

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 37/TT/2022**

**Coram:**

**Shri I. S. Jha, Member  
Shri Arun Goyal, Member  
Shri P. K. Singh, Member**

**Date of Order: 10.04.2023**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset 1:** LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai line transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT D&NH 315 MVA 400/220 kV ICT-I & ICT-II and 80 MVAR, 420 kV Bus Reactor alongwith 4 Nos. of 220 kV downstream bays and **Asset 2:** LILO of 2nd Ckt of 400 kV D/C Vapi-Navi Mumbai Transmission Line alongwith associated bays at Kala Sub-station under "Establishment of 400/220 kV GIS Sub-station at Kala in UT of DNH" in Western Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
'Saudamini', Plot No.- 2,  
Sector-29, Gurgaon-122 001 (Haryana).

**....Petitioner**

**Vs.**

1. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur-482 008.
2. Madhya Pradesh Power Transmission Company Limited,  
Shakti Bhawan, Rampur, Jabalpur-482 008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452 008.



4. Maharashtra State Electricity Distribution Company Limited,  
Hongkong Bank Building, 3<sup>rd</sup> Floor,  
M.G. Road, Fort,  
Mumbai-400 001.
  5. Maharashtra State Electricity Transmission Company Limited,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East),  
Mumbai-400 051.
  6. Gujarat Urja Vikas Nigam Limited,  
Sardar Patel Vidyut Bhawan, Race Course Road,  
Vadodara-390 007.
  7. Electricity Department,  
Government of Goa, Vidyut Bhawan,  
Panaji, Near Mandvi Hotel,  
Goa-403 001.
  8. Electricity Department,  
Administration of Daman & Diu,  
Daman-396 210.
  9. DNH Power Distribution Corporation Limited,  
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,  
Silvassa-396 230.
  10. Chhattisgarh State Power Transmission Company Limited,  
State Load Despacth Building,  
Dangania, Raipur – 492 013.
  11. Chhattisgarh State Power Distribution Company Limited,  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh – 492 013.
- ....Respondent(s)

**For Petitioner** : Shri Anand K. Ganesan, Advocate, PGCIL  
Ms. Swapna Seshadri, Advocate, PGCIL  
Shri Jai Dhanani, Advocate, PGCIL

**For Respondents** : Shri Ravi Sharma, Advocate, MPPMCL  
Shri Anindya Khare, MPPMCL

### **ORDER**

Power Grid Corporation of India Limited, has filed the instant petition for  
truing up of transmission tariff of 2014-19 tariff period under the Central Electricity

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Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 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 following assets (hereinafter referred to as the “transmission assets/ Combined Asset”) under “Establishment of 400/220 kV GIS Sub-station at Kala in UT of DNH” in Western Region (hereinafter referred to as the “transmission project”):

- i. **Asset-1:** LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT D&NH 315 MVA 400/220 kV ICT-I & ICT-II and 80 MVAR, 420 kV Bus Reactor alongwith 4 Numbers of 220 kV downstream bays.
- ii. **Asset-2:** LILO of 2<sup>nd</sup> Ckt of 400 kV D/C Vapi-Navi Mumbai transmission line (alongwith associated bays at Kala Sub-Station).

2. The Petitioner has made the following prayers in the instant petition:

*“1) Allow the Petitioner to “Invoke the provision of regulation - 4(3)(ii) of CERC (Terms and Conditions of Tariff) Regulations’ 2014 and Regulation – 24 of CERC (Conduct of Business) Regulations’ 1999 for approval of DOCO of Asset-I.*

*2) Approve the Transmission Tariff –cum- Truing Up tariff for the tariff block 2014-19 block for the asset covered under this petition, as per para – 11.5 above and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 12.2 above*

*3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred.*

*4) Allow the petitioner to recover the shortfall or refund the excess Transmission Tariff, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.5 & 12.2 above for respective block.*

*5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure ( if any) in relation to the filing of petition.*



6) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at above

8) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff regulations 2014.

9) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure ( if any) in relation to the filing of petition.

10) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

11) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.

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

13) Allow the petitioner to bill Tariff from actual DOCO and also the petitioner may be allowed to submit revised Certificate and tariff Forms (as per the Relevant Regulation) based on actual DOCO.

14) Condone the delay in filing the present petition.

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

## **Background**

3. The brief facts of the case are as follows:



- a. Investment Approval (IA) of the transmission project was accorded by Board of Directors of the Petitioner in its 254<sup>th</sup> meeting held on 7.7.2011 and communicated *vide* Memorandum No. C/CP/Kala-GIS dated 13.7.2011 at an estimated cost of ₹18193 lakh including IDC of ₹590 lakh based on 1<sup>st</sup> quarter, 2011 price level.
- b. The Revised Cost Estimates (RCE) in respect of the transmission project was accorded by Board of Directors of the Petitioner in its 313<sup>th</sup> meeting held on 17.4.2015 and communicated *vide* Memorandum No. C/CP/RCE-Kala dated 21.5.2015 at an estimated cost of ₹20071 lakh including IDC of ₹518 lakh based on December, 2014 price level.
- c. The transmission project was discussed and agreed in the 32<sup>nd</sup> Standing Committee Meeting of Western Region held on 13.5.2011 and finalised in the 17<sup>th</sup> WRPC meetings held on 20.5.2011, as part of provision of 400/220 kV GIS Sub-station at Union Territory of Dadra & Nagar Havelli (DNH) and Daman & Diu.
- d. The scope of work covered under the transmission project is as follows:

**Transmission Line**

- i) LILO of 400 kV D/C Vapi- Navi Mumbai transmission line at Kala Sub-station (multi- circuit tower)-9 km.

**Sub-station**

- i) Establishment of 2x315 MVA, 400/220 kV GIS Sub-station at Kala in UT DNH.
- ii) 1X80 MVAR, 420 kV Bus Reactor at Kala (GIS) Sub-station in UT DNH.

- e. The entire scope of work under the transmission project as per IA is complete and is covered in the instant petition. The details of the transmission assets covered in the instant petition are as follows:



Name of Asset	COD
<b>Asset-1:</b> LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai line transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT DNH 315 MVA 400/220 kV ICT-I & ICT-II and 80 MVAR, 420 kV Bus Reactor alongwith 4 numbers of 220 kV downstream bays.	1.4.2014*
<b>Asset-2:</b> LILO of 2nd Ckt of 400kV D/C Vapi-Navi Mumbai transmission line (i.e. Ckt - 3 & 4 of LILO) alongwith associated bays at Kala Sub-station.	1.3.2015

\*COD claimed under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations

- f. The Commission *vide* Record of Proceedings (RoP) of hearing dated 24.6.2022 observed that the presentation of nomenclature of assets should be clear as per IA and change in the nomenclature of the asset or part thereof, should have been clearly mentioned in the petition along with minutes of the meeting of SCM/RPC where such decision was taken and directed the Petitioner to clarify the same. In response, the Petitioner *vide* affidavit dated 22.7.2022 clarified that as per the envisaged scheme, 400/220 kV Kala GIS Sub-station was to be charged through LILO (about 9 km on Multi Ckt tower) of 400 kV D/C Vapi-Navi Mumbai transmission line. However, due to severe RoW constraints and forest clearance issues, 400 kV Vapi-Navi Mumbai transmission line was executed and utilized in phased manner with the help of 400 kV D/C Navsari-Boisar transmission line (under Mundra project). Further, due to above said severe constraints, 400 kV D/C Vapi-Navi Mumbai transmission line has been terminated at Kudus (MSETCL) Sub-station instead of Navi Mumbai. Although, the scope of works implemented and claimed under the instant petition has not changed w.r.t. IA of the transmission project.
- g. Further, the shifting of termination of 400 kV D/C Vapi-Navi Mumbai transmission line at Kudus (MSETCL) Sub-station instead of Navi



Mumbai was due to above said constraints and was deliberated and agreed in the 35<sup>th</sup> and 36<sup>th</sup> WR Standing Committee Meeting on Power System Planning held on 3.1.2013 and 29.8.2013 respectively. Further, with the instant LILO portion, 400/220 kV Kala Sub-station was charged from two directions i.e. from Vapi on one side and from Navsari on other side with the help of 400 kV D/C Navsari-Boisar transmission line as an interim arrangement. However, the overall scope of works implemented and claimed under the instant petition has not undergone any change w.r.t. IA.

- h. Accordingly, the Petitioner has submitted the modified nomenclature of the transmission assets, due to change of termination point of LILO from Navi Mumbai to Kudus Sub-station and has requested to consider the modified nomenclature and asset description w.r.t Asset-1 and Asset-2 as follows:

<b>Sl. No.</b>	<b>Nomenclature of Assets as filed in the Petition</b>	<b>Modified Nomenclature of Assets after change of termination point</b>
1	Asset-1: LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT DNH 315 MVA 400/220 kV ICT-I & ICT- II and 80 MVAR, 420 kV Bus Reactor alongwith 4 Numbers of 220 kV downstream bays	Asset-1: LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai (terminated at Kudus Sub-station) transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT DNH 315 MVA 400/220 kV ICT-I & ICT-II and 80 MVAR, 420 kV Bus Reactor alongwith 4 Numbers of 220 kV downstream bays
2	Asset-2: LILO of 2nd Ckt of 400 kV D/C Vapi-Navi Mumbai Transmission Line alongwith associated bays at Kala Sub-station	Asset-2: LILO of 2nd Ckt of 400 kV D/C Vapi-Navi Mumbai Transmission Line (terminated at Kudus Sub-station) alongwith associated bays at Kala Sub-station

- i. The transmission assets were scheduled to be put into commercial operation within 24 months from the date of IA i.e. 7.7.2011, hence, the scheduled date of commercial operation of the transmission assets is





7.7.2013. There is time over-run in the execution of transmission assets. The details of scheduled date of commercial operation (SCOD), date of commercial operation (COD) and time over-run with respect to the transmission assets are as follows:

Particulars	SCOD	COD	Time over-run
Asset-1	7.7.2013	1.4.2014	268 days
Asset-2		1.3.2015	602 days

- j. The Commission *vide* order dated 29.4.2016 in Petition No. 110/TT/2014 approved the COD of the transmission assets as 1.4.2014 under proviso (ii) Regulation 4(3) of the 2014 Tariff Regulations and allowed the tariff from COD to 31.3.2019 thereof. The relevant extract of the said order is as follows:

*“13. We have considered the submission and documents placed on record. It is evident that the issues faced by the petitioner in commissioning of remaining circuits in respect of LILO of Kala Sub-station are beyond the control of the petitioner. The petitioner has supported the justifications by submitting documentary evidences in the form of written communication to the Collector, the Superintendent of Police, Palghar district and the agency responsible for erection of Vapi-Kudud line. We are of the view that the petitioner has acted diligently; however, the commissioning of the subject assets has been prevented due to the reason not attributable to the petitioner. Accordingly, we hold that the petitioner is entitled for approval of COD as 1.4.2014 without commissioning of downstream system under Regulation 4 (3) (ii) of the Tariff Regulations 2014.*

*14. Further, in response to query, the petitioner has submitted that the commissioning of 1 no. of 80 MVAR Bus Reactor, as included in form-2 of the tariff forms of instant transmission asset, has been approved under the scope of works defined for the instant project. The petitioner has submitted the Abstract Cost Estimate as per the Investment Approval to depict the same. In absence of the commissioning of downstream system, it would be difficult to certify the trial operation as per Regulation. Hence, we direct the petitioner to submit the RLDC certificate in support of trial run operation as and when downstream system is commissioned at the time of true up.”*

- k. Thereafter, the Petitioner filed Petition No. 45/TT/2020 for true-up of tariff of the said transmission assets and submitted that only loop in portion of LILO of 400 kV D/C Vapi-Navi Mumbai transmission line at Kala Sub-station (multi-circuit tower)-9 km was ready on 1.4.2014, whereas, the loop out portion of the said LILO was completed on 1.3.2015. Thus, the Petitioner split the transmission asset in two parts, namely, **Asset-I:** LILO





of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT DNH, 315 MVA 400/220 kV ICT-I & ICT-II and 80 MVAR, 420 kV Bus Reactor alongwith 4 Nos. of 220kV downstream bays and **Asset-II:** LILO of 2nd Ckt of 400 kV D/C Vapi-Navi Mumbai transmission line (i.e. Ckt - 3 & 4 of LILO) along with associated bays at Kala Sub-station and claimed the COD of the Asset-I and Asset-II as 1.4.2014 and 1.3.2015, respectively.

- I. The Commission *vide* order dated 25.2.2021 in Petition No. 45/TT/2020 observed that the entire facts in the matter were not placed before it at the time of approval of deemed COD of the transmission assets and therefore, withdrew the tariff granted *vide* order dated 29.4.2016 in Petition No. 110/TT/2014 and further directed the Petitioner to file a fresh Petition with proper nomenclature of the transmission assets and other relevant facts and approvals necessary for the determination of tariff. The relevant extract of the order dated 25.2.2021 is as follows:

*“7. It is observed that the nomenclature of the assets mentioned in petition and submissions of the Petitioner do not match with the details given in the Investment Approval. Further, the Petitioner on its own has submitted that LILO of 400 kV D/C Vapi-Navi Mumbai Transmission Line at Kala Sub-station was partially completed and that the scope of work as approved in the Investment Approval has not been completed. The Petitioner has completed loop in portion of the 400 kV D/C Vapi-Navi Mumbai Transmission line at Kala Sub-station on 1.4.2014 and has submitted that it has not been able to complete the loop out portion of the line due to RoW problems at 400 kV Kala-Navsari 400 kV D/C line.*

*8. This fact was not brought to notice of the Commission when order dated 29.4.2016 in Petition No.110/TT/2014 was issued. In view of non-completion of the complete LILO arrangement at Kala sub-station on 1.4.2014, the requirement of proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations is not fulfilled. Therefore, grant of tariff as well as declaration of COD of the asset was based on wrong declaration and claim of the Petitioner. Hence, the tariff granted by the Commission for the transmission assets *vide* order dated 29.4.2016 in Petition No. 110/TT/2014 stands withdrawn and the tariff already recovered by the Petitioner shall be adjusted as provided under Regulation 7(7) of the 2014 Tariff Regulations.*

*9. The Petitioner is directed to file fresh petition within four weeks from the date of issue of this order, with proper nomenclature of the assets and other relevant facts and approvals necessary for the determination of tariff. The Petitioner is also directed to clarify whether the instant scheme is regional strengthening scheme or exclusively made for Electricity Department, D&NH.*



*10. The Petitioner is also directed to submit the status of the associated 220 kV downstream transmission lines of the instant transmission assets i.e., 220 kV D/C Kala-Khadoli and 220 kV Kala-Kharadpada line which is stated to be under the scope of Electricity Department, D&NH.”*

- m. Pursuant to the directions of the Commission in the order dated 25.2.2021 in Petition No. 45/TT/2020, the Petitioner has filed the instant petition for fresh approval of trued-up tariff from COD to 31.3.2019 under the provisions of the 2014 Tariff Regulations along with determination of tariff for 2019-24 period in respect of the assets covered in the transmission project.
- n. The Petitioner had also filed Intercolutory Application(IA) IA.No.12/2022 for seeking condonation of delay in filing of the instant petition. In the said I.A, Petitioner submitted that as per the Commission’s order dated 25.2.2021, the Petitioner was required to file the fresh petition for the transmission assets within four weeks from the date of passing of the order. However, the Petitioner filed the instant petition with the delay of ten weeks and the said delay was due to the outbreak of Covid-19 in the office of the Petitioner. Accordingly, Petitioner prayed to condone the delay in filing of the instant petition as the same was beyond the control of the Petitioner.
- o. The Commission vide RoP dated 11.2.2022 condoned the delay in the filing of the instant petition and accordingly disposed of I.A No.12/2022.
- p. Further, the Petitioner has submitted the following clarifications in response to the observations made by the Commission in paragraphs 7 to 10 of the order dated 25.2.2021 in Petition No. 45/TT/2020:
  - (i) 400 kV D/C Vapi-Navi Mumbai transmission line being implemented under WRSS-V transmission project was inordinately delayed, due to severe RoW and forest clearance issues. The same was continuously discussed and deliberated in various SCMs and RPC meetings of WR. Consequently, it was discussed and agreed in the 34<sup>th</sup> SCM of WR held on 9.5.2012 that 400 kV D/C Vapi-Navi Mumbai transmission line may be executed in a phased manner (i.e. Phase-I



and Phase-II). Thereafter, CEA carried out necessary load flow studies and conveyed their in-principle approval *vide* letter dated 11.4.2014 to the Petitioner to carry out the the contingency arrangement (Phase-I) by opening of interconnection of Navsari-Vapi 400 kV D/C lines at the start of multi-circuit point and connecting it in a manner so as to form Vapi-Kala 400 kV D/C line and Kala-Navsari 400 kV D/C line. The Petitioner has further submitted that, accordingly, connectivity was done so as to form Vapi-Kala and Kala-Navsari lines. Even though execution of 400 kV D/C Vapi-Navi Mumbai line was severely affected due to RoW and forest clearance issues, the overall scope of works as per the IA of the transmission project remains unchanged, however, nomenclature of the assets are slightly different w.r.t. IA due to utilization of 400 kV D/C Vapi-Navi Mumbai line in a phased manner.

(ii) LILO of 1<sup>st</sup> circuit of 400 kV D/C Vapi-Navi Mumbai line at Kala has been used to interconnect Kala Sub-station on one side with Navsari Sub-station (with usage of Navsari-Boisar line) and on other side with Vapi Sub-station (with usage of Vapi-Navi Mumbai line), to make it Vapi-Kala and Kala-Navsari 400 kV D/C transmission lines. Hence, the connectivity of Kala Sub-station was achieved from both the ends i.e. from Navsari end as well as Vapi end, with the charging of LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line. Further, with the said charging, entire 400/220 kV GIS Kala Sub-station (COD w.e.f. 1.4.2014) was completed in all respect and ready for utilization to provide power to the downstream system of DNH, as per approval of energization certificate dated 27.3.2014. In spite of the readiness of said transmission system under the scope of the Petitioner, power flow in the system could not happen on that date due to delay in execution of downstream transmission system by electricity department of DNH. Hence, the decision made by the Commission *vide* order dated 29.4.2016 in Petition No. 110/TT/2014 was appropriate in all respect as per proviso (ii) Regulation 4(3) of the 2014 Tariff Regulations.



(iii) However, as directed by the Commission for fresh approval of tariff under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the 2014 Tariff Regulations, for determination and true-up of transmission tariff from COD to 31.3.2019 and determination of tariff for 2019-24 period respectively of the transmission assets covered under transmission project is being filed. Further, the transmission project been discussed and agreed in the 32<sup>nd</sup> SCM of WR held on 13.5.2011 and finalized in the 17<sup>th</sup> WRPC meeting dated 20.5.2011 as Regional Strengthening Scheme which improves the overall system to cater the new generation in Southern Region having target beneficiaries in Northern/ Western and Southern Region.

(iv) With regard to the status of the associated 220 kV downstream transmission lines of the transmission assets i.e. 220 kV D/C Kala-Khadoli and 220 kV Kala-Kharadpada line which is under the scope of Electricity Department, DNH, the Petitioner has submitted as follows:

<b>Description of 220 kV line bay</b>	<b>Name of associated 220 kV downstream line of DNH</b>	<b>COD of associated 220 kV line of DNH</b>
1 Number 220 kV downstream bay	Kala- Khadoli Ckt 1	25.6.2014
1 Number 220 kV downstream bay	Kala- Khadoli Ckt 2	30.10.2014
2 Numbers 220 kV downstream bays	Kala- Kharadpada Ckt 1 and 2	12.3.2016

(v) In accordance with the Commission's order dated 25.2.2021 in Petition No. 45/TT/2020, the Petitioner has refunded entire transmission charges to the beneficiaries.

4. We have perused the above submissions of the Petitioner. The issue raised by the Commission and the clarifications given by the Petitioner are considered in the relevant portions of this order.



5. The Respondents are distribution licensees, power departments, power utilities and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Western Region.

6. The Petitioner has served the petition on the Respondents and notice regarding publishing of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as "the Act"). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed reply in this matter.

7. This order is issued considering the submissions made by the Petitioner in the main petition vide affidavit dated 11.6.2021 and other submissions *vide* affidavits dated 13.4.2022, 22.4.2022 and 22.7.2022.

8. The hearing in this matter was held on 24.6.2022 through video conference and the order was reserved.

9. Having heard the representatives of the Petitioner and MPPMCL and having perused the material on record, we proceed to dispose of the petition.

#### **Truing up of Annual Fixed Charges of 2014-19 Tariff Period**

10. The details of the trued up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:



(₹ in lakh)

Asset-1					
Particulars	2014-15 (Pro-rata 280 days)	2015-16	2016-17	2017-18	2018-19
Depreciaton	692.03	757.26	799.88	821.98	823.72
Interest on Loan	194.74	242.15	349.98	386.39	444.44
Return on Equity	491.54	570.68	622.21	648.06	652.40
Interest on Working Capital	60.30	65.30	70.92	73.86	76.37
O&M Expenses	516.79	527.91	545.46	563.50	582.25
<b>Total</b>	<b>1955.40</b>	<b>2163.30</b>	<b>2388.45</b>	<b>2493.79</b>	<b>2579.18</b>

(₹ in lakh)

Asset-2					
Particulars	2014-15 (Pro-rata 31 days)	2015-16	2016-17	2017-18	2018-19
Depreciaton	7.35	88.26	91.86	94.01	94.10
Interest on Loan	1.71	22.55	32.48	35.96	41.51
Return on Equity	8.12	97.86	101.68	104.05	104.42
Interest on Working Capital	0.93	11.33	11.94	12.35	12.72
O&M Expenses	9.71	118.06	121.97	126.01	130.20
<b>Total</b>	<b>27.82</b>	<b>338.06</b>	<b>359.93</b>	<b>372.38</b>	<b>382.95</b>

11. The details of the trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-1					
Particulars	2014-15 (Pro-rata 280 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	43.11	43.99	45.46	46.96	48.52
Maintenance Spares	77.60	79.19	81.82	84.53	87.34
Receivables	325.99	360.55	398.08	415.63	429.86
<b>Total Working Capital</b>	<b>446.70</b>	<b>483.73</b>	<b>525.36</b>	<b>547.12</b>	<b>565.72</b>
Rate of Interest	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>60.30</b>	<b>65.30</b>	<b>70.92</b>	<b>73.86</b>	<b>76.37</b>

(₹ in lakh)

Asset-2					
Particulars	2014-15 (Pro-rata 31 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	9.52	9.84	10.16	10.50	10.85
Maintenance Spares	17.14	17.71	18.30	18.90	19.53
Receivables	54.59	56.34	59.99	62.06	63.83
<b>Total Working Capital</b>	<b>81.25</b>	<b>83.89</b>	<b>88.45</b>	<b>91.46</b>	<b>94.21</b>
Rate of Interest	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>0.93</b>	<b>11.33</b>	<b>11.94</b>	<b>12.35</b>	<b>12.72</b>



### **Date of Commercial Operation (“COD”)**

12. The Petitioner has claimed COD of Asset-1 as 1.4.2014 under proviso (ii) Regulation 4(3) of the 2014 Tariff Regulations as the associated downstream system under the scope of DNH was not ready and COD of Asset-2 as 1.3.2015.

13. The Petitioner has submitted that the LILO of 1<sup>st</sup> circuit of 400 kV D/C Vapi-Navi Mumbai line at Kala has been used to interconnect Kala Sub-station on one side with Navsari Sub-station (with usage of Navsari-Boisar line) and on other side with Vapi Sub-station (with usage of Vapi-Navi Mumbai line), to make it Vapi-Kala and Kala-Navsari 400 kV D/C transmission lines. Hence, the connectivity of Kala Sub-station was achieved from both the ends i.e. from Navsari end as well as Vapi end, with the charging of LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line. Further, with the said charging, entire 400/220 kV GIS Kala Sub-station (COD w.e.f. 1.4.2014) was completed in all respect and ready for utilization to provide power to the downstream system of DNH, as per approval of CEA's energization certificate dated 27.3.2014. In spite of the readiness of said transmission system under the scope of Petitioner, power flow in the system could not happen on that date due to delay in execution of downstream transmission system by the Electricity Department of DNH. The Petitioner has submitted that due to non-readiness of 220 kV downstream system of DNH, the Petitioner is not able to provide services for the reasons not attributable to itself, its suppliers, or contractors.

14. The Petitioner has submitted RLDC certificate as per which Asset-1 was charged on 'No Load' on 31.3.2014. Accordingly, the Petitioner has prayed for approval of COD of Asset-1 w.e.f. 1.4.2014 under proviso (ii) of Regulation 4(3) of





the 2014 Tariff Regulations. The Petitioner has claimed the actual COD of Asset-2 as 1.3.2015. In support of actual COD of Asset-2, the Petitioner has submitted CEA energisation certificate dated 27.3.2014, RLDC charging certificate dated 19.3.2015 wherein trial operation completed on 28.2.2015.

15. We have considered the submissions of the Petitioner. The Petitioner has claimed the COD of the LILO of one circuit of 400 kV D/C Vapi-Navi Mumbai transmission line along with 400/220 kV GIS Kala Sub-station (New) in UT D&NH 315 MVA 400/220 kV ICT-I and ICT-II and 80 MVAR, 420 kV Bus Reactor as 1.4.2014 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, as the associated downstream transmission system under the scope of Electricity Department, DNH was not ready.

16. Proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations provides as follows:

***“4. Date of Commercial Operation:*** *The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:*

*(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:*

*Provided that:*

*(i) Where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:*

*(ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission*



*system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”*

17. In terms of Regulation 4(3), COD for transmission system shall be the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service. However, proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations envisages that there might be a situation wherein the transmission system or an element thereof is prevented from regular services for reasons not attributable to the transmission licensee but on account of the delay in COD of the upstream or downstream transmission system and in such cases the transmission licensee shall approach the Commission for approval of COD of such system or element thereof.

18. The Petitioner has claimed the COD of Asset-I and Asset-II as 1.4.2014 and 1.3.2015 respectively. The Petitioner has discussed the contingency arrangement for Magarwada (UT-DD) and Kala (UT-DNH) 400/220 kV Sub-stations in various SCM/RPC meetings.

a) CEA vide letter dated 11.4.2014 has approved the contingency arrangement for Kala 400/200 kV Sub-station. The relevant extracts of the letter dated 11.4.2014 is as follows:

*“Sub: Contingency arrangement for Magarwada (UT-DD) and Kala (UT -DNH) 400/220 kV substations of POWERGRID-in principle approval.*

*Sir.*

*Vide letters under reference, POWERGRID has informed the following*

*i) The establishment of 400/220 kV 2x315 MVA Kala S/S (GIS) in UT of DNH by LILO of both circuits of 400 kV Vapi-Kudus D/C line and establishment of 400/220 kV 2x315 MVA Magarwada S/S (GIS) in UT of DD by LILO of both circuits of 400 kV Navsari-Boisar D/C line is being implemented by POWERGRID as regional system strengthening scheme.*



ii) Severe RoW issues are being faced by POWERGRID in implementing the Magarwada-Boisar section and Kala- Kudus section of the Navsari- Boisar 400 kV D/C line and Vapi- Kudus 400 kV D/C line respectively.

iii) ii) The 2x315 MVA, 400/220 kV Magarwada S/S and 2x315 MVA, 400/220 kV Kala S/S are ready for commissioning Also the Navsari-Magarwada portion of Nasari-Boisar 400 kV D/C line and Vapi-Kala portion of Vapi-Kudus 400 kV D/C line would be ready shortly.

iv) The Kala-Khadoli 220 KV D/C line for drawal of power from Kala S/S by DNH would be ready shortly but associated 220 kV bays at Khadoli S/S are getting delayed.

v) In order to supply power to DNH from Kala ISTS sub-station and relieve over loading of existing transformers at Vapi 400/220 kV substation of POWERGRID and 220/66 KV Bhilad sub-station of GETCO, POWERGRID has proposed the following contingency arrangement and has requested in principle approval for the same:

a) Phase-I: Opening of interconnection of Navsari-Vapi 400 kV D/C lines at the start of multi-circuit point and connecting it in a manner so as to form Vapi- Kala 400 kV D/c line and Kala-Navsan 400 kV D/C line

b) Opening of one circuit of Vapi-Khadoli 220 kV D/C (existing) line near Khadoli and connecting it with Kala-Khadoli 220 KV D/C line, so as to form 144 Considering the length of 400 kV lines of Aurangabad-Pune (GIS) and Parli- Pune (GIS) 50 MVAR line reactors were provided by POWERGRID on each circuit at Pune (GIS) end (4x50 MVAR) and the same was agreed by CEA.

c) Phase II: LILO of Kala- Navsan 400 kV D/C line at 400/220 kV Magarwada substation thereby making the following

- Vapi-Kala 400 KV D/C line.
- Kala - Magarwada 400 kV D/C line
- Maragwada-Navsari 400 kv D/C line.

The contingency proposal made by POWERGRID has been examined and our observations are as given below

1) Interconnection of Navsari 400 KV (GIS) and Vapi 400 kV substation was agreed in 34 SCM of WR held on 09-05-2012 as an interim arrangement to provide an additional feed to Vapi. This was to be implemented through interconnection of Navsan-Boisar and Vapi-Navi Mumbai (Kudus) 400 kV D/C lines at a point where multi circuit portion of these lines starts.

With readiness of the sections of the Navsari-Boisar and Vapi-Navi Mumbai (Kudus) 400 kV D/C lines between the starting point of multi circuit and Kala, the above interim arrangement has been proposed by POWERGRID except the two nos of 220 kV bays at Khadoli

For drawal of power from Kala 400/220 KV substation, out of the two nos of 220 KV D/C lines, Kala- Khadoli 220 kV D/C line is ready for commissioning For drawal of power from Magarwada 400/20 kV substation, timeline for the readiness of the two



*nos of 220 kV D/C lines has not been indicated The load flow studies carried out by POWERGRID shows that the proposed contingency arrangement helps in relieving the loading on 400/220 kV ICTs at Vapi*

*In view of above,(Phase-1) of the contingency arrangement proposed by POWERGRIP as given below is agreed in principle:*

*a) Phase-I: Opening of interconnection of Navsari-Vapi 400 KV D/C lines at the start of multi-circuit point and connecting it in a manner so as to form Vapi Kala 400 KV D/c line and Kala-Navsari 400 kV D/C line*

*b) Opening of one circuit of Vapi-Khadoli 220 kV D/C (existing) line near Khadoli and connecting it with Kala-Khadoli 220 kV D/C line, so as to form*

*• Vapi-Khadoli 220 KV S/C Kala-Vapi 220 KV S/C*

*• Kala-Khadoli 220 KV S/C*

*The interim arrangement would be restored to original configuration after the completion of remaining portions of the above lines ie Kala-Kudus and Magarwada-Boisar 400 kV D/C lines and completion of 220 kV bays at Khadoli. The proposal would be formalized in the next WR Standing Committee Meeting on Power System Planning of WR”*

- b) As per the Minutes of Meeting of the 37<sup>th</sup> meeting of the Standing Committee on Power System Planning in Western Region held on 5.9.2014, Contingency arrangement for Kala 400/200 kV Sub-station was made. The extracts of the MoM are as follows:

**“13.0 Contingency arrangement for Kala 400/220 kV substation of POWERGRID**

*13.1 Director (SP&PA), CEA stated that establishment of 400/220 kV 2x315 MVA Kala S/S (GIS) in UT of DNH by LILO of both circuits of 400 kV Vapi-Kudus D/C line and establishment of 400/220 kV 2x315 MVA Magarwada S/S (GIS) in UT of DD by LILO of both circuits of 400 kV Navsari-Boisar D/C line is being implemented by POWERGRID as regional system strengthening scheme. POWERGRID is facing severe RoW issues in implementing both the lines beyond Kala towards Kudus and Boisar. POWERGRID has proposed a contingency arrangement in two phases as given below, in order to utilise the completed portions of the above lines and Kala and Magarwada sub-stations.*

*a) Phase-I : Opening of interconnection of Navsari-Vapi 400 kV D/C lines at the start of multi-circuit point and connecting it in a manner so as to form Vapi-Kala 400 kV D/c line and Kala-Navsari 400 kV D/C line.*

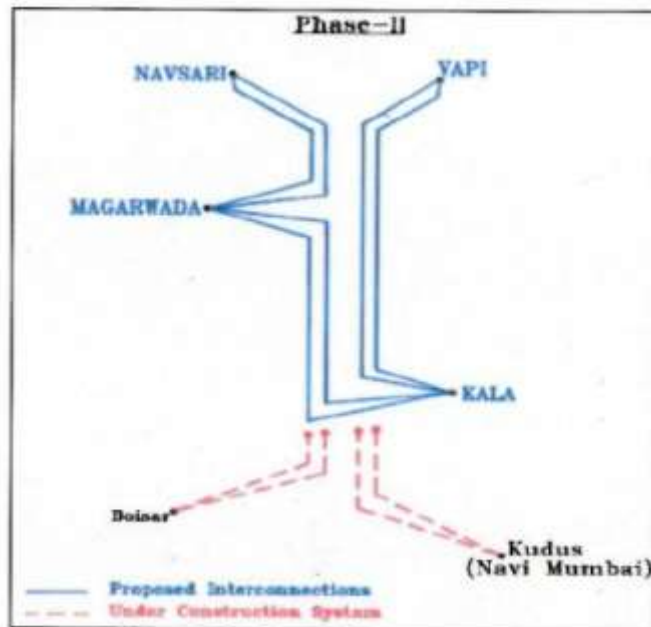
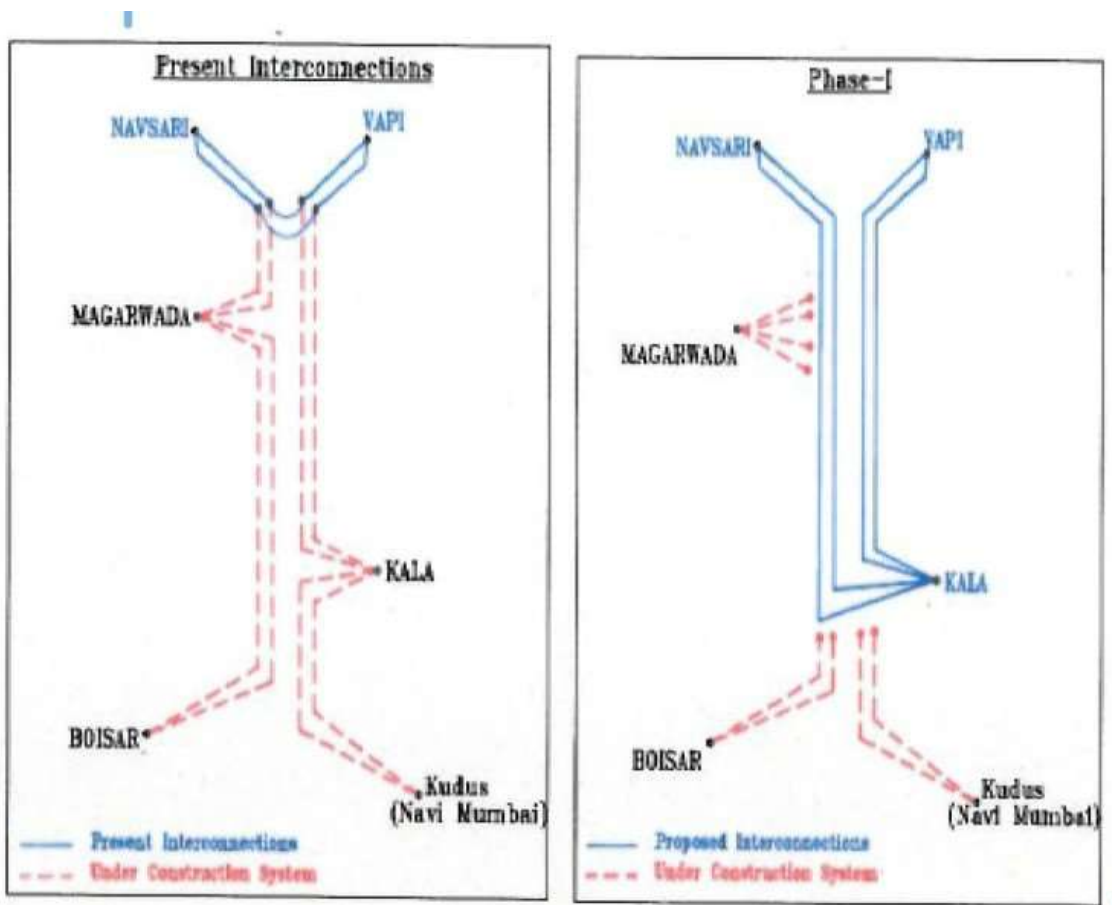
*b) Opening of one circuit of Vapi-Khadoli 220 kV D/C (existing) line near Khadoli and connecting it with Kala-Khadoli 220 kV D/C line, so as to form Vapi-Khadoli 220 kV S/C, Kala-Vapi 220 kV S/C and Kala-Khadoli 220 kV S/C*

*c) Phase II : LILO of Kala- Navsari 400 kV D/C line at 400/220 kV Magarwada substation thereby making the following*

*• Vapi- Kala 400 kV D/C line.*



- Kala – Magarwada 400 kV D/C line.
- Maragwada – Navsari 400 kv D/C line.



13.2 He added that the interconnection of Navsari 400 kV (GIS) and Vapi 400 kV substation was agreed in 34th SCM of WR held on 09-05-2012 as an interim arrangement to provide an additional feed to Vapi. This was implemented through interconnection of Navsari-Boisar and Vapi-Navi Mumbai (Kudus) 400 kV D/C lines at a point where multi circuit portion of these lines starts. In principle approval of CEA for the contingency arrangement as indicated above was granted to POWERGRID to enable UTs of DNH and D&D to draw power from Kala and Magarwada ISTS substations respectively. This would also help in relieving the over loading of existing transformers at Vapi 400/220 kV substation of POWERGRID and 220/66 kV Bhilad sub-station of GETCO. He requested POWERGRID to inform the status of implementation of the contingency arrangement.

13.3 POWERGRID informed that the Phase-I of the interim arrangement has already been implemented and Phase-II would be implemented by October 2014.

13.4 Director (SP&PA), CEA stated that the interim arrangement would be restored to original configuration after the completion of remaining portions of the above 400 kV lines and completion of 220 kV bays at Khadoli.

13.5 After further deliberations, Members concurred with interim arrangement proposal.”

In the instant case, the Petitioner has implemented the contingency arrangement for Magarwada (UT-DD) and Kala (UT-DNH) 400/220 kV Sub-stations on 1.4.2014, however actual power flow could start only from 25.6.2014 when 1 number 220 kV downstream bay associated with 220 kV Kala-Khalodi-1 commissioned .Therefore, we are of the view that the Asset-1 has served the intended purpose only from the date of power flow. Therefore, we are not inclined to approve the COD of Asset-1 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. As such COD of the Asset-1 is approved as 25.06.2014.

Taking into consideration self-declaration of COD letter, CEA energisation certificate and RLDC charging certificate w.r.t. Asset-2 submitted by the Petitioner, COD of Asset-2 is approved as 1.3.2015.

### **Capital Cost**

19. The Petitioner has claimed the following capital cost for the transmission assets and has submitted the Auditor's Certificate in support of the same:





(₹ in lakh)

Assets	FR appor- tioned approved cost	RCE appor- tioned approved cost	Cost up to COD	Additional Capital Expenditure (ACE)					Total as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1868.90	1911.41	12706.69	1628.48	949.79	793.51	81.09	7.78	16221.40
Asset-2	16324.10	18159.59	1622.50	10.13	47.35	80.17	0.00	3.24	1763.39
<b>Total</b>	<b>18193.00</b>	<b>20071.00</b>	<b>14329.19</b>	<b>1638.61</b>	<b>997.14</b>	<b>873.68</b>	<b>81.09</b>	<b>11.02</b>	<b>17984.79</b>

20. The Petitioner has submitted that the total estimated completion cost of the transmission assets up to 31.3.2019 is ₹17984.79 lakh against FR approved cost of ₹18193.00 lakh and RCE approved cost of ₹20071.00 lakh. The estimated capital costs of individual asset are also within the FR approved apporportioned cost. Therefore, there is no cost over-run w.r.t. FR cost as on 31.3.2019.

21. The Petitioner has submitted item-wise cost variation in Form-5 and the same is as follows:

**Asset-1**

(₹ in lakh)

Sl. No.	Details of Assets being filed	FR Cost	Actual capital cost	Difference
		(1)	(2)	(2)-(1)
1	Transmission line preliminary works including compensation	65.52	504.42	438.90
2	Transmission line material including taxes and duties	2898.55	4645.56	1747.01
	<b>Total – transmission line</b>	<b>2964.07</b>	<b>5149.98</b>	<b>2185.91</b>
3	Sub-station preliminary works and land	261.76	365.63	103.87
4	civil works	1576.00	720.59	(855.41)
5	Total Sub-station including spares and taxes	9555.71	8480.50	(1075.21)
	<b>Total – Sub-station</b>	<b>11393.47</b>	<b>9566.71</b>	<b>(1826.75)</b>
6	Communication system preliminary works, equipment, taxes, P&M	-	-	-
7	Communication construction and precommissioning, contingency, overheads	-	-	-
	<b>Total - communication systems</b>	<b>-</b>	<b>-</b>	<b>-</b>
8	Overheads (IEDC)	1434.09	522.86	(911.23)
9	IDC, FC, FERV & Hedging Cost	532.47	981.87	449.40





Sl. No.	Details of Assets being filed	FR Cost	Actual capital cost	Difference
		(1)	(2)	(2)-(1)
	<b>Total – IEDC, IDC, FC, FERV &amp; Hedging Cost</b>	<b>1966.56</b>	<b>852.06</b>	<b>(461.83)</b>
	<b>Grand Total</b>	<b>16324.10</b>	<b>16221.41</b>	<b>(102.67)</b>

## Asset-2

(₹ in lakh)

Sl. No.	Details of Assets being filed	FR Cost	Actual capital cost	Difference
		(1)	(2)	(2)-(1)
1	Transmission line preliminary works including compensation	0.00	0.00	0.00
2	Transmission line material including taxes and duties	509.89	625.63	115.74
	<b>Total – transmission line</b>	<b>509.89</b>	<b>625.63</b>	<b>115.74</b>
3	Sub-station preliminary works and land	0.00	0.00	0.00
4	civil works	0.00	0.00	0.00
5	Total Sub-station including spares and taxes	843.70	890.90	47.20
	<b>Total – Sub-station</b>	<b>843.70</b>	<b>890.90</b>	<b>47.20</b>
6	Communication system preliminary works, equipment, taxes, P&M	-	-	-
7	Communication construction and precommissioning, contingency, overheads	-	-	-
	<b>Total - communication systems</b>	<b>-</b>	<b>-</b>	<b>-</b>
8	Overheads (IEDC)	457.49	133.97	(323.52)
9	IDC, FC, FERV & Hedging Cost	57.87	112.88	55.01
	<b>Total – IEDC, IDC, FC, FERV &amp; Hedging Cost</b>	<b>515.36</b>	<b>246.85</b>	<b>(268.51)</b>
	<b>Grand Total</b>	<b>1868.95</b>	<b>1763.38</b>	<b>(105.57)</b>

22. The Petitioner has further submitted that the Petitioner has been following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. Through this process, lowest possible market prices for required product/ services/ as per detailed designing is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market forces, design and site requirements.



The reasons for item wise cost variation is explained at Form-5 submitted by the Petitioner. Accordingly, the capital cost as claimed in instant petition may be allowed.

23. We have considered the submissions of the Petitioner. As compared with the FR cost of Asset-1 and Asset-2 of ₹16324.10 lakh and ₹1868.95 lakh respectively, the estimated completion cost is lower by an amount of ₹102.67 lakh and ₹105.57 lakh respectively. Further, as compared with RCE cost of Asset-1 and Asset-2 of ₹18159.59 lakh and ₹1911.41 lakh, the estimated completion cost is lower by an amount of ₹1938.19 lakh and ₹148.02 lakh respectively. Thus, the estimated completion cost of the transmission assets is within the FR apportioned cost and the same is allowed.

#### **Time over- run**

24. As per IA dated 7.7.2011, the transmission assets were scheduled to be put into commercial operation within 24 months from the date of IA. Accordingly, SCOD of the transmission assets was 7.7.2013. However, the Asset-1 and Asset-2 were put into commercial operation on 25.6.2014 and 1.3.2015 respectively. Thus, there is a time over-run of 353 and 602 days in case of Asset-1 and Asset-2 respectively. 25. The Petitioner has submitted the following reasons for time over-run in case of Asset-1 and Asset-2:

#### **Asset-1**

- i. The 400/220 kV Kala-GIS Sub-station along with multi Ckt transmission line for LILO of Vapi-Navi Mumbai line was ready for commissioning since June, 2013. However, the associated 400 kV D/C Vapi-Navi Mumbai transmission



line under WRSS-V, from where LILO portion on multi-circuit towers (Scope under subject project) were to be connected, has been delayed on account of severe RoW issues and forest clearance. Hence, it was decided to execute the Vapi-Navi Mumbai line in a phased manner in the various SCMs discussed as follows:

a. Initially, under interim contingency arrangement, part of 400 kV D/C Vapi-Navi Mumbai line (from Vapi Gantry up to AP 18 along with bay extension at VAPI Sub-station) and its interconnection with Navsari-Boisar transmission line (being constructed under Mundra UMPP) was executed w.e.f. 1.4.2013 and a tariff in Petition No. 60/TT/2013 was filed seeking its tariff as per the approval accorded in the 34<sup>th</sup> SCM held on 9.5.2012. Subsequently, the RoW issues and forest clearance in portion from AP-18/0 to AP-45A/0 were resolved and the line was made ready up to AP-45A/0. Meanwhile, the termination point has been changed from Navi Mumbai to Kudus Sub-station due to RoW issues at Navi Mumbai Sub-station (as agreed in 34<sup>th</sup> SCM of WR dated 9.5.2012).

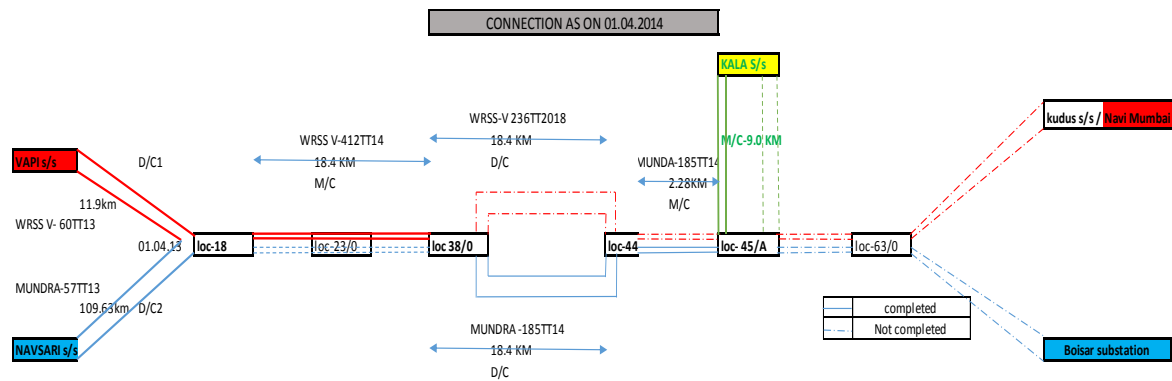
b. In view of over loading of Vapi Sub-station ICTs and readiness of upcoming Kala GIS Sub-station and Magarwada Sub-station, the matter was discussed in detail with CEA. As per in-principle approval of CEA conveyed *vide* letter dated 11.4.2014, the contingency arrangement proposed by the Petitioner was agreed to. The details of the interim arrangement are as follows:

**i Phase-I: Opening of interconnection of Navsari-Vapi 400 kV D/C lines at the start of multi-circuit point and connecting it in a manner so as to form Vapi-Kala 400 kV D/C line and Kala-Navsari 400 kV D/C line:**

Loop in portion of Vapi-Navi Mumbai at Kala has been used to inter-connect Kala Sub-station on one side with Navsari Sub-station (of Navsari-Boisar line) and Loop out portion, on other side with Vapi



Sub-station (of Vapi-Navi Mumbai transmission line), to make it Vapi-Kala and Kala-Navsari 400 kV transmission lines. Hence, the connectivity of Kala Sub-station has been done from both the ends i.e. Navsari as well as Vapi Sub-station with help to charging LILO of 1st Ckt. The 2<sup>nd</sup> circuit of LILO could not be charged and put under commercial operation due to non-readiness of portion AP 38/0 to AP 43B/0 of transmission line by JSL due to fire and RoW issues. The details of line segments and COD thereof covered in various tariff orders is as follows:



details of associated section of line and their orders as on 01.04.2014			
starting point	termination point	DOCO	ORDER DT & PETITION NO
vapi s/s ( S/C)	loc-18 ( S/C)	01.04.2013	09.03.2015 in pet. NO. 60/TT/2013 ( WRSS-V)
loc-18 ( D/C 1)	LOC 38/0 ( D/C 1)	01.04.2014	22.03.2016 in pet. NO. 412TT2014 ( WRSS-V)
LOC 38/0 ( D/C 1)	LOC 45/A ( D/C 1)	1.04.2014	29.04.2016 in pet. NO. 185TT2014 9 ( MUNDRA)
LOC 45/A ( D/C 1)	KALA S/S	01.04.2014	instant petition ( KALA)
loc-18 ( S/C)	Navsari s/s (S/C)	01.04.2013	19.10.2018 in pet. NO. 193TT2017 ( WRSS-V)

c. Further, the delay in charging Asset-1 was due to delay in Vapi-Navi Mumbai line in which LILO multi-ckt was to be connected. That portion of Vapi-Navi Mumbai line was completed and put under commercial operation from 1.4.2014 and is covered in Petition No. 412/TT/2014. The details of RoW issues along with documentary evidence has already been submitted by the Petitioner in Petition No. 412/TT/2014.



d. We have considered the submissions of the Petitioner. The Commission vide order dated 22.3.2016 in Petition No. 412/TT/2014 has held as follows:

*“16. The petitioner has further submitted that there was severe RoW problems in 400 kV D/C Naysari-Boisar Transmission Line due to forest involvement of 12.40 km (57.04 Ha). Around 101 Nos. of locations and approximately 40 km of stringing in 400 kV D/C Navsari-Boisar Transmission Line is affected on account of forest clearance. Due to severe RoW problems the forest proposal for 400 kV D/C Vapi-Navi Mumbai Transmission Line under WRSS-V has been divided in three parts as Vapi-Kala, Kala- Kudus and Kudus-Navi Mumbai. The RoW constraint is also noted in the 36th SCM on Power System Planning held on 26.9.2013. The petitioner has also submitted a copy of the same along with the petition.*

*17. The petitioner has submitted that the forest approval for 400 kV D/C Vapi-Kala part of Vapi-Navi Mumbai Transmission Line has been accorded on 23.10.2013. The 400 kV D/C Vapi-Kala portion (AP18-AP38) has been charged in March, 2014 (COD: 1.4.2014) through D/C portion of 400 kV Navsari-Boisar Transmission Line from AP 38 to AP 44 and M/C portion from AP 44 to AP 45 A/O so as to establish direct connection from Vapi Sub-station to Kala GIS.*

*18. We have considered the submission of the petitioner and documents placed in support of the time over-run. The time taken for resolving the RoW issues was beyond the control of the petitioner and hence it is not attributable to the petitioner. **Therefore, the time over-run of 42 months in respect of the instant has been condoned.**”*

26. It is observed that Asset-1 cannot be put into commercial operation without operationalizing the 400 kV D/C Vapi-Kala portion (AP18-AP38). As pointed above, the Commission has already condoned the time over-run of 42 months, vide order dated 22.3.2016 in Petition No. 412/TT/2014, due to RoW problems. As the COD of the Asset-1 is dependant on the COD of the 400 kV D/C Vapi-Kala portion (AP18-AP38) and the time over-run in case of said element has already been condoned, we condone the time over-run from 7.7.2013 to 1.4.2014 (268 days) in case of Asset-1.



27. As regards the time over-run from 1.4.2014 to 25.6.2014, it is observed that the Petitioner faced RoW problems at location No.45/A, due to which the Petitioner was not able to complete LILO of 400 kV D/C Vapi-Navi Mumbai transmission line along with 400/220 kV GIS Kala Sub-station (New) . We have perused the documents and the submissions made by the Petitioner regarding the issues faced by the Petitioner at location No.45/A. It is observed that the RoW problems faced by the Petitioner from 1.4.2014 to 25.6.2014 were beyond the control of the Petitioner and accordingly we condone the same. Accordingly, the total time over-run of 353 days, from 7.7.2013 to 25.6.2014, in case of Asset-1 is condoned.

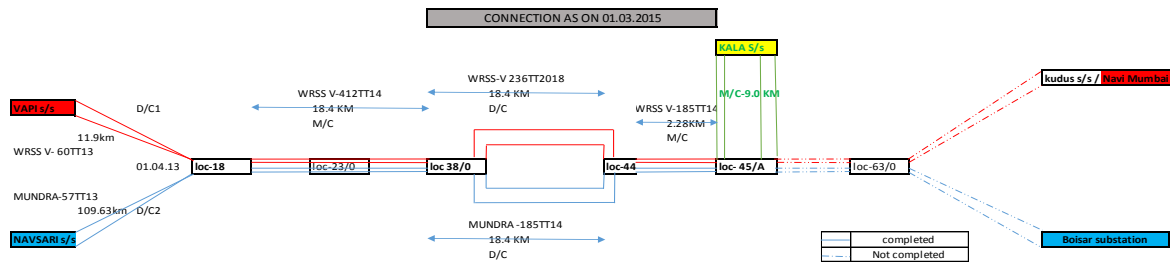
### **Asset-2**

28. The Petitioner has submitted that in the 37<sup>th</sup> SCM of WR held on 10.10.2014, the Contingency arrangement (Phase-II) for Kala 400/220 kV Sub-station of the Petitioner was discussed and agreed for charging of Kala and Magarwada Sub-station. The details of the interim arrangement are as follows:

Phase-II: LILO of Kala-Navsari 400 kV D/C line at 400/220 kV Magarwada Sub-station thereby making (i) Vapi-Kala, (ii) Kala-Magarwada and (iii) Magarwada-Navsari 400 kV D/C lines.

29. The Petitioner has submitted that LILO portion of 2<sup>nd</sup> Circuit of 400 kV D/C line along with associated 400 kV bays at Kala GIS Sub-station was electrically charged on 28.2.2015 and the same was certified *vide* RLDC charging certificate dated 19.3.2015. Asset-2 was ready along with Asset-1, as evident from the CEA energisation certificate dated 27.3.2014, after the execution of D/C portion of WRSS-V between AP 38/0 to AP 43B/0 in February, 2015 along with Magarwada Sub-station with the active support of the local administration. The details of line segments and COD thereof covered in various tariff orders are as follows:





details of associated section of line and their orders as on 01.03.2015			
starting point	termination point	DOCO	ORDER DT & PETITION NO
vapi s/s ( D/C)	loc-18 ( D/C)	01.04.2013	09.03.2015 in pet. NO. 60/TT/2013 ( WRSS-V)
loc-18 ( D/C 1)	LOC 38/0 ( D/C 1)	01.04.2014	22.03.2016 in pet. NO. 412TT2014 ( WRSS-V)
LOC 38/0 ( D/C 1)	LOC 45/A ( D/C 1)	1.04.2014	29.04.2016 in pet. NO. 185TT2014 9 ( MUNDRA)
LOC 45/A ( D/C 1)	KALA S/S	01.04.2014	instant petition
KALA S/S	LOC 45/A ( D/C 2)	01.03.2015	instant petition
LOC 45/A ( D/C 2)	LOC 38/0 ( D/C 2)	01.03.2015	06.08.2019 in pet. NO. 236TT2018 (WRSS V)
LOC 38/0 ( D/C 2)	loc-18 ( D/C-2)	01.03.2015	22.03.2016 in pet. NO. 412TT2014 ( WRSS-V)
loc-18 ( D/C-2)	Navsari s/s ( D/C)	01.03.2015	15.03.2016 in pet. NO. 157TT2013 (MUNDRA)

30. The Petitioner has submitted that the D/C portion of WRSS-V between AP 38/0 to AP 43B/0 could be completed by February, 2015. The delay was due to severe RoW issues. The Petitioner has submitted the details of RoW issues along with documentary evidence in support of its claim for condonation of time over-run. This fact was placed before the Commission in Petition No. 236/TT/2018 and Commission *vide* order dated 6.8.2019 accepted the same and has condoned the entire time over-run.

31. The Petitioner has submitted the reason for delay between 1.4.2014 to 1.3.2015, along with supporting documents, which were already allowed by the Commission in order dated 6.8.2019 in Petition No. 236TT/2018.

32. We have considered the submission of the Petitioner. The Petitioner has submitted that the time over-run in case of Asset-2 is mainly on account of RoW problems in execution of the part of 400 kV D/C Navsari-Boisar transmission line





from AP 18 to AP 38/0 through LILO point of 400 kV D/C Navsari Boisar at Magarwada GIS (23B/0) (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus) and part of 400 kV D/C Vapi-Kudus transmission line from AP 38/0 to AP 44. The Petitioner has submitted the details of RoW issues along with documentary evidence in support of its claim for condonation of time over-run. It is observed that the part of 400 kV D/C Navsari-Boisar transmission line from AP 18 to AP 38/0 through LILO point of 400 kV D/C Navsari Boisar at Magarwada GIS (23B/0) (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus) and Part of 400 kV D/C Vapi-Kudus transmission line from AP 38/0 to AP 44 is covered under WRSS-V and tariff for the concerned portion from 38/0 to AP 43B/0 was claimed in Petition No. 236/TT/2018. The line portion between Loc. 38/0 to Loc. 45/A (D/C-2) was executed with a time over-run of about 53 months and 6 days and put to commercial use w.e.f. 1.3.2015. It is also observed that the part of 400 kV D/C Vapi-Kudus transmission line from location 44-45 A/0 (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus)-400 kV D/C Navsari-Boisar portion from location 44 to 45 A/0 was executed on 1.3.2015 and the Commission vide order dated 23.7.2018 in Petition No. 207/TT/2017 has condoned the time over-run due to RoW problems.

33. The Commission vide order dated 6.8.2019 in Petition No. 236/TT/2018 condoned the entire time over-run upto COD i.e. 1.3.2015. The relevant extracts of the order is as follows:

*“24. We have considered the submissions made by petitioner and MPPMCL. We are of the view that the time over-run should be considered with reference to the timeline approved in the original Investment Approval. As per the investment approval, the schedule completion is within 33 months from the date of Investment Approval. The*



date of Investment Approval was 26.12.2007. Hence, the commissioning schedule comes to 25.9.2010, against which, the subject assets were put into commercial operation on 1.3.2015 and 31.12.2017 respectively with time over-run of 53 months 6 days (1618 days) in case of Asset-1 and 87 months 6 days (2654 days) in case of Asset-2. Asset-wise time overrun is discussed under the subsequent para.

25. Asset-1 was put into commercial operation on 1.3.2015 with time overrun of 53 months 6 days. After investment approval on 26.12.2007, the letter of award LOA was placed on 28.12.2007. As discussed at para 20 above in detail, the petitioner has submitted that delay is mainly on account of change in termination point of 400 kV D/C Navsari - Mumbai (new location) to Boisar instead of Mumbai (new location), delay in forest clearance and ROW issues.

26. This Commission vide order dated 23.7.2018 in Petition No. 207/TT/2018, in a similar case of time overrun due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) has condoned the time overrun. The relevant para is as follows:

“36. After the Investment Approval dated 15.10.2008, the work was delayed due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from 4.11.2008 to 8.7.2010 i.e. a total time period of 20 months 5 days were affected. We are of the view that the total delay of 20 months 5 days due to change in termination point of 400 kV D/C NavsariMumbai (New location) to Boisar instead of Mumbai (New Location) from date 4.11.2008 to 8.7.2010 were beyond the control of the petitioner and accordingly, the time over-run of 20 months 5 days i.e. from date 4.11.2008 to 8.7.2010 is condoned”.

27. Accordingly, in present case also, after the Investment Approval dated 26.12.2007, the work was delayed due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from investment approval dated 26.12.2007 to 8.7.2010 i.e. time period of 30 months 13 days were affected. We are of the view that the time overrun of 30 months 13 days due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from 26.12.2007 to 8.7.2010 were beyond the control of the petitioner and accordingly, the time over-run of 30 months 13 days i.e. from date 26.12.2007 to 8.7.2010 is condoned.

28. With regard to ROW issues, it is observed that, for the first time, the petitioner in 32nd meeting of SCM dated 13.5.2011 raised the issues and difficulties coming due to ROW issues in commissioning of 400 kV D/C Navsari - Boisar T/L and 400 kV D/C Vapi - Navi Mumbai transmission line and difficulties due to ROW were also discussed during various SCMs from 32<sup>nd</sup> to 37<sup>th</sup> (32<sup>nd</sup> SCM dated 13.5.2011, 34<sup>th</sup> dated 9.5.2012, 35<sup>th</sup> dated 3.1.2013 and 37<sup>th</sup> dated 5.9.2014). Thus, based on various discussions made in SCM meetings dated 32<sup>nd</sup>, 34<sup>th</sup>, 35<sup>th</sup> and 37<sup>th</sup> in which ROW issues were raised, we are of the view that, the time overrun on account of ROW issues from 13.5.2011 to 5.9.2014 i.e. 39 months 23 days is beyond the control of the petitioner and hence same is condoned.

29. With regard to forest clearance, it is observed that the petitioner made forest proposal on 11.2.2013 for entire 400 kV D/C Navasari - Boisar Transmission line and forest clearance was received on 16.4.2016. However, actual COD of the Asset-1 is



1.3.2015. The period from 11.2.2013 to 5.9.2014 is subsumed in ROW issue under para 28 above and has already been condoned under ROW issue.

30. Further, from the activity-wise details submitted by petitioner in affidavit dated 25.1.2019, it is observed that after ROW Issues were resolved in month of September 2014, the balance work like Tower erection, Stringing, Testing and commissioning was completed upto March 2015 and the asset was put into commercial operation on 1.3.2015.

31. It is evident that due to shifting of zero date remaining activities to achieve commercial operation were also shifted, therefore period from September 2014 to March 2015 would also be required to be condoned. It may also be added that part of time taken for forest clearance up to date of commercial operation for this asset would also be subsumed in this period. As a result, total delay from 25.9.2010 to 1.3.2015 would work out to 53 months and 06 days which is condoned due to reasons mentioned in preceding paras.”

34. Asset-2 was installed under Phase-II of the interim arrangement agreed in 37<sup>th</sup> SCM of WR held on 10.10.2014. Therefore, the delay in execution of Asset-2 was beyond the control of the Petitioner. Hence, the submission of the Petitioner that the delay occurred due to execution of line portion between Loc. 38/0 to Loc. 45/A (D/C-2) is justified. In view of the aforesaid order of the Commission, the time over-run of 602 days is being condoned and IDC and IEDC for the said period is capitalised. Accordingly, the time over-run of 602 days i.e. from 7.7.2013 (SCOD) to 1.3.2015 (COD) due to severe RoW issues is condoned.

35. Accordingly, the decision with regard to time over-run in respect of the transmission assets covered in the instant petition is as follows:

Assets	SCOD	COD	Time over-run (days)	Time over-run condoned (days)	Time over-run not condoned (days)
Asset-1	7.7.2013	25.6.2014	353	353	0
Asset-2		1.3.2015	602	602	0



### **Interest During Construction (“IDC”)**

36. The Petitioner has claimed the following IDC in respect of the transmission assets and has submitted the Auditor’s Certificates in support of the same. The Petitioner has submitted the statement showing IDC claim along with year-wise details of the IDC discharged as follows:

(₹ in lakh)

Assets	IDC as per Auditor’s Certificate	IDC discharged up to COD	IDC discharged during 2014-15	IDC Discharged during 2015-16	IDC Discharged during 2016-17
	A	B	C	D	E
Asset-1	329.20	310.67	18.53	-	-
Asset-2	61.88	60.22	0.00	1.66	-

37. We have considered the submissions of the Petitioner. The allowable IDC has been worked out considering the information submitted by the Petitioner. Further, the loan amount as on COD has been mentioned in Form-6 and Form-9C. However, the allowable IDC has been worked out relying on loan amount as per Form-9C. IDC claimed and considered as on COD and summary of discharge of IDC up to COD and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

Assets	IDC claimed by the Petitioner as per Auditor’s Certificate	IDC Admissible	IDC dis-allowed due to computational error	IDC discharged as on COD	IDC undis-charged as on COD
	A	B	C=A-B	D	E=B-D
Asset-1	329.20	161.28	167.92	161.28	0.00
Asset-2	61.88	30.78	31.10	30.78	0.00

### **Incidental Expenditure During Construction (“IEDC”)**

38. The Petitioner has claimed COD of Asset-1 as 1.4.2014 and Asset-2 as 1.3.2015 and has claimed IEDC of ₹522.86 lakh and ₹133.97 lakh for Asset-1 and Asset-2 respectively, and has submitted an Auditor’s Certificate in support of the



same. The Commission in the instant order has approved the COD of Asset-1 as 25.6.2014 and Asset-2 as 1.3.2015. The Petitioner has submitted that entire IEDC claimed in the Auditor's Certificates is on cash basis and is paid up to COD of the transmission assets. IEDC considered in respect of the transmission asset as on COD for the purpose of tariff determination in the instant order is as follows:

(₹ in lakh)				
Assets	IEDC claimed as per Auditor's Certificate (A)	IEDC discharged up to COD (B)	IEDC disallowed due to time over-run/ computational difference (C)	IEDC Allowed (B-C)
Asset-1	522.86	522.86	0.00	522.86
Asset-2	133.97	133.97	0.00	133.97

### Initial Spares

39. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:

**“13. Initial Spares:** Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

.....

(d) *Transmission System*

- |  |         |
|--|---------|
| (i) <i>Transmission line</i>                             | - 1.00% |
| (ii) <i>Transmission sub-station (Green Field)</i>       | - 4.00% |
| (iii) <i>Transmission sub-station (Brown Field)</i>      | - 6.00% |
| (iv) <i>Series Compensation devices and HVDC Station</i> | - 4.00% |
| (v) <i>Gas Insulated sub-station</i>                     | - 5.00% |
| (vi) <i>Communication System</i>                         | - 3.5%  |

40. The Petitioner has claimed the following Initial Spares for the transmission assets on overall project basis and has prayed to allow the same:



(₹ in lakh)					
Assets	Particulars	Plant & Machinery Cost excluding IDC, IEDC, land cost and cost of civil works as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Norm (in %) (C)	Initial Spares worked out by the Petitioner
					$D = [(A-B)*C / (100-C)]$
Asset-1	Transmission Line	5376.27	46.99	1.00	53.83
	Sub-station (GIS)	9120.34	485.99	5.00	454.43
Asset-2	Transmission Line	625.63	6.00	1.00	6.26
	Sub-station (GIS)	890.90	44.50	5.00	44.55

41. We have considered the submissions of the Petitioner. As per the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, the Initial Spares are to be allowed as per the norm on overall project cost. The relevant portion of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017 is as follows:

*"8.13.....We do not agree with this methodology of restricting initial spares asset/element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true-up."*

42. We have considered the submissions of the Petitioner. As per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as a percentage of the project cost as a whole. In the present case, the transmission assets were put into commercial operation during 2014-19 tariff period and the 2014 Tariff Regulations are applicable for the transmission assets. The entire transmission project was completed during 2014-19 tariff period, the overall project cost of the transmission assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual



asset in 2014-19 tariff period and the Initial Spares are allowed on the basis of overall project cost in 2019- 24 tariff period.

43. The details of the Initial Spares allowed for the transmission assets for 2014-19 tariff period are as follows:

**Sub-stations:**

(₹ in lakh)

Assets	P&M cost considered as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Norm (in %) (C)	Initial Spares worked out $D = [(A-B)*C / (100-C)]$	Initial Spares allowed	Excess Initial Spares dis-allowed
Asset-1	9120.34	485.99	5.00	454.44	454.44	31.55
Asset-2	890.90	44.50	5.00	44.55	44.50	0.00

**Transmission Line:**

(₹ in lakh)

Asset	Plant & Machinery cost considered as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out $D = [(A-B)*C / (100-C)]$	Initial Spares allowed	Excess Initial Spares dis-allowed
Asset-1	5376.27	46.99	1	53.83	46.99	0.00
Asset-2	625.63	6.00	1	6.26	6.00	0.00

**Capital Cost as on COD**

44. Accordingly, the details of capital cost allowed as on COD after adjustment of IDC, IEDC and Initial Spares are as follows:

(₹ in lakh)

Assets	Capital cost as on COD as per Auditor's Certificate (A)	Less		Capital cost allowed as on COD (A-B-C)
		IDC Disallowed (B)	Excess Initial Spares (C)	
Asset-1	12706.69	167.92	31.55	12507.22
Asset-2	1622.50	31.10	0.00	1591.40

**Additional Capital Expenditure ("ACE")**

45. The cut-off date in case of Asset-1 and Asset-2 is 31.3.2017 and 31.3.2018 respectively.





46. The details of ACE claimed by the Petitioner under Regulation 14(1)(i) and Regulation 14(2)(iv) of the 2014 Tariff Regulations are as follows:

Assets	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset 1	1628.48	949.79	793.51	81.09	7.78
Asset 2	10.13	47.35	80.17	0.00	3.24

47. The Petitioner has submitted that the ACE claimed for transmission assets during 2014-15, 2015-16 and 2016-17 is within the cut-off date. Whereas, ACE claimed for Asset-1 during 2017-18 and 2018-19 and for Asset-2 during 2018-19 is beyond the cut-off date. Further, ACE incurred within cut-off date is on account of balance and retention payments due to undischarged liability and unexecuted works within cut-off date and has been claimed under Regulation 14(1)(i) and Regulation 14(1)(ii) and the ACE beyond cut-off date is on account of undischarged liability for works executed within cut-off date and has been claimed under Regulation 14(2)(iv) of the 2014 Tariff Regulations. The Petitioner has submitted the details of underlying reasons for ACE in Form-7 and has submitted the contractor wise and year wise details of the ACE claimed beyond cut-off date as follows:

Asset-1				
Sub-Head	Financial Year	Party	Particulars	Amount
Sub-Station	2017-18	Larsen and Toubro Limited	LOA 3957	8.37
Civil	2017-18	U P Singh & Co.	Civil Work Kala Colony	25.60
Civil	2017-18	R.N.Dobariya	RHQ Building / Colony Civil Work	36.61
Sub-Station	2017-18	Hyosung Corporation	LOA Sub-station 3956, 3957 & 3958	10.51
<b>Total</b>				<b>81.09</b>
Transmission Line	2018-19	Kalpataru Power Transmission Ltd.	LOA Tower PKG 4274 & 4275	4.95



Sub-Station	2018-19	Ceedee Vacuum Equipment Pvt. Ltd.	Tools & Plants Substation Oil Storage Tank	2.83
<b>Total</b>				<b>7.78</b>
<b>Asset-2</b>				
Transmission Line	2018-19	Kalpataru Power Transmission Ltd.	LOA Tower PKG 4274 & 4275	3.24
<b>Total</b>				<b>3.24</b>

48. We have considered the submissions made by the Petitioner. ACE claimed by the Petitioner has been verified from the Auditor's Certificate. Accordingly, ACE up to cut-off date has been allowed under Regulation 14(1)(i) (Balance and Retention payment) and Regulation 14(1)(ii) (deferred work liability), whereas the ACE beyond cut-off date has been allowed under Regulation 14(2)(iv) (undischarged liability) of the 2014 Tariff Regulations.

#### **Capital Cost as on 31.3.2019**

49. Accordingly, ACE allowed for 2014-19 tariff period and the capital cost as on 31.3.2019 considered for the purpose of tariff determination for 2014-19 tariff period are as follows:

Assets	Capital cost as on COD on cash basis	ACE					Capital cost admitted as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	12507.22	1628.48	949.79	793.51	81.09	7.78	15967.87
Asset-2	1591.40	10.13	47.35	80.17	0.00	3.24	1732.29

#### **Debt-Equity Ratio**

50. The Petitioner has claimed debt-equity ratio of 82:18 as on COD and debt-equity ratio of 70:30 for ACE for Asset-1. Whereas, the debt-equity ratio of 70:30 as on COD and ACE has been claimed for Asset-2. Debt-equity ratio claimed by the Petitioner has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff



Regulations. The details of debt-equity ratio as on COD and 31.3.2019 in respect of the transmission assets considered for the purpose of tariff determination for 2014-19 period is as follows:

<b>Asset –1</b>						
<b>Particulars</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>ACE 2014-19</b>	<b>(in %)</b>	<b>Capital cost as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	10255.92	82.00	2422.46	70.00	12678.37	79.40
Equity	2251.30	18.00	1038.20	30.00	3289.49	20.60
<b>Total</b>	<b>12507.22</b>	<b>100.00</b>	<b>3460.65</b>	<b>100.00</b>	<b>15967.87</b>	<b>100.00</b>

<b>Asset –2</b>						
<b>Particulars</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>ACE 2014-19</b>	<b>(in %)</b>	<b>Capital cost as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	1113.98	70.00	98.62	70.00	1212.60	70.00
Equity	477.42	30.00	42.27	30.00	519.69	30.00
<b>Total</b>	<b>1591.40</b>	<b>100.00</b>	<b>140.89</b>	<b>100.00</b>	<b>1732.29</b>	<b>100.00</b>

### **Depreciation**

51. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and the working of WAROD is placed at Annexure-I. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. Depreciation allowed for the purpose of tariff determination for 2014-19 period is as follows:

<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15 (Pro-rata for 280 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	12507.22	14135.70	15085.49	15879.00	15960.09
B	ACE	1628.48	949.79	793.51	81.09	7.78
C	Closing Gross Block (A+B)	14135.70	15085.49	15879.00	15960.09	15967.87
D	Average Gross Block (A+C)/2	13321.46	14610.59	15482.24	15919.54	15963.98
E	Weighted average rate of Depreciation (WAROD) (in %)	5.13	5.12	5.11	5.11	5.10



Asset-1						
	Particulars	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19
F	Aggregated Depreciable Value (D*90%)	11660.25	12820.47	13604.95	13998.52	14038.51
G	Balance useful life of the asset (Year)	29	29	28	27	26
H	Lapsed life (Year)	0	0	1	2	3
I	<b>Combined Depreciation during the year</b>	<b>524.45</b>	<b>748.40</b>	<b>791.02</b>	<b>813.11</b>	<b>814.85</b>
J	Cumulative Depreciation at the end of the year	524.45	1272.85	2063.87	2876.98	3691.83
K	Remaining Aggregated Depreciable Value	11135.80	11547.62	11541.08	11121.54	10346.69

(₹ in lakh)

Asset-2						
	Particulars	2014-15 (Pro-rata for 31 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	1591.40	1601.53	1648.88	1729.05	1729.05
B	ACE	10.13	47.35	80.17	0.00	3.24
C	Closing Gross Block (A+B)	1601.53	1648.88	1729.05	1729.05	1732.29
D	Average Gross Block (A+C)/2	1596.47	1625.21	1688.97	1729.05	1730.67
E	Weighted average rate of Depreciation (WAROD) (in %)	5.32	5.33	5.34	5.34	5.34
F	Aggregated Depreciable Value (D*90%)	1436.82	1462.68	1520.07	1556.15	1557.60
G	Balance useful life of the asset (Year)	29	29	28	27	26
H	Lapsed life (Year)	0	0	1	2	3
I	<b>Combined Depreciation during the year</b>	<b>7.22</b>	<b>86.66</b>	<b>90.21</b>	<b>92.36</b>	<b>92.45</b>
J	Cumulative Depreciation at the end of the year	7.22	93.88	184.09	276.44	368.89
K	Remaining Aggregated Depreciable Value	1429.60	1368.81	1335.98	1279.70	1188.71

52. The details of the depreciation claimed by the Petitioner in the instant petition and allowed after trued-up in the instant order is as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Claimed by the Petitioner in the instant petition	692.03	757.26	799.88	821.98	823.72
	Approved after true-up in this order	524.45	748.40	791.02	813.11	814.85
Asset-2	Claimed by the Petitioner in the instant petition	7.35	88.26	91.86	94.01	94.10



Approved after true-up in this order	7.22	86.66	90.21	92.36	92.45
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### **Interest on Loan (“IoL”)**

53. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of IoL. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of IoL allowed are as follows:

(₹ in lakh)

<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15 (Pro-rata for 280 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	10255.92	11395.86	12060.71	12616.17	12672.93
B	Cumulative Repayments upto Previous Year	0.00	524.45	1272.85	2063.87	2876.98
C	Net Loan-Opening (A-B)	10255.92	10871.41	10787.86	10552.29	9795.95
D	Addition due to ACE	1139.94	664.85	555.46	56.76	5.45
E	Repayment during the year	524.45	748.40	791.02	813.11	814.85
F	Net Loan-Closing (C+D-E)	10871.41	10787.86	10552.29	9795.95	8986.55
G	Average Loan (C+F)/2	10563.66	10829.63	10670.07	10174.12	9391.25
H	Weighted Average Rate of Interest on Loan (in %)	1.83	2.24	3.29	3.81	4.75
I	<b>Interest on Loan (G*H)</b>	<b>148.49</b>	<b>242.55</b>	<b>350.85</b>	<b>387.74</b>	<b>446.54</b>

(₹ in lakh)

<b>Asset-2</b>						
	<b>Particulars</b>	<b>2014-15 Pro-rata for 31 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	1113.98	1121.07	1154.22	1210.34	1210.34
B	Cumulative Repayments upto Previous Year	0.00	7.22	93.88	184.09	276.44
C	Net Loan-Opening (A-B)	1113.98	1113.85	1060.34	1026.25	933.89
D	Addition due to ACE	7.09	33.15	56.12	0.00	2.27
E	Repayment during the year	7.22	86.66	90.21	92.36	92.45
F	Net Loan-Closing (C+D-E)	1113.85	1060.34	1026.25	933.89	843.71
G	Average Loan (C+F)/2	1113.92	1087.10	1043.30	980.07	888.80
H	Weighted Average Rate of Interest on Loan (in %)	1.78	2.04	3.06	3.60	4.59
I	<b>Interest on Loan (G*H)</b>	<b>1.68</b>	<b>22.14</b>	<b>31.89</b>	<b>35.33</b>	<b>40.78</b>



54. The details of the IoL claimed by the Petitioner in the instant petition and allowed after true-up in the instant order is as follows:

**Asset-1**

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Claimed by the Petitioner in the instant petition	194.74	242.15	349.98	386.39	444.44
	Approved after true-up in this order	148.49	242.55	350.85	387.74	446.54
Asset-2	Claimed by the Petitioner in the instant petition	1.71	22.55	32.48	35.96	41.51
	Approved after true-up in this order	1.68	22.14	31.89	35.33	40.78

**Return on Equity (“RoE”)**

55. The Petitioner has submitted that they are liable to pay income tax at Minimum Alternative Tax (MAT) rates and has claimed the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

56. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is as follows:

Year	Notified MAT rates (inclusive of surcharge & cess)	Effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (%)
2014-15	20.961	20.961	19.611
2015-16	21.342	21.342	19.706
2016-17	21.342	21.342	19.706
2017-18	21.342	21.342	19.706
2018-19	21.549	21.549	19.758



57. The MAT rates as considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations, which is as follows :

Year	MAT Rate (%)	Base Rate (%)	Grossed-up RoE [(BaseRate)/(1-t)] (%)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

58. RoE allowed on the basis of MAT rate applicable in the respective years for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-1						
	Particulars	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	2251.30	2739.84	3024.78	3262.83	3287.16
B	Addition due to ACE	488.54	284.94	238.05	24.33	2.33
C	Closing Equity (A+B)	2739.84	3024.78	3262.83	3287.16	3289.49
D	Average Equity (A+C)/2	2495.57	2882.31	3143.81	3275.00	3288.33
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>375.42</b>	<b>567.96</b>	<b>619.49</b>	<b>645.34</b>	<b>649.71</b>

(₹ in lakh)

Asset-2						
	Particulars	2014-15 Pro-rata for 31 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	477.42	480.46	494.66	518.72	518.72
B	Addition due to ACE	3.04	14.21	24.05	0.00	0.97
C	Closing Equity (A+B)	480.46	494.66	518.72	518.72	519.69
D	Average Equity (A+C)/2	478.94	487.56	506.69	518.72	519.20





E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>7.98</b>	<b>96.07</b>	<b>99.84</b>	<b>102.21</b>	<b>102.58</b>

59. The details of the RoE claimed by the Petitioner in the instant petition and allowed after true-up in the instant order is as follows:

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Claimed by the Petitioner in the instant petition	491.54	570.68	622.21	648.06	652.40
	Approved after true-up in this order	375.42	567.96	619.49	645.34	649.71
Asset-2	Claimed by the Petitioner in the instant petition	8.12	97.86	101.68	104.05	104.42
	Approved after true-up in this order	7.98	96.07	99.84	102.21	102.58

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

60. The details of O&M Expenses claimed by the Petitioner for the transmission assets and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations are as follows:

		(₹ in lakh)				
		Asset-1				
Particulars	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19	
<b>Sub-station Bays (in number)</b>						
400 kV: Kala GIS: ICT I Bay	1	1	1	1	1	
400 kV: ICT II Bay	1	1	1	1	1	
400 kV: Kala GIS : 63 MVAR Bus Reactor	1	1	1	1	1	
400 kV: Kala GIS:Vapi 1 Line Bay	1	1	1	1	1	
400 kV: Kala GIS:Vapi 2 Line Bay	1	1	1	1	1	
220 kV: Kala GIS:ICT I Bay	1	1	1	1	1	
220 kV: Kala GIS:ICT II Bay	1	1	1	1	1	
220 kV: Kala GIS:Khadoli 1 Line Bay	1	1	1	1	1	
220 kV: Kala GIS:Khadoli 2 Line Bay	1	1	1	1	1	
220 kV: Kala GIS:Kharadpada Line Bay 1	1	1	1	1	1	
220 kV: Kala GIS:Kharadpada 2 Line Bay	1	1	1	1	1	
<b>Total</b>						
<b>400 kV (GIS)</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	



<b>220 kV (GIS)</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>Norms</b>					
400 kV (GIS)	51.54	53.25	55.02	56.84	58.73
220 kV (GIS)	42.21	43.61	45.06	46.55	48.10
<b>Total Sub-station Bays O&amp;M Expenses</b>	<b>510.96</b>	<b>527.91</b>	<b>545.46</b>	<b>563.50</b>	<b>582.25</b>
<b>AC Lines (in km)</b>					
LOOP-IN of 400 kV D/C Vapi-Kudus (Navi Mumbai) Transmission Line at Kala GIS Sub-station	9.014	-	-	-	-
<b>Norms</b>					
D/C Twin/Triple Conductor	0.707	-	-	-	-
<b>Total Transmission Line</b>	<b>6.37*</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total O&amp;M Expenses</b>	<b>396.30</b>	<b>527.91</b>	<b>545.46</b>	<b>563.50</b>	<b>582.25</b>

\*O&M expenses for Lines is allowed from COD to 28.2.2015

(₹ in lakh)

<b>Asset-2</b>					
<b>Particulars</b>	<b>2014-15 (Pro-rata for 31 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station Bays (in number)</b>					
400 kV: Kala GIS:Navsari 1 Line Bay	1	1	1	1	1
400 kV: Kala GIS:Navsari 2 Line Bay	1	1	1	1	1
<b>Total 400 kV (GIS)</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Norms</b>					
400 kV (GIS)	51.54	53.25	55.02	56.84	58.73
<b>Total Sub-station Bays O&amp;M Expenses</b>	<b>103.08</b>	<b>106.50</b>	<b>110.04</b>	<b>113.68</b>	<b>117.46</b>
<b>AC Lines</b>					
LILO of Both Circuit of 400 kV D/C Vapi-Kudus (Navi Mumbai) Transmission Line at Kala GIS Sub-station (km)	9.014	9.014	9.014	9.014	9.014
<b>Norms</b>					
Multi Circuit Twin/Triple Conductor	1.240	1.282	1.324	1.368	1.413
<b>Total Transmission Line</b>	<b>11.18</b>	<b>11.56</b>	<b>11.93</b>	<b>12.33</b>	<b>12.74</b>
<b>Total O&amp;M Expenses claimed</b>	<b>9.70</b>	<b>118.06</b>	<b>121.97</b>	<b>126.01</b>	<b>130.20</b>

61. The details of the O&M Expenses claimed by the Petitioner in the instant petition and true-up in the instant order is as follows:

<b>(₹ in lakh)</b>						
<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	Claimed by the Petitioner in the instant petition.	516.79	527.91	545.46	563.50	582.25
	Approved after true-up in this order.	396.30	527.91	545.46	563.50	582.25
Asset-2	Claimed by the Petitioner in the instant petition.	9.71	118.06	121.97	126.01	130.20
	Approved after true-up in this order.	9.70	118.06	121.97	126.01	130.20



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

62. IWC has been allowed as per Regulation 28(1)(c) of the 2014 Tariff Regulations as follows:

**i. Maintenance Spares :**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

**ii. O&M Expenses :**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

**iii. Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

**iv. Rate of interest on working capital :**

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

63. IWC has been worked out as per methodology provided in Regulation 28 of the 2014 Tariff Regulations. IWC allowed is as follows:

(₹ in lakh)						
Asset-1						
	Particulars	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M expenses for one month)	43.11	43.99	45.46	46.96	48.52
B	Working Capital for Maintenance Spares (15% of O&M expenses)	77.60	79.19	81.82	84.53	87.34
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges)	323.87	358.64	396.25	413.89	428.25
D	<b>Total of Working Capital (A+B+C)</b>	<b>444.58</b>	<b>481.82</b>	<b>523.52</b>	<b>545.37</b>	<b>564.11</b>



E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
F	<b>Interest of working Capital (D*E)</b>	<b>46.04</b>	<b>65.05</b>	<b>70.68</b>	<b>73.62</b>	<b>76.15</b>

(₹ in lakh)

Asset-2						
	Particulars	2014-15 (Pro-rata for 31 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M expenses for one month)	9.52	9.84	10.16	10.50	10.85
B	Working Capital for Maintenance Spares (15% of O&M expenses)	17.14	17.71	18.30	18.90	19.53
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges)	53.97	55.69	59.29	61.36	63.10
D	<b>Total of Working Capital (A+B+C)</b>	<b>80.63</b>	<b>83.24</b>	<b>87.75</b>	<b>90.76</b>	<b>93.48</b>
E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
F	<b>Interest of working Capital (D*E)</b>	<b>0.92</b>	<b>11.24</b>	<b>11.85</b>	<b>12.25</b>	<b>12.62</b>

64. The details of the IWC claimed by the Petitioner in the instant petition and allowed after true-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Claimed by the Petitioner in the instant petition.	60.30	65.30	70.92	73.86	76.37
	Approved after true-up in this order.	46.04	65.05	70.68	73.62	76.15
Asset-2	Claimed by the Petitioner in the instant petition.	0.93	11.33	11.94	12.35	12.72
	Approved after true-up in this order.	0.92	11.24	11.85	12.25	12.62

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

65. The approved Annual Fixed Charges (AFC) in respect of the transmission assets for 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	Asset- 1				
	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	524.45	748.40	791.02	813.11	814.85
Interest on Loan	148.49	242.55	350.85	387.74	446.54
Return on Equity	375.42	567.96	619.49	645.34	649.71
O&M Expenses	396.30	527.91	545.46	563.50	582.25
Interest on Working Capital	46.04	65.05	70.68	73.62	76.15
<b>Total</b>	<b>1490.70</b>	<b>2151.87</b>	<b>2377.50</b>	<b>2483.31</b>	<b>2569.50</b>

(₹ in lakh)

Particulars	Asset- 2				
	2014-15 (Pro-rata for 31 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	7.22	86.66	90.21	92.36	92.45
Interest on Loan	1.68	22.14	31.89	35.33	40.78
Return on Equity	7.98	96.07	99.84	102.21	102.58
O&M Expenses	9.70	118.06	121.97	126.01	130.20
Interest on Working Capital	0.92	11.24	11.85	12.25	12.62
<b>Total</b>	<b>27.50</b>	<b>334.17</b>	<b>355.76</b>	<b>368.16</b>	<b>378.63</b>

66. The details of Annual Transmission Charges claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Claimed by the Petitioner in the instant petition.	1955.40	2163.30	2388.45	2493.79	2579.18
	Approved after true-up in this order.	1490.70	2151.87	2377.50	2483.31	2569.50
Asset-2	Claimed by the Petitioner in the instant petition.	27.82	338.06	359.93	372.38	382.95
	Approved after true-up in this order.	27.50	334.17	355.76	368.16	378.63

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

67. The Petitioner has submitted the tariff forms combining both the assets into a single asset, namely, Combined Asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, tariff for the Combined Asset has been worked out for 2019-24 tariff period.



68. The Petitioner has claimed the following transmission charges for the Combined Asset for 2019-24 tariff period:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	937.49	938.88	938.88	938.88	937.59
Interest on Loan	457.56	410.73	362.67	315.08	268.85
Return on Equity	721.27	722.80	722.80	722.80	722.80
O&M Expenses	624.05	646.36	669.03	692.98	716.40
Interest on Working Capital	59.02	59.45	59.71	60.04	60.23
<b>Total</b>	<b>2799.39</b>	<b>2778.22</b>	<b>2753.09</b>	<b>2729.78</b>	<b>2705.87</b>

69. The Petitioner has claimed the following IWC for the Combined Asset for 2019-24 tariff period:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
O&M Expenses	52.00	53.86	55.75	57.75	59.70
Maintenance Spares	93.61	96.95	100.35	103.95	107.46
Receivables	344.19	342.52	339.42	336.55	332.69
<b>Total Working Capital</b>	<b>489.80</b>	<b>493.33</b>	<b>495.52</b>	<b>498.25</b>	<b>499.85</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>59.02</b>	<b>59.45</b>	<b>59.71</b>	<b>60.04</b>	<b>60.23</b>

#### **Effective Date of Commercial Operation (E-COD)**

70. The Petitioner has claimed E-COD of the Combined Asset as 4.5.2014. Based on the trued-up admitted capital cost and actual COD of the transmission assets, E-COD has been worked out as follows:

<b>Computation of E-COD</b>					
<b>Assets</b>	<b>Actual COD</b>	<b>Admitted capital cost as on 31.3.2019 (₹ in lakh)</b>	<b>Weighted cost (in %)</b>	<b>No. of Days from last COD</b>	<b>Weighted days</b>
Asset-1	25.6.2014	15967.87	90.21	249.00	224.63
Asset-2	1.3.2015	1732.29	9.79	0.00	0.00
<b>Total</b>			100.00		224.63
<b>E-COD (Latest COD – Total weighted Days) – 19.7.2014</b>					



71. E-COD is used to determine the lapsed life of the project as a whole, which works out as four (4) years as on 31.3.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

**Weighted Average Life (“WAL”)**

72. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

73. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 28 years as follows:

<b>Admitted capital cost as on 31.3.2019</b>				
<b>Particulars</b>	<b>Combined asset cost (₹ in lakh) (1)</b>	<b>Life in Years (2)</b>	<b>Weighted cost (3)=(1) x(2) (in lakh) (3)</b>	<b>Weighted Average Life of Asset (in years) (4)=(3)/(1)</b>
Building	505.91	25	12647.87	
Transmission Line	6353.63	35	222376.99	
Sub-Station Equipment	10088.72	25	252218.09	
PLCC	203.42	15	3051.28	
IT equipment	182.84	6.67	1218.96	
<b>Total</b>	<b>17334.53</b>		<b>491513.19</b>	<b>28.35 years, rounded off to 28 years</b>





74. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 4.5.2014 and the lapsed life of the project as a whole, works out as four (4) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E- COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 24 years.

### **Capital Cost**

75. Regulation 19 of the 2019 Tariff Regulations provides as follows:

**“19 Capital Cost:** (1) *The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*

(2) *The Capital Cost of a new project shall include the following:*

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the*



generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;  
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;  
(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;  
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;  
(n) Expenditure on account of change in law and force majeure events; and  
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(3) The Capital cost of an existing project shall include the following:

(a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;  
(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;  
(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;  
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;  
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and  
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

(4) The capital cost in case of existing or new hydro generating station shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and  
(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

(a) The assets-forming part of the project, but not in use, as declared in the tariff petition;  
(b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:



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

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

*(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*  
*(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*  
*(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”*

76. The trued-up capital cost as on 31.3.2019 for Asset-1 and Asset-2 has been considered as opening capital cost as on 1.4.2019 for the Combined Asset. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, sub-station and PLCC) as admitted by the Commission as on 31.3.2019 for the transmission assets are clubbed together and the capital cost has been considered as capital cost for the Combined Asset as on 31.3.2019 as per following details:

(₹ in lakh)			
Elements	Asset-1	Asset-2	Capital cost for the Combined Asset as on 31.3.2019
Free hold Land	365.63	0.00	365.63
Building & Other Civil Works	505.91	0.00	505.91
Transmission Line	5580.32	773.31	6353.63
Sub-Station Equipment	9231.27	857.45	10088.72
PLCC	101.89	101.53	203.42
Leasehold Land	0.00	0.00	0.00
IT Equipment and Software	182.84	0.00	182.84
<b>Total</b>	<b>15967.87</b>	<b>1732.29</b>	<b>17700.16</b>

77. The trued-up capital cost of ₹17700.16 lakh for the Combined Asset has been considered as admitted capital cost as on 31.3.2019 for working out tariff for 2019-24 tariff period.



## Initial Spares

78. As stated earlier in this order, Initial Spares are allowed for 2014-19 tariff period on the basis of the cost of individual assets. All the elements of the transmission project have been completed during 2014-19 tariff period. The assets covered in the transmission project are combined during 2019-24 tariff period and, hence, Initial Spares are allowed during 2019-24 tariff period on the basis of the overall project cost as per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

79. Accordingly, Initial Spares allowed in 2019-24 tariff period are as follows:

### **Sub-station:**

(₹ in lakh)

Assets	Plant & Machinery cost as on cut-off date	Initial Spares claimed	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2019-24 Tariff Regulations	Initial Spares allowed during 2014-19 period	Initial Spares allowed on Combined Asset
Asset-1	9120.34	485.99	5.00	454.44	454.44	
Asset-2	890.90	44.50	5.00	44.55	44.50	
<b>Combined Asset</b>		<b>530.49</b>		<b>498.99</b>	<b>498.94</b>	<b>0.05*</b>

\*Additional Initial Spares of ₹0.05 lakh (₹498.99-₹498.94)lakh are allowed for Sub-station.

### **Transmission Line:**

(₹ in lakh)

Assets	Plant & Machinery cost as on cut-off date	Initial Spares claimed	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2014 Tariff Regulations	Initial Spares allowed during 2014-19 period	Initial Spares allowed on Combined Asset
Asset-1	5376.27	46.99	1.00	53.83	46.99	
Asset-2	625.63	6.00	1.00	6.26	6.00	
<b>Combined Asset</b>		<b>52.99</b>		<b>60.09</b>	<b>52.99</b>	<b>0.00</b>

80. Accordingly, the capital cost allowed as on 1.4.2019 is as follows:



(₹ in lakh)

Assets	Capital Cost as on 31.3.2019	Initial Spares allowed as per APTEL's Judgement	Capital Cost as on 1.4.2019
Combined Asset	17700.16	0.05	17700.21

### **Additional Capital Expenditure ("ACE")**

81. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:-

***"24. Additional Capitalization within the original scope and up to 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:***

*(1) The ACE 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 cutoff 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.”

82. The Petitioner has claimed projected ACE for 2019-24 period on account of any undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed beyond the cut-off date. ACE for the year 2019-20 for assets has been claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations. The Petitioner has submitted the details of ACE claimed beyond the cut-off date. The details are as follows:

(₹ in lakh)

<b>Asset-1</b>				
<b>Sub-Head</b>	<b>Financial Year</b>	<b>Party</b>	<b>Particulars</b>	<b>Amount</b>
Transmission Line	2019-20	--	Crop Compensation Payment projection	50.00
Civil	2019-20	Shine Construction	Civil Work Retention	4.06
<b>Total</b>				<b>54.06</b>

83. The details of the projected ACE in respect of the transmission assets are as follows:

(₹ in lakh)

<b>Assets</b>	<b>ACE during 2019-20 (as per Auditor's Certificate)</b>
Asset-1	54.06
Asset-2	0.00
<b>Total</b>	<b>54.06</b>



84. We have considered the submissions of the Petitioner. ACE claimed towards Asset-1 is allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations. The ACE allowed is as follows:

Assets	(₹ in lakh)	
	Admitted ACE	
	2019-20	
Asset-1		54.06
Asset-2		0.00
<b>Combined Asset</b>		<b>54.06</b>

### **Capital Cost as on 31.3.2019**

85. Accordingly, the capital cost of the Combined Asset considered for 2019-24 tariff period subject to truing-up is as follows:

Assets	(₹ in lakh)				
	FR apportioned approved cost	RCE apportioned approved cost	Capital cost as on 1.4.2019	ACE allowed	Capital cost as on 31.3.2024
Combined Asset	18193.00	20071.00	17700.21	54.06	17754.27

86. The estimated completion cost as on 31.3.2024 is within the FR approved cost and RCE approved cost. Hence, there is no cost over-run.

### **Debt-Equity Ratio**

87. Regulations 18 of the 2019 Tariff Regulations provides as follows:

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

*Provided that:*

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*





**Explanation-***The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

*(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

*(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*

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

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

*(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.*

*(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”*

*(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”*

88. The details of debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period is as follows:



Combined Asset	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	13891.01	78.48	13928.85	78.45
Equity	3809.20	21.52	3825.41	21.55
<b>Total</b>	<b>17700.21</b>	<b>100.00</b>	<b>17754.27</b>	<b>100.00</b>

### **Depreciation**

89. Regulation 33 of the 2019 Tariff Regulations provide 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 Asset-of the generating station and transmission system:*

*Provided that the remaining depreciable value as on 31st 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 asset.*

*(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 up to 31.3.2019 from the gross depreciable value of the asset.*

*(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 asset 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.”*



90. We have considered the submissions of the Petitioner. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). WAROD has been worked out (Annexure-II) after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed for the combined Asset is as follows:

(₹ in lakh)

Combined Asset						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	17700.21	17754.27	17754.27	17754.27	17754.27
B	Addition during the year 2019-24 due to projected ACE	54.06	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	17754.27	17754.27	17754.27	17754.27	17754.27
D	Average Gross Block (A+C)/2	17727.24	17754.27	17754.27	17754.27	17754.27
E	Weighted average rate of Depreciation (WAROD) (in %)	5.23	5.23	5.23	5.23	5.22
F	Lapsed useful life at the beginning of the year (Year)	4.00	5.00	6.00	7.00	8.00
G	Balance useful life at the beginning of the year (Year)	24.00	23.00	22.00	21.00	20.00
H	Depreciable Value	15643.73	15668.06	15668.06	15668.06	15668.06
I	<b>Combined Depreciation during the year</b>	<b>926.75</b>	<b>928.13</b>	<b>928.13</b>	<b>928.13</b>	<b>928.13</b>
J	Cumulative Depreciation at the end of the year	4987.47	5915.60	6843.74	7771.87	8700.01
K	Remaining Aggregate Depreciable Value at the end of the year	10656.27	9752.46	8824.32	7896.19	6968.05

### **Interest on Loan (“IoL”)**

91. 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 asset, 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”.*

92. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is follows:



(₹ in lakh)

Combined Asset						
	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	13891.01	13928.85	13928.85	13928.85	13928.85
B	Cumulative Repayments upto Previous Year	4060.72	4987.47	5915.60	6843.74	7771.87
C	Net Loan-Opening (A-B)	9830.29	8941.39	8013.25	7085.12	6156.98
D	Addition due to ACE	37.84	0.00	0.00	0.00	0.00
E	Repayment during the year	926.75	928.13	928.13	928.13	928.13
F	Net Loan-Closing (C+D-E)	8941.39	8013.25	7085.12	6156.98	5228.85
G	Average Loan (C+F)/2	9385.84	8477.32	7549.19	6621.05	5692.92
H	Weighted Average Rate of Interest on Loan (in %)	4.90	4.87	4.84	4.81	4.79
I	<b>Interest on Loan (G*H)</b>	<b>459.47</b>	<b>413.16</b>	<b>365.60</b>	<b>318.51</b>	<b>272.75</b>

### Return on Equity("RoE")

93. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

**"30. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

*Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding Additional Capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to capping of 14%;*

*Provided further that:*

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





ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

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

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

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;

**31. Tax on Return on Equity:**(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

#### **Illustration-**

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$





(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;  
 (b) Estimated Advance Tax for the year on above is Rs 240 crore;  
 (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;  
 (d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

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

94. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. We have considered the submissions of the Petitioner. The MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)						
Combined Asset						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	3809.20	3825.41	3825.41	3825.41	3825.41
B	Addition due to ACE	16.22	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	3825.41	3825.41	3825.41	3825.41	3825.41
D	Average Equity (A+C)/2	3817.30	3825.41	3825.41	3825.41	3825.41
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (Pre-tax) (D*G)</b>	<b>716.97</b>	<b>718.49</b>	<b>718.49</b>	<b>718.49</b>	<b>718.49</b>



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

95. O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period is as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
LILO of both circuits of 400 kV D/C Vapi-Kudus (Navi Mumbai) transmissionline at Kala GIS Sub-station (9.014 mm)	13.92	14.40	14.91	15.44	15.98
400 kV GIS Sub-station	157.57	163.10	168.84	174.72	180.88
220 kV GIS Sub-station	94.56	97.86	101.28	104.82	108.54
2 numbers of 500 MVA ICTS at Kala Sub-station	358.00	371.00	384.00	398.00	411.00
<b>Total O&amp;M Expenses claimed</b>	<b>624.05</b>	<b>646.36</b>	<b>669.03</b>	<b>692.98</b>	<b>716.40</b>

96. Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norms for sub-station Bays (₹ lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (₹ lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433



Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.



(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

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

97. We have considered the submission of the Petitioner. O&M Expenses allowed for the Comined Asset for the 2019-24 are as follows:

(₹ in lakh)					
Asset-1					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (in number)</b>					
400 kV: Kala GIS: ICT I Bay	1	1	1	1	1
400 kV: ICT II Bay	1	1	1	1	1
400 kV: Kala GIS: 63 MVAR Bus Reactor	1	1	1	1	1
400 kV: Kala GIS:Vapi 1 Line Bay	1	1	1	1	1
400 kV: Kala GIS:Vapi 2 Line Bay	1	1	1	1	1
400 kV: Kala GIS:Navsari 1 Line Bay	1	1	1	1	1
400 kV: Kala GIS:Navsari 2 Line Bay	1	1	1	1	1
220 kV: Kala GIS:ICT I Bay	1	1	1	1	1
220 kV: Kala GIS:ICT II Bay	1	1	1	1	1
220 kV: Kala GIS:Khadoli 1 Line Bay	1	1	1	1	1
220 kV: Kala GIS:Khadoli 2 Line Bay	1	1	1	1	1
220 kV: Kala GIS:Kharadpada Line Bay 1	1	1	1	1	1
220 kV: Kala GIS:Kharadpada 2 Line Bay	1	1	1	1	1
<b>Total</b>					
<b>400 kV (GIS)</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>220 kV (GIS)</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>Norms</b>					
400 kV (GIS)	22.505	23.296	24.115	24.962	25.837
220 kV (GIS)	15.757	16.310	16.884	17.472	18.088
<b>Total Sub-station Bays O&amp;M Expenses</b>	<b>252.08</b>	<b>260.93</b>	<b>270.11</b>	<b>279.57</b>	<b>289.39</b>



<b>400 kV Sub-station ICT</b>					
<b>2 numbers of 500 MVA ICTs at Kala Sub-station</b>					
<b>Norms</b>	0.358	0.371	0.384	0.398	0.411
<b>O&amp;M Expenses of 400 kV Sub-station ICTs</b>	<b>358.00</b>	<b>371.00</b>	<b>384.00</b>	<b>398.00</b>	<b>411.00</b>
<b>AC Lines (in km)</b>					
LILO of Both Circuit of 400kV D/C Vapi-Kudus (Navi Mumbai) Transmission Line at Kala GIS Sub-station	9.014	9.014	9.014	9.014	9.014
<b>Norms</b>					
Multi Circuit Twin/Triple Conductor	1.544	1.598	1.654	1.713	1.773
<b>Total Transmission Line</b>	<b>13.92</b>	<b>14.40</b>	<b>14.91</b>	<b>15.44</b>	<b>15.98</b>
<b>Total O&amp;M Expenses allowed</b>	<b>623.99</b>	<b>646.34</b>	<b>669.02</b>	<b>693.01</b>	<b>716.37</b>

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

98. Regulation 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provide 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 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

**“3. Definition - In these regulations, unless the context otherwise requires:-**

(7) **‘Bank Rate’** means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;”



99. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is 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 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Working Capital for O&M Expenses (O&M expenses for one month)	52.00	53.86	55.75	57.75	59.70
Working Capital for Maintenance Spares (15% of O&M expenses)	93.60	96.95	100.35	103.95	107.46
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	342.54	340.45	336.95	334.13	330.49
<b>Total of Working Capital</b>	<b>488.14</b>	<b>491.26</b>	<b>493.05</b>	<b>495.84</b>	<b>497.64</b>
Rate of Interest for Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest of working capital</b>	<b>58.82</b>	<b>55.27</b>	<b>51.77</b>	<b>52.06</b>	<b>52.25</b>

#### **Annual Fixed Charges for 2019-24 Tariff Period**

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

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	926.75	928.13	928.13	928.13	928.13
Interest on Loan	459.47	413.16	365.60	318.51	272.75
Return on Equity	716.97	718.49	718.49	718.49	718.49
O&M Expenses	623.99	646.34	669.02	693.01	716.37



<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Interest on Working Capital	58.82	55.27	51.77	52.06	52.25
<b>Total</b>	<b>2786.00</b>	<b>2761.39</b>	<b>2733.01</b>	<b>2710.20</b>	<b>2687.99</b>

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

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

### **Licence Fee and RLDC Fees and Charges**

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

### **Goods and Services Tax**

103. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same will 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, the same may be allowed to be recovered from the beneficiaries.





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

### **Security Expenses**

105. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

106. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**

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

### **Sharing of Transmission Charges**

108. The Petitioner has prayed that transmission charges in respect of the transmission asset from COD to 31.3.2019 may be allowed to be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and the transmission charges in respect of the transmission asset for 2019-24 period



may be allowed to be recovered on monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and may be shared by the beneficiaries and long-term transmission customers in accordance with 2010 Sharing Regulations or as amended from time to time.

109. We have considered the submissions of the Petitioner. With effect from 1.7.2011, 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, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (“the 2020 Sharing Regulations”). The COD of Asset-1 and Asset-2 has been approved as 25.6.2014 and 1.3.2015 respectively. Therefore, the transmission charges from 25.6.2014 to 31.10.2020 in case of Asset-1 and from 1.3.2015 to 31.10.2020 in case of Asset-2 shall be governed by the 2010 Sharing Regulations and from 1.11.2020 shall be governed by the 2020 Sharing Regulations as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations.

110. To summarise,

(a) The trued-up AFC approved for the transmission assets for 2014-19 tariff period are as follows:

Particulars	Asset- 1				
	2014-15 (Pro-rata for 280 days)	2015-16	2016-17	2017-18	2018-19
<b>Total</b>	1490.70	2151.87	2377.50	2483.31	2569.50

(₹ in lakh)



(₹ in lakh)

Particulars	Asset- 2				
	2014-15 (Pro-rata for 31 days)	2015-16	2016-17	2017-18	2018-19
<b>Total</b>	27.50	334.17	355.76	368.16	378.63

(b) AFC allowed for 2019-24 tariff period in this order are as follows:

Asset	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	2786.00	2761.39	2733.01	2710.20	2687.99

111. Annexure-I and Annexure-II given hereinafter form part of the order.

112. This order disposes of Petition No. 37/TT/2022 in terms of the above discussions and findings.

(c)

**sd/-**  
**(P. K. Singh)**  
**Member**

**sd/-**  
**(Arun Goyal)**  
**Member**

**sd/-**  
**(I. S. Jha)**  
**Member**



## Asset - 1

## Annexure-I

2014-19 Capital expenditure as on COD	Admitted capital cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted capital cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2014-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Freehold Land	365.63	0.00	365.63	0.00	0.00	0.00	0.00	0.00	0.00
Building	40.25	465.66	505.91	3.34	1.91	7.89	14.07	15.86	16.90
Transmission Line	4646.31	934.01	5580.32	5.28	259.19	283.71	294.38	294.38	294.51
Sub Station	7222.05	2009.22	9231.27	5.28	409.35	442.45	466.89	486.76	487.34
PLCC	66.55	35.34	101.89	6.33	4.21	5.13	6.25	6.45	6.45
IT Equipment and software	166.42	16.42	182.84	5.28	9.00	9.22	9.44	9.65	9.65
<b>Total</b>	<b>12507.22</b>	<b>3460.65</b>	<b>15967.87</b>		<b>683.66</b>	<b>748.40</b>	<b>791.02</b>	<b>813.11</b>	<b>814.85</b>
<b>Average Gross Block (₹ in lakh)</b>					13321.46	14610.59	15482.24	15919.54	15963.98
<b>Weighted Average Rate of Depreciation (in %)</b>					5.13	5.12	5.11	5.11	5.10



## Asset - 2

## Annexure-I

2014-19	Admitted capital cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted capital cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
Capital expenditure as on COD		2014-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Transmission Line	770.07	3.24	773.31	5.28	40.66	40.66	40.66	40.66	40.75
Sub Station	755.14	102.31	857.45	5.28	40.14	40.89	43.33	45.27	45.27
PLCC	66.19	35.34	101.53	6.33	4.19	5.10	6.22	6.43	6.43
IT Equipment and software	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1591.40</b>	<b>140.89</b>	<b>1732.29</b>		<b>84.99</b>	<b>86.66</b>	<b>90.21</b>	<b>92.36</b>	<b>92.45</b>
<b>Average Gross Block (₹ in lakh)</b>					1596.47	1625.21	1688.97	1729.05	1730.67
<b>Weighted Average Rate of Depreciation (in %)</b>					5.32	5.33	5.34	5.34	5.34



Combined Asset									
2019-24	Admitted capital cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted capital cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
Capital expenditure as on 1.4.2019		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Freehold Land	365.63	0.00	365.63	0.00	0.00	0.00	0.00	0.00	0.00
Building	505.91	4.06	509.97	3.34	16.97	17.03	17.03	17.03	17.03
Transmission Line	6353.63	50.00	6403.63	5.28	336.79	338.11	338.11	338.11	338.11
Sub Station	10088.77	0.00	10088.77	5.28	532.69	532.69	532.69	532.69	532.69
PLCC	203.42	0.00	203.42	6.33	12.88	12.88	12.88	12.88	12.88
IT Equipment and software	182.84	0.00	182.84	5.28	27.43	27.43	27.43	27.43	26.17
<b>TOTAL</b>	<b>17700.21</b>	<b>54.06</b>	<b>17754.27</b>		<b>926.75</b>	<b>928.13</b>	<b>928.13</b>	<b>928.13</b>	<b>926.88</b>
<b>Average Gross Block (₹ in lakh)</b>					17727.24	17754.27	17754.27	17754.27	17754.27
<b>Weighted Average Rate of Depreciation (in %)</b>					5.23	5.23	5.23	5.23	5.23

