# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition	No.	/TT/
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## IN THE MATTER OF: -

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Assets under "Dehri – Karamnasa Transmission System" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. - 110 016.

<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001, Haryana.

Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

Place: Gurgaon

Petitioner

Date: 2 5.11.2024

(Zafrul Hasan)

General Manager (Commercial)

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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FILED BY

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 25.11.2024

REPRESENTED BY

(Zafrul Hasan)

**General Manager (Commercial)** 

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

## And others

To

The Secretary

Central Electricity Regulatory Commission

New Delhi 110001

Sir.

The present tariff Petition is filed under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity

4

Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024 and same may be pleased to be registered and taken on record by the Hon'ble Commission.

**FILED BY** 

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 25.11.2024

**REPRESENTED BY** 

(Zafrul Hasan)

**General Manager (Commercial)** 

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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Bihar State Power (Holding) Company Ltd.

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Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

## **MEMO OF PARTIES**

Power Grid Corporation of India Ltd.

--- PETITIONER

**VERSUS** 

**Eastern Region** 

--- RESPONDENTS

 Bihar State Power (Holding) Company Limited Vidyut Bhawan, Bailey Road, Patna - 781001, Bihar Represented by its Chairman



- West Bengal State Electricity Distribution Company Limited Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City, Kolkata - 700 091, West Bengal Represented by its Chairman.
- Grid Corporation Of Orissa Ltd
   Shahid Nagar,
   Bhubaneswar 751 007, Odisha
   Represented by its Chairman & Managing Director
- Damodar Valley Corporation
   DVC Tower, Maniktala
   Civic Centre, VIP Road,
   Kolkata 700 054, West Bengal
   Represented by its Chairman
- Power Department, Govt. of Sikkim,
   Gangtok 737 101, Sikkim
   Represented by its Commissioner and Secretary (Power)
- 6. Jharkhand Bijli Vitran Nigam Ltd
  Engineering Building, H.E.C., Dhurwa,
  Ranchi 834 004, Jharkhand
  Represented by its Chairman

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY

GURGAON

DATED: 11.2024

Zafrul Hasan

**General Manager (Commercial)** 

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. ----/TT/----

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## Bihar State Power (Holding) Company Ltd.

--- RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

### MEMO OF APPEARANCE

## POWER GRID CORPORATION OF INDIA LTD.

-- PETITIONER

- 1. Shri Dilip Nagesh Rozekar, ED (Commercial & Regulatory Cell), POWERGRID
- 2. Shri Mohd. Mohsin, Chief GM (Commercial & Regulatory Cell), POWERGRID
- 3. Shri V.C. Sekhar, Sr. GM (Regulatory Cell)
- 4. Shri Zafrul Hasan, GM (Commercial), POWERGRID
- 5. Smt. Suchitra Rani Gautam, DGM (Commercial)
- 6. Shri Arjun Malhotra, Manager (Law-Commercial)

wa

I, Zafrul Hasan, the Petitioner above named do hereby nominate to act, plead and appear on my behalf in the aforesaid matter.

IN WITNESS WHEREOF I have set and subscribed my hands to this writing on this 25<sup>th</sup> date of Nov'2024.

**PETITIONER** 

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 2.11.2024

Zafrul Hasan

General Manager (Commercial)

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETIT	ΓΙΟΝ	NO.:	 	 
		110	 	 

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<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001, Haryana.

## Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

## And others

## A. EXECUTIVE SUMMARY OF THE PETITION:

## (i) Brief Background of the Petitioner

1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as "POWERGRID/Petitioner") is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed a transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission.

licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system ("ISTS"). POWERGRID operates and functions within the regulatory control of this Hon'ble Central Electricity Regulatory Commission (hereinafter referred to as "Hon'ble Central Commission"). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon'ble Central Commission in accordance with the Tariff Regulations as notified by this Hon'ble Central Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

## (ii) Brief Background of the Respondent(s):

POWERGRID has impleaded distribution licensees and Government department of the respective states which are engaged in distribution of electricity in Eastern Region of India. The respondents are also 'Designated Inter State Transmission Customer' (hereinafter referred to as 'DICS') in terms of the 2020 Sharing Regulations from Eastern region.

## (iii) Background of Transmission Assets:

2. POWERGRID has filed the present petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for the following Assets which are under "Dehri – Karamnasa Transmission System" for the following:

Asset Namė	DOCO	Reṁarks
Assets under "Dehri – Karamnasa Transmission System"	01.06.1999	Herein referred as Asset-I

Entire scope of subject project is captured in the above table.

## (iv) Summary of Claims:

- 3. A. POWERGRID is seeking truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission assets on capital cost comprising of capital cost incurred/Admitted upto 31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 in accordance with terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("Tariff Regulations, 2019") and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 ("Tariff Regulations, 2024").
- 4. The details of FR / RCE (Revised Cost Estimate) approved cost vis-à-vis claimed capital cost as on 31.03.2019 and additional capital expenditure during 2019-24 and 2024-29 tariff block is as under:

### TARIFF BLOCK 2019-24:

Asset No	Apportioned approved cost as per	Capital cost as on 31.03.2019/	Additional Capit (2019-24					Capital Cost as on 31.03.2024
	FR	COD	19-20	20-21	21-22	22-23	23-24	
ı	1174.00	1039.31	0.00	0.00	0.00	0.00	0.00	1039.31

## TARIFF BLOCK 2024-29:

Asset No	Apportioned approved cost as per	Capital cost as on 31.03.2024		Capital Cost as on 31.03.2029					
	FR		Add-cap/ De-cap	24-25	25-26	26-27	27-28	28-29	
			Add-cap	0.00	0.00	104.70	0.00	0.00	
1	1174.00	1039.31	De-cap	0.00	0.00	-72.11	0.00	0.00	1071.90
			NET	0.00	0.00	32.59	0.000	0.00	

## **5.** Details of tariff claimed are as under:

True up annual transmission tariff for 2019-24 tariff block:

Tariff Fo	or 2019-24 Bloo	k				
						₹ in Lakhs
Asset No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	Approved Tariff (approved vide CERC order 301/TT/2019)	142.87	144.76	146.89	148.95	151.16
	Revised tariff (claimed vide instant petition)	142.15	143.80	145.69	147.72	150.43

Tariff For 2024-29 E	Block				
					₹ in Lakhs
Asset No	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-I(A) (Original Asset)	140.95	143.85	144.32	145.11	148.41
Asset-I(B) (New Equipment)	-	-	10.60	21.33	20.51
TOTAL Asset-I	140.95	143.85	154.92	166.44	168.92

6. It is prayed to the Hon'ble Commission to take on record the instant petition and approve the capital cost claimed for tariff determination and further prayed to reimburse expenditure of petition filing fee, license fee, newspaper publication expanses and RLDC fee & charges etc.

## B. DETAILED PETITION:

## MOST RESPECTFULLY SHOWETH:

## Issue wise submission(s):

- 7. The Petitioner herein, Power Grid Corporation of India Ltd/ POWERGRID is a Government Company within the meaning of the Companies Act, 1956. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act 2003.
- 8. POWERGRID being transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Central Commission in accordance with the Tariff Regulations, 2019 and 2024.
- 9. That the subject project/petition covers approval of transmission tariff for following Assets:

Asset No	Asset Name	DOCO	Remarks
Asset-I	Assets under "Dehri – Karamnasa Transmission System"	01.06.1999	Covered under instant petition (Earlier covered under Petition no. 301/TT/2019)

## **COST DETAILS:**

## **TARIFF BLOCK 2019-24:**

10. The details of admitted cost for the assets covered in instant petition as per Hon'ble Commission order dated 17.06.2020 in petition no. 301/TT/2019 (Encl-1) for 2019-24 tariff block, and claimed cost now is given hereunder:

								₹ in Lakhs
			As	set-1				
Asset No	Apportioned approved cost as per	Capital cost admitted as	Add	Capital Cost allowed as				
	FR	on 31.03.2019	19-20	20-21	21-22	22-23	23-24	on 31.03.202
I	1174.00	1039.31	0.00	0.00	0.00	0.00	0.00	1039.31

Remarks, if any: -

- 11. Based on Audited cost certificate (Encl-2), NIL additional capitalization or Decapitalization has been claimed for Tariff block 2019-24. Further, additional capitalization and de-capitalization have been proposed and claimed for tariff block 2024-29.
- **12.** Now, the capital cost being claimed, for tariff period 2019-24, alongwith comparison with admitted / approved cost as per Hon'ble Commission vide order dated 17.06.2020 in petition no. 301/TT/2019 is hereunder:

			As	set-1				
								₹ in Lakhs
Asset No	Apportioned approved cost as per	Capital cost as on 31.03.2019		Capital Cost as or 31.03.2024				
	FR		19-20	20-21	21-22	22-23	23-24	
I	As appr 1174.00 ·	roved vide CERG 1039.31	0.00	. 301/TT/2 0.00	019 dated	0.00	020 (A) 0.00	1039:31
		As cl	aimed in i	nstant peti	tion (B)	- 117	"	
1	1174.00	1039.31	0.00	0.00	0.00	0.00	0.00	1039.31
			Variati	on (B-A)		'		
1	-	-	-	-	-	-	-	-
Rem:	arks, if any: -		7/1				ORPO	RA

## TARIFF BLOCK 2024-29:

13. The capital cost claimed for tariff block 2024-29 for the instant assets is as hereunder:

Asset No	Apportioned approved cost as per	Capital cost as on 31.03.2024		₹ in Lakhs Capital Cost as on 31.03.2029					
FR	•	•	Add-cap/ De-cap	24-25	25-26	26-27	27-28	28-29	
			Add-cap	0.00	0.00	104.70	0.00	0.00	
1	1174.00	1039.31	De-cap	0.00	0.00	-72.11	0.00	0.00	1071.90
			NET	0.00	0.00	32.59	0.00	0.00	

Remarks, if any: -

- (i) Additional Capitalization: Proposed for FY 2026-27 (justification at para 14)
- (ii) De-Capitalization: Proposed for FY 2026-27 (justification at para 14)
- (iii) Tariff streams for Tariff Block 2024-29 have been separated as:
  - Asset-I(A) Original asset (comprising of proposed De-cap) and
  - Asset I(B) New Equipment (comprising of proposed Add-cap)

It is relevant to submit here that the Additional Capitalization proposed during 2024-29 tariff block for replacement of problematic/old and obsolete assets/equipment.

Further, the Regulation 33 (8) of CERC (Terms & Conditions of Tariff) Regulations, 2024 stipulates that:

#### Quote

"The generating company or the transmission licensee, as the case may be, shall submit the details of capital expenditure proposed to be incurred during five years before the completion of useful life along with proper justification and proposed life extension. The Commission, based on prudence check of such submissions, shall approve the depreciation by equally spreading the depreciable value over the balance Operational Life of the generating station or unit thereof or fifteen years, whichever is lower, and in case of the transmission system shall equally spread the depreciable value over the balance useful life of the Asset or 10 years whichever is higher."

Unquote

Thus, as per Clause 33 (8) of Tariff Regulations, 2024, the depreciation of add-cap shall be recovered by equally spreading the depreciable value over the balance useful life of the Asset or 10 years whichever is higher.

In the instant petition, additional capitalization is proposed for FY 2026-27 and balance weighted average useful life of the asset/project is 09 years as on 01.04.2024 and 07 years as on 01.04.2026.

Accordingly, as per above said Regulation 33(8), proposed additional capital expenditure (Add-Cap) during 2024-29 tariff block, in the instant asset/ project, is being recovered equally spread, in 10 years from the first year of add-cap of 2024-29 tariff block i.e. FY 2026-27.

Thus, to recover the depreciation in 10 years for additional capitalization, the tariff has been computed in two parts, first part being the tariff for the existing equipment's and second part is the additional capitalization for the new equipment's. The decapitalization corresponding to FY 2026-27 is being done in the first part i.e. in the existing equipment's.

## **ADDITIONAL CAPITALIZATION & DE - CAPITALIZATION DETAILS:**

**14.** The details of additional capitalization and de-capitalization proposed for the Tariff block 2024-29 under subject project are as hereunder:

It is submitted that the add-cap projected during 2024-29 is on account of the replacement of component/equipment in the system which are deteriorated due to ageing and may affect the stability and reliability of the Grid in case of sudden failure and covered clause 25(2) of Tariff regulations, 2024.

## Quote

"Additional Capitalization within the original scope and after the cut-off date:

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the Cumulative depreciation, subject to prudence check on the following grounds:

- (a) Assets whose useful life is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
- (b) The replacement of the asset or equipment is necessary on account of a change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.
- (e) The additional expenditure, excluding recurring expenses covered in O&M expenses, involved in relation to the renewal of lease of lease hold land on case to case basis.

Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses."

Unquote

The detailed justification for equipment being replaced is as below:

1. Replacement of 132kV "CGL" make Pneumatic operated circuit breakers at Dehri (BSPTCL) and Karamnasa (BSPTCL) SS (02 set.)

It is submitted that Circuit breakers supplied under this project are of the pneumatic-operated type. These CBs have completed 25 years of useful life. Due to aging, these circuit breakers frequently face maintenance problems such as pneumatic drive failures and air leakages from various parts of the mechanism, leading to prolonged outages and causing unstable grid operations. The OEM has stopped providing spare parts and service support for these types of circuit breakers. As these breakers have outlived their useful life, it is prudent to replace them with new, technologically advanced, and simpler spring-operated circuit breakers in a timely manner to avoid



consequential damages to the system due to failures of the old in-service circuit breakers. Hence, it is proposed to replace these old CGL circuit breakers to ensure the efficient and secure operation of the grid. In view of this, it is proposed to replace two sets of CBs at Dehri (BSPTCL) (01 set) and Karamnasa (BSPTCL) (01 set).

2. Replacement of old & Obsolete 132kV Isolators at Dehri (BSPTCL) and Karamnasa (BSPTCL) SS (06 Sets).

It is submitted that the proposed isolators are GR Power make and have completed 25 years of useful life. These isolators are mainly Horizontal Centre Break (HCB) type. Due to aging, there are frequent problems with misalignment, jamming, improper closing/opening, and issues of over-travel. Wear and tear, heavy current passing during faults and through faults, have deteriorated the strength of male-female contacts (copper contacts), leading to hotspots. Isolators, being outdoor equipment, face various weather conditions (rainy, foggy, summer). After long service, many MOM boxes have rusted, causing problems with the MOM boxes and making the motorised operation of isolators difficult. This leads to problems with improper indication, control, interlock, and remote operation of isolators, which is unsafe. Due to aging, the TBs inside the MOM boxes have become brittle, and often terminals come into contact with boxes, creating DC earth faults, which are detrimental to the control and protection system. Due to the poor health of the isolator, especially the interlock mechanism, drive mechanism, and main contacts, the isolators cannot maintain a stable condition. Sometimes, during storms and high winds, the isolators open in ON LOAD condition, which is dangerous for the system's reliability and the operating personnel. Hence, in view of the above, it is proposed to replace 06 sets of 132kV isolators at Dehri (BSPTCL) (03 sets) and Karamnasa (BSPTCL) (03 sets) SS.

3. Replacement of old & obsolete 132kV Porcelain Dead Tank CTs at Dehri (BSPTCL) and Karamnasa (BSPTCL) SS (06 Nos):

It is submitted that the proposed CTs have completed 25 years of useful life. Oil leakages from different points, such as secondary terminals, primary terminals, domes, and oil sight glass, have been noticed in many of these CTs. These oil

leakages are beyond repair. Due to these leakages in the current transformers, over time, it may lead to low oil levels, moisture ingress, and subsequent failure. The current transformers are hermetically sealed equipment, and therefore, major repairs at the site are not recommended. Furthermore, as there is ingress of moisture, complete replacement of the active insulation parts is required at the manufacturer's works, which will not be techno-economically viable. The manufacturer has also stopped manufacturing and repairing these types of CTs. Failure of these CTs shall result in consequential damages to surrounding equipment and may cause unstable grid operations. In view of this, it is proposed to replace 06 Nos. CTs at Dehri (03 nos) and Karamnasa (03 nos) SS.

## 4. Replacement of old & obsolete 132kV CVTs at Dehri (BSPTCL) and Karamnasa (BSPTCL) SS (06 Nos):

It is submitted that the proposed CVTs/PTs are going to complete 25 years of useful life. CVTs are used for protection and metering purposes. Due to aging, leakage/seepage from multiple points such as the EMU tank, oil level glass, and secondary terminal boxes are observed. Due to aging, the capacitance of the CVTs has changed due to the internal failure of capacitor elements, resulting in a drift in secondary voltage. The CVT secondary output is used for metering and protection systems; therefore, it becomes vital for metering and protection. The variation in secondary voltage may result in inaccurate metering and incorrect operation of protection relays of transmission elements. The CVTs are hermetically sealed equipment. Furthermore, as there is ingress of moisture, complete replacement of the active insulation parts is required at the manufacturer's works, which will not be techno-economically viable. The manufacturer has also stopped manufacturing and repairing these types of CVTs. Hence, these aged CVTs are not reliable for intended performance and are prone to failure at any time, causing forced outages of the critically loaded feeders. Failure of these CVTs shall result in consequential damages to surrounding equipment and may cause unstable grid operations. In view of this, it is proposed to replace 06 nos. 400kV CVTs at Dehri (03 nos) and Karamnasa (03 nos) SS.

## 5. Replacement of old & obsolete 132kV Porcelain type Surge arrestors at Dehri (BSPTCL) and Karamnasa (BSPTCL) SS (06 Nos):

It is submitted that the proposed LAs have completed 25 years of useful life. Due to aging, the performance of the LAs has started deteriorating, resulting in higher values of THRC. LAs play a vital role in protecting equipment against lightning and switching impulses, and the health of LAs is crucial for the protection of other expensive equipment from high surge voltage. Non-functioning LAs may cause consequential damage to transformers, reactors, and line equipment, potentially resulting in unstable grid operations. In view of this, it is proposed to replace 06 LAs at Dehri (03 nos) and Karamnasa (03 nos) SS.

The Additional capitalization is being claimed as per following mentioned relevant Regulation(s):

ADD-CAP FOR TARIFF BLOCK 2019-24 and 2024-29:

Partio	culars	Additional Capitalization Claimed (2019-24)									
Asse	t / FY	2019- 20	2020-	2021- 22	2022-	2023- 24	2024- 25	2025- 26	2026- 27	2027- 28	2028- 29
	Add- cap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.70	0.00	0.00
	Reg.	-	-	-	-	-	-	-	25(2)	-	-
1	т	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.70	0.00	0.00

The Equipment wise detailed break-up of Add-cap/De-cap of equipment's being proposed for replacement alongwith relevant documents is enclosed hereto as Encl-3A. The Debt: Equity ratio is 63.70:36.30 has been considered for de-capitalization.

Further details with regards to above are tabulated as below:

Asset / Equipment	Year of capitalisation of asset being de-capitalised	Original Book Value of the asset being de- capitalised (₹ in Lakhs)	Debt – Equity ratio at the time of capitalisation	Year of de- capitalisation	Cumulative depreciation corresponding to de- capitalisation (₹ in Lakhs)	Cumulative repayment of Loan corresponding to de- capitalisation (₹ in Lakhs)
CB, CT, CVT, LA & Isolator	1999-20 (01.06.1999)	72.11	63.70::36.30	2026-27	64.89	45.93

The Form-10B relevant to above is enclosed herewith as Encl-3B.

It is prayed to the Hon'ble Commission to take the above information on record and approve the De-capitalization claimed as per details above.

**15.** The cost details as worked out for the purpose of computation of Truing-Up tariff for period 2019-24 and Transmission tariff for the period 2024-29 for the instant assets is detailed hereunder as:

			Asse	t-1				
							₹	in Lakhs
Expenditure	Land (F)	B & CW	TL	Sub- station	Comm. System excl. OPGW	IT	Batteries	Total
Cost upto 31.03.2019 as admitted by CERC order 301/TT/2019	7.37	11.32	789.08	198.10	33.44	-	-	1039.31
Cost considered upto 31.03.2019 in the instant petition	7.37	11.32	789.08	198.10	33.44	-	-	1039.31
Expenditure for FY 2019- 24 (As per auditor certificate)	0.00	0.00	0.00	0.00	0.00	-	-	0.00
Total Completion Cost considered upto 31.03.2024	7.37	11.32	789.08	198.10	33.44	-	-	1039.31
Est. Expenditure for 2024- 26 (As per auditor certificate)	0.00	0.00	0.00	0.00	0.00	-	-	0.00
Est. Expenditure for 2026- 27 (Add-Cap) (As per auditor certificate)	0.00	0.00	0.00	104.70	0.00	ORPOR	ATION	104.70

Est. Expenditure for 2024- 26 (As per auditor certificate)	0.00	0.00	0.00	(-) 72.11	0.00	-	-	(-)72.11
Est. Expenditure for 2027- 29 (As per auditor certificate)	0.00	0.00	0.00	0.00	0.00	-	-	0.00
Total Completion Cost considered upto 31.03.2029	7.37	11.32	789.08	230.69	33.44	-	-	1071.90

## TRANSMISSION TARIFF:

## 16. Transmission tariff:

The 2019-2024 truing up exercise is to be done at the time of filing tariff petition for next block, i.e. 2024-29 period as per regulation 13 of Tariff Regulation 2019-24

Regulation 13 of Tariff Regulation 2019-24:

#### Quote

"The Commission shall carry out truing up exercise for the period 2019-24 along with the tariff petition filed for the next tariff period, for the following:"

## **Unquote**

That the Petitioner is required to adjust the yearly impact of MAT as per regulation 31 (3) of the tariff Regulation 2019-24 period dated 07.03.2019 in the truing up petition for 2019-24 tariff block.

## Regulation 31 (3) of the tariff Regulation 2019-24:

#### Quote

The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis

Unquote

wa

It is submitted that the Income Tax assessment of the Petitioner has been completed and Assessment Orders have been issued by the Income Tax Department for FY 2019-20 and 2020-21; and that the Income Tax returns have been filed with the Income Tax Department for FY 2021-22, 2022-23 & 2023-24.

As such, basis of year wise effective tax rate and Grossed up ROE to be trued up accordingly for the block period 2019-24 is summarized as under.

As such, basis of year wise effective tax rate and Grossed up ROE trued up accordingly for the block period 2019-24 is summarized as under:

Financial Year	Basis considered	Total Tax & Interest paid (Rs)	Assessed MAT Income under Sec 115 JB (Rs)	Effective Tax percentage	Grossed up ROE (Base rate/(1-t)
2019-20	Assessment Order	24,52,62,76,991	1,40,37,47,53,855	17.472%	18.782%
2020-21	Assessment Order	26,08,93,59,008	1,49,32,09,65,036	17.472%	18.782%
2021-22	Actual Tax paid	31,81,46,40,406	1,82,08,92,88,030	17.472%	18.782%
2022-23	Actual Tax paid	30,42,88,20,993	1,74,15,76,29,306	17.472%	18.782%
2023-24	Actual Tax paid	31,32,12,38,737	1,79,26,53,31,597	17.472%	18.782%

The above Effective Tax percentage shall be applied by the petitioner in arriving out the Grossed-up ROE rate in all cases of truing up petitions to be filed for the period 2019-24. It is submitted that effective rate of tax considered for FY 2019-20 and 2020-21 are based on Assessment Order issued by Income-Tax authorities, for the purpose of grossing up of ROE rate and that the effective rate of tax considered for FY 2021-22, FY 2022-23 and FY 2023-24 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years.

The Hon'ble Commission is requested to allow the petitioner to claim the differential tariff on account of the trued-up ROE based on effective tax rate calculated on completion of Income-tax assessment/re-assessment for the F/Y 2019-20, 2020-21,2021-22,2022-23 and 2023-24 on receipt of the respective assessment orders, directly from the beneficiaries, on year-to-year basis as provided in the Regulation.

In line with the above Regulation, the tariff for each year of the tariff period 2019-24 has been trued up considering the above effective tax percentage to arrive at Grossed up ROE rate.

While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on Ioan adjustments. As per Hon'ble Commission order dated 29.04.2023 in petition no. 196/TT/2022, it has been stated that the weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019 and accordingly, the floating rate of interest on actual, applicable from time to time, if any, during 2019-24 tariff shall be considered at the time of true up or next revision of tariff.

Accordingly in the present petition, truing up of transmission tariff for the tariff block 2019-24 is being carried out based on actual additional capitalization during 2019-24 tariff block, change in MAT rate as well as actual floating rate of interest during 2019-24.

**17.** The trued up annual transmission tariff for the tariff period 2019-24 is summarized as below:

Truing	Truing-Up Tariff For 2019-24 Block										
						₹ in Lakhs					
Asset No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24					
Asset-I	Approved Tariff (approved vide CERC order 301/TT/2019)	142.87	144.76	146.89	148.95	151.16					
	Revised tariff (claimed vide instant petition)	142.15	143.80	145.69	147.72	150.43					

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-4**.

That in the subject petition, details are provided in various Tariff Forms with respect to Capital Cost as per books / Gross Block amount as per Books. It is submitted that the petitioner has opted for deemed cost exemption as per Para D7 AA of Ind AS 101 'First-time Adoption of Indian Accounting Standards". Accordingly Carrying value i.e. Gross Block less Accumulated Depreciation is considered as deemed cost as on the date of transition i.e. 1st April 2015. As such, in case of assets commissioned before 01.04.2015, the accumulated depreciation as on 1st April 2015 is added back to the deemed Capital Cost as per books / Gross Block amount as per Books for arriving at the figures to be provided in various Tariff Forms.

18. The tariff for 2024-29 tariff block is summarized below:

					₹ in Lakh
Asset No	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-I(A) (Original Asset)	140.95	143.85	144.32	145.11	148.41
Asset-I(B)* (New Equipment)	-	-	10.60	21.33	20.51
TOTAL Asset-I	140.95	143.85	154.92	166.44	168.92

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-5**.

- 19. The asset-I had already completed 12 years of useful life in the Tariff block 2014-19 and the remaining depreciation is spread over the balance useful life of the Asset 1 & 2 at rate specified in Appendix-I as per clause 33 (5) of the CERC Tariff regulations 2024. The details have been computed and are provided in Form- 10 A.
- 20. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act,1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-

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29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long term customers, as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.

- 21. Under CGST Act, 2017 implemented w.e.f. 01.07.2017, the Govt. of India has exempted the charges of transmission of electricity vide notification no. 12/2017 Central Tax (Rate) dated 28.06.2017 at serial no. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility" by giving applicable GST rate as NIL. Hence, the Transmission Charges as indicated at para 17 & 18 above is exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged & billed separately by the petitioner. Further additional taxes, if any, are to be paid by the petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.
- 22. In the tariff calculation for 2019-24 period, Interest on Loan has been calculated on the basis of actual rate of interest of various loans deployed for each year. In the tariff calculation for 2024-29 period, Interest on Loan has been calculated on the basis of interest rates prevailing as on 01.04.2024 for respective loans. The change in Interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed / adjusted over the tariff block of 05 years directly from / with the beneficiaries.

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 was submitted in the petition vide Diary NO:677/2024.

These documents/details are also available on our website at the following link: <a href="https://apps.powergrid.in/cerc/docs/Western%20Region/2024/09/Khargone%20TPS/S">https://apps.powergrid.in/cerc/docs/Western%20Region/2024/09/Khargone%20TPS/S</a> canned petition Khargone TPS.pdf.

- 23. The transmission charges at para 17 & 18 above is inclusive of O&M expenses derived for the subject asset based on the norms for O&M expenditure for Transmission System as specified under regulation 36 (3) (a) of the tariff regulations for block 2024-29.
- 24. That as per Regulation 36(3)(d) of CERC Tariff Regulations, 2024, the Security Expenses, Insurance and Capital Spares more than Rs. 10 Lakh for transmission system shall be allowed separately after prudence check.

## **SECURITY EXPANSES:**

In this regard, it is submitted that a separate petition shall be filed for truing up of security expenses from 01.04.2019 to 31.03.2024 under the Regulation 35 (3) (C) of Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and recovery of security expenses from 01.04.2024 to 31.03.2029 under the Regulation 36 (3) (d) of Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

### INSURANCE:

In this regard, it is submitted that a separate petition shall be filed before Hon'ble Commission for claiming the overall Insurance Expenses and consequential Interest on Working Capital (IOWC) on the same considering actual Insurance Expense incurred by the Petitioner for the F/Y 2023-24 after escalating the same at 5.25% per annum for arriving at the Estimated Insurance Expense for the year 2024-25, 2025-26, 2026-27, 2027-28 and 2028-29.



#### **CAPITAL SPARE:**

With regard to Capital Spares, the Petitioner has filed a separate Petition bearing No 45/MP/2024 for claiming the capital spares under Tariff Regulations 2019. Further, as per Tariff Regulations, 2024, Capital spares consumed and consequential Interest on Working Capital (IOWC) on the same shall be claimed by the Petitioner as per actual through a separate petition.

Accordingly, these expenses are not claimed in the subject petition through the relevant Tariff Form and shall be claimed separately.

25. That as per Regulation 99 of CERC Tariff Regulations, 2024, the fees and charges of Central Transmission Utility of India Limited ('CTUIL') shall be allowed separately by the Commission through a separate regulation. Further, it provides that that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by POWERGRID which shall be recovered by POWERGRID as additional O&M expenses through a separate petition.

Accordingly, the expenses of CTUIL borne by POWERGRID shall be claimed through a separate petition.

- 26. The application filing fee, expenses incurred on publication of Notices in Newspapers and License fee may be allowed to be recovered separately from the respondents in terms of Regulation 94(1) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024. The fees and charges to be paid by the petitioner as ISTS licensee (deemed ISTS licensee) under CERC (Fees and Charges of RLDC and other matters) Regulations as amended from time to time shall also be recoverable from the DICs as provided under clause 94 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- 27. The Transmission Charges and other related Charges indicated at para 17 & 18 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges, capital spares, security expenses, insurance expenses or any other kind of imposition (s) and/ or other surcharges etc. whatsoever imposed / charged by any Government

(Central/State) and / or any other local bodies/authorities/regulatory authorities in relation to transmission of electricity, environmental protection, and/or in respect of any of its installation associated with the Transmission System and the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged, billed separately by the petitioner on the respondents.

### **SHARING OF TRANSMISSION CHARGES:**

- 28. Transmission Tariff for 2019-24 as per above, shall be recovered as per Regulation 57 of CERC Tariff Regulations, 2019 and CERC Sharing Regulations, in vogue. Transmission Tariff for 2024-29 as per above, shall be recovered as per Regulation 78 of CERC Tariff Regulations, 2024 and CERC Sharing Regulations, in vogue.
- 29. In the circumstances mentioned above it will be just and proper that the transmission tariff for the asset covered under this petition be allowed to be charged from the beneficiaries on the basis set out above. The Petitioner submits that Encl.-1 to Encl.-5 may please be treated as integral part of this petition.

#### PRAYER:

## 30. PRAYER

It is respectfully prayed that the Hon'ble Commission may be pleased to

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 17 & 18 above.
- b) Approve the equipment replacement / addition(s) proposed for the tariff block 2024-29.
- c) Approve the De-capitalization claimed for 2024-29 block for the assets covered under this petition.

- d) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 17 & 18 above for respective block.
- e) Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers / DIC as the case may be, as and when the same is materialized as per regulation 67 of 2019 and regulation 89 of 2024 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulations.
- f) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.
- g) Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- h) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.
- i) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 24 above.
- j) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 24 above.

k) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 24 above.

I) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 25 above.

m) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice

**FILED BY** 

**GURGAON** 

POWER GRID CORPORATION OF INDIA LTD.

DATED: 25.11.2024

REPRESENTED BY

Zafrul Hasan

General Manager (Commercial)

## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

<b>PETITION</b>	NO.:	
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## IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Assets under "Dehri — Karamnasa Transmission System" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. - 110 016. Corporate Centre: 'SAUDAMINI', Plot No-2,

Sector-29, Gurgaon-122 001, Haryana.

Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

## AFFIDAVIT VERIFYING THE PETITION

I, Zafrul Hasan, S/O Late Shri Zahurul Hasan, working as General Manager (Commercial) in the Powergrid Corporation of India Ltd., having its registered Office at B-9, Institutional Area, Katwaria Sarai, New Delhi-110 0/16 do hereby solemnly affirm and state as under:

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- 1. That the deponent is the General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.
- 2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised representative/nominated counsel under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
- 3. That the contents of Para 01 to 30 of the facts as mentioned in the Petition are true and correct based on the my personal knowledge, belief and records maintained in the office and the contents of Para 01 to 30 of the Petition are believed to be true on the basis of the legal advice received.
- 4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
- 5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute

(DEPONENT

#### **VERIFICATION**

Solemnly affirmed at Gurgaon on this 25 day of Nov'2024 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.

ATTESTED

Malender S. Punia

ATTESTED

MAHENDER S. NOTARY

ADVOCATE & NOTARY

OF INDIVIDUAL TO STAND THE PROPERTY OF THE PROPE



## पावर गिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड (भारत सरकार का उद्यम)

**POWER GRID CORPORATION OF INDIA LIMITED** 

(A Government of India Enterprise)

Ref: CC/Commercial/2024

Date: 28.08.2024

### LETTER OF AUTHORIZATION

In reference to the POWER OF ATTORNEY dated 14.08.2024 and in supersession of letter of authorization dated 13.12.2022 I hereby authorize following executives to sign Petitions, Appeals, Vakalatnama, Affidavits, etc. and to represent POWERGRID before various forums/ courts / tribunals i.e Central Electricity Regulatory Commission, State Electricity Regulatory Commission, Appellate Tribunal for Electricity, High courts and Supreme Court etc.

- 1. Sh. Mohd. Mohsin, Chief General Manager
- 2. Sh. V. C. Sekhar, Senior General Manager
- 3. Sh. Zafrul Hasan, General Manager

Further, following executives are authorised to represent cases before Central Electricity Regulatory Commission and Appellate Tribunal for Electricity

- 1. Sh. Angaru Naresh Kumar, Deputy General Manager
- 2. Smt. Suchitra Gautam, Deputy General Manager
- 3. Sh. Vishal Sagar, Deputy General Manager
- 4. Sh. G. Vijay, Deputy General Manager
- 5. Sh. Vivek Kumar Singh, Deputy General Manager
- 6. Sh. Amit Kumar Chachan, Deputy General Manager
- 7. Smt. Supriya Singh, Chief Manager (Law)
- 8. Sh. Arjun Malhotra, Manager (Law)
- 9. Smt. Tanushree Rao, Deputy Manager (Law)

Dip Nagesh Rozekar

Executive Director (Commercial & RC)

दिलीप रोजेकर / DILIPROZEKAR Executive Director (Commercial & Regulatery Cell) पावर ग्रिड कॉपॅरिशन ऑफ इंडिया लिमिटेड Power Grid Corporation of India Ltd. (भारत सरकार का उडम)/(A Govl. of India Enterprise) Plot No.-2, Sector-29, Gurgaon- 122 001 (Haryana)

केन्द्रीय कार्यालय : 'सौदामिनी'' प्लॉट सं. २, सैक्टर-२९, गुरुग्राम-१२२००१, (हरियाणा), दूरभाष : ०१२४-२५७, राज्यान-१२००१, Corporate Office: "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel.: 0124-2571700-719

## CENTRAL ELECTRICITY REGULATORY COMMISSION

#### **NEW DELHI**

## **PETITION NO. 301/TT/2019.**

Coram:

Shri P.K. Pujari, Chairperson Shri I.S. Jha, Member

Date of order :17.06.2020

#### In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and revision of transmission tariff for 2001-04 tariff block, 2004-09 tariff block, 2009-14 tariff blockand truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 of Dehri-Karamnasa Transmission System in Eastern Region.

#### And in the Matter of:

Power Grid Corporation of India Ltd. SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Harvana).

.....Petitioner

#### Versus

- Bihar State Power (Holding) Company Ltd Vidyut Bhavan, Bailey Road, Patna - 800 001
- 2. West Bengal State Electricity Distribution Company Limited Bidyut Bhawan, Bidhan Nagar Block DJ, Sector-II, Salt Lakecity

Calcutta - 700 091

3. Grid Corporation of Orissa Ltd. Shahid Nagar, Bhubaneswar - 751 007

4. Jharkhand State Electricity Board In Front of Main Secretariat Doranda, Ranchi - 834002

Order in Petition No.301/TT/2019.



- 5. Damodar Valley Corporation DVC Tower, Maniktala Civic Centre, Viproad, Calcutta - 700 054
- 6. Power Department Government of Sikkim. Gangtok- 737 101

...Respondent(s)

#### Parties present:

For Petitioner:

Shri M.G. Ramachandran, Senior Advocate, PGCIL

Ms. Swapna Seshadri, Advocate, PGCIL

Ms. Ritu Apurva, Advocate, PGCIL

Shri A.K. Jain. PGCIL Shri A. K. Verma, PGCIL Shri Mukesh, PGCIL Shri Anshul Garg, PGCIL

For Respondent: Shri R. B. Sharma, Advocate, BRPL and BSP(H)CL Shri Mohit Mudgal, Advocate, BRPL and BSP(H)CL

#### ORDER

The present petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner") for revision of transmission tariff for 2001-04 tariff block, 2004-09 tariff block, 2009-14 tariff block and truing of the capital expenditure for the period from 1.4.2014 to 31.3.2019 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") of Dehri-Karamnasa Transmission System in Eastern Region(hereinafter referred to as the "transmission asset").

2. The Petitioner has made the following prayers:

- "1). Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.
- 2)Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per Para 9 and 10 above.
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9 and 10 above for respective block.
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure ( if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5. above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice"

#### **Background**

- 3. The brief facts of the case are as follows:
  - a. The Investment Approval for the Dehri-Karamnasa Transmission System in Eastern Region was accorded by the Board of Directors of the Petitioner vide

Memorandum No.CCP/IR/02 dated 22.10.1997 at estimated cost of ₹1174 lakh, including IDC of ₹46 lakh. The date of commercial operation of the transmission system was1.6.1999.

- b. The transmission tariff from 1.4.2001 to 31.3.2004 was determined vide order dated 5.8.2003 in Petition No. 67/2002; for the period from 1.4.2004 to 31.3.2009 in order dated 12.1.2006 in Petition No. 123/2004; and for the period from 1.4.2009 to 31.3.2014 vide order dated 11.5.2011 in Petition No.76/2010. The tariff for the 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 4.12.2015 in Petition No.182/TT/2014.
- c. The Petitioner has sought revision of transmission tariff approved for the 2001-04 and 2004-09 tariff blocks on account of change in Interest on Loan (IOL) and Interest on Working Capital (IOWC) to the extent of revision in IOL and in Maintenance Spares in terms of the Appellate Tribunal for Electricity (hereinafter referred to as ""APTEL") judgment dated 22.1.2007 and 13.6.2007 in Appeal No. 81/2005 and 139/2006 respectively. The Petitioner has sought consequential revision of tariff allowed for the 2009-14 tariff block and truing up of tariff of 2014-19 tariff block and determination of tariff for 2019-24 tariff block for Dehri-Karamnasa Transmission System.
- d. The APTEL, vide judgements dated 22.1.2007 in Appeal No.81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided on, mainly, the following issues:-
  - (a) Computation of interest on loan
  - (b) Consequences of refinancing of loan
  - (c) Depreciation as deemed repayment
  - (d) Admissibility of depreciation up to 90% of the value of the assets
  - (e) Consideration of maintenance of spares for working capital
  - (f) Depreciation of assets.
- e. The Commission and certain beneficiaries filed Appeals against the APTEL's judgments before the Hon'ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not

be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.

- f. PGCIL based on the APTEL's judgments dated 22.1.2007 and 13.6.2007, sought re-determination of tariff of its transmission assets for the tariff blocks 2001-04 and 2004-09 in Petition No. 121/2007. The Commission after taking into consideration the pending Appeals before the Hon'ble Supreme Court adjourned sine die and directed to revive the same after the disposal of the Civil Appeals by the Hon'ble Supreme Court.
- g. The Hon'ble Supreme Court dismissed the said Civil Appeals filed against the APTEL's said judgments vide its judgment dated 10.4.2018.
- h. Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018 in NTPC matters, the Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission, vide order dated 18.1.2019 in Petition No. 121/2007, directed the petitioner to submit its claim separately for the assets at the time of filing of truing up of the petitions for the period 2014-19 in respect of concerned transmission assets.
- i. The instant petition was heard on 13.2.2020 and in view of APTEL's judgments dated 22.1.2007 and 13.6.2007 and the judgement of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Although, period wise tariff is being reworked based on the Tariff Regulations applicable for the respective tariff periods, suitable assumptions at certain places, if any, are being applied which are being indicated.
- j. The instant transmission asset was put under commercial operation on 1.6.1999. However, the tariff regulations came into effect from 2001-04 tariff period. The tariff from 1.4.2001 was worked out based on the admitted capital cost of ₹1039.31 lakh. Accordingly, considering the admitted capital cost of ₹1039.31 lakh, tariff is being revised for the 2001-04, 2004-09, 2009-14 tariff periods in terms of the APTEL's judgement dated 22.1.2007 and 13.6.2007.



- 4. Further, as provided under Regulation 8(1) of the 2014 Tariff Regulations, the tariff allowed for the period from 1.4.2014 to 31.3.2019 has been trued-up and the tariff for the 2019-24 period is determined under Regulation 8 of the 2019 Tariff Regulations.
- 5. The respondents are distribution licensees and power departments, who are procuring transmission service from the Petitioner, mainly beneficiaries of Eastern Region.
- 6. The Petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/objections have been received from the public in response to the notice in newspaper. Further, none of the respondents have filed any reply in the matter.
- 7. The matter was heard on 13.2.2020 along with Petition No. 288/TT/2019. The learned counsel for BSP(H)CL, adopting the reply filed by BRPL in Petition No.288/TT/2019, objected to the re-opening of the tariff of 2001-04, 2004-09 and 2009-14 periods based on the APTEL's judgements as the Commission has become "functus officio". The Learned counsel for the petitioner submitted that the Commission, by a combined order dated 6.11.2019, has already rejected the contentions of BRPL and BSP(H)CL regarding revision of the tariff for the periods 2001-04,2004-09 and 2009-14 on the ground that the Commission has become "functus officio". Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

- 8. The Petitioner has sought revision of the computation of the interest on loan, maintenance spares for working capital and depreciation allowed for the 2001-04 and 2004-09 period on the basis of the judgements of the Appellate Tribunal for Electricity (APTEL) dated 22.1.2007 in Appeal No.81 of 2005 and 13.6.2007 in Appeal No.139/2006. The APTEL while dealing with the issue of computation of interest on loan, in judgement dated 22.1.2007, observed that interest on loan for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal Nos.94 and 96 of 2005. APTEL in its judgement dated 14.11.2006 set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher. The relevant portions of the judgement of 14.11.2006 is as follows:-
  - "12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.
  - 13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt—equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.
  - 14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon.
  - 18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004
  - 19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001."

In view of the above, the interest allowed for the 2001-04 and 2004-09 periods is revised on the basis of the normative debt repayment methodology.

9. The APTEL in judgement dated 13.6.2007 in Appeal No.139 of 2006 and others held that additional capitalisation after the date of commercial operation should also be considered for computation of maintenance spares as under:-

#### "Analysis and Decision

We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

"Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities
- (ii) Works deferred for execution
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station."

It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included

in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations."

- 10. In view of the above, the maintenance spares to be considered for computation of working capital for the 2001-04 and 2004-09 periodsare also required to be revised taking into consideration the additional capitalisation after the date of commercial operation. We observe that, in the instant petition, there has been no additional capitalization after the date of commercial operation which, otherwise, would have necessitated a revision in maintenance spares.
- 11. As regards depreciation, APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:-

#### "Analysis and Decision

In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.

It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-

"The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation"

It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations."

- 12. Accordingly, in view of the above directions of APTEL, the outstanding loan allowed for the instant assets for the 2001-04 and 2004-09 periods is revised in the instant order.
- 13. The revision of tariff allowed for 2001-04 and 2004-09 tariff periods necessitates the revision of tariff allowed for the 2009-14 period, which is also allowed in the instant order. The implementation of the directions of the APTEL in case of the Petitioner has been kept pending waiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the period 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, the Petitoner will neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

# REVISION OF TRANSMISSION CHARGES ALLOWED FOR THE 2001-04, 2004-09 and 2009-14 TARIFF PERIODS

#### 2001-04 Period

14. The Commission in order dated 5.8.2003 in Petition No.67/2002 had approved the following transmission charges for the instant assets for the 2001-04 perioid:

			(₹ in lakh
Particulars	2001-02	2002-03	2003-04
Depreciation	29.62	29.62	29.62
RoE	60.37	60.37	60.37
O&M Expenses	94.03	99.67	105.65
AAD	0.00	0.00	25.55

Total	274.65	280.54	306.67
IOWC	7.49	7.74	8.38
IOL	83.14	83.14	77.10

15. The petitioner has claimed the following revised transmission charges for the instant transmission assets for the 2001-04 period in this petition:

	(₹ in lakh		
Particulars	2001-02	2002-03	2003-04
Depreciation	29.62	29.62	29.62
RoE	60.37	60.37	60.37
O&M	94.03	99.67	105.65
AAD	0.00	0.00	25.55
IOL	83.14	83.14	66.41
IOWC	7.50	7.75	8.19
Total	274.66	280.55	295.79

- 16. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
  - a) Admitted capital cost of ₹1039.31 lakh as on 1.4.2001,
  - b) In the tariff order dated 5.8.2003 in Petition No. 67/2002, the repayment of loan for 2003-04 was considered as zero whereas the repayment of actual loan did start from 2003-04. The loan repayment in tariff has now been modified as per the judgment of APTEL that has directed that normative repayment is to be considered and not "higher of normative or actual repayment" as was considered by the Commssion earlier. Therefore, now there is variation in the closing balance of loan vis-à-vis that in the Order dated 5.8.2003. This closing balance of loan shall have impact on opening and closing loan balances of future tariff periods too.
  - c) Weighted Average Rate of Interest on actual loan, as applied in tariff, has been derived/adopted from the said Order dated 5.8.2003.
  - d) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O & M Expenses as per order dated 5.8.2003 in Petition No 67/2002.



- As there was no additional capital expenditure during 2001-04 period, e) there is no requirement to revise the maintenance spares component for calculating IWC.
- 17. In view of the above, the revised transmission charges allowed for the instant assets for the 2001-04 tariff period is as follows:

(₹in lakh)

Particulars	2001-02	2002-03	2003-04
Depreciation	29.62	29.62	29.62
Interest on Loan	83.14	83.14	66.41
Return on Equity	60.37	60.37	60.37
Advance against Depreciation	0.00	0.00	25.55
Interest on Working Capital	7.49	7.74	8.17
O&M Expenses	94.03	99.67	105.65
Total	274.65	280.54	295.76

# 2004-09 Period

18. The Commission in order dated 28.7.2005 in Petition No.123/2004 had approved the following transmission charges for the instant assets for the 2004-09 period:

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	29.62	29.62	29.62	29.62	29.62
Interest on Loan	51.72	41.48	31.24	21.00	13.52
Return on Equity	52.82	52.82	52.82	52.82	52.82
Advance against	•				
Depreciation	0.00	0.40	36.58	36.58	26.85
Interest on Working Capital	5.65	5.64	6.26	6.25	6.14
O&M Expenses	75.76	78.80	82.00	85.19	88.68
Total	215.57	208.76	238.52	231.46	217.63

The petitioner has claimed the following revised transmission charges for the 19. instant transmission assets for the 2004-09 period in this petiton:

(₹in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	29.62	29.62	29.62	29.62	29.62
Interest on Loan	52.82	52.82	52.82	52.82	52.82

Return on Equity	75.76	78.80	82.00	85.19	88.68
Advance against					
Depreciation	0.00	0.41	36.58	36.58	26.85
Interest on Working					
Capital	51.70	41.47	31.23	21.01	13.52
O&M Expenses	5.76	5.75	6.38	6.38	6.28
Total	215.66	208.87	238.62	231.60	217.77

- 20. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
  - a) Admitted capital cost of ₹1039.31 lakh as on 1.4.2004.
  - b) Weighted Average Rate of Interest on actual loan adopted from order dated 12.1.2006 in Petition No 123/2004.
  - c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O & M Expenses as per order dated 12.1.2006 in Petition No 123/2004.
- 21. As there was no additional capital expenditure during 2001-04 period, there is no requirement to revise the maintenance spares component for calculating IWC.
- 22. In view of the above, the revised transmission charges allowed for the instant assets for the 2004-09 tariff period is as follows:

(₹in lakh)

Particulars	2004-05	2005- 06	2006-07	2007-08	2008-09
Depreciation	29.62	29.62	29.62	29.62	29.62
Interest on Loan	51.70	41.47.	31.23	21.02	13.52
Return on Equity	52.82	52.82	52.82	52.82	52.82
Advance against Depreciation	0.00	0.41	36.58	36.58	26.88
Interest on Working					
Capital	5.65	5.64	6.26	6.25	6.14
O&MExpenses	75.76	78.80	82.00	85.19	88.68
Total	215.56	208.76	238.51	231.48	217.67

#### 2009-14 Period

23. The Commission vide order dated 11.5.2011 in Petition No.76/2010 had approved the tariff for the instant assets for the 2009-14 period and in order dated 4.12.2015 in Petition No 182/TT/2014 had trued up the tariff allowed for the 2009-14 period that was earlier allowed in order dated 11.5.2011 and the same is as follows:

(₹in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	54.62	54.62	54.62	13.83	13.83
Interest on Loan	9.45	4.43	1.03	0.00	0.00
Return on Equity	70.46	73.04	73.11	73.11	73.09
Interest on Working Capital	6.19	6.34	6.47	5.82	6.07
O&MExpenses	67.79	71.65	75.76	80.15	84.72
Total	208.51	210.07	210.99	172.91	178.61

24. The petitioner has claimed the following revised transmission charges for the instant transmission assets for the 2009-14 period in this petition:

(₹in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	54.62	54.62	54.62	13.83	13.83
Interest on Loan	9.45	4.43	1.03	0.00	0.00
Return on Equity	70.46	73.04	73.11	73.11	73.99
Interest on Working Capital	6.19	6.34	6.47	5.82	6.07
O&MExpenses	67.79	71.65	75.76	80.15	84.72
Total	208.51	210.07	210.99	172.91	178.61

- 25. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
  - a) Admitted capital cost of ₹1039.31 lakh as on 1.4.2009.
  - b) Weighted Average Rate of Interest on actual loan derived/ adopted from Order dated 4.12.2015 in Petition No 182/TT/2014.
  - c) Weighted Average Rate of Depreciation as per order dated 4.12.2015 in Petition No 182/TT/2014.

26. In view of the above, the revised transmission charges allowed for the instant assets for the 2009-14 tariff period is as follows.

(₹in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	54.62	54.62	54.62	13.83	13.83
Interest on Loan	9.46	4.44	1.03	0.00	0.00
Return on Equity	70.46	73.04	73.11	73.11	73.99
Interest on Working Capital	6.19	6.34	6.47	5.82	6.07
O&MExpenses	67.79	71.65	75.76	80.15	84.72
Total	208.52	210.08	211.00	172.91	178.61

#### TRUING UP OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

The Commission vide order dated 4.12.2015 in Petition No 182/TT/2014 had 27. approved the tariff allowed for the 2014-19 period as below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13.83	13.83	13.83	13.83	13.83
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	73.99	73.99	73.99	73.99	73.99
Interest on Working Capital	6.31	6.46	6.60	6.75	6.91
O&M Expenses	77.67	80.27	82.94	85.68	88.50
Total	171.80	174.55	177.37	180.26	183.23

- The Petitioner has submitted the information as required under the 2014 Tariff 28. Regulations for truing up of annual fixed charges for 2014-19 period. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.
- 29. The details of the transmission charges claimed by the Petitioner are as under:-

(₹in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13.863	13.83	13.83	13.83	13.83
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	74.05	74.39	74.35	74.35	74.55
Interest on working capital	6.31	6.47	6.61	6.76	6.93
O & M Expenses	77.67	80.27	82.94	85.68	88.50
Total	171.86	174.96	177.73	180.62	183.61



30. The details of the Interest on Working Capital claimed by the Petitioner are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	6.47	6.69	6.91	7.14	7.38
Maintenance Spares	11.65	12.04	12.44	12.85	13.28
Receivables	28.65	29.16	29.62	30.10	30.64
Total	46.77	47.89	48.97	50.09	51.30
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	6.31	6.47	6.61	6.76	6.93

#### Capital Cost as on 1.4.2014

31. The capital cost of the instant asset has been calculated in accordance with the Regulation 9(3) and Regulation 9(6) of 2014 Tariff Regulations. The Commission vide order dated 4.12.2015 in Petition No.182/TT/2014 had approved the transmission tariff for the instant assets for the 2014-19 period based on admitted capital cost of ₹1039.31 lakh as on 31.3.2014 for the Combined Asset. The Petitioner has not claimed any additional capital expenditure during the 2014-19 tariff period. Accordingly, the capital cost of ₹1039.31 lakh has been considered for the purpose of truing up of the tariff of the 2014-19 tariff period.

#### **Debt-Equity ratio**

32. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt:equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio of 63.70:36.30 for the period ending on 31.3.2014, considered for the purpose of determination of tariff of the 2014-19 tariff period has been considered for the prupose



of truing up of the tariff of the Combined Asset for the 2014-19 tariff period. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 of the Combined Asset is as follows:

Funding	Capital cost as on 1.4.2014 (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	662.00	63.70	662.00	63.70
Equity	377.31	36.30	377.31	36.30
Total	1039.31	100.00	1039.31	100.00

## Interest on Loan ("IoL")

33. The Petitioner has repaid the loan availed for the purpose of the Combined Asset before 1.4.2014. Therefore, no loL is allowed for the instant Combined Asset for the 2014-19 tariff period.

# Return on Equity ("ROE")

34. The Petitioner is entitled for Return on Equity for the instant assets in terms of Regulation 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up ROE (Base Rate/1-t)(in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

35. We have considered the submissions of the Petitioner. The Commission in order dated 27.4.2020 in Petition No.274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of rate of Order in Petition No.301/TT/2019.

RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations.

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up ROE (Base Rate/1-t) (in %)	
2014-15	20.961	15.50	19.610	
2015-16	21.342	15.50	19.705	
2016-17	21.342	15.50	19.705	
2017-18	21.342	15.50	19.705	
2018-19	21.549	15.50	19.758	

The Petitioner has claimed ROE for the 2014-19 period after grossing up the 36. ROE of 15.50% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. The ROE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as follows:-

₹	in	lakh)

					( TIT TOURTY
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	377.31	377.31	377.31	377.31	377.31
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	377.31	377.31	377.31	377.31	377.31
Average Equity	377.31	377.31	377.31	377.31	377.31
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT Rate for respective year (%)	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (%)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity	73.99	74.35	74.35	74.35	74.55

#### **Depreciation**

The depreciation has been worked out as per the methodology provided in 37. Regulation 27 of the 2014 Tariff Regulations. The depreciation allowed is as follows:-

(₹ in lakh)

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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Average Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Rate of Depreciation (%)	1.3307%	1.3307%	1.3307%	1.3307%	1.3307%



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable Value	928.75	928.75	928.75	928.75	928.75
Elapsed life	14	15	16	17	18
Weighted Balance useful life of the Combined Asset	19	18	17	16	15
Remaining Depreciable Value	262.77	248.94	235.11	221.28	207.45
Depreciation	13.83	13.83	13.83	13.83	13.83

#### Operation & Maintenance Expenses (O&M Expenses)

- 38. As stated above, the instant transmission system includes the Dehri-Karmnasa AC 132 kV S/C transmission line of 86 km and 132 kV sub-station. The Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system.
- 39. The Petitioner has claimed the O&M Expenses for the instant transmission system for the 2014-19 period as per the norms specified in the 2014 Tariff Regulations. The Petitioner's claim is as per the norms specified in the 2014 Tariff Regulations. Hence, it is allowed and the details are as follows:-

(₹ in lakh) 2016-17 2018-19 **Particulars** 2014-15 2015-16 2017-18 77.67 80.27 82.94 88.50 85.68 Claimed by the Petitioner 77.67 80.27 82.94 85.68 88.50 Allowed after true-up in this order

#### Interest on Working Capital (IWC)

40. The Petitoner is entitiled for IWC as per Regulation 28 of the 2014 Tariff Regulatins. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

#### (i) Receivables



Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

#### (ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M expenses. The value of maintenance spares has accordingly been worked out.

#### (iii) O & M expenses

Operation and maintenance expenses have been considered for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

#### (iv) Rate of interest on working capital

As per Proviso 3 of Regulation 28 of the 2014 Tariff Regulation, SBI Base rate 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the asset, as the rate of interest on working capital.

41. The IWC allowed as per the methodology provided in the Regulation 28 of the 2014 Tariff Regulations is as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	11.65	12.04	12.44	12.85	13.28
O&M Expenses	6.47	6.69	6.91	7.14	7.38
Receivables	28.63	29.15	29.62	30.10	30.63
Total Working Capital	46.76	47.88	48.97	50.10	51.28
Interest of working capital	6.31	6.46	6.61	6.76	6.92

#### APPROVED ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD



42. The trued up annual fixed charges for the instant transmission assets for the tariff period 2014-19 are summarised below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017–18	2018-19
Depreciation	13.83	13.83	13.83	13.83	13.83
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	73.99	74.35	74.35	74.35	74.55
Interest on Working Capital	6.31	6.46	6.61	6.76	6.92
O & M Expenses	77.67	80.27	82.94	85.68	88.50
Total	171.80	174.91	177.73	180.62	183.80

# **DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD**

43. The Petitioner has claimed the following tariff charges for 2019-24 tariff period:-

(₹ in lakh)

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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13.83	13.83	13.84	13.83	13.84
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	74.55	74.55	74.55	74.55	74.55
Interest on Working Capital	3.70	3.79	3.88	3.96	4.05
O&M Expenses	54.50	56.31	58.35	60.32	62.44
Total	146.58	148.48	150.62	152.66	154.88

44. The details of the Interest on Working Capital claimed by the Petitioner are as under:

(₹ in lakh)

· Particular	2019-20 ·	2020-21	2021-22	2022-23	2023-24
O & M Expenses	4.54	4.69	4.86	5.03	5.20
Maintenance Spares	8.18	8.45	8.75	9.05	9.37
Receivables	18.02	18.31	18.57	18.82	19.04
Total	30.74	31.45	32.18	32.90	33.61
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	3.70	3.79	3.88	3.96	4.05

45. The tariff for 2019-24 period is allowed as discussed in the subsequent paragraphs.



#### **Capital Cost**

- 46. Regulation 19 of the 2019 Tariff Regulations provide as follows:-
  - "(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.
  - (2) The Capital Cost of a new project shall include the following:
  - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
  - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed:
  - (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
  - (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
  - (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
  - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
  - (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
  - (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
  - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
  - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
  - (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
  - (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
  - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
  - (n) Expenditure on account of change in law and force majeure events; and
  - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
  - (3) The Capital cost of an existing project shall include the following:
  - (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
  - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;

- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT schemewith the beneficiaries."
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram JyotiYojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 47. The capital cost of ₹1039.31 lakh has been considered by the Commission for the Asset as on 31.3.2019. The Petitioner has not claimed any additional capital expenditure during 2019-24 period. Therefore, the capital cost of ₹1039.31 lakh as on



31.3.2019 has been considered for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

#### **Debt-Equity ratio**

48. Regulation 18 of the 2019 Tariff Regulations provides as under:-

"18. Debt-Equity Ratio: (1) For new projects, the debt:equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

#### Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.
- (2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.
- (3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30%shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

- (4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.
- (5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for

determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."

49. The debt:equity ratio for the 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of the debt:equity ratio considered for the purpose of tariff for 2019-24 tariff period is as follows:-

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	%	Capital cost as on 31.3.2024 (₹ in lakh)	%
Debt	662.00	63.70	662.00	63.70
Equity	377.31	36.30	377.31	36.30
Total	1039.31	100.00	1039.31	100.00

### Return on Equity (ROE)

- 50. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as under:-
  - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
  - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

#### Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if thegenerating station or transmission system is found to be declared undercommercial operation without commissioning of any of the RestrictedGovernor Mode Operation (RGMO) or Free Governor Mode Operation(FGMO), data telemetry, communication system up to load dispatch centreor protection system based on the report submitted by the respectiveRLDC;

ii. in case of existing generating station, as and when any of therequirements under (i) above of this Regulation are found lacking basedon the report

submitted by the concerned RLDC, rate of return on equityshall be reduced by 1.00% for the period for which the deficiencycontinues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

- a) rate of return on equity shall be reduced by 0.25% in case of failure toachieve the ramp rate of 1% per minute;
- b) an additional rate of return on equity of 0.25% shall be allowed forevery incremental ramp rate of 1% per minute achieved over andabove the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issuedby NationalLoad Dispatch Centre by 30.6.2019."

- "31. Tax on Return on Equity:(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rateshall be considered on the basis of actual tax paid in respect of the financial year in linewith the provisions of the relevant Finance Acts by the concerned generating companyor the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other thanbusiness of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.
- (2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

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

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."



51. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The ROE has been allowed as follows:-

				(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Equity	377.31	377.31	377.31	377.31	377.31				
Additions	0.00	0.00	0.00	0.00	0.00				
Closing Equity	377.31	377.31	377.31	377.31	377.31				
Average Equity	377.31	377.31	377.31	377.31	377.31				
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%				
MAT Rate for respective year (%)	17.472%	17.472%	17.472%	17.472%	17.472%				
Rate of Return on Equity (%)	18.780%	18.780%	18.780%	18.780%	18.780%				
Return on Equity	70.86	70.86	70.86	70.86	70.86				

# Interest on Loan ("loL")

52. The Petitioner has repaid the entire loan availed for the purpose of the instant asset before 1.4.2019. Therefore, no loL is allowed for the instant asset for the 2019-24 tariff period.

#### Depreciation

- 53. Regulation 33 of the 2019 Tariff Regulations provide that:-
  - "33. Depreciation:(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of agenerating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall becomputed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out byconsidering the actual date of commercial operation and installed capacity of all theunits of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

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- (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multipleelements of a transmission system, weighted average life for the generating station ofthe transmission system shall be applied. Depreciation shall be chargeable from the firstyear of commercial operation. In case of commercial operation of the asset for part ofthe year, depreciation shall be charged on pro rata basis.
- (3) The salvage value of the asset shall be considered as 10% and depreciation shallbeallowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall beconsidered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shallbe as provided in the agreement, if any, signed by the developers with the StateGovernment for development of the generating station:

Provided also that the capital cost of the assets of the hydro generating stationfor the purpose of computation of depreciated value shall correspond to the percentageof sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

- (4) Land other than the land held under lease and the land for reservoir in case ofhydro generating station shall not be a depreciable asset and its cost shall be excludedfrom the capital cost while computing depreciable value of the asset.
- (5) Depreciation shall be calculated annually based on Straight Line Method and at ratesspecified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the yearclosing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

- (6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.
- (7) The generating company or the transmission licensee, as the case may be, shallsubmit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life

extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

- (8) In case of de-capitalization of assets in respect of generating station or unit thereofor transmission system or element thereof, the cumulative depreciation shall beadjusted by taking into account the depreciation recovered in tariff by the decapitalized desired during its useful services."
- 54. The depreciation has been worked out considering the admitted capital cost of ₹1039.31 lakh as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Average Gross Block	1039.31	1039.31	1039.31	1039.31	1039.31
Rate of Depreciation (%)	1.3307%	1.3307%	1.3307%	1.3307%	1.3307%
Depreciable Value	928.75	928.75	928.75	928.75	928.75
Elapsed life	19	20	21	22	23
Weighted Balance useful life of the Combined Asset	14	13	12	11	10
Remaining Depreciable Value	193.62	179.79	165.96	152.13	138.30
Depreciation	13.83	13.83	13.83	13.83	13.83

# Operation & Maintenance Expenses ("O&M Expenses")

- 55. Regulation 35(3)(a) of the 2019 Tariff Regulations specifies the norms for the O&M Expenses for the transmission system and it is as follows:-
  - "(3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24
Norms for sub-station Bays (₹	Lakh per bay)		1		
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84



Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA	)				
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh pe	er km)		1		
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

#### Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double

Circuit quad AC line;

- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.
- (c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

- (4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."
- 56. The O&M Expenses claimed by the Petitioner are as per the norms specified in the 2019 Tariff Regulations and hence, they are allowed as claimed as under.

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner	54.50	56.31	58.35	60.32	62.44
Allowed in this order	54.50	56.31	58.35	60.32	62.44

### Interest on Working Capital ("IWC")

- 57. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specifies as follows:
  - "34. Interest on Working Capital
  - (1)...
  - (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
    - i. Receivables equivalent to 45 days of fixed cost;
    - ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
    - iii. Operation and maintenance expenses, including security expenses for one month"
  - "(3)Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

- (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
- "3.Definitions ...
- (7) 'Bank Rate' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"
- 58. The Petitioner has submitted that it has computed interest on working capital for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%. The interest on working capital is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of interest on working capital considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:-



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	8.18	8.45	8.75	9.05	9.37
Maintenance Spares	4.54	4.69	4.86	5.03	5.20
Receivables	17.86	18.10	18.36	18.62	18.90
Total Working Capital	30.58	31.23	31.98	32.69	33.46
Interest on Working Capital	3.68	3.76	3.85	3.94	4.03
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05

#### ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

59. The transmission charges allowed for the instant transmission assets for the 2019-24 period are summarised below:-

(₹ in lakh)

					1
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13.83	13.83	13.83	13.83	13.83
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	70.86	70.86	70.86	70.86	70.86
Interest on Working Capital	3.68	3.76	3.85	3.94	4.03
O & M Expenses	54.50	56.31	58.35	60.32	62.44
Total	142.87	144.76	146.89	148.95	151.16

#### Filing Fee and the Publication Expenses

60. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

#### Licence Fee & RLDC Fees and Charges

61. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for 2019-24 period.



#### Security Expenses

- 62. The petitioner has submitted that security expenses for the instant assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on WorkingCapital. The petitionerhas requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The petitionerhas submitted that the difference, if any, between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.
- 63. We have considered the submissions of the Petitioner. Any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2019 Tariff Regulations.

#### **Goods and Services Tax**

64. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the respondent(s) to the Petitioner and the same shall be charged & billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

65. We have considered the submissions of the Petitioner. GST is not levied on transmission service at present and weare of the view that Petitioner's prayer is premature.

#### **Capital Spares**

66. The Petitioner has sought reimbursement of capital spares at the end of tariff block. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

## **Sharing of Transmission Charges**

- 67. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.
- 68. This order disposes of Petition No. 301/TT/2019.

Sd/-(I. S. Jha) Member Sd/(P. K. Pujari) P TRUE COPY
Chairperson
ATTESTED TRUE COPY
Authorised Signatory
Authorised Signatory
Authorised Signatory
Power Grid Corporation 22001 HARVANA
Power Grid Corporation 22001 HARVANA
POWER 2, Sector 29, Gurgaon 122001



# Jain Paras Bilala & Co.

Marshall House 33/1, Netaji Subhas Road, 5th Floor, Room No. 507,

Kolkata-700 001 Tel.: 033 4602 0039, M: 98300 51253

E-mail: kolkata@caipb.com

Certificate Ref. No. DHER/01

Dated: 14.10.2024

#### CERTIFICATE OF CAPITAL COST FOR TRANSMISSION TARIFF

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost of Dehri - Karamnasa Transmission System in EASTERN REGION TRANSMISSION SYSTEM -I Region of Power Grid Corporation of India Limited, which is under commercial operation weef. 01.06.1999 is detailed as under:

(Rs. in Lakhs)

5/N	Particulars	Freehold Land	Leasehold Land	Building and Civil Works	Tr. Line	Sub Station	OPGW	Communication System excl. OPGW	L T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	Batteries	Total
1	Capital Cost as admitted by CERC as on 31.03.2019 for the Tariff Block 2019-24 vide order dated 17.06.2020 in Petition No. 301.TT 2019	7.37	-	11.32	789,08	198.10	-	33.44	-	850	1,039,31
2	Expenditure from 01.04.2019 to 31.03.2024	-	-		-		-				
3	Estimated Expenditure from 01.04.2024 to 31.03.2025			-	-	-		-	-	-	-
4	Estimated Expenditure from 01.04.2025 to 31.03.2026	-	-		-	-	-	-	-	-	-
5	Estimated Expenditure from 01.04.2026 to 31.03.2027			-	-	104 70	-	-	-	-	104.70
6	Estimated De-Capitalization from 01.04.2026 to 31.03.2027					(72.11)					(72.11)
7	Estimated Expenditure from 01.04.2027 to 31.03.2028		-	-	-		-	-	-	-	
8	Estimated Expenditure from 01.04.2028 to 31.03.2029	-	-	-	-	-	-	-	-	-	÷
	Total	7.37	-	11.32	789.08	230.69		33,44	-	-	1,071.90
	Initial Spares included above							l			

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information extracted from the audited Financial Statements/ Information of Power Grid Corporation of India Ltd, Eastern Region-I.

The estimated expenditure from 01.04.2024 to 31.03.2025 as stated at serial number "3 to 8" above is based on the Management estimate which has been relied upon by us.

Place: Alkata Date: October 14, 2024

JAIN PARAS BILALA & CO. CHARTERED ACCOUNTANTS MARSHALL FOUSE

33/1, N. S. POAD 5TH FLOOR, GP 31 (D. 507

KILKAL N 101 Membership No: 058521

UDIN: 24058521BKCOSE7712



# Proposed ADDCAP/ DE-CAP Detail for Tariff Block 2024-29

																				. In Lakhs
		<u>P</u>	articulars							ropose	ed O&M A	dd Cap			Proposed O&M De-Cap					
Sr.No	Sub-Station Name	Project Name	DOCO	Elements Name	Voltage	Qty	Rate	CERC Head	2024- 25	2025- 26	2026-27	2027- 28	2028- 29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
1				СВ	132 kV	1	9.51	Sub Station	-	3	9.51	-	-	9.51	-	-	14.01	-	-	14.01
2				ĊТ	132 kV	3	3.11	Sub Station	-	12	9.33	-	-	9.33	-	-	6.54	-	-	6.54
3	Dehri		01.06.1999	CVT	132 kV	3	2.86	Sub Station	-	_	8.58	-	-	8.58	-	-	4.67		-	4.67
4				LA	132 kV	3	0.68	Sub Station	-	-	2.04	-	-	2.04	-	-	1.61	-	-	1.61
5		Dehri		Isolator	132 kV	3	7.63	Sub Station	-	-	22.89	-	-	22.89	-	-	9.23	-	-	9.23
6		Karamnasa transmission		СВ	132 kV	1	9.51	Sub Station	-	-	9.51	-	-	9.51	-	-	14.01	-	-	14.01
7		system		СТ	132 kV	3	3.11	Sub Station	-	-	9.33	-	-	9.33	-	-	6.54	-	-	6.54
8	Karamnasa		01.06.1999	CVT	132 kV	3	2.86	Sub Station	-	-	8.58	-	-	8.58	-	-	4.67	-	-	4.67
9				LA	132 kV	3	0.68	Sub Station	-	-	2.04	-	-	2.04	-	-	1.61	-	-	1.61
10				Isolator	132 kV	3	7.63	Sub Station	-	-	22.89	-	-	22.89	-	-	9.23	-	-	9.23
ATIO		·	Total								104.70			104.70			72.11			72.11

#### Mohd Meraj Siddiqui (मोहम्मद मेराज सिददीकी)

From:

Jaymin.gandhi <jaymin.gandhi@cgglobal.com>

Sent:

Monday, March 02, 2020 4:56 PM

To:

Mohd Meraj Siddiqui (मोहम्मद मेराज सिद्दीकी) 'WRAHD-Vinit Kaushik'; anilkumar.jp@cgglobal.com

Subject:

FW: Status of manufacturing of 400kV CBs Model: 400-SFM-40A

Importance:

High

Dear Sir,

With ref. to your trailling mail, would like to inform you that mentioned CB model no is now obsolete.

Regards,



Jaymin GANDHI Area Manager-EHV Switchgear

# CG Power and Industrial Solutions Limited Sales Network India West

10-A Vrundavan Colony, Gotri Road Baroda-390007 T: +91 265 233 2227 M: +91 9673330098 W: www.cgglobal.com Save the environment. Please print only if essential.

From: Mohd Meraj Siddiqui (मोहम्मद मेराज सिद्दीकी) [mailto:meraj@powergridindia.com]

Sent: 02 March 2020 16:44 To: 'WRAHD-Vinit Kaushik'

Subject: Status of manufacturing of 400kV CBs Model: 400-SFM-40A

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir,

As discussed currently we are having 03 set of 400kV Spring-Pneumatic Operated CGL make CBs Model: 400-SFM-40A installed at Dehgam SS which were commissioned in year 1995.

It is requested to please intimate whether this Model CB is still manufactured by M/s CGPISL (formerly known as CGL) or not.

Regards:

Mohd. Meraj Siddiqui Chief Manager (AM)



Regional Head Quarter WR-II Mob:9428528783



दावात्पाग : यह ईमेल पावरग्रिङ के दावात्पाग नियम व शर्तों द्वारा शासित है जिसे http://apps.powergridindia.com/Disclaimer.htm पर देखा जा सकता है। Disclaimer: This e-mail is governed by the Disclaimer Terms & Conditions of POWERGRID which may be viewed at http://apps.powergridindia.com/Disclaimer.htm

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			Statement of D		n			
	of the petitioner	Powergrid Corpo	pration of India Li	d				
	of the Region	Eastern Region						
	of the Project		asa Transmissio					
eleme	of the transmisison nt or unication system	Dehri - Karamna	asa Transmission	n System				
COD		01.06.1999						
S. No.	Year of Decapitalisation	Work / Equipment proposed to be de- capitalised	Year of capitalisation of asset/equipment being decapitalised	Original book value of asset being de capitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Petition No (Old FOR TRUING UP OF TARIFF BLOCK 2014-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	2026-27	СВ	01.06.1999	28.03	63.70:36.30	25.22	17.85	
2	2026-27	• ст	01.06.1999	13.07	63.70:36.30	11.76	8.33	
3	2026-27	CVT	01.06.1999	9.33	63.70:36.30	8.40	5.95	301/TT/2019
4	2026-27	LA	01.06.1999	3.22	63.70:36.30	2.90	2.05	
5	2026-27	Isolator	01.06.1999	18.46	63.70:36.30	16.61	11.76	
	Total			72.11		64.90	45.93	
7/								Petitioner

# **Summary of Tariff**

Name of the Transmission Licensee:		Power Grid Corporation of India Limited							
Project	Project DEHRI - KARAMNASA TRANSMISSION SYSTEM								
Element Description	I DEHDI - KARAMMAA I RAMAMISAKIN SYSTEM								
Region	Eastern Region		DOCO Date	Jun 1, 1999					

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Year Days	366.00	365.00	365.00	365.00	366.00
Tariff Days	366.00	365.00	365.00	365.00	366.00
Depreciation-Form No. 10A	13.83	13.83	13.84	13.83	13.84
Interest on Loan-Form No. 9E	0.00	0.00	0.00	0.00	0.00
Return on Equity-Form No. 8	70.87	70.87	70.87	70.87	70.87
Int. on Working capital-Form No.11	3.62	3.46	3.30	3.37	3.95
Op. and maintenance-Form No.2	53.83	55.64	57.68	59.65	61.77
Total AFC	142.15	143.80	145.69	147.72	150.43



# <u>Details of Transmission Lines and Substations, Communication System covered in the project scope</u> Form No. -2 and O&M for instant asset

Name of the Tra	Name of the Transmission Licensee Power Grid Corporation of India Limited								
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM								
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM								
Region	Eastern Region	DOCO Date	Jun 1, 1999						

#### 1. Transmission Lines

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/	S/C or D/C	No of Sub- Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable	Line Length Km	Date of Commercial operation	pre	ed in the sent ition If No, Petition
	11100					Reactor)		Operation		No.
DEHRI KARMNASA LINE	AC	sc	1	132 KV	0.000	0.000	86.000	Jun 1, 1999	Y	

#### Summary:

O&M Expenses For the Transmission Lines Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
SINGLE CIRCUIT (SINGLE CONDUCTOR)					
Normative Rate of O&M as per Regulation	0.252	0.26	0.27	0.279	0.289
No. of Units - ( Length in KM )	86.00	86.00	86.00	86.00	86.00
O&M Claimed	21.67	22.36	23.22	23.99	24.85

#### 2. Sub Station

	Type of	Voltage	No. of Transfor ms/	No. of Bays			MVA/MVAR Capacity				Date of	Covered in the present petition		
Name of Sub-station	Substation	KV	Reactor/ SVC etc. (with capacity)	765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV	Comm. operation		If No, Petitio n No.
Karmnasa:LINE BAY FOR DEHRI		132 KV					1.000					Jun 1, 1999	Υ	
Dehri:LINE BAY FOR KARMNASA		132 KV					1.000					Jun 1, 1999	Υ	

# Summary:

O&M Expenses For Substations Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
132KV SUB-STATION AND BELOW				,	
Normative Rate of O&M as per Regulation	16.08	16.64	17.23	17.83	18.46
No. of Units	2.00	2.00	2.00	2.00	2.00
O&M Claimed	32.16	33.28	34.46	35.66	36.92

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M					
Transmission Line	21.67	22.36	23.22	23.99	24.85
Substation	32.16	33.28	34.46	35.66	36.92
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	53.83	55.64	57.68	59.65	61.77
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)		1		1	
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	53.83	55.64	57.68	59.65	61.77
SKAUO					



Name of the Transmission Licensee		Power Grid Corporation of India Limited							
Project	DEHRI - KARAMNASA T	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	DEHRI - KARAMNASA T	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Region Eastern Region			DOCO Date	Jun 1, 1999					

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
Grossed up Rate of ROE (in %)	19.758	18.782	18.782	18.782	18.782	18.782
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)			'		11	
765 kV	96.20	45.01	46.60	48.23	49.93	51.68
400 kV	68.71	32.15	33.28	34.45	35.66	36.91
220 kV	48.10	22.51	23.30	24.12	24.96	25.84
132 kV and below	34.36	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs Lakh per MVA)		_ s.		2		9:
765 kV	0.00	0.491	0.508	0.526	0.545	0.564
400 kV	0.00	0.358	0.371	0.384	0.398	0.411
220 kV	0.00	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.00	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs Lakh per km)					1	
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.806	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub- conductors)	0.691	0.755	0.781	0.809	INDI 0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.461	0.503	0.521	0.539	0.558	0.578

Page 1 of 2

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Single Circuit (Single Conductor)	0.23	0.252	0.26	0.27	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.21	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.806	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.346	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.123	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.413	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations						
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	0.00	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	0.00	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	0.00	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	0.00	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	0.00	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	0.00	2,563.00	2,653.00	2,746.00	2,842.00	2,942.00



# **Calculation of ROE**

Name of the Transmission Licensee Power Grid Corporation of India Limited						
Project	Project DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Region	Eastern Region		DOCO Date	Jun 1, 1999		

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the year	366.00	365.00	365.00	365.00	366.00
No. of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
Opening Normative Equity	377.31	377.31	377.31	377.31	377.31
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	377.31	377.31	377.31	377.31	377.31
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	377.31	377.31	377.31	377.31	377.31
Average Normative Equity	377.31	377.31	377.31	377.31	377.31
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	. 18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Return on Equity	70.87	70.87	70.87	70.87	70.87
Pro rata return on Equity	70.87	70.87	70.87	70.87	70.87

# Calculation of WAR of interest on actual loan

Name of the Transmission Licensee Power Grid Corporation of India Limited					
Project DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	TICLEDI KADAMMACA IDAMCMICCITAM CVCIEM				
Region	Eastern Region		DOCO Date	Jun 1, 1999	

(Amount in Rs. Lakh)

	T		(Amount in No. Lakir)		
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
BOND VII -DOCO					
Gross Loan- Opening	202.00	202.00	202.00	202.00	202.00
Cumulative repayments of Loans upto previous year	202.00	202.00	202.00	202.00	202.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	13.64	13.64	13.64	13.64	13.64
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND - XIII - OPTION - II -DOCO				•	
Gross Loan- Opening	157.00	157.00	157.00	157.00	157.00
Cumulative repayments of Loans upto previous year	157.00	157.00	157.00	157.00	157.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	OF INDO.00	0.00

Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.85	7.85	7.85	7.85	7.85
Interest on loan	0.00	0.00	0.00	0.00	0.00

101.00	101.00	101.00	101.00	101.00
101.00	101.00	101.00	101.00	101.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
	101.00 0.00 0.00 0.00 0.00 0.00	101.00     101.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00	101.00     101.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00	101.00     101.00     101.00     101.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00       0.00     0.00     0.00     0.00

PUNJAB NATIONAL BANK-I -DOCO					
Gross Loan- Opening	202.00	202.00	202.00	202.00	202.00
Cumulative repayments of Loans upto previous year	202.00	202.00	202.00	202.00	202.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	FINDIA 0.00	0.00

#### Summary

Gross Loan- Opening	662.00	662.00	662.00	662.00	662.00
Cumulative repayments of Loans upto previous year	662.00	662.00	662.00	662.00	662.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00



#### Calculation of interest on Normative loan

Name of the Transmission Licensee Power Grid Corporation of India Limited					
Project	Project DEHRI - KARAMNASA TRANSMISSION SYSTEM				
Element Description					
Region	Eastern Region		DOCO Date	Jun 1, 1999	

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the Year	366.00	365.00	365.00	365.00	366.00
No. of days for which Tariff claimed	366.00	365.00	365.00	365.00	366.00
Gross normative loan-Opening	662.00	662.00	662.00	662.00	662.00
Cumulative repayments of Normative loan upto previous year	662.00	662.00	662.00	662.00	662.00
Net normative loan-Opening	0.00	0.00	0.00	0.00	0.00
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	0.00	0.00	0.00	0.00	0.00
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	0.00	0.00	0.00	0.00	0.00
Average normative loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of interest on actual loan	0.00	0.00	0.00	0.00	0.00
Interest on normative loan	0.00	0.00	0.00	0.00	0.00
Pro rata interest on normative loan	0.00	0.00	0.00	0.00	0.00

# Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee		Power Grid Corporation of India Limited			
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM				
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM				
Region	Eastern Region		DOCO Date	Jun 1, 1999	

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2024
2019-20						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	6.33	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.83
Weighted Average Rate of Depreciation(%)					1.330691	

2020-21						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00

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Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	6.33	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.83
Weighted Average Rate of Depreciation(%)					1.330691	

2021-22						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.19
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	6.33	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.84
Weighted Average Rate of Depreciation(%)					1.331653	

2022-23						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	6.33	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.83
Weighted Average Rate of Depreciation(%)					1.330691	

2023-24						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.19
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	6.33	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.84

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Weighted Average Rate of			1.331653	
Depreciation(%)			1.331033	



#### **Statement of Depreciation**

Name of the 1	ransmission Licensee	Power Grid Corporati	on of India Limited			
Project	roject DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	DEBRI-KARAMNASA IRANSMISSION SYSTEM					
Region	Eastern Region DOCO Date Jun 1, 1999					

(Amount in Rs. Lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
366.00	365.00	365.00	365.00	366.00
366.00	365.00	365.00	365.00	366.00
'				
33.00	33.00	33.00	33.00	33.00
19.00	20.00	21.00	22.00	23.00
14.00	13.00	12.00	11.00	10.00
1,039.31	1,039.31	1,039.31	1,039.31	1,039.31
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
1,039.31	1,039.31	1,039.31	1,039.31	1,039.31
1,039.31	1,039.31	1,039.31	1,039.31	1,039.31
7.37	7.37	7.37	7.37	7.37
0.00	0.00	0.00	0.00	0.00
1,031.94	1,031.94	1,031.94	1,031.94	1,031.94
928.75	928.75	928.75	928.75	928.75
1.330691	1.330691	1.331653	1.330691	1.331653
	366.00 366.00 33.00 19.00 14.00 1,039.31 0.00 1,039.31 7.37 0.00 1,031.94 928.75	366.00 365.00 366.00 365.00 366.00 365.00 33.00 33.00 19.00 20.00 14.00 13.00  1,039.31 1,039.31 0.00 0.00 1,039.31 1,039.31 1,039.31 1,039.31 7.37 7.37 0.00 0.00 1,031.94 1,031.94 928.75 928.75	366.00       365.00       365.00         366.00       365.00       365.00         33.00       33.00       33.00         19.00       20.00       21.00         1,039.31       1,039.31       1,039.31         0.00       0.00       0.00         1,039.31       1,039.31       1,039.31         1,039.31       1,039.31       1,039.31         1,039.31       1,039.31       1,039.31         7.37       7.37       7.37         0.00       0.00       0.00         1,031.94       1,031.94       1,031.94         928.75       928.75       928.75	366.00     365.00     365.00     365.00       366.00     365.00     365.00     365.00       33.00     33.00     33.00     33.00       19.00     20.00     21.00     22.00       14.00     13.00     12.00     11.00       1,039.31     1,039.31     1,039.31     1,039.31       0.00     0.00     0.00     0.00     0.00       1,039.31     1,039.31     1,039.31     1,039.31       1,039.31     1,039.31     1,039.31     1,039.31       7.37     7.37     7.37     7.37       0.00     0.00     0.00     0.00       1,031.94     1,031.94     1,031.94     1,031.94       928.75     928.75     928.75     928.75       1.330691     1.330691     1.331653     1.330691

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1.14 Depreciation(for the period)	13.83	13.83	13.84	13.83	13.84
1.15 Depreciation(Annualised)	13.83	13.83	13.84	13.83	13.84
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	735.10	748.93	762.76	776.60	790.43
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	748.93	762.76	776.60	790.43	804.27



Name of the 1	Fransmission Licensee	Power Grid Corpora	ition of India Limi	ted				
Project	DEHRI - KARAMNASA T	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Region	Eastern Region DOCO Date Jun 1, 1999							

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
O&M Expenses-one month	4.49	4.64	4.81	4.97	5.15
Maintenance spares 15% of O&M Expenses	8.07	8.35	8.65	8.95	9.27
Receivables equivalent to 45 days of AFC	17.48	17.73	17.96	18.21	18.50
Total Working capital	30.04	30.72	31.42	32.13	32.92
Bank Rate as on 01.04.2019 or as on 01st April of the COD year,whichever is later.	12.05	11.25	10.50	10.50	12.00
Interest on working capital	3.62	3.46	3.30	3.37	3.95
Pro rata interest on working capital	3.62	3.46	3.30	3.37	3.95



# **Summary of Tariff**

Form No. - 1

ENCL 5

ASSET-I(A)

Name of the T	Fransmission Licensee:	Power Grid Corporation of India Limited						
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Region	Eastern Region		DOCO Date	Jun 1, 1999				

(Amount in Rs. Lakh)

				(Allibuit III NS. Lakii)				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29			
Year Days	365.00	365.00	365.00	366.00	365.00			
Tariff Days	365.00	365.00	365.00	366.00	365.00			
Depreciation-Form No. 10A	13.83	13.84	13.82	13.85	13.82			
Interest on Loan-Form No. 9E	0.00	0.00	0.00	0.00	0.00			
Return on Equity-Form No. 8	70.87	70.87	68.41	65.95	65.95			
Int. on Working capital-Form No.11	3.53	3.65	3.74	3.83	3.97			
Op. and maintenance-Form No.2	52.72	55.49	58.35	61.48	64.67			
Total AFC	140.95	143.85	144.32	145.11	148.41			



# Details of Transmission Lines and Substations, Communication System covered in the project scope Form No. - 2 and O&M for instant asset

Name of the Transmission Licensee Power Grid Corporation of India Limited							
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Region	Eastern Region DOCO Date Jun 1, 1999						

#### 1. Transmission Lines

(Amount in Rs. Lakh)

									INS. Lakii)	
Name of Line	Type of Line AC/ HVDC	S/C or D/C	No of Sub- Conductors		Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	pre pet	ed in the sent ition If No, Petition No.
DEHRI KARMNASA LINE	AC	sc	1	132 KV	0.000	0.000	86.000	Jun 1, 1999	Y	NO.

#### Summary:

O&M Expenses For the Transmission Lines Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
SINGLE CIRCUIT (SINGLE CONDUCTOR)					
Normative Rate of O&M as per Regulation	0.246	0.259	0.272	0.287	0.302
No. of Units - ( Length in KM )	86.00	86.00	86.00	86.00	86.00
O&M Claimed	21.16	22.27	23.39	24.68	25.97

#### 2. Sub Station

		Voltage	No. of Transfor ms/	for Ro. of Days		ays MVA/MVAR Capacity				Date of	Covered in the present petition			
Name of Sub-station	Substation	Level KV	Reactor/ SVC etc. (with capacity)	765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV	Comm. operation	s/	If No, Petitio n No.
Karmnasa:LINE BAY FOR DEHRI		132 KV					1.000					Jun 1, 1999	Υ	
Dehri:LINE BAY FOR KARMNASA		132 KV					1.000					Jun 1, 1999	Υ	

# Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
132KV SUB-STATION AND BELOW					
Normative Rate of O&M as per Regulation	15.78	16.61	17.48	18.40	19.3
No. of Units	2.00	2.00	2.00	2.00	2.0
O&M Claimed	31.56	33.22	34.96	36.80	38.7

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	21.16	22.27	23.39	24.68	25.97
Substation	31.56	33.22	34.96	36.80	38.70
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	52.72	55.49	58.35	61.48	64.67
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)				'	
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	52.72	55.49	58.35	61.48	64.67

# Normative parameters considered for tariff computations

Name of the	Transmission Licensee	Power Grid Corporation of India Limited						
Project	Project DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	IDEADI - KADAMMASA I DANSMISSI NI SYSTEM							
Region	Eastern Region		DOCO Date	Jun 1, 1999				

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)	1					
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
Norms for Transformers (Rs Lakh per MVA)	1					
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
Norms for Reactor (Rs Lakh per MVAR)						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0.305	0.322

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220 kV	0.00	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.00	0.262	0.276	0.29	0.305	0.322
Norms for AC and HVDC lines (Rs Lakh per km)						
Single Circuit (Bundled Conductor with six or more sub-conductors)	1.011	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four subconductors)	0.867	0.738	0.776	0.817	0.86	0.905
Single Circuit (Twin & Triple Conductor)	0.578	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.289	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.517	1.291	1.359	1.43	1.506	1.585
Double Circuit (Twin & Triple Conductor)	1.011	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.433	0.369	0.388	0.409	0.43	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.662	2.266	2.385	2.51	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.773	1.509	1.588	1.671	1.759	1.851
Norms for HVDC stations (Rs Lakh/MW)						
HVDC bipole scheme (Rs Lakh/MW)	0.00	1.04	1.10	1.16	1.22	1.28
HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB)	0.00	2.07	2.18	2.30	2.42	2.55
Gazuwaka HVDC Back-to-Back station (Rs Lakh/ MW)	0.00	1.83	1.92	2.03	2.13	2.24



#### Form No. - 7

# Statement of Additional Capitalisation after COD

Name of the Transmission Licensee		Power Grid Corporation of India Limited					
Project DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	THERE - KARAMMASA TRANSMISSIONISSIEM						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

	Addition into Gross Block as	De-Cap into Gross Block as		: Deducti	ons dr. /ards	the year	Add: Discharge of	ACE on cash basis	Admitte d Cost in
Particulars	per books of Account during the year (2)	per books of Account during the year		Asset pertaini ng to other busines s (If any) (4)	Other Dedu ct ion (if any) (5)	Less: Un- discharge d liability included in (2-4-5)	earlier admitted liability	for tariff purpose	final tariff (Rs Lakh)
ACE for the year :2024-25 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2025-26 (Actual/Projected)							ANON UF	NOTA	

Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2026-27 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	-72.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	-72.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2027-28 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
							(AN U	THAT	

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\* was

Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2028-29 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries ,	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



#### **Financing of Additional Capitalisation**

Name of the Transmission Licensee Power Grid Corporation of India Limited							
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

			Actual/Proje	ected				Admitted	ant in its. Ear	
Financial Year ( Starting of COD)	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
Amount capitilized in Work/ Equipment										
Financing Details	,									
Total Loan	0.00	0.00	-45.93	0.00	0.00					
P.R.A.S.										
Equity	0.00	0.00	-26.18	0.00	0.00					
Total	0.00	0.00	-72.11	0.00	0.00					

#### Form No. - 8

#### **Calculation of ROE**

Name of the	Transmission Licensee	Power Grid Corporation of India Limited						
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Region	Eastern Region	DOCO Date Jun 1, 1999						

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	365.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Opening Normative Equity	377.31	377.31	377.31	351.13	351.13
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	377.31	377.31	377.31	351.13	351.13
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	26.18	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	377.31	377.31	351.13	351.13	351.13
Average Normative Equity	377.31	377.31	364.22	351.13	351.13
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Return on Equity	70.87	70.87	68.41	65.95	65.95
Pro rata return on Equity	70.87	70.87	68.41	65.95	65.95

# Calculation of WAR of interest on actual loan

Name of the	Transmission Licensee	Power Grid Corporation of India Limited					
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
BOND VII -DOCO					
Gross Loan- Opening	202.00	202.00	202.00	202.00	202.00
Cumulative repayments of Loans upto previous year	202.00	202.00	202.00	202.00	202.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	13.64	13.64	13.64	13.64	13.64
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND - XIII - OPTION - II -DOCO		•			
Gross Loan- Opening	157.00	157.00	157.00	157.00	157.00
Cumulative repayments of Loans upto previous year	157.00	157.00	157.00	157.00	157.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	ON OF // 0.00	0.00

Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.85	7.85	7.85	7.85	7.85
Interest on loan	0.00	0.00	0.00	0.00	0.00

CORPORATION BANK -DOCO					
Gross Loan- Opening	101.00	101.00	101.00	101.00	101.00
Cumulative repayments of Loans upto previous year	101.00	101.00	101.00	101.00	101.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	13.00	13.00	13.00	13.00	13.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

PUNJAB NATIONAL BANK-I -DOCO					
Gross Loan- Opening	202.00	202.00	202.00	202.00	202.00
Cumulative repayments of Loans upto previous year	202.00	202.00	202.00	202.00	202.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	11.66	11.66	11.66	11.66	11.66
Interest on loan	0.00	0.00	0.00	0.00	0.00

# Summary

Gross Loan- Opening	662.00	662.00	662.00	662.00	662.00
Cumulative repayments of Loans upto previous year	662.00	662.00	662.00	662.00	662.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00



# **Calculation of interest on Normative loan**

Name of the Transmission Licensee Power Grid Corporation of India Limited							
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Region	Eastern Region DOCO Date Jun 1, 1999						

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29	
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00	
No. of days for which Tariff claimed	365.00	365.00	365.00	366.00	365.00	
Gross normative loan-Opening	662.00	662.00	662.00	616.07	616.07	
Cumulative repayments of Normative loan upto previous year	662.00	662.00	662.00	616.07	616.07	
Net normative loan-Opening	0.00	0.00	0.00	0.00	0.00	
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00	
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	45.93	0.00	0.00	
Normative repayments of normative loan during the year	0.00	0.00	0.00	0.00	0.00	
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	45.93	0.00	0.00	
Net normative loan - closing	0.00	0.00	0.00	0.00	0.00	
Average normative loan	0.00	0.00	0.00	0.00	0.00	
Weighted Average Rate of interest on actual loan	0.00	0.00	0.00	0.00	0.00	
Interest on normative loan	0.00	0.00	0.00	0.00	0.00	
Pro rata interest on normative loan	0.00	0.00	0.00	0.00	0.00	

#### Form No. - 10

# Calculation of Depreciation Rate on Original Project Cost

Name of the	ame of the Transmission Licensee Power Grid Corporation of India Limited						
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Region	Eastern Region	DOCO Date Jun 1, 1999					

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
2024-25						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	15.00	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	. 0.00	0.00	- 0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.83
Weighted Average Rate of Depreciation(%)					1.330691	

2025-26						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00 OF IN 0.00	0.00

Civil & Building	11.32	0.00	11.32	11.32	3.34	0.19
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	0.00	198.10	198.10	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	15.00	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	0.00	1,039.31	1,039.31	0.00	13.84
Weighted Average Rate of Depreciation(%)					1.331653	

2026-27						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	198.10	-72.11	125.99	162.05	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	15.00	0.39
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,039.31	-72.11	967.20	1,003.26	0.00	13.82
Weighted Average Rate of Depreciation(%)					1.377509	

2027-28						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.19
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.60
Sub Station	125.99	0.00	125.99	125.99	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	15.00	0.40
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	967.20	0.00	967.20	967.20	0.00	13.85
Weighted Average Rate of Depreciation(%)					1.431969	

2028-29						
Land(Freehold)	7.37	0.00	7.37	7.37	0.00	0.00
Civil & Building	11.32	0.00	11.32	11.32	3.34	0.18
Transmission Line	789.08	0.00	789.08	789.08	5.28	10.59
Sub Station	125.99	0.00	125.99	125.99	5.28	2.66
Comm. Sys. excluding Fiber Optic	33.44	0.00	33.44	33.44	15.00	0.39
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	967.20	0.00	967.20	967.20	0.00	13.82

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Weighted Average Rate of		1.428867	
Depreciation(%)		1,420007	

# **Statement of Depreciation**

Name of the	Transmission Licensee	Power Grid Corporati	on of India Limited	
Project	DEHRI - KARAMNASA	TRANSMISSION SYS	STEM	
Element Description	DEHRI - KARAMNASA	TRANSMISSION SYS	STEM	
Region	Eastern Region		DOCO Date	Jun 1, 1999

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Life at the beginning of the year	1				
1.1 Weighted Average useful life of the Asset/ Project	33.00	33.00	33.00	33.00	33.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	24.00	25.00	26.00	27.00	28.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	9.00	8.00	7.00	6.00	5.00
Capital Base					
1.4 Opening capital cost	1,039.31	1,039.31	1,039.31	967.20	967.20
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	72.11	0.00	0.00
1.7 Closing capital cost	1,039.31	1,039.31	967.20	967.20	967.20
1.8 Average capital cost	1,039.31	1,039.31	1,003.26	967.20	967.20
1.9 Freehold land included in 1.8	7.37	7.37	7.37	7.37	7.37
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	1,031.94	1,031.94	995.89	959.83	959.83
1.12 Depreciable Value(1.10+90% of 1.11)	928.75	928.75	896.31	863.85	863.85
Depreciation for the period and Cum. Depreciation					je
1.13 Weighted Average Rate of depreciation	1.330691	1.331653	1.377509	101,431969	1,428867
			10-1	101	

112 0148001 : DEHRI - KARAMNASA TRANSMISSION SYSTEM

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1.14 Depreciation(for the period)	13.83	13.84	13.82	13.85	13.82
1.15 Depreciation(Annualised)	13.83	13.84	13.82	13.85	13.82
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	804.27	818.10	831.94	780.86	794.71
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	64.89	0.00	0.00
1.18 Cumulative depreciation at the end of the period	818.10	831.94	780.86	794.71	808.53

## Calculation of interest on working Capital

Name of the T	ransmission Licensee	Power Grid Corpora	ation of India Limite	d	
Project	DEHRI - KARAMNASA TI	RANSMISSION SYS	STEM		
Element Description					
Region	Eastern Region		DOCO Date	Jun 1, 1999	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
О&M Expenses-one month	4.39	4.62	4.86	5.12	5.39
Maintenance spares 15% of O&M Expenses	7.91	8.32	8.75	9.22	9.70
Receivables equivalent to 45 days of AFC	17.38	17.73	17.79	17.84	18.30
Total Working capital	29.68	30.67	31.40	32.18	33.39
Bank Rate as on 01.04.2024 or as on 01st April of the COD year,whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	3.53	3.65	3.74	3.83	3.97
Pro rata interest on working capital	3.53	3.65	3.74	3.83	3.97



# **Summary of Tariff**

Form No. - 1

					ASSET-I(B
Name of the 1	Fransmission Licensee:	Power Grid Corporation	on of India Limited		
Project	DEHRI - KARAMNASA	TRANSMISSION SYS	STEM		
Element Dehri - KARAMNASA TRANSMISSION SYSTEM (NEW EQUIPMENTS)					
Region	Eastern Region		DOCO Date	Jun 1, 1999	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	365.00	365.00	365.00	366.00	365.00
Tariff Days	365.00	365.00	365.00	366.00	365.00
Depreciation-Form No. 10A	0.00	0.00	4.71	9.95	9.95
Interest on Loan-Form No. 9E	0.00	0.00	2.78	5.17	4.36
Return on Equity-Form No. 8	0.00	0.00	2.95	5.90	5.90
Int. on Working capital-Form No.11	0.00	0.00	0.16	0.31	0.30
Op. and maintenance-Form No.2	0.00	0.00	0.00	0.00	0.00
Total AFC	0.00	0.00	10.60	21.33	20.51



## Statement of Additional Capitalisation after COD

Name of the Transmission Licensee		Power Grid Corporation of India Limited					
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM (NEW EQUIPMENTS)						
Region	Eastern Region DOCO Date Jun 1, 1999						

(Amount in Rs. Lakh)

	Block as per books of Account	De-Cap into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards Grants Asset Other Less: Un-				Add: Discharge of	basis	Admitte d Cost in
Particulars				Asset pertaini ng to other busines s (If any) (4)	Other Dedu ct ion (if any) (5)	Less: Un- discharge d liability included in (2-4-5)	earlier admitted liability	for tariff purpose	final tariff (Rs Lakh)
ACE for the year :2024-25 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2025-26 (Actual/Projected)							PORA	TIONON	

Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2026-27 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	104.70	0.00	0.00	0.00	0.00	0.00	0.00	104.70	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	104.70	0.00	0.00	0.00	0.00	0.00	0.00	104.70	0.00
ACE for the year :2027-28 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	ORATION O.00	0.00	0.00
		Page 2 o	<sup>f3</sup> 1	17 0148002	: DEHRI - KA	RAMNASA TRANSMI	BSION 6YSTEM (NEW E	CUIPMENTS)	

Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2028-29 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								U	

## **Financing of Additional Capitalisation**

Name of the Tr	ansmission Licensee Power Grid Corporation of India Limited					
Project	roject DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM (NEW EQUIPMENTS)					
Region	astern Region DOCO Date Jun 1, 1999					

(Amount in Rs. Lakh)

		-	Actual/Proje	ected		Admitted				
Financial Year ( Starting of COD)	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
Amount capitilized in Work/ Equipment										
Financing Details										
Total Loan	0.00	0.00	73.29	0.00	0.00					
Equity Cons	0.00	0.00	31.41	0.00	0.00					
Total Total	0.00	0.00	104.70	0.00	0.00					

### **Calculation of ROE**

Name of the	Transmission Licensee	Power Grid Corporation of India Limited					
Project	roject DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM (NEW EQUIPMENTS)						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

		(Amount in Rs. Lakn)			
2024-25	2025-26	2026-27	2027-28	2028-29	
365.00	365.00	365.00	366.00	365.00	
365.00	365.00	365.00	366.00	365.00	
0.00	0.00	0.00	31.41	31.41	
0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	31.41	31.41	
0.00	0.00	31.41	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	
0.00	0.00	31.41	31.41	31.41	
0.00	0.00	15.71	31.41	31.41	
18.782	18.782	18.782	18.782	18.782	
0.00	0.00	0.00	0.00	0.00	
15.50	15.50	15.50	15.50	15.50	
17.472	17.472	17.472	17.472	17.472	
18.782	18.782	18.782	18.782	18.782	
0.00	0.00	2.95	5.90	5.90	
0.00	0.00	2.95	5.90	5.90	
	365.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	365.00       365.00         365.00       365.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         18.782       18.782         0.00       15.50         17.472       17.472         18.782       18.782         0.00       0.00	365.00       365.00       365.00         365.00       365.00       365.00         0.00       0.00       0.00         0.00       0.00       0.00         0.00       0.00       0.00         0.00       0.00       0.00         0.00       0.00       0.00         0.00       0.00       0.00         0.00       0.00       31.41         0.00       0.00       31.41         0.00       0.00       31.41         0.00       0.00       15.71         18.782       18.782       18.782         0.00       0.00       0.00         15.50       15.50         17.472       17.472       17.472         18.782       18.782       18.782         0.00       0.00       2.95	2024-25         2025-26         2026-27         2027-28           365.00         365.00         365.00         366.00           365.00         365.00         366.00           0.00         0.00         0.00         31.41           0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00           0.00         0.00         0.00         31.41         0.00           0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00           18.782         18.782         18.782         18.782           0.00         0.00         0.00         0.00         0.00           15.50         15.50         15.50         15.50           17.472         17.472         17.472         17.472           18.782         18.782         18.782         18.782           0.00         0.00         2.95         5.90	

# Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the	Transmission Licensee	Power Grid Corporation of India Limited					
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM						
Element Description	THE DIE KNOWNING A TOWNSMICCHAN CACTEM (MEM ENTIRMENTS)						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

				(Alliount in its. Eakin)	
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Summary					



#### Form No. - 9E

## Calculation of interest on Normative loan

Name of the Transmission Licensee		Power Grid Corporation of India Limited					
Project DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	IDEADL KADAMNASA IDANSMISSIONI SYSTEM (NEWLENTS)						
Region	Eastern Region		DOCO Date	Jun 1, 1999			

(Amount in Rs. Lakh)

				(Amount in Rs. Lakn)			
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29		
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00		
No. of days for which Tariff claimed	365.00	365.00	365.00	366.00	365.00		
Gross normative loan-Opening	0.00	0.00	0.00	73.29	73.29		
Cumulative repayments of Normative loan upto previous year	0.00	0.00	0.00	4.71	14.66		
Net normative loan-Opening	0.00	0.00	0.00	68.58	58.63		
Addition in normative loan towards the ACE	0.00	0.00	73.29	0.00	0.00		
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00		
Normative repayments of normative loan during the year	0.00	0.00	4.71	9.95	9.95		
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00		
Net normative loan - closing	0.00	0.00	68.58	58.63	48.68		
Average normative loan	0.00	0.00	34.29	63.61	53.66		
Weighted Average Rate of interest on actual loan	0.00	0.00	8.12	8.12	8.12		
Interest on normative loan	0.00	0.00	2.78	5.17	4.36		
Pro rata interest on normative loan	0.00	0.00	2.78	5.17	4.36		



## **Calculation of Depreciation Rate on Original Project Cost**

Name of the T	Fransmission Licensee	Power Grid Corpora	ation of India Limited	d			
Project DEHRI - KARAMNASA TRANSMISSION SYSTEM							
Element Description	INFIRIT KARAMNASA TRANSMISSIONI SYSTEM (NEW) FOUIDMENTS)						
Region	Eastern Region	DOCO Date Jun 1, 1999					

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
2024-25						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	0.00	0.00	0.00	0.00	5.28	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries ·	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Depreciation(%)					0.00	

2025-26					ORATION	
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00

Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	0.00	0.00	0.00	0.00	5.28	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Depreciation(%)					0.00	

2026-27						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	0.00	104.70	104.70	52.35	5.28	4.71
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	0.00	104.70	104.70	52.35	0.00	4.71
Weighted Average Rate of Depreciation(%)					8.997135	2

2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	104.70	0.00	104.70	104.70	5.28	9.95
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	104.70	0.00	104.70	104.70	0.00	9.95
Weighted Average Rate of Depreciation(%)					9.503343	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	104.70	0.00	104.70	104.70	5.28	9.95
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	104.70	0.00	104.70	104.70	0.00	9.95

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Weighted Average Rate of			9.503343	
Depreciation(%)			9.505545	



# **Statement of Depreciation**

Name of the	Transmission Licensee	Power Grid Corporation of India Limited				
Project	Project DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	DEADL KARAMNASA TRANSMISSION SYSTEM (NEW EQUIDMENTS)					
Region	Eastern Region	DOCO Date Jun 1, 1999				

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Life at the beginning of the year		,			
1.1 Weighted Average useful life of the Asset/ Project	0.00	0.00	0.00	0.00	0.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	24.00	25.00	26.00	27.00	28.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	10.00	9.00	8.00
Capital Base					
1.4 Opening capital cost	0.00	0.00	0.00	104.70	104.70
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	104.70	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	0.00	0.00	104.70	104.70	104.70
1.8 Average capital cost	0.00	0.00	52.35	104.70	104.70
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	0.00	0.00	52.35	104.70	104.70
1.12 Depreciable Value(1.10+90% of 1.11)	0.00	0.00	47.12	94.23	94.23
Depreciation for the period and Cum.  Depreciation					
1.13 Weighted Average Rate of depreciation	0.00	0.00	8.997135	9.503343	9.503343

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1.14 Depreciation(for the period)	0.00	0.00	4.71	9.95	9.95
1.15 Depreciation(Annualised)	0.00	0.00	4.71	9.95	9.95
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	0.00	0.00	0.00	4.71	14.66
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	0.00	0.00	4.71	14.66	24.61



# Calculation of interest on working Capital

Name of the Transmission Licensee		Power Grid Corpora	tion of India Limited	d		
Project	DEHRI - KARAMNASA TRANSMISSION SYSTEM					
Element Description	DEHRI - KARAMNASA TRANSMISSION SYSTEM (NEW EQUIPMENTS)					
Region	Eastern Region		DOCO Date	Jun 1, 1999		

(Amount in Rs. Lakh)

				(Amount in K	. Lakii)	
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29	
No of Days in the year	365.00	365.00	365.00	366.00	365.00	
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00	
O&M Expenses-one month	0.00	0.00	0.00	0.00	0.00	
Maintenance spares 15% of O&M Expenses	0.00	0.00	0.00	0.00	0.00	
Receivables equivalent to 45 days of AFC	0.00	0.00	1,31	2.62	2.53	
Total Working capital	0.00	0.00	1.31	2.62	2.53	
Bank Rate as on 01.04.2024 or as on 01st April of the COD year,whichever is later.	11.90	11.90	11.90	11.90	11.90	
Interest on working capital	0.00	0.00	0.16	0.31	0.30	
Pro rata interest on working capital	0.00	0.00	0.16	0.31	0.30	



		Summary of issue involved in the	PART-III petition FORM- 15			
1. Nam	e of the Po	etitioner	Powergrid Corporation of India Ltd			
2. Petit	ion Categ	ory	Transmission			
3. Tarit	f Period		2019-24 & 2024-29			
4. Name of the Project			Assets under Dehri – Karamnasa Transmission System in Eastern Region			
5. Inve	stment App	proval date	NA			
6. SCC	D of the P	roject	NA			
7. Actu	al COD of	the project	01.06.1999			
8. Whe	ther entire	scope is covered in the present petition.	Yes			
9. <b>No</b> . (	of Assets o	covered in instant petition	01 nos			
10. No.	of Assets	having time over run	NA			
11. Est	imated Pro	oject Cost as per IA	Rs. 1174.00 Lakh			
12. Is	there any F	REC? if so, provide the date	No			
13. Re	vised Estin	nated Project Cost (if any)	NA			
14. Co	mpletion co	ost for all the assets covered in the instant petition.	Rs. 1071.90 Lakh			
15. No.	of Assets	covered in instant petition and having cost overrun.	NA			
16	Prayer in	n brief				
17	Key deta	ails and any Specific issue involved				
18	Respond	dents				
	Name of	Respondents				
	1	BSPHCL				
	2	JBVNL.				
	3	WBSEDCL				
	4	DVC				
	5	Power Dept., Govt. of Sikkim				



								PART-III			
	nary of Capital	Cost & Annual I	ixed Cost	(AFC) Clair	med for ALL t	he assets cov	ered in the pr	esent petition.			
Name of the Petitioner		Powergrid Corporation of India Ltd									
Tariff Period 2019-24											
he Transmissior	n Project	Assets under Deh	ri – Karamna	sa Transmis	sion System in	Eastern Region					
e Project		01.06.1999									
									Rupees in lakh		
ary of Capital Co	st as on COD	and Additional C	apital Exp	enditure cla	aimed for all t	the assets Cov	ered in the in	stant petition.			
		i) Summary of Actual / Projected Capital Cost							Capital Cost as		
Asset No.		As on COD/ as on 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024	on Cut-off Date		
	1	4	6	6	7	8	9	11= {5+6+7+8+9+10}	12		
Asset-I	01.06.1999	1039.31	0	0	0	0	0	1039.31			
Total Capital Cost Claimed 1039,31 0.00 0.00				0.00	0.00	0.00	0.00	1039.31			
ary of Trued-Up	Annual Fixed (	Cost (AFC) claim	ed for all ti	ne assets c	overed in the	instant petition	n.	-			
Asset No.	A	sset Name and its location			2019-20	2020-21	2021-22	2022-23	2023-24		
Asset-I			ısa Transm	ssion	142.15	143.8	145.69	147.72	150.43		
T	otal AFC for a	II the Assets			142.15	143.8	145.69	147.72	150.43		
he purpose of this	s form is to sum	marise the Capit	al cost & AF	C claimed t	or all the asse	ts covered in th	e instant petiti	on.			
	he Petitioner priod he Transmission e Project hry of Capital Co Asset No.  Asset-I httal Cost Claimed hry of Trued-Up Asset No.  Asset-I	Asset No.  Asset No.	he Petitioner priod 2019-24  Assets under Dehr Project  Project  O1.06.1999  Asset No.  Asset No.  COD  Asset No.  COD  Asset-I  O1.06.1999  1039.31  Asset No.  Asset No.	he Petitioner Powergrid Corporation of India 2019-24  Assets under Dehri – Karamna Project Project O1.06.1999  Iny of Capital Cost as on COD and Additional Capital Export  Asset No.  Asset No.  COD As on COD/ as on 31.03.2019  1 4 5  Asset-I 01.06.1999 1039.31 0  Intial Cost Claimed 1039,31 0.00  Intractional Capital Export  Asset No. Asset No. Asset No. Asset No. Asset No. Asset Name and its location  Asset-I System in Eastem Region  Total AFC for all the Assets	Powergrid Corporation of India Ltd 2019-24  Assets under Dehri – Karamnasa Transmis Project  Project  O1.06.1999  Iny of Capital Cost as on COD and Additional Capital Expenditure Cla  Asset No.  Asset No.  OD  As on COD/ as on 31.03.2019  1 4 5 6  Asset-I 01.06.1999 1039.31 0 0  Intial Cost Claimed 1039,31 0.00 0.00  Intial Cost Claimed 1039,31 0.00 0.00  Intra Cost Claimed 1039,31 0.00 0.00  Asset No.  Asset No.  Asset Name and its location  Asset-I System in Eastem Region  Total AFC for all the Assets	Powergrid Corporation of India Ltd	Powergrid Corporation of India Ltd	Powergrid Corporation of India Ltd   2019-24	Asset No.   Asset		

									PART-III			
lows of t	Sum he Petitioner	mary of Capital	Cost & Annual F			ned for ALL ti	he assets cove	ered in the pre	sent petition.			
		Powergrid Corporation of India Ltd										
Tariff Period  Name of the Transmission Project		2024-29										
iame of t	ne i ransmissio	n Project	Assets under Dehi	ri – Karamna	sa Transmis	sion System in	Eastern Region					
COD of the Project			01.06,1999									
										Rupees in lak		
) Summa	ry of Capital Co	ost as on COD a	ınd Additional Ca	pital Expe	nditure clai	med for all th	e assets Cove	ered in the ins	tant petition.	· ·		
		COD	i) Summary of Actual / Projected Capital Cost							Capital Cost as		
S. No.	Asset No.		As on COD/ as on 31.03.2024	2024-25	2025-26	2026-27	2027-28	2028-29	Capital Cost considered as on 31.03.2029	on Cut-off Date		
		1	4	6	6	7	8	9	11= (5+6+7+8+9+10)	12		
1	Asset-I	01.06.1999	1039.31	0	0	32.59	0	0	1071.90			
otal Cap	ital Cost Claime	ed	1039.31	0.00	0.00	32.59	0.00	0.00	1071.90			
3) Summa	ary of Annual Fi	ixed Cost (AFC)	claimed for all th	e assets c	overed in t	ne instant per	tition.		1			
S. No.	Asset No.	As	sset Name and its location			2024-25	2025-26	2026-27	2027-28	2028-29		
1	Asset-I	Assets under D System in Eas	ehri – Karamnasa tem Region	ı Transmiss	ion	140.95	143.85	154.92	166.44	168.92		
Total AFC for all the Assets						140.95	143.85	154.92	166.44	168.92		
lote: 1) T	he purpose of th	is form is to sum	marise the Capital	cost & AF	claimed fo	r all the asset	s covered in the	e instant petitio	n.			

	Checklist of Forms and other information/ documents for tariff filing for Transmission System& Communication System (2019-24 & 2024-29 periods)	
Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary of Tariff	1
FORM- 1A	Summary of Asset level cost	N.A.
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	1
FORM-3	Normative parameters considered for tariff computations	1
FORM- 4	Abstract of existing transmission assets/elements under project,  Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	N.A.
FORM- 4A	Statement of Capital cost	N.A.
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	N.A.
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	N.A.
FORM-5A	Break-up of Construction/Supply/Service packages	N.A.
FORM-5B	Details of all the assets covered in the project	
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	N.A.
FORM- 7		N.A.
FORM- 7A	Statement of Additional Capitalisation after COD	·
FORM-7A FORM-7B	Financing of Additional Capitalisation	·
2,552,000	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	N.A.
FORM- 8	Calculation of Return on Equity	1
FORM-8A	Details of Foreign Equity	N.A.
FORM-9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM-9A	Details of Project Specific Loans	N.A.
FORM-9B	Details of Foreign toans	N.A.
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	√ ×
FORM-9D	Loans in Foreign Currency	N.A.
FORM-9E	Calculation of interest on Normative Loan	N.A.
FORM- 10	Calculation of Depreciation Rate on original project cost	-
FORM- 10A	Statement of Depreciation	-
FORM- 10B	Statement of De-capitalisation	-
FORM- 11	Calculation of Interest on Working Capital	1
ORM- 12	Details of time over run	N.A.
FORM- 12A FORM- 12B	Incidental Expenditure during Construction  Calculation of IDC & Financing Charges	N.A.
ORM- 12B	Details of Initial shares	N.A.
ORM- 14	Non-Tariff Income	N.A.
ORM- 15	Summary of issue involved in the petition	-
ORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	4
Other Information, S. No.	/ Documents Information/Document	
. 140.	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	N.A.
1	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	N.A.
	Copies of relevant loan Agreements	N.A.
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.  Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
	Copies of the EPTA/TSA/PPA with the beneficiaries, if any	, N.A.
	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	N.A.
	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	N.A.
	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per	N.A.
	available information to them for submission of required information for tariff purpose.	
0.		ONNA