

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 82/TT/2022**

**Coram:**

**Shri Jishnu Barua, Chairperson  
Shri Ramesh Babu V., Member  
Shri Harish Dudani, Member**

**Date of Order: 11.11.2024**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for truing up the transmission tariff for the 2014-19 tariff period and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the determination of the transmission tariff for the 2019-24 tariff period in respect of Maharashtra State Electricity Transmission Company Limited (MSETCL) owned Transmission Lines/System conveying electricity to other States.

**And in the matter of:**

Maharashtra State Electricity Transmission Company Limited,  
'Prakashganga', Plot No.C-19, E- Block,  
Bandra-Kurla Complex, Bandra (East),  
Mumbai - 400 051

**...Petitioner**

**Versus**

1. Power Grid Corporation of India Limited,  
Saudamini, Plot No. 2, Sector-29, Near IFFCO Chowk,  
Gurgaon,  
Haryana-122001.
2. Madhya Pradesh Power Transmission Company Limited,  
Block No. 2, Shakti Bhawan, Rampur,  
Jabalpur,  
Madhya Pradesh-482008.
3. Gujarat Energy Transmission Corporation Limited,  
Sardar Patel Vidyut Bhavan, Race Course,  
Vadodara,  
Gujarat -390007.



4. Electricity Department, Goa  
Vidyut Bhawan, 3<sup>rd</sup> Floor,  
Tiswadi, Panaji -403001.
5. Karnataka Power Transmission Corporation Limited,  
Kaveri Bhavan, K.G Road,  
Bangalore,  
Karnataka-560009.

...Respondent(s)

**Parties Present:** Shri. M. Veeraragavan, Advocate, MSETCL  
Shri Tushar Kanti Mohindrao, Advocate, KPTCL  
Ms. Sumana Naganand, Advocate, KPTCL  
Shri Arnav Khanna, Advocate, KPTCL  
Shri Krupanand Daware, MSETCL

### ORDER

The Petitioner, Maharashtra State Electricity Transmission Company Limited, has filed the present Petition for the truing up of transmission tariff for the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and the determination of transmission tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the nine nos. transmission lines.

2. The Petitioner has made the following prayers:

- a. *Admit the instant petition and approve the Trued up Transmission Tariff for the tariff block 2014-19 and the transmission tariff for tariff block 2019-24 for the assets covered under this petition, as per Para 15.*
- b. *Allow MSETCL to recover the shortfall or refund the excess Annual Fixed Charges after Truing-up exercise as specified under Regulation 8 of Tariff Regulation 2014.*
- c. *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on the 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 the petition.*
- d. *Allow MSETCL to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70(3) and (4) of Central*



*Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*

- e. *Allow MSETCL to claim the capital spares & security expenses at the time of truing up for tariff period 2019-24 as per actuals.*
- f. *Allow MSETCL to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on the 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.*
- g. *Condone any shortcomings/deficiencies and allow MSETCL to submit additional information/data at a later stage as may be required,*
- h. *Pass other such relief as the Hon'ble 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 Commission, vide its order dated 14.3.2012 in Petition No. 15/SM/2012, gave the following directions:

*"5. It has come to the notice of the Central Commission that the some of the owners/developers of the inter-State transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions as mentioned in the Annexure to this order have approached the Implementing Agency for including their transmission assets in computation of Point of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of inter State Transmission Charges and Losses) Regulations, 2010 (hereinafter "Sharing Regulations").*

*6. As a first step towards inclusion of non-ISTS lines in the POC transmission charges, the Commission proposes to include the transmission lines connecting two States, for computation of POC transmission charges and losses. However, for the disbursement of transmission charges, tariff for such assets needs to be approved by the Commission in accordance with the provisions of Sharing Regulations. Accordingly, we direct the owners of these inter-State lines to file appropriate application before the Commission for determination of tariff for facilitating disbursement.*

*7. We direct the respondents to ensure that the tariff petitions for determination of tariff is filed by the developers/owners of the transmission line or by State Transmission Utilities where the transmission lines are owned by them in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, by 20.4.2012."*



- b. As per the aforementioned directions of the Commission vide its order dated 14.3.2012 in Petition No. 15/SM/2012, the Petitioner had filed Petition No. 256/TT/2013 to determine the tariff for the 2009-14 tariff period. The Commission vide its order dated 18.5.2015 in Petition No. 256/TT/2013 determined the Yearly Transmission Charges (YTC) from 1.7.2011 to 31.3.2014 (i.e., FY 2011-12, FY 2012-13 and FY 2013-14) for the following transmission assets of the Petitioner:

<b>Name of the line</b>	<b>Connecting States</b>	<b>COD</b>
220 kV Kalmeshwar-Pandurna S/C line	Maharashtra-Madhya Pradesh	4.11.1988
220 kV Mudshingi-Amona S/C line	Maharashtra-Goa	22.6.1981
220 kV Tillari-Amona-2 S/C line	Maharashtra-Goa	11.1.1978
220 kV Nasik-Navsari-1 D/C line	Maharashtra-Gujarat	31.5.1977
220 kV Nasik-Navsari-2 D/C line	Maharashtra-Gujarat	28.1.1989
220 kV Kolhapur-Chikkodi Ckt-I S/C line	Maharashtra-Karnataka	1.11.1970
220 kV Kolhapur-Chikkodi Ckt-II S/C line	Maharashtra-Karnataka	1.11.1970
400 kV SSP-Dhule Circuit-1 S/C line	Maharashtra-Gujarat	13.12.1998
400 kV SSP-Dhule Circuit-2 S/C line	Maharashtra-Gujarat	22.12.1998

- c. The Commission, vide its order dated 12.5.2017 in Petition No. 7/SM/2017, directed the State utilities to file Petitions for the determination of tariff for inclusion in the computation of point-of-connection transmission charges for the 2014-19 tariff period as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 ('the 2014 Tariff Regulations').
- d. The Petitioner thereafter filed Petition No. 173/TT/2016 for truing up the transmission tariff for the 2009-14 tariff period and determining the transmission tariff for the FY 2014-15 in respect of its transmission assets. The Commission, vide its order dated 19.12.2017 in Petition No. 173/TT/2016, had trued up the transmission tariff for the FY 2012-13 and FY 2013-14 and determined the transmission tariff for the FY 2014-15 regarding the transmission assets.



4. The Petitioner has filed the present Petition for the truing up of transmission tariff for the 2014-19 tariff period and the determination of transmission tariff for the 2019-24 tariff period in respect of the following nine nos. transmission lines (hereinafter referred to as 'the transmission assets'):

<b>Asset</b>	<b>Name of the line</b>	<b>Line Length (km)</b>	<b>COD</b>
Asset-I	220 kV Kalmeshwar-Pandurna Single Circuit ("S/C") line	33.8	4.11.1988
Asset-II	220 kV Mudshingi-Amona S/C line	18	22.6.1981
Asset-III	220 kV Tillari-Amona-2 S/C line	30	11.1.1978
Asset-IV	220 kV Nasik-Navsari-1 Double Circuit ("D/C") line	100	31.5.1977
Asset-V	220 kV Nasik-Navsari-2 D/C line	100	28.1.1989
Asset-VI	220 kV Kolhapur-Chikkodi Circuit-I S/C line	15.41	1.11.1970
Asset-VII	220 kV Kolhapur-Chikkodi Circuit-II S/C line	24	1.11.1970
Asset-VIII	400 kV SSP-Dhule Circuit-1 S/C line	142	13.12.1998
Asset-IX	400 kV SSP-Dhule Circuit-2 S/C line	142	22.12.1998

5. The order in the matter was reserved on 29.4.2024. However, the order could not be issued before Shri Arun Goyal, former Member who constituted part of Coram, demitted the office. Therefore, the matter was heard again on 28.8.2024, and the order was reserved.

6. This order is issued considering the submissions made by the Petitioner in its affidavits dated 23.4.2021, 14.2.2023, 8.11.2023 and 3.4.2024, KPTCL's reply dated 17.11.2023, the Petitioner's rejoinder dated 4.1.2024 to the reply filed by KPTCL, Petitioner's written submissions dated 16.5.2024; WRPC's reply dated 14.3.2024; common affidavit dated 19.3.2024 filed jointly by SRLDC, WRLDC and Grid-India and written submissions of KPTCL dated 14.6.2024.

7. Having heard the learned counsels for the Petitioner and Respondents, and having perused the material on record, we proceed to dispose of the Petition.

8. During the hearing of the matter on 24.11.2022, the Commission directed the Petitioner to submit the following information:



- (i) Whether the Petitioner has recovered the tariff for the 2015-19 period? If so, submit the details.
- (ii) Whether the instant ISTS transmission lines were under operation? If so, submit details of operation and power flow for the 2014-19 tariff Period.

9. In response, the Petitioner, vide affidavit dated 14.2.2023, submitted that the Petitioner had recovered the tariff for the 2015-19 period. However, WRPC, vide its letter dated 29.12.2021, requested the Petitioner for a refund of the amount. The Petitioner has submitted that nine nos. transmission lines are in service and acting as the ISTS lines. The details of the power flow for the 2014-19 tariff period of the transmission lines are as follows:

Name of the Line	FY 2014-15						FY 2015-16					
	Maximum Loading			Minimum Loading			Maximum Loading			Minimum Loading		
	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time
220 kV Tilarani - Amona S/C Line (220KV Halkarni-Tilarani-Amona)	122	17.04.2014	18:00	1	07.04.2014	10:00	149	09.11.2015	1:00	0	12.09.2015	16:00
220 kV Mudshingi - Amona S/C Line (220KV Halkarni-Mahalaxmi-Amona)	144	17.04.2014	18:00	0.01	14.07.2014	7:00	178	09.11.2015	1:00	0.01	15.06.2015	12:00
220 kV Kolhapur - Chikodi ckt - I	98	15.07.14	9	18	26.07.14	17	197	06.11.15	12	25	01.03.15	24
220 kV Kolhapur - Chikodi ckt - II	123	21.11.2014	9:00	4	16.07.2014	2:00	183	22.11.2015	21:00	26	01.06.2015	1:00
220 kV Nashik - Narsari-1 D/C line	133.20 (Imp)	11.11.2014	5:00	0.36 (Exp)	13.01.2014	14:00	118.80 (Exp)	26.06.2015	11:00	0.36 (Exp)	19.12.2015	22:00
220 kV Nashik - Narsari-2 D/C line	133.20 (Imp)	11.11.2014	5:00	0.36 (Exp)	13.01.2014	14:00	118.80 (Exp)	26.06.2015	11:00	0.36 (Exp)	19.12.2015	22:00
400 kV Dhule - Santar Sarowar ckt 1 S/C Line	488	25.09.2014	14:00	1	8/29/2014	22:00	358	5/24/2015	11:00	1	5/9/2015	35:00
400 kV Dhule - Santar Sarowar ckt 2 S/C Line	376	24.01.2015	7:00	3	9/1/2014	7:00	399	8/30/2015	14:00	1	5/4/2015	8:00
220 kV Kalmeshwar - Pandurna S/C Line	[IMP] 106	07.09.2014	19:00	1	04.04.2014	9:00	108	19.07.2015	7:00	1	19.04.2015	6:00
	[Exp]167	18.12.2014	15:00	1	14.04.2014	22:00	199	29.12.2015	8:00	0.331	23.04.2015	13:00

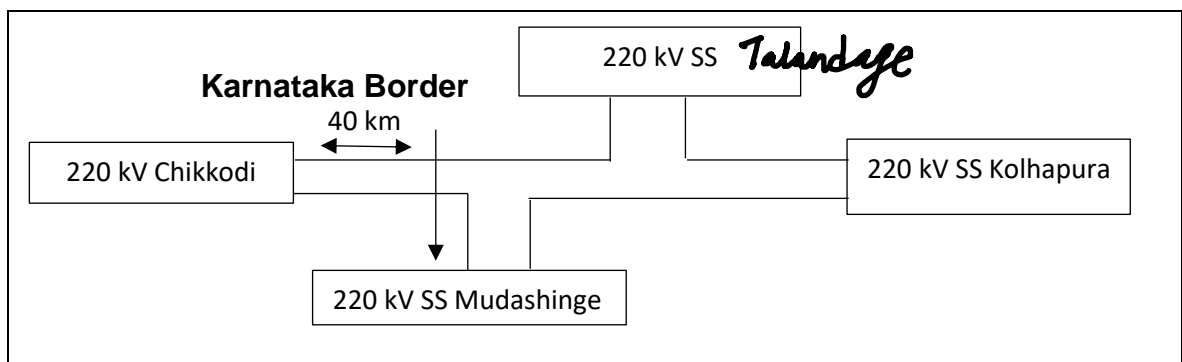
Name of the Line	FY 2016-17						FY 2017-18					
	Maximum Loading			Minimum Loading			Maximum Loading			Minimum Loading		
	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time
220 kV Tilarani - Amona S/C Line (220KV Halkarni-Tilarani-Amona)	150	25.02.2017	8:00	0.09	20.04.2016	10:00	186	01.05.2017	6:00	0.01	29.06.2017	10:00
220 kV Mudshingi - Amona S/C Line (220KV Halkarni-Mahalaxmi-Amona)	131	26.12.2016	17:00	0.1	11.05.2016	7:00	142	21.07.2017	21:00	1	19.04.2017	9:00
220 kV Kolhapur - Chikodi ckt - I	190	26.02.16	20	8	24.01.16	5	206	12.04.17	11	34	20.04.17	8
220 kV Kolhapur - Chikodi ckt - II	199	07.02.2017	10:00	3	15.08.2016	9:00	192	17.04.2017	16:00	41	29.05.2017	17:00
220 kV Nashik - Narsari-1 D/C line	89.64 (Exp)	13.07.2016	8:00	0.36	17.06.2016	2:00	109.44 (Imp)	24.05.2017	17:00	0.36 (Exp)	01.07.2017	12:00
220 kV Nashik - Narsari-2 D/C line	106.92 (Exp)	25.06.2016	17:00	0.36	17.06.2016	2:00	109.44 (Imp)	24.05.2017	17:00	0.36 (Exp)	01.07.2017	12:00
400 kV Dhule - Santar Sarowar ckt 1 S/C Line	357	7/11/2016	2:00	1	4/27/2016	10:00	261	10/17/2017	11:00	1	7/6/2017	16:00
400 kV Dhule - Santar Sarowar ckt 2 S/C Line	379	8/24/2016	15:00	6	4/5/2016	13:00	299	8/20/2017	21:00	1	7/12/2017	12:00
220 kV Kalmeshwar - Pandurna S/C Line	129	20.08.2016	16:00	0.67	26.12.2016	19:00	125	04.05.2017	7:00	1	18.04.2017	22:00
	173	14.11.2016	10:00	1	01.04.2016	14:00	165	04.07.17	6:00	1	16.04.2017	13:00



Name of the Line	FY 2018-19						FY 2019-20					
	Maximum Loading			Minimum Loading			Maximum Loading			Minimum Loading		
	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time	Load in MW	Date	Time
220 kV Tillari - Amona S/C Line (220KV Halkarni-Tillari-Amona)	101	21.08.2018	21:00	0.2	26.01.2019	9:00	103	14.10.2019	18:00	0.3	20.09.2019	10:00
220 kV Mudshingi - Amona S/C Line (220KV Halkarni-Mahalaxmi-Amona)	94	20.07.2018	20:00	0.01	10.01.2019	12:00	146	18.10.2019	15:00	0.25	04.10.2019	15:00
220 kV Kolhapur - Chikodi ckt - I	0	0	0	0	0	0	0	0	0	0	0	0
220 kV Kolhapur - Chikodi ckt - II	0	0	0	0	0	0	0	0	0	0	0	0
220 kV Nashik - Navsari-1 D/C line	135.36 (Imp)	11.10.2018	12:00	0.36 (Exp)	13.06.2018	10:00	36.44 (IMP)	12.03.2020	15:00	0.36 (Exp)	04.05.2019	19:00
220 kV Nashik - Navsari-2 D/C line	135.36 (Imp)	11.10.2018	12:00	0.36 (Exp)	13.06.2018	10:00	36.44 (IMP)	12.03.2020	15:00	0.36 (Exp)	04.05.2019	19:00
400 kV Dhule - Sandar Sarowar ckt 1 S/C Line	320	7/13/2018	12:00	1	4/4/2018	10:00	317	8/17/2019	14:00	1	7/7/2019	2:00
400 kV Dhule - Sandar Sarowar ckt 2 S/C Line	335	6/22/2018	3:00	1	4/5/2018	16:00	393	8/18/2019	23:00	1	7/7/2019	13:00
220 kV Kalmeshwar - Pandurna S/C Line	106	13.10.2018	14:00	1	07.04.2018	11:00	115	15.10.2019	20:00	1	05.04.2019	1:00
	162	26.12.2018	11:00	1	04.04.2018	0:00	156	10.12.2019	9:00	1	08.04.2019	20:00

10. The Karnataka Power Transmission Corporation Limited (KPTCL), in its reply filed vide affidavit dated 17.11.2023, has made the following submissions:

(a) The 220 kV Kolhapur-Chikkodi D/C line with Drake Conductor is an 'inter-regional' line between Chikkodi in Karnataka and Kolhapur in Maharashtra with one circuit made Line in Line out (LILO) at 220 kV SS Talandage and the other circuit made LILO at 220 kV SS Mudashinge. Further, the total line length within Karnataka is about 40 km. The diagram showing the said transmission lines is hereunder:



(b) The 220 kV Kolhapur-Chikkodi line was declared *non-feasible* by the Government of Karnataka vide its letter dated 5.11.2016 to the Power System Operation Corporation (POSOCO), New Delhi. The Government of Karnataka, in the said letter,



mentioned that the synchronous operation of the 220 kV Kolhapur-Chikkodi inter-State line was not feasible for the following reasons:

- I. The first right of the KPTCL system lies with the Karnataka DISCOMs. Hence, KPTCL cannot make its system available to inter-regional lines by foregoing the rights of the DISCOMs. The grid-connected mode SLDC and KPTCL may lose their operational flexibility with wind, co-generation, and hydro generation in North Karnataka.
  - II. Karnataka DISCOMs would also have to pay the transmission charges for the Maharashtra–Karnataka line as per the usage under the POC mechanism.
  - III. The line owned by Karnataka and Maharashtra, whose transmission charges are paid by DISCOMs of Karnataka irrespective of the fact whether the Central Electricity Regulatory Commission or Kerala Electricity Regulatory Commission has fixed the tariff that cannot become the basis for increasing ATC of Southern Region. In this case, even the intervening system is owned by Karnataka, and as such, by foregoing the first right of usage by Karnataka DISCOMs and losing the operational flexibility of Karnataka, it is not possible to use this line for increasing ATC of the Southern Region.
- (c) The truing up of the tariff and determining tariff for the two transmission lines operated by the KPTCL in the present Petition is untenable. The Commission, in its order dated 12.6.2019 in Petition No. 24/TT/2018 filed by Karnataka Power Transmission Corporation Limited v. Transmission Corporation of Andhra Pradesh Limited & Ors., has taken a view that 220 kV Chikkodi-Kolhapur line cannot be considered as an inter-State transmission line but be treated as a radial line between the States of Maharashtra and Karnataka which both the States built for use in the bilateral transactions.





However, the State of Karnataka is drawing power from Maharashtra radially, and the said line is not connected to the State grid of Karnataka. In the said order, the Commission observed that the said line could not be used under the Inter-State Transmission System (ISTS) scheme as the Chikkodi Substation is connected to the system of the KPTCL rather than the inter-State transmission system. It has further been observed in the said order that the said line is radially operated to draw power from the State of Maharashtra to provide electricity when there is a power shortage in the State of Karnataka.

- (d) The Commission, in its order dated 12.6.2019 in Petition No. 24/TT/2018, has categorically observed that the claim of the Petitioner for true-up of the tariff and determination of tariff for the 220 kV Chikkodi-Kolhapur line is untenable and ought to be rejected. The Commission, in the said order referring to Regulation 2(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, observed that the 220 kV Kolhapur-Chikkodi lines cannot be considered to be inter-State transmission lines and it is in fact only a radial line between the two States.
- (e) For the reasons stated above, the said transmission lines do not come within the ambit of the 2014 Tariff Regulations and as such, the Petitioner cannot seek true-up of tariff for the 2015-19 period and the determination of tariff the 2019-24 period with the tariff components such as Interest on Working Capital (IOWC), Interest on Loan based on Weighted Average Rate of Interest (WAROI), taxes and the alleged capital expenditure incurred by the Petitioner for the 220 kV Kolhapur-Chikkodi transmission lines. For this reason, KPTCL cannot be held liable for sharing the payment of the transmission charges under the 2014 Tariff Regulations.

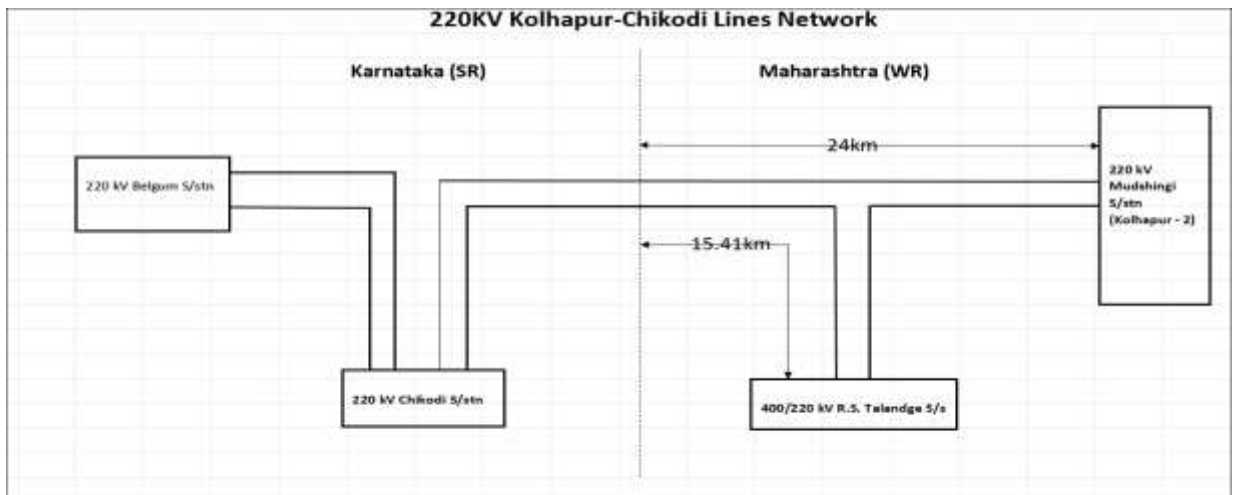


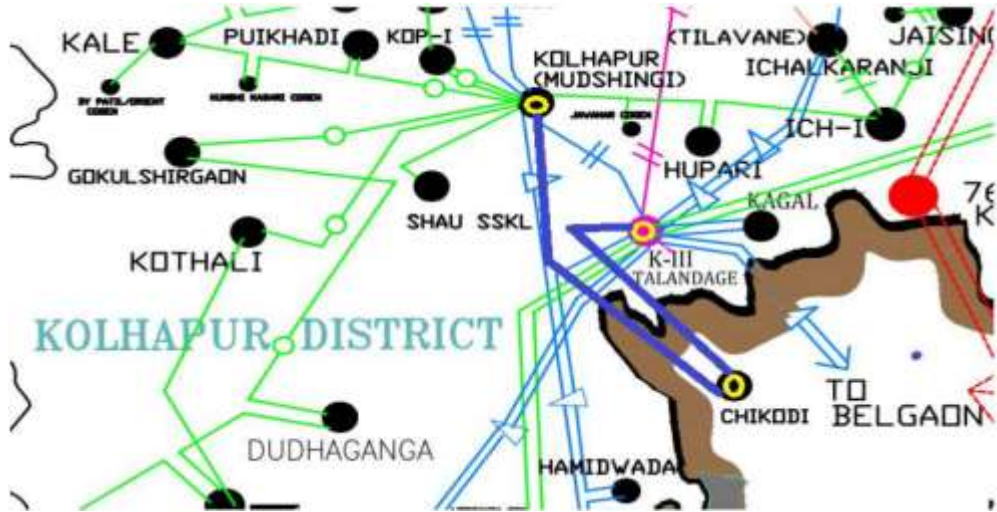
**Present Status of the 220 kV Kolhapur-Chikkodi lines:**

(f) At present, the 220 kV Kolhapur-Chikkodi Ckt-I line has not been utilised with the proper flow since 1.6.2017, and the said line is in an idle charged condition from the 220 Chikkodi end. Similarly, the 220 kV Kolhapur-Chikkodi Ckt-II line has not had a proper flow since 1.6.2017, and the said line is in an idle charged condition from 220 kV Mudashingi end. Therefore, the question of seeking truing up or determination of tariff for these lines does not arise.

11. In response, the Petitioner, in its rejoinder vide affidavit dated 4.1.2024, has submitted as follows:

i) The Kolhapur Sub-station is also called the Mudashingi Sub-station. One circuit of the 220 kV Kolhapur-Chikkodi line is LILoed at 220 kV Sub-station Talandage, while the other is a direct line between Kolhapur (Mudashingi) and Chikkodi. The correct representation of the 220 kV Kolhapur-Chikkodi D/C lines is as follows:





- ii) As per Section 2(36)(i) of the Electricity Act, 2003 (hereinafter referred to as 'the Act'), the Kolhapur-Chikkodi lines, i.e. (i) 220 kV Kolhapur-Chikkodi Ckt-I S/C line – Line Length 15.41 km, COD 1.11.1970 (Asset- VI) and (ii) 220 kV Kolhapur-Chikkodi Ckt-II S/C line – Line Length 24 km, COD 1.11.1970 (Asset-VII) are used for conveyance of electricity from Maharashtra State to Karnataka State. Hence, these lines are ISTS lines. The Commission, in its order dated 14.3.2012 in Petition No. 15/SM/2012, has stated that the conveyance of electricity from one State to another State is considered to be a part of the inter-State transmission system and as per Section 79(1) (d) of the Act and as such the tariff of these lines is required to be determined by the Central Commission. Further, the Commission, in its said order dated 14.3.2012, has identified the Kolhapur-Chikkodi lines as inter-State lines, and that in an order dated 21.8.2012, has considered such lines as Natural inter-State lines, i.e., the transmission lines connecting two States. Thus, when the Commission has already considered and held the Kolkahpur-Chikkodi lines as ISTS lines, KPTCL cannot argue otherwise.
- iii) The Commission, in its order dated 18.5.2015 in Petition No. 256/TT/2013, identified that the Petitioner owned 15.41 km (Circuit-1) and 24 km (Circuit-2)



of the Kolhapur-Chikkodi lines. As such, the Commission determined the Yearly Transmission Charges for nine inter-State transmission lines of the Petitioner, which included the Kolhapur-Chikkodi lines, for the period from 1.7.2011 to 31.3.2012, FY 2012-13, and FY 2013-14.

- iv) The Commission, in its order dated 19.12.2017 in Petition No. 173/TT/2016, again recognised the Kolhapur-Chikkodi lines as the Petitioner's ISTS lines. Accordingly, the Commission trued up the transmission tariff for FY 2009-14 and determined the transmission tariff for FY 2014-15, inter alia for the Kolhapur-Chikkodi lines.
- v) The Commission's order dated 12.6.2019 in Petition No. 24/TT/2018 nowhere observed that the Kolhapur-Chikkodi lines were not the ISTS lines. The Petitioner was not a party to Petition No.24/TT/2018, and Respondent No.5/KPTCL did not own and operate the 15.41 km (Ckt-1) and 24 km (Ckt-2) of Kolhapur-Chikkodi lines and as such KPTCL was not empowered to file tariff Petition for such lines. Therefore, the order dated 12.6.2019 in Petition No. 24/TT/2018 does not apply to the present Petition.
- vi) Regulation 2(1) of the 2014 Tariff Regulations was applicable in all cases where the tariff for a transmission system used for inter-State electricity transmission was required to be determined by the Commission. On a combined reading of Regulation 2(1) of the 2014 Tariff Regulations read with Section 2(36) (i) of the Act, the Kolhapur-Chikkodi lines are ISTS lines, and their tariff is required to be determined by the Commission as per the 2014 Tariff Regulations.



vii) For considering a line to be an ISTS line as defined under Section 2(36)(i) of the Act, it is immaterial if such line is a radial line between two States or not, as long as there is conveyance of electricity from one State to another State and such line is considered to be part of inter-State transmission system. In the present case, Respondent No.5 admitted that the Kolhapur-Chikkodi lines are operated to draw power from Maharashtra to Karnataka to cater to the need for electricity during periods of acute power shortage in Karnataka State. Further, Annexure-2 of the Petitioner's affidavit dated 14.2.2023 in the present Petition shows that the Kolhapur-Chikkodi lines are operational, and there is power flow/loading on such lines. Hence, the Kolhapur-Chikkodi lines are used to convey electricity from Maharashtra to Karnataka; therefore, they are ISTS lines.

viii) The Kolhapur-Chikkodi lines are connected to the Karnataka State Grid and have been used since its commissioning on 1.11.1970 to supply power from Maharashtra to Karnataka and other States. Initially, when these lines were commissioned as the 220 kV Kolhapur-Belgaon lines on 7.1.1979, the Western and Southern regions were not synchronised. Therefore, the part of the Karnataka area was supplied from Maharashtra (Western Region) radially, where Karnataka purchased the power from Central Sector Generators. After the Commissioning of the 220 kV Chikkodi Sub-station in Karnataka, these lines were terminated at 220 kV Chikkodi Sub-station on 8.8.1998, and the 220 kV Chikkodi became the inter-connecting point for these inter-State lines. After the synchronization of the Southern Grid with the India Grid, the Kolhapur-Chikkodi lines are no longer radial lines, and the same has been given the status of the deemed ISTS lines.



- ix) Keeping the transmission lines opened from one end is purely an operational matter and decided by the respective grid operator and does not change the ISTS status of the lines, which is a natural inter-State transmission line. If the need arises or in case of emergency/acute electricity shortage, KPTCL may very well draw power from Maharashtra through the Kolhapur-Chikkodi lines and use such lines to facilitate the drawl of power by neighbouring States. Such operational requirements are not at all related to determining tariffs associated with these assets as long as the assets are connected to the grid and available for use as a grid element.
- x) Rejuvenation of 220 kV Kolhapur-Chikkodi lines is currently pending, and it has been deliberated with the stakeholders in the meetings of the Operation & Coordination Sub-Committee (OCC) of WRPC.
- xi) Power System Operation Corporation Limited (PSOCO)/ National Load Despatch Centre (NLDC), vide its letter dated 2.2.2021, suggested some remedial measures to the Southern Regional Power Committee (SRPC) and WRPC regarding the high loading of 400 kV Kolhapur (PG)—Kolhapur (MS) D/C lines. One such measure was operationalizing the 220 kV Kolhapur – Chikkodi and 220 kV Mudshingi-Chikkodi lines.

12. WRPC, in its reply, vide affidavit dated 14.3.2024, has submitted as follows:

- i) At present, the 220 kV Talandge (Kolhapur)-Chikkodi line is charged from the Mudshingi end and opened at Talandge (Kolhapur) since 1.6.2017 from 00:00 hrs, and the last power flow recorded on 31.5.2017 till 24:00 hrs. was 54 MW/160 A.



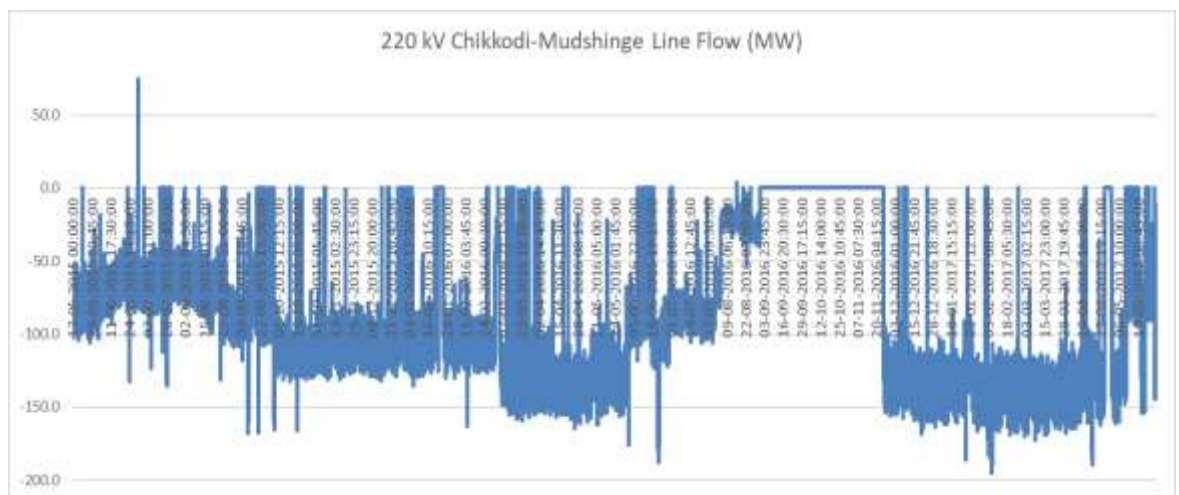
- ii) At present, the 220 kV Mudshungi-Chikkodi line is charged from the Mudshingi end and opened at the Chikkodi Sub-station end since 1.6.2017 from 00:00 hrs. and the last recorded power flow on 31.5.2017 till 24:00 hrs. was 54 MW/160 A.
- iii) Prior to 1.6.2017, the above lines were normally operated in radial mode for the transfer of power from Maharashtra to the Karnataka system whenever SLDC, Karnataka, requested a power requirement through these lines in pursuance of a bilateral agreement between them.

13. Southern Region Load Dispatch Centre (SRLDC), Western Region Load Dispatch Centre (WRLDC), and Grid-India vide common affidavit dated 19.3.2024 have submitted as follows:

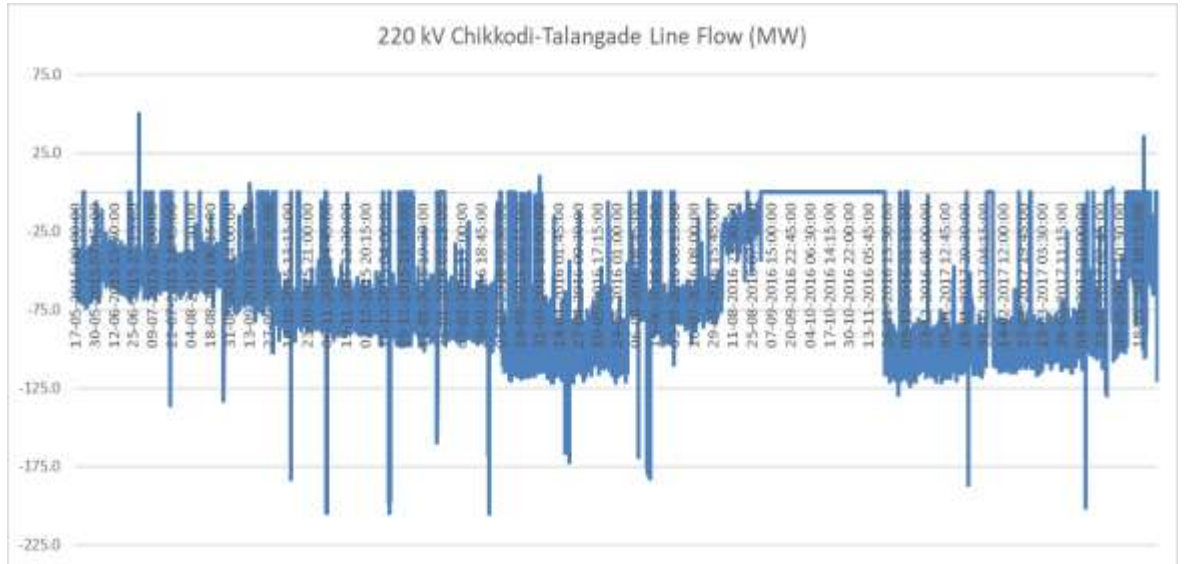
- i) The 220 kV Kolhaphur (Talandage)-Chikkodi S/C line and the 220 kV Kolhaphur (Mudshingi)-Chikkodi S/C line are the transmission lines between Maharashtra, Kolhaphur (Talandage) and Kolhaphur (Mudshingi) and Karnataka (Chikkodi) States and the power transfer between Maharashtra and Karnataka through the aforesaid lines started taking place through radial mode of operation since July 2014. The power transfer started taking place through bilateral intra-State open-access transactions.
- ii) As per the Minutes of the 25th Meeting of SRPC held on 26.7.2014 and the 461<sup>st</sup> OCC Meeting of WRPC, the 220 kV Kolhaphur (Talandage)-Chikkodi S/C line and the 220 kV Kolhaphur (Mudshingi)-Chikkodi S/C line, were closed radially on 11.7.2014.



- iii) Since the beginning, this radial power transfer between Maharashtra and Karnataka over these lines has been settled bilaterally between the two States as per a bilateral agreement for power transfer between them.
- iv) The transaction is not reflected in the interregional schedule, and power flow through these lines is not accounted for in each State's drawl by SRLDC/WRLDC for regional pool accounting at the RPC level. SEMs are installed at both ends of the lines.
- v) Karnataka was importing power from Maharashtra from 17.5.2015 to 1.6.2017 in the range of 100-150 MW through the 220 kV Kolhapur (Mudshingi)-Chikkodi S/C line with a maximum import of 195 MW. Similarly, Karnataka was importing power from Maharashtra in the range of 75-125 MW through the 220 kV Kolhapur (Talangade)-Chikkodi S/C line with a maximum import of 205 MW. The daily maximum and minimum power flow (based on SCADA data available at SRLDC) through these lines during the period 17.5.2015 to 1.6.2017 is given hereunder. Such data for the period 11.7.2014 to 16.5.2015 is unavailable.







- vi) There has been no power flow through both the above-mentioned lines since 1.6.2017, and presently, the 220 kV Kolhapur (Mudshingi)-Chikkodi S/C line is idly charged from Mudshingi (Maharashtra) end and the 220 kV Kolhapur (Talangade)-Chikkodi S/C line is idly charged from Chikkodi (Karnataka) end.
- vii) WRLDC and NLDC have taken up the issue of parallel operation of the 220 kV Kolhapur (Talandage)-Chikkodi S/C line and the 220 kV Kolhapur (Mudshingi)-Chikkodi S/C in various OCC, TCC and special meetings since 2016 till date. As per the Minutes of the 47<sup>th</sup> Meeting of the TCC and 49<sup>th</sup> Meeting of SRPC held on 8.12.2023 and 9.12.2023, KPTCL has put forth the proposal for radial closing of the 220 kV Kolhapur (Talandage)-Chikkodi S/C line and the 220 kV Kolhapur (Mudshingi)-Chikkodi S/C lines and the matter is under bilateral discussion between Karnataka and Maharashtra. The said issue of radial closing of the aforesaid lines was also discussed in the 48<sup>th</sup> Meeting of TCC, and the 50<sup>th</sup> Meeting of SRPC held on 15.3.2024 and 16.3.2024, respectively. During the deliberations, it was informed that the Petitioner had communicated to KPTCL that due to the high loading of Talandage ICT, it was not feasible to supply ISTS power radially to the 220



kV Chikkodi and nearby stations through the 220 kV Chikkodi-Talandage and the 220 kV Chikkodi-Mudshingi lines.

14. The Petitioner, vide affidavit dated 3.4.2024, has submitted the details on the purpose of construction of Assets-VI and VII. The Petitioner has further submitted that radial power transfer between Maharashtra and Karnataka is being settled between the two States bilaterally as per the bilateral Agreement for power transfer between the Petitioner and KPTCL, but due to the long passage of time and trifurcation of State Electricity Boards in the States of Maharashtra and Karnataka, the record of such agreement is untraceable at present.

15. Based on the submissions of the Petitioner, KPTCL, WRPC, SRLDC, WRLDC, and Grid India, the preliminary issue arises for our consideration is whether the 220 kV Chikkodi-Talandage and the 220 kV Chikkodi-Mudshingi lines are part of ISTS? If so, whether or not a tariff can be granted for them?

#### **Analysis and Decision on preliminary issue**

16. We have considered the submissions of the Petitioner, KPTCL, WRPC, SRLDC, WRLDC, and Grid India and also perused the documents on record.

17. The Petitioner submitted that the Kolhapur-Chikkodi transmission line, which it owns, is an inter-State transmission line (radial) envisaged to carry power from Maharashtra to Karnataka.

18. KPTCL has submitted that no power has flowed through the Kolhapur-Chikkodi transmission line since June 2017, and consequently, it has not claimed the tariff for the portion of the line located in Karnataka. KPTCL has further submitted that the transmission line is radially connected to Belagavi in Karnataka but not to the Karnataka



State Grid. Therefore, KPTCL has requested that no tariff be granted for the aforesaid transmission line as no power is currently flowing through it.

19. WRPC has submitted that the 220 kV Talangde (Kolhapur)-Chikodi line and the 220 kV Mudshungi-Chikodi line are operated in radial mode, facilitating the transfer of power from Maharashtra to the Karnataka System whenever the SLDC Karnataka requested a power requirement through these lines. WRPC further noted that no power has flowed through these lines since 1.6.2017.

20. The Petitioner has contended that the instant transmission system should be considered as an inter-State transmission system under Section 2(36)(i) of the Act, which, *inter alia*, provides as follows:

*“2 (36) inter-State transmission system” includes –*  
*(i) any system for the conveyance of electricity by means of main transmission line from the territory of one State to another State;*  
*(ii) the conveyance of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity;*  
*iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by a Central Transmission Utility.”*

21. On perusal of the provisions of Regulation 2(36) of the Act, we are of the view that a transmission line can be considered as an inter-State transmission line in three circumstances, namely, (i) any system for the conveyance of electricity by means of main transmission line from the territory of one State to another State; (ii) the conveyance of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity, and (iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by Central Transmission Utility.

22. In the present case, the 220 kV Kolhapur-Chikkodi Circuit-1 S/C line (Maharashtra-Karnataka) and the 220 kV Kolhapur (Mudshingi)-Chikkodi Circuit-2 S/C



line (Maharashtra-Karnataka) is from the territory of one State to another State, qualifying them as the ISTS under Section 2(36)(i) of the Act.

23. Perusal of the record shows that the issues of parallel operation of the 220 kV Kolhapur (Talandage)-Chikkodi S/C line and the 220 kV Kolhapur (Mudshingi)-Chikkodi S/C line have been discussed in various OCC, TCC and RPC meetings. The radial closing of these lines was specifically discussed in the 48<sup>th</sup> meeting of TCC and the 50<sup>th</sup> meeting of SRPC, held on 15.3.2024 and 16.3.2024, respectively. The relevant extracts of the same are as follows:

**“28) KPTCL PROPOSAL FOR RADIAL CLOSING OF 220 KV CHIKODI - TALANGADE & MUDSINGE LINES**

*a) KPTCL vide e-mail dated 05.12.2023 has put forth the proposal for radial closing of 220 kV Chikodi - Talangade & Mudsinge lines. They have informed that 400 kV PGCIL Narendra station has 2 ICTs (2\*500 MVA). With the unprecedented rise in demand in the last few months, all these ICTs are getting severely overloaded. In the upcoming summer months overloading of these ICTs may threaten the security and reliability of the grid. In view of the above the proposal for closing of the above mentioned lines have been put forth to avoid the Narendra ICTs loading by getting support from Western region grid (Maharashtra).*

*b) The following were noted in the 47<sup>th</sup> TCC/49<sup>th</sup> SRPC Meeting:*

- *-SRLDC had informed that the radial mode of operation is technically feasible and 150 MW flow may be observed in the lines. Split bus arrangement may be required and needs to coordinate with Maharashtra side. Narendra ICT constraints will be relieved marginally by closing of the above mentioned lines by getting support from Western region grid (Maharashtra). KPTCL had informed that they would discuss the matter bilaterally with Maharashtra.*
- *-SRLDC stated that NLDC would consider the proposal based on KPTCL/MSTECL discussions.*

**TCC deliberations**

*c) SRPC secretariat informed that the proposal was discussed in the 49<sup>th</sup> SRPC meeting and SRLDC had stated that NLDC would consider the proposal based on KPTCL/MSTECL discussions. Subsequently KPTCL vide mail dated 05.03.2024 to MSEB had further requested for radially closing of 220 kV Chikodi - Talangade & Mudsinge lines and drawing ISGS power through these lines to feed the loads of Chikkodi and nearby stations (200 to 250 MW) radially and the following were mentioned:*

*→ 400 kV PGCIL Narendra station situated in the State of Karnataka has 2 ICTs (2\*500MVA). With this peak summer demand, both the ICTs are getting severely loaded thereby endangering the grid security as well as reliability of the power supply at the downstream of Narendra.*

*→ At present KPTCL is managing the ICT loading with the support from Nagjari Hydro generation. However, due to failure of monsoon the Dam levels of the hydro generating*



stations in and around Narendra station are very less. The downstream co-generation plants injection also reducing day by day, which leads to overloading of ICTs.

→ This arrangement will help in reducing the loading of ICTs at Narendra in the prevailing summer months.

d) MSETCL vide E-mail dated 05.03.2024 to KPTCL noted the following:

→ From the loading data of ICTs, it can be seen that from March month onwards, load on ICTs increases gradually mainly due to fall in Co-generation support due to closing of Sugar Industry Production season. Moreover, as the region around Kolhapur is having heavy Sugar cane farming, Agriculture Load (Ag Motors load) also increases from the month of March to June i.e. up to onset of monsoon. Also due to rising atmospheric temperature during this period, domestic & commercial load also increases on account of rising Air conditioning/cooling load demand.

→ Due to these reasons, last year during the period from 01/03/2023 to 30/06/2023, ICTs at 400 kV Talandage RS were operated with loading almost above 90% during peak load hours period. In fact, sometimes forced load shedding (FLS) was implemented, during the mentioned period, due to overloading of ICTs at 400 kV Talandage RS. On one occasion during this period, due to overloading of ICTs, Load Trimming Scheme has also operated. Files containing data pertaining to FLS & LTS during the period was furnished by MSETCL.

→ From the ICT loading data for the period, it can be seen that 500 MVA ICT – III was loaded beyond 85% / 90% /

95% of its full load capacity on 74/40/13 occasions/days respectively. On few occasions, ICT – III has been operated above 98% of its full load capacity, that too, by implementing FLS. If N-1 condition/possibility due to any reason in r/o ICTs at 400 kV Talandage RS is considered, situation will be more grievous.

**→ Considering the above facts, it is not feasible to supply ISGS power radially to 220 kV Chikodi & nearby stations through 220 kV Chikodi-Talandage & 220 kV Chikodi-Mudshingi lines.**

e) **KPTCL informed that the request was not agreed by MSETCL.**

f) SRPC secretariat suggested that a separate meeting may be coordinated by NLDC in this regard. In principle approval may be given on mutual understanding of KPTCL and Minutes of the 48th TCC (15.03.2024) & 50th SRPC (16.03.2024) (Page 86 of 128 MSETCL) and whenever system conditions supports the radial connection may be facilitated.

g) The following was concluded

o) NLDC to convene a meeting of Stakeholders to use the line in time of requirements. SRPC noted the above.”

24. As per the above minutes of the 50<sup>th</sup> SRPC meeting, we are of the view that the Petitioner has communicated that it is not feasible to supply ISGS power radially to the 220 kV Chikkodi and nearby stations through the 220 kV Chikkodi-Talandage and the 220 kV Chikkodi-Mudshingi lines.

25. We deem it appropriate to refer here to the relevant extracts of Regulation 9(6) of the 2014 Tariff Regulations, and the same are as follows:



*“(6) The following shall be excluded or removed from the capital cost of the existing and new project:*

*(a) The assets forming part of the project, but not in use;”*

26. From the perusal of the record, we note that since 1.6.2017, no power has been flowing through the 220 kV Chikkodi-Talandage and the 220 kV Chikkodi-Mudshingi lines, and as such, these transmission lines are out of service since then. Accordingly, the tariff is approved for Assets-VI and VII from 1.4.2015 to 31.5.2017. Consequently, no tariff is being granted for Assets-VI and VII w.e.f. 1.6.2017. At this juncture, we are of the view that in the future, if stakeholders choose to utilize the Chikkodi-Kolhapur line and it is brought back into operation, its tariff would be considered at that time.

27. Accordingly, the following transmission lines are considered as ISTS for the purpose of tariff:

<b>Asset</b>	<b>Name of the line</b>
Asset-I	220 kV Kalmeshwar-Pandurna S/C line
Asset-II	220 kV Mudshingi-Amona S/C line
Asset-III	220 kV Tillari-Amona-2 S/C line
Asset-IV	220 kV Nasik-Navsari-1 D/C line
Asset-V	220 kV Nasik-Navsari-2 D/C line
Asset-VI	220 kV Kolhapur-Chikkodi Circuit-I S/C line
Asset-VII	220 kV Kolhapur-Chikkodi Circuit-II S/C line
Asset-VIII	400 kV SSP-Dhule Circuit-1 S/C line
Asset-IX	400 kV SSP-Dhule Circuit-2 S/C line

28. The Commission vide its order dated 19.12.2017 in Petition No. 173/TT/2016, trued up the transmission tariff for the 2009-14 period and determined the tariff for the Financial Year (FY) 2014-15 in respect of the aforesaid 9 transmission lines on the basis of a methodology, adopted and followed in the similar cases of inter-State transmission lines. The relevant portions of the order dated 19.12.2017 are as follows:

**“Tariff Methodology:**

*25. As per the petitions filed by the states, their ISTS lines generally have the configuration of 132 kV, 220 kV or 400 kV. In the absence of an established tariff data base, in order to develop this methodology Annual Reports of PGCIL from 1989-90 to 2013-14 have been referred to. The Annual Reports depict, inter alia, the information pertaining to year wise total transmission lines’ length in ckt-km and corresponding Gross Block. This pan-India data represents all the five transmission regions and is a*



composite mix of parameters like terrains, wind-zones, tower and conductor type etc. +/- 500 kV HVDC and 765 kV & above voltage level AC lines too have come up in between and the data also includes those lines. Voltage level-wise data as on 30<sup>th</sup> April 2017, obtained from PGCIL indicates that the percentage of 220 kV, 132 kV and 66 kV transmission lines taken together make it around 8.3 % of the total line length owned by PGCIL. Further, 132 kV transmission lines were established in NER prior to 1990, and transmission lines of 220 kV voltage levels were last commissioned in around the year 2004 in NR. Majority of the transmission lines consist of 400 kV which corresponds to 66% of the total transmission line lengths. Thus, the 400 kV and lesser voltage levels account for approximately 75% of the transmission lines. Assuming the above referred spread of voltage wise percentages for earlier years too, it can be said that the year wise average transmission line cost figures derived from PGCIL data, when further reduced by 25%, fairly represent the average transmission line capital cost corresponding to a 400 kV S/C line. Considering 400 kV S/C transmission line cost as reference cost, analysis of PGCIL's indicative cost data (P/L Feb 2017) suggests the following:

	Reference cost of 400 kV S/C TL	₹ lakh/km
1.	400 kV D/C TL	1.39 X
2.	220 kV D/C TL	0.57 X
3.	220 kV S/C TL	0.36 X
4.	132 kV D/C TL	0.43 X
5.	132 kV S/C TL	0.31 X

26. Therefore, for arriving at the costs of transmission lines of other voltage levels and circuit configurations, the average transmission line cost data shall be multiplied by the factors illustrated in the above table. Lower voltage levels can be treated as part of 132 kV. The above table contemplates Twin Moose conductor which is widely used in States' transmission lines.

27. Based on respective year end data, average transmission line length during the year has been worked out. Difference between a particular year's average transmission line length figures and that for the immediate preceding year provides us the transmission line length added during that year. Average gross block corresponding to transmission lines has been divided by the average transmission line length to arrive at the Average Cost of transmission line (in ₹ lakh per ckt-km) during the year. Thus, considering the year of COD of a State's ISTS line and its ckt-km, its cost would be worked out by relating it to PGCIL's transmission line cost during that year. Although the Commission has relied on PGCIL's Annual Reports, there are certain deviations in the cost data worked out. PGCIL was incorporated in 1980-90 and the transmission assets of NTPC, NHPC, NEEPCO etc were taken over by PGCIL by mid 1991-92. Thus, as the base data for these years was not available, the corresponding average cost of transmission line could not be worked out. The average cost from 1992-93 onwards up to 2013-14 shows an increasing trend at a CAGR of 5.17%. Therefore, for the years 1989-90, 1990-91 and 1991-92, the average cost of transmission line has been back derived considering the 1992-93 average cost. Similarly, abnormal dip/spikes in the transmission line cost for the years 1996-97, 2001-02 and 2004-05 has been corrected by considering the average values of the transmission line costs in the immediate preceding and succeeding years.

28. While calculating tariff, the following has been considered:

- (a) Useful life of the transmission line shall be deemed to be 25 years.
- (b) Prevailing depreciation rates as per the CERC (Terms & Conditions of Tariff) Regulations, 2014 shall be considered uniformly for all the previous tariff periods so as to do away with the Advance Against Depreciation which was in vogue during earlier tariff periods. Notwithstanding the depreciation considered as recovered earlier, for the



*purpose of these tariff calculations, remaining depreciable value shall be spread over the remaining useful life of the transmission line, where the elapsed life is more than or equal to 12 years.*

*(c) Normative Debt-Equity ratio shall be 70:30.*

*(d) Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year.*

*(e) Rate of Interest on normative loan shall be the weighted average rate of interest as derived on the basis of PGCIL's Balance Sheet.*

*(f) In order to avoid complexity, grossing up of rate of Return on Equity with tax rate is being dispensed with.*

*(g) Bank rate as defined in 2014 Tariff Regulations as on 1.4.2014 shall be applied for calculating the rate of interest on working capital on normative basis.*

*(h) O & M Expenses as per the 2014 Tariff Regulations shall be considered.*

*(i) Where the life of transmission line is more than or equal to 25 years as on 1.4.2014, only O & M Expenses and IWC shall be allowed in lieu of complete tariff."*

29. The Appellate Tribunal for Electricity (APTEL), vide its common judgement dated 14.11.2022 in Appeal Nos. 267 and 274 of 2018 filed by RRVPNL and Appeal No. 415 of 2019 filed by MPPTCL had set aside the abovementioned methodology of allowing the tariff for the deemed ISTS lines reckoning their useful life as 25 years. The APTEL, in the said judgment, had observed that the useful life of the State-owned Deemed ISTS lines shall be the same as for the ISTS lines specified in the 2014 Tariff Regulations, which is 35 years. The relevant portions of the said judgment of APTEL are as follows:

*"30. Accordingly, as observed above, it is opined that the decision of the Central Commission for considering the useful life of the State owned Deemed ISTS lines as 25 years is not correct. The useful life of the subject transmission lines shall be the same as for the ISTS lines as specified in the Tariff Regulations 2014 and the Sharing Regulations, 2010 which is 35 years.*

#### ORDER

*For foregoing reasons as stated supra, we are of the considered view that the captioned Appeal No. 267 of 2018, Appeal No. 274 of 2018 and Appeal No. 415 of 2019 have merit and are allowed.*

*The impugned orders dated 20.06.2018 in Petition No. 215/TT/2017, dated 04.05.2018 in Petition No.112/TT/2017 and dated 19.12.2017 in Petition No. 88/TT/2017 read with the order dated 12.06.2019 in Review Petition 11/RP/2018 passed by the Central Electricity Regulatory Commission are set aside.*

*The Central Electricity Regulatory Commission is directed to revisit the impugned orders and pass the consequential orders in accordance with the observations made in the foregoing paragraphs."*

30. Being aggrieved with the APTEL's common judgment dated 14.11.2022 in Appeal Nos. 267 of 2018 and 274 of 2018, RRVPNL filed Review Petitions before the





APTEL as Review Petition Nos. 12 of 2022 and 13 of 2022, respectively. The grounds for review as recorded by the APTEL in its judgment dated 6.7.2023 are as follows:

*“4. The Appeal Nos. 267 & 274 of 2018 were filed assailing the Impugned Orders passed by the Central Commission on two issues that is 1) consideration of the useful life of the Deemed Inter-State Transmission System (‘ISTS’) Lines to be 25 years instead of the 35 years as prescribed in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 (‘Tariff Regulations, 2014’), and 2) direction to the Review Petitioner to file a fresh Petition in respect of ISTS lines on the purported ground that the data in the prescribed format (Line- wise format) was not provided.*

*5. However, while passing the judgment dated 14.11.2022, this Tribunal allowed the appeals to the extent of aforementioned issue no. 1), also noting that the Issue mentioned at 2) is not being pressed and accordingly, no finding has been passed on this issue, hence the captioned Review Petitions limited to this extent.*

*7. As seen from above, the Review Petitioner herein i.e. the Appellant in 267 & 274 of 2018 has assailed both the issues in the said appeals, as such, both the issues required adjudication, therefore, the Review Petitions have merit and justify to be allowed for judicious conclusion of the appeals nos. 267 & 274 of 2018.*

*8. As the second issue assailed by the Appellant in Appeal Nos. 267 & 274 of 2018 has not been considered and decided, is an error which is evident on a mere relook at the prayers made in the aforesaid appeals and the written submissions placed on record by the Appellant, and does not require re-examination or detailed discussions.*

*9. Therefore, we find it most appropriate to review the earlier judgment of this Tribunal.”*

31. The APTEL, vide judgment dated 6.7.2023 allowed Review Petition No. 12 of 2022 and Review Petition No. 13 of 2022 filed by RRVPNL, while considering the similar issue raised by MPPTCL in Appeal No. 415 of 2019, remanded back Petition No. 215/TT/2017, Petition No. 112/TT/2017 and Petition No. 88/TT/2017 along with Review Petition No. 11/RP/2018 (in Petition No. 88/TT/2017) for reconsideration of the Commission. The extant portion of the judgment is as follows:

**“ORDER**

*For the foregoing reasons as stated above, we are of the considered view that the Review Petitions have merit and are allowed, the earlier judgment dated 14.11.2022 passed by this Tribunal in Appeal Nos. 267 & 274 of 2018 is amended to the extent as concluded above.*

*The orders dated 20.06.2018 in Petition No. 215/TT/2017, dated 04.05.2018 in Petition No.112/TT/2017 and dated 19.12.2017 in Petition No. 88/TT/2017 read with the order dated 12.06.2019 in Review Petition 11/RP/2018 passed by the Central Electricity Regulatory Commission are set aside.*



*The Central Commission shall pass consequential orders by considering the useful life of the State owned Deemed ISTS lines same as for the ISTS lines as specified in the Tariff Regulations 2014 and the Sharing Regulations, 2010 which is 35 years and determining the tariff in accordance with the Regulations specified.*

*The Review Petitions alongwith IAs, if any, are disposed of accordingly.”*

32. In terms of the directions of APTEL in the judgment dated 14.11.2022 in Appeal No.267 of 2018 and batch matters and the subsequent judgment dated 6.7.2023 in Review Petition Nos. 12 and 13 of 2022, we have considered the useful life of the transmission lines as 35 years. Accordingly, we have modified the methodology adopted by us earlier for approving the transmission charges for the transmission lines connecting two States/ deemed ISTS lines considering the useful life of the transmission lines as 35 years. For determination of the transmission charges of the assets which have not completed their 35 years of service as on 1.4.2014, the capital cost of the transmission lines is derived from FY 1979-80 onwards till 31.3.2014. As per the earlier methodology, the capital cost has been approved by the Commission from FY 1989-90 onwards till 31.3.2014. Further, in the earlier methodology, due to the unavailability of the base data for the FY 1989-90, FY 1990-91, and FY 1991-92, the average cost of transmission lines has been back derived considering the average cost from FY 1992-93 onwards up to FY 2013-14 at a Compound Annual Growth Rate (CAGR) of 5.17%. The methodology for deriving the average cost of transmission lines for FY 1989-90, FY 1990-91 and FY 1991-92 has been extrapolated backwards to derive the average cost of transmission lines for the FY 1979-80 to FY 1988-89. Accordingly, the average capital cost of the transmission lines for the FY 1979-80, FY 1980-81, FY 1981-82, FY 1982-83, FY 1983-84, FY 1984-85, FY 1985-86, FY 1986-87, FY 1987-88 and FY 1988-89 has been back derived by applying the Compound Annual Growth Rate (CAGR) factor of 5.17%. The capital cost of the transmission lines, which have not completed 35 years, is worked out as per the said methodology.



33. Accordingly, the completed useful life of the transmission assets is as follows:

Asset	Name of the line	Connecting States	COD	Useful life of 35 years completed as on	Whether useful life of 35 years completed as on 31.3.2014 or not	
Asset-I	220 kV Kalmeshwar-Pandurna S/C line	Maharashtra-Madhya Pradesh	4.11.1988	4.11.2023	-	No
Asset-II	220 kV Mudshingi-Amona S/C line	Maharashtra-Goa	22.6.1981	22.6.2016	-	No
Asset-III	220 kV Tillari-Amona-2 S/C line	Maharashtra-Goa	11.1.1978	11.1.2013	Yes	-
Asset-IV	220 kV Nasik-Navsari-1 D/C line	Maharashtra-Gujarat	31.5.1977	31.5.2012	Yes	-
Asset-V	220 kV Nasik-Navsari-2 D/C line	Maharashtra-Gujarat	28.1.1989	28.1.2024	-	No
Asset-VI	220 kV Kolhapur-Chikkodi Circuit-I S/C line	Maharashtra-Karnataka	1.11.1970	1.11.2005	Yes	-
Asset-VII	220 kV Kolhapur-Chikkodi Circuit-II S/C line	Maharashtra-Karnataka	1.11.1970	1.11.2005	Yes	-
Asset-VIII	400 kV SSP-Dhule Ckt-1 S/C line	Maharashtra-Gujarat	13.12.1998	13.12.2033	-	No
Asset-IX	400 kV SSP-Dhule Ckt-2 S/C line	Maharashtra-Gujarat	22.12.1998	22.12.2033	-	No

34. According to the above table, Asset-III, Asset-IV, Asset-VI, and Asset-VII have completed their useful lives of 35 years, while Asset-I, Asset-II, Asset-V, Asset-VIII, and Asset-IX have not completed their useful lives of 35 years as on 31.3.2014.

35. In view of the above, the seven transmission assets have been categorized into three groups, i.e., transmission assets are those that have already completed 35 years of their useful life as on 31.3.2014 (Asset-III, Asset-IV, Asset-VI, and Asset-VII) [Group A]; transmission assets which are completing their useful lives of 35 years during the 2014-19 tariff period (Asset-II) [Group B] and the transmission assets which are completing their useful life of 35 years beyond 31.3.2019 (Asset-I, Asset-V, Asset-VIII, and Asset-IX) Group -C).



## Truing up of transmission tariff for the 2014-19 tariff period

36. The details of the tariff claimed by the Petitioner of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	7.20	7.45	7.70	7.95	8.20
Asset-II	3.84	3.97	4.10	4.24	4.37
Asset-III	6.39	6.62	6.84	7.06	9.45
Asset-IV	36.74	41.77	42.54	43.08	59.81
Asset-V	36.11	40.61	41.44	42.05	60.03
Asset-VI	3.28	3.40	3.51	3.63	3.74
Asset-VII	5.12	5.29	5.47	5.65	6.94
Asset-VIII	343.37	308.87	315.98	320.65	324.19
Asset-IX	343.37	308.87	315.98	320.65	324.19

(₹ in lakh)

Asset-I	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on working capital	0.38	0.39	0.40	0.42	0.43
O&M Expenses	6.83	7.06	7.30	7.54	7.77
Total	7.20	7.45	7.70	7.95	8.20

(₹ in lakh)

Asset-II	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working Capital	0.20	0.21	0.21	0.22	0.23
O&M Expenses	3.64	3.76	3.89	4.01	4.14
Total	3.84	3.97	4.10	4.24	4.37

(₹ in lakh)

Asset-III	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0	0	0	0	1.22
Interest on Loan	0	0	0	0	0.46
Return on Equity	0	0	0	0	0.44
Interest on Working Capital	0.33	0.35	0.36	0.37	0.43
O&M Expenses	6.06	6.27	6.48	6.69	6.90
Total	6.39	6.62	6.84	7.06	9.45

(₹ in lakh)

Asset-IV	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1.84	3.68	3.68	3.68	12.60
Interest on Loan	1.44	2.62	2.18	1.66	4.64
Return on Equity	1.38	2.23	2.30	2.31	5.54
Interest on Working Capital	1.78	1.93	1.98	2.02	2.44
O&M Expenses	30.30	31.30	32.40	33.40	34.60
Total	36.74	41.77	42.54	43.08	59.81



(₹ in lakh)					
<b>Asset-V</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	1.60	3.20	3.20	3.20	12.78
Interest on Loan	1.25	2.28	1.89	1.44	4.72
Return on Equity	1.20	1.94	2.00	2.01	5.48
Interest on Working Capital	1.77	1.90	1.95	2.00	2.44
O&M Expenses	30.30	31.30	32.40	33.40	34.60
<b>Total</b>	<b>36.11</b>	<b>40.61</b>	<b>41.44</b>	<b>42.05</b>	<b>60.03</b>

(₹ in lakh)					
<b>Asset-VI</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working Capital	0.17	0.18	0.18	0.19	0.20
O&M Expenses	3.11	3.22	3.33	3.44	3.54
<b>Total</b>	<b>3.28</b>	<b>3.40</b>	<b>3.51</b>	<b>3.63</b>	<b>3.74</b>

(₹ in lakh)					
<b>Asset-VII</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	0	0	0	0	0.62
Interest on Loan	0	0	0	0	0.24
Return on Equity	0	0	0	0	0.23
Interest on Working Capital	0.27	0.28	0.29	0.30	0.33
O&M Expenses	4.85	5.02	5.18	5.35	5.52
<b>Total</b>	<b>5.12</b>	<b>5.29</b>	<b>5.47</b>	<b>5.65</b>	<b>6.94</b>

(₹ in lakh)					
<b>Asset-VIII</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	51.04	51.04	51.04	51.04	51.04
Interest on Loan	4.28	0.68	0.00	0.00	0.00
Return on Equity	176.77	143.12	147.24	148.15	147.80
Interest on Working Capital	10.89	10.22	10.49	10.70	10.90
O&M Expenses	100.39	103.80	107.21	110.76	114.45
<b>Total</b>	<b>343.37</b>	<b>308.87</b>	<b>315.98</b>	<b>320.65</b>	<b>324.19</b>

(₹ in lakh)					
<b>Asset-IX</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	51.04	51.04	51.04	51.04	51.04
Interest on Loan	4.28	0.68	0.00	0.00	0.00
Return on Equity	176.77	143.12	147.24	148.15	147.80
Interest on Working Capital	10.89	10.22	10.49	10.70	10.90
O&M Expenses	100.39	103.80	107.21	110.76	114.45
<b>Total</b>	<b>343.37</b>	<b>308.87</b>	<b>315.98</b>	<b>320.65</b>	<b>324.19</b>

**Group-A:**

37. Assets-III and IV, Assets-VI, and Asset-VII have completed their useful life of 35 years as on 31.3.2014.



38. The Petitioner, vide its affidavit dated 23.4.2021 and Auditor's Certificate dated 10.3.2021, has claimed the following Additional Capital Expenditure (ACE) in respect of Assets-III and IV:

Assets						(₹ in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19	Total 2014-19
Asset-III	0.00	0.00	0.00	0.00	14.87	14.87
Asset-IV	38.89	0.00	0.00	0.00	108.99	147.88

39. The Petitioner has submitted the following justifications for the ACE claimed towards Assets-III and IV for the 2014-19 tariff period, and the same are as follows:

**Asset-III:**

(i) Minor expenditure incurred with respect to Asset-III is on account of earth-wire replacement work as the asset was aged and damaged. Specifically, the 220 kV Tillari-Amona-2 S/C line, with a route length of 30 km, was commissioned on 11.1.1978. This line traverses urban, rural, agricultural, and forest areas. During routine patrols, it was observed that the earth wire on these lines is rusted and damaged at multiple locations, leading to frequent and unnecessary trippings. To mitigate these issues and reduce trippings, the earth wire replacement has been included as part of the Life Extension Scheme.

(ii) The ACE incurred pertains to the asset, which has already completed its useful life of 25 years. As these expenditures are capital in nature and not part of O&M Expenses, the Petitioner seeks to recover these costs through transmission charges, considering that the expenditures are fully depreciated within the 2019-24 tariff period. The expenditure was considered fully depreciated during both the 2014-19 and 2019-24 tariff periods in order to prevent the beneficiaries from the burden of loading the same for a further 25 years in terms of depreciation, normative IoL, RoE, and IWC, which will be more than proposed in the present Petition.



**Asset-IV:**

(i) The 220 kV Nashik- Navsari Circuit-1 was commissioned on 31.5.1977. The said 220 kV D/C line serves as a 2<sup>nd</sup> source for the Nashik Ring main Sub-stations. During the years 2013-14 and 2014-15, a significant number of trippings were observed on the Navsari Lines. To address this issue, the Petitioner implemented a scheme to convert Single Suspension Normal (SSN) to Double Suspension Normal (DSN) and Single Tension Normal (STN) to Double Tension Normal (DTN), which led to a reduction in trippings up until FY 2017-18. However, trippings were again observed in 2018-19 and 2019-20. The Petitioner observed that more than three trippings on a single line are classified as frequent. To further mitigate the tripping issue, the Petitioner replaced the disc insulators with porcelain long-rod insulators. This measure effectively reduced the number of trippings in the year 2020-21. The tripping data for the line during these years is detailed as follows:

Tripping data		
Sl. No.	FY	220 kV Nashik-Navsari-1 D/C line
1	2013-14	6
2	2014-15	13
3	2015-16	11
4	2016-17	6
5	2017-18	1
6	2018-19	9
7	2019-20	7
8	2020-21	0

(ii) The Nashik-Navsari line runs through diverse terrains, including industrial, urban, and rural areas with various highway and river crossings. Many disc insulators were found broken or damaged due to ageing. During patrolling, it was observed that many of the disc insulators were either broken or damaged due to ageing. At many places, dust was accumulated on the insulators and rusting near the ball socket, and deterioration was observed. Such abnormalities



resulted in the de-capping of the disc insulator string, which in turn caused breakdowns. At some of the locations, the damaged/ faulty disc insulators were replaced by porcelain disc insulators during breakdown and tripping and also by availing of an outage. However, to avoid further tripping, it was necessary to replace the existing insulator. After analysis of the past tripping, it was noticed that the lines tripped mostly due to a flash over the disc insulator. It was observed that due to continuous variation in system voltage, dust deposition, and some local unavoidable reasons, the insulators got flashover. The insulating property of the disc insulator was found to be weak due to ageing. Tripping also caused a voltage dip in the system, which adversely affected the connected loads.

(iii) To mitigate the trippings, the Petitioner proposed replacing the disc insulator strings with porcelain long rod insulators. This upgrade has enhanced system reliability and availability. To replace the old equipment and maintain line availability amidst the increasing load demands, the said expenditure was deemed essential.

40. The Petitioner has claimed an ACE of ₹14.87 lakh for the FY 2018-19 in the case of Asset-III on account of earth wire replacement work as the assets were aged and damaged. The Petitioner has claimed an ACE of ₹38.89 lakh for the FY 2014-15 and ₹108.99 lakh for the FY 2018-19 in the case of Asset-IV on account of replacing the disc insulator with a porcelain long rod insulator to avoid tripping.

41. With respect to ACE, we think it proper to refer to the relevant extracts of Regulation 14(3)(ix) of the 2014 Tariff Regulations, which are as under:

*“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

.....





*(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system;”*

42. We have considered the submissions of the Petitioner.

43. On perusal of the record, it is observed that the Petitioner has proposed to replace the earth wire in the case of Asset-III and replace the disc insulator with a porcelain long rod insulator in the case of Asset-IV on its own. It is observed that both the assets, Assets-III and IV, have completed their useful life of 35 years, and the Petitioner has claimed additional capitalization for them. We are of the view that before proposing any additional capitalization beyond the useful life of the transmission assets, the same should first be discussed and agreed upon bilaterally by the parties and, subsequently, needs to be approved by the respective RPCs. Considering the peculiar facts and circumstances of the case, the additional capitalization claimed by the Petitioner is being considered in the present Petition. However, in the future, the Petitioner is directed to seek prior approval from both the States and the respective RPCs before claiming ACE beyond the useful life of the transmission assets.

44. The ACE claimed by the Petitioner towards a replacement of earth wire in the case of Asset-III and replacement of disc insulators with porcelain insulators in the case of Asset-IV is allowed as per Regulation 14(3)(ix) of the 2014 Tariff Regulations. The allowed ACE towards Assets-III and IV is as follows:

Assets	(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total 2014-19
Asset-III	0.00	0.00	0.00	0.00	14.87	14.87
Asset-IV	38.89	0.00	0.00	0.00	108.99	147.88



**Group-B:**

45. The COD of Asset-II, the 220 kV Mudshingi-Amona S/C line, is 22.6.1981. As on 21.6.2016, it had completed a useful life of 35 years. Therefore, all the components of the transmission charges were allowed for Asset-II from 1.4.2014 to 21.6.2016. In respect of Asset-II, only IWC and O&M Expenses were allowed from 22.6.2016 to 31.3.2019.

**Group C:**

46. Asset-I, Asset-V, Asset-VIII, and Asset-IX did not complete their useful life of 35 years till 31.3.2019. Therefore, all the components of transmission charges are allowed for Asset-I, Asset-V, Asset-VIII, and Asset-IX.

47. In the case of Asset-V, the Petitioner has claimed the following ACE for the 2014-19 tariff period, and the same is as follows:

Asset	(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total 2014-19
Asset-V	33.75	0.00	0.00	0.00	117.16	150.91

48. The Petitioner has submitted that the 220 kV Nasik-Navsari Circuit-2 was commissioned on 28.1.1989. The said 220 kV D/C line serves as 2<sup>nd</sup> source for the Nasik Ring main Sub-stations. During FY 2013-14 and FY 2014-15, a significant number of trippings were observed on the Navsari Lines. To address this issue, the Petitioner implemented a scheme to convert Single Suspension Normal (SSN) to Double Suspension Normal (DSN) and Single Tension Normal (STN) to Double Tension Normal (DTN) was carried out by MSETCL which led to a reduction in trippings until FY 2017-18. However, trippings were again observed in FY 2018-19 and FY 2019-20. The Petitioner observed that more than three trippings on a single line are classified as frequent transmission lines. To further mitigate the tripping issue, the Petitioner replaced the disc insulators with porcelain long-rod insulators. This measure effectively reduced



the number of trippings in the year 2020-21. The tripping data for the line during these years is as follows:

Tripping data		
Sl. No.	FY	220 kV Nashik-Navsari-2 D/C line
1	2013-14	7
2	2014-15	13
3	2015-16	9
4	2016-17	8
5	2017-18	4
6	2018-19	7
7	2019-20	4
8	2020-21	1

49. The Petitioner has further submitted that the Nashik-Navsari line runs through hilly industrial, urban/rural populated areas, and there are various highways/ river crossings involved in the entire line area. During patrolling, it was observed that many of the disc insulators were either broken or damaged due to ageing. At many places, dust was accumulated on the insulators and rusting near the ball socket, and deterioration was observed. Such abnormalities resulted in the de-capping of the disc insulator string, which in turn caused breakdowns. At some of the locations, the damaged/ faulty disc insulator was replaced by a porcelain disc insulator during breakdown and tripping and also by availing of an outage. However, to avoid further tripping, it was necessary to replace the existing insulator. After examination of the past trippings, it was noticed that the lines had tripped mostly due to flash over of the disc insulator. It was observed that due to continuous variation in system voltage, dust deposition, and some local unavoidable reasons, the insulators got flashover. The insulating property of the disc insulator was found to be weak due to ageing. Tripping also caused a voltage dip in the system, which adversely affected the connected loads. Hence, to reduce trippings, the replacement of disc insulator string with a porcelain Long Rod Insulator has been proposed. The replacement has increased the system's reliability and availability. In order to replace the old equipment with the new one and to



maintain the availability of the line amid the increasing load scenario, the expenditure on this count was unavoidable.

50. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner towards replacement of disc insulators with porcelain insulators in case of Asset-V is allowed as per Regulation 14(3)(ix) of the 2014 Tariff Regulations. The allowed ACE towards Asset-V is as follows:

Asset						(₹ in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19	Total 2014-19
Asset-V	33.75	0.00	0.00	0.00	117.16	150.91

51. It is observed that the Petitioner has sought tariff for Asset-VIII and Asset-IX, i.e., 400 kV SSP-Dhule Circuit-1 S/C line and 400 kV SSP-Dhule Circuit-2 S/C line, respectively, with the COD of Circuit-1 as 13.12.1998 and the COD of Circuit-2 as 22.12.1998, with length of each circuit as 142 km. We are of the view that 400 kV SSP-Dhule is a Double Circuit transmission line, and its line length for tariff purposes should be considered as 142 km for the entire D/C configuration instead of a Single Circuit line. Accordingly, the tariff for Asset-VIII is allowed up to 21.12.1998 as an S/C line, and from 22.12.1998, the tariff for Asset-VIII is not allowed under S/C. From 22.12.1998, the tariff can be granted for Assets-VIII and IX for 400 kV SSP-Dhule as a D/C transmission line with a line length of 142 km.

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

52. The O&M Expenses claimed by the Petitioner in respect of the transmission assets are as follows:

Assets						(₹ in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I 220 kV Kalmeshwar-Pandurna S/C line ( 33.8 km)	6.83	7.06	7.30	7.54	7.77	



Asset-II 220 kV Mudshingi-Amona S/C line (18 km)	3.64	3.76	3.89	4.01	4.14
Asset-III 220 kV Tillari-Amona-2 S/C line (30 km)	6.06	6.27	6.48	6.69	6.90
Asset-IV 220 kV Nasik-Navsari-1 D/C line (100 km)	30.30	31.30	32.40	33.40	34.60
Asset-V 220 kV Nasik-Navsari-2 D/C line (100 km)	30.30	31.30	32.40	33.40	34.60
Asset-VI 220 kV Kolhapur-Chikkodi Circuit-1 S/C line (15.41 km)	3.11	3.22	3.33	3.44	3.54
Asset-VII 220 kV Kolhapur-Chikkodi Circuit-2 S/C line (24 km)	4.85	5.02	5.18	5.35	5.52
Asset-VIII and Asset-IX 400 kV SSP-Dhule D/C line (142 km)	100.39	103.80	107.21	110.76	114.45

53. The O&M Expenses norms under Regulation 29(4) of the 2014 Tariff Regulations for the AC lines are as follows:

*“(4) Transmission system (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:*

	2014-15	2015-16	2016-17	2017-18	2018-19
Single circuit (Single conductor)	0.202	0.209	0.216	0.223	0.23
Double circuit (Single conductor)	0.303	0.313	0.324	0.334	0.346
Double circuit (Twin and Triple conductor)	0.707	0.731	0.755	0.780	0.806

”

54. The tariff is approved for Assets-VI and VII up to 31.5.2017. However, no tariff has been granted to Assets-VI and VII from 1.6.2017 onwards since they were no longer in use from that date. Accordingly, the O&M Expenses for Assets-VI and VII are allowed up to 31.5.2017.



55. The O&M Expenses have been worked out in respect of the transmission assets as per the norms specified under Regulation 29(4) of the 2014 Tariff Regulations, and the same are as follows:

(₹ in lakh)					
Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I 220 kV Kalmeshwar-Pandurna S/C line ( 33.8 km)	6.83	7.06	7.30	7.54	7.77
Asset-II 220 kV Mudshingi-Amona S/C line (18 km)	3.64	3.76	3.89	4.01	4.14
Asset-III 220 kV Tillari-Amona-2 S/C line (30 km)	6.06	6.27	6.48	6.69	6.9
Asset-IV 220 kV Nasik-Navsari-1 D/C line (100 km)	30.3	31.3	32.4	33.4	34.6
Asset-V 220 kV Nasik-Navsari-2 D/C line (100 km)	30.3	31.3	32.4	33.4	34.6
	2014-15	2015-16	2016-17	1.4.17 to 31.5.17	-
Asset-VI 220 kV Kolhapur-Chikkodi Circuit-1 S/C line (15.41 km)	3.11	3.22	3.33	0.56	-
Asset-VII 220 kV Kolhapur-Chikkodi Circuit-2 S/C line (24 km)	4.85	5.02	5.18	0.88	-
Asset-VIII and Asset-IX 400 kV SSP-Dhule D/C line (142 km)	100.39	103.80	107.21	110.76	114.45

56. Based on the conclusions of the above discussions, we now discuss the other components of the tariff of the transmission assets to truing up the tariff for the 2014-19 period.

### **Depreciation**

57. The depreciation is allowed for the transmission assets up to their useful life of 35 years. Accordingly, depreciation approved for Assets-I to IX for the 2014-19 tariff period is as follows:



(₹ in lakh)

<b>Asset-I</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	310.52	310.52	310.52	310.52	310.52
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	310.52	310.52	310.52	310.52	310.52
Average Gross Block	310.52	310.52	310.52	310.52	310.52
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	279.47	279.47	279.47	279.47	279.47
Elapsed Life at the beginning of the year	25.00	26.00	27.00	28.00	29.00
Balance useful life of the asset	10.00	9.00	8.00	7.00	6.00
<b>Depreciation</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>
Cumulative Depreciation	247.10	250.69	254.29	257.89	261.48
Remaining Depreciable value	35.97	32.37	28.77	25.18	21.58

(₹ in lakh)

<b>Asset-II</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	116.20	116.20	116.20	116.20	116.20
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	116.20	116.20	116.20	116.20	116.20
Average Gross Block	116.20	116.20	116.20	116.20	116.20
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	104.58	104.58	104.58	104.58	104.58
Elapsed Life at the beginning of the year	32.00	33.00	34.00	35.00	36.00
Balance useful life of the asset	3.00	2.00	1.00	0.00	0.00
<b>Depreciation</b>	<b>1.35</b>	<b>1.35</b>	<b>1.35</b>	<b>0.00</b>	<b>0.00</b>
Cumulative Depreciation	101.89	103.23	104.58	104.58	104.58
Remaining Depreciable value	4.04	2.69	1.35	0.00	0.00

(₹ in lakh)

<b>Asset-III</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	0.00	0.00	0.00	0.00	0.00
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	14.87
Gross Block total	0.00	0.00	0.00	0.00	14.87
Average Gross Block	0.00	0.00	0.00	0.00	7.44
Rate of Depreciation (in %)	-	-	-	-	5.28
Depreciable value	0.00	0.00	0.00	0.00	13.38
Elapsed Life at the beginning of the year	36.00	37.00	38.00	39.00	40.00
Balance useful life of the asset	0.00	0.00	0.00	0.00	0.00
<b>Depreciation</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.39</b>
Cumulative Depreciation	0.00	0.00	0.00	0.00	0.39
Remaining Depreciable value	0.00	0.00	0.00	0.00	12.99



(₹ in lakh)

<b>Asset-IV</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	0.00	38.89	38.89	38.89	38.89
Addition due to Additional Capitalization	38.89	0.00	0.00	0.00	108.99
Gross Block total	38.89	38.89	38.89	38.89	147.88
Average Gross Block	19.45	38.89	38.89	38.89	93.39
Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable value	17.50	35.00	35.00	35.00	84.05
Elapsed Life at the beginning of the year	36.00	37.00	38.00	39.00	40.00
Balance useful life of the asset	0.00	0.00	0.00	0.00	0.00
<b>Depreciation</b>	<b>1.03</b>	<b>2.05</b>	<b>2.05</b>	<b>2.05</b>	<b>4.93</b>
Cumulative Depreciation	1.03	3.08	5.13	7.19	12.12
Remaining Depreciable value	17.50	33.97	31.92	29.87	76.86

(₹ in lakh)

<b>Asset-V</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	1454.60	1488.35	1488.35	1488.35	1488.35
Addition due to Additional Capitalization	33.75	0.00	0.00	0.00	117.16
Gross Block total	1488.35	1488.35	1488.35	1488.35	1605.51
Average Gross Block	1471.48	1488.35	1488.35	1488.35	1546.93
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	1324.33	1339.52	1339.52	1339.52	1392.24
Elapsed Life at the beginning of the year	25.00	26.00	27.00	28.00	29.00
Balance useful life of the asset	10.00	9.00	8.00	7.00	6.00
<b>Depreciation</b>	<b>18.37</b>	<b>20.05</b>	<b>20.05</b>	<b>20.05</b>	<b>28.84</b>
Cumulative Depreciation	1159.03	1179.08	1199.14	1219.19	1248.03
Remaining Depreciable value	183.67	180.49	160.43	140.38	173.05

(₹ in lakh)

<b>Assets-VIII &amp; IX</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Block	3462.77	3462.77	3462.77	3462.77	3462.77
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	3462.77	3462.77	3462.77	3462.77	3462.77
Average Gross Block	3462.77	3462.77	3462.77	3462.77	3462.77
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	3116.49	3116.49	3116.49	3116.49	3116.49
Elapsed Life at the beginning of the year	15	16	17	18	19
Balance useful life of the asset	20	19	18	17	16
<b>Depreciation</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>
Cumulative Depreciation	2354.44	2394.55	2434.66	2474.77	2514.87
Remaining Depreciable value	802.16	762.05	721.94	681.83	641.73





### **Interest on Loan (“IoL”)**

58. The Petitioner has claimed the interest on a loan based on the weighted average rate of interest (WAROI) as per its audited books but has failed to submit any documents in support of WAROI and its transmission assets. However, as per the methodology, WAROI applicable to PGCIL for the respective year has been considered for calculation of interest on loan of the transmission assets in the present Petition.

59. The IOL is allowed for transmission assets up to 12 years. Since all the transmission assets have completed 12 years of life, IOL is allowed only on the Additional Capitalization in respect of Assets-III, IV, and V. Loan repayment with respect to additional capitalization for Asset-V is done purely through the depreciation stream of additional capitalization.

60. We have considered the Petitioner's submissions. IoL has been calculated in accordance with Regulation 26 of the 2014 Tariff Regulations. Accordingly, the trued-up IoL approved for Assets-III, IV and V for the 2014-19 tariff period is as follows:

(₹ in lakh)					
<b><u>Asset-III</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	0.00	0.00	0.00	0.00	0.00
Cumulative Repayment upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	10.41
Repayment during the year	0.00	0.00	0.00	0.00	0.39
Net Loan-Closing	0.00	0.00	0.00	0.00	10.02
Average Loan	0.00	0.00	0.00	0.00	5.01
Weighted Average Rate of Interest on Loan (in %)	0.0000	0.0000	0.0000	0.0000	7.5442
<b>Interest on Loan</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.38</b>

(₹ in lakh)					
<b><u>Asset-IV</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	0.00	27.22	27.22	27.22	27.22
Cumulative Repayment upto Previous Year	0.00	1.03	3.08	5.13	7.19
Net Loan-Opening	0.00	26.20	24.14	22.09	20.04



Addition due to Additional Capitalization	27.22	0.00	0.00	0.00	76.29
Repayment during the year	1.03	2.05	2.05	2.05	4.93
Net Loan-Closing	26.20	24.14	22.09	20.04	91.40
Average Loan	13.10	25.17	23.12	21.06	55.72
Weighted Average Rate of Interest on Loan (in %)	7.1141	7.1680	7.2104	7.2773	7.5442
<b>Interest on Loan</b>	<b>0.93</b>	<b>1.80</b>	<b>1.67</b>	<b>1.53</b>	<b>4.20</b>

(₹ in lakh)

<u>Asset-V</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	0.00	23.63	23.63	23.63	23.63
Cumulative Repayment upto Previous Year	0.00	1.52	4.73	7.93	11.14
Net Loan-Opening	0.00	22.11	18.90	15.69	12.49
Addition due to Additional Capitalization	23.63	0.00	0.00	0.00	82.01
Repayment during the year	1.52	3.21	3.21	3.21	11.99
Net Loan-Closing	22.11	18.90	15.69	12.49	82.51
Average Loan	11.05	20.50	17.30	14.09	47.50
Weighted Average Rate of Interest on Loan (in %)	7.1141	7.1680	7.2104	7.2773	7.5442
<b>Interest on Loan</b>	<b>0.79</b>	<b>1.47</b>	<b>1.25</b>	<b>1.03</b>	<b>3.58</b>

### Return on Equity (“RoE”)

61. The Petitioner has claimed RoE in respect of the transmission assets under Regulations 24 and 25 of the 2014 Tariff Regulations.

62. The Petitioner has claimed grossing up of ROE with an effective tax rate. However, based on the current methodology, ROE is allowed for the transmission assets without grossing up with tax rates, as is being done in the determination of similar natural ISTS Petitions.

63. The RoE tried up for the transmission assets for the 2014-19 period is as follows:

(₹ in lakh)

<u>Asset-I</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	93.16	93.16	93.16	93.16	93.16
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	93.16	93.16	93.16	93.16	93.16
Average Equity	93.16	93.16	93.16	93.16	93.16
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>



(₹ in lakh)

<b><u>Asset-II</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	34.86	34.86	34.86	0.00	0.00
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	34.86	34.86	34.86	0.00	0.00
Average Equity	34.86	34.86	34.86	0.00	0.00
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>5.40</b>	<b>5.40</b>	<b>1.21</b>	<b>0.00</b>	<b>0.00</b>

(₹ in lakh)

<b><u>Asset-III</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	0.00	0.00	0.00	0.00	0.00
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	4.46
Closing Equity	0.00	0.00	0.00	0.00	4.46
Average Equity	0.00	0.00	0.00	0.00	2.23
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.35</b>

(₹ in lakh)

<b><u>Asset-IV</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	0.00	11.67	11.67	11.67	11.67
Addition due to Additional Capitalization	11.67	0.00	0.00	0.00	32.70
Closing Equity	11.67	11.67	11.67	11.67	44.36
Average Equity	5.83	11.67	11.67	11.67	28.02
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>0.90</b>	<b>1.81</b>	<b>1.81</b>	<b>1.81</b>	<b>4.34</b>

(₹ in lakh)

<b><u>Asset-V</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	436.38	446.51	446.51	446.51	446.51
Addition due to Additional Capitalization	10.13	0.00	0.00	0.00	35.15
Closing Equity	446.51	446.51	446.51	446.51	481.65
Average Equity	441.44	446.51	446.51	446.51	464.08
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>68.42</b>	<b>69.21</b>	<b>69.21</b>	<b>69.21</b>	<b>71.93</b>

(₹ in lakh)

<b><u>Assets-VIII &amp; IX</u></b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Average Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Rate of Return on Equity (in %)	15.50	15.50	15.50	15.50	15.50
<b>Return on Equity</b>	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>



## Interest on Working Capital (“IWC”)

64. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations. IWC approved for transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)					
<u>Asset-I</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	1.02	1.06	1.10	1.13	1.17
O&M Expenses	0.57	0.59	0.61	0.63	0.65
Receivables	4.28	4.32	4.36	4.40	4.44
Total Working Capital	5.87	5.96	6.06	6.16	6.25
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>0.79</b>	<b>0.81</b>	<b>0.82</b>	<b>0.83</b>	<b>0.84</b>

(₹ in lakh)					
<u>Asset-II</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.55	0.56	0.58	0.60	0.62
O&M Expenses	0.30	0.31	0.32	0.33	0.35
Receivables	1.79	1.81	1.12	0.71	0.73
Total Working Capital	2.64	2.69	2.03	1.64	1.69
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>0.36</b>	<b>0.36</b>	<b>0.27</b>	<b>0.22</b>	<b>0.23</b>

(₹ in lakh)					
<u>Asset-III</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.91	0.94	0.97	1.00	1.04
O&M Expenses	0.51	0.52	0.54	0.56	0.58
Receivables	1.07	1.10	1.14	1.18	1.40
Total Working Capital	2.48	2.57	2.65	2.74	3.01
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>0.33</b>	<b>0.35</b>	<b>0.36</b>	<b>0.37</b>	<b>0.41</b>

(₹ in lakh)					
<u>Asset-IV</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	4.55	4.70	4.86	5.01	5.19
O&M Expenses	2.53	2.61	2.70	2.78	2.88
Receivables	5.82	6.47	6.64	6.79	8.38
Total Working Capital	12.89	13.77	14.20	14.59	16.46
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>1.74</b>	<b>1.86</b>	<b>1.92</b>	<b>1.97</b>	<b>2.22</b>

(₹ in lakh)					
<u>Asset-V</u>	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	4.55	4.70	4.86	5.01	5.19
O&M Expenses	2.53	2.61	2.70	2.78	2.88



Receivables	20.26	20.98	21.13	21.27	23.88
Total Working Capital	27.33	28.28	28.69	29.06	31.95
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>3.69</b>	<b>3.82</b>	<b>3.87</b>	<b>3.92</b>	<b>4.31</b>

(₹ in lakh)

<b>Asset-VI</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	0.47	0.48	0.50	0.08	0.00
O&M Expenses	0.26	0.27	0.28	0.05	0.00
Receivables	0.55	0.57	0.59	0.10	0.00
Total Working Capital	1.27	1.32	1.36	0.23	0.00
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>0.17</b>	<b>0.18</b>	<b>0.18</b>	<b>0.03</b>	<b>0.00</b>

(₹ in lakh)

<b>Asset-VII</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	0.73	0.75	0.78	0.13	0.00
O&M Expenses	0.40	0.42	0.43	0.07	0.00
Receivables	0.85	0.88	0.91	0.15	0.00
Total Working Capital	1.98	2.05	2.12	0.36	0.00
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>0.27</b>	<b>0.28</b>	<b>0.29</b>	<b>0.05</b>	<b>0.00</b>

(₹ in lakh)

<b>Assets-VIII &amp; IX</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	15.06	15.57	16.08	16.61	17.17
O&M Expenses	8.37	8.65	8.93	9.23	9.54
Receivables	51.95	52.55	53.15	53.77	54.42
Total Working Capital	75.37	76.77	78.16	79.62	81.13
Interest Rate (%)	13.50	13.50	13.50	13.50	13.50
Interest	<b>10.18</b>	<b>10.36</b>	<b>10.55</b>	<b>10.75</b>	<b>10.95</b>

### **Approved Annual Fixed Charges for the 2014-19 Tariff Period**

65. The trued-up Annual Fixed Charges (AFC) allowed for the transmission assets for the 2014-19 tariff period are summarized as follows:

(₹ in lakh)

<b>Asset-I</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3.60	3.60	3.60	3.60	3.60
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	14.44	14.44	14.44	14.44	14.44
Interest on Working Capital	0.79	0.81	0.82	0.83	0.84
O&M Expenses	6.83	7.06	7.30	7.54	7.77
<b>Total</b>	<b>25.66</b>	<b>25.90</b>	<b>26.15</b>	<b>26.41</b>	<b>26.65</b>



(₹ in lakh)

<b>Asset-II</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	1.35	1.35	1.35	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	5.40	5.40	1.21	0.00	0.00
Interest on Working Capital	0.36	0.36	0.27	0.22	0.23
O&M Expenses	3.64	3.76	3.89	4.01	4.14
<b>Total</b>	<b>10.75</b>	<b>10.87</b>	<b>6.72</b>	<b>4.23</b>	<b>4.37</b>

(₹ in lakh)

<b>Asset-III</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	0.00	0.00	0.00	0.00	0.39
Interest on Loan	0.00	0.00	0.00	0.00	0.38
Return on Equity	0.00	0.00	0.00	0.00	0.35
Interest on Working Capital	0.33	0.35	0.36	0.37	0.41
O&M Expenses	6.06	6.27	6.48	6.69	6.90
<b>Total</b>	<b>6.39</b>	<b>6.62</b>	<b>6.84</b>	<b>7.06</b>	<b>8.42</b>

(₹ in lakh)

<b>Asset-IV</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	1.03	2.05	2.05	2.05	4.93
Interest on Loan	0.93	1.80	1.67	1.53	4.20
Return on Equity	0.90	1.81	1.81	1.81	4.34
Interest on Working Capital	1.74	1.86	1.92	1.97	2.22
O&M Expenses	30.30	31.30	32.40	33.40	34.60
<b>Total</b>	<b>34.90</b>	<b>38.83</b>	<b>39.85</b>	<b>40.76</b>	<b>50.30</b>

(₹ in lakh)

<b>Asset-V</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	18.37	20.05	20.05	20.05	28.84
Interest on Loan	0.79	1.47	1.25	1.03	3.58
Return on Equity	68.42	69.21	69.21	69.21	71.93
Interest on Working Capital	3.69	3.82	3.87	3.92	4.31
O&M Expenses	30.30	31.30	32.40	33.40	34.60
<b>Total</b>	<b>121.57</b>	<b>125.85</b>	<b>126.78</b>	<b>127.61</b>	<b>143.27</b>

(₹ in lakh)

<b>Asset-VI</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.17	0.18	0.18	0.03	0.00
O&M Expenses	3.11	3.22	3.33	0.56	0.00
<b>Total</b>	<b>3.28</b>	<b>3.40</b>	<b>3.51</b>	<b>0.59</b>	<b>0.00</b>



(₹ in lakh)

<b>Asset-VII</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.27	0.28	0.29	0.05	0.00
O&M Expenses	4.85	5.02	5.18	0.88	0.00
<b>Total</b>	<b>5.12</b>	<b>5.30</b>	<b>5.47</b>	<b>0.93</b>	<b>0.00</b>

(₹ in lakh)

<b>Assets-VIII &amp; IX</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	40.11	40.11	40.11	40.11	40.11
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	161.02	161.02	161.02	161.02	161.02
Interest on Working Capital	10.18	10.36	10.55	10.75	10.95
O&M Expenses	100.39	103.80	107.21	110.76	114.45
<b>Total</b>	<b>311.69</b>	<b>315.29</b>	<b>318.89</b>	<b>322.63</b>	<b>326.53</b>

### **Determination of Annual Fixed Charges For The 2019-24 Tariff Period**

66. The details of annual transmission charges of the transmission assets claimed by the Petitioner for the 2019-24 tariff period are as follows:

(₹ in lakh)

<b>Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Asset-I	8.87	9.17	9.51	9.84	10.19
Asset-II	4.72	4.88	5.06	5.24	5.43
Asset-III	12.00	17.41	22.47	21.79	21.55
Asset-IV	76.47	99.08	120.04	116.28	115.09
Asset-V	77.83	104.60	129.43	124.95	123.35
Asset-VI	4.05	4.18	4.34	4.49	4.65
Asset-VII	8.43	11.45	14.33	14.02	13.98
Assets-VIII & IX (combined)	649.62	658.83	668.31	678.10	688.14

67. The particulars of the components of the tariff claimed by the Petitioner for the 2019-24 tariff period in respect of the transmission assets are as follows:

(₹ in lakh)

<b>Asset-I</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Depreciation</b>	0	0	0	0	0
<b>Interest on Loan</b>	0	0	0	0	0
<b>Return on Equity</b>	0	0	0	0	0
<b>Interest on Working capital</b>	0.37	0.38	0.40	0.41	0.43
<b>O&amp;M Expenses</b>	8.50	8.79	9.11	9.43	9.77
<b>Total</b>	<b>8.87</b>	<b>9.17</b>	<b>9.51</b>	<b>9.84</b>	<b>10.19</b>



(₹ in lakh)

Asset-II	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working capital	0.20	0.20	0.21	0.22	0.23
O&M Expenses	4.53	4.68	4.85	5.02	5.20
Total	4.72	4.88	5.06	5.24	5.43

(₹ in lakh)

Asset-III	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2.43	6.12	9.81	9.81	9.81
Interest on Loan	0.80	1.36	1.57	0.59	0.05
Return on Equity	0.84	1.65	2.45	2.45	2.45
Interest on working capital	0.39	0.48	0.56	0.56	0.56
O&M Expenses	7.55	7.80	8.09	8.37	8.67
Total	12.00	17.41	22.47	21.79	21.55

(₹ in lakh)

Asset-IV	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	21.52	37.52	53.52	53.52	53.52
Interest on Loan	6.73	8.05	7.85	2.60	0
Return on Equity	8.33	11.84	15.34	15.34	15.34
Interest on Working capital	2.19	2.57	2.92	2.91	2.92
O&M Expenses	37.70	39.10	40.40	41.90	43.30
Total	76.47	99.08	120.04	116.28	115.09

(₹ in lakh)

Asset-V	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	22.37	41.28	60.18	60.18	60.18
Interest on Loan	7.05	8.92	9.00	3.04	0.03
Return on Equity	8.50	12.65	16.79	16.79	16.79
Interest on Working capital	2.21	2.65	3.06	3.03	3.04
O&M Expenses	37.70	39.10	40.40	41.90	43.30
Total	77.83	104.60	129.43	124.95	123.35

(₹ in lakh)

Asset-VI	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0	0	0	0	0
Interest on Loan	0	0	0	0	0
Return on Equity	0	0	0	0	0
Interest on Working capital	0.17	0.17	0.18	0.19	0.19
O&M Expenses	3.88	4.01	4.16	4.30	4.45
Total	4.05	4.18	4.34	4.49	4.65

(₹ in lakh)

Asset-VII	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1.25	3.27	5.29	5.29	5.29
Interest on Loan	0.41	0.73	0.85	0.32	0.03
Return on Equity	0.43	0.87	1.32	1.32	1.32
Interest on Working capital	0.29	0.35	0.40	0.40	0.40
O&M Expenses	6.05	6.24	6.48	6.70	6.94
Total	8.43	11.45	14.33	14.02	13.98





(₹ in lakh)					
<b>Assets- VIII &amp; IX</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Depreciation</b>	102.08	102.08	102.08	102.08	102.08
<b>Interest on Loan</b>	0.00	0.00	0.00	0.00	0.00
<b>Return on Equity</b>	280.67	280.67	280.67	280.67	280.67
<b>Interest on Working capital</b>	16.66	17.07	17.47	17.88	18.27
<b>O&amp;M Expenses</b>	250.20	259.01	268.10	277.47	287.12
<b>Total</b>	<b>649.61</b>	<b>658.83</b>	<b>668.31</b>	<b>678.09</b>	<b>688.14</b>

68. The completed useful life of the transmission assets as on 31.3.2019 is as follows:

<b>Asset</b>	<b>Useful life of the asset as on 31.3.2019</b>
Asset-I 220 kV Kalmeshwar-Pandurna S/C line (33.8 km)	30 years, 4 months, and 27 days
Asset-II 220 kV Mudshingi-Amona S/C line (18 km)	37 years, 9 months and 9 days
Asset-III 220 kV Tillari-Amona-2 S/C line (30 km)	41 years, 2 months and 20 days
Asset-IV 220 kV Nasik-Navsari-1 D/C line (100 km)	41 years, 10 months and 0 day
Asset-V 220 kV Nasik-Navsari-2 D/C line (100 km)	30 years , 2 months and 3 days
Asset-VIII 400 kV SSP-Dhule Circuit-1 S/C line (142 km)	20 years, 3 months and 18 days
Asset-IX 400 kV SSP-Dhule Circuit-2 S/C line (142 km)	20 years, 3 months, and 9 days

\* Asset-VI and Asset-VII are not in use and therefore. no tariff is granted for them from 1.6.2017.

69. As stated above, the transmission charges have been worked out according to the new methodology approved by the Commission, considering the useful life of the transmission lines as 35 years. According to the new methodology, the capital cost has been derived, taking into consideration the length and configurations of the transmission line, the year of COD, and the rationalized cost of the year.

70. Assets-II, III, and IV have already completed thirty-five (35) years of useful life. Therefore, as per the Commission's new methodology, 'NIL' capital cost has been considered for the above-mentioned transmission assets. Only 'O&M Expenses' and IWC are allowable for Assets-II, III, and IV.



71. It is observed that the Petitioner has claimed an ACE with respect to Assets-III and IV, and the same will be dealt with in subsequent paragraphs.

72. Asset-I has completed a useful life of 35 years as on 3.11.2023. Therefore, all components of the transmission charges are allowed from 1.4.2019 up to 3.11.2023 except IOL. From 4.11.2023 onwards, only IWC and O&M Expenses are allowed for Asset-I.

73. Asset-V has completed a useful life of 35 years as on 27.1.2024. Therefore, all components of the transmission charges are allowed from 1.4.2019 up to 27.1.2024. From 28.1.2024 onwards, only IWC and O&M Expenses are allowed for Asset-V.

74. Assets-VIII and IX have not completed their useful life of 35 years during the 2019-24 tariff period. Therefore, all components of the transmission charges are allowed as per the aforesaid new methodology. We have already discussed above in this order that from 22.12.1998, the tariff can be granted for Assets-VIII and IX for 400 kV SSP-Dhule as a D/C transmission line with a line length of 142 km.

75. In view of the above, the seven transmission assets have been categorized into three groups, i.e., assets that have already completed 35 years of their useful life [Group-A: (Assets-II, III, and IV)], transmission assets that are completing their useful life of 35 years during the 2019-24 tariff period [Group-B: (Assets-I and V)], and, transmission assets which would complete their useful life of 35 years beyond 31.3.2024 [Group-C: (Assets-VIII and IX)]. Accordingly, the tariff is granted for the transmission assets in the above said three categories.

**Group-A:**

76. As stated above, only the O&M Expenses and IWC are allowed for the Asset-II.

77. Regulations 24 and 25 of the 2019 Tariff Regulations provide as follows:



**“24. Additional Capitalisation within the original scope and upto the cut-off date:**

(1) *The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) *Change in law or compliance of any existing law; and*
- (f) *Force Majeure events:*

*Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.*

(2) *The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.*

**25. Additional Capitalisation within the original scope and after the cut-off date**

(i) *The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) *Change in law or compliance of any existing law;*
- (c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) *Liability for works executed prior to the cut-off date;*
- (e) *Force Majeure events;*
- (f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) *Raising of ash dyke as a part of ash disposal system.*

(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) *The useful life of the assets 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 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”.

**Additional Capital Expenditure (ACE) for Assets-III and IV:**

78. The Petitioner vide affidavit dated 23.4.2021 has claimed the ACE with respect to Assets-III and IV, and the same are as follows:

<b>Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Total 2019-24</b>
Asset-III	0.00	28.68	28.68
Asset-IV	0.00	124.46	124.46

79. We have considered the submissions of the Petitioner. As discussed above in this order, the Petitioner shall seek approval from the RPCs for any ACE beyond the assets' useful life. Moreover, such ACE will be considered and approved on the basis of the recommendations made by the concerned RPC and after mutual agreement of both States.

80. The ACE claimed by the Petitioner towards replacement of earth wire in case of Asset-III and replacement of disc insulators with porcelain insulators in case of Asset-IV is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations. The ACE allowed provisionally towards Assets-III and IV is as follows:

<b>Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Total 2019-24</b>
Asset-III	0.00	28.68	28.68
Asset-IV	0.00	124.46	124.46

81. The Petitioner shall get recommendations from the concerned RPC and mutual agreement of both States for Additional Capitalisations.

**Group-B:**

82. As stated above, Asset-I and Asset-V have completed their useful life of 35 years as on 3.11.2023 and 27.1.2024, respectively.



83. Accordingly, all the tariff components are allowed from 1.4.2019 to 3.11.2023 in respect of Asset-I as it has completed its useful life of 35 years on 3.11.2023. Thereafter, O&M Expenses and IWC are allowed from 4.11.2023 onwards.

84. Further, all the tariff components are allowed from 1.4.2019 to 27.1.2024 in respect of Asset-V as it has completed its useful life of 35 years on 27.1.2024. Thereafter, O&M Expenses and IWC are allowed from 28.1.2024 onwards.

85. The Petitioner, vide affidavit dated 23.4.2021, has claimed ACE in respect of Asset-V for FY 2020-21 as follows:

Asset	2019-20	2020-21	Total 2019-24
Asset-V	0.00	147.06	147.06

86. The ACE of ₹147.06 lakh for the FY 2020-21 claimed towards replacement of disc insulators with porcelain insulators with respect to Asset-V is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations.

#### **Group-C:**

87. As stated above, Assets-VIII and IX will complete their useful life of 35 years beyond 31.3.2024. Accordingly, all the components of the tariff are allowed for them till they complete their useful life of 35 years. Beyond the date of completion of the useful life of the said transmission assets, only O&M Expenses and IWC will be permitted.

#### **Depreciation**

88. Regulation 33 of the 2019 Tariff Regulations provides as follows:

*“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 a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed 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 by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

*(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 multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

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

*Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of 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 of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

*(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the assets of the generating station and transmission system:*

*Provided that the remaining depreciable value as on 31<sup>st</sup> March of the year closing 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, shall submit 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 thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

89. We have considered the submissions of the Petitioner. The depreciation of the transmission assets, as worked out in terms of Regulation 33 of the 2019 Tariff Regulations, is as follows:

(₹ in lakh)					
<b>Asset-I</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	310.52	310.52	310.52	310.52	310.52
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	310.52	310.52	310.52	310.52	310.52
Average Gross Block	310.52	310.52	310.52	310.52	310.52
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	279.47	279.47	279.47	279.47	279.47
Elapsed Life at the beginning of the year	30.00	31.00	32.00	33.00	34.00
Balance useful life of the asset	5.00	4.00	3.00	2.00	1.00
<b>Depreciation</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>	<b>3.60</b>
Cumulative Depreciation	265.08	268.68	272.27	275.87	279.47
Remaining Depreciable value	17.98	14.39	10.79	7.19	3.60



(₹ in lakh)

<b>Asset-III</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	14.87	14.87	43.55	43.55	43.55
Addition due to Additional Capitalization	0.00	28.68	0.00	0.00	0.00
Gross Block Total	14.87	43.55	43.55	43.55	43.55
Average Gross Block	14.87	29.21	43.55	43.55	43.55
Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable value	13.38	26.29	39.20	39.20	39.20
Elapsed Life at the beginning of the year	41.00	42.00	43.00	44.00	45.00
<b>Depreciation</b>	<b>0.79</b>	<b>1.54</b>	<b>2.30</b>	<b>2.30</b>	<b>2.30</b>
Cumulative Depreciation	1.18	2.72	5.02	7.32	9.62
Remaining Depreciable value	12.99	12.21	10.67	8.37	6.07

(₹ in lakh)

<b>Asset-IV</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	147.88	147.88	272.34	272.34	272.34
Addition due to Additional Capitalization	0.00	124.46	0.00	0.00	0.00
Gross Block total	147.88	272.34	272.34	272.34	272.34
Average Gross Block	147.88	210.11	272.34	272.34	272.34
Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable value	133.09	189.10	245.11	245.11	245.11
Elapsed Life at the beginning of the year	41.00	42.00	43.00	44.00	45.00
<b>Depreciation</b>	<b>7.81</b>	<b>11.09</b>	<b>14.38</b>	<b>14.38</b>	<b>14.38</b>
Cumulative Depreciation	19.93	31.02	45.40	59.78	74.16
Remaining Depreciable value	120.97	113.17	102.07	87.69	73.31

(₹ in lakh)

<b>Asset-V (Existing Asset)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	1605.51	1605.51	1605.51	1605.51	1605.51
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	1605.51	1605.51	1605.51	1605.51	1605.51
Average Gross Block	1605.51	1605.51	1605.51	1605.51	1605.51
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	1444.96	1444.96	1444.96	1444.96	1444.96
Elapsed Life at the beginning of the year	30.00	31.00	32.00	33.00	34.00
Balance useful life of the asset	5.00	4.00	3.00	2.00	1.00
<b>Depreciation(A)</b>	<b>39.39</b>	<b>39.39</b>	<b>39.39</b>	<b>39.39</b>	<b>39.39</b>
Cumulative Depreciation	1287.42	1326.80	1366.19	1405.57	1444.96
Remaining Depreciable value	196.93	157.54	118.16	78.77	39.39





(₹ in lakh)					
<b>Asset-V (Add cap at fag end)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	0.00	0.00	147.06	147.06	147.06
Addition due to Additional Capitalization	0.00	147.06	0.00	0.00	0.00
Gross Block total	0.00	147.06	147.06	147.06	147.06
Average Gross Block	0.00	73.53	147.06	147.06	147.06
Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable value	0.00	66.18	132.35	132.35	132.35
<b>Depreciation(B)</b>	<b>0.00</b>	<b>3.88</b>	<b>7.76</b>	<b>7.76</b>	<b>7.76</b>
Cumulative Depreciation	0.00	3.88	11.65	19.41	27.18
Remaining Depreciable value	0.00	62.29	120.71	112.94	105.18

(₹ in lakh)					
<b>Total Depreciation of Asset-V (A+B)</b> (Existing asset, Additional Capitalization and Fag End Additional Capitalization)	<b>39.39</b>	<b>43.27</b>	<b>47.15</b>	<b>47.15</b>	<b>47.15</b>

(₹ in lakh)					
<b>Assets-VIII &amp; IX</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Block	3462.77	3462.77	3462.77	3462.77	3462.77
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Gross Block total	3462.77	3462.77	3462.77	3462.77	3462.77
Average Gross Block	3462.77	3462.77	3462.77	3462.77	3462.77
Rate of Depreciation (in %)	Spread over depreciation				
Depreciable value	3116.49	3116.49	3116.49	3116.49	3116.49
Elapsed Life at the beginning of the year	20.00	21.00	22.00	23.00	24.00
Balance useful life of the asset	15.00	14.00	13.00	12.00	11.00
<b>Depreciation</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>	<b>40.11</b>
Cumulative Depreciation	2554.98	2595.09	2635.20	2675.30	2715.41
Remaining Depreciable value	601.62	561.51	521.40	481.29	441.19

### **Interest on Loan (“IoL”)**

90. Regulation 32 of the 2019 Tariff Regulations provides as follows:

**“32. Interest on loan capital:** (1) The loans arrived at in the manner indicated in regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case



of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

91. The IoL has been allowed in respect of Assets-III, IV, and V as per Regulation 32 of the 2019 Tariff Regulations. IoL approved for Assets-III, IV, and V for the 2019-24 tariff period is as follows:

	(₹ in lakh)				
<b>Asset-III</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Normative Loan	10.41	10.41	30.49	30.49	30.49
Cumulative Repayment upto Previous Year	0.39	1.18	2.72	5.02	7.32
Net Loan-Opening	10.02	9.23	27.77	25.47	23.17
Addition due to Additional Capitalization	0.00	20.08	0.00	0.00	0.00
Repayment during the year	0.79	1.54	2.30	2.30	2.30
Net Loan-Closing	9.23	27.77	25.47	23.17	20.87
Average Loan	9.63	18.50	26.62	24.32	22.02
Weighted Average Rate of Interest on Loan (%)	7.6244	7.2725	7.1153	7.4434	7.6871
<b>Interest on Loan</b>	<b>0.73</b>	<b>1.35</b>	<b>1.89</b>	<b>1.81</b>	<b>1.69</b>



(₹ in lakh)					
<b>Asset-IV</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Normative Loan	103.52	103.52	190.64	190.64	190.64
Cumulative Repayment upto Previous Year	12.12	19.93	31.02	45.40	59.78
Net Loan-Opening	91.40	83.59	159.62	145.24	130.86
Addition due to Additional Capitalization	0.00	87.12	0.00	0.00	0.00
Repayment during the year	7.81	11.09	14.38	14.38	14.38
Net Loan-Closing	83.59	159.62	145.24	130.86	116.48
Average Loan	87.49	121.60	152.43	138.05	123.67
Weighted Average Rate of Interest on Loan (%)	7.6244	7.2725	7.1153	7.4434	7.6871
<b>Interest on Loan</b>	<b>6.67</b>	<b>8.84</b>	<b>10.85</b>	<b>10.28</b>	<b>9.51</b>

(₹ in lakh)					
<b>Asset-V (Additional Capitalization)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Normative Loan	105.64	105.64	105.64	105.64	105.64
Cumulative Repayment upto Previous Year	23.13	45.67	68.21	90.74	113.28
Net Loan-Opening	82.51	59.97	37.43	14.89	0.00
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	22.54	22.54	22.54	22.54	22.54
Net Loan-Closing	59.97	37.43	14.89	0.00	0.00
Average Loan	71.24	48.70	26.16	7.45	0.00
Weighted Average Rate of Interest on Loan (%)	7.6244	7.2725	7.1153	7.4434	7.6871
<b>Interest on Loan</b>	<b>5.43</b>	<b>3.54</b>	<b>1.86</b>	<b>0.55</b>	<b>0.00</b>

(₹ in lakh)					
<b>Asset-V (Additional Capitalization at fag end)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Normative Loan	0.00	0.00	102.94	102.94	102.94
Cumulative Repayment upto Previous Year	0.00	0.00	3.88	11.65	19.41
Net Loan-Opening	0.00	0.00	99.06	91.29	83.53
Addition due to Additional Capitalization	0.00	102.94	0.00	0.00	0.00
Repayment during the year	0.00	3.88	7.76	7.76	7.76
Net Loan-Closing	0.00	99.06	91.29	83.53	75.77
Average Loan	0.00	49.53	95.18	87.41	79.65
Weighted Average Rate of Interest on Loan (%)	7.6244	7.2725	7.1153	7.4434	7.6871
<b>Interest on Loan</b>	<b>0.00</b>	<b>3.60</b>	<b>6.77</b>	<b>6.51</b>	<b>6.12</b>

### **Return on Equity ("RoE")**

92. The Petitioner has claimed RoE in respect of the transmission assets under Regulations 30 and 31 of the 2019 Tariff Regulations.



93. The Petitioner has claimed grossing up of ROE. However, based on the current methodology, ROE has been allowed for the transmission assets without grossing up with tax rates, as is done in the determination of similar natural ISTS Petitions. RoE allowed for the transmission assets under is as follows:

(₹ in lakh)

<b>Asset-I</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	93.16	93.16	93.16	93.16	93.16
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	93.16	93.16	93.16	93.16	93.16
Average Equity	93.16	93.16	93.16	93.16	93.16
Rate of Return on Equity (%)	15.50	15.50	15.50	15.50	15.50
Return on Equity	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>14.44</b>	<b>8.56</b>

(₹ in lakh)

<b>Asset-III</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	4.46	4.46	13.07	13.07	13.07
Addition due to Additional Capitalization	0.00	8.60	0.00	0.00	0.00
Closing Equity	4.46	13.07	13.07	13.07	13.07
Average Equity	4.46	8.76	13.07	13.07	13.07
Rate of Return on Equity (%)	15.50	15.50	15.50	15.50	15.50
Return on Equity	<b>0.69</b>	<b>1.36</b>	<b>2.03</b>	<b>2.03</b>	<b>2.03</b>

(₹ in lakh)

<b>Asset-IV</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	44.36	44.36	81.70	81.70	81.70
Addition due to Additional Capitalization	0.00	37.34	0.00	0.00	0.00
Closing Equity	44.36	81.70	81.70	81.70	81.70
Average Equity	44.36	63.03	81.70	81.70	81.70
Rate of Return on Equity (%)	15.50	15.50	15.50	15.50	15.50
Return on Equity	<b>6.88</b>	<b>9.77</b>	<b>12.66</b>	<b>12.66</b>	<b>12.66</b>

(₹ in lakh)

<b>Asset-V</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	
					<b>For 302 days (For Existing asset)</b>	<b>For 366 days (For Additional Capitalization at fag end)</b>
Opening Equity	481.65	481.65	525.77	525.77	481.65	44.12
Addition due to Additional Capitalization	0.00	44.12	0.00	0.00	0.00	0.00
Closing Equity	481.65	525.77	525.77	525.77	481.65	44.12
Average Equity	481.65	503.71	525.77	525.77	481.65	44.12



Rate of Return on Equity (%)	15.50	15.50	15.50	15.50	15.50	15.50
Return on Equity	<b>74.66</b>	<b>78.08</b>	<b>81.49</b>	<b>81.49</b>	<b>61.60</b>	<b>6.84</b>

(₹ in lakh)

<b>Assets-VIII &amp; IX</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Average Equity	1038.83	1038.83	1038.83	1038.83	1038.83
Rate of Return on Equity (%)	15.50	15.50	15.50	15.50	15.50
Return on Equity	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>	<b>161.02</b>

### **Operation and Maintenance Expenses (“O&M Expenses”)**

94. The O&M Expenses claimed by the Petitioner in respect of the transmission assets are as follows:

<b>Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Asset-I	8.50	8.79	9.11	9.43	9.77
Asset-II	4.53	4.68	4.85	5.02	5.20
Asset-III	7.55	7.80	8.09	8.37	8.67
Asset-IV	37.70	39.10	40.40	41.90	43.30
Asset-V	37.70	39.10	40.40	41.90	43.30
Asset-VI	3.88	4.01	4.16	4.30	4.45
Asset-VII	6.05	6.24	6.48	6.70	6.94
Asset-VIII & Asset-IX (combined)	250.20	259.01	268.10	277.47	287.12

95. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:

#### **“35. Operation and Maintenance Expenses:**

(3) **Transmission system:** (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
125.10	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433



96. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out for the transmission assets as per the norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations, and the same are as follows:

Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I 220 kV Kalmeshwar-Pandurna S/C line (33.8 km)	8.52	8.79	9.13	9.43	9.77
Asset-II 220 kV Mudshingi-Amona S/C line (18 km)	4.54	4.68	4.86	5.02	5.20
Asset-III 220 kV Tillari-Amona-2 S/C line (30 km)	7.56	7.8	8.1	8.37	8.67
Asset-IV 220 kV Nasik-Navsari-1 D/C line (100 km)	37.7	39.1	40.4	41.9	43.3
Asset-V 220 kV Nasik-Navsari-2 D/C line (100 km)	37.7	39.1	40.4	41.9	43.3
Asset-VIII and Asset-IX 400 kV SSP-Dhule Circuit-1 and Circuit- 2 D/C line (142 km)	125.10	129.50	134.05	138.73	143.56

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

97. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations specify as follows:

**“34. Interest on Working Capital: (1) The working capital shall cover:**

.....

**(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:**

- (i) Receivables equivalent to 45 days of annual 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 1<sup>st</sup> 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 1<sup>st</sup> 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.** - In these regulations, unless the context otherwise requires:-

‘**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;”

98. The IWC has been worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for FY 2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for the FYs 2021-22 and FY 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for the FY 2023-24. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)					
<b>Asset-I</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	1.28	1.32	1.37	1.41	1.47
O&M Expenses	0.71	0.73	0.76	0.79	0.81
Receivables	3.34	3.38	3.42	3.46	2.77
Total Working Capital	5.33	5.43	5.55	5.66	5.05
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>0.64</b>	<b>0.61</b>	<b>0.58</b>	<b>0.59</b>	<b>0.61</b>

(₹ in lakh)					
<b>Asset-II</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	0.68	0.70	0.73	0.75	0.78
O&M Expenses	0.38	0.39	0.41	0.42	0.43
Receivables	0.58	0.60	0.62	0.64	0.67
Total Working Capital	1.64	1.69	1.76	1.81	1.88
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>0.20</b>	<b>0.19</b>	<b>0.18</b>	<b>0.19</b>	<b>0.23</b>

(₹ in lakh)					
<b>Asset-III</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	1.13	1.17	1.22	1.26	1.30
O&M Expenses	0.63	0.65	0.68	0.70	0.72
Receivables	1.25	1.53	1.81	1.84	1.86



Total Working Capital	3.01	3.35	3.70	3.79	3.89
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>0.36</b>	<b>0.38</b>	<b>0.39</b>	<b>0.40</b>	<b>0.47</b>

(₹ in lakh)

<b>Asset-IV</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	5.66	5.87	6.06	6.29	6.50
O&M Expenses	3.14	3.26	3.37	3.49	3.61
Receivables	7.50	8.73	9.90	10.02	10.12
Total Working Capital	16.30	17.85	19.33	19.80	20.22
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>1.96</b>	<b>2.01</b>	<b>2.03</b>	<b>2.08</b>	<b>2.43</b>

(₹ in lakh)

<b>Asset-V</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	5.66	5.87	6.06	6.29	6.50
O&M Expenses	3.14	3.26	3.37	3.49	3.61
Receivables	19.75	21.08	22.32	22.31	20.74
Total Working Capital	28.54	30.20	31.74	32.09	30.85
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>3.44</b>	<b>3.40</b>	<b>3.33</b>	<b>3.37</b>	<b>3.70</b>

(₹ in lakh)

<b>Assets-VIII &amp; IX</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Maintenance Spares	18.77	19.43	20.11	20.81	21.53
O&M Expenses	10.43	10.79	11.17	11.56	11.96
Receivables	41.15	41.76	42.28	42.87	43.52
Total Working Capital	70.34	71.98	73.55	75.24	77.01
Interest Rate (%)	12.05	11.25	10.50	10.50	12.00
Interest	<b>8.48</b>	<b>8.10</b>	<b>7.72</b>	<b>7.90</b>	<b>9.24</b>

### **Annual Fixed Charges of the 2019-24 Tariff Period**

99. The transmission charges allowed for the 2019-24 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	3.60	3.60	3.60	3.60	3.60
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	14.44	14.44	14.44	14.44	8.56
Interest on Working Capital	0.64	0.61	0.58	0.59	0.61
O&M Expenses	8.52	8.79	9.13	9.43	9.77
<b>Total</b>	<b>27.20</b>	<b>27.44</b>	<b>27.75</b>	<b>28.06</b>	<b>22.53</b>

(₹ in lakh)

<b>Asset-II</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	0.00	0.00	0.00	0.00	0.00





Interest on Working Capital	0.20	0.19	0.18	0.19	0.23
O&M Expenses	4.54	4.68	4.86	5.02	5.20
<b>Total</b>	<b>4.74</b>	<b>4.87</b>	<b>5.04</b>	<b>5.21</b>	<b>5.43</b>

(₹ in lakh)

<b><u>Asset-III</u></b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	0.79	1.54	2.30	2.30	2.30
Interest on Loan	0.73	1.35	1.89	1.81	1.69
Return on Equity	0.69	1.36	2.03	2.03	2.03
Interest on Working Capital	0.36	0.38	0.39	0.40	0.47
O&M Expenses	7.56	7.80	8.10	8.37	8.67
<b>Total</b>	<b>10.13</b>	<b>12.42</b>	<b>14.71</b>	<b>14.90</b>	<b>15.15</b>

(₹ in lakh)

<b><u>Asset-IV</u></b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	7.81	11.09	14.38	14.38	14.38
Interest on Loan	6.67	8.84	10.85	10.28	9.51
Return on Equity	6.88	9.77	12.66	12.66	12.66
Interest on Working Capital	1.96	2.01	2.03	2.08	2.43
O&M Expenses	37.70	39.10	40.40	41.90	43.30
<b>Total</b>	<b>61.02</b>	<b>70.82</b>	<b>80.32</b>	<b>81.30</b>	<b>82.28</b>

(₹ in lakh)

<b><u>Asset-V</u></b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	39.39	43.27	47.15	47.15	47.15
Interest on Loan	5.43	7.14	8.63	7.06	6.12
Return on Equity	74.66	78.08	81.49	81.49	68.44
Interest on Working Capital	3.44	3.40	3.33	3.37	3.70
O&M Expenses	37.70	39.10	40.40	41.90	43.30
<b>Total</b>	<b>160.61</b>	<b>170.98</b>	<b>181.01</b>	<b>180.97</b>	<b>168.71</b>

(₹ in lakh)

<b><u>Assets-VIII &amp; IX</u></b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	40.11	40.11	40.11	40.11	40.11
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	161.02	161.02	161.02	161.02	161.02
Interest on Working Capital	8.48	8.10	7.72	7.90	9.24
O&M Expenses	125.10	129.50	134.05	138.73	143.56
<b>Total</b>	<b>334.70</b>	<b>338.72</b>	<b>342.90</b>	<b>347.76</b>	<b>353.93</b>

### **Filing Fee and Publication Expenses**

100. The Petitioner has sought reimbursement of its filing fee and publication expenses. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present Petition directly from the



beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

### **Licence Fee and Publication Expenses**

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

### **Goods and Services Tax**

102. The Petitioner has submitted that if GST is levied at any rate and at any point of time in the 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 and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, and the same may be allowed to be recovered from the beneficiaries.

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

### **Security Expenses**

104. The Petitioner has prayed to allow the capital spares and security expenses at the time of truing of the 2019-24 period as per the actuals.

105. We have considered the Petitioner's submissions. The Petitioner is granted the liberty to claim capital spares and security expenses for its transmission assets at the time of truing the tariff for the 2019-24 period.



## **Sharing of Transmission Charges**

106. With effect from 1.7.2011, the sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations have been repealed, and the sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the transmission charges approved in this order for the transmission assets shall be recovered in accordance with the applicable Sharing Regulations as per Regulation 43 of the 2014 Tariff Regulations and Regulation 57(2) of the 2019 Tariff Regulations. Further, the transmission charges allowed in this order shall be adjusted against the ARR approved by the State Commission.

107. We observe that once the transmission charges of non-ISTS lines are included in the ISTS pool, the availability of such lines needs to be verified by the respective RPC, and recovery of the tariff should be linked with its availability, for which necessary mechanisms may be put in place by RPC. We direct that YTC of such intra-state lines shall be included in the PoC Pool based on the availability of each line to be certified by the WRPC in terms of the provisions of the 2014 Tariff Regulations and 2019 Tariff Regulations.

108. We further direct the Petitioner to approach the MERC to adjust such recovery against the ARR of the Petitioners' respective years.

109. To summarize:

- a. The trued-up Annual Fixed Charges allowed in respect of the transmission assets for the 2014-19 tariff period are as follows:

	(₹ in lakh)				
<b>Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	25.66	25.90	26.15	26.41	26.65
Asset-II	10.75	10.87	6.72	4.23	4.37
Asset-III	6.39	6.62	6.84	7.06	8.42



<b>Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-IV	34.90	38.83	39.85	40.76	50.30
Asset-V	121.57	125.85	126.78	127.61	143.27
Asset-VI	3.28	3.40	3.51	0.59	0.00
Asset-VII	5.12	5.30	5.47	0.93	0.00
Assets-VIII & IX	311.69	315.29	318.89	322.63	326.53

b. The Annual Fixed Charges determined for the 2019-24 tariff period in respect of the transmission assets are as follows:

<b>Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Asset-I	27.20	27.44	27.75	28.06	22.53
Asset-II	4.74	4.87	5.04	5.21	5.43
Asset-III	10.13	12.42	14.71	14.90	15.15
Asset-IV	61.02	70.82	80.32	81.30	82.28
Asset-V	160.61	170.98	181.01	180.97	168.71
Assets-VIII & IX	334.70	338.72	342.90	347.76	353.93

110. This order disposes of Petition No. 82/TT/2022 in terms of the above discussions and findings.

**sd/-**  
**(Harish Dudani)**  
**Member**

**sd/-**  
**(Ramesh Babu V.)**  
**Member**

**sd/-**  
**(Jishnu Barua)**  
**Chairperson**

