministry of Power through its order no. 09/13/2021-RCM dated 22.07.2022 for

the FY 2022-23 to FY 2029-30, including introduction of a separate hydro purchase obligation (HPO) as recommended previously by the ministry through MoP Notification F No. 15/2/2016-H-I(Pt.) dated 08.03.2019.

In line with the directions from MoP, the Commission proposes to specify separate Wind RPO, HPO and other RPO within the overall RPO target.

Provided that Wind RPO shall be met through energy produced from wind power projects commissioned after 31st March 2022; HPO shall be met only by energy produced from Large Hydro Projects (including pump storage plants) commissioned after 8th March 2019; other RPO target may be met by energy produced from any RE power project not qualifying for meeting Wind RPO and HPO. Further, as the directives of the MoP, the Commission proposes to specify separate Energy Storage Obligation for the energy consumed from solar/wind along with /through storage. The Energy Storage obligation to the extent of energy stored from RE sources shall be considered as part of fulfilment of the total RPO.”

As above, the Commission in the draft Regulations has adopted the RPO trajectory specified by the MoP. So, the Petitioner has computed RPO for FY 2024-25 as per the trajectory specified by the MoP. However, the Petitioner has not considered any Energy Storage Obligation for FY 2024-25 considering the comments submitted in response to the draft BERC (4rth amendment) RPO Regulations, 2022. The details of RPO to be met by the Petitioner for FY 2024-25 are given in the table below:

Table 6.31: Renewable energy purchase obligation for FY 2024-25

Particular	Units	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	MU	16620.84	19679.07
RPO Targets (%)		29.91%	29.91%
Wind % (B)	%	2.46%	2.46%
HPO % (C)	%	1.08%	1.08%
Other RPO % (D)		26.37%	26.37%
RPO Targets		4971.29	5886.01
Wind (A*B)	MU	408.87	484.11
HPO (A*C)	MU	179.51	212.53
Other RPO (A*D)	MU	4382.91	5189.37
Renewable Power Purchase		5330.92	6258.04
Wind	MU	2540.36	2982.16
HPO	MU		0.00

Particular	Units	NBPDCCL	SBPDCL
Other RPO	MU	2790.56	3275.88
RPO Shortfall/ (Surplus)	MU		
Wind	MU	(2131.49)	(2498.05)
HPO	MU	(1951.98)	(2285.52)
Other RPO		(359.63)	(372.03)
Carried forward of FY 22-23	MU	69.11	0.00
Balance RPO	MU	(290.53)	(372.03)

The Petitioners Discoms have stated that there is NIL RPO shortfall.

Further, due to high cost of land and lesser solar intensity in the major parts of the State, the Solar power generation in the State of Bihar less lucrative. However, the DISCOMs are always eager to procure power from any renewable source within the State.

Commission's analysis

The Commission vide BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) Regulations, 2010 and its amendment had notified the Renewable Purchase Obligation (RPO) percentages up to FY 2021-22.

The Ministry of Power, Government of India vide Order No F.No.09/13/2021-RCM dated 22.07.2022 specified the RPO trajectory for period from FY 2022-23 to FY 2029-30 as given below:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.60%
2023-24	1.60%	0.66%	24.81%	27.07%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

The Commission has notified the BERC (Renewable Purchase Obligation, its compliance and REC frame work implementation) (4th amendment) Regulations, 2022 duly aligning the targets with the MoP RPO trajectory specified vide Order No F.No.09/13/2021-RCM dated 22.07.2022.

As per the BERC 4th Amendment of RPO Regulations, the targets were determined for wind, HPO and other RPO. The Regulation 4.1 (Amended) specify:

- a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31st March 2022 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022;*
- (b) HPO shall be met only by energy produced from LHPs (including PSPs and small hydro projects (SHPs)), commissioned after 8th March 2019;*
- (c) Other RPO may be met by energy produced from any RE based / green energy based power project not mentioned in (a) and (b) above.*

The Commission accordingly has considered the RPO targets and computed the RPO Compliance for FY 2024-25 as shown in the Table below.

Table 6.33: RPO Approved for NBPDCCL & SBPDCL for FY 2024-25

Sl.No.	Particulars	Units	NBPDCCL	SBPDCL
1	Energy sale (excluding inter-state sales)	MU	16620.83	19679.09
2	RPO Targets	%	29.91%	29.91%
3	Wind RPO	%	2.46%	2.46%
4	HPO	%	1.08%	1.08%
5	Other HPO		26.37%	26.37%
6	RPO Targets	MU	4971.29	5886.02
7	Wind RPO	MU	408.87	484.11
8	HPO	MU	179.50	212.53
9	Other RPO	MU	4382.91	5189.38
10	Renewable power purchase (A)	MU	5330.92	6258.04
11	Wind Power Purchased	MU	2540.36	2774.26
12	Hydro Power Purchased	MU	0.00	0.00
13	Others	MU	2790.56	3483.78
14	Captive Consumption BREDA (Solar) (B)	MU	0.00	0.00
15	Total RE Compliance (A+B+C+D)	MU	5330.92	6258.04
16	Wind RPO Compliance	MU	2540.36	2774.26
17	Hydro RPO Compliance	MU	0.00	0.00
18	Other RPO Compliance (17-18-19)	MU	2790.56	3483.78
19	RPO Shortfall (without Shuffling the Excess)	MU		
20	Wind Shortfall / (Surplus) (7-18)	MU	(2131.49)	(2290.15)
21	Hydro Shortfall / (Surplus) (8-19)	MU	179.50	212.53
22	Others Shortfall / (Surplus) (9-20)	MU	1592.35	1705.60
23	RPO Target Achieved			
24	Wind Power Purchased	%	100.00%	100.00%
25	Hydro Power Purchased	%	0.00%	0.00%
26	Other	%	63.67%	67.13%

The Commission has observed from the above table that both the Discoms NBPDCCL and SBPDCL have fulfilled Wind RPO, However, the Discoms in respect of Hydro and others RPO have not been complied with fully. The Commission directs the NBPDCCL and SBPDCL to fulfil the RPO shortfall as indicated in the Table above vide Sl. No 22 & 23 as specified in regulation 7.1 of 4th amendment .

6.12. Capital Expenditure

Petitioner's submission:

Discoms have submitted that the Commission vide Order dt.28.04.2023, in Case No.26/2022 and 27/2022 has granted in-principal approval for implementation of the CAPEX Plan/schemes - Reconductoring, Mukhyamantri Krishi Vidyut Sambandh Yojana (MKVYS), Smart Metering and RDSS for the control period FY 2022-23 to FY 2024-25.

Discoms have submitted that capitalization of majority of the existing schemes has been done in FY 2022-23 except MKVYS and furnished the details of schemes capitalized in FY 2024-25 as given in the table below:

Table 6.32: Capitalisation projected for FY 2024-25

(Rs. Crore)			
Sl. No.	Name of scheme	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
1	MKVYS	74.37	
2	State Plan-RDSS	742.61	78.40
3	Infrastructure works	1025.08	1831.79
4	IT/OT	67.20	119.00
5	PMA	16.58	39.12
6	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex	1047.19	230.54
7	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex	1018.84	323.80
	Total	3991.88	2622.66

The Petitioners have allocated the investments through various schemes into grant, Loan and Equity based on the actual source of funding as detailed hereunder.

Table 6.33: Capex, Capitalisation and funding projected for FY 2024-25

(Rs. Crore)			
Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
1	Opening CWIP	1069.20	618.04
2	New Investment	3716.12	2890.39
3	Less Capitalization	3991.88	2622.66
(a)	CWIP	3194.00	2098.00
(b)	New Investment	797.88	524.66
4	Closing CWIP (1+2-3)	793.45	885.77

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
5	Funding		
(i)	Grant	714	1194
(ii)	Loan	2066	554
(iii)	Equity	1186	874

Commission's analysis:

The Commission vide Order dt.28.04.2023 in Case No.26/2022 and 27/2022 has accorded in-principal approval for implementation of the CAPEX Plan/schemes - Reconductoring, Mukhyamantri Krishi Vidyut Sambandh Yojana (MKVYS), Smart Metering and RDSS for the control period FY 2022-23 to FY 2024-25.

The Discoms have projected the capex and capitalisation of schemes of Mukya Manthri Krishi Vikas Yojana (MKVYS) and creation of new infrastructure, implementation of smart prepaid meters, IT/OT, etc. works under RDSS schemes for FY 2024-25 as given hereunder:

Table 6.34: Capex, Capitalisation and funding projected for FY 2024-25 by NBPDCCL
(Rs. Crore)

Sl. No.	Name of scheme / Project	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Funding pattern			Funding		
				Loan	Grant	Equity	Loan	Grant	Equity
1	MKVYS		74.37		100%		-	74.37	
2	State Plan – RDSS	660.03	742.61			100%	-	-	742.61
3	Infrastructure works	915.25	1025.08		60%	40%	-	615.05	410.03
4	IT/OT	60.00	67.20		60%	40%	-	40.32	26.88
5	PMA	14.80	16.58		60%	40%	-	9.95	6.63
6	Smart Prepaid meters (Phase 2)	1047.19	1047.19	100%			1,047.19		-
7	Smart Prepaid meters (Phase 3)	1018.84	1018.84	100%			1,018.84		-
8	Total	3716.12	3991.88				2,066.03	739.69	1,186.15

Table 6.35: Capex, Capitalisation and funding projected for FY 2024-25 by SBPDCL
(Rs. Crore)

Sl. No.	Name of scheme / Project	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Funding pattern			Funding		
				Loan	Grant	Equity	Loan	Grant	Equity
1	MKVYS				100%				
2	State Plan – RDSS	67.20	78.40			100%			78.40
3	Infrastructure works	2115.31	1831.79		60%	40%		1099.07	732.72
4	IT/OT	120.00	119.00		60%	40%		71.40	47.60

Sl. No.	Name of scheme / Project	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Funding pattern			Funding		
				Loan	Grant	Equity	Loan	Grant	Equity
5	PMA	33.53	39.12		60%	40%		23.47	15.65
6	Smart Prepaid meters (Phase 2)	230.54	230.54	100%			230.54		
7	Smart Prepaid meters (Phase 3)	323.80	323.80	100%			323.80		
8	Total	2890.38	2622.65				554.34	1193.95	874.36

The Commission provisionally considers capex of the schemes for FY 2024-25 as projected by the petitioners. Capitalisation in respect of MKVYS projected by NBPDCCL is not considered as there is no opening CWIP and addition during the year FY 2024-25.

Capitalisation in respect of other works/schemes is considered at 50% of the projected capitalisation (except PMA and smart prepaid meters) for FY 2024-25 since, the said works involve gestation period and performance parameter efficiency, handing over taking over, etc. Accordingly, the Commission provisionally considers the capex and capitalisation during FY 2024-25 as given below.

Table 6.36: Capex, Capitalisation and funding approved for NBPDCCL for FY 2024-25

(Rs. Crore)

Sl. No.	Name of scheme / Project	CWIP Opening balance as on 1st April 2024 (as per CB approved in review for FY 2024-25)	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Closing CWIP for FY 2024-25	Loan	Grant	Equity
1	R-APDRP	-19.09			-19.09			
2	NABARD Phase VIII	-			-			
3	NABARD Phase XI	-			-			
4	MP/CM LAD	-			-			
5	Deposit Scheme	0.02			0.02			
6	State Plan -Others	-0.01			-0.01			
7	APL Connection	88.22			88.22			
8	Reconductoring	- 434.39			-434.39			
9	IPDS	427.39			427.39			
10	RGVY	161.11			161.11			
11	DDUGJY	937.64			937.64			
12	RDSS	400.84	660.03	371.31	689.57			371.31
13	Infrastructure works- RDSS	549.15	915.25	512.54	951.86		307.52	205.02
14	IT/OT- RDSS	36.00	60.00	33.60	62.40		20.16	13.44
15	PMA – RDSS	8.88	14.80	16.58	7.10		9.95	6.63
16	MKVYS	-13.85		-	-13.85			
17	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex	-	1,047.19	1,047.19	-	1047.19		
18	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex	-	1,018.84	1,018.84	-	1018.84		

Sl. No.	Name of scheme / Project	CWIP Opening balance as on 1st April 2024 (as per CB approved in review for FY 2024-25)	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Closing CWIP for FY 2024-25	Loan	Grant	Equity
19	Own Sources (incl. reconciliation difference)	-5.83			-5.83			
20	Total	2,136.08	3,716.12	3,000.06	2,852.14	2066.03	337.63	596.40

Table 6.37: Capex, Capitalisation and funding approved for SBPDCL for FY 2024-25

(Rs. Crore)								
Sl. No.	Name of scheme / Project	CWIP Opening balance as on 1st April 2024 (as per CB approved in review for FY 2024-25)	Capex projected for FY 2024-25	Capitalisation projected for FY 2024-25	Closing CWIP for FY 2024-25	Loan	Grant	Equity
1	NABARD Phase VIII	0.07			0.07		215.11	
2	NABARD Phase XI	-			-			22.40
3	MP/CM LAD	0.19			0.19		228.82	152.54
4	Deposit Scheme	0.05			0.05			
5	ADB	0.01			0.01			
6	Burnt DTR State Plan	0.01			0.01			
7	State Plan -Others	-127.02			-127.02			
8	Reconductoring	346.06			346.06			
9	IPDS	237.85			237.85			
10	RGGVY	311.80			311.80			
11	DDUGJY	690.57			690.57			
12	State Plan – RDSS	44.80	67.20	39.20	72.80			39.20
13	Infrastructure works - RDSS	501.54	2,115.31	915.90	1,700.96		549.54	366.36
14	IT/OT – RDSS	50.00	120.00	59.50	110.50		35.70	23.80
15	PMA – RDSS	22.35	33.53	39.12	16.76		23.47	15.65
16	Smart Prepaid Meter (Phase 2) 36 Lakhs- 30% Capex	-	230.54	230.54	-	230.54		
17	Smart Prepaid Meter (Phase 3) 1.12 crores- 30% Capex	-	323.80	323.80	-	323.80		
18	Own Sources (incl. reconciliation difference)	-0.28			-0.28			
19	Total	2,079.99	2,890.38	1,608.06	3,360.31	554.34	608.71	445.01

The Commission has considered opening CWIP for NBDCL and SBPDCL for FY 2024-25 based on the closing CWIP considered in review for FY 2023-24.

The Commission has considered the opening CWIP, capital investment, capitalisation and funding of capitalisation for FY 2024-25, as detailed in the Table below:

Table 6.38: CWIP, Capex, Capitalisation and funding considered for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	NBPDCCL		SBPDCL	
		Projected for FY 2024-25	Approved for FY 2024-25	Projected for FY 2024-25	Approved for FY 2024-25
1	Opening CWIP	1069.20	2139.08	618.04	2077.99
2	New Investment	3716.12	3716.12	2890.39	2890.38
3	Less: Capitalisation	3991.88	3000.06	2622.66	1608.06
4	Closing CWIP (1+2-3)	793.45	2855.14	885.77	3360.31
	Funding				
5	Grant	739.69	337.63	1193.95	608.71
6	Equity	1186.15	596.40	874.36	445.01
7	Loan	2066.04	2066.03	554.34	554.34

6.13. Gross Fixed Assets**Petitioner's submission**

Discoms have submitted the computation of GFA based on the opening GFA and capitalisation for FY 2024-25 as detailed in the Table below:

Table 6.39: Gross Fixed Assets projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Opening GFA	24145.51	19444.42	43589.93
2	Additions during the year	3991.88	2622.66	6614.54
3	Less : Disposal/Sale/Transfer			0.00
4	Closing GFA (1+2-3)	28137.39	22067.08	50204.47

Commission's analysis:

The Commission has adopted the opening GFA for FY 2024-25 is considered based on the closing GFA considered for FY 2023-24 in review and further updated with the capitalisation considered (Table 6.38) for FY 2024-25.

The Commission has arrived at the opening GFA, additions to GFA and closing GFA for FY 2024-25 as detailed in the Table below:

Table 6.40: Gross Fixed Assets approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Opening GFA	23613.62	18564.43	42178.05
2	Additions during the year	3000.06	1608.06	4608.12
3	Closing GFA (1+2)	26613.68	20172.49	46786.17

6.14. Depreciation**Petitioner's submission:**

Discoms have submitted that depreciation is computed annually on straight line method by applying weighted average rate of depreciation on the average GFA in accordance with Regulation 23 of BERC (Multi Year Distribution Tariff) Regulations 2021. Discoms have further submitted that the depreciation on assets created out of grants is reduced from the gross depreciation to arrive at the net depreciation to be charged. The GFA at the beginning of the year and additions during the year does not include value of land. Discoms have projected the depreciation for FY 2024-25 as detailed in the Table below:

Table 6.41: Depreciation projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDC for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Opening GFA	23098.15	17898.13	40996.28
2	Additions during the year	3991.88	2622.66	6614.54
3	Closing GFA (1+2)	27090.03	20520.79	47610.82
4	Average GFA (1+3)/2	25094.09	19209.46	44303.55
5	Weighted average rate of depreciation	4.66%	4.46%	
6	Depreciation on assets (4*5)	1169.94	856.76	2026.71
7	Opening Grants	12113.85	7311.45	19425.30
8	Grants during the year	695.67	1088.14	1783.81
9	Total Grants (7+8)	12809.52	8399.59	21209.11
10	Average Grants (7+9)/2	12461.69	7855.52	20317.21
11	Weighted average rate of depreciation	4.84%	5.68%	
12	Depreciation on Grants used for GFA (10*11)	603.65	446.19	1049.84
13	Depreciation for GFA on Loans (6-12)	566.30	410.56	976.86

Commission's analysis:

The Commission has considered opening depreciable assets for FY 2024-25 based on the closing depreciable assets approved in review for FY 2023-24. Net addition to assets is considered as depicted in Table 6.38 above.

The Commission has considered opening grants for FY 2024-25 based on the closing grants approved in review for FY 2024-25 and further updated based on the funding of capitalisation approved in Table 6.38 above.

Land addition is considered as projected (Format 14 submitted with the petition) by the Discoms for FY 2024-25 as given below:

Particulars	NBPDC	SBPDCL
Land addition (Rs. Crore)	149.61	219.04
Grants utilised for land addition (Rs. Crore)	44.02	105.81

The Commission has provisionally adopted the weighted average rate of depreciation on asset and grants based on actual weighted average rate of depreciation arrived at as per the audited accounts of NBPDCCL and SBPDCL and as approved in truing up for FY 2022-23.

The Commission in terms of regulation 23 of BERC (Multi Year Distribution Tariff) Regulations 2021 has computed the depreciation for FY 2024-25 as detailed in the Table below:

Table 6.42: Depreciation approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
1	Opening GFA	22507.34	16837.01	39344.35
2	Additions during the year	2850.45	1389.02	4239.47
3	Closing GFA (1+2)	25357.79	18226.03	43583.82
4	Average GFA (1+3)/2	23932.57	17531.52	41464.09
5	Weighted average rate of depreciation	4.31%	4.52%	
6	Depreciation on assets (4*5)	1030.53	792.25	1822.78
7	Opening Grants	12408.89	7874.21	20283.10
8	Grants during the year	293.61	502.90	796.51
9	Total Grants (7+8)	12702.50	8377.11	21079.61
10	Average Grants (7+9)/2	12555.70	8125.66	20681.36
11	Weighted average rate of depreciation	4.31%	4.52%	
12	Depreciation on Grants used for GFA (10*11)	540.64	367.20	907.84
13	Depreciation for GFA on Loans (6-12)	489.88	425.05	914.94

The Commission approves depreciation for FY 2024-25 as given in the table above

6.15. Interest on Loans

Petitioner's submission:

Discoms have submitted that interest on loans is projected in terms of regulation 25 of the BERC (Multi Year Distribution Tariff) Regulations 2021. Interest on loan is considered at 9.56% by NBPDCCL and 10.52% by SBPDCL for FY 2024-25 and furnished the computation details as given below:

Table 6.43: Weighted average rate of interest on loans projected by NBPDCCL

Sl. No.	Particulars	Rate of interest %	Opening loan balance	Closing loan balance	Average Loan	Interest
1	REC (RGGVY)	10.50%	186	166	176	19
2	REC (R-APDRP) Part B	9.00%	22	15	22	5
3	PFC (Counterpart)	10.63%	69	62	69	7
4	REC (DDUGJY)	9.56%	1032	1028	1032	96

Sl. No.	Particulars	Rate of interest %	Opening loan balance	Closing loan balance	Average Loan	Interest
5	REC (IPDS)	8.83%	302	295	302	25
6	State Govt. Non-plan	10.50%	338	378	338	
7	ADB	10.50%	56	56	56	8
8	Smart metering	9.30%	1384	1384	1384	172
9	Total		3388		3378	332
10	Weighted average rate of interest					9.56%

Table 6.44: Weighted average rate of interest on loans projected by SBPDCL

Sl. No.	Particulars	Rate of interest %	Opening loan balance	Closing loan balance	Average Loan	Interest
1	REC (RGGVY)	11.00%	105.39	91.34	98.46	10.56
2	REC (R-APDRP)	10.40%	253.72	218.79	236.26	23.06
3	PFC (R-APDRP)	9.00%	113.24	102.35	107.80	16.34
4	REC (DDUGJY)	10.19%	696.63	647.97	672.30	70.78
5	REC (IPDS)	10.19%	314.20	291.95	303.07	31.92
6	State Govt. Non-plan	13.00%	169.10	193.51	181.30	19.90
7	ADB	13.00%	6.28	6.28	6.28	0.82
8	Total		1658.56	1552.39	1605.47	173.38
9	Weighted average rate of interest					10.52%

Discoms have computed and projected the interest on loans for FY 2024-25 as detailed in the Table below:

Table 6.45: Interest on loans projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Opening Loan	5841	4728	10569
2	Additions during the year	2277	1000	3277
3	Repayment during the year	566	411	977
4	Closing loans (1+2-3)	7552	5317	12869
5	Average loans (1+4)/2	6696	5023	11719
6	Weighted average rate of interest	9.56%	10.52%	
7	Interest on loans (5*6)	640.47	528.35	1168.82

Commission's analysis:

The Commission has considered as opening loan for FY 2024-25 based on the closing loan approved in review for FY 2023-24. Addition to loan is considered in line with funding of capitalisation considered. Regulation 25 (b) specify "if the equity actually

deployed is more than 30 % of the capital cost''. Accordingly, the equity in excess of 30 % is considered as loan in respect to RDSS, infrastructure works, IT/OT and PMA schemes as given below:

Table 6.46: Debt Equity considered for NBPDCCL for FY 2024-25**(Rs. Crore)**

Sl. No.	Name of scheme / Project	Capitalisation considered for NBPDCCL for FY 2024-25	Funding pattern			Funding		
			Loan	Grant	Equity	Loan	Grant	Equity
1	MKVYS			100%		-	-	-
2	State Plan – RDSS	371.31			100%	-	-	371.31
3	Infrastructure works	512.54		60%	40%	-	307.52	205.02
4	IT/OT	33.60		60%	40%	-	20.16	13.44
5	PMA	16.58		60%	40%	-	9.95	6.63
6	Smart Prepaid meters (Phase 2)	1047.19	100%			1,047.19	-	-
7	Smart Prepaid meters (Phase 3)	1018.84	100%			1,018.84	-	-
8	Total	3000.07				2,066.03	337.63	596.40
9	Normative Debt Equity considered					2,382.22	337.63	280.21

Table 6.47: Debt Equity considered for SBPDCL for FY 2024-25**(Rs. Crore)**

Sl. No.	Name of scheme / Project	Capitalisation projected for FY 2024-25	Funding pattern			Funding		
			Loan	Grant	Equity	Loan	Grant	Equity
1	MKVYS			100%				
2	State Plan - RDSS	39.20			100%			39.20
3	Infrastructure works	915.90		60%	40%		549.54	366.36
4	IT/OT	59.50		60%	40%		35.70	23.80
5	PMA	39.12		60%	40%		23.47	15.65
6	Smart Prepaid meters (Phase 2)	230.54	100%			230.54		
7	Smart Prepaid meters (Phase 3)	323.80	100%			323.80		
8	Total	1608.06				554.34	608.71	445.01
9	Normative Debt Equity considered					683.23	608.71	316.12

Regulation 25 (g) of the BERC (Multi Year Distribution Tariff) Regulations, 2021 specify that the rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of the year, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible 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.

The Commission in terms of regulation 25(g) has provisionally considered rate of interest on loan for FY 2024-25 based on the weighted average rate of interest of 9.74% (last available actual weighted average rate of interest) approved in true up for FY 2022-23 for NBPDCCL and weighted average rate of interest of 10.22% approved for SBPDCL in true up for FY 2022-23.

Regulation 25(e) specify repayment shall be deemed to be equal to the depreciation allowed for the year, the Commission accordingly has considered repayment of loan equal to the depreciation allowed for the year.

The Commission, considering the above, has computed interest on loans for FY 2024-25 as detailed in the Table below:

Table 6.48: Interest on loan approved for FY 2024-25

(Rs. Crore)				
Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Opening loan balance	6200.84	4937.49	11138.34
2	Additions during the year	2382.22	683.23	3065.45
3	Normative Repayment	489.88	425.05	914.94
4	Closing Loans (1+2-3)	8093.18	5195.67	13288.85
5	Average Loans $\{(1+4)/2\}$	7147.01	5066.58	12213.59
6	Interest rate	9.74%	10.22%	
7	Interest Charges (5x6)	696.12	517.80	1213.92

The Commission approves interest on loan for FY 2024-25 as given in the table above

6.16. Other Finance Charges

Petitioner's submission:

Discoms have submitted that finance charges represent discount to consumers for timely payment of bills, power factor rebate, interest to suppliers/contractors, etc. and projected the other finance charges with escalation of 10% over the expenses considered in review for FY 2024-25 as detailed in the Table below:

Table 6.49: Other finance charges projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Other finance charges estimated in previous year	62.77	100	162.77
2	% of escalation	10.00%	10.00%	
3	Increase for the year	6.28	10.00	16.28
4	Other finance charges for the year	69.05	110	179.05

Commission's analysis:

The Commission has considered the other finance charges approved in review for FY 2023-24 as base expenses for FY 2024-25 and also considers escalation @ 10% provisionally. Accordingly, the Commission considers other finance charges for FY 2024-25 as given in the Table below:

Table 6.50: Other finance charges approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
1	Base Other finance charges	55.77	113.49	169.26
2	% of escalation	10.00%	10.00%	
3	Increase for the year	5.58	11.35	16.93
4	Other finance charges for the year	61.35	124.84	186.19

The Commission approves other finance charges for FY 2024-25 as given in the table above

6.17. Return on Equity**Petitioner's submission:**

Discoms have submitted that Return on Equity has been calculated in terms of regulation 27 of BERC (Multi Year Distribution Tariff) Regulations 2021 and projected the RoE for FY 2024-25 as detailed in the Table below:

Table 6.51: Return on Equity projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Closing equity to end of 31.03.2016	440.86	638.06	1078.92
2	Rate of return on equity %	14.00%	14.00%	
3	Return on Equity	61.72	89.33	151.05

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
	Equity with effect from 1st April 2016			
4	Opening equity	2668.24	2085.68	4753.92
5	Equity addition during the year	975.66	428.61	1404.27
6	Closing equity (4+5)	3643.90	2514.29	6158.19
7	Average equity (4+6)/2	3156.07	2299.99	5456.06
8	Rate of return on equity (from 1.4.2016)	15.50%	15.50%	
9	Return on equity (7*8)	489.19	356.50	845.69
10	Total Return on equity (3+9)	550.91	445.83	996.74

Commission's analysis

Regulation 27 (c) of the BERC (Multi Year Distribution Tariff) Regulations 2021 specify *Return on equity shall be computed at the rate of 15.50% for the project which is commissioned w.e.f. 01.04.2016 and further incentive equivalent to 0.50% will be allowed in the form of RoE, if the project is completed within original schedule period. However, Return on Equity for the project commissioned prior to 01.04.2016 shall be allowed at the rate of 14.00%.*

The Commission has considered the opening equity for FY 2024-25 based on the closing equity considered in review for FY 2023-24. Addition to equity during the year is considered based on the capitalisation and funding of capitalisation approved for FY 2024-25 as depicted in Table 6.36 and Table 6.37 above.

Regulation 29 (1) of the BERC (Multi Year Distribution Tariff) Regulations 2021 specify the base rate of return on equity as allowed by the Commission under Regulation 27 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 Distribution Licensee, 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 distribution, as the case may be) shall not be considered for the calculation of effective tax rate.

The Commission has not considered the Tax on Return on Equity as the Discoms have not incurred/paid income tax in earlier year i.e. for FY 2022-23.

The Commission, accordingly, has computed return on equity as detailed in the Table below:

Table 6.52: Return on Equity approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Closing equity to end of 31.03.2016	440.86	638.06	1078.92
2	Rate of return on equity %	14.00%	14.00%	
3	Return on Equity	61.72	89.33	151.05
	Equity with effect from 1st April 2016			
4	Opening equity	2390.52	1897.83	4288.35
5	Equity addition during the year	280.21	316.12	596.33
6	Closing equity (4+5)	2670.73	2213.95	4884.68
7	Average equity (4+6)/2	2530.63	2055.89	4586.52
8	Rate of return on equity	15.50%	15.50%	
9	Return on equity (7x8)	392.25	318.66	710.91
10	Total Return on equity (3+9)	453.97	407.99	861.96

The Commission approves other finance charges for FY 2024-25 as given in the table above

6.18. Operation and Maintenance (O&M) expenses

6.18.1 Employee Costs

Petitioner's submission:

Discoms have submitted that in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021 the norm for employee expenses have been determined by the Commission for the control period of FY 2022-23 to FY 2024-25 in Tariff order dated 25.03.2022 as given below:

Table 6.53: Employee norm approved in Tariff order dated 25.03.2022

Particulars	Base employee expense norm for NBPDCCL	Base employee expense norm for SBPDCL
No. of personnel per substation	6.7650	9.4117
No. of personnel per 1000 consumers	0.0629	0.1504
Annual expenses per personnel (Rs. Crore)	0.0854	0.0914

Regulation 22.1 specify employee cost shall be computed as per the approved norm escalated based on the average increase in CPI for immediately preceding three years i.e. FY 2020-21, FY 2021-22, FY 2022-23 and base year of FY 2019-20. Discoms have computed the average CPI inflationary increase as given below:

Particulars	2019-20	2020-21	2021-22	2022-23
Average CPI index points for FY	322.5	338.7	356.1	377.6
Increase in CPI index over the previous year		5.02%	5.13%	6.05%
Average CPI inflationary inc.				5.40%

The Discoms accordingly, considering the norm for employee expense have computed the employee expenses for 2024-25 as given in the table below:

Table 6.54: Employee expenses projected by Discoms for FY 2024-25
(Rs. Crore)

Sl. No	Particulars	NBPDCCL		SBPDCL	
		Base Value	Projected for FY 2024-25	Base Value	Projected for FY 2024-25
1	Average annual CPI index		5.40%		5.40%
2	Norms-Number of personnel per 1000 consumers	0.0629	0.0629	0.1504	0.1504
3	Norms-Number of personal per substation	6.765	6.765	9.4117	9.4117
4	No. of consumers (1000)		13220		7611
5	No of substations		653		633
6	Annual expenses per personnel (Rs. Cr)	0.0953	0.1005	0.0914	0.1075
7	Employee cost per 1000 consumers		83.54		123.08
8	Employee cost per substation		443.81		640.58
9	Total Employee cost		527.35		763.66

Commission's analysis:

The Commission, in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021, had determined Employee norm for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022. The base value of determined employee expense norm is, as given below:

Particulars	Base Value for NBPDCCL	Base Value for SBPDCL
No. of personnel per 1000 consumers	0.0629	0.1504
No. of personnel per Sub-Station	6.765	9.4117
Annual expenses per personnel (Rs. Crore)	0.0854	0.0914

Regulation 22.1 of BERC (Multi Year Distribution Tariff) Regulations 2021 specifies, employee cost shall be computed as per the approved norm escalated by CPI. CPI inflation is defined as the average increase in the CPI for immediately preceding three

years. The available CPI index points are upto FY 2022-23 and accordingly, the Commission provisionally considers the average CPI inflation at 5.40% for FY 2024-25 based on the available CPI index points as given below:

Table 6.55: CPI Inflation considered for FY 2024.25

Particulars	2019-20	2020-21	2021-22	2022-23
Annual Average CPI Index	322.50	338.69	356.06	377.62
CPI Inflation		5.02%	5.13%	6.05%
Weighted average CPI inflation				5.40%

The Discoms have furnished the details of projected total number of consumers and total no. of substations for FY 2024-25 as given below:

Particulars	NBPDCCL	SBPDCL
No. of substations	653	633
No. of consumers	13220456	7610950

Regulation 22 (g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation. Accordingly, the Commission has considered the weighted average increase in the Consumer Price Index (CPI) at 5.40% for immediately preceding three years in terms of regulation 22.1 and escalated the base annual expenses per personnel to arrive the normative annual expenses for personnel for FY 2024-25.

The Commission has considered the annual expenses per personnel at Rs.0.09531 crore for NBPDCCL and Rs.0.10201 crore for SBPDCL in review for FY 2023-24 and the same is considered as based value of norm and computed the employee expenses with CPI inflationary indexation of 5.40% for FY 2024-25 as detailed in the table below:

Table 6.56: Employee expenses based on norm considered for FY 2024-25 for Discoms**(Rs. Crore)**

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
1	Average annual CPI index		5.40%		5.40%	
2	Norms-Number of personnel per 1000 consumers	0.0629	0.0629	0.1504	0.1504	
3	Norms-Number of personal per substation	6.765	6.765	9.4117	9.4117	
4	No. of consumers (1000)		13,220		7,611	
5	No of substations		653		633	
6	Annual expenses per personnel (Rs. Crore)	0.09531	0.10046	0.10201	0.10752	

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
7	Employee cost on the norm of 1000 consumers (2*5*6) (Rs. Crore)		83.54		123.07	
8	Employee cost on the norms of substation (4*5*6) (Rs. crore)		443.79		640.55	
9	Total Employee cost (7+8) (Rs. Crore)		527.33		763.62	1290.95

The Commission, accordingly, considers the employee expenses for FY 2024-25 as given in the table above.

6.18.2 Administrative and General (A&G) Expenses

Petitioner's submission

Discoms have submitted that Administration and General expenses are projected in terms of regulation 22.3 with escalation for WPI inflationary index for FY 2024-25.

It is submitted that the Commission has determined the base value of A&G expense norm per 1000 consumers and A&G expense per employee and annual A&G expenses per 1000 consumers and per employee in the Tariff Order dated 25.03.2022 as detailed in the table below:

A&G expense norm approved for NBPDCCL & SBPDCL in TO dated 25.03.2022

Particulars	Base A&G expense norm for NBPDCCL	Base A&G expense norm for SBPDCL
Norms-A&G expenses per 1000 consumers	0.4200	1.00
Norms-A&G expenses per personal	0.3600	0.850
Annual A&G expenses per 1000 consumers (Rs. Cr)	0.0077	0.0099
Annual A&G expenses per employee (Rs. Cr)	0.0225	0.0121

Regulation 22.3 specifies A&G expenses shall be computed as per the approved norm escalated by the average increase in WPI for immediately preceding three years. The Discoms have computed the WPI inflationary increase as given below:

WPI inflationary increase projected by Discoms

Years	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Average WPI index points for FY	121.80	123.38	139.41	152.37
Increase in WPI index over previous year		1.29%	13.00%	9.30%
Average WPI inflationary increase	7.86%			

The Discoms, in addition to the normative A&G expenses have projected rent charges for smart prepaid meters proposed to be installed under Phase-II and Phase-III under RDSS scheme. The total A&G expenses computed the A&G expenses for 2024-25 as given in the table below:

Table 6.57: A&G expenses projected for FY 2024-25

(Rs. Crore)			
Sl. No	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
1	Average annual WPI CPI index	7.86%	7.86%
2	Norms-A&G expenses per 1000 consumers	0.42	1.00
3	Norms-A&G expenses per personal	0.36	0.85
4	No. of consumers (1000)	13220	7611
5	No of employees	11098	11568
6	Annual expenses per 1000 consumers (Rs. Cr)	0.00943	0.0121
7	Annual expenses per employee (Rs. Cr)	0.02757	0.0148
8	A&G cost per 1000 consumers	124.73	92.33
9	A&G cost per employee	305.97	171.51
10	Total	430.70	263.84
11	Rent Charges for Smart Prepaid Meters	223.37	114.71
12	Total A&G cost	654.07	338.28

Commission's analysis:

The Commission, in terms of regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2021, had determined A&G expense norm for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022. The base value of determined A&G expense norm is, as given below:

Particulars	Base Value for NBPDCCL	Base Value for SBPDCL
Norm-A&G expense per 1000 consumers	0.420	1.000
Norm-A&G expense per personal/employee	0.360	0.850
Annual A&G expenses per 1000 consumers (Rs. Crore)	0.0077	0.0099
Annual A&G expenses per employee (Rs. Crore)	0.0225	0.0121

Regulation 22.3 of BERC (Multi Year Distribution Tariff) Regulations 2021 specifies, A&G expenses shall be computed as per the approved norm escalated by WPI. WPI inflation is defined as the average increase in the WPI for immediately preceding three years. Accordingly, the Commission has worked out average WPI inflation based on the available WPI index points as given hereunder.

Table 6.58: Weighted average WPI index inflation

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Average annual WPI index	121.80	123.38	139.41	152.53
Year on year increase		1.29%	13.00%	9.41%
Average increase	7.90%			

Discoms have furnished the no. of employees in Format 10 and no. of consumers in Format 7 of the petition for the year FY 2024-25 as given below.

Particulars	NBPDCCL	SBPDCL
No. of employees	4673	5648
No. of consumers	13220456	7610950

The Commission has considered the annual A&G expenses per 1000 consumers (Rs.0.00875 crore for NBPDCCL and Rs.0.01125 crore for SBPDCL) and annual A&G expenses per employee (Rs.0.02557 crore for NBPDCCL and Rs.0.01375 crore for SBPDCL) in review for FY 2023-24 and the same is considered as based value of norm and computed the A&G expenses with WPI inflationary indexation of 7.90% for FY 2024-25 as detailed in the table below:

Table 6.59: A&G expenses based on norm considered for FY 2024-25 for Discoms**(Rs. Crore)**

Sl. No.	Particulars	NBPDCCL		SBPDCL		Total
		Base Value	2023-24	Base Value	2023-24	
1	Average annual WPI index		7.90%		7.90%	
2	Norms-A&G expenses per 1000 consumers	0.42	0.42	1.00	1.00	
3	No. of consumers (1000)		13,220		7,611	
4	No of employees		4673		5648	
5	Annual expenses per 1000 consumers (Rs. Crore)	0.00875	0.00944	0.01125	0.01214	
6	Annual expenses per employee (Rs. Crore)	0.02557	0.02759	0.01375	0.01484	
7	A&G cost for 1000 consumers (3*5)		124.82		92.39	
8	A&G cost for employees (4*6)		128.92		83.80	
9	Total A&G expenses (G+H) (Rs. Crore)		253.75		176.19	429.94

The Commission provisionally considers the rental charges for smart prepaid meters as projected by the Discoms subject truing up based on actual expenses reported

through audited accounts vis-à-vis actual no. of smart prepaid meters installed under OPEX modal due prudence check and validation as directed in Case No 05/2020, Case No 26/2022 and Case No 27/2022

Table 6.60: Total A&G expenses approved for FY 2024-25 for Discoms
(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Normative A&G expenses for FY 2024-25	253.75	176.19	429.93
2	Rental charges for Smart Prepaid meters	223.37	114.71	338.08
3	Total A&G expenses	477.12	290.90	768.01

The Commission, accordingly, considers the A&G expenses for FY 2024-25 as given in the table above.

6.18.3 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

Discoms have submitted that R&M is projected as a percentage of gross fixed assets in accordance to regulation 22.2 for FY 2024-25. It is submitted that R&M expenses are computed based on the R&M norm 'K' factor as given in the table below:

Table 6.61: Repairs and Maintenance expenses projected for FY 2024-25
(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Opening GFA	24145.52	19444.41	
2	Opening Land Cost	1105.28	1727.43	
3	Opening GFA excl. land cost	23040.24	17716.99	
4	K Factor	1.24%	1.71%	
5	R&M Expense	285.70	302.96	588.66

Commission's analysis

Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2021, specify R&M expenses as a percentage (as per the norm determined) of Gross Fixed Assets excluding land cost for the year.

The Commission had determined the R&M norm i.e. 'K' factor at 1.24% for NBPDCCL and 1.71% for SBPDCL for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022.

The Commission has considered the opening GFA net of land value for FY 2024-25 is considered as shown in Table 6.42 and accordingly considers R&M expenses adopting 'K' factor for FY 2024-25 as detailed in the table below:

Table 6.62: R&M expenses considered for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
1	Opening depreciable assets (excl. land)	22507.34	16837.01	
2	K Factor	1.24%	1.71%	
3	R&M Expense for the year (1*2)	279.09	287.91	567.00

The Commission, accordingly considers R&M expenses for FY 2024-25 as given in the table above.

6.18.4 Holding Company Expenses

Petitioner's submission

Discoms have projected the Holding Company expenses with inflationary index increase @10% for FY 2024-25 as given in Table below:

Table 6.63: Holding Company Expenses projected for FY 2024-25**(Rs. Crore)**

Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
Previous year Holding company expenses	25.51	26.51	
Inflationary index %	10%	10%	
Inflationary increase	2.55	2.65	
Holding company expenses for the year	28.06	29.16	57.22

Commission's analysis:

The Commission has considered the holding company expenses based on review for FY 2023-24 as base holding company expenses and further escalated with CPI inflationary increase of 5.40% (as adopted for Employee expenses since the holding company expenses majorly represent employee/Manpower expenses). The Commission, in terms of Bihar State Electricity Reforms Transfer Scheme, 2012, has considered the holding company expenses for FY 2024-25, as detailed in the table below:

Table 6.64: Holding company expenses approved for FY 2024-25**(Rs. Crore)**

Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
Holding company expenses considered in review (APR) for FY 2023-24	24.44	25.40	49.84
Inflationary increase @5.40%	1.32	1.37	2.69
Holding company expenses	25.76	26.77	52.54

The Commission, accordingly considers Holding company expenses for FY 2024-25 as given in the table above.

6.18.5 Summary of Operation and Maintenance (O&M) Expenses

The summary of the O&M expenses approved for FY 2024-25 as tabulated below:

Table 6.65: Total O&M cost approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Employee cost	527.33	763.62	1290.95
2	R&M expenses	279.09	287.91	567.00
3	A&G Expenses	477.12	290.90	768.01
4	Holding company expenses	25.76	26.77	52.54
5	Total O& M cost	1309.29	1369.20	2678.50

6.19 Interest on Security Deposit

Petitioner's submission:

Discoms have submitted that interest on Security Deposit amount has been claimed as per the Regulation 26 of BERC (Multi Year Distribution Tariff) Regulations 2021. The interest on security deposit is calculated at the rate of 6.75%. The Discoms have projected interest on security deposit for FY 2024-25 as detailed in the Table below:

Table 6.66: Interest on security deposit projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Opening balance of Security deposit	4564.96	836.40	
2	Addition during the year	14.25	52.81	
3	Closing SD	479.21	889.20	
4	Average SD	472.09	862.80	
5	Rate of interest	6.75%	6.75%	
6	Interest on SD	31.87	58.24	90.11

Commission's analysis:

Regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations 2021 specifies that *"provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution system users at the Bank Rate as of the date on which the petition for determination of tariff is accepted by the Commission"*.

The Commission has considered opening SD from consumer for FY 2024-25 based on the closing SD approved in review for FY 2023-24. Addition to security deposit is considered at the same level of addition to SD considered in true up for FY 2022-23 based on the audited accounts. The rate on interest is considered as per RBI rate at 6.75% i.e. prevailing rate as on the date of filing of tariff petitions by the Discoms.

The Commission considers the interest on consumer's security deposit for the control period as given in the Table below:

Table 6.67: Interest on security deposit approved for FY 2024-25

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	(Rs. Crore)
				Total
1	Opening balance of Security deposit	464.97	836.40	1301.37
2	Addition during the year	14.26	52.81	67.07
3	Closing SD	479.23	889.21	1368.44
4	Average SD	472.10	862.81	1334.91
5	Rate of interest	6.75%	6.75%	
6	Interest on SD	31.87	58.24	90.10

The Commission, accordingly considers interest on security deposit for FY 2024-25 as given in the table above.

6.20 Non-Tariff Income**Petitioner's submission:**

Discoms have projected the non-tariff income taking the amount estimated in Annual performance review of FY 2023-24 and then escalating the same by around 10% except the rebate on power purchase and DPS.

The non-tariff income projected by the Discoms for FY 2024-25 is as detailed in the Table below:

Table 6.68: Projected Non-tariff Income for FY 2024-25

Particulars	(Rs. Crore)	
	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
Interest on Advances to Suppliers/Contractors	217.11	1.02
Interest on Saving & Fixed Deposit from Bank	11.29	31.67
Interest on staff loans and advances	24.06	1.20
Delayed Payment Surcharge from Consumers	569.09	287.17
Income from Sale of tender paper	0.16	
Consumer Contribution Income	6.92	1.47
Rebate in Capacitive Charge & SECD Benefit	14.62	18.25
Income from Interest on TDS Refund		0.82
Miscellaneous Receipts	16.83	1.05
Reimbursement from disaster management	26.09	
Sale of Scrap	4.42	24.04
Rebate/Discount/Incentive for timely payment of power purchase bills	35.59	39.29
Liquidated damages from agencies		54.15
Rental income from Board property	2.31	5.15
Supervision Income	13.54	20.51
Miscellaneous recoveries from consumers	43.19	
Miscellaneous recoveries	22.28	
Total Non-tariff income	1007.50	485.80
Delayed Payment Surcharge from Consumers	569.09	287.17
Principal amount on which DPS Charged	3161.61	1914.48
Interest Rate of funding DPS	10.05%	10.05%
Less: Interest on funding Principal	317.74	192.41
Net Non-Tariff Income	689.76	293.40

Commission's analysis:

The Commission provisionally considers the Non-tariff income (except the rebate on power purchase cost) as projected by the Discoms for FY 2024-25 subject to truing up. It is observed NBPDCCL has projected Rs.35.59 crore and SBPDCL Rs.39.29 crore towards Rebate and Discount received for timely payment of power purchase bills for FY 2024-25.

The Commission considers rebate @1% of the power purchase cost including PGCIL and transmission charges for FY 2024-25 based on the approved power purchase cost. The Commission, accordingly, has considered non-tariff income for FY 2024-25 in review as detailed in the table below.

Table 6.69: Non-tariff income approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
1	Base non-tariff income	689.76	293.40	983.16
2	Less: Rebate included in the above	35.59	39.29	74.88
3	Sub-total	654.17	254.11	908.28
4	Add: Rebate @1% on total power purchase (incl. transmission charges) for FY 2024-25	128.91	153.88	282.78
5	Non-tariff income	783.08	407.99	1191.06

6.21 Energy Saving Certificate (ESCs)

Petitioner's submission:

Discoms have submitted that, Perform, Achieve and Trade (PAT) is a regulatory instrument to reduce Specific Energy Consumption in energy intensive industries, with an associated market-based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. PAT is a mechanism for improvements in energy efficiency of energy intensive industries. Specific high energy intensive industries are identified as Designated Consumers (DCs) within certain key sectors.

The 'Distribution Licensee' was also included as DCs under second cycle of PAT. PAT Cycle II commenced from 1st April, 2016 and was completed on 31st March 2019. Implementation of PAT cycle -II has resulted into total energy savings of about 14.08 MTOE translating into avoiding of about 68 million tonne of CO₂ emission.

It was submitted to Bureau of Energy Efficiency (BEE) that Discoms do not contribute to Green House Gas emissions and are in continuous evolving phase on account of various projects like Smart Metering, Revamped Distribution Sector Scheme (RDSS) etc. Therefore, Discoms may be exempted from PAT Cycle-II, however, the Petitioners was required to purchase Energy Savings Certificates (ESCCerts) in FY 2023-24.

Accordingly, the petitioners have projected the expense towards the purchase of ESCerts in FY 2024-25 at the increased cost by 20% as compared to FY 2023-24. Discoms have projected the ESCerts expense for FY 2024-25 as given below.

Table 6.70: Cost of Energy Saving Certificates projected for FY 2024-25
(Rs. Crore)

Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
Cost of Energy Saving Certificates (ESCs)	12.00	26.30	38.30

Commission's analysis:

The Commission has elaborately deliberated the issue in paragraph 5.10 of Chapter 5 of this order. It is opined that the T&D loss/AT&C loss is controllable factor and losses due to higher T&D loss level than the approved target level shall be borne by the Discoms. The inefficiencies of the petitioners cannot be passed on to the consumers. As such, the Commission does not consider the cost of ESCs for FY 2024-25.

6.22 Demand side management

Petitioner's submission:

Discoms have submitted that they have suffered DSM of 33.02 MU by SBPDCL and 26.41 MU by NBPDCCL which resulted into a DSM charge of Rs.51.76 Crore for SBPDCL and Rs.41.40 crore for NBPDCCL in FY 2022-23.

The DSM objective as specified in the BERC (Demand Side Management) Regulations, 2014 is provided hereunder:

“3.1 The Commission shall formulate DSM objectives that shall be considered in the advancement and implementation of cost-effective DSM initiatives in the State. The objectives may include power shortage mitigation, seasonal peak reduction/peak shifting, cost effective energy savings, lowering the cost of electricity, reduction in emissions of greenhouse gases etc.

3.2 While formulating the DSM objective, the Commission may take into consideration the National DSM objectives/Plans formulated by BEE, if any.

Further, BERC DSM Regulation 2014 specifies that DISCOMs are required to perform assessment of potential of DSM in the state every year, as mentioned hereunder.

4.1 The Distribution Licensee in the State shall carry out assessment of potential for DSM in the State every year. The first assessment of technical potential for DSM shall be carried out within three months of the notification of these Regulations.

In view of the above, the Discoms have requested to allow provisioning of DSM charges for FY 2024-25 as given below.

Table 6.71: DSM charges projected for FY 2024-25

(Rs. Crore)			
Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
Demand Side Management (DSM) charges	30.00	30.00	60.00

Commission's analysis:

The Commission has provisionally considered the DSM charges as projected by the petitioners for FY 2024-25.

Table 6.72: DSM charges approved for FY 2024-25

(Rs. Crore)			
Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25	Total
Demand Side Management (DSM) charges	30.00	30.00	60.00

The Commission directs the petitioners to file Demand Side Management (DSM) action plan duly highlighting the objectives and benefits to be derived in terms of savings in power consumption and other benefits indicating the element-wise/head-wise quantitative and cost details in terms of Regulation 4, 5 and 6.3 of the BERC (Demand Side Management) Regulations 2014.

6.23 Interest on working capital

Petitioner's submission:

Discoms have submitted that they have estimated the amount towards interest on Working capital for FY 2024-25 as per the Regulation 26 of the Bihar Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2021, as extracted below:

"The Distribution Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:

a) Two months equivalent of expected revenue.

b) Maintenance spares@40% of R&M expenses for one month:

Less:

- (i) *Power purchase cost, transmission charges and load dispatch charges for one month.*
- (ii) *Depreciation return on equity and contribution to contingency reserves equivalent to two months.*
- (iii) *Amount of security deposits from consumers, if any, held during the year.*

Provided that the 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.

Provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution System users held during the year at the Bank Rate as of the date on which petition for determination is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.

Provided also that if the State Government is providing resource gap grant and/or direct subsidy to consumers, the working capital shall be reduced by two months equivalent of that amount."

Discoms have considered two months equivalent expected revenue and 40% of one month of R&M expense as specified in the above Regulation which was further deducted by Power Purchase cost along with transmission charges for one month, depreciation, ROE, contingency reserve for 2 months and consumer security deposit. It is further stated that the petitioners have determined the ARR for FY 2024-25 taking into consideration the revised AT&C loss trajectory as submitted to MoP, GoI. Therefore, there will be no state government fund allocated towards disallowance of power purchase cost and accordingly has not deducted any amount towards disallowed power purchase from working capital requirement.

The interest on working capital is calculated @ 10.05% (SBI one-year MCLR 8.55% plus 150 basis points) as per the Regulations as given in the table below:

Table 6.73: Interest on working capital projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25
1	Two months equivalent of expected revenue	2676.69	3133.74
2	Maintenance spares @ 40% of R&M expenses for one month	9.52	10.10
3	sub-total (1+2)	2686.21	3143.84
4	Less: Power purchase cost, transmission charges and load dispatch charges of one month	1388.62	1601.38
5	Less: Depreciation, RoE, Contribution to Contingency Reserve	186.20	142.73
6	Less: Consumer security Deposits	457.30	773.78
7	Less: Resource Gap grant / subsidy for two months		
8	Sub-total (4 to 7)	2032.12	2517.89
9	Net working capital requirement (3-8)	654.09	625.94
10	Rate of interest	10.05%	10.05%
11	Interest on working capital	65.74	62.91

Commission analysis

The Commission has computed the interest on working capital as per the norms prescribed in Regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations 2021. The rate of interest applied on the working capital is @10.05%, as per the SBI MCLR (one year) of 8.55% plus 150 basis points as on the date of filing of the petition i.e.15.11.2022.

The Commission has considered closing Security Deposits from the Consumers as approved in Table 6.67 above.

The State Government is extending financial support/tariff subsidy to the consumers is being released to the Discoms for onward credit to the consumer account and balance (net of tariff subsidy) bill amount shall be payable by the consumers. The Commission is anticipating the tariff subsidy at same level of FY 2023-24 and considered the State Government financial support to the DISCOMs on monthly basis, for which no working capital is required. Accordingly, the amount equivalent to two months of financial support from the State Government to the DISCOMs is reduced from the working capital requirement of the DISCOMs for FY 2024-25.

The Commission based on the expenses/costs approved, has computed the working capital requirement and interest on working capital for the control period as detailed in the Table below:

Table 6.74: Interest on working capital considered for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for NBPDCCL for FY 2024-25	Approved for SBPDCL for FY 2024-25
1	Two months equivalent of expected revenue	2530.03	2985.46
2	Maintenance spares @ 40% of R&M expenses for one month	9.30	9.60
3	sub-total (1+2)	2539.33	2995.06
4	Less: Power purchase cost, transmission charges and load dispatch charges of one month	1074.23	1282.30
5	Less: Depreciation, RoE, Contribution to Contingency Reserve	157.31	138.84
6	Less: Consumer security Deposits	479.23	889.21
7	Less: Resource Gap grant / subsidy for two months	988.63	1197.05
8	Sub-total (4 to 7)	2699.40	3507.40
9	Net working capital requirement (3-8)	(160.07)	(512.34)
10	Rate of interest	10.05%	10.05%
11	Interest on working capital	--	--

6.24 Annual Revenue Requirement for FY 2024-25**Petitioner's submission:**

The Discoms have submitted the ARR for the control period, as detailed in the Table below:

Table 6.75: ARR projected for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
1	Purchase of power	12920.31	15167.32	28087.63
2	Transmission charges	2055.57	2413.06	4468.63
3	Sale of surplus power	(1687.52)	(1636.17)	-3323.69
4	O & M Expenses (A+B+C+D)	1495.18	1474.33	2969.51
A	Employee expenses	527.35	763.66	1291.01
B	R&M expenses	285.70	302.96	588.66
C	A&G expenses	654.07	378.55	1032.62
D	Holding company expenses	28.06	29.16	57.22
5	Depreciation	566.30	410.56	976.86
6	Interest on loan	640.47	528.35	1168.82
7	Other finance charges	69.05	109.78	178.83
8	Return on equity	550.91	445.83	996.74
9	Interest on SD	31.87	58.24	90.11
10	Energy saving certificate (ESCs)	12.00	31.56	43.56
11	Demand Side Management (DSM)	30.00	30.00	60.00
12	Interest on working capital	65.74	62.91	128.65

Sl. No.	Particulars	Projected by NBPDCCL for FY 2024-25	Projected by SBPDCL for FY 2024-25	Total
13	Less: Non-tariff income	(689.76)	(293.40)	-983.16
11	ARR for the year	16060.11	18802.36	34862.48

Commission analysis:

The Commission has computed the annual revenue requirement (ARR) based on the costs approved in the preceding paragraphs for FY 2024-25 as detailed in the Table below:

Table 6.76: ARR approved for FY 2024-25**(Rs. Crore)**

Sl. No.	Particulars	Approved for FY 2024-25 for NBPDCCL	Approved for FY 2024-25 for SBPDCL	Total
1	Purchase of power	10623.29	12725.85	23349.14
2	PGCIL & Other transmission charges	1278.32	1500.63	2778.95
3	BSPTCL transmission charges	791.59	929.25	1720.84
4	BGCL transmission charges	187.99	220.69	408.68
5	SLDC charges	9.56	11.22	20.78
6	O & M Expenses (A+B+C+D)	1309.30	1369.20	2678.50
A	Employee expenses	527.33	763.62	1290.95
B	R&M expenses	279.09	287.91	567.00
C	A&G expenses	477.12	290.90	768.01
D	Holding company expenses	25.76	26.77	52.54
7	Depreciation	489.88	425.05	914.94
8	Interest on loan	696.12	517.80	1213.92
9	Other finance charges	61.35	124.84	186.18
10	Return on equity	453.97	407.99	861.96
11	Interest on SD	31.87	58.24	90.11
12	Energy Saving Certificate (ESC)			0.00
13	Demand Side Management (DSM)	30.00	30.00	60.00
14	Interest on working capital	0.00	0.00	0.00
15	Less: Non-tariff income	(783.08)	(407.99)	(1191.06)
16	ARR for the year	15180.16	17912.78	33092.94

6.25 Trued up net Revenue Gap / (Surplus) of FY 2022-23

The Commission has approved the **consolidated net revenue surplus of Rs.293.84 Crore** (NBPDCCL revenue gap of Rs.751.00 crore and SBPDCL revenue surplus of Rs.1044.84 crore) for FY 2022.23 in true up for Discoms.

Regulation 14 (f) of the BERC (Multi Year Distribution Tariff) Regulations 2021 specify ***“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 exercise, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues”.

The Commission, in terms of regulation 14 (f) has carried forward the trued up consolidated revenue gap along with carrying cost in the ARR of FY 2024-25.

The Commission has considered carrying cost @ 9.30% (weighted average SBI MCLR 7.80% plus 150 basis points) for half year of FY 2022-23, @10.05% (SBI MCLR 8.55% plus 150 basis points) for full year of FY 2023-24 and half year of FY 2024-25 on the trued up revenue Gap/(surplus) of FY 2022-23 assuming that the Gap/(surplus) has been created over FY 2022-23 and adjustment/recovery would have been made over the year 2024-25 following the methodology adopted by the Hon’ble APTEL order dated 08.04.2015 in Appeal No.160 of 2012 (Reliance Infrastructure Limited Vs MERC & others) as detailed in the Table below:

Table 6.77: Trued up Approved Revenue Gap/(surplus) of FY 2022-23 carried forward to ARR of FY 2024-25

Sl. No.	Particulars	NBPDCCL	SBPDCL	Total
1	Revenue Gap/(Surplus) approved in true up for FY 2022-23 to be carried forward	751.00	(1044.84)	(293.84)
2	Interest for FY 2022-23 [(Wt. average SBI MCLR Rate 7.80%+1.50%) 9.30%] for half year	34.92	(48.59)	(13.67)
3	Interest for FY 2023-24 (SBI MCLR 8.55%+1.50%) @10.05% for 1 year	75.48	(105.01)	(29.53)
4	Interest for FY 2024-25 (SBI MCLR 8.55%+1.50%) @10.05% for half year	37.74	(52.50)	(14.76)
5	Sub-total (Interest) (2+3+4)	148.14	(206.10)	(57.96)
6	Total gap/(Surplus) with interest (1+5)	899.14	(1250.94)	(351.80)

The Commission, accordingly, carried forward and adjusted the revenue Gap/(surplus) of FY 2022-23 along with carrying cost in to the ARR for FY 2024-25

6.26 Revenue from sale of power at existing tariff

Petitioner’s submission

The Discoms have submitted the category wise revenue based on the existing tariff for FY 2024-25 as detailed in the Table below:

Table 6.78: Projected Revenue from sale of power at existing tariff for FY 2024-25

Category of consumers	NBPDC		SBPDCL		Total	
	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)	Sales (MU)	Revenue (Rs. Crore)
Domestic	9575.03	8067.08	8428.37	7457.68	18003.40	15524.76
Kutir Jyoti	2930.81	2323.93	1418.65	1111.08	4349.46	3435.01
DS I Rural	4393.62	3737.51	3350.20	2788.58	7743.82	6526.09
DS II Demand Based	2250.21	2005.23	3659.24	3557.76	5909.45	5562.99
DS III	0.39	0.41	0.28	0.26	0.67	0.67
Non-Domestic Service	2250.85	2424.86	1917.30	2225.44	4168.15	4650.30
NDS I - Metered Now Demand Based	814.80	723.80	479.63	424.43	1294.43	1148.23
NDS II - Demand Based	1436.05	1701.06	1437.67	1801.01	2873.72	3502.07
Street Light Services	129.53	253.34	284.79	285.14	414.32	538.48
SS Metered	13.34	12.89	78.46	73.40	91.80	86.29
SS Unmetered	116.19	240.45	206.33	211.74	322.52	452.19
Irrigation & Allied Services	1942.17	1490.64	4430.23	3275.88	6372.40	4766.52
IAS I	1840.57	1381.74	4047.04	2937.04	5887.61	4318.78
IAS II	101.60	108.90	383.19	338.84	484.79	447.74
Public Service Connections	547.87	521.54	489.39	509.68	1037.26	1031.22
Public Water Works	45.82	79.94	175.26	236.22	221.08	316.16
Har Ghar Nal	502.05	441.60	314.13	273.46	816.18	715.06
Low Tension Industrial Services	561.86	851.05	483.88	843.00	1045.74	1694.05
LTIS I (0-19 kW)	519.48	778.53	330.39	561.63	849.87	1340.16
LTIS II (>19 kW - 74 kW)	42.38	72.52	153.49	281.37	195.87	353.89
LT Electric Vehicle Charging Station	12.28	12.10	8.11	7.99	20.39	20.09
High Tension-General	1176.53	1459.52	3335.85	3565.69	4512.38	5025.21
HTS I - 11 kV	669.48	852.32	1206.89	1494.00	1876.37	2346.32
HTS II - 33 kV	332.06	391.26	934.10	1105.38	1266.16	1496.64
HTS III -132 kV	131.02	180.84	279.81	304.64	410.83	485.48
HTS IV - 220 kV					0.00	0.00
HTSS	43.97	35.10	915.05	661.67	959.02	696.77
High Tension-Industrial services	80.54	82.20	0.00	0.00	80.54	82.20
HTS I - 11 kV	2.54	3.34			2.54	3.34
HTS II - 33 kV	3.54	4.00			3.54	4.00
HTS III -132 kV					0.00	0.00
HTS IV - 220 kV	74.46	74.86			74.46	74.86
HT Electric Vehicle Charging Stations.	184.25	163.78	0.34	0.30	184.59	164.08
HTIS (Oxygen manufacturers)	0.42	0.52	10.79	16.41	11.21	16.93
Railway Traction Services	159.50	190.47	290.04	335.84	449.54	526.31
Nepal	314.22	226.55			314.22	226.55
Total	16935.06	15743.65	19679.07	18523.05	36614.15	34266.71

Commission's analysis

Tariff for sale of power to Nepal is considered at Rs.7.64/kWh (at 132kV level) for FY 2023-24 as decided by the Power Exchange Committee in the 14th Indo Nepal Power Exchange Committee (PEC) meeting held on 17.03.2023 at New Delhi. The tariff rate for FY 2024-25 has not been decided. The PEC has considered escalation of 6% for FY 2023-24 over the tariff rate of FY 2022-23 (14th meeting minutes dated 17.03.2023). Accordingly, pending decision, the tariff for sale of power to Nepal is projected at Rs.8.10/kWh (7.64 x1.06) (at 132kV level) considering the escalation of 6% over the rate of FY 2023-24 in line with the escalation allowed for FY 2023-24 over the rate of FY 2022-23.

The Commission has computed the revenue from sale of power for FY 2024-25 at existing tariff based on the category wise number of consumers, connected load and energy sales approved for FY 2024-25 as given in the Table below:

Table 6.79: Revenue from sale of power at existing tariff for FY 2024-25

Particulars	NBPDCCL	SBPDCL	Total
Sales (MU)	16935.05	19679.08	36614.13
Revenue (Rs. Crore)	15832.48	18522.78	34355.26

Detailed computation of revenue from sale of power at existing tariff for the Discoms for FY 2024-25 are annexed as Annexures 6.1 and 6.2.

6.27 Consolidated approved ARR of DISCOMs for FY 2024-25

The Commission based on the Annual Revenue Requirement (ARR) approved for FY 2024-25 and estimated revenue from sale of power with existing tariff has arrived the revenue gap/(surplus) for FY 2024-25 as given in the Table below:

Table 6.80: Approved revenue gap/(surplus) for FY 2024-25

(Rs. Crore)				
Sl. No.	Particulars	NBPDCCL	SBPDCL	Total
1	ARR approved for FY 2024-25	15180.16	17912.78	33092.94
2	Less: Revenue from Existing tariff	15832.48	18522.78	34355.26
3	Revenue Gap/(Surplus)	(652.32)	(610.00)	(1262.32)
4	Carried forward trued up revenue gap/(Surplus) of FY 2022-23 along with carrying cost	899.14	(1250.94)	(351.80)
5	Revenue requirement for FY 2024-25 (3+4)	246.82	(1860.94)	(1614.12)

The Commission approves the net consolidated **revenue Surplus** of Rs.1614.12 Crore for DISCOMs for FY 2024-25.

6.28 Revenue with revised tariff

The Electricity (Amendment) Rules 2024 vide Gazette Notification GSR 36 (E) dated 10.01.2024 notified by the Ministry of Power, Government of India. The Rule 23 specify as follows:

“23. Gap between approved Annual Revenue Requirement and Estimated annual revenue from approved tariff: The tariff shall be cost reflective and there shall not be any gap between approved Annual Revenue Requirement and estimate annual revenue from approved tariff except under natural calamity conditions:

Provided that such gap, created if any, shall not be more than three percent of the approved Annual Revenue Requirement.

.....”

The Commission, in view of above stated rules and considering the revenue surplus at state level has decided to reduce the tariff by fifteen (15) paisa per unit across all the categories of consumers uniformly. The Commission has also decided to reduce the fixed charges in respect of Street Lights (SS) Un-metered category from Rs.7500/KW/Month to Rs.4250/KW/Month as requested by the Petitioners.

The Commission has retained the existing fixed charge approved in Tariff order dated 23.03.2023 unchanged and made applicable for FY 2024-25 also in respect of all other consumer categories except the Street Lights Un-metered category.

The Commission has prescribed the retail electricity supply tariffs in this order as detailed in the Chapter 9 Tariff Principles, Design and Tariff Schedule. The Commission, accordingly, had computed the expected revenue from sale of power for FY 2024-25 considering the fixed charge per consumer and energy charge per unit as given below:

The additional revenue due to revision of tariff for FY 2024-25 as detailed below:

Particulars	NBPDCCL	SBPDCL	Total
Revenue with existing tariff	15832.48	18522.78	34355.26
Revenue with revised tariff	15476.99	18144.54	33621.54
Increase/(Decrease) in Revenue due to tariff revision (2-1)	(355.49)	(378.24)	(733.72)

Table 6.81: Revenue with revised tariff and approved revenue Gap/(Surplus) for FY 2024-25

(Rs. Crore)				
Sl. No.	Particulars	NBPDCCL	SBPDCL	Total
1	ARR for FY 2024-25	15180.16	17912.78	33092.94
2	Carried forward trued up revenue gap/(Surplus) of FY 2022-23 along with carrying cost	899.14	(1250.94)	(351.80)
3	sub-total (1+2)	16079.30	16661.84	32741.14
4	Revenue with revised tariff	15476.99	18144.54	33621.54
5	Net Gap / (Surplus) (3-4)	602.31	(1482.71)	(880.40)

6.29 Average Tariff as a percentage of Average Cost of Supply

The Commission has approved tariff for various consumer categories considering gradual reduction in cross subsidy in line with the requirement of Tariff Policy. The average tariff as a percentage of average cost of service approved in Tariff Order for FY 2023-24 and that approved for FY 2024-25 (present tariff order) is as shown in the Table below:

Table 6.82: Average billing rate as a percentage of average Cost of supply

Sl. No.	Category	FY 2023-24 (with existing tariff)			FY 2024-25 (revised tariff)		
		Average realisation (Rs./kWh) (ABR)	Average cost of supply (Rs./kWh)	% of cost of supply	Average realisation (Rs./kWh) (ABR)	Average cost of supply (Rs./kWh)	% of cost of supply
1	Kutir Jyoti	8.00	8.30	0.96	7.97	9.23	0.86
2	Domestic-I	8.03	8.30	0.97	8.35	9.23	0.90
3	Domestic-II	9.44	8.30	1.14	9.41	9.23	1.02
4	DS-III	10.34	8.30	1.25	10.67	9.23	1.16
5	NDS-I	8.83	8.30	1.06	8.87	9.23	0.96
6	NDS-II	12.36	8.30	1.49	12.19	9.23	1.32
7	SS (Metered)	9.69	8.30	1.17	9.40	9.23	1.02
8	SS (Unmetered)	23.91	8.30	2.88	7.94	9.23	0.86
9	IAS-I (Metered)	7.71	8.30	0.93	7.22	9.23	0.78
10	IAS-I (Unmetered)	16.97	8.30	2.04	8.50	9.23	0.92
11	IAS-II	11.91	8.30	1.43	9.49	9.23	1.03
12	PWW & Harghar nal	9.49	8.30	1.14	9.79	9.04	1.08
13	LTIS -I	15.41	8.30	1.86	15.60	9.04	1.73
14	LTIS -II	14.77	8.30	1.78	17.90	9.04	1.98
15	LT EVCS	9.86	8.30	1.19	9.69	9.04	1.07
16	HTS – I	13.06	8.30	1.57	12.34	9.04	1.37
17	HTS – II	12.55	8.30	1.51	11.65	9.04	1.29
18	HTS – III	11.53	8.30	1.39	11.65	9.04	1.29
19	HTS-IV	0.00	8.30	0.00	9.89	9.04	1.09
20	HTSS	8.16	8.30	0.98	9.89	9.04	1.09
21	HTIS (Oxygen manufacturers)	24.09	8.30	2.90	14.93	9.04	1.65
22	Railway	12.79	8.30	1.54	11.54	9.04	1.28
23	HT EV CS	9.77	8.30	1.18	8.72	9.04	0.97

* average cost of supply is combinedly for SBPDCL and NBPDCCL.

The Commission has noted that the average billing rate vis-a-vis average cost of supply in certain categories is higher than 120% limit. However, the Commission endeavors to reduce the cross subsidy and to bring the cross subsidy within the limit of +/- 20% of ACoS.

6.30 Average Tariff as a percentage of Voltage-wise Cost of Supply

The Commission has determined the voltage-wise cost of supply based on the limited data/information made available as detailed in Chapter-7. The average tariff as a percentage of voltage cost of supply approved in Tariff Order for FY 2023-24 and the average tariff as a percentage of voltage-wise cost of supply determined in Chapter-7 for FY 2024-25 of this tariff order is as shown in the Table below:

Table 6.83: Average billing rate as a percentage of voltage-wise Cost of Supply

Sl. No.	Category	FY 2023-24			FY 2024-25		
		(approved in Tariff Order dated 23.03.2023)			(approved by Commission)		
		Average billing rate (Rs./kWh)	Voltage wise cost of supply (Rs./kWh)	% of cost of supply	Average billing rate (Rs./kWh)	Voltage wise cost of supply (Rs./kWh)	% of cost of supply
A	Domestic	8.59	8.89	97%	8.47	9.30	91%
B	Non- Domestic	11.29	8.89	127%	11.01	9.30	118%
C	Irrigation and Agriculture	10.28	8.89	116%	7.44	9.30	80%
D	LTIS	15.22	8.89	171%	16.03	9.30	172%
E	Public services	10.17	8.89	114%	9.79	9.30	105%
F	HTS	11.64	8.10	144%	10.96	8.47	129%

* average Voltage-wise cost of supply is combinedly for SBPDCL and NBPDCCL.

7. Voltage-wise cost of supply

7.1. Introduction

The Commission has been computing the voltage-wise cost of supply keeping in view the guidelines indicated by the Hon'ble APTEL its order dated 10.05.2012 in Appeal No.14 of 2011, appeal no.26 of 2011 and appeal no.27 of 2011.

The Commission, in Regulation 36 (b) to (e) of BERC (Multi Year Distribution Tariff) Regulations, 2021 has defined the methodology for computation of voltage-wise cost of supply.

7.2. Methodology adopted for Computation of Voltage-wise cost of supply

Petitioners' submission:

The Petitioners have submitted that the Hon'ble APTEL has proposed a simple methodology to functionalize use of Cost of Supply model. The APTEL notes that identical consumers connected at different nodes of distribution system need not to be differentiated. In addition, it is adequate to determine voltage-wise cost of supply considering the major cost elements which would be applicable to all the categories of the consumers connected at the same voltage level at different locations in the distribution system.

In the method suggested by the Hon'ble APTEL, there are five major components to arrive at the voltage wise cost of supply. These elements are:

-)] **Technical losses at each voltage level of the network:** This value of the technical losses is found by the field studies. Sampling of the feeders which are representative of the consumers in the system will help in identifying the technical losses at each voltage levels. The APTEL recognizes the difficulty in collecting data for technical loss at 11 kV and LT level, hence the suggestion to compute losses using maximum possible representative feeders for various consumer categories at respective voltage levels.
-)] **Commercial losses at each voltage level of the network:** The commercial loss of the system is the difference between approved loss in the ARR and the total technical loss computed from system study. This difference is to be apportioned

according to the sales in each voltage level to arrive at the commercial loss at each voltage level.

- J) **Voltage wise sales:** The energy sale at a particular voltage level is the sum of energy sold for all the categories of consumers connected at the said voltage level. Due to its share of sales in total sales, the consumers of the 132/220 kV network will be apportioned a share of the commercial losses. The Hon'ble APTEL recognizes that in reality, there may be minimal technical losses at that level and very low probability of commercial losses. However, the APTEL is of the opinion that the consumers at 132/220 kV, being a part of the distribution system will bear these apportioned losses.
- J) **Power Purchase Cost:** The power purchase cost is the cost of energy purchased for sustaining the energy sales at each voltage level. This power purchase units for each voltage level is arrived by finding the energy input at each voltage level and adding the losses (technical and commercial) for the same voltage level and upstream. The energy input at each voltage level is the sum of the sales at the voltage level and the losses for the corresponding voltage level.
- J) **Network Cost:** The network costs are the costs like O&M, interest and finance charges, depreciation, return on equity etc. These costs are a part of the ARR which in turn provides the average cost of supply. Thus, the network cost is essentially the difference between the ARR value and the power purchase cost. The APTEL has suggested apportioning these costs according to the sales volume in each of the voltage level.

Further, the Petitioners have submitted that due to the methodology applied to apportion losses in the various voltage levels, all the consumer categories at a particular voltage level will have same cost of supply.

Commission's analysis:

Cost of supply is a study of total costs incurred by a utility in providing service to its consumers, category-wise and voltage level wise. Vital input to cost of supply study includes reliable, accurate and consistent information which is derived from special studies conducted in the field level, i.e., category-wise Load Factors, category-wise coincident Demand factors etc., based on which the cost related to

Demand (MW), Energy (MU) and customer charges have to be allocated to various consumer categories.

The Commission has stipulated the methodology to compute the consumer category wise cost of supply in Regulation 36 (b) to (e) of BERC (Multi Year Distribution Tariff) Regulations, 2021. The Petitioners have not computed the voltage wise cost of supply as per the methodology suggested in the above Regulations. However, the Petitioners have considered the methodology suggested by Hon'ble APTEL in the judgment dated 10.05.2012 in Appeal No.14 of 2011 of Bihar Industries Association and Appeal No.26 of 2011 and Appeal No.27 of 2011 of M/s. Kalyanpur Cements Limited for computation of Voltage wise Cost of Supply for FY 2024-25.

7.2.1 APTEL's guidelines on alignment of tariff to cost of supply

The Appellate Tribunal for Electricity (APTEL) in its Judgement dated 10.05.2012 in the Appeal No.14 of 2011 of Bihar Industries Association and Appeal No.27 of 2011 M/s. Kalyanpur Cements Limited has observed as below:

"We appreciate that the determination of cost of supply to different categories of consumers is a difficult exercise in view of non-availability of metering data and segregation of network costs. However, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost element to a great extent reflect the cost of supply. There is no need to make distinction between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system. Since the State Commission has expressed difficulties in determining voltage wise cost of supply, we would like to give necessary directions in this regard"

7.2.2 Methodology suggested by APTEL

The methodology given by the APTEL for determination of voltage-wise "Cost of Supply" and the inputs required are briefly given below:

- (i) The technical distribution system losses in the distribution network are to be assessed by carrying out system studies based on available load data for 33 kV and above voltages and in the case of 11 kV and 0.40 kV (LT), due to vastness of data, field studies to be carried out with representative feeders for the various consumer mix prevailing in the distribution system.*
- (ii) The total losses in the system, which include commercial or non-technical losses, will be more than the technical losses determined based on the system studies. Therefore, the difference between the total losses in the system and the technical losses determined by the studies may have to be apportioned to different voltage levels in proportion to annual gross energy consumption at the respective voltage level.*

The annual gross energy consumption of all consumers at a voltage level will be the sum of energy consumption of all consumer categories connected at that voltage plus the technical losses corresponding to that voltage level as worked out by the system studies.

- (iii) The power purchase cost which is the major component of tariff is to be segregated for different voltage levels taking into account the transmission and distribution losses, both technical and non-technical commercial for the relevant voltage level and upstream system.*
- (iv) The network costs such as O&M costs, interest on loans, depreciation, interest on working capital and return on equity are to be pooled and apportioned equitably on pro-rata basis to all voltage levels to determine the cost of supply”.*

7.2.3 Pre-requisite for arriving at the voltage wise Cost of Supply (CoS):

As per the APTEL Judgment, an assessment of the technical and commercial loss in the distribution system network is to be assessed by carrying out system studies based on the available load data for 33 kV and above and field studies for representative feeders for 11 kV and 0.4 kV of the various consumer mix prevailing in the distribution system as well as segregation of network costs is a pre-requisite for arriving at the voltage-wise cost of supply.

The Commission has thus computed the voltage wise cost of supply following the methodology suggested by the APTEL.

7.3. Determination of Voltage-wise technical losses

Petitioners' submission

The Petitioners have submitted that the Transmission and Distribution losses in a system comprises of two separate components – Technical Losses and Commercial Losses.

- (a) Technical losses occur naturally and consist mainly of power dissipation in electricity system components such as transmission and distribution lines, and transformers.
- (b) Commercial losses are caused by actions external to the power system and consist primarily of electricity theft, non-payment by customers, and errors in accounting and record-keeping. Since the rationale behind these two components is quite distinct, quantifying them separately is imperative for arriving at meaningful conclusions.

At each voltage level, the technical losses consist of two major components:

Transmission losses which refer to the losses in the current carrying wires; and Transformation losses which refer the losses incurred during the voltage transformation in the system. Aggregating the losses in these two elements at each voltage level would give the technical loss at that level. The losses which remain would be the commercial losses.

It is further submitted that the Petitioners have computed the voltage wise losses based on certain assumptions after observing the available sample feeder data available with the Discoms. SBPDCL has submitted that the voltage wise cost of supply has been computed keeping in view of distribution loss percentage approved by the Commission for FY 2023-24 and NBPDCCL has submitted that voltage wise cost of supply is computed considering the projected roadmap for reduction of AT&C loss submitted to Ministry of Power, Government of India for FY 2024-25, as shown in the Tables below.

Table 7.1: Voltage-wise Technical Losses Considered by SBPDCL for FY 2024-25

Sl. No	Voltage Level (kV)	Technical Loss (%)	Cumulative Loss (%)
1.	220/132	3.32%	3.32%
2.	33	3.59%	6.79%
3.	11	6.37%	12.73%
4.	0.4	7.54%	19.31%

Table 7.2: Voltage-wise Technical Losses Considered by NBPDC for FY 2024-25

Sl. No	Voltage Level (kV)	Technical Loss (%)	Cumulative Loss (%)
1.	220/132	3.32%	3.32%
2.	33	3.41%	6.62%
3.	11	4.23%	10.57%
4.	0.4	2.90%*	13.16%

* submitted vide letter no.987 dated 13.12.2023

Commission's analysis:

Fixation of Voltage-wise Technical Loss:

The voltage-wise technical losses indicated by the Petitioners were based on the limited field study / sample data only.

No detailed study has been made to estimate the technical losses based on the feeder wise load data, conductor size and length etc. APTEL in its guidelines has indicated that the T&D loss as approved by the Commission in its Tariff Order has to be considered while computing the voltage-wise cost of supply. Due to lack of data for segregation of technical and commercial losses, the Commission could not separately fix the technical and commercial loss level within the total distribution loss approved for FY 2024-25. It is considered appropriate to assume technical and commercial loss levels for realistic assessment of Cost of Supply within overall T&D loss level, i.e. Transmission Loss of 3.00% as approved for BSPTCL and Distribution Loss of NBPDC is at 14.55% and SBPDCL is at 17.49%. The Commission has been determining the uniform tariff for the same category of consumers across the State. As such, the consolidated/combined distribution loss of Discoms is computed as given below for FY 2024-25.

Sl. No	Particulars	Unit	NBPDC	SBPDCL	Total for Discoms
1	Energy sales	MU	16935.05	19679.08	36614.13
2	Less: Inter-state sales	MU	314.22	--	314.22
3	Energy sales excl. Inter-state sales (1-2)	MU	16620.83	19679.08	36299.91

Sl. No	Particulars	Unit	NBPDCCL	SBPDCL	Total for Discoms
4	Distribution Loss	%	14.55%	17.49%	16.17%
5	Add: Distribution Loss	MU	2830.11	4171.46	7001.57
6	Total energy required at Distribution periphery	MU	19450.95	23850.53	43301.48

The Commission considering the combined/consolidated distribution loss of 16.17% has calculated the voltage-wise technical loss for FY 2024-25 for computing voltage wise cost of supply:

Table 7.3: Voltage-wise Technical Losses Considered for SBPDCL & NBPDCCL for FY 2024-25

Sl. No	Voltage Level (kV)	Technical Loss (%)	Cumulative Loss (%)
1.	State Transmission Losses 220/132	3.00%	3.00%
2.	33 KV	4.00%	6.88%
3.	11 KV	5.00%	11.54%
4.	0.4 KV	7.17%	17.88%

7.4. Computation of Voltage-wise Cost of Supply

Petitioners' submission:

The Petitioners have submitted that the voltage wise sales have been arrived considering the projected energy sales for FY 2024-25, across various categories at the respective voltages as mentioned in the Table below:

Table 7.4: Classification of Categories based on Voltage of power supply

Sl. No	Voltage Level (kV)	Sales Categories (%)
1.	220/132	HTS-III, Railways, Nepal
2.	33 kV	HTS-II, HTSS
3.	11 kV	HTS-I, HT EV, HT (Oxygen manufacturers)
4.	0.4 kV	Domestic, Non-Domestic, Agriculture and

NBPDCCL and SBPDCL have computed the voltage wise cost of supply for FY 2024-25 considering the energy sales projected by them and the T&D losses assumed at various voltages. Further, the projected costs, i.e., power purchase costs and network costs have been apportioned to each of the voltage categories of energy sale and based on the same the voltage wise cost of supply is computed.

The voltage wise cost of supply computed for FY 2024-25 are as given in the Tables below:

Table 7.5: Cost of Supply at different Voltage Levels projected by SBPDCL for FY 2024-25

Sl. No	Voltage Level (kV)	Cost of power purchase (Rs./kWh)	Network cost (Rs./kWh)	Cost of supply (Rs./kWh)
1.	220/132	6.42	1.75	8.17
2.	33 kV	6.65	1.81	8.47
3.	11 kV	7.09	1.93	9.02
4.	0.4 kV	7.65	2.09	9.74

Table 7.6: Cost of Supply at different Voltage Levels projected by NBPDC for FY 2024-25

Sl. No	Voltage Level (kV)	Cost of power purchase	Network cost (Rs./kWh)	Cost of supply (Rs./kWh)
1.	220/132	6.51	2.23	8.73
2.	33 kV	6.73	2.30	9.03
3.	11 kV	7.01	2.40	9.41
4.	0.4 kV	7.21	2.47	9.68

Commission's analysis

The Commission has computed the voltage wise cost of supply based on the energy sales and T&D losses approved for FY 2024-25 combinedly for both the Discoms, as the common tariff rates have been approved for both Discoms for FY 2024-25.

7.4.1 Energy Sales approved for FY 2024-25

The Commission has considered the approved energy sales for FY 2024-25 for Discoms and segregated as per voltage-wise as given in the Table below:

Table 7.7: Voltage wise Energy Sales (MUs) approved for FY 2024-25

Sl. No	Voltage and Category	Sales approved for NBPDC (MU)	Sales approved for SBPDCL (MU)	Total (MUs)
A	220/132			
	HT Industry (HTS-III) and RTS	364.98	569.85	934.83
	Nepal	314.22		314.22
	Sub – Total	679.20	569.85	1249.05
B	33 kV			
	HTS-II	335.60	934.10	1269.71
	HTSS	43.97	915.05	959.02
	Sub – Total	379.58	1849.15	2228.73
C	11 kV			
	HTS-I	672.02	1206.89	1878.92
	HT EV	184.25	0.34	184.59
	HTIS (Oxygen Manufacturers)	0.42	10.79	11.21
	Sub – Total	856.69	1218.02	2074.71
D	0.4 kV			

Sl. No	Voltage and Category	Sales approved for NBPDCCL (MU)	Sales approved for SBPDCL (MU)	Total (MUs)
	Domestic, Non- Domestic, Agriculture and Others	15019.58	16042.05	31061.64
	Total (A+B+C+D)	16935.05	19679.08	36614.13

7.4.2 Voltage-wise Technical Loss considered for FY 2024-25:

As per guidelines enumerated in APTEL Judgement dated 10.02.2012, Distribution system technical losses have to be assessed by carrying out system studies based on available data. Since the DISCOMs have not provided such data, the Commission has assumed the technical losses at various voltage levels based on approved losses as shown in the Table above.

As stated in Para 33 of APTEL Judgement dated 10.05.2012, the voltage-wise commercial losses are to be arrived at by segregating the total commercial losses in proportion to grossed up sales (Actual consumption + technical loss) voltage-wise.

In Para 34 of APTEL Judgement it is reiterated that the power purchase cost is to be segregated for different voltage levels taking into account the transmission and distribution losses, both commercial and technical, for relevant voltage level and upstream system. Thus, the losses (technical) at 33 kV shall be the losses at that voltage and also at upstream 132 kV voltages, the losses (technical) at 11 kV shall be the losses at that voltage and also of upstream 33 kV voltage and 132 kV voltage level and similarly for LT voltage.

The technical Losses have been arrived on the basis of the formulae given in the following table:

Table 7.8: Formulae for arriving at the technical losses at various voltage levels

Voltage Level (kV)	Sales (MU)	Volt. Wise Tech. Loss (%)	Energy Input (MU)	Tech. Losses (MU)
1	2	3	4	5
220/132	A	W	$=A/(1-w\%)$	$=(4)-(2)$
33 kV	B	X	$=B/(1-x\%)(1-w\%)$	$=(4)-(2)$
11 kV	C	Y	$=C/(1-y\%)(1-x\%)(1-w\%)$	$=(4)-(2)$
0.4 kV	D	Z	$=D/(1-z\%)(1-y\%)(1-x\%)(1-w\%)$	$=(4)-(2)$
Total	(A+B+C+D)			

The technical losses and commercial Losses are computed as given in the Tables below:

Table 7.9: Computation of Technical losses at various voltage levels

Sl. No	Voltage Level (kV)	Voltage-wise Technical loss (%)	Cumulative loss (%)	Energy sale (MU)	Energy input (MU)	Technical loss (MU)
1	2	3	4	5	6	7= (6-5)
1	220/132	3.00%	3.00%	1249.05	1287.68	38.63
2	33 kV	4.00%	6.88%	2228.73	2393.39	164.67
3	11 kV	5.00%	11.54%	2074.71	2345.26	270.55
4	0.4 kV	7.17%	17.88%	31061.64	37824.17	6762.53
	Total			36614.13	43850.51	7236.38

Table 7.10: Computation of Commercial losses at various voltage levels

Sl. No	Voltage Level (kV)	Energy sale (MU)	Technical loss (MU)	Sales + Tech. Loss (MU) (3+4)	Commercial loss (MU)	Energy sales + tech + Commercial loss (MU)
1	2	3	4	5	6	7= (5+6)
1	220/132	1249.05	38.63	1287.68	4.19	1291.87
2	33 kV	2228.728	164.67	2393.39	7.80	2401.19
3	11 kV	2074.714	270.55	2345.26	7.64	2352.90
4	0.4 kV	31061.64	6762.53	37824.17	123.19	37947.36
	Total	36614.13	7236.379	43850.51	142.82	43993.33

Note: 1. Commercial losses are obtained by reducing the sales + technical losses from the energy input at state periphery (43993.33-43850.51=142.82). The commercial losses so arrived are allocated in proportion to the sales and the technical losses to each voltage level.

Energy required at state transmission periphery is at 43993.33 MU as worked out in table above.

7.4.3 Allocation of Power Purchase Cost for FY 2024-25

The power purchase cost (excluding PGCIL (CTU) Losses) has been allocated for different voltage levels taking into account the State Transmission loss and Distribution loss, (both commercial and technical) for the relevant voltage level and upstream as per the methodology indicated in APTEL Judgement.

Out of the total power purchase of 46422.32 MU approved for both the Discoms, the CTU loss works out to 1457.66 MU as shown in the Energy Balance Table 6.20 for FY 2024-25.

The Commission, after deducting the regional transmission losses from the total power purchase computed the average power purchase cost per unit as detailed below:

Table 7.11: Average Power Purchase Cost

Sl. No	Particulars	NBPDCCL	SBPDCL	Total
1	Gross Power Purchase (MU)	21354.27	25068.05	46422.32
2	CTU (PGCIL) Loss (MU)	599.86	719.73	1319.59
3	Net Power availability at transmission periphery (MU) (1-2)	20754.41	24348.32	45102.73
4	Total Power Purchase Cost (Rs. Crore) (including PGCIL Charges)	11901.61	14226.48	26128.09
5	Average Power Purchase Rate (Rs /kWh) (4/3*10)	5.73	5.84	5.79

Table 7.12: Allocation of power purchase cost

Sl No.	Voltage Level (kV)	Energy Sale (MU)	Energy Sales+ Technical loss + Commercial loss (MU)	Voltage-wise Power Purchase Cost (Rs. Crore)	Cost of Power per unit sale of Energy (Rs./kWh)
1	2	3	4	5	6 = (5÷3)
1	220/132	1249.05	1291.87	748.39	5.99
2	33 kV	2228.73	2401.19	1391.01	6.24
3	11 kV	2074.71	2352.90	1363.04	6.57
4	0.4 kV	31061.64	37947.36	21982.97	7.08
	Total	36614.13	43993.33	25485.41	6.96

7.4.4 Allocation of Network Cost for FY 2024-25

The APTEL, in its Judgement dated 10.05.2012 has indicated the method for allocation of network costs at different voltage levels as under:

“Network costs such as Return on Equity, interest on loan, interest on working capital and O&M costs can be pooled and apportioned equitably, on pro- rata basis to all the voltage levels to determine the cost of supply”.

The network costs approved by the Commission for FY 2024-25 are as given in table below:

Table 7.13: Network cost approved for FY 2024-25**(Rs. Crore)**

Sl. No	Particulars	NBPDCCL	SBPDCL	Total
1	Employee expenses	527.33	763.62	1290.95
2	R&M expenses	279.09	287.91	567.00
3	A&G expenses	477.12	290.90	768.01
4	Holding company expenses	25.76	26.77	52.54
5	Depreciation	489.88	425.05	914.94

Sl. No	Particulars	NBPDC	SBPDCL	Total
6	Interest on loan	696.12	517.80	1213.92
7	Other finance charges	61.35	124.84	186.18
8	Return on equity	453.97	407.99	861.96
9	Interest on SD	31.87	58.24	90.11
10	DSM expenses	30.00	30.00	60.00
11	Interest on working capital	0.00	0.00	0.00
12	Total (1 to 11)	3072.48	2933.13	6005.61
13	BSPTCL Transmission cost	791.59	929.25	1720.84
14	SLDC Charges	9.56	11.22	20.78
15	BGCL Transmission Cost	187.99	220.69	408.68
16	Total cost (12 to 15)	4061.62	4094.29	8155.91
17	Energy Sales (MU)	16935.05	19679.08	36614.13
18	Net Work Cost per unit sale of energy	2.40	2.08	2.23

7.4.5 Cost of supply at different voltage levels

Based on the power purchase cost and network cost as above, the cost of supply at different voltage levels is arrived at as table below:

Table 7.14: Cost of supply at different voltage levels approved for FY 2024-25 for both Discoms combinedly

Sl. No	Supply voltage	Cost of Power Purchase (Rs./unit)	Network cost (Rs./unit)	Cost of supply (Rs./unit)
1	2	3	4	5=(3+4)
1	220/132	5.99	2.23	8.22
2	33 kV	6.24	2.23	8.47
3	11 kV	6.57	2.23	8.80
4	0.4 kV	7.08	2.23	9.31
	Total	6.96	2.23	9.19

7.5. Detailed Study to assess voltage Wise Technical Losses

The Commission is of the view that in the absence of actual data of voltage-wise technical losses as well as voltage-wise network costs, the voltage-wise cost of supply worked out based on above methodology as per the orders of the APTEL dated 10.05.2012, will not be a true reflection of actual voltage-wise cost of supply. There is a need to work out the voltage-wise cost of supply in a more scientific manner, considering the actual data of voltage-wise technical loss levels derived from field studies and in accordance with the methodology suggested by the Commission in the BEREC (Multi Year Distribution Tariff) Regulations, 2021.

The Commission reiterates its earlier directive to the DISCOMs to undertake a detailed study to estimate the technical loss levels at each voltage level and compute the voltage-wise cost of supply and include the same in next tariff petition for FY 2025-26, keeping in view the methodology suggested in BERC (Multi Year Distribution Tariff) Regulations, 2021.

8. Wheeling Charges and Open Access Charges

8.1 Introduction

The Commission has determined the wheeling and open access charges for both the Discoms combinedly for FY 2024-25 in accordance with the BERC (Terms and Conditions of Intra-State Open Access) Regulations 2018, since the Retail Tariffs of any category of consumers is common/uniform to all the consumers of that category across the State of Bihar.

8.2 Wheeling Charges

Petitioners' submission:

Discoms have submitted that till date complete segregation of accounts between Wheeling and Retail Supply function has not yet taken place. Thus, ARR proposals for Wheeling and Retail Supply function is submitted based on allocation statement in line with the approach followed by the Commission in its previous Tariff Orders. It is stated that they have considered the following allocation for calculating/segregating its wire and retail supply business and the total costs (net ARR) of both the Discoms are segregated into wire business and retail supply business.

Table 8.1: Segregation of wires and Retail Supply Costs Projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Total Cost	Assumption		33kV		11kV	
			Wire Business	Retail Supply	Wire business	Retail supply business	Wire business	Retail supply business
1	Power purchase cost	28,087.62	0%	100%	-	28,087.62	-	28,087.62
	Less: 1% Rebate	3,323.68			-	-	-	-
2	PGCIL & other transmission charges	2,778.95	0%	100%	-	2,778.95	-	2,778.95
3	State Transmission charges	1,689.68	0%	100%	-	1,689.68	-	1,689.68
4	O&M Expenses	2,969.52			-	-	-	-
i)	Employee Cost	1,291.02	60%	40%	774.61	516.41	774.61	516.41
ii)	R&M expenses	588.66	90%	10%	529.79	58.87	529.79	58.87
iii)	A&G expenses	1,032.62	50%	50%	516.31	516.31	516.31	516.31
5	Share of Holding Company expenses	57.22	60%	40%	34.33	22.89	34.33	22.89
6	Depreciation	976.86	90%	10%	879.17	97.69	879.17	97.69
7	Interest and Finance charges	1,347.65	90%	10%	1,212.89	134.77	1,212.89	134.77
8	Interest on working capital	128.64	10%	90%	12.86	115.78	12.86	115.78
9	Return on equity	996.74	90%	10%	897.06	99.67	897.06	99.67

Sl. No.	Particulars	Total Cost	Assumption		33kV		11kV	
			Wire Business	Retail Supply	Wire business	Retail supply business	Wire business	Retail supply business
10	Income Tax	-	0%	100%	-	-	-	-
11	Interest on security deposit	90.10	0	100%	-	90.10	-	90.10
12	Bad debts (if any)	-	0%	100%	-	-	-	-
13	Contingency reserves (if any)	43.56	0%	100%	-	43.56	-	43.56
	Deposit for RPO Obligation	60.00			-	-	-	-
14	Total Revenue Requirement	35,845.64			4,857.03	34,252.29	4,857.03	34,252.29
15	Less: Non-tariff income	983.15	10%	90%	98.32	884.84	98.32	884.84
16	Aggregate Revenue Requirement	34,862.49			4,758.72	33,367.45	4,758.72	33,367.45

It is further submitted that the wheeling charges have been computed on the basis of projected costs of their distribution wire business and the total energy expected to be wheeled through their distribution network. The average per unit wheeling charge for 33 KV level is calculated as shown in the Table below:

Table 8.2: Wheeling charges for 33 kV voltage level proposed for FY 2024-25

Sl. No	Particulars	Unit	FY 2024-25
1	Energy Input into 33 kV System	MUs	43301.48
2	Total Distribution Cost	Rs Crores	9517.44
3	Distribution cost for 33 kV voltage levels (assuming 50% of item 2)	Rs Crores	4758.72
4	Wheeling charges for 33 kV voltage level (item 3÷1)	Rs/kWh	1.10

The wheeling charges calculated by the Petitioners for 11 kV level is as shown in the Table as below:

Table 8.3: Wheeling charges for 11 kV voltage level proposed for FY 2024-25

Sl. No	Particulars	Unit	FY 2024-25
1	Energy Input into 33 kV System	MUs	43301.48
2	Energy sales in 33 kV system as approved by the Commission		1849.15
3	Losses in 33 kV (5%)	%	97.32
4	Energy input into 11 kV system [1-(2+3)]	MU	41355.01
5	Total Distribution Cost	Rs Crores	9517.44
6	Distribution cost for 11 kV voltage levels (assuming 50% of item 5)	Rs Crores	4758.72
7	Wheeling charges for 11 kV voltage level (item 6÷4)	Rs/kWh	1.15

Commission's analysis:

Discoms have submitted the segregation matrix of wires and Retail Supply Costs for

33kV and 11kV FY 2024-25 as shown in Table 8.1 above. Discoms have segregated the fixed costs components into wire business and Retail Supply business as per assumed ratios but wrongly depicted the same figures as 33 kV and 11 kV. The segregated cost pertains to both 33 kV and 11 kV combinedly Further, in Tables 8.2 and 8.3 above, the distribution costs are wrongly shown as Rs.9517.44 Crore instead of Rs.4758.72 Crore arrived in Table 8.1.

The ARR for FY 2024-25 for both the Distribution licensees approved is Rs.33092.94 crore (Rs.15180.16 crore for NBPDC and Rs.17912.78 Crore for SBPDCL).

Regulation 33 of BERC (Multi Year Distribution Tariff) Regulations 2021 specify that “*provided that in case complete accounting segregation has not been done between the Wheeling Business and Retail Supply Business of the Distribution Licensee, the Commission shall stipulate the ratio of allocation of the Aggregate Revenue Requirement of the Distribution Licensee based on data obtained from the Distribution Licensees. The following broad principles shall be followed for allocation of costs towards wheeling business and supply business, out of the total annual Aggregate Revenue Requirements determined:*

Power purchase cost shall be allocated to the Retail Supply business. Operation and Maintenance expenses shall be segregated between wheeling and retail supply businesses in such manner as may be determined by the Commission; Majority of the capital expenditure related expenses, viz., depreciation, interest and return on equity, shall be included under the wheeling business. The Retail Supply Business would require only a small component of the capital expenditure towards billing and collection activity”.

In view of the regulation, the Commission has considered the allocation matrix approved in previous Tariff Order dated 23.03.2023 and segregated the cost components of ARR into Wire and Retail Supply Businesses as shown in Table below:

Table 8.4: Segregation of cost components into wire and retail supply businesses approved for FY 2024-25

Sl. No.	Particular	Allocation Matrix		Total Cost (NB+SB)	Segregation of Expense	
		Wire Business	Retail Supply		Wire Business	Retail Supply
1	Power purchase cost (including Transmission)	0%	100%	28278.39	0.00	28278.39

Sl. No.	Particular	Allocation Matrix		Total Cost (NB+SB)	Segregation of Expense	
		Wire Business	Retail Supply		Wire Business	Retail Supply
	Charges and SLDC Charges)					
2	Employee Cost	60%	40%	1290.95	774.57	516.38
3	R&M expenses	90%	10%	567.00	510.30	56.70
4	A&G expenses	50%	50%	768.01	384.01	384.01
5	Holding Company expenses	60%	40%	52.54	31.52	21.01
6	Depreciation	90%	10%	914.94	823.44	91.49
7	Interest on loan	90%	10%	1213.92	1092.53	121.39
8	Other Finance charges	10%	90%	186.18	18.62	167.56
9	Interest on working capital	10%	90%	0.00	0.00	0.00
10	Return on equity	90%	10%	861.96	775.76	86.20
11	Interest on security deposit	0%	100%	90.11	0.00	90.11
12	DSM expenses		100%	60.00	0.00	60.00
13	Less: Non-tariff income	10%	90%	-1191.06	-119.11	-1071.96
14	Aggregate Revenue Requirement			33092.94	4291.65	28801.29

In accordance with Ministry of Power Notification dated 10.01.2024 for Amendment of Electricity Rules 2005, the wheeling charges shall be computed as per the following formula

$$\text{Wheeling Charges} = \frac{\text{Annual Revenue Requirement towards wheeling}}{\text{Energy wheeled during the year}}$$

The wheeling charges have been computed on the basis of total approved annual costs for distribution wire business and the total energy expected to be wheeled during the year through their distribution network. In the absence of segregated data on costs of operation of 33kV and 11kV network, it has been assumed that the two costs are equal. This methodology is being adopted as approved by the Commission in previous tariff Orders.

The wheeling charges worked out for 33 kV voltage level are as given in the table below:

Table 8.5: Wheeling charges for 33 kV voltage level approved for FY 2024-25

Sl. No	Particulars	Unit	FY 2024-25
1	Energy Input into 33 kV System	MUs	42093.36
2	Total Distribution Cost	Rs Crores	4291.65
3	Distribution cost for 33 kV voltage levels (assuming 50% of item 2)	Rs Crores	2145.82
4	Wheeling charges for 33 kV voltage level (item 3÷1)	Paisa/kWh	50.98 say 51

The wheeling charges worked out for 11 kV voltage level are as given in Table below:

Table 8.6: Wheeling charges for 11 kV voltage level approved for FY 2024-25

Sl. No	Particulars	Unit	FY 2024-25
1	Energy Input into 33 kV System	MUs	42093.36
2	Losses in 33 kV (4%)	MU	1683.73
3	Energy sales in 33 kV system as approved by the Commission	MU	2228.72
4	Energy input into 11 kV system [1-2-3]	MU	38180.91
5	Total Distribution Cost	Rs Crores	4291.65
6	Distribution cost for 11 kV voltage levels (assuming 50% of item 2)	Rs Crores	2145.82
7	Wheeling charges for 11 kV voltage level (item 6÷4)	Paisa/kWh	56.20 say 56

The Commission approves wheeling charges at 51 paisa/kWh for 33 kV voltage level and at 56 paisa/kWh for 11 kV voltage level for the FY 2024-25.

8.3 Open Access Charges

Open Access is one of the Key features of the Electricity Act 2003. Open Access charges must be reasonable to facilitate the consumer like Commercial establishments and industries in getting electricity through open access at competitive and reasonable rates.

The Commission opines that the HT consumers should be provided a facilitative open access framework for procurement of power from sources other than that available within the State, if they so desire.

The Commission, pursuant to Section 39, 40 and 42 and all other enabling provisions of the Electricity Act 2003, has notified regulations namely BERC (Terms and Conditions of Intra-State Open Access) Regulations 2018. The consumer who seeks open access in accordance with the regulations will have to pay transmission charges, wheeling charges, cross subsidy surcharge, additional surcharge, reactive energy

charges, standby charge and SLDC charges. The applicability of these charges to any open access consumer shall be as provided in the regulations for open access.

The Ministry of Power, Government of India vide G.S.R. 418 (E) dated 06.06.2022 has notified the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 read with the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Amendment Rules 2023. The Rule 9 (read with the amendment) of the said rules has specified the Charges to be levied for Open Access. The Commission directs the petitioner Discoms to levy and collect open access charges from the open access consumers in accordance with the BERC (Terms and Conditions of Intra state Open Access) Regulations, 2018 and applicable Rules.

8.4 Transmission Charges

The Commission has approved Rs.2129.52 Crore (Rs.1720.84 Crore for BSPTCL excluding SLDC and Rs.408.68 Crore for BGCL) towards transmission charges for FY 2024-25 in respective Tariff Order dated 1st March 2024.

a).Transmission Charges for Long/Medium Term Open Access

Monthly transmission charges leviable for Long/Medium Term open access customer as per BERC (Terms and conditions of intra state open access) Regulations 2018 shall be computed as per the following formula:

Monthly Transmission charges=ATC/SAC x 12 Where,

ATC = Annual Transmission Charges determined by the Commission for the State Transmission Systems in Rs. Crore

SAC = Sum of Contracted Capacities of Power to the State in MW

Regulation 19 (2) (a) of BERC (Terms and conditions of intra state open access) Regulations 2018 specify that open access customer using transmission system shall pay transmission charges on the basis of contracted capacity.

The sum of the contracted capacities of power from various stations /sources to the State is 11721.42 MW (SBPDCL – 6329.56 MW and NBPDCCL – 5391.86 MW). Accordingly, the Commission has considered the same for determination of transmission charges applicable to Long/Medium term Open Access consumers as below:

Table 8.7: Monthly Transmission Charges applicable to Long/Medium term Open Access consumers as approved for FY 2024-25

SI No	Particulars	Unit	FY 2024-25
1	Sum of contracted capacities of the State (SAC)	MW	11721.42
2	Annual Transmission charges of BSPTCL	Rs Crore	1720.84
3	Annual Transmission charges of BGCL	Rs Crore	408.68
4	Total Transmission charges (2+3) (ATC)	Rs Crore	2129.52
5	Monthly Transmission Charges applicable to Long / Medium term Open Access consumers (ATC/SAC*12)	Rs/MW/Month	151398

Thus, the Transmission Charges shall be Rs.151398/MW/Month for long/medium term open access consumers. In addition to above transmission charges, transmission losses of 3.00% shall be reduced in kind from the energy input into the state transmission system.

b). Transmission Charges for Short Term Open Access

According to the BERC (Terms and Conditions of Intra-State Open Access) Regulations 2018, the transmission charges payable for short term open access customers are determined in terms of Rs/MWh and the formula specified for computing this charge is provided as follows:

Transmission charges payable by Short Term open access customer shall be computed as per the following formula:

Transmission charges = ATC/(PLST x 8760) (in Rs./MWh) Where,

ATC = Annual Transmission charges determined by the Commission for the State Transmission system for the year in Rs. Crore.

PLST = Peak load projected to be served by the State Transmission system

BSPTCL in its tariff petition for FY 2024-25 submitted that the projected maximum peak load for FY 2024-25 is 8157 MW which is considered for computation of transmission charges. Maximum load of NBPDCCL and SBPDCL is considered at 8057 MW and maximum load of Railways is considered at 100 MW based on contracted capacity.

Therefore, the Commission considers the peak load at 8157 MW for FY 2024-25 for computation of short-term open access charges as below:

Table 8.8: Transmission Charges applicable to short term Open Access consumers as approved for FY 2024-25

SI No	Particulars	Unit	FY 2024-25
1	Peak Load to be served by the State Transmission System (PLST)	MW	8157.00
2	Annual Transmission charges of BSPTCL	Rs Crore	1720.84
3	Annual Transmission charges of BGCL	Rs Crore	408.68
4	Total Transmission charges (2+3) (ATC)	Rs Crore	2129.52
5	Transmission Charges applicable to short term Open Access consumers (ATC/ PLST *8760)	Rs/MWh	298.02

The Ministry of Power, GoI has notified the Electricity (Amendment) Rules 2024 dated 10.01.2024 specify that the charges for using State Transmission Utility Network by the consumers availing short term open access or Temporary General Network Access, as the case may be, shall not be more than one hundred ten percent (110%) of the charges levied on consumers using State Transmission Utility Network on Long-term basis or on General Network Access basis, as the case may be.

The Transmission Charges for long / medium term open access consumers in Rs/MWh works out to Rs. 207.39 $(2129.52/(11721.42 \times 8760))$. (11721.42 is Sum of contracted capacities of the State (SAC) and 2129.52 is BSPTCL and BGCL charges)

The Commission in view of the amended rules has determined the Transmission charges for Short Term Open Access at Rs.228.13/MWh $(207.39 \times 110\%)$ payable on the basis of the energy actually scheduled for short term transactions.

The Transmission charges for Short Term Open Access shall be Rs.228/MWh payable on the basis of the energy actually scheduled for short term transactions.

8.5 Transmission and Wheeling Charges for Open Access Customers.

The Open access charges shall be paid as per the table given below if the injection and drawl points of the open access customer are at different voltage levels:

Table 8.9: Transmission Charges applicable to open access customer are at different voltage levels for FY 2024-25

Drawl/ Injection	Transmission (220/132 kV)	33kV	11kV
Transmission (220/132 kV)	Transmission Charges plus transmission losses 3.00% shall be	Transmission charges plus wheeling charges of 33 kV shall be payable. Losses of both transmission and 33 kV	Transmission Charges plus wheeling charges of 33 and 11 kV network shall be payable. The losses of

Drawl/ Injection	Transmission (220/132 kV)	33kV	11kV
	payable	network shall be payable (Cumulative loss @ 6.88%)	transmission, 33 and 11 kV network shall be payable (Cumulative loss @11.54%)
33kV	Transmission charges plus wheeling charges of 33 kV shall be payable. Losses of both transmission and 33 kV network shall be payable (Cumulative loss @ 6.88%)	Wheeling charges of 33 kV plus losses of 33 kV network (Loss @ 4.0%) shall be payable.	Wheeling Charges of 33 and 11 kV network shall be payable. Losses for 33 and 11 kV shall also be payable (Cumulative loss @8.80%)
11kV	Transmission Charges plus wheeling charges of 33 and 11 kV network shall be payable. The losses of transmission, 33 and 11 kV network shall be payable (Cumulative loss @11.54%)	Wheeling Charges of 33 and 11 kV network shall be payable. Losses for 33 and 11 kV shall also be payable (Cumulative loss @8.80%)	Wheeling Charges of 11 kV plus losses of 11 kV network (Loss @ 5.00%) shall be payable

8.6 SLDC Charges

Open access consumer shall pay all charges payable to the State Load Despatch Centre (SLDC), as determined by the Commission under section 32 of the Act and as per the Regulation 19 (1) of BERC (Terms and Conditions for Open Access) Regulations, 2018. The Annual SLDC Operating charges for FY 2024-25 are determined as Rs.20.78 Crore in the SLDC Tariff Order dated 1st March 2024. Considering the energy delivered into transmission system as 43395.22 MUs, the SLDC charges works out to 0.48 Paise/kWh.

8.7 Cross Subsidy Charges Petitioners' submission

The open access consumers are liable to pay cross subsidy surcharge to compensate the distribution utility for any loss of revenue due to shifting of its consumer to the open access system. The cross-subsidy surcharge for open access consumers for the 3rd Control Period is calculated as per the following recommended formula in the BERC (MYT Distribution Tariff Regulations), 2018.

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

Where

S is the surcharge

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

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

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

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

R is the per unit cost of carrying regulatory assets.”

The Petitioners have stated that the revised Tariff Policy suggest that the cross subsidy shall not increase 20% of applicable tariff to the category of consumers seeking Open Access. The cross-subsidy surcharge for FY 2024-25 computed by Discoms is as shown below:

Table 8.10: Cross-subsidy Charges (Rs.) proposed by NBPDCCL for FY 2024-25

Voltage Level	Tariff	APPC	Intra-state Transmission Loss	Transmission Charge	33 kV	11 kV		20% of applicable tariff	CSS
132 kV	10.44	5.98	3.00%	0.38	0	0	3.90	2.09	2.09
33 kV	11.05	5.98	3.00%	0.38	0.01	0	4.50	2.21	2.21
11 kV	11.05	5.98	3.00%	0.38	0.01	0.01	4.49	2.21	2.21
HTSS	10.44	5.98	3.00%	0.38	0.01	0	3.89	2.09	2.09

Table 8.11: Cross-subsidy Charges (Rs.) proposed by SBPDCL for FY 2024-25

S. No	Voltage Level	Proposed Tariff	Wt. avg. Cost of PP	Intra-state Transmission Loss	State Transmission Charge	33 kV	11 kV	Value	20% of applicable tariff	CSS
1	132 kV	10.80	5.07	3.00%	0.44	0	0	5.13	2.16	2.16
2	33 kV	11.28	5.07	3.00%	0.44	0.01	0	5.59	2.26	2.26
3	11 kV	12.23	5.07	3.00%	0.44	0.01	0.01	6.53	2.45	2.45
4	HTSS (33 kV)	12.77	5.07	3.00%	0.44	0.01	0	7.09	2.55	2.55

Commission's analysis:

The cross-subsidy surcharge as per the formula specified in revised Tariff Policy issued on 28.01.2016 is worked out as follows. Weighted average cost of power purchase for both Discoms is determined as shown in Table below:

Table 8.12: Weighted average cost of power purchase for both Discoms for FY 2024-25

Sl. No	Particulars	Unit	FY 2024-25
1	Gross Power Purchase of both DISCOMs	MU	43974.67
2	Less: PGCIL Losses	MU	1457.66
3	Net Power Purchase	MU	42517.01
4	Power Purchase Cost including PGCIL charges	Rs. Crore	26128.09
5	Average Power Purchase rate(4÷3)	Rs./ kWh	6.15

Cross Subsidy surcharge is Computed by the Commission as per following formula:

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

Where,

S is the Surcharge

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

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

D is the Aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level.

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

R is the Per unit cost of carrying regulatory asset.

The Ministry of Power GoI vide Letter No. F.No-42-12/3/2022-RCM dated 06th June, 2023 has stated that according to Rule 13 of the Electricity (Amendment) Rules, 2022, the surcharge determined by State Commission shall not exceed 20% of the Average Cost of Supply.

The Commission based on the approved ARR has arrived at the Average Cost of Supply at Rs. 9.04/kWh.

The Commission in accordance with the provisions of Electricity (Amendment) Rules, 2022, has computed the cross subsidy sur-charge for open access consumers as shown in the Table below:

Table 8.13: Workout of Cross-subsidy Charges at different voltage for FY 2024-25

Description	UoM	220/132kV	33kV	11kV	HTSS
ABR (Rs./ kWh)	A	10.61	11.65	12.03	7.22
APPC (Rs./kWh)	B	6.15	6.15	6.15	6.15
Losses (%)	C	3.00%	6.88%	11.54%	6.88%
Transmission charges (Rs./kWh)	D	0.48	0.51	0.56	0.51
CSS (Rs./kWh)	$E = A(B / (1 - C)) + D$	3.80	4.54	4.52	0.11
20% of Tariff (Rs./kWh)	$F = 20\% \text{ of } A$	2.12	2.33	2.41	1.44

Description	UoM	220/132kV	33kV	11kV	HTSS
Average Cost of Supply (ACoS) (Rs./kWh)	G	9.04	9.04	9.04	9.04
20% ACoS)	H=20% of G	1.81	1.81	1.81	1.81
Cross Subsidy Surcharge approved (Rs./kWh)	I=Min of F or H	1.81	1.81	1.81	1.44

The revised Tariff Policy suggest that the cross subsidy shall not increase 20% of applicable tariff to the category of consumers seeking Open Access. The cross-subsidy surcharge for 132 kV, 33 kV, 11 kV and HTSS category of the consumers are approved by the Commission at 20% of applicable tariff of the respective category of consumers seeking Open Access.

To encourage the competition among Distribution Company, the Commission would like HT consumers to seek power purchase options from sources outside the State also. The Commission, in order to make the cost of delivered power comparable with the retail tariff, approves the following cross subsidy surcharge for FY 2024-25.

Table 8.14: Cross-subsidy Charges applicable to open access consumer at different voltage for FY 2024-25

Sl. No.	Consumer Category	Cross Subsidy Surcharge (Rs. /kWh)
1	For 132 kV Consumers	1.81
2	For 33 kV Consumers (other than HTSS)	1.81
3	For 11 kV Consumers (other than HTSS)	1.81
4	For HTSS Consumers (11kV& 33kV)	1.44

8.8 Additional surcharge Petitioners' submission

The Petitioners have submitted that, in order to supply seamless power to the consumers as per the demand projection under the Power for All scheme, the Bihar DISCOMs tied up huge quantum of PPAs. However, the demand has not increased as per the projection as well as due to the movement of consumers from being a consumer to the DISCOM to shifting to Open Access, the DISCOMs are currently in a power surplus situation. This has led to unnecessary fixed cost burden on the DISCOMs which are ultimately being passed on to the consumer. In regard to recovering a part of the stranded costs, the DISCOMs have proposed the Additional surcharge to be

recovered by Open Access consumers for FY 2024-25. It is further submitted that the Additional Surcharge has been computed as per the guidelines issued by the Commission in previous Tariff Order dated 23rd March, 2023 and requested to approve additional surcharge of Rs. 0.82 / kWh for FY 2024-25.

Commission's analysis

Regulation 23 of BERC (Term and Conditions of Intra-State Open Access) Regulations 2018 has outlined the principle regarding determination and Levy of Additional surcharge as below:

"23. Additional Surcharge

- (1) An open access consumer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge, in addition to wheeling charges and cross- subsidy surcharge, to meet the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of section 42 of the Act. Such additional charge payable by open access consumer to the distribution licensee shall be as determined by the Commission in the distribution tariff order from time to time.*

Provided that Additional surcharge shall be payable on monthly basis, by the open access consumers based on the actual energy drawn during the month through open access.

Provided also that such additional surcharges shall not be levied in case distribution access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.

- (2) The additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract.*

(Note: The fixed cost related to network assets is recovered through wheeling charges.)

(3) The distribution licensee shall submit to the Commission along with its ARR, a detailed calculation statement of fixed cost which the licensee is incurring towards his obligation to supply, mentioning the hourly stranded data with its merit order dispatch.”

As stipulated in the above regulation the additional surcharge shall be recovered from open access consumer, only in case of the obligation of the licensee in terms of power purchase continuous to remain stranded due to shift by open access consumers.

The Discoms have stated that “Bihar Discoms tied up huge quantum of PPAs to supply seamless power to the consumers as per the demand projection under the scheme of Power for All. However, the demand has not increased as per the projection as well as due to movement of consumers to Open Access and the Discoms are currently in a power surplus situation”. Unrecovered power cost obligation due to lower demand growth of DISCOMs compared to the projected demand growth, cannot be the ground for levying additional surcharge to open access consumers.

The Commission has examined the data submitted by the Discoms in Annexure along with the Tariff Petitions. The Open Access quantum (MW) considered is as under:

Period	Capacity (MW)	Remarks
01.04.2021 to 30.06.2021	100	Railway
01.07.2021 to 30.09.2021	134	Railway + Others
01.10.2021 to 31.03.2022	148	Railway + Others

Further, it is also noticed that the data provided pertains to FY 2021-22 and the Additional Surcharge is computed based on this data of FY 2021-22. The data submitted by the Discoms for computing additional surcharge for open access required to be validated by SLDC.

The Ministry of Power, GoI vide G.S.R. 36 (E) has notified the Electricity (Amendment) Rules 2024 dated 10.01.2024 specify that;

“22 (3) Additional Surcharge. *The additional surcharge levied on any Open Access Consumer shall not be more than the per unit fixed cost of power purchase of the distribution licensee concerned:*

Provided that for a person availing General Network Access or Open Access, the additional surcharge shall be linearly reduced from the value in the year in which General Network Access or Open Access was granted so that, if it is continued to be availed by this person, the additional surcharge shall get eliminated within four years from the date of grant of General Network Access or Open Access:

Provided further that the additional surcharge shall not be applicable for Open Access Consumer to the extent of contract demand being maintained with the distribution licensees:

Provided also that the additional surcharge shall be applicable only for the Open Access Consumers who are or have been consumers of the concerned Distribution licensee.

Explanation – *For the purpose of this rule, General Network Access and Temporary-GNA shall have the same meaning as defined in the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 as amended from time to time.*

Additional surcharge and parallel open access charges for open access cannot be determined in a hurry and wider consultation with stakeholders are needed. The Discoms are directed to file the petitions for determination of Additional Surcharges and also for determination Parallel Operation Charges for open access separately i.e. not along with tariff petitions, as the same involves lot of data verification, inviting suggestions from stake holders etc.,

Therefore, the Commission do not agree with the petitioner request to approve the Additional Surcharge for Open Access Consumer.

8.9 Reactive Energy Charge

Petitioners' submission

Petitioners have submitted that the open access consumers should pay a reactive energy charge to Transmission and Distribution companies as the case may be for drawl/ injection of reactive energy. Accordingly, NBPDCCL & SBPDCL have proposed the reactive charges of 10 paise / kVARh for the FY 2024-25.

It is also submitted that the rate proposed is based on actual rate of Reactive Energy charge billed by ERPC and its escalating trend over the past years.

Commission's analysis:

According to Annexure 4 (1)(b) of India Electricity Grid Code Regulations 2023, dated 29.05.2023, the rate for Reactive Energy charges is fixed at 5 paise/kVARh w.e.f. 29.05.2023 with an escalation of 0.5 paise/kVARh per year thereafter.

The Commission accordingly prescribes the reactive energy charges at 5.5paise/kVARh for drawal/injection of reactive energy for FY 2024-25.

8.10 Standby Charge**Petitioners' submission**

As per BERC (Term and Conditions of Intra-State Open Access) Regulations 2018:

"20 A. Standby Power In case of outage of a power plant supplying power to an open access customer, the licensee will, on request, provide standby supply to meet the requirement of load catered through open access. Such standby supply will be provided by the licensee at day ahead request from the open access customer. The open access customer will, for that supply, be liable to pay charges under tariff for temporary connection to that category of consumer."

Petitioners submitted that the Commission has approved the stand-by charges for drawal of power by open access customer from distribution licensees in accordance with BERC (Term and Conditions of Intra-State Open Access) Regulations 2018. Petitioner further requested Commission to approve the same in line with the regulations

Commission's analysis:

The stand-by charges for drawal of power by open access customer from distribution licensees are applicable in accordance with Regulation 24 of BERC (Term and Conditions of Intra-State Open Access) Regulations 2018 as below:

-) In cases of outages of generator supplying to open access customer under open access, stand-by arrangements shall be provided by the distribution licensee for a maximum period of 42 days in a year subject to the load shedding as is applicable to the embedded consumer of the licensee at a charge under Temporary connection tariff for the category of consumer as determined by the Commission from time to time.

-) Provided that such charge shall not exceed 125% of the normal tariff for that category of consumers.
-) Provided that in cases where temporary rate of charge is not available for that consumer category the distribution licensee shall charge 125% of the normal tariff for the category of consumers.
-) Provided also that open access customers would have the option to arrange stand-by power from any other source.

In view of the Terms and Conditions of Intra State Open Access Regulations, 2018 the prayer of the petitioner to approve the Standby Charges is allowed.

8.11 Parallel Operating Charges

Petitioners' submission

Petitioners have submitted that the connectivity of CPP (Captive Power Plants) to Grid or State transmission system shall be governed by the connection conditions stipulated under the State Grid Code and Connectivity Regulations of Central Electricity Authority notified in accordance with sub-section (b) of Section 73 of the Act.

The Petitioners have proposed Parallel Operation Charges as a part of other charges for Open access consumers to be applicable for parallel operation of the CPP with the grid separately as shown in the Table below and requested to approve the PoC charges Rs. 182.41/ kW/month.

Table 8.15: Parallel operation charge computation as submitted by the Petitioners for FY 2024-25

Parameter	FY 2024-25
Total Connected demand(KW)	27561215
Overall Demand Charges (Rs. Crore)	6033
POC charge(Rs Crore /month)	502.74
POC charge(Rs. /KW/month)	182.41

Commission's analysis:

The Commission had directed in its various previous tariff orders that Discoms should carry out the required studies and approach the Commission to approve Parallel Operating Charges (POC) with full details at the time of filing Tariff petition.

This direction was mainly due to the fact that in order to recover the Parallel Operating Charges from the CPP's, Economic Study and assesment of benefits and services

extended to them in financial terms is necessary. However, in want of the above the Commission do not find it feasible to accede to the request of the petitioner regarding determination of Parallel Operating Charges.

The petitioner is once again directed to approach the Commission with the required details.

The Commission in the Tariff Order dated 23.03.2023 has directed the Discoms as under:

“For the determination of Parallel operation charges, DISCOMs need to carryout techno economic study for CPPs for the assessment of benefits and services extended to CPP in financial terms for suggesting levy of parallel operation / grid support charges payable by CPPs”.

From the reply dated 09.02.2024 provided by SBPDCL for the objection raised by Shree Cement Limited, it is evident that the techno economic study for CPPs is not yet done. SBPDCL stated that “the Petitioners are in the process of carrying the techno economic study for CPPs for the assessment of benefits and services extended to CPPs”.

Accordingly, as already instructed in the Tariff Order dated 23.03.2023, the Commission directs DISCOMs to carryout techno economic study for CPPs for assessment of benefits and services extended to CPPs in financial terms and approach the Commission through a separate petition with full details such as number of CPPs opted for parallel operations along with their capacity etc., for determination of Parallel Operation Charges (POC).

8.12 Congestion Charge

Petitioners’ submission

As per regulation 25 of the BERC open access regulations, 2018

“25. Other Charges

In addition to the above charges, the regulatory charges, congestion charges and any other charges imposed by Central Commission and/or State Commission shall be payable by the open access customers.”

In view of the above, Petitioners have requested the Commission to determine and approve congestion charges for Open Access Consumers in order to mitigate the issues related to transmission and distribution of power.

Commission's analysis:

In view of the reply of the Discoms to the query of the Commission, wherein it has been interalia informed that *“Moreover, it is worthwhile to mention that the arrangement of Congestion charges is not prevailing in any states”*.

The Commission is not inclined to consider for determination of congestion charges for Open Access consumers at this stage. However, the Discoms if they so desire may approach this Commission separately with detailed data, rational and justification for determination of such charges.

Congestion occurs when transmission network fails to transfer power based on the load demand. The Commission is of the view that the Congestion charge is not relevant to Distribution network. Congestion charges, if any, for transmission network will be determined after receipt of such proposal from the Transmission licensee.

8.13 Application Fee

All applications for Open access i.e. Short Term, Medium Term and Long-Term Open Access shall be made in the prescribed form and submitted to the nodal Agency along with the application fee as stipulated in the BERC Open Access Regulations, 2018.

8.14 Other Charges

In addition to the charges mentioned in above paras, the regulatory charges and any other charges imposed by CERC and/or BERC shall be payable by the open access customers.

8.15 Information to be put on the website

The Commission directs the Discoms to place all information related to open access facilities/charges on its website. The information should include open access regulations, procedure for obtaining open access and details of all charges payable by an open access consumer and list of existing open access customers.

9. Tariff Principles, Design and Tariff Schedule

9.1 Introduction

The Commission, while determining the retail supply tariff for FY 2024-25, is guided by the provisions of the Electricity Act, 2003 (Act), National Electricity Policy 2005, revised Tariff Policy 2016, BERC (Multi Year Distribution Tariff) Regulations, 2021 and Regulations on Terms and Conditions for Determination of Tariff issued by the Central Electricity Regulatory Commission (CERC).

Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff. As per these principles, the tariff should progressively reflect cost of supply and reduce cross subsidies. The Act lays special emphasis on safeguarding consumers interest and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by the factors, which encourage competition, efficiency, economical use of resources, good performance and optimum investment.

The National Electricity Policy aims at increased access to electricity, supply of reliable and quality power at reasonable rates, minimum lifeline consumption, financial turnaround and commercial viability of electricity sector and protection of consumers' interest.

The revised Tariff Policy dated 28th January, 2016 notified by the Government of India provides comprehensive guidelines for determination of tariff and revenue requirement of power utilities. The Tariff Policy mandates that tariff should be within $\pm 20\%$ of the average cost of supply. The Commission endeavors to follow the guidelines as far as possible.

The Commission has computed the average cost of supply on the basis of the annual revenue requirement and the energy sales approved by the Commission for FY 2024-25. The voltage-wise cost of supply is determined in accordance with the guidelines provided by the APTEL.

9.2 Simplification of tariff structures for electricity consumers in Bihar**Petitioners' submission**

9.2.1 The power distribution companies of Bihar have kept the following objectives in mind while proposing the tariff structure for FY 2024-25.

- a). Ensuring that an adequate balance is maintained between the interest of consumers and the distribution utility;
- b). Enabling consumers to efficiently and effectively plan their expenditure on electricity;
- c). Ensuring that tariffs progressively reflect the prudent cost of electricity supply to the consumers, and
- d). Incentivizing the consumer for efficient utilization of electricity.

9.2.2 The Distribution Licensee have followed the key guiding principles given below for proposing the tariff structure and tariffs which would be applicable for the FY 2024-25.

- i). Preserving kVAh based billing for all consumer categories wherever feasible.
- ii). Introduction of new tariff categories as per the Demand of the prospective consumers
- iii). Rationalizing the payment mechanism for certain category of consumers to facilitate the consumers as per their affordability.

9.2.3 Based on the above principles, the following key changes have been proposed in the tariff structure and schedule for the ensuing year.

- i). kVAh based billing for Non-Domestic and IAS-I category of consumers.
- ii). Facilitating the prospective consumers through introduction of new tariff categories for HTIS at 400 kV and HTSS at 132/220 kV.
- iii). Incentivizing increased consumption through improvement in load factor
- iv). Rationalization of Time of Day (TOD) tariff structure as per the actual Demand of the State
- v). Rationalizing the online payment incentive for each consumer category
- vi). Rationalization of the Billing Demand of the consumers
- vii). Facilitating the Govt. consumers through change in due date of payment.

- viii). Rationalization of the tariff structure of the Street Lights as per the operability of the Street lights.
- ix). Domestic tariff for Homestays establishments
- x). Rationalizing the Billing structure for Agriculture consumers as per their harvesting season
- xi). Rationalization of Tariff structure as per the Revenue Gap/(surplus) for both the DISCOMs
- xii). Charges for erection and dismantling the Temporary service connection line.
- xiii). Penalty on violation of Contracted Demand/ load

Commission's View

The Commission has taken note of the proposals of the Discoms, as well as view of general public/stakeholders expressed in course of public hearings and on thorough consideration of the points raised by the general public/stakeholders as well as that of the petitioners, the Commission has dealt the issues in the subsequent paragraphs as detailed hereunder.

9.3 Key changes proposed in the Tariff Schedule for FY 2024-25

9.3.1 kVAh based billing for Non-Domestic and IAS-I category of consumers.

Petitioner's submission

The kVAh based tariff has an inbuilt mechanism for incentivizing the consumers who maintain better power factor, the Petitioner proposes the Commission to introduce kVAh based tariff in the state of Bihar for NDS (Non-Domestic) and IAS-I category of consumers. This is bound to encourage Commercial and IAS-I consumers to save on their electricity bills.

It is pertinent to mention that KVAh is the apparent power drawn by the consumer. Further, KVAh based billing simplifies the tariff as power factor rebate or penalty need not be calculated separately. Moreover, consumers mostly protest while being charged additionally on account of power factor impact. Since, smart metering are being implemented at large scale in the state, the meter is compatible to assess the

consumptions in KVAh and charging through KVAh would make the process smooth. This is to submit that the 100% of the installed meters for Non-Domestic and IAS-I category of the consumers are compatible for kVAh based Billing. The Meters can record the kVAh based consumption of the consumers thereby incentivizing the consumers who maintain better power factor.

The Commission is requested to consider the kVAh based Billing for the NDS and IAS-I category of consumers in the Tariff schedule for FY 2024-25.

Commission's View

The Commission has examined the proposal of the Discoms to introduce kVAh based tariff for NDS and IAS-I categories. The Discoms have not submitted the report on compatibility of the existing meters for recording the kVAh reading.

The Commission observes that 100% metering of NDS category consumers with Smart Meters is not completed till now.

The Commission is also aware that 100% metering is not completed till now for IAS-I category of consumers.

Hence, kVAh based tariff for NDS and IAS-I category may be examined later upon completion of 100% metering with smart meters as envisaged under RDSS and universal metering scheme.

9.3.2 Facilitating the prospective consumers through introduction of new tariff categories for HTIS at 400 kV and HTSS at 132/220 kV

Petitioner's submission

This is to submit that M/s SJVN Thermal Pvt. Ltd. vide its application for new service connection requested to provide supply at 400 kV for 25 MW load.

The DISCOMs have analyzed the feasibility for providing supply at existing 220 kV, however, it has been observed that it is not feasible to provided supply for 25 MW of load at 220 kV. So, to facilitate the prospective consumers the DISCOMs have proposed new tariff consumer category HTIS at 400 kV.

Similarly, the prospective consumers such as, M/s Vistar Concast Private Limited vides its letter No. VCPL/23-24/005 dated 30.08.2023 requested to provide electricity

connection for 30 MVA supply under HTSS category. As per the norms, HTSS tariff is allowable at 33 or 11 kV and the maximum supply permissible is 15 MVA. So, the only possible way out is carving out a separate consumer category of HTSS- 132 kV to provide 30 MVA connection. So, to facilitate the prospective consumers the DISCOMs have proposed new tariff consumer category HTSS at 132 kV.

Commission's View

The Commission has examined the proposal of the Discoms , the points raised by the stakeholders and petitioners reply thereupon related to his issue. The Petitioner could not produce any technical reason for not allowing contract load of more than 15000 kVA at 33 kV and only the provisions of Supply Code has been quoted.

Commission expects that before giving its reply on such issues detailed technical analysis is conducted by the petitioners and based upon that only any reply is submitted. However, in view of the submission of the petitioners the Commission is not deciding this matter in this order and the maximum Contract Load of all 33kV consumers (including HTSS) is allowed to continue at the present level of 15000kVA. Further, the Commission leaves this matter for discussion by the Electricity Supply Code Review Panel for detailed deliberation on all aspects. In the meanwhile Commission agrees to create an additional category of HTSS Consumers at 132/220kV with the following minimum Contract Demand Limit.

Supply Voltage	Minimum Contract Demand
132 kV	7500 kVA
220 kV	10,000 kVA

So far as the Energy charges for prospective HTSS Consumers availing power at 132kV/220kV is concerned, Commission observes that as per the existing Tariff, the energy charge as well as fixed charge is not dependent upon the voltage of supply for consumers availing power at different voltages. By extending this philosophy to the prospective consumers of HTSS-132kV/220kV, the Commission is not inclined to consider any separate approach for Tariff determination for Energy charges as well as fixed charges for HTSS Consumers of 132kV/220kV and is approving same energy charges for HTSS Consumers at all level of voltages at 11kV/33kV/132kV/220 kV.

9.3.3 Incentivizing increased consumption through improvement in load factor**Petitioner's submission**

To promote efficiency in the system and incentivize electricity consumption, the Petitioner had proposed to introduce Load factor incentives for HT Industrial consumers (excluding HTSS consumers) in the Retail tariff Petition for FY 2022-23. However, the Commission vide its Tariff Order dated 25.03.2022 had Suo-motu allowed Load Factor incentive for all HT industrial category consumers along with HTSS with Load factor above 60%.

The Petitioner hereby propose to withdraw the Load Factor incentive for HTSS consumers. The objective behind the Load Factor Incentive to HTSS was to promote the increase in consumption as well as better load utilization by HTSS consumers. However, it has been observed that in 1st six months of FY 2023-24 (April- Sept 2023) there has been no increase in the consumption with respect to the consumption in 1st six months of FY 2022-23 (April- Sept 2022) but the amount of incentive required to pay by the DISCOMs is significantly high. As a result, there has been decrease in the net revenue collection of the DISCOMs through considerable disbursement of incentive by DISCOM to this category of consumers.

Further, load factor incentive has been provisioned in the tariff structure with the motive to boost HT consumption in the state. However, the HTSS industries already operate at higher load factor levels (around 90%) by the nature of operations of their businesses. Therefore, including the HTSS industry in the bucket of beneficiaries of load factor rebate will further reduce their tariff which are already getting the benefit of lower energy charges as compared to other HT categories. Considering the same, the DISCOMs has proposed to withdraw the Load Factor incentive for HTSS. NO Load Factor Incentive may be allowed for HTSS consumers.

The load factor incentive proposed for HT industrial consumers (excluding HTSS category) is in three slabs i.e., (30%-50%, 50%-70% and above 70%) for HT Industrial service categories but on the basis of incremental consumption. In the proposed incentive, the HT Industrial category consumers (excluding HTSS category) with load factor 30% to 70% in FY 2023-24 would be incentivized for improved load factor utilization monthly on incremental consumption, through a rebate in their energy

charge. Accordingly, the incentive structure for HT consumer is proposed as follows:

Load Factor Range	Proposed Incentive
30%-50%	10 paise per unit concession on energy charges for energy consumption over 30% and upto 50% load factor during the billing month
50%-70%	20 paise per unit concession on energy charges for energy consumption over 50% and upto 70% load factor during the billing month
Above 70%	30 paise per unit concession on energy charges for energy consumption over and above 70% and upto 100% load factor during billing month

The Oxygen gas manufacturers have played vital role during Covid-19 pandemic in spite of all odds. Their contribution was well recognized and rewarded by providing appropriate incentives. To incentivize the Oxygen manufacturers in the State, the Petitioner has proposed load factor incentive to this category in line with the HT industrial categories on incremental consumption basis, as follows:

Load Factor Range	Proposed Incentive
65%-75%	10 paise per unit concession on energy charges for energy consumption over 65% and upto 75% load factor during the billing month
Above 75%	20 paise per unit concession on energy charges for energy consumption over and above 75% load factor during the billing month

At the same time, it may also be noted that consumers exceeding contract demand in any particular month, will not be eligible for Load Factor Incentive in that month.

Commission's View

The Commission has examined the proposal of the Discoms.

The Commission after due consideration of issues has taken decisions in recent tariff order for FY 2023-24 and has determined the applicable load factor rebate. The Commission opines that, withdrawing the incentive will lead to change in the Tariff principles for this category within a period of 2 years for this reason the Commission is not inclined to consider the request of the Discoms.

However, considering the importance of Oxygen Gas Manufacturers the Commission finds its appropriate to revise the lower limit of Load factor incentive from existing 75% to 70%.

The Load Factor Incentive for Oxygen Gas Manufacturers is as follows:

Load Factor Range	Proposed Incentive
65% - 70%	10 paise per unit concession on energy charges for energy consumption over 65% and upto 70% load factor during the billing month
Above 70%	25 paise per unit concession on energy charges for energy consumption over and above 70% load factor during the billing month

9.3.4 Rationalization of Time of Day (TOD) tariff structure as per the actual Demand of the State

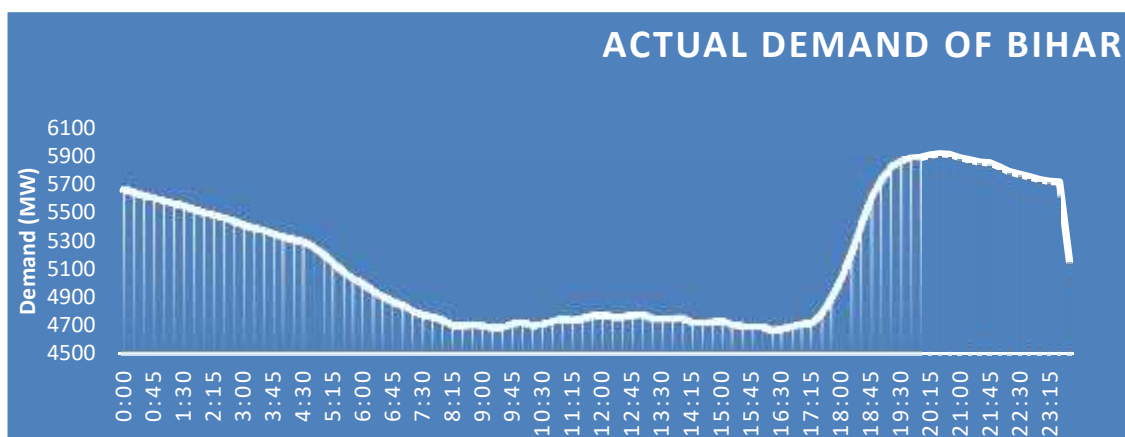
Petitioner's submission

The Commission in the Tariff Order dated 23.03.2023 had approved the Time of Day (TOD) tariff as follows:

Time of Use	Demand Charges	Energy Charges
(i) Normal Period (09:00 am - 05:00 pm)	Normal Rate	Normal rate of energy charges
(i) Evening Peak load Period (05:00 pm - 11:00 pm)	Normal Rate	105% normal rate of energy charges
(iii) off-peak load Period (11:00 pm - 09:00 am)	Normal Rate	85% normal rate of energy charges

It is pertinent to mention here that the Ministry of Power, govt. of India vides Electricity (Rights of Consumers) Amendment Rules, 2023 dt. 14.06.2023 has specified that the TOD Tariff specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff. Further the tariff for solar hours of the day, specified by the State Commission shall be at least twenty percent less than the normal tariff for consumers and "solar hours" means the duration of eight hours in a day.

From the above, it is observed that the Ministry of Power, Gol has fixed the off-peak hours as solar hours of the day (duration of eight hours) and the tariff thereof has been fixed as 20% less than the normal tariff. It is also pertinent to observe that the actual Demand in the State of Bihar dips to the lowest during the Solar hours of the day.



The following Demand curve from 1 March 2023 to 10 Oct 2023 substantiates the same.

In the backdrop of the above, it is pertinent to have off-peak hours as Solar hours of day (9am to 5pm) wherein the demand in the State is lowest. The charges for the off-peak hours should be same as specified by the Ministry of Power in the Electricity (Rights of Consumers) Amendment Rules, 2023 dt. 14.06.2023.

Accordingly, the DISCOMs have proposed the following TOD tariff for all the HT consumers (HTIS, HT General, HTSS Oxygen manufacturers) for FY 2024-25.

Time of Use	Demand Charges	Energy Charges
(i) off-peak Period (9:00 am - 05:00 pm)	Normal Rate	80% normal rate of energy charges
(ii) Peak Period (05:00 pm - 11:00 pm)	Normal Rate	120% normal rate of energy charges
(iii) Normal Period (11:00 pm - 09:00 am)	Normal Rate	Normal rate of energy charges

Commission's View

The Commission has examined the proposal of the Discoms to revise the Off Peak, Peak and normal hours of supply in ToD tariff.

The Ministry of Power vide GSR 437 (E), Electricity (Rights of Consumers), (Amendment) Rules, 2023, dated 14th June, 2023 has made following provisions as below.

Time of Day Tariff: The Time of Day tariff for Commercial and Industrial consumers having maximum demand more than ten Kilowatt shall be made effective from a date not later than 1st April, 2024, and for other consumers except agricultural

consumers, the Time of Day tariff shall be made effective not later than 1st April, 2025, and

Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters:

Provided that, the Time of Day Tariff specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff:

Provided further that, tariff for solar hours of the day, specified by the State Commission shall be atleast twenty percent less than the normal tariff for that category of consumers:

Provided also that the Time of Day Tariff shall be applicable on energy charge component of the normal tariff:

Provided also that the duration of peak hours shall not be more than solar hours as notified by the State Commission or State Load Despatch Centre.

The Rules, as above, has mandated the Time of Day Tariff for all Commercial and Industrial Consumers having Maximum Demand more than 10kW not later than 1st April, 2024. However, it is observed from the Discoms petitions that Discoms have proposed the TOD tariff for all the HT Consumers (HTIS), HT General, HTSS, Oxygen Manufacturers for FY 2024-25 only.

The Commission, in view of the Electricity (Rights of Consumers) Amendment Rules, 2023, decides to approve the proposal of the petitioner to provide TOD Tariff for all HT Consumers (HTIS), HTS (General), HTSS, Oxygen Manufacturer and directs the petitioners to extend the TOD tariff for all Commercial and Industrial consumers having Maximum Demand > 10kW with effect from 1st April, 2024. The Commission accordingly approves the ToD tariff as mentioned herein above. .

The Commission also directs the petitioners to take all necessary steps to ensure that the provisions of Electricity (Rights of consumers) Amendments Rules, 2023 for providing TOD tariff to all consumers except agriculture is made effective not later than 1st April, 2025.

9.3.5 Rationalizing the online payment incentive for each consumer category**Petitioner's submission**

For encouraging the consumers to make online payment of the bills a rebate of 1% of the billed amount has been allowed by the Hon'ble Commission. However, this is of utmost importance to consider that the online payment system has been devised to encourage majorly the domestic and commercial consumers. Industrial and other large consumers have already adapted completely the online payment system thereby enjoying the online payment rebate of 1%.

As per the actual revenue realization in FY 2022-23, the per consumer per month assessment of HTS-III is Rs 1.47 Cr. By making online payment of their monthly Bills, the HTS-III and HTSS consumers are enjoying rebate of around 5 lakhs per month.

It is pertinent to note that the online payment rebate that the Petitioner is passing on to the consumers has been charged in the Aggregate Revenue Requirement (ARR) and loaded on all the consumers while the benefit of online payment rebate is heavily enjoyed by large HT consumers only.

In the backdrop there is need to limit the extravagant rebate that the HT consumers are enjoying through this online payment rebate. So, the Petitioner hereby proposes to limit the online payment rebate for HT consumers upto Rs 20,000 or 1% whichever is lower.

Commission's view

The Commission has noted the proposal of the Discom. The Commission had allowed a rebate of 1% of the billed amount to encourage the consumers to make online payment of the bills on the request of the petitioners only. Increased number of consumers opting for online payment shall be helpful to the petitioners also as it may catalyse reduction in foot-falls on collection counters and thus reduction in A&G expense in longer-term. The rebate allowed is uniform across all the consumers who prefer making online payment of their bills. Mode of payment is allowed across all the consumer categories, as such prescribing ceiling/ limit on the amount of rebate may discourage the high paying consumer and will also indicate a frequent policy change without any concerned reason.

The Commission accordingly donot acceded to the proposal of the Discoms to limit the online payment rebate to maximum of Rs.20,000/- or 1% of the bill, whichever is lower.

9.3.6 Rationalization of the Billing Demand of the consumers

Petitioner's submission

The Petitioner in the Tariff Petition for ARR & Tariff for FY 2023-24 proposed the Billing Demand to increase to 85% from the existing 75% of the Contract Demand or actual Demand whichever is higher. The petitioner needs to develop and maintain infrastructure in line with the contracted load of the consumer.

The billing demand in many states/utilities as a percentage of contract demand is higher than that of the Bihar which is currently 75%. Some of the examples are BRPL-Delhi (100%), Madhya Pradesh State DISCOMs (90%), BESCOM State DISCOM Karnataka (85%), TANGEDCO Tamilnadu (90%) and Haryana State DISCOMs (100%) which has higher billing demand than the contract demand.

It is pertinent to note that upto FY 2019-20 the Billing Demand was 85% of the Contract Demand or actual Demand whichever is higher, however, the Commission in the Tariff Order for ARR & Tariff for FY 2020-21 has reduced the Billing Demand from 85% to 75% basis the following:

*Billing demand is the maximum demand recorded during the month or 85% of the contract demand whichever is higher is the present provision. The contracted demand/sanctioned load is generally higher than the maximum demand recorded by the meter during its running condition especially for domestic and commercial establishments. With present provision of minimum billing of 85% of the sanctioned load/contract demand, **any consumer having less than 6 kw load cannot avail benefit of such provision.** Therefore, the Commission decides to implement the billing demand at 75% of the contract demand or actual recorded demand whichever is higher from FY 2021-22 for all the consumers covered under the demand-based billing.*

As above, the Commission reduced the Billing Demand from 85% to 75% to benefit the consumers with less than 6kW load. However, the Commission failed to consider that with the Demand based Billing in place the Consumers also get the benefit of reduced Fixed charges if the power supply is not maintained regularly for 24 hours. In any month if the supply of power is less than 21 hours/day, then the demand charge for that

month shall be levied on pro-rata basis.

So, the Billing Demand may again be restored to 85% of the Contract Demand or actual Demand whichever is higher. In the backdrop of the above, the Commission is requested to kindly consider the change proposed by the Petitioner with regard to the Billing Demand.

Commission's view

The Commission do not accept the proposal of the Discoms and decides to continue the billing demand at 75% of the contract demand or actual recorded demand, whichever is higher for FY 2024-25.

9.3.7 Facilitating the Govt. consumers though change in due date of payment.

Petitioner's submission

At present, the due date for making payment of energy bills or other charges is 15 days from the date of issue of the bill. Rebate of 1.5% on the billed amount for timely payment of bills for all the consumers is allowed. Further, in case a consumer makes full payment after due date but within 10 days after the due date, no DPS shall be levied for this period and rebate for prompt payment will not be admissible.

This is to submit that the Govt. bodies (inc. local bodies in Urban and Rural areas) are unable to process their Energy Bills within the specified timeline and need some more time for payment of their energy Bills. As a result of non-payment of the energy Bills on time, the outstanding receivables of the DISCOMs increases.

To reduce the outstanding receivables and to enable the Govt. bodies to process their payment on time, the Petitioner hereby propose that the due date for making payment of energy bills or other charges for Govt. bodies is 30 days from the date of issue of the bill. Rebate of 1.5% on the billed amount for timely payment of bills within this timeline to be allowed for Govt. bodies. Further, there will be no grace period after this due date of 30 days and DPS will be levied after this period.

Commission' view

The Commission has noted the proposal of the Discoms. It is observed that the Discoms have resorted to provide Smart Meters to Government offices/establishments including Local Bodies. It may be a contra-indicator to the above efforts which

facilitates advance payment of Bills by providing by 100% Smart Prepaid Solutions. Therefore, the proposal of the Discoms is not accepted.

9.3.8 Rationalization of the tariff structure of the Street Lights as per the operability of the Street lights

Petitioner's submission

At present, the tariff for Street light (SS-2) category is Rs 7500/kW, however, the operability of the Street lights is only for 12 hours. So, it is logical to reduce the tariff for Street lights as per the operability.

It is worthwhile to mention that the operation of streetlight is usually maximum for 12 hours only instead of 24 hours. Therefore, the fixed charge for this category may be reduced accordingly.

In view of the above, the proposed tariff for Street lights (SS-2) may be considered as Rs 4250/kW.

Commission's view

The Commission accepts the proposal of the Discom to revise the Fixed charges for street light (SS-2).

9.3.9 Domestic tariff for Home stay establishments

Petitioner's submission

Govt. of India, Ministry of Tourism vide notification dated 10.12.2018 have formulated guidelines in the subject matter "Common National Standards and Guidelines for Classification of Incredible India Bed & Breakfast Establishments and Incredible India Homestay Establishments" wherein the Ministry has provided detailed guidelines for classification for Incredible India Homestay Establishment. The Ministry has also provided that the rate of electricity to be paid for Homestay Establishments will be those prescribed by the appropriate authorities. The relevant extract of the guidelines is as follows:

7. The rate of taxes for property, electricity and water to be paid for classified Incredible India Bed & Breakfast Establishments and Homestay Establishments will be those prescribed by the appropriate authorities.

It is pertinent to mention that the Bihar Govt, Tourism Department has also approved the Mukhyamantri Homestay Motivation Scheme 2024 wherein it has provided

detailed guidelines for the promotion of Homestays establishments in the State of Bihar. The Scheme also stipulates that the tariff applicable for Homestay establishments is same as that of the Domestic (Residential) tariff.

So, in pursuance to the afore-mentioned guidelines of Government of India and the Homestay Scheme of the Govt. of Bihar, the Petitioner hereby propose to include Homestays in the Domestic category in the Tariff Schedule for FY 2024-25

It is pertinent to mention that the following states have already framed guidelines for Homestay establishments wherein it has been mentioned that the electricity tariff applicable for Homestay establishments shall be same as that for residential consumers.

-) Kerala
-) Madhya Pradesh
-) Uttarakhand
-) West Bengal
-) Himachal Pradesh
-) Andaman & Nicobar Islands

In the backdrop of above, the Petitioner hereby propose to include Homestays in the Domestic category in the Tariff Schedule for FY 2024-25.

Commission's view

The Commission accepts the proposal of the Discoms.

9.3.10 Rationalizing the Billing structure for Agriculture consumers as per their harvesting season

Petitioner's submission

This is to submit that a suggestion received in CM Janta Darbar (Online) for raising Bills to the agriculture consumers according to the harvesting time of Rabi and Kharif crops. The request was made to allow the agriculture consumers to make payment according to the harvesting time of Rabi and Kharif crops.

So, it is proposed to change the process of Billing for Agriculture consumers from monthly to 4 times in a year as per the harvesting season of Rabi and Kharif crops. Bill

to Agriculture consumers to be raised four (4) times in a year after the harvesting season, i.e., March, May, August and December in a Financial Year. The Commission is requested to kindly consider the change proposed by the Petitioner regarding the Billing process of Agriculture consumers.

Commission's view

The Commission is of the view that this proposal relates to rationalizing the Billing structure of Agricultural consumers as per their Harvesting season so as to help them in payment of Electricity Bills when they are in most comfortable financial position and in view of this Commission agrees with the proposal of the petitioners to change the process of Billing.

Modification in the definition of Billing cycle as a consequence of the above may be done in the supply code accordingly.

9.3.11 Rationalization of Tariff structure as per the Revenue Gap/(surplus) for both the DISCOMs

Petitioner's submission

DISCOMs have proposed 3.03% tariff hike on the existing tariff for FY 2024-25 to recover the net revenue gap of Rs 1036.97 Cr at Bihar level.

As per the tariff structure of the Bihar DISCOMs, to recover the net revenue gap of Rs 1096.67 Cr at Bihar level the DISCOMs need to increase the tariff by 4.38% uniformly across all the tariff categories. This is notwithstanding the changes made in other Tariff categories such as reduction in fixed charges of Streetlights (SS-2) category, increase in the tariff for HTSS (11/33 kV) category, as mentioned in the aforementioned part.

The Commission is requested to consider the rationalization proposed by the Petitioner in the Tariff Structure as per the Revenue Gap/(surplus) of the DISCOMs.

Commission's view

The Commission has noted the proposal of the Discoms. Appropriate action is taken while determining the tariff for FY 2024-25.

9.3.12 Charges for erection and dismantling the Temporary service connection line

Petitioner's submission

The Commission in the Tariff Schedule has specified the Supervision, Labour and Establishment charge for service connection. Further, the Hon'ble Commission has

also specified the Terms and Conditions for Temporary Tariff wherein the tariff and terms of supply has been mentioned. However, the charges for erection and dismantling of temporary service line has not been mentioned in the Tariff Schedule.

This is to submit that as per the existing practice in field, Cost of erection and dismantling of temporary service line is charged equivalent to the Supervision, Labor and Establishment charge for service connection.

So, the Petitioner request the Commission to specify in the Tariff Schedule that the cost of erection and dismantling of temporary service line would be equivalent to the Supervision, Labour and Establishment charge for service connection. The Commission is requested to kindly consider the request of the Petitioner for specifying the charges for erection and dismantling of temporary service line in the Tariff Schedule for FY 2024-25.

Commission's View

The Terms and Conditions of Temporary Service connection has been clarified by Commission in previous Tariff orders. However, with respect to the petitioners' submission to specify charges for erection and dismantling of Temporary service line, the Commission is of the view that this can be calculated on case to case basis as per the terms of supply for such temporary connection mentioned in the Tariff order and while doing so it should be ensured that the establishment charges are not considered in framing estimates for dismantling.

9.3.13 Penalty on violation of Contracted Demand/ load

Petitioner's submission

In the present situation, there is no provision of automatic enhancement of load by the DISCOM in case the actual Demand exceeds the contracted load of the consumers. The DISCOMs can only issue notice for enhancement of load and may disconnect the line for non- abeyance of notice issued to the consumer. So, it is proposed to Suo-moto enhance the load based on average load of last three months if it exceeds 105% of the contract demand continuously for 3 months.

It has been observed that consumers demand especially in seasonal consumers is over and above the contracted demand. The Petitioner needs to develop and maintain its infrastructure as per the contract demand to supply quality and uninterrupted power

to its consumers.

Further, it is also proposed that the Railways may also be applicable for the Penalty on violation of Contracted Demand/ load.

Commission's view

The Ministry of Power GoI vide notification dated 14.06.2023 has notified Electricity (Rights of Consumers) Amendment Rules, 2023 The Rule 5 (B) of the above Rules provide that :

In case maximum demand recorded by the smart meter exceeds the Sanctioned Load in a month, the bill, for that billing cycle, shall be calculated based on the actual recorded maximum demand and consumers shall be informed of this change in calculation through Short Message Service or mobile application:

Provided that the revision of the Sanctioned Load, if any, based on the actual recorded maximum demand shall be as under:

(a) in case of increase in recorded maximum demand, the lowest of the monthly maximum demand, where the recorded maximum demand has exceeded the sanctioned load limit atleast three times during a financial year, shall be considered as the revised Sanctioned Load, and the same shall be automatically reset from the billing cycle in next financial year; and

(b) in case of reduction of maximum demand, the revision of sanctioned load shall be done in accordance with the Supply codes/ Standard Operating Procedures issued by the respective Regulatory Commission.

Before installation of a smart (pre-paid) meter to all consumers the existing provisions of BERC Tariff order dated 23.03.2023 shall be applicable.

The Commission takes notes of this, although the aforesaid Rules can be made fully effective once 100% smart prepaid metering is completed. However, till this target is achieved the contract demand for those consumers who are not provided with smart meters shall be revised modified as per provisions of this rules only although in which case the method of capturing demand of the consumer exceeding contract demand will be different.

9.4 Revenue gap/(Surplus) for FY 2024-25

Petitioner's submission

NBPDCCL, in their tariff petitions for FY 2024-25, have projected the revenue gap of Rs. 1661.46 Crore and SBPDCL have projected a surplus of Rs.624.49 Crore totaling Rs.1036.97 Crore which also includes the trued-up revenue gap claimed for FY 2022-23 along with carrying cost. NBPDCCL has proposed to recover Rs.469.96 Crore and SBPDCL has proposed to recover Rs.567.03 Crore through tariff hike. The Discoms have proposed uniform tariff rates across whole State of Bihar. They have proposed additional cost to be allowed through changes both in fixed charges and energy charges as given in the table below:

Tariff schedule considering 'Zero' GoB Subsidy

Category	Proposed Tariff- FY 2024-25			
	Fixed charge	Units	Energy Charge	Units
Domestic				
Kutir Jyoti				
Metered 0-50	20	Rs./Connection/Month	7.90	Rs./kWh
DS I Rural				
Metered (Demand Based)	-		-	
First 50 Units	40	Rs./kW/Month	7.90	Rs./kWh
Above 50 Units	40	Rs./kW/Month	8.47	Rs./kWh
DS II Demand Based				
First 100 Units	80	Rs./kW/Month	7.90	Rs./kWh
Above 100 Units	80	Rs./kW/Month	9.50	Rs./kWh
DS III	80	Rs./kW/Month	9.58	Rs./kWh
Non_Domestic Service				
NDS I - Metered (Demand Based)				
First 100 Units	60	Rs./kVA/Month	8.29	Rs./kVAh
Above 100 Units	60	Rs./kVA/Month	8.73	Rs./kVAh
NDS II - Demand Based				
Contract Demand <0.5 kW	200	Rs./Connection/Month	8.23	Rs./kVAh
Contract Demand >0.5 kW				
First 100 Units	300	Rs./kVA/Month	8.23	Rs./kVAh
Above 100 Units	300	Rs./kVA/Month	9.48	Rs./kVAh
Street Light Services				
SS Metered	100	Rs./kW/Month	9.58	Rs./kWh
SS Unmetered	4250	Rs./kW/Month	-	Rs./kWh

Category	Proposed Tariff- FY 2024-25			
	Fixed charge	Units	Energy Charge	Units
Irrigation & Allied Services				
IAS I				
Unmetered	1350	Rs./HP/Month	-	Rs./kWh
Metered	100	Rs./HP/Month	7.19	Rs./kVAh
IAS II				
Metered (Demand Based)	500	Rs./kVA/Month	7.64	Rs./kVAh
Public Service Connections				
Public Water Works	630	Rs./kVA/Month	10.30	Rs./kVAh
Har Ghar Nal	100	Rs./HP/Month	8.67	Rs./kWh
	-		-	
Low Tension Industrial Services	-		-	
LTIS I (0-19 kW)	288	Rs./kVA/Month	8.29	Rs./kVAh
LTIS II (>19 kW - 74 kW)	360	Rs./kVA/Month	8.29	Rs./kVAh
	-		-	
LT Electric Vehicle Charging Station	-		9.26	Rs./kVAh
HT - Generation				
HTS I - 11 kV	550	Rs./kVA/Month	8.49	Rs./kVAh
HTS II - 33 kV	550	Rs./kVA/Month	8.42	Rs./kVAh
HTS III -132 kV	550	Rs./kVA/Month	8.35	Rs./kVAh
HTS IV - 220 kV	550	Rs./kVA/Month	8.29	Rs./kVAh
HTS V – 400 kV	550	Rs./kVA/Month	8.20	Rs./kVAh
HTSS (11/33 kV)	800	Rs./kVA/Month	5.38	Rs./kVAh
HTSS (132/220 kV)	800	Rs./kVA/Month	5.32	Rs./kVAh
	-		-	
HT – Industry				
HTIS- I - 11 kV	550	Rs./kVA/Month	8.49	Rs./kVAh
HTIS -II - 33 kV	550	Rs./kVA/Month	8.42	Rs./kVAh
HTIS - III -132 kV	550	Rs./kVA/Month	8.35	Rs./kVAh
HTIS- IV - 220 kV	550	Rs./kVA/Month	8.29	Rs./kVAh
HTIS V- 400 kV	550	Rs./kVA/Month	8.20	Rs./kVAh
HTIS (Oxygen Manufacturers) 11 KV	1000	Rs./kVA/Month	5.82	Rs./kVAh
HTIS (Oxygen Manufacturers) 33 KV	1000	Rs./kVA/Month	5.76	Rs./kVAh
Railway Traction Services	-		-	
RTS	540	Rs./kVA/Month	8.67	Rs./kVAh
HT Electric Vehicle Charging Stations.			8.35	Rs./kVAh

Commission's view

The Commission, on detailed scrutiny and prudence check of the annual revenue requirement filed by the Discoms, has arrived at a net revenue surplus of Rs. 1614.12 Crore (Rs.246.82 Crore

revenue gap for NBPDCCL and Rs.1860.94 Crore revenue surplus for SBPDCL) for FY 2024-25 including trued up revenue gap of FY 2022-23 as detailed hereunder.

Sl. No.	Particulars	NBPDCCL	SBPDCL	Total
1	ARR approved for FY 2024-25	15180.16	17912.78	33092.94
2	Less: Revenue from Existing tariff	15832.48	18522.78	34355.26
3	Revenue Gap/(Surplus)	(652.32)	(610.00)	(1262.32)
4	Carried forward trued up revenue gap/(Surplus) of FY 2022-23 along with carrying cost	899.14	(1250.94)	(351.80)
5	Revenue requirement for FY 2024-25 (3+4)	246.82	(1860.94)	(1614.12)

The Commission has been approving uniform retail supply tariff for Discoms (NBPDCCL and SBPDCL) in order to have one tariff for one particular category of consumers of both the Discoms in the State of Bihar. **Keeping in view the revenue surplus, the Commission decided to reduce the energy charge rate by 15paise/unit of kWh or kVAh across all the consumer categories for FY 2024-25. Further, the Commission has determined the fixed charges at Rs.4250/kW/PM for Street Lights Un-metered category and leaving the fixed charge unchanged for all other category of consumers.**

A table showing approved retail tariff rates of electricity for FY 2024-25 is placed at the end of this paragraph.

After the tariff revision the consolidated revenue surplus of Rs.880.40 Crore (Rs.602.31 Crore revenue gap for NBPDCCL and Rs.1482.71 crore Revenue surplus in SBPDCL) is arrived at based on estimates/projections of the Discoms. It has been the experience of the Commission that the financial performance of the Discoms may vary with the actuals reported in the audited accounts.

Section 65 of the Electricity Act 2003 stipulates that if the State Govt. decides to give subsidy to any consumer or class of consumers, it shall pay such subsidy amount in advance.

Regulation 35 of the BERC (Multi Year Distribution Tariff) Regulations, 2021 has the following provisions for subsidy:

“(a) The Commission shall determine the ARR and Tariff without considering subsidy. Provided that if the State Government declares subsidy for the categories of consumers after notification of Tariff Order, the licensee shall incorporate the same in the tariff and intimate the Commission with the revised Tariff Schedule that shall be charged if the subsidy is received in advance: Provided further that in case the State Government

declares subsidy in advance or during tariff filing proceedings and the licensee incorporates the subsidy in the petition, the Commission shall notify two tariff schedules, one with subsidy and the other without subsidy: Provided also that the Government's subsidy provided for or declared shall be supported by documentary evidence of time schedule of payment, mode of the payment of the subsidy and categorization of the subsidy amount into subsidized consumer categories:"

The Discoms have not projected any Tariff subsidy for FY 2024-25. The Commission, accordingly, has determined the retail tariff rates without taking into consideration the Tariff subsidy to consumers.

Approved Retail Tariff for NBPDCCL and SBPDCL for FY 2024-25

SI No.	Category/Subcategory of Consumers	Approved Tariff for NBPDCCL and SBPDCL area for FY 2024-25		
		Fixed charge	Energy Charge	Unit slabs
A	LOW TENSION SUPPLY			
1	Domestic			
1.1	Kutir Jyoti	Rs.20/Month/Connection	Rs.7.42/Unit	0-50 units
			As per DS-I or DS-II	Above 50 units
1.2	DS-I Rural	Rs. 40/kW or part/month	Rs.7.42/Unit	0-50
			Rs.7.96/Unit	Above 50
1.3	DS-II (Demand based)	Rs.80/kW or part/month	Rs.7.42/Unit	1-100
			Rs.8.95/Unit	Above 100
1.4	DS-III (Demand based) (optional)	Rs.80/kW or part/month	Rs.9.03/Unit	All Units
2	Non-Domestic			
2.1	NDS-I Rural (Metered)	Rs. 60/kW or part/month	Rs.7.79/Unit	1-100
			Rs.8.21/Unit	Above 100
	NDS-II (Demand based)			
2.2	NDS-II Contract load upto 0.5 kW	Rs. 200/month/connection	Rs.7.73/Unit	All Units
2.3	NDS-II Contract demand above 0.5 kW and upto 70kW	Rs. 300/kW or part/month	Rs.7.73/Unit	1-100
			Rs.8.93/Unit	Above 100
3	Irrigation and Agriculture Services (Connected load based)			
3.1	IAS-I (Unmetered)	Rs.1350/HP or part/month	--	
3.2	IAS-I (Metered)	Rs. 100/HP or part/month	Rs.6.74/Unit	All Units
3.3	IAS-II (Metered) (Demand based)	Rs. 500/kVA or part/month	Rs.7.17/kVAh	All Units
4	Low Tension Industrial (Demand based kVAh)			
4.1	LTIS-I	Rs.288/kVA or part/month	Rs.7.79/kVAh	All Units
4.2	LTIS-II	Rs 360/kVA or part/month	Rs.7.79/kVAh	All Units
5	Public Water Works			
5.1	PWW (Demand based, kVAh)	Rs 630/kVA or part/month	Rs.9.72/kVAh	All Units
5.2	Har Ghar Nal (Connected load based)	Rs 100/HP or part/month	Rs.8.16/Unit	All Units
6	Street Light Services			

SI No.	Category/Subcategory of Consumers	Approved Tariff for NBPDC & SBPDCL area for FY 2024-25		
		Fixed charge	Energy Charge	Unit slabs
6.1	SS-Metered (Connected load based)	Rs 100/kW or part/month	Rs.9.03/Unit	All Units
6.2	SS-Unmetered	Rs 4250/kW or part/month	--	
7	LT Electrical vehicle charging stations		Rs.8.72/Unit	All Units
B	HIGH TENSION SUPPLY			
1	HT – GENERAL			
1.1	HTS-I (11 KV)	Rs.550/kVA/Month	Rs.7.98/kVAh	All Units
1.2	HTS-II (33 KV)	Rs.550/kVA/Month	Rs.7.92/kVAh	All Units
1.3	HTS-III (132 KV)	Rs.550/kVA/Month	Rs.7.85/kVAh	All Units
1.4	HTS-IV (220 KV)	Rs.550/kVA/Month	Rs.7.79/kVAh	All Units
1.5	HTS-V (400 KV)	Rs.550/kVA/Month	Rs. 7.72/kVAh	All Units
2	HT – INDUSTRIAL			
2.1	HTIS-I (11 KV)	Rs.550/kVA/Month	Rs.7.98/kVAh	All Units
2.2	HTIS –II (33 KV)	Rs.550/kVA/Month	Rs.7.92/kVAh	All Units
2.3	HTIS –III (132 KV)	Rs.550/kVA/Month	Rs.7.85/kVAh	All Units
2.4	HTIS –IV (220 KV)	Rs.550/kVA/Month	Rs.7.79/kVAh	All Units
2.5	HTIS –V (400 KV)	Rs.550/kVA/Month	Rs. 7.72/kVAh	All Units
2.6	HTSS (11kV /33 KV)	Rs.800/kVA/Month	Rs.4.94/kVAh	All Units
2.7	HTSS /132kV/220kV)	Rs.800/kVA/Month	Rs.4.94/kVAh	All Units
2.8	HTS-I (Oxygen manufacturers) 11kV	Rs.1000/kVA/Month	Rs.5.43/kVAh	All units
2.9	HTS-I (Oxygen manufacturers) 33kV	Rs.1000/kVA/Month	Rs.5.37/kVAh	All units
3	Railway Traction (RTS)	Rs.540/kVA/Month	Rs.8.16/kVAh	All Units
4	HT Electrical vehicle charging stations		Rs.7.85/kVAh	All Units

9.5 Tariff Schedule

The approved Tariff Schedule which shall be effective from 1st April, 2024 is given in Appendix – 1. Part A: Tariff Schedule for Low Tension Supply Part B: Tariff Schedule for High Tension Supply Part C: Miscellaneous and General Charges

TARIFF SCHEDULE
FOR
RETAIL TARIFF RATES AND TERMS AND CONDITIONS OF SUPPLY FOR FY 2024-25

(Effective from 1st April, 2024)

PART - A: LOW TENSION SUPPLY

System of supply: Low Tension – Alternating Current, 50 cycles per second

Single Phase supply at 230 Volts

Three Phase supply at 400 Volts

The tariffs are applicable for supply of electricity to L.T consumers with a connected / contracted demand up to 70 kW for domestic, non-domestic and Street Light Category, up to 74 kW for industrial (LTIS) and for public water works (PWW) category and up to 100 HP for irrigation category under single or three phase supply as detailed below:

-) Single Phase supply up to 7 kW
-) Three Phase supply 5 kW and above.
-) Consumers having load between 5 kW and 7 kW have the option to take single phase or three phase supply.
-) LT Industrial and Agriculture load up to 5 kW have option to avail supply at single phase or three phase

Category of Service and TARIFF RATES

1.0. DOMESTIC

Service Applicability

This tariff is applicable for supply of electricity for domestic purposes such as lights, fans, televisions, heaters, air-conditioners, washing machines, air-coolers, geysers, refrigerators, ovens, mixers and other domestic appliances including motor pumps for lifting water for domestic purposes.

Bed & Break Fast and Home Stay Establishments classified under the Ministry of Tourism Govt. of India, Guidelines dated 10.12.2018 read with Mukhyamantri Homestay Motivation Scheme, 2024.

This is also applicable to the common facilities in the multistoried, purely residential apartments, buildings. This Tariff also includes Kutir Jyoti connections in rural and urban areas.

1.1. Kutir Jyoti / BPL Connections (KJ/BPL) – Rural / Urban

This will be applicable to all dwelling houses of rural and urban families below the poverty line (BPL) as per the list/notification published by Rural Development Department, Government of Bihar from time to time.

- i). The total connected load of Kutir Jyoti connection in a rural and urban area should not exceed 250 watts and maximum consumption of 50 units per month shall be allowed under this category.
- ii). Use of LED / CFL both in rural areas and urban areas should be encouraged.
- iii). In case it is detected that the connected load and/or monthly consumption for any month exceeds the norms prescribed in para (i) above, the excess units consumed shall be billed at the tariff rates applicable to DS - I and DS- II category as the case may be.

1.2. Domestic Service – I (DS – I Rural)

This is applicable to domestic premises in rural areas (i.e. areas not covered by areas indicated under DS-II). If any portion of the premises is used for other than domestic purpose, a separate connection shall be taken for that portion and NDS-I tariff schedule shall be applicable for that service.

1.3. Domestic Service – II (DS – II Urban)

This is applicable for domestic premises in urban areas notified by Department of Urban Development, Government of Bihar from time to time. If any portion of the premises is used for other than domestic purposes, a separate connection shall be taken for that portion and NDS-II tariff schedule shall be applicable for that service.

1.4. Domestic Service – III (DS-III Group Connection) (Optional)

This is applicable for group residential consumers willing to avail supply at single point for the purpose of use of electricity in residential townships, registered societies, multi-storied residential complex (including lifts, water pumps and common lighting within the premises). The maximum allowable contract demand shall be 74KW. If any portion of the premises is used for other than domestic purposes, a separate connection shall be taken for that portion and NDS-II tariff schedule shall be applicable for that service.

TARIFF RATES**2.0. DOMESTIC****2.1. Kutir Jyoti - BPL Consumers (Connected load based)**

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge (Paisha/Unit.)
(i)	K.J. - (Consumption up to 50 units per month)		
1	Metered	Rs.20 / connection / per month	First 50 units at 742 Paisha/ unit Remaining units, rate as per DS-I DS-II as applicable.
The fixed charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the fixed charge for that month shall be levied on pro-rata basis.			

2.2. DS – I: (Demand based)

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate (Paisa/unit)
1	Metered	Rs.40 / kW or part thereof per month	First 50 units	742
			Above 50	796
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

2.3. DS – II: (Demand based)

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate (Paisha/unit)
1	Metered (Contract demand up to 70 kW)	Rs.80 / kW or part thereof per month	1-100 units	742
			Above 100 units	895
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

2.4. DS – III: (Demand based) (Optional)

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate (Paisa/unit)
1	Metered (Contract demand up to 74 kW)	Rs.80 / kW or part thereof per month	All units	903
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

3.0. NON-DOMESTIC SERVICE (NDS)

This is applicable for supply of electrical energy for non-domestic consumers having sanctioned/contracted load up to 70 kW, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals, nursing homes, clinics, dispensaries, restaurants, hotels, boarding/lodging houses, clubs, guest houses, marriage halls/houses, public halls, show rooms, centrally air-conditioning units, offices, commercial establishments, cinemas, X- ray plants, non-government schools, colleges, libraries and research institutes, railway stations, fuel/oil stations, service stations, all Radio broadcasting stations/T.V. installations, printing presses, commercial trusts, societies, banks, theatres, circus, coaching institutes, common facilities in multistoried commercial office/buildings, Government and semi-government offices, public museums, Government educational institutions, their hostels and libraries, Government hospitals and government research institutions and non-profitable government aided educational institutions their hostels and libraries, non-profitable recognized charitable cum public institutions, places of worship like temples, mosques, gurudwaras, churches etc. and burial/crematorium grounds, glow signboards, banners and hoardings for advertisement and other installations not covered under any other tariff schedule of LT Categories.

3.1. Non-Domestic Service (NDS – I) Rural (Demand based)

Applicable to non-domestic premises in rural areas i.e. areas not covered by areas indicated under NDS-II

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge	
			Consumption in a month (Units)	(Paisa/ Unit.)
1	Metered	Rs.60 /kW or part thereof per month	1-100 units	779
			Above 100 units	821
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

3.2. Non - Domestic Service – NDS – II (Demand based)

Applicable to contracted load up to 70 kW in urban areas notified by Department of Urban Development, Government of Bihar from time to time. This tariff shall also be applicable to places of worship like temples, mosques, gurudwaras, churches etc. burial/crematorium grounds, hoardings/glow sign boards/advertising boards.

Sl. No.	Category of Consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	(Paisa/Unit)
1.	Metered Contract load up to 0.5 kW	Rs.200/ month/connection	All Units	773
2	Metered Contract demand above 0.5 kW and upto 70 kW	Rs. 300/kW or part thereof per month	1-100 Units	773
			Above 100 Units	893
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

4.0. IRRIGATION and AGRICULTURE SERVICE (IAS)

This is applicable for supply of electrical energy for bonafide use for agricultural purposes including processing of Agricultural Produce, confined to chaff-cutter, thrasher, cane crusher and rice Huller when operated by the agriculturist in the field or

farm. This is also applicable to hatcheries, poultrys (with more than 1000 birds) and fisheries (fish ponds).

4.1. IAS – I (Connected load based)

This is applicable for all purposes indicated above including private tube wells of load up to 100 HP.

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge (Paisa/ Unit.)	
1	Unmetered	Rs.1350 / HP or part thereof / month	X	
2	Metered	Rs.100 / HP or part thereof / month	All units	674

Note: There shall be no un-metered connections for Hatcheries, poultrys and fisheries and it should necessarily be metered connections.

4.2. IAS – II (Demand based)

This is applicable to state tube wells/ state lift irrigation pumps / state irrigation pumps up to 74 kW 100 HP.

Sl. No	Category of consumer	Fixed charge (Rs./kVA)	Energy charge (Paisa/ kVAh)	
1	Metered	Rs.500 / kVA or part thereof / month	All units (kVAh)	717

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.

If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.

The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.

5.0. LOW TENSION INDUSTRIAL SERVICE (LTIS).

This is applicable for supply of electricity to low tension industrial consumers with connected load /contract demand up to 99 HP or 74 kW, which includes incidental lighting for industrial processing or Agro-Industries purposes, arc welding sets, flour mills, oil mills, rice mills, dal mills, atta chakkies, Huller, expellers etc.

5.1. LTIS – I (Demand based)

All those consumers opting for LTIS-I category with contract demand up to 19 KW shall be required to pay at the rates indicated below:

Sl. No	Category of consumer	Demand charge (Rs./kVA)	Energy charges Paise / kVAh	
1	Metered Contract demand up to 19 KW	Rs. 288/kVA or part thereof per month.	All units (kVAh)	779
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

5.2. LTIS –II (Demand based)

All those consumers under LTS-II category with 3 phase supply and with contract demand above 19kW and up to 74kW shall be required to pay at the rates indicated below:

Sl. No	Category of consumer	Demand charge (Rs./kVA)	Energy charges Paise / kVAh	
1	Metered Contract demand above 19 kW and up to 74KW	Rs.360/kVA or part thereof per month.	All units (kVAh)	779
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

6.0. PUBLIC WATER WORKS

This is applicable to public water works, sewerage treatment plant and sewerage pumping stations functioning under state government and state government undertakings and local bodies.

6.1. PWW (Demand Based)

Sl. No	Category of consumer	Demand charge (Rs./kVA)	Energy charges Paise / kVAh	
1	Metered Contract demand up to 74 kW	Rs. 630/kVA or part thereof per month.	All units (kVAh)	972
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>				

6.2. Har Ghar Nal (Connected Load based)

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge (Paise/ Unit.)	
1	Metered	Rs.100 / HP or part thereof / month	All units	816
<p>The fixed charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month.</p> <p>In any month if the supply of power is less than 21 hours/day, then the fixed charge for that month shall be levied on pro-rata basis.</p>				

7.0. STREET LIGHT SERVICES (SS).

This is applicable for supply of electricity for street light system including signal system.

Also applicable for Traffic Lights, Mast lights(installed by Public bodies) /Blinkers etc.

7.1. SS Metered Supply (Connected load based)

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge (Paise/ Unit.)	
1	Metered	Rs. 100/kW or part thereof / month	All units	903

7.2. SS Unmetered Supply

Sl. No	Category of consumer	Fixed charge (Rs.)	Energy charge (Paise/ Unit.)	
1	Unmetered	Rs.4250/kW or part thereof / month	X	

8.0. LT Electric Vehicle Charging Stations.

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for electric vehicle. In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per

the category of such premises. Electricity consumption for other facilities and purposes at Charging Station such as office, restaurant, rest rooms, convenience stores, public amenities, etc., shall be charged at tariff applicable to Non-Domestic Category.

Sl. No	Category of consumer	Energy charge (Paisa/ Unit.)
1	Metered	872

TERMS AND CONDITIONS OF LOW-TENSION (LT) SUPPLY TARIFF

The aforementioned tariff rates are subject to the following conditions:

(1). Demand based Tariff

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.

If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.

(2). Recovery of full Fixed / Demand Charge

The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis

Supply of power hours may be reckoned as recorded at 33/11 KV substation, in case where installed consumer meters does not have features of recording hours of supply.

This shall however will not be applicable to Street light, Agriculture as well as un-metered tariff categories of consumers.

(3). Fuel and Power Purchase Cost Adjustment (FPPCA)

In addition to the above tariff Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

(4). Rebate for prompt payment.

The due date for making payment of energy bills or other charges shall be 15 days from the date of issue of the bill. Rebate of 1.5% on the billed amount for timely payment of bills for all the consumers served in LT category shall be allowed.

In case a consumer makes full payment after due date but within 10 days after the due date, no DPS shall be levied for this period but rebate for prompt payment will not be admissible.

(5). Rebate for online payment

For encouraging the consumers to make online payment of the bills through online web portal, a rebate of 1% of the billed amount in addition to prompt payment rebate @ 1.5% shall be allowed. However, online payment rebate shall be applicable if the consumer makes full payment of the bill within due date.

(6). Rebate for pre-paid smart meter

For encouraging the consumers to avail pre-paid smart meter connection, a rebate of 2% on the recharged amount in addition to rebate for online or digital payment of 1% shall be allowed. However, rebate for online or digital payment shall not be applicable if the consumer purchases recharge coupons if any.

(7). Rebate for Rural Consumers for Consistent Payment

For encouraging rural consumers to make continuous prompt payment of bills, a rebate @ 1% of the total monthly bill of last quarter will be allowed in the next month.

For example: If a postpaid Rural consumer makes regular payment of their monthly bill within the due date during the previous quarter, then, such consumer may be entitled to a rebate of 1% of total amount of monthly bills of last Quarter in its next monthly bill amount

(8). Accounting for Partial Payment

All payment made by consumers in full or part shall be adjusted in the following order of priority:

- a). Statutory taxes and duties on current consumption
- b). Arrear of Statutory taxes and duties
- c). Delayed payment surcharge
- d). Balance of arrears
- e). Balance of current bill

(9). Delayed Payment Surcharge (DPS)

In case a consumer does not pay energy bills in full within 10 days grace period after due date specified in the bill, a delayed payment surcharge of one and half (1.5) percent per month or part thereof on the outstanding principal amount of bill will be levied from the due date for payment until the payment is made in full without prejudice to right of the

Licensee to disconnect the supply in accordance with Section 56 of the Electricity Act, 2003. The licensee shall clearly indicate, in the bill itself, the total amount including DPS, payable for different dates after the due date after allowing for the grace period of 10 days. No DPS shall be charged on DPS arrear. The bill shall indicate the energy charges for the month, arrears of energy charges and DPS separately.

(10). Duties and Taxes

Other statutory levies like electricity duty or any other taxes, duties etc., imposed by the State Government / Central Government or any other competent authority, shall be charged extra and shall not be part of the tariff as determined under this Order.

(11). Shunt Capacitor Installation and Rebate/surcharge for deviating from norm of Power factor

Any LT consumer except Domestic category and categories having kVAh based billing in whose case, the meter installed has power factor recording feature and who fails to maintain monthly average power factor of 90% shall pay/avail a surcharge/rebate in addition to his normal tariff at the following rates.

(a). Power factor surcharge

(i) For each fall of 0.01 in power factor up to 0.80	One percent on demand and energy charge (Actual Recorded)
(ii) For each fall of 0.01 in power factor below 0.80	1.5 (one and half) percent on demand and energy charge (Actual Recorded)

(b). Power factor Rebate

(i) For each increase of 0.01 in power factor above 0.90 up to 0.95	0.5 (half) percent on demand and energy charge (Actual Recorded)
(ii) For each increase of 0.01 in power factor above 0.95	1.0 (one) percent on demand and energy charges. (Actual Recorded)

(12). Advance Payment

If a consumer makes advance payment against his future bills, he shall be allowed for interest equivalent to the Bank Rate of RBI. Such amount of interest shall be adjusted in subsequent monthly regular electricity bills on reducing balance, provided that the minimum amount of advance payment shall not be less than Rs.2000/- (Rupees Two thousand).

(13). Time of Day tariff (ToD) (Optional)

ToD tariff is applicable to Consumers under NDS-I, NDS-II, LTIS-I, LTIS-II and PWW instead of the normal tariff given in the Schedule.

Under the Time of Day (ToD) Tariff, electricity consumption and demand in respect of NDS-I, NDS-II, LTIS-I, LTIS-II and PWW consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter. The consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer.

Time of Use	Demand Charges	Energy Charges
(i) Normal period (9:00 a.m. to 5.00 p.m.)	Normal Rate	80% Normal rate of energy charges
(ii) Evening peak load period (5.00 p.m. to 11.00 p.m.)	Normal Rate	120% of normal rate of energy charges
(iii) off peak load period (11.00 p.m. to 9.00 a.m.)	Normal Rate	Normal rate of energy charges

PART – B: HIGH TENSION (HT) SUPPLY**Tariff Rates****9.0. HT - General****9.1. HTS (General) – I (11 kV)**

This is Applicable for supply of electricity for use in installations with a minimum contract demand of 50 kVA and maximum contract demand of 1500 kVA.

Character of service: AC, 50 cycles, 3 phase at 11 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 798
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

9.2. HTS (General) – II (33 kV)

This is applicable for use in installations with a minimum contract demand of 500 kVA and maximum contract demand of 15,000 kVA.

Character of service: AC, 50 cycles, 3 phase at 33 kV

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 792
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

9.3. HTS (General) – III (132 kV)

This is applicable for installations with a minimum contract demand of 7.5MVA.

Character of service: AC, 50 cycles, 3-phase at 132 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 785
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

9.4. HTS (General) -IV (220 kV)

This is applicable for installation with a minimum contract demand of 10 MVA.

Character of service: AC, 50 cycles, 3 phase at 220 kV

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 779
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

9.5. HTS (General) -V (400 kV)

This is applicable for installation with a minimum contract demand of 20 MVA.

Character of service: AC, 50 cycles, 3 phase at 400 kV

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 772
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p>	

If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.

The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.

10.0. HT – Industrial Services

10.1. HTIS (Industrial) – I (11 kV)

This is Applicable for supply of electricity for industries with installations of a minimum contract demand of 50 kVA and maximum contract demand of 1500 kVA.

Character of service: AC, 50 cycles, 3 phase at 11 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 798
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

10.2. HTIS (Industrial)– II (33 kV)

This is applicable for supply of electricity for industries with a minimum contract demand of 500 kVA and maximum contract demand of 15,000 kVA. Character of service: AC, 50 cycles, 3 phase at 33 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 792
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

10.3. HTIS (Industrial) – III (132 kV)

This is applicable for supply of electricity for industries with a minimum contract demand of 7.5MVA. Character of service: AC, 50 cycles, 3-phase at 132 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 785
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month.</p> <p>In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis</p>	

10.4. HTIS (Industrial)-IV (220 kV)

This is applicable for supply of electricity for industries with a minimum contract demand of 10 MVA. Character of service: AC, 50 cycles, 3 phase at 220 kV.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 779
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month.</p> <p>In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

10.5. HTIS (Industrial)-V (400 kV)

This is applicable for supply of electricity for industries with a minimum contract demand of 20 MVA. Character of service: AC, 50 cycles, 3 phase at 400 kV

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
550	All units – 772

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.

If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.

The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.

10.6. HTIS (Industrial) - Oxygen Manufacturers (11 kV)

This Tariff category is applicable for supply of electricity for Oxygen Manufacturing industries with installations of with minimum contract demand of 50 kVA to 1500 kVA

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
1000	All units – 543
<p>The billing demand shall be the maximum demand recorded during the month or 70% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

10.7. HTIS (Industrial) - Oxygen Manufacturers (33 kV)

This Tariff category is applicable for supply of electricity for Oxygen Manufacturing industries with installations of with minimum contract demand of 500 kVA to 15000 kVA as defined in the Bihar Electricity Supply Code (6th amendment) 2020.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
1000	All units – 537
<p>The billing demand shall be the maximum demand recorded during the month or 70% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p>	

10.8. HTSS – (11 kV/33 kV)

This is applicable for supply of electricity to all consumers who have contract demand of 300 kVA and more for induction furnace including Ferro Alloy loads. This tariff will not apply to casting units having induction furnace of melting capacity of 500 Kg and below. The capacity of induction furnace shall be 600 kVA per metric ton as existing for determining the contract demand of induction furnace in the existing HTSS service connections. However, for new connection and if the furnace is replaced with a new one for the existing connections, the contract demand shall be based on total capacity of the furnace and equipment as per manufacturer technical specifications, and in case of difference of opinion, the provisions of Clause Nos. 6.39 and 6.40 of the Bihar Electricity Supply Code shall apply.

Those consumers who are having rolling/re-rolling mill in the same premises will take additional contract demand for the rolling/re-rolling mill over and above the contract demand required for induction furnace. The consumer will have the option to segregate the rolling/re-rolling mill and take separate new connection following all prescribed formalities with a separate transformer. This new connection, if taken by the consumer will be allowed to be billed in appropriate tariff schedule. Such rolling/re-rolling mill will be allowed to avail power at 33 kV.

Character of service: AC, 50 cycles, 3-phase at 220 kV / 132 kV / 33 kV / 11kV upto 15000kVA.

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
800	All units – 494
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p> <p>If the power is availed at 11 kV a surcharge of five (5) % will be charged extra on demand and energy charges.</p>	

10.9. HTSS – (132 kV /220 kV)

This is applicable for supply of electricity to all consumers who have contract demand of 300 kVA and more for induction furnace including Ferro Alloy loads. This tariff will not apply to casting units having induction furnace of melting capacity of 500 Kg and below. The capacity of induction furnace shall be 600 kVA per metric ton as existing for determining the contract demand of induction furnace in the existing HTSS service connections. However, for new connection and if the furnace is replaced with a new one for the existing connections, the contract demand shall be based on total capacity of the furnace and equipment as per manufacturer technical specifications, and in case of difference of opinion, the provisions of Clause Nos. 6.39 and 6.40 of the Bihar Electricity Supply Code shall apply.

Those consumers who are having rolling/re-rolling mill in the same premises will take additional contract demand for the rolling/re-rolling mill over and above the contract demand required for induction furnace. The consumer will have the option to segregate the rolling/re-rolling mill and take separate new connection following all prescribed formalities with a separate transformer. This new connection, if taken by the consumer will be allowed to be billed in appropriate tariff schedule. Such rolling/re-rolling mill will be allowed to avail power at 33 kV.

Character of service: AC, 50 cycles, 3-phase at 220 kV / 132 kV with a minimum demand limit of 10000kVA and 7500 kVA respectively

Demand charge Rs./ kVA / Month of billing demand	Energy charges (Paise / kVAh)
800	All units – 494
<p>The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.</p> <p>If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.</p> <p>The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.</p> <p>If the power is availed at 11 kV a surcharge of five (5) % will be charged extra on demand and energy charges.</p>	

11.0. RTS (Railway Traction)

Applicable to Railway Traction loads only

Demand charge Rs. / kVA / Month of billing demand	Energy charges (Paise / kVAh)
540	All units – 816
1). 13 Ps/kVAh of rebate shall be provided for availing supply at voltages higher than 132kV. 2). 13 Ps/kVAh of surcharge shall be levied for availing supply at lower voltages than 132 kV. 3). The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.	

12.0. HT Electric Vehicle Charging Stations

This Tariff category is applicable for Electric Vehicle Charging Station including battery swapping station for electric vehicle. In case the consumer uses the electricity supply for charging his own electric vehicle at his premises, the tariff applicable shall be as per the category of such premises. Electricity consumption for other facilities and purposes at Charging Station such as office, restaurant, rest rooms, convenience stores, public amenities, etc., shall be charged at tariff applicable to Non-Domestic Category.

Sl. No	Category of consumer	Energy charge (Paise/ kVAh.)
1	Metered	785

TERMS AND CONDITIONS OF HIGH -TENSION (HT) SUPPLY TARIFF

The above tariffs are subject to the following conditions:

1). Demand based Tariff

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand whichever is higher.

If in any month the recorded maximum demand exceeds 105% of contract demand, that portion of the demand in excess of the contract demand shall be billed at twice the normal charges.

2). Recovery of full Fixed/Demand Charge

The demand charges shall be recovered in full only if supply of power duly recorded by the consumer meter is maintained for at least 21 hours/day during the billing month. In any month if the supply of power is less than 21 hours/day, then the demand charge for that month shall be levied on pro-rata basis.

Supply of power may be reckoned as recorded at 33/11 kV substation, in case where installed consumers meters does not have features of recording hours of supply.

3). Fuel and Power Purchase Cost Adjustment (FPPCA)

In addition to the above tariff Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

4). Rebate for prompt payment

The due date for making payment of energy bills or other charges shall be 15 days from the date of issue of the bill. Rebate of 1.5% on the billed amount for timely payment of the bills for all the consumers served in HT category shall be allowed.

In case a consumer makes full payment after due date but within 10 days after the due date, no DPS shall be levied for this period and rebate for prompt payment will not be admissible.

5). Rebate for online payment

To motivate the consumers to make online payment of the bills through online web portal a rebate of 1% of the billed amount shall be allowed in addition to prompt payment rebate of 1.5% . However, online payment rebate shall be applicable if the consumer makes full payment of the bill within due date.

6). Rebate for prepaid meter

For encouraging the consumers to avail pre-paid smart meter connection, a rebate of 2% on the recharged amount in addition to rebate for online or digital payment of 1% shall be allowed. However, rebate for online or digital payment shall not be applicable if the consumer purchases recharge coupons if any .

7). Load Factor Incentive

To promote efficiency in the system and incentivize electricity consumption, Load factor incentive is as under:

A. Load factor incentive for all HT Industrial category consumers (excluding HTSS and Oxygen Manufacturers)

Load Factor Range	Incentive
30%-50%	10 paise per unit on energy charges for energy consumption over 30% and up to 50% load factor during the billing month
50%-70%	20 paise per unit on energy charges for energy consumption over 50% and up to 70% load factor during the billing month
Above 70%	25 paise per unit on energy charges for energy consumption over and above 70% and up to 100% load factor during billing month

B. Load factor incentive for all HTSS Category Industries:

Load Factor range	Incentive
Above 60%	30 paise per unit on energy charges for entire energy consumption during the billing month for load factor above 60%.

C. Load Factor Incentive for Oxygen Manufacturing Industries

Load Factor range	Incentive
65% to 70%	15 paise per unit on energy charges for entire energy consumption during the billing month for load factor above 65% and upto 70%.
Above 70%	25 paise per unit on energy charges for entire energy consumption during the billing month for load factor above 70%.

8). Accounting of Partial payment

All payment made by consumers in full or part shall be adjusted in the following order of priority:

- a). Statutory taxes and duties on current consumption
- b). Arrear of Statutory taxes and duties
- c). Delayed payment surcharge

- d). Balance of arrears
- e). Balance of current bill

9). Delayed Payment Surcharge (DPS)

In case, consumer does not pay energy bills in full within 10 days grace period after due date specified in the bill, a delayed payment surcharge of one and half (1.5) percent per month or part thereof on the outstanding principal amount of bill will be levied from the original due date for payment until the payment is made in full without prejudice to right of the licensee to disconnect the supply in accordance with Section 56 of the Electricity Act, 2003. The licensee shall clearly indicate in the bill itself the total amount, including DPS, payable for different dates after the due date after allowing for the grace period of 10 days. No DPS shall be charged on DPS arrear. The bill shall indicate the energy charges for the month, arrears of energy charges and DPS separately.

10). Duties and Taxes

Statutory levies like electricity duty or any other taxes, duties etc., imposed by the State Government / Central Government or any other competitive authority, shall be extra and shall not form part of the tariff as determined under this Order.

11). Contract Demand for Induction Furnaces

The prevailing practice will continue for determining the contract demand of induction furnaces in the existing services connections. However, for new connections and where the furnaces are replaced in existing connections, contract demand shall be based on the total capacity of the furnace and equipment as per manufacturer technical specifications and in case of difference of opinion, the provisions of clause No.6.39 and 6.40 of Bihar Electricity Supply Code shall apply.

12). Advance Payment:

If a consumer makes advance payment against his future bills, the consumer shall be allowed for interest equivalent to the Bank Rate of RBI. Such amount of interest shall be adjusted in subsequent monthly regular electricity bills on reducing balance, provided that the minimum amount of advance payment shall not be less than Rs.2000/- (Rupees Two thousand).

13). Time of Day tariff (ToD) (for all HT consumers)

ToD tariff shall be mandatory for all HT consumers. Under the Time of Day (ToD) Tariff, electricity consumption and demand in respect of HT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter. The consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer.

Time of Use	Demand Charges	Energy Charges
(i) Normal period (9:00 a.m. to 5.00 p.m.)	Normal Rate	80% of Normal rate of energy charges
(ii) Evening peak load period (5.00 p.m. to 11.00 p.m.)	Normal Rate	120% of normal rate of energy charges
(iii) off peak load period (11.00 p.m. to 9.00 a.m.)	Normal Rate	Normal rate of energy charges

TERMS AND CONDITIONS OF TEMPORARY SUPPLY (LT and HT)**1). Applicability**

This tariff is for connection of temporary in nature for period of less than one year. The applicability shall be as given in the respective category tariff rate schedule. Temporary supply cannot be claimed by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made giving due notice subject to technical feasibility and in accordance with electricity supply code issued by the Commission.

2). Tariff

Fixed charge and energy charge shall be chargeable at one and one-fourth ($1\frac{1}{4}$) times the normal tariff as applicable to the corresponding appropriate tariff category.

3). Terms of Supply

- a). Temporary supply under any category of service may be given for a period not exceeding 30 days in the first instance, the duration of which, however may be extended on month-to-month basis subject to maximum of one year.
- b). In addition to the charges mentioned above, the consumer shall have to deposit the following charges before commencement of the temporary supply
 - i). Estimated cost of erection of temporary service line and dismantling as deliberated under Para 9.3.12 of this order.
 - ii). Cost of irretrievable materials which cannot be taken back to service.
 - iii). Miscellaneous and General Charges as per appropriate tariff schedule.
 - iv). Rental on the cost of materials as per estimate framed but not payable by the consumer shall be payable at the rate of Rs.15/- per month on every Rs.100/- or part thereof.
 - v). Ten (10%) percent on the total cost of the estimate for the temporary service connection to cover as security for loss of materials and contingencies. In case such loss is not noticed, the amount will be refunded.

- c). The applicants for temporary supply shall be required to make a deposit in advance of the cost as detailed above including the energy consumption charges estimated for full period on the basis of connected load. This will however, be adjusted against the final bill that will be rendered on disconnection of supply on month to month basis.
- d). If the consumer intends to extend the temporary supply beyond the period originally applied for, he will have to deposit in advance all charges as detailed above including the estimated electricity consumption charges, for the period to be extended and final bill for the previous period, as well.
- e). The temporary supply shall continue as such and be governed by the terms and conditions specified above until the supply is terminated or converted into permanent supply at the written request of the consumer. The supply will be governed by the terms and conditions of permanent supply only after the consumer has duly completed all the formalities like execution of agreement, deposit of security money, cost of service connection and full settlement of the account in respect of the temporary supply etc.

TERMS AND CONDITIONS OF SEASONAL SUPPLY (LT and HT)

- 1). Seasonal supply shall be given to any consumer on written request to the Licensee subject to the following conditions.

Period of Supply	Tariff Rate
Upton 3 consecutive months in a year	Appropriate tariff plus 30 percent
More than 3 consecutive months and up to 6 consecutive months in a year	Appropriate tariff plus 20 percent
More than 6 consecutive months and up to 9 consecutive months in a year	Appropriate tariff plus 15 percent
More than 9 consecutive months but less than one year	Appropriate tariff plus 5 percent.

- 2). Miscellaneous and General Charges as provided in the appropriate tariff are applicable to seasonal loads and would be charged extra for the entire period of supply.
- 3). The supply would be disconnected after the end of the period unless the consumer desires the supply to be continued. Any reconnection charges have to be borne by the consumer.
- 4). Consumer proposing to avail seasonal supply shall sign an agreement with the Licensee to avail power supply for a minimum period as specified in Bihar Electricity Supply Code, 2007 amended from time to time.
- 5). The consumers must avail supply in terms of whole calendar month continuously.

PART – C: MISCELLANEOUS AND GENERAL CHARGES**1.0. Miscellaneous and General Charges**

The Miscellaneous and General charges approved by the Commission are as below:

1.1. Application fee for new connection / reduction of load / enhancement of load / request for permanent disconnection / request for tatkal connection:

Sl. No.	Category / class	Rate
(i)	Kutir Jyoti	Rs.20.00
(ii)	LT Single phase except Kutir Jyoti	Rs.75.00
(iii)	LT Three phase	Rs.200.00
(iv)	LT Industrial	Rs.300.00
(v)	HT Connection	Rs.750.00
(vi)	For tatkal connection	Two (2) times the normal rate of applicable category

1.2. Testing / Inspection of consumer's Installation:

Sl. No.	Category / class	Rate
(i)	Initial Test / Inspection	Free of cost
(ii)	Subsequent test and inspection necessitated by fault in installation or by not complying with terms and conditions of supply	Rs.100.00 for single phase connection Rs.200.00 for three phase LT connection Rs.800.00 for HT connection.

1.3. Meter Testing Fee:

The meter testing fee at the following rates shall be charged from the consumers opting to provide their own meters

Sl. No.	Category /Class	Rate
(i)	Single Phase meter (L.T.)	Rs. 100.00
(ii)	Three Phase meter (L.T.)	Rs. 200.00
(iii)	Three Phase meter with CT	Rs. 300.00
(iv)	Tri-vector and special type meter	Rs. 1800.00
(v)	33 kV or 11 kV metering equipment	Rs. 5000.00
(vi)	132 kV/220 kV metering equipment	Rs. 8000.00

Note:

- 1). No meter testing fee shall be charged from the consumers if the meter has been provided by the licensee.
- 2). If the meter is tested at third party testing laboratory at the request of the consumers, then the fees charged by the testing laboratory shall be payable by the consumer.

1.4. Meter Testing Fees for Bi-directional Meters

The meter testing fees for bi-directional meters at the following rates shall be charged from the consumers opting to provide their own meters

Sl. No.	Category / class	Rate
1	Single Phase bi-directional meter	Rs. 200.00
2	Three phase LT CT Operated Bidirectional meter	Rs. 800.00
3	Three Phase meter (L.T.) Bidirectional meter	Rs. 400.00
4	Three Phase meter with CT Bidirectional meter	Rs. 600.00
5	Tri-vector and special type Bidirectional meter	Rs. 2000.00
6	Three phase HT TOD Bidirectional	Rs. 1,100.00

Note:

- 1). No meter testing fee shall be charged from the consumers if the meter has been provided by the licensee.
- 2). If the meter is tested at third party testing laboratory at the request of the consumers, then the fees charged by the testing laboratory shall be payable by the consumer.

1.5. Removing / Re-fixing / Changing of Meter at consumer's request:

Sl. No.	Category / class	Rate	Cost of material, as required, will be borne by the consumer
(i)	Single Phase meter	Rs. 200.00	
(ii)	Three Phase meter	Rs. 400.00	
(iii)	Three Phase meter with CT	Rs. 500.00	
(iv)	Tri-vector and special type meter	Rs. 600.00	
(v)	High tension metering equipment	Rs. 1200.00	

1.6. Reconnection charge:

Sl. No.	Category/class	Rate
(i)	Single Phase supply, LT	Rs. 100.00
(ii)	Three Phase supply other than LT industrial	Rs. 200.00
(iii)	Three Phase LT industrial supply	Rs. 900.00
(iv)	HT supply	Rs. 3000.00

Note: In case pre-paid smart meter reconnection, the reconnection charges would be applicable only if the consumer would have been permanently disconnected prior to the reconnection request.

1.7. Supervision, Labour and Establishment charge for service connection:

Sl. No.	Category/class	Rate
(i)	Single Phase LT	Rs. 400.00
(ii)	Three Phase LT other than industrial	Rs. 900.00
(iii)	Three Phase industrial	Rs. 1500.00

Sl. No.	Category/class	Rate
(iv)	HT	As per approved estimate
(v)	For tatkal connection	Two (2) times the normal rate

1.8. Duties and Taxes

Statutory levies like GST or any other taxes, duties etc., imposed by the State Government / Central Government or any other competent authority, shall be extra and shall not be part of the tariff as determined under this Order.

1.9. Security Deposit

i). All Consumers except BPL (Kutir Jyoti) and Central / State Government departments shall pay security deposit in accordance with provisions under Bihar Electricity supply Code, 2007 as amended from time.

ii). In case of smart prepaid connection, security deposit is not applicable.

1.10. Other Terms and Conditions:

The other terms and conditions of supply of electricity not specially provided in this tariff order shall continue to be regulated by the provisions specified in the Bihar Electricity Supply Code, 2007 as amended time to time.

10. Directives

10.1 Introduction

The sub-clause (c) of Section 61 of Electricity Act 2003 stipulates that while specifying the terms and conditions for tariff determination the appropriate Commission shall be guided by the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments. Therefore, under Section 23 of the Electricity Act, 2003, the Commission has been giving certain directions to the Discoms in the Tariff Orders for improvement of their operational and financial performance, reduction in distribution losses, improvement in service to the consumers etc. Commission has also been monitoring the compliance of the given directives.

The Commission has issued certain directives in the Discoms tariff order dated 23rd March, 2023. The Discoms have submitted their status of compliance for 1st and 2nd quarters of FY 2023-24. On review of the compliance status of the directives submitted by Discoms, it is noted that although many directives are either fully or partially complied, but some are yet to be complied.

The Commission has decided to drop those directives which have been fully or partially complied with and give fresh directives clubbing the earlier directives, which are partially complied or un-complied in this tariff order and will critically monitor the compliance status of each directive at the end of every quarter for the year FY 2024-25.

The Discoms are directed to submit compliance reports on quarterly basis starting from 1st quarter of FY 2024-25.

10.2 Directives

Directive 1: Billing Efficiency and Collection Efficiency

The Discoms have submitted the details of Billing and Collection efficiency for the 1st and 2nd quarter of FY 2023-24. The Commission observes that the Billing Efficiency and Collection Efficiency of Discoms as on 30.09.2023 are as shown below:

Discoms	Billing Efficiency%	Distribution Loss (%) Target for the Year (As per RDSS)	Collection Efficiency (%)
NBPDCCL	90.14	16.60%	87.25
SBPDCL	74.51	19.91%	92.27

* The billing efficiency of SBPDCL is very less than the overall target of 80.09% as per RDSS for 2023-24.

The target of achieving 100% Billing against sale of power and 100% collection efficiency of revenue is to be achieved by the Discoms. Commission appreciates the efforts of the Discom in improving billing and collection efficiency however the target of achieving 100% Billing and collection efficiency is yet to be achieved. The Commission is of the view that unless, targets and responsibility are fixed to the employees and officers, the stipulated targets may not be achieved. As such, the targets may be specified to the concerned employees and be regularly monitored the headquarters office.

The Commission directs the Discoms to submit the following month-wise details in the quarterly report to be submitted.

Particulars	Unit	Value
Revenue Billed	Rs. Crore	
Revenue Collected	Rs. Crore	
Collection Efficiency	%	
Energy Input to the Discoms	MU	
Energy Sales	MU	
Billing Efficiency	%	

Directive 2: Cent percent Consumer Metering

The Commission has noted that installation of meters to IAS-I and Street Light (Un- metered) categories as on 30.09.2023 are as shown below:

Discoms	IAS-I			SS (Street Light)		
	No. of Connections	No. of Meters fixed	%	No. of Connections	No. of Meters fixed	%
NBPDCCL	231688	224920	97%	2461	969	39%
SBPDCL	324440	169555	52%	1296	--	--

Installation of meters to IAS-I and Street Lights (Unmetered) categories is not yet completed. The Commission desires to completely remove unmetered tariff categorization. The Discoms are implementing Smart Meter project across all the consumers in the state which is proposed to be completed by the end of FY 2023-24 (refer Case no.5/2020, Case no.26/2022 and Case no.27/2022). The unmetered category of consumers may be provided with meters on Priority and complete the work by the end of FY 2023-24.

The Commission directs the Discoms that sincere efforts shall be taken to achieve 100% metering to IAS-I and Street lights (unmetered) categories within 6 months positively. The monthly progress of metering of IAS-I and Street Light categories to be submitted in the quarterly report in the following format.

Category	Number of Connections existing	Number of Connections provided with meters	Balance connections to be provided with meters
IAS –I			
Street Light (Unmetered)			

Directive 3: Energy Accounting / Audit

The Status of availability of meters for 33 KV and 11 KV feeders to end of 2nd quarter of FY 2024-25 is as below:

Discoms	33 KV Feeder			11 KV Feeder		
	No. of Feeders	Meters Provided	Balance No. of feeders to be provided with meters	No. of Feeders	Meters Provided	Balance No. of feeders to be provided with meters
NBPDCCL	747	747	Nil	3155	3155	Nil
SBPDCL	1079	1063	16	2884	2851	33

SBPDCL has not installed meters in some 33 kV and 11 kV feeders which is effecting accurateproper energy accounting/auditing. Metering of 33 kV and 11 kV inter-face feeders at EHT substations (G.S.S) of BSPTCL/BGCL shall be completed immediately and the meters should always be kept in perfect working condition so that the energy sent out to Discoms can be accurately measuredfor energy audit purpose. Joint meter reading shall be taken and record the meter readings every month at both sending end and receiving end and the meter reading records at sending end (BSPTCL/BGCL) shall be authenticated by the competent authority of the BSPTCL/BGCL and Discom concerned.

The Commission directs the SBPDCL/Discoms to install 100% metering to all 33 kV and 11 kV feeders and conduct energy accounting/audit at the end of every month. Monthly progress of providing feeder meters to be submitted in the quarterly report in the format given below:

(A) 33 KV Feeders Metering

Number of 33 KV feeders existing	Number of feeders provided with Meters	Balance number of feeders to be provided with meters

(B) 11 KV Feeders Metering

Number of 11 KV feeders existing	Number of feeders provided with Meters	Balance number of feeders to be provided with meters

Directive 4: Reduction of AT&C Loss

The AT&C loss trajectory for FY 2024-25 is fixed at 16% for NBPDCCL and 20% for SBPDCL under RDSS scheme.

The Commission directs the Discoms to continue with efforts for loss reduction and to monitor reduction of distribution loss and AT&C loss, Division-wise and Circle-wise every month, duly fixing the targets for each Division and Circle.

Discoms are directed to submit the month-wise details of AT&C loss in the quarterly report in the following format.

Circle	Name of the Division	Energy Input (Metered) (MU)	Units Sold (MU)	Units Loss		Revenue Billed (Rs. Cr)	Revenue Collected (Rs. Cr)	% of Revenue Collected	AT&C loss (%)
				(MU)	(%)				

Directive 5: Interest on Security Deposit of Consumers

The Commission has noted that inspite of repeated instructions, Discoms are still not passing on the accumulated interest on security deposit to LT consumers. Discoms have stated that interest on SD of HT & LTIS category consumers is passed on to the consumers and SD is refunded to those consumers who are provided with Smart Prepaid Meters. Interest on SD to LT consumers having conventional meters is not passed on and in the process of developing IT system-based module for passing on the accumulated interest to LT consumers. The statement is being repeated year on year without reporting the progress, if any, made on developing IT system, which is not acceptable.

The Commission directs the Discoms to expedite the process and ensure payment of interest on the Security Deposit to the LT consumers without further delay. The status of compliance to be reported in the quarterly reports.

Directive 6: Asset Register

The Commission has observed that the Discoms have not yet started work of preparation of Asset Register inspite of repeated directives. Discoms have submitted that they are going to implement ERP (Enterprise Resource Planning) which is mandatory under RDSS Scheme.

It is endeavoring to create and maintain component wise fixed asset register and will be provided after ERP implementation. ERP for all areas of both DISCOMs was floated by SBPDCL vide NIT No: 39/PR/NBPDCCL/2023. Technical evaluation is under process and it is expected to finalize the tender process by the end of current financial year.

The Commission directs Discoms that if the Fixed Asset Register is not prepared by the end of FY 2023-24 and submitted along with petition for true up of FY 2023-24, the Commission shall be constrained to take appropriate action under the Rules

Directive 7: Voltage-wise Cost of Supply

The Commission directed the Discoms to submit voltage-wise cost of supply based on technical losses at various voltage levels arrived at by conducting a detailed study.

Discoms have submitted that the voltage-wise cost of supply is submitted based on technical losses at various voltage levels arrived at by conducting a sample study. Energy accounting is being done on some 33/11 kV feeders and defective meters are being replaced. Once ERP is implemented and fixed asset register is completed, voltage wise cost of supply would be submitted in detail as directed by the Commission.

The Commission has noted that the Discoms have not made required study to assess technical losses for all 33 kV, 11 kV feeders and LT lines. Discoms are submitting voltage-wise cost of supply based on assumed technical losses. The Commission directs the Discoms to submit voltage-wise cost of supply with next tariff petition based on technical losses calculated at various voltage levels by conducting a detailed study. The status of progress on the study shall be reported in the quarterly report.

The Commission reiterates the directive to submit voltage-wise cost of supply based on technical losses at various voltage levels arrived at by conducting a detailed study.

Directive 8: Regulatory Accounts

The Commission has noted that the Discoms have not yet started preparation of Regulatory Accounts in accordance with BERC (Power Regulatory Accounting) Regulations, 2018.

The Commission directs the Discoms to commence preparation of Regulatory Accounts forth with and submit Audited Regulatory Accounts along with next tariff petition. Discoms should know that once Regulatory Accounts are maintained, the process of Truing up of ARR for the relevant year becomes simpler.

Directive 9: Outstanding Arrears

The Commission has noted that there are huge amounts of outstanding arrears to be collected. The outstanding arrears include amounts to be recovered from the Govt. Departments, Semi-Govt., Departments and Local Bodies.

The Commission directs the Discoms to bestow personnel supervision to pursue with defaulting departments and realize the outstanding dues. A quarterly report on the progress to submitted in the following format.

(Rs. In Lakhs)			
Outstanding arrears at the beginning of the quarter	Revenue Billed during the quarter	Revenue Collected during the quarter	Balance outstanding arrears at the end of quarter

Directive 10: Consumers Grievance Redressal

The Commission has noted the status resolving of consumer grievances for the 2nd quarter of FY 2024-5 is below:

Discom	No. of Complaints at beginning of quarter	No. of Complaints received during the quarter	No. of complaints resolved during the quarter	No. of complaints pending at the end of quarter
NBPDCCL	5342	99174	97893	6623
SBPDCL	35	50694	50672	57

NBPDCCL shall review Division-wise number of complaints being received every month and to take appropriate action to reduce the complaints being received.

The Commission directs the Discoms to submit the report on consumers grievance redressal in the quarterly reports as given below:

- 1). Number of complaints pending at the beginning of the quarter
- 2). Number of complaints received during the quarter
- 3). Number of complaints resolved in the quarter
- 4). Number of complaints pending at the end of the quarter

Directive 11: Release of New Connections

The Commission has noted the status of releasing of new service connections to end of 2nd quarter of FY 2024-25 is as given below:

Discom	No. of applications pending at the beginning of quarter	No. of applications received during the quarter	No. of Connections released during the quarter	No. of applications pending at the end of quarter
NBPDCCL	348741	175186	125132	398795
SBPDCL	85459	126272	124718	87013

Pending applications are increasing at the end of the quarter. Discoms should put forth more efforts to speed up releasing of new service connections and to reduce pending applications.

The Commission directs, the Discoms to submit the report on release of new connections in the quarterly report as given below:

- Number of applications pending at the beginning of the quarter
- Number of applications received during the quarter
- Number of connections released during the quarter
- Number of applications pending the end of quarter.

Directive 12: Power Procurement

The Commission directs the Discoms to submit the following details of power purchase from each source, month-wise in the quarterly report.

- 1). Source of Purchase
- 2). Allocated Capacity (MW)
- 3). Energy Purchased (MU)
- 4). Fixed Charges Paid (Rs. Crore)
- 5). Energy Rate (Rs / kWh)
- 6). Energy Charges Paid (Rs. Crore)
- 7). Any other Charges Paid (Rs. Crore)
 - i). Open Access Charges
 - ii). Other Charges
- 8). Total Cost Paid (Rs. Crore)

Directive 13: Refund of Security Deposit to Smart Pre-paid Metered Consumers

The Commission directs the Discoms to refund the security deposit with interest to existing consumers being provided with pre-paid smart meters and submit compliance in the quarterly report.

Directive 14: Category wise Tariff Subsidy Provided:

The Commission directs the Discoms to submit details of category-wise tariff subsidy claimed and provided by Govt. of Bihar, month-wise in the quarterly report to be submitted.

Directive 15: State Transmission Loss

BSPTCL and Discoms are providing different figures of energy injected into Distribution System from State Transmission System as a result the State Transmission losses computed by BSPTCL and DISCOMs are in variance. Therefore, the DISCOMs are directed to record the meter readings in accordance with CEA (Installation and Operation of Meters)

Regulations 2006 with amendments, jointly with BSPTCL and DISCOM officials at all interface points from where power is injected into Distribution system, so that at the end of every month the number of units sent out by BSPTCL to Discoms furnished by BSPTCL and DISCOMs are one and same. Without metered data the Commission may not consider the claim of DISCOMs for the energy received at DISCOMs periphery.

Directive 16: Surplus Power

The Commission has observed that the Discoms have tied-up huge quantum of PPAs as per the demand projection under power for all scheme. It is estimated/reported that Bihar has an allocation of around 11930 MW of Power during FY 2023-24 from Central Generating Stations, Independent Power Producers and Renewable Energy Power Stations from Intra/Inter-state generating stations. As the demand has not increased upto estimated level and also as many consumers have moved to avail open Access, there is a situation where Discoms are facing power surplus situation in larger hours of a day. This leads to a situation of must sale and/ or backing done of generation causing additional cost burden on Discoms. To mitigate this situation a study of block-wise expected demand on month ahead basis/ year ahead basis be done by judicious and realistic application of relevant historical data, expected growth, actual field condition etc and advance planning of managing.

Discoms are directed to submit the following month-wise particulars along with their respective costs.

- Contracted capacity of Discom (MW & MU)
- Available capacity during the month (MW & MU)
- Scheduled capacity during the month (MW & MU)
- Open Access allowed during the month (MW & MU)
- Capacity stranded during the month (MW & MU)

The Commission directs the Discoms to take necessary action to review the power purchase allocation / arrangement from various sources and explore possibility to reduce allocation of costly power, wherever possible, at the earliest. The action taken on this issue to be reported to the Commission in quarterly report

Directive 17: Sale of Surplus Power

The Commission has directed the Discoms to explore opportunities to optimize the revenue accrued from sale of surplus power.

Discoms have submitted that based on the continuous monitoring of the power portfolio (viz power available viz-a-viz power demand) on the RTC basis, the surplus power wherever is available managed judiciously on best effort basis through power surrender (As per the IEGC grid code) and/or Sale of power mainly in spot market with an overall objective of optimizing the power purchase cost in terms of BERC (Power Purchase and Procurement Process of Licensee) Regulations.

The Commission directs the Discoms to explore opportunity of banking/ short term sale through tender etc., of the surplus power such that the revenue accrued from sale of surplus power are optimized and in line with Commission's previous directives.

Directive 18: ToD Tariff for LT Industries

At present ToD tariff is optional for LT Industries and Public Water Works. Discoms have reported that the existing meters for LTIS-II category of consumers are ToD compatible.

The Commission directs the Discoms to provide ToD compatible meters to all LT Industrial consumers at the earliest to ensure that ToD tariff can be made mandatory to all LT industries in FY 2024-25 to control the peak hours demand.

New Directives:

Directive 19: Smart prepaid metering

The Commission vide orders dated 25.04.2023 in Case no.05/2020, order dated 28.04.2023 in Case no.26/2022 and Case no.27/2023 has accorded in principle approval for Prepaid Smart Metering Project. It was directed in the said orders that expenses of smart metering solutions may be allowed as a part of A&G expenses over and above the norms specified under MYT Order, subject to fulfillment of conditions specified in the orders.

The Commission directs the Discoms to furnish the information as directed in the orders dated 25.04.2023 and 28.04.2023 along with the petition for truing of FY 2023-24 considering the total no. of smart prepaid meters installed by end of FY 2023-24 and savings on account of proving smart prepaid meters in order to consider allowing the rental charges on Smart prepaid meters in truing up for FY 2023-24. If the information is not submitted by the Discoms, the rental charges provisionally considered in true up for FY 2022-23 shall clawback/recovered in truing up for FY 2023-24.

Directive 20: Demand side management (DSM)

Demand side management action plan shall be filed, as per the BERC (Demand Side Management) Regulations 2014, with the Commission duly highlighting the objectives and

benefits to be derived in terms of savings in power consumption and other benefits indicating the element-wise/head-wise quantitative and cost details.

Directive 21: Energy saving Certificate

The PAT (Perform, Achieve and Trade) Rules specify for reducing the T&D/AT&C loss and failure attracts penalty resulting in purchase of ESCs.

The Discoms are directed to take all necessary measures to reduce the T&D/AT&C losses in compliance of PAT rules so as to avoid penal charges and purchase of ESCerts.

Directive 22: Resource Adequacy

It is incumbent upon Discoms to supply reliable power to its consumers. The Discoms are duty bound to tie up sufficient capacity to meet the demand of consumers. Rights of Electricity Consumers Rules, 2020 prescribe payment of compensation to consumers for avoidable load shedding.

The Ministry of Power Govt. of India has issued guidelines on 28.06.2023, for Resource Adequacy Planning framework which outlines important actions required to be taken by all institutions and stakeholders, in order to ensure sufficient tie-up of capacities to meet resource adequacy requirement on different time horizons.

The Discoms are directed to analyse their power portfolio and prepare an action plan to meet the requirements of the 24X7 power to all by following guidelines of the Union Government and submit the same to the Commission within 3 months.

10.3 General

The Commission shall review and monitor progress of the compliance of the aforesaid directives on quarterly basis. Therefore, the Discoms are directed to send quarterly progress report on each directive at the beginning of July, 2024 (for quarter ending June 2024), October 2024 (for quarter ending September 2024) and January 2025 (for quarter ending December, 2024) and April 2025 (for quarter ending March, 2025).

Sd/-
(Parshuram Singh Yadav)
Member (Legal)

Sd/-
(Arun Kumar Sinha)
Member (Technical)

Public Hearing at Motihari 19.01.2024**Case No. 22/2023****Appearance on behalf of NBPDCCL**

1.	Shri Deepak Kumar	Chief Engineer (Comm.), NBPDCCL
2.	Shri Jayjit Ray	GM (Revenue), NBPDCCL
3.	Shri Rajeev Rai Sinha	AEE, E.S. Sub-Division, Motihari
4.	Shri Pradeep Kumar Suman	EEE, E.S. Division, Raxaul
5.	Shri Raju Kumar Singh	EEE, (Project) E.S. Circle, Motihari
6.	Shri Ravi Bhushan	ESE, Transmission Circle Motihari
7.	Shri Ranjeet Kumar	EEE, E.S. Division, Chakia
8.	Shri Manish Shakya	EEE, E.S. Division, Bettiah
9.	Shri Shaman Samir	R.O, E.S. Division, Motihari
10.	Shri Ashish Kumar	AITM, E.S. Sub-Div Bagaha
11.	Shri Amit Kumar	AEE, E.Supply Sub-Div, Bagaha
12.	Shri Alok Amritanshu	EEE, E.S. Division, Bagaha

Appearance on behalf of stakeholder/Public

1.	Shri Sunil Kumar Srivastav	Bihar Chamber of Commerce, Motihari
2.	Shri Shyam Kumar	
3.	Shri Abhishek Kedi	
4.	Shri Birendra Kumar Jalan	
5.	Shri Rajeev Ranjan	
6.	Shri Vishal Kumar	Consumer
7.	Shri Umesh Kumar	
8.	Shri Bhagya Narayan Choudhary	
9.	Shri Prakash Singh	
10.	Shri Rakesh Kumar	
11.	Shri Sujeet Kumar	
12.	Md. Tamanna	
13.	Shri Virendra Sharma	
14.	Shri Dhiraj Kumar Srivastava	
15.	Shri Aditya Kumar	
16.	Shri Rishabh Sinha	
17.	Shri Pravin Kumar	
18.	Smt. Rajkumari Devi	
19.	Shri Akash Kumar	
20.	Shri Sujit Kumar	
21.	Shri Feraz Zafar	
22.	Shri Raju Verma	Consumer
23.	Shri Sachin Raj Sinha	
24.	Shri Chiranjevi Singh	
25.	Shri Jaynarayan Prasad	
26.	Shri Shambhu Shah	
27.	Shri Vidyanand Singh	
28.	Shri Santosh Paswan	
29.	Shri Pankaj Kumar Singh	
30.	Shri Sachin Raj Singh	
31.	Shri Gaurav Singh	
32.	Shri Avinish Kumar	
33.	Shri Shyam Sunder Prasad	
34.	Shri Krishan Lal Prasad	

Public Hearing at SASARAM 23.01.2024**Case No. 23/2023****Appearance on behalf of SBPDCL**

1.	Shri Arvind Kumar	G.M (Revenue), SBPDCL, Patna
2.	Shri Purushottam Prasad	CE (Comm.), SBPDCL, Patna
3.	Shri Vivekanand	ESE, E.S Circle, Sasaram
4.	Shri Brajesh Kumar	EEE, E.S Division, Sasaram
5.	Shri Somnath Paswan	EEE, E.S Division Dehri-On-Sone
6.	Shri Abhay Kumar	AEE (Comm.), SBPDCL, Patna
7.	Shri Sandip Kumar Gupta	AEE (Comm.), Sasaram

Appearance on behalf of stakeholder/Public

1.	Shri Ramchandra Prasad	M/s Shree Hanuman Jee Modern Rice udyog
2.	Shri Ashok Kumar	M/s Maa Durga Industries
3.	Shri Gopal Sagar	M/s Shree Mahadev Ji Rice Mills Pvt. Ltd.
4.	Shri Manoj Kumar	Bihar Industries Association
5.	Shri Kaushal Kumar Gupta	M/s Sheo Ji Modern Rice Mills Pvt. Ltd.
6.	Shri Anil Kumar	M/s Sri Bhagwan jee & Sons Modern Rice Mill Pvt. Ltd.
7.	Shri Rakesh Kr. Malhotra	M/s Himani Cold Storage
8.	Shri Ram Tiwari	Bihar Pension Samaj Zila Sakha
9.	Shri Karan Kumar	Consumer
10.	Md. Abbas	
11.	Shri Harishankar Tiwari	
12.	Shri Om Prakash Chaurasia	
13.	Shri Ramji Sonkar	
14.	Shri Pantu Kumar	
15.	Shri Shushant Ojha	

Public Hearing at BIHARSHARIF 24.01.2024**Case No. 23/2023**

<u>Appearance on behalf of stakeholder/Public</u>		
1.	Shri Anil Kumar Pal	Extremely Backward Vikas Manch
2.	Shri Sanjit Kumar	Nalanda Zila Khudra Vyawshai Sangh
3.	Shri Ranjay Kr. Singh	Nalanda Chamber of Commerce & Industries
4.	Shri Ravi Gupta	Bihar Chamber of Commerce & Industries
5.	Shri Arun Kr. Ojha	Aarunya Hotel & Resort
6.	Shri K.N Jha	Indo Hokke Hotels Pvt. Ltd
7.	Shri Ravi Shankar	Hotel Nilgiri Grand
8.	Shri Dinesh Kr. Kushawa	Maharshri Krishi Udyog
9.	Shri Sunil Kumar	Newton Pipes Industries
10.	Shri Ramesh Bhushan	Nalanda Rice Mills
11.	Shri Nishant Singh	Bihar State Chamber of Commerce, Patna
12.	Shri Satya Prabhakar	Consumer
13.	Md. Kamil Neyazi	
14.	Shri Amarnath Kumar	
15.	Shri Salarjer Yadav	
16.	Shri Surendra Paswan	
17.	Shri Deepak Kumar	
18.	Shri Manish Kumar	
19.	Shri Munna Kumar	
20.	Shri Sanjeev Kr. Ranjan	
21.	Shri Kundan Kumar	
22.	Shri Bablu Kumar	
23.	Shri Kumar Abhimanyu	
24.	Shri Udayshankar Prem	
25.	Shri Uday Lal	
26.	Shri Natwar Singh	

Public Hearing at Purnea 29.01.2024**Case No. 22/2023****Appearance on behalf of NBPDC**

1.	Shri Deepak Kumar	Chief Engineer (Comm.), NBPDC
2.	Shri Diwakar Lal	ESE, E.S. Circle Purnea
3.	Shri Ajay Kr. Mishra	ESE (Revenue), NBPDC
4.	Shri Bibhash Kumar	EEE, E.S. Division, Barsoi
5.	Shri Dhiraj Kr. Sinha	EEE, E.S. Division, Purnea
6.	Shri Naveen Mandal	EEE, (Project), E.S. Circle, Purnea
<u>Appearance on behalf of stakeholder/Public</u>		
1.	Shri Rupesh Kr. Singh	Bihar Industries Association
2.	Shri Ayush Sinha	Maurya Agro Pvt. Ltd.
3.	Shri Kripya Narayan Singh	Trena Construction Pvt. Ltd.
4.	Shri Vijay Kumar	Consumer
5.	Smt. Siya Devi	
6.	Shri Purushottam Kumar	
7.	Shri Kumar Ashish	
8.	Shri R. Jha	
9.	Shri Kunal Prakash	
10.	Shri Nagendra Yadav	
11.	Smt. Renuwala Devi	
12.	Shri Pritam Kumar	
13.	Shri Ashish Ranjan	
14.	Shri Braj Kishore Kumar	

Public Hearing at Patna 02.02.2024**Case No. 22/2023****Appearance on behalf of NBPDC**

1.	Shri Deepak Kumar	Chief Engineer (Comm.), NBPDC
2.	Shri Jay Raj	AEE (Comm.), NBPDC
3.	Shri Abhijeet Kumar	C.E, (PMC), BSPHCL
4.	Shri Nadeem Ahmed	ESE, (PMC), BSPHCL
5.	Shri Rajeev Kumar Singh	ESE, BSPGCL
6.	Shri Abhijeet Ray	PWC
7.	Shri Aditya kashyap	PWC
9.	Shri Vishal Singh Chandel	PWC
10.	Shri Atul Singh	PWC
11.	Kumar DEO	PWC

Appearance on behalf of stakeholders and Public

1.	Shri Shagun Srivasstava	Bihar Steel Manufacturer Association
2.	Shri Himanshu Bhushan	
3.	Shri. Ranjan Kumar	Patwari Steels Pvt. Ltd.
4.	Shri. O.P Singh	Bihar Gas Manufacturer Association
5.	Shri A.K.P Sinha	Bihar Chamber of Commerce & Industries
6.	Shri Santosh Kumar	Gram Swaraj Sangh, Khagaria
7.	Shri Keshav Pathak	Member, Vidyut Upbhokta Sanghras Samit
8.	Shri Pramod Kumar Sharma	Vaishali Vidyut Upbhokta Sangh
9.	Shri Nand Sharma	Individual
10.	Shri Anil Kumar Sinha	Bihar Industries Association
11.	Shri Chandradhan Pd. Panday	Consumer
12.	Shri Nand Kishore Rai	
13.	Shri Sanjay Kumar	
14.	Shri Arun Kumar Agarwal	

Public Hearing at Patna 02.02.2024**Case No. 23/2023****Appearance on behalf of SBPDCL**

1.	Shri Arvind Kumar	G.M (Revnuue), SBPDCL
2.	Shri Purushottam Prasad	Chief Engineer (Comm.), SBPDCL
3.	Shri Ranjeet Kumar	Chief Engineer (P&E), SBPDCL
4.	Shri Abhijeet Kumar	C.E, (PMC), BSPHCL
5.	Shri manish Kumar	ESE/HT, SBPDCL
6.	Shri Nadeem Ahmed	ESE, (PMC),BSPHCL
7.	Shri Rajeev Kumar Singh	ESE, BSPGCL
8.	Shri Irshad Akhtar	EEE (Comm.), SBPDCL
9.	Shri Abhay Kumar	AEE, (Comm), SBPDCL
10.	Shri Abhijeet Ray	PWC
11.	Shri Aditya kashyap	PWC
12.	Shri Vishal Singh Chandel	PWC
13.	Shri Atul Singh	PWC
14.	Kumar DEO	PWC

Appearance on behalf of stakeholders and Public

1.	Shri Shagun Srivasstava	Bihar Steel Manufacturer Association
2.	Shri Himanshu Bhushan	
3.	Shri. Ranjan Kumar	Patwari Steels Pvt. Ltd.
4.	Shri O.P Singh	Bihar Gas Manufacturer Association
5.	Shri A.K.P Sinha	Bihar Chamber of Commerce & Industries
6.	Shri Santosh Kumar	Gram Swaraj Sangh, Khagaria
7.	Shri Keshav Pathak	Member, Vidyut Upbhokta Sanghras Samiti
8.	Shri Pramod Kumar Sharma	Vaishali Vidyut Upbhokta Sangh
9.	Shri Nand Sharma	Individual
10.	Shri Anil Kumar Sinha	Bihar Industries Association
11.	Shri Chandradhan Pd. Panday	Consumer
12.	Shri Nand Kishore Rai	
13.	Shri Sanjay Kumar	
14.	Shri Arun Kumar Agarwal	

Annexure-6.1

NBPDC Revenue with approved Tariff computed for FY 2024-25

Category	Approved for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Total Revenue (Crores)	ABR Rs./kWh
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Domestic	11693848	9702177.60	9575.03							641.17	7282.91	7924.08	8.28
Kutir Jyoti	4387901	1096975.25	2632.74							105.31	1953.49	2058.80	7.82
Metered 0-50	43,87,901	1096975.25	2632.74	20.00	Connection/Month	7.42	kWh	1.00	1.00	105.31	1953.49	2058.80	7.82
DS I Rural	5825634	6046613.39	4691.69							290.24	3603.16	3893.39	8.30
Metered (Now Demand Based)	5825634	6046613	4691.69							290.24	3603.16	3893.39	8.30
First 50 Units	28,31,926	2945977.38	2433.87	40.00	kW/Month	7.42	kWh	1.00	1.00	141.41	1805.93	1947.34	8.00
Above 50 units	29,93,708	3100636.01	2257.82	40.00	kW/Month	7.96	kWh	1.00	1.00	148.83	1797.22	1946.05	8.62
DS II Demand Based	1480222	2558040.13	2250.21							245.57	1725.91	1971.48	8.76
First 100 Units	12,38,369	2140082.78	1882.55	80.00	kW/Month	7.42	kWh	1.00	1.00	205.45	1396.85	1602.30	8.51
Above 100 units	2,41,853	417957.35	367.66	80.00	kW/Month	8.95	kWh	1.00	1.00	40.12	329.06	369.18	10.04
DS III	91	548.83	0.39	80.00	kW/Month	9.03	kWh	1.00	1.00	0.05	0.36	0.41	10.37
Non_Domestic Service	1001985	2021235.19	2250.86							494.48	1896.62	2391.10	10.62
NDS I - Metered Now Demand Based	575431	809956.37	814.80							58.32	653.26	711.58	8.73
First 100 Units	2,63,788	371298.49	373.52	60.00	kW/Month	7.79	kWh	1.00	1.00	26.73	290.97	317.71	8.51
Above 100 units	3,11,643	438657.88	441.28	60.00	kW/Month	8.21	kWh	1.00	1.00	31.58	362.29	393.88	8.93
NDS II - Demand Based	426554	1211278.82	1436.05							436.16	1243.36	1679.52	11.70

Category	Approved for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Total Revenue (Crores)	ABR Rs./kWh
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
Contract Demand <0.5 kW	2,650	1480.59	2.19	200.00	Connection/Month	7.73	kWh	1.00	1.00	0.64	1.70	2.33	10.63
Contract Demand >0.5 kW	4,23,904	1209798.22	1433.86							435.53	1241.66	1677.19	11.70
First 100 Units	95,527	272628.40	323.12	300.00	kW/Month	7.73	kWh	1.00	1.00	98.15	249.77	347.92	10.77
Above 100 units	3,28,377	937169.82	1110.74	300.00	kW/Month	8.93	kWh	1.00	1.00	337.38	991.89	1329.27	11.97
Street Light Services	2780	32125.42	129.53							136.90	12.04	148.95	11.50
SS Metered	675	5409.08	13.34	100.00	kW/Month	9.03	kWh	1.00	1.00	0.65	12.04	12.69	9.52
SS Unmetered	2,105	26716.34	116.19	4250.00	100 kW/Month		kWh	1.00	1.00	136.25	0.00	136.25	11.73
Irrigation & Allied Services	353945	765215.15	1942.17							206.96	1314.78	1521.74	7.84
IAS I	347179	707668.09	1840.57							168.60	1233.84	1402.44	7.62
Unmetered	7,445	27234.88	9.95	1350.00	HP/Month		kWh		1.00	59.14	0.00	59.14	59.46
Metered	3,39,734	680433.22	1830.63	100.00	HP/Month	6.74	kWh		1.00	109.45	1233.84	1343.29	7.34
IAS II	6766	57547.05	101.60							38.36	80.94	119.30	11.74
Metered (Now Demand Based)	6,766	57547.05	101.60	500.00	kVA/Month	7.17	kVAh	0.90	1.00	38.36	80.94	119.30	11.74
Public Service Connections	68026	186994.03	547.86							54.09	459.15	513.24	9.37
Public Water Works	2,373	35348.87	45.82	630.00	kVA/Month	9.72	kVAh	0.90	1.00	29.69	49.48	79.17	17.28
Har Ghar Nal	65,653	151645.16	502.05	100.00	HP/Month	8.16	kWh		1.00	24.39	409.67	434.06	8.65
Low Tension Industrial Services	97850	907135.59	561.86							355.37	486.32	841.69	14.98
LTIS I (0-19 kW)	96,524	833935.78	519.48	288.00	kVA/Month	7.79	kVAh	0.90	1.00	320.23	449.64	769.87	14.82

Category	Approved for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Total Revenue (Crores)	ABR Rs./kWh
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
LTIS II (>19 kW - 74 kW)	1,326	73199.80	42.38	360.00	kVA/Month	7.79	kVAh	0.90	1.00	35.14	36.68	71.82	16.95
LT Electric Vehicle Charging Station	280	805.90	12.28			8.72	kVAh	0.90	1.00	0.00	11.89	11.89	9.69
High Tension (General)	1712	562445.43	1176.54							415.66	1024.24	1439.90	12.24
HTS I - 11 kV	1,612	337571.31	669.48	550.00	kVA/Month	7.98	kVAh	0.90	1.00	247.55	593.61	841.16	12.56
HTS II - 33 kV	90	127508.12	332.06	550.00	kVA/Month	7.92	kVAh	0.90	1.00	93.51	292.22	385.72	11.62
HTS III -132 kV	7	87777.05	131.02	550.00	kVA/Month	7.85	kVAh	0.90	1.00	64.37	114.28	178.65	13.64
HTS IV - 220 kV	0	0.00	0.00	550.00	kVA/Month	7.79	kVAh	0.90	1.00	0.00	0.00	0.00	
HTSS	3	9588.94	43.97	800.00	kVA/Month	4.94	kVAh	0.90	1.00	10.23	24.14	34.36	7.81
HT Industrial Services	5	15244.07	80.95		0.00		0.00	5.40	6.00	11.30	70.07	81.36	
HTS I - 11 kV	2.00	1428.14	2.54	550.00	kVA/Month	7.98	kVAh	0.90	1.00	1.05	2.25	3.30	12.99
HTS II - 33 kV	1.00	1122.11	3.54	550.00	kVA/Month	7.92	kVAh	0.90	1.00	0.82	3.12	3.94	11.12
HTS III -132 kV	0.00	0.00	0.00	550.00	kVA/Month	8.00	kVAh	0.90	1.00	0.00	0.00	0.00	#DIV/0!
HTS IV - 220 kV	1.00	12500.00	74.46	550.00	kVA/Month	7.79	kVAh	0.90	1.00	9.17	64.45	73.62	9.89
HTSS (33/11kV)				800.00		4.94							
HTIS (Oxygen Manufacturers) 11 kV	1.00	193.82	0.42	1000.00	kVA/Month	5.43	kVAh	0.90	1.00	0.26	0.25	0.51	12.24
HTIS (Oxygen Manufacturers) 33 kV				1000.00	kVA/Month	5.43	kVAh	0.90	1.00		0.00	0.00	
Railway Traction Services	8	60000.00	159.50	540.00	kVA/Month	8.16	kVAh	0.90	1.00	43.20	144.61	187.81	11.78

Category	Approved for FY 2023-24			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Total Revenue (Crores)	ABR Rs./kWh
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges	Unit						
HT Electric Vehicle Charging Stations.	6	12337.92	184.25		0.00	7.85	kVAh	0.90	1.00	0.00	160.71	160.71	8.72
Nepal	1	0.00	314.22			8.10				0.00	254.52	254.52	8.10
Total	13220445	14265716.29	16935.05							2359.12	13117.87	15476.99	9.14

Annexure-6.2

SBPDCL Revenue with approved Tariff computed for FY 2024-25

Category	Approved for FY 2024-25			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges Existing	Unit						
Domestic	6435719	8290056.64	8428.37							635.53	6695.77	7331.30	8.70
Kutir Jyoti	1548455	385145.87	929.07							37.16	689.37	726.54	7.82
Metered 0-50	15,48,455	385145.87	929.07	20.00	Connection/Month	7.42	kWh	1.00	1.00	37.16	689.37	726.54	7.82
DS I Rural	3208204	3343828.11	3839.78							160.50	2941.09	3101.59	8.08
Metered (Now Demand Based)	3208204	3343828.11	3839.78							160.50	2941.09	3101.59	8.08
First 50 Units	15,77,112	1643783.48	2136.49	40.00	kW/Month	7.42	kWh	1.00	1.00	78.90	1585.28	1664.18	7.79
Above 50 units	16,31,092	1700044.63	1703.28	40.00	kW/Month	7.96	kWh	1.00	1.00	81.60	1355.81	1437.41	8.44
DS II Demand Based	1678892	4560582.66	3659.24							437.82	3065.05	3502.87	9.57
First 100 Units	6,29,643	1710378.31	1372.34	80.00	kW/Month	7.42	kWh	1.00	1.00	164.20	1018.28	1182.48	8.62
Above 100 units	10,49,249	2850204.35	2286.90	80.00	kW/Month	8.95	kWh	1.00	1.00	273.62	2046.77	2320.39	10.15
DS III	168	500.00	0.28	80.00	kW/Month	9.03	kWh	1.00	1.00	0.05	0.25	0.30	10.74
Non_Domestic Service	687876	1894505.51	1917.30							559.38	1637.31	2196.69	11.46
NDS I - Metered Now Demand Based	261300	426529.00	479.63							30.71	386.53	417.24	8.70
First 100 Units	94,009	153454.44	172.56	60.00	kW/Month	7.79	kWh	1.00	1.00	11.05	134.42	145.47	8.43
Above 100 units	1,67,291	273074.56	307.07	60.00	kW/Month	8.21	kWh	1.00	1.00	19.66	252.11	271.77	8.85
NDS II - Demand Based	426576	1467976.51	1437.67							528.67	1250.78	1779.45	12.38
Contract Demand <0.5 kW	9,588	5850.87	6.05	200.00	Connection/Month	7.73	kWh	1.00	1.00	2.30	4.68	6.98	11.53

Category	Approved for FY 2024-25			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges Existing	Unit						
Contract Demand >0.5 kW	4,16,988	1462125.64	1431.62							526.37	1246.11	1772.47	12.38
First 100 Units	78,473	275159.56	269.42	300.00	kW/Month	7.73	kWh	1.00	1.00	99.06	208.26	307.32	11.41
Above 100 units	3,38,515	1186966.08	1162.20	300.00	kW/Month	8.93	kWh	1.00	1.00	427.31	1037.84	1465.15	12.61
Street Light Services	2377	34976.62	284.79							121.36	70.85	192.21	6.75
SS Metered	1,182	11450.17	78.46	100.00	kW/Month	9.03	kWh	1.00	1.00	1.37	70.85	72.22	9.21
SS Unmetered	1,195	23526.45	206.33	4250.00	100 kW/Month		kWh	1.00	1.00	119.98	0.00	119.98	5.82
Irrigation & Allied Services	353396	707754.33	4430.22							791.93	2429.97	3221.90	7.27
IAS I	348708	666987.09	4047.04							764.75	2124.70	2889.45	7.14
Unmetered	1,56,433	326975.78	894.66	1350.00	HP/Month		kWh		1.00	710.05	0.00	710.05	7.94
Metered	1,92,275	340011.31	3152.37	100.00	HP/Month	6.74	kWh		1.00	54.69	2124.70	2179.39	6.91
IAS II	4688	40767.24	383.19							27.18	305.27	332.45	8.68
Metered (Now Demand Based)	4,688	40767.24	383.19	500.00	kVA/Month	7.17	kVAh	0.90	1.00	27.18	305.27	332.45	8.68
Public Service Connections	36199	129558.80	489.39							56.43	445.61	502.04	10.26
Public Water Works	3,416	52408.33	175.26	630.00	kVA/Month	9.72	kVAh	0.90	1.00	44.02	189.28	233.30	13.31
Har Ghar Nal	32,783	77150.47	314.13	100.00	HP/Month	8.16	kWh		1.00	12.41	256.33	268.74	8.56
Low Tension Industrial Services	92137	1007612.83	483.87							416.12	418.82	834.93	17.26
LTIS I (0-19 kW)	86,360	703531.69	330.39	288.00	kVA/Month	7.79	kVAh	0.90	1.00	270.16	285.97	556.12	16.83
LTIS II (>19 kW - 74 kW)	5,777	304081.13	153.49	360.00	kVA/Month	7.79	kVAh	0.90	1.00	145.96	132.85	278.81	18.17

Category	Approved for FY 2024-25			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges Existing	Unit						
LT Electric Vehicle Charging Station	436	2560.09	8.11			8.72	kVAh	0.90	1.00	0.00	7.86	7.86	9.69
High Tension (General)	2752	1127187.92	3335.86							871.66	2638.44	3510.10	10.52
HTS I - 11 kV	2,489	550595.24	1206.89	550.00	kVA/Month	7.98	kVAh	0.90	1.00	403.77	1070.11	1473.88	12.21
HTS II - 33 kV	245	365185.65	934.10	550.00	kVA/Month	7.92	kVAh	0.90	1.00	267.80	822.01	1089.81	11.67
HTS III -132 kV	5	76255.00	279.81	550.00	kVA/Month	7.85	kVAh	0.90	1.00	55.92	244.06	299.98	10.72
HTS IV - 220 kV		0.00	0.00	550.00	kVA/Month	7.79	kVAh	0.90	1.00	0.00	0.00	0.00	
HTSS	13	135152.03	915.05	800.00	kVA/Month	4.94	kVAh	0.90	1.00	144.16	502.26	646.42	7.06
HT Industrial Services	34	7285.85	10.79		0.00		0.00	6.30	7.00	9.71	6.51	16.23	
HTS I - 11 kV				550.00	kVA/Month	7.98	kVAh	0.90	1.00				
HTS II - 33 kV				550.00	kVA/Month	7.92	kVAh	0.90	1.00				
HTS III -132 kV				550.00	kVA/Month	8.00	kVAh	0.90	1.00				
HTS IV - 220 kV				550.00	kVA/Month	7.79	kVAh	0.90	1.00				
HTSS (33/11kV)				800.00	kVA/Month	4.94	kVAh	0.90	1.00				
HTIS (Oxygen Manufacturers) 11 kV	34	7285.85	10.79	1000.00	kVA/Month	5.43	kVAh	0.90	1.00	9.71	6.51	16.23	
HTIS (Oxygen Manufacturers) 33 kV				1000.00	kVA/Month	5.43	kVAh	0.90	1.00	0.00	0.00	0.00	
Railway Traction Services	10	94500.00	290.04	540.00	kVA/Month	8.16	kVAh	0.90	1.00	68.04	262.97	331.01	11.41

Category	Approved for FY 2024-25			Fixed Charge	Tariff			PF	MD	Fixed charges (Crores)	Energy charges (Crores)	Revenue (Crores)	ABR (Rs/kWh)
	Consumers	Connected Load (KW)	Sales (MU)		Unit	Energy Charges Existing	Unit						
HT Electric Vehicle Charging Stations.	2	0.00	0.34		0.00	7.85	kVAh	0.90	1.00	0.00	0.29	0.29	8.72
Nepal						8.10				0.00	0.00	0.00	
Total	7610938	13295998.59	19679.08							3530.15	14614.39	18144.54	9.22