

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 466/TT/2020

Coram:

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

Date of Order: 28.02.2022

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 4 numbers of Non-ISTS 400 kV Transmission Lines carrying ISTS Power of Damodar Valley Corporation in Eastern Region.

And in the matter of

Damodar Valley Corporation (DVC),
DVC Towers, VIP Road,
Kolkata-700 054.

.... Petitioner

Versus

1. West Bengal State Electricity Distribution Company Limited,
(Previously West Bengal State Electricity Board),
Block 'DJ', Sector-11, Salt Lake City,
Kolkata-700 091.
2. Jharkhand Bijlee Vitran Nigam Limited,
Previously Jharkhand State Electricity Board,
Engineering Building, HEC, Dhurwa,
Ranchi-834 004.
3. Punjab State Power Corporation Limited,
(Erstwhile Punjab State Electricity Board),
Interstate Billing, Shed No. TI-A,
Patiala-1470 01.
4. Kerala State Electricity Board Limited,
8th Floor, Vidyuthi Bhawan,
Thiruvananthapuram-695 004.



5. Haryana Power Purchase Centre,
(Representing Uttar Haryana Bijlee Vitaran Nigam Limited
and Dakshin Haryana Bijlee Vitaran Nigam Limited),
Sector 6, Shakti Bhawan,
Panchkula-134 109.
6. Bengaluru Electricity Supply Company Limited,
K.R. Circle,
Bangalore- 560 001.

...Respondent(s)

For Petitioner: Shri M.G. Ramachandran, Senior Advocate, DVC
Ms. Anushree Bardhan, Advocate, DVC
Shri Manik Rakshit, DVC
Shri Subrata Ghosal, DVC
Shri Samit Mandal, DVC

For Respondents: Shri Rajiv Yadav, Advocate, DVPCA

ORDER

The Petitioner, Damodar Valley Corporation is a statutory body established by the Central Government under the provisions of the Damodar Valley Corporation Act, 1948 (hereinafter referred to as 'the DVC Act') for the development of the Damodar Valley, with three participating Governments, namely, the Central Government, the Government of West Bengal and the Government of Jharkhand. The Petitioner has filed this petition for truing up of the tariff of 2014-19 tariff period under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff of 2019-24 tariff period under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following 4 numbers of non-ISTS 400 kV Transmission Lines of DVC (hereinafter referred as "transmission assets"):

Asset-I: LILO of 400 kV D/C Durgapur (PG)-Jamshedpur (PG) at DSTPS;

Asset-II: LILO of 400 kV D/C Maithon (PG)-Ranchi (PG) at RTPS;



Asset-III: 400 kV D/C DSTPS-RTPS transmission line; and

Asset-IV: 400 kV D/C RTPS-Ranchi (PG) transmission line.

2. The Petitioner has made the following prayers:

“PART-A: TRUE-UP PETITION FOR THE PERIOD 2014-19

(a) Admit the present True-up petition and determine the capital cost, debt and equity in respect of four nos. of 400 KV TRANSMISSION LINES (‘NON-ISTS LINE’ CARRYING ‘ISTS POWER’) of DVC network for the period 01.04.2017 to 31.03.2019;

(b) Determine the final tariff for the four nos. of 400 KV TRANSMISSION LINES (‘NON-ISTS LINE’ CARRYING ‘ISTS POWER’) of DVC network for the period 01.04.2017 to 31.03.2019 considering actual expenditure as furnished in the instant petition;

(c) DVC craves leave to resubmit claim along with additional information/data/document based on decision of the Commission, if any required, on issuance of order in Petition Nos 334/TT/2018 and 335/TT/2018;

(d) Allow additional claim of DVC against cost of refinancing and finance charges as claimed in PART-B of the AFC;

(e) Consider the capital and other costs as proposed by DVC in the petition as well as in the formats attached to the petition by providing necessary relaxation in terms of Regulation 54 and 55, wherever applicable and further by applying the provisions of Part IV of the DVC Act, 1948;

(f) Allow DVC to recover shortfall or refund the levies, filing fees, taxes, duties, cess, charges, fees etc., if any, excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without the need to make any further application before the Commission as provided under clause 25 of the Tariff Regulation 2014;

(g) The Tariff for Transmission of Electricity (Annual Fixed Charges) as per para 14 (J) of petition, in accordance with Regulation 43 Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2014. These charges shall be recovered on monthly basis and the billing collection and disbursement shall be governed by provisions of Central Electricity Regulatory Commission (sharing of interstate Transmission Charges and Losses) Regulations, 2010;

(h) In the circumstances mentioned above it will be just and proper that the transmission tariff for the assets covered under this petition be allowed to be recovered from beneficiaries by considering the tariff determined herein by this Hon’ble Commission while determining the POC charges or as deemed fit by Hon’ble Commission;

(i) Pass such further order or orders as this Hon’ble Commission may deem just and proper in the facts and circumstances of the case.

PART-B: TARIFF PETITION FOR THE PERIOD 2019-24

(a) Determine the tariff for the four nos. of 400 KV TRANSMISSION LINES (‘NON-ISTS LINE’ CARRYING ‘ISTS POWER’) DVC network for the period 01.04.2019 to 31.03.2024 considering projected capital expenditure as furnished in the instant petition;

(b) Allow additional claim of DVC against cost of refinancing and finance charges as claimed in PART-B of the AFC;



(c) Consider the capital and other costs as proposed by DVC in the petition as well as in the formats attached to the petition by providing necessary relaxation in terms of Regulation 54 and 55, wherever applicable and further by applying the provisions of Part IV of the DVC Act, 1948;

(d) Allow DVC to recover shortfall or refund the levies, filing fees, taxes, duties, cess, charges, fees etc., if any, excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without the need to make any further application before the Commission as provided under clause 25 of the Tariff Regulation 2014;

(e) The Tariff for Transmission of Electricity (Annual Fixed Charges) as per para 14 (J) of petition, in accordance with Regulation 43 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. These charges shall be recovered on a monthly basis and the billing collection and disbursement shall be governed by the provisions of Central Electricity Regulatory Commission (sharing of interstate Transmission Charges and Losses) Regulations, 2010;

(f) In the circumstances mentioned above it will be just and proper that the transmission tariff for the assets covered under this petition be allowed to be recovered from beneficiaries by considering the tariff determined herein by this Hon'ble Commission while determining the POC charges or as deemed fit by the Hon'ble Commission;

(g) Pass such further order or orders as this Hon'ble Commission may deem just and proper in the facts and circumstances of the case."

Background

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

a) The Petitioner is performing multi-farious functions in the Damodar Valley viz. running various power stations, sub-stations and receiving stations situated at different locations in its operational area that falls in the two contiguous States, namely, the State of West Bengal and the State of Jharkhand (erstwhile Bihar). Transmission and distribution network of the Petitioner is interconnected at these power stations, sub-stations and receiving stations at different voltage levels. The assets (generation, transmission and distribution) owned by the Petitioner and their dates of commercial operation (COD) are as follows:

Sl. No.	Assets (Name of the Stations/Systems)	Installed Capacity (MW)	COD
1	Bokaro TPS	805	August, 1993
2	Chandrapur TPS	750	March, 1979
3	Durgapur TPS	350	September, 1982
4	Mejia TPS	630	September, 1999



5	Maithon GPS	82.50	October, 1989
6	Maithon Hydro Power Station	63.20	December, 1958
7	Panchet Hydro Power Station	80	March, 1991
8	Tilaiya Hydro Power Station	4	August, 1953
9	Transmission System - 220/132 kV lines	-	Existing as on 31.3.2004
10	Distribution System	-	Existing as on 31.3.2004

b) The Commission, *vide* order dated 8.5.2013 in Petition No. 272/2010, had approved tariff for the period 2006-09 for the generating stations and transmission and distribution network of the Petitioner. Thereafter, the Petitioner filed a Review Petition No.10/RP/2013 against the order dated 8.5.2013 in Petition No. 272/2010. The Commission *vide* order dated 28.1.2014 in Review Petition No.10/RP/2013 allowed the review on account of the inter-unit transfer of ₹264.08 lakh and, accordingly, revised the tariff allowed *vide* order dated 26.2.2014 in Petition No. 272/2010.

c) Subsequently, the Commission, *vide* order dated 27.9.2013 in Petition No. 270/TT/2012, approved the tariff for composite Transmission and Distribution (T&D) system of DVC network for the period 2009-14 by considering capital cost as on 31.3.2009 and the projected Additional Capital Expenditure (ACE) during 2009-14.

d) Further, the Commission, *vide* order dated 29.9.2017 in Petition No. 547/TT/2014, trued-up the tariff of 2009-14 period of the entire T&D network. In the said order, the Commission also observed that the Petitioner should claim tariff for existing assets and new assets separately. The relevant portion of the order is as follows:

"73. In the previous orders as stated above, the Commission had considered the new additions under additional capital expenditure pooled power to all consumers is supplied through its integrated and composite T&D network and specific consumer or a specific group of consumers cannot be identified with reference to any particular transmission segment, sub-station for sale of power to consumers located in two States namely the State of West Bengal and the State of Jharkhand. Therefore, the current additional capitalization for 2009-14 is approved in line with previous orders.

74. However, it is observed that the new transmission lines and substation claimed in the Transmission A to N Stage will expand the capital base of the petitioner. The capitalization claimed by the petitioner in the instant petition is based on entire company wise expenditures incurred. Transmission A to N Stage includes new transmission systems and existing transmission systems. The 2009 Tariff



Regulations provides the tariff determination for project or scheme or transmission system or element. In the instant case, the petitioner has claimed the transmission tariff for all the transmission system of the Company as a whole. The determination of tariff of the new transmission element and existing transmission element is to be examined differently. The new transmission element is to be examined for admissibility of commercial operation date, capital expenditure, debt : equity ratio for that individual element. Therefore, we are of the view that the capital cost additions due to new transmission system is to be treated separately.

75. Accordingly, the capital cost on account of the new transmission system under Transmission A to N Stage is to be treated as new capital cost and the existing transmission system is to be treated as additional capital expenditure within the meaning of the 2009 Tariff Regulations. Therefore, the admissibility of capital cost, of new transmission systems henceforth would be considered within Regulation 9 of the 2014 Tariff Regulations and allowed after prudence check. Further, the capital cost of existing transmission system would be considered as additional capitalization within the meaning of Regulation 14 of the 2014 Tariff Regulations.

76. In light of the above discussion, the petitioner, is therefore directed to file the application for the purpose of tariff determination separately for the new additions claimed in 2014-19 tariff period as under:

- a) The each transmission element or system shall be distinctly identified in the investment approval along with the details of long term transmission customer or beneficiaries who has requested for the creation of the transmissions system;*
 - b) The commissioning of each individual elements or group of elements shall be claimed separately along with trial operation certificate of RLDC and other requirements as per the 2014 Tariff Regulations;*
 - c) The capital cost shall be admitted for the new assets after prudence check in accordance with the provisions of the 2014 Tariff Regulations. The petitioner shall have to comply with requirements by providing details of latest Audited accounts, Balance sheet, IDC, allocation of loans, IEDC and Initial Spares procured for individual/group elements. The admissibility of time overrun, cost overrun, initial spares shall be examined for individual elements or group of elements along with relevant documentary evidence;*
 - d) The allocation of loan and infusion of equity in the different project shall be separately identified by the petitioner and the same will be examined by the Commission for individual project on case to case basis;*
 - e) The segregation of additional capitalization of New works (Transmission A to N Stage) and existing works shall be claimed in accordance with the 2014 Tariff Regulations;*
 - f) Once the capital cost, debt and equity is admitted for individual element or group of elements, the petitioner may combined the same with existing asset base and revised the tariff allowed by the Commission with reference to the commissioning of the assets;*
 - g) The tariff for the 2014-19 period shall be determined taking into consideration the submissions made by the petitioner.”*
- e) The Petitioner filed Petition No. 386/TT/2014 for determination of tariff in respect of its composite transmission and distribution system for the period 2014-19 in accordance with the 2014 Tariff Regulations. The Commission referring to



the directions given in order dated 29.9.2017 in Petition No. 547/TT/2014 directed the Petitioner to file a separate petition for the new transmission assets and disposed of the Petition No. 386/TT/2014 vide order dated 10.10.2017. The relevant portion of the order dated 10.10.2017 is as follows:

"12. Regulation 14 of the 2014 Tariff Regulations provides for the additional capital expenditure in the existing transmission system. The capital cost of the new transmission element and system is to be examined separately with reference to the specific approval, commercial operation date, capital cost as on COD etc. During pendency of this petition, the Commission has issued order dated 29.9.2017 in petition 547/TT/2014 truing up the annual fixed charges from 1.4.2009 to 31.3.2014.....

13.....the petitioner is directed to file a revised petition for determination of tariff for 2014-19 period separately for the new transmission elements (transmission lines and substations) for individual project clearly identifying separate capital cost, initial spares, loan allocation and debt : equity ratio etc."

f) Pursuant to the directions of the Commission in order dated 10.10.2017 in Petition No.386/TT/2014, the Petitioner filed Petition No. 150/TT/2018 for determination of tariff for 2014-19 period in respect of the existing T&D System as on 31.3.2014. The Petitioner claimed tariff for Asset-I, Asset-II and Asset-III in Petition No. 150/TT/2018 as a part of the existing T&D System for 2014-19 tariff period.

g) However, the Petitioner, in Petition No. 150/TT/2018, later sought removal of Asset-I, Asset-II and Asset-III from the capital base of the existing T&D System from 1.4.2017 as ERPC has declared these lines as non-ISTS lines carrying ISTS power. Accordingly, these lines were removed from the existing asset base of T&D System w.e.f. 2017-18. However, these assets were part of the capital base of the existing T&D System of the Petitioner up to 31.3.2017. Asset-IV, which was put into commercial operation on 30.8.2017, was not part of the capital cost of the existing T&D System.

h) Subsequently, the Petitioner filed Petition No. 334/TT/2018 for determination of tariff for the period 2017-19 in respect of 4 numbers of 400 kV non-ISTS lines carrying ISTS power or 'deemed ISTS' of DVC's Transmission and Distribution network as follows:

Asset-I: LILO of 400 kV D/C Durgapur (PG)-Jamshedpur (PG) at DSTPS;

Asset-II: LILO of 400 kV D/C Maithon (PG)-Ranchi (PG) at RTPS.

Asset-III: 400 kV D/C DSTPS-RTPS transmission line; and

Asset-IV: 400 kV D/C RTPS-Ranchi (PG) transmission line



i) The Petitioner in Petition No 334/TT/2018 submitted the relevant details of element-wise capital cost required for determination of tariff in respect of the transmission assets starting from 1.4.2017 and submitted Auditor's Certificate in support of the same. The Petitioner also claimed ACE for 2017-18 and 2018-19 in respect of Asset-I, Asset-II and Asset-III. However, the same was not allowed on the grounds that ACE is not supported by Auditor certificate and sanction/work order. ACE for Asset-IV was allowed for 2017-18 based on actual audited cost basis. The Petitioner did not claim any ACE for 2018-19.

j) Accordingly, the tariff for Asset-I, Asset-II and Asset- III from 1.4.2017 to 31.3.2019 and Asset-IV from 30.8.2017 to 31.3.2019 was determined vide order dated 5.2.2020 in Petition No. 334/TT/2018 for 2014-19 tariff period as per the 2014 Tariff Regulations, subject to truing-up, as follows:

(₹ in lakh)			
Asset	Particulars	18-2017	19-2018
Asset-I	Annual Fixed Charges (AFC)	179.53	182.80
Asset-II		203.27	205.99
Asset-III		4875.18	4703.46
Asset-IV		5200.61*	8615.77

* Pro-rata

k) The status of various petitions filed by the Petitioner in compliance to the directions of the Commission for 2014-19 tariff period, is as follows:

Particulars	Petition oN.
A) Existing T&D network of DVC	
19-AFC for 2014 (i) tariff period	Order dated 9.8.2019 in Petition No. 150/TT/2018
19-up AFC for 2014-Truing (ii) tariff period and 24-AFC for 2019 period	Petition No. 482/TT/2020
B) New T&D elements added from 1.4.2014 (including ACE up to 31.3.2019)	
19-AFC for 2014(i) tariff period	Order dated 5.2.2020 in Petition No. 335/TT/2018
19-up AFC for 2014-Truing(ii) tariff period and 24-AFC for 2019 period	Petition No 713/TT/2020
C) 4 numbers Non-ISTS 400 kV Tr. lines of DVC carrying ISTS power (including ACE up to 31.3.2019)	
2014 AFC for (i)-19 tariff period	Order dated 5.2.2020 in Petition No. 334/TT/2018

l) The present Petition is filed by the Petitioner for truing up of tariff for control period 2014-19 (as Part-A) in accordance with the 2014 Tariff Regulations and determination of tariff for the control period 2019-24 (as Part-B) in accordance with the 2019 Tariff Regulations, in respect of 4 number 400 kV non-ISTS lines carrying ISTS power or 'deemed ISTS' of DVC's T&D network.

m) The Petitioner initially filed petition dated 21.1.2020 submitting consolidated details of the capital cost and tariff calculation considering all assets together. However, the Petitioner in compliance to the order dated 5.2.2020 in Petition No. 334/TT/2018 submitted amended calculation/ additional information in respect of the following:

- (a) Determination of element wise AFC separately,
- (b) Additional information along with documents in support of the time over-run part which was not condoned by Commission and
- (c) Revised cost certificates for all assets, as per direction of the Commission in order dated 5.2.2020 in Petition No. 334/TT/2018.

4. The Respondents are distribution licensees, power departments and transmission licensees who are procuring transmission service from the Petitioner, mainly beneficiaries of Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the public in response to the notice in newspaper. During the hearing on 27.4.2021, learned counsel for Damodar Valley Power Consumer Association (hereinafter referred to as "DVPCA") submitted that he is facing difficulty in filing the objections on the Commission's portal. He submitted that DVPCA was made a party in Petition No.

150/TT/2018. However, in the instant true up petition, DVPCA has not been impleaded as a party.

6. DVPCA was allowed to file/ upload its objections in all the three petitions and the Petitioner was directed to provide all the documents to DVPCA. The Commission further observed that there is no need to implead DVPCA as a party and directed it to file its objections by 14.5.2021 with a copy to the Petitioner and the Petitioner to file its comments, if any, by 21.5.2021. Accordingly, DVPCA has filed its statement of objections vide affidavit dated 19.4.2021.

7. DVPCA has raised the issue of incomplete and illegible tariff petitions and Auditor's Certificate, capital cost, non-admissibility of 'minor items' under Regulation 14, inconsistencies in additional capitalization claims, contribution to Pension and Gratuity Fund, additional O&M Expenses due to mega insurance and expenses for subsidiary activity, pay revision, contribution towards sinking fund, CISF security expenses etc., separate accounts and income from trading business, depreciation to be spread over balance life and not as per DVC Act, RoE @15.5% (pre-tax) and no additional RoE @1% be allowed and GST. The issues/ objections raised by DVPCA and the clarifications given by the Petitioner are addressed in the relevant paragraphs of this order.

8. DVPCA *vide* affidavit dated 19.4.2021 has submitted that the Petitioner is engaged in the business of power trading. It has submitted that it is evident from the Annual Reports of the Petitioner that there has been income from power trading, short term open access power sale, sale of power through power exchange, miscellaneous income, miscellaneous sales adjustment and any other income from various JV companies like Maithon Power Limited (DVC-26%, Tata Power-74%), Bokaro Power Supply Company (DVC-50%, SAIL-50%), DVC EMTA Coal Mines Limited (DVC-26%,



EMTA-74%), Damodar Valley Tourism Development Company (P) Limited (DVC-50%, IL&FS-IDC-50%), National High Power Testing Laboratory (P) Limited (DVC, NTPC, NHPC, PGCIL & CPRI-20% each) and PTC India Limited (DVC has an equity share of ₹10 crore). Such income may be used to reduce AFC claimed by the Petitioner in the instant petition.

9. In response, the Petitioner has submitted that the claim of DVPCA that the Petitioner is engaged in power trading is incorrect. The Petitioner does not undertake any trading business. The power is sold to different beneficiaries like Punjab, Karnataka, Kerala etc. at 400 kV bus connected with ISTS (i.e., without utilizing the T & D system of DVC) through long term PPA at the tariff determined by the Commission. While claiming its ARR before the State Regulators (WBERC and JSERC) for its distribution activities, the Petitioner simply excludes the power sold to different beneficiaries. The Petitioner has submitted that Petition No. 482/TT/2020 has been filed by it for 'Existing Transmission & Distribution Network' before this Commission for determination of transmission tariff for 2014-19 period. The Petitioner has submitted that it is not claiming any expenditure covered under this instant petition in its ARR for distribution activities in Jharkhand and West Bengal area and, hence, DVPCA has no connection with the tariff determination in the instant petition. Therefore, the issues raised by DVPCA are baseless and devoid of any merit and is liable to be dismissed.

10. With regard to the issues of 'Other Income'/ 'Income from Trading', the Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 has held as follows:

"13. DVPCA has submitted that DVC is a statutory body with multifarious functions and Sections 41 and 51 of the Electricity Act, 2003 mandate DVC to maintain separate account for each of its business undertaking. The mandatory requirement of maintaining separate accounts was emphasized by APTEL in Raigarh Ispat Udyog Sangh v. CSERC



and Ors. Reported in (2014) ELR 791. In response, the Petitioner has submitted that the petitioner is vertically integrated utility and the physical assets besides head office/regional office building etc. and such similar facilities which are comparatively negligible and are commonly used for various purposes are entirely either generation or transmission assets. This aspect was considered by the Commission in orders dated 3.10.2006 and 6.8.2009 and by Hon'ble APTEL in judgment dated 23.11.2007. Hon'ble Supreme Court has also upheld the Judgment of APTEL dated 23.11.2007 in Bhaskar-Shrachi Alloys Ltd. v. DVC. We have considered the submissions of DVPCA and the Petitioner. The Hon'ble Supreme Court vide its judgment dated 23.7.2018 in Civil Appeal No(s). 971973 of 2008-Bhaskar Shrachi Alloys Ltd. & Ors. Vs DVC & Ors. held that the "other activities" of the petitioner are not optional but are mandatory, which is the nature of socially beneficial measures and it does not entail any revenue for the petitioner necessitating maintenance of separate accounts. The relevant portion of the said judgment is extracted hereunder:-

"55..... Not only Sections 41 and 51 of the 2003 Act contemplate prior approval of the Appropriate Commission before a licensee can engage in any other business other than that of a licensee under the 2003 Act, what is contemplated by the aforesaid provisions of the 2003 Act is some return or earning of revenue from such business. In the instant case, the "other activities" of the Corporation are not optional as contemplated under Sections 41/51 of the 2003 Act but are mandatorily cast by the statute i.e. Act of 1948 which, being in the nature of socially beneficial measures, per se, do not entail earning of any revenue so as to require maintenance of separate accounts. The allowance of recovery of cost incurred in connection with "other activities" of the Corporation from the common fund generated by tariff chargeable from the consumers/customers of electricity as contemplated by the provisions of the Act of 1948, therefore, do not collide or is, in any manner, inconsistent with the provisions of the 2003 Act. We will, therefore, have no occasion to interfere with the findings recorded by the learned Appellate Tribunal on the above score."

14 DVPCA has submitted that as per the directive of the Commission in order dated 3.10.2006, the Petitioner is required to adjust the income from export of power outside command area in the ARR in the respective tariff petition filed before the State Commissions. However, the Petitioner has not complied with the aforesaid direction. In response, the Petitioner has submitted that the present petition is for determination of transmission tariff for 'Existing Transmission and Distribution Network' for 2014-19 and income from trading business is not a part of transmission tariff to be determined by the Commission. We have considered the submissions of the parties. The Petitioner is directed to submit at the time of truing up, if any income is generated from trading business and if so, how the same is treated in its books of accounts."

11. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has submitted that it does not undertake any trading business and the power is sold to different beneficiaries like Punjab, Karnataka, Kerala etc. at 400 kV bus connected with ISTS (i.e., without utilizing the T&D system of DVC) through long term PPA and on the basis of the tariff determined by the Commission. Further, while claiming its ARR before WBERC/ JSERC for its distribution activities, the Petitioner simply excludes the power sold to different beneficiaries. It is observed that in



compliance to the directions of the Commission, the Petitioner has submitted the details of income generated from trading business and how the same is treated in the books of accounts of the Petitioner. In this tariff petition, we find no need to go into any further details.

12. This order has been issued after considering the instant petition vide affidavit dated 21.1.2020, submissions, in response to directions in RoP, vide affidavits dated 12.8.2020 and 13.5.2021, DVPCA's reply vide affidavit dated 19.4.2021 and the Petitioner's rejoinder vide affidavit dated 21.5.2021 to the reply of DVPCA.

13. The hearing in this matter was held on 27.4.2021 through video conference and the order was reserved.

14. Having heard the representatives of the Petitioner and learned counsel for DVPCA and after careful perusal of the materials on record, we proceed to dispose of the petition.

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

15. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of Annual Fixed Charges (AFC) for 2014-19 period. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.

16. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)			
	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Depreciation	37.97	64.39	80.06	153.27
Interest on Loan	23.41	42.49	63.00	118.41
Return on Equity	28.96	49.23	61.05	117.19
Interest on Working Capital	9.61	11.39	12.55	17.10
O&M Expenses	136.05	140.56	141.26	145.93



Total	236.01	308.06	357.92	551.90
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(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Depreciation	1498.16	1162.34	3560.70	3640.84
Interest on Loan	642.99	204.41	1620.42	3148.14
Return on Equity	1142.47	888.73	2702.24	2776.47
Interest on Working Capital	93.73	70.34	179.63	224.02
O&M Expenses	320.25	330.86	183.81	325.58
Total	3697.61	2656.68	8246.81	10115.04

17. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Maintenance Spares	20.41	21.08	11.77	12.16
O&M expenses	11.34	11.71	21.19	21.89
Receivables	39.45	51.56	59.98	92.59
Total Working Capital	71.20	84.36	92.94	126.64
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	9.61	11.39	12.55	17.10

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Maintenance Spares	26.69	27.57	15.32	27.13
O&M expenses	48.04	49.63	27.57	48.84
Receivables	619.57	443.83	1382.78	1701.97
Total Working Capital	694.29	521.03	1425.67	1777.94
Rate of Interest (in %)	13.50	13.50	12.60	12.60
Interest on Working Capital	93.73	70.34	179.63	224.02

Commercial Operation Date ("COD")

18. The Commission, vide order dated 5.2.2020 in Petition No. 334/TT/2018 has held as follows:

"11. The Petitioner has submitted that Assets-I, II and III achieved COD on 1.2.2011, 1.7.2012 and 1.8.2013 respectively and claimed the COD of Asset-IV as 30.8.2017.



Assets-I, II and III are existing transmission lines and are part of existing T&D System of the Petitioner and tariff up to 31.3.2017 has already been granted and hence the COD of Assets-I, II and III is considered as 1.2.2011, 1.7.2012 and 1.8.2013 respectively. The Asset-4 is a new asset and the Petitioner has claimed COD of the Asset-IV as 30.8.2017. In support, the Petitioner has submitted CEA energisation certificate dated 21.8.2017, SLDC charging certificate dated 31.8.2017, self- declaration COD letter dated 31.10.2017 and CMD certificate as required under Grid Code.

12. We have considered the documents submissions by the Petitioner in support of COD. As per the SLDC Certificate, it is observed that the trial operation of Asset-IV was successfully completed on 28.8.2017 and 29.8.2017. Accordingly, the COD of the Asset-IV is approved as 30.8.2017.”

19. Accordingly, COD of the transmission assets approved by the Commission in earlier orders is as follows:

S.N.	Asset Name	COD
1	Asset-I: LILO of 400 kV D/C Durgapur (PG)-Jamshedpur (PG) at DSTPS;	1.2.2011
2	Asset-II: LILO of 400 kV D/C Maithon (PG)-Ranchi (PG) at RTPS;	1.7.2012
3	Asset-III: 400 kV D/C DSTPS-RTPS transmission line;	1.8.2013
4	Asset-IV: 400 kV D/C RTPS-Ranchi (PG) transmission line.	30.8.2017

Capital Cost

20. The capital cost of the transmission system has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations

21. The Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2015 has approved the following capital cost as on 1.4.2017 and Additional Capital Expenditure (ACE) up to 31.3.2019 in respect of Asset-I, Asset-II and Asset-III for 2014-19 tariff period:

Asset	Capital Cost allowed as on 1.4.2017	ACE		Total Capital cost as on 31.3.2019
		2017-18	2018-19	
Asset-I	189.05	0.00	0.00	189.05
Asset-II	283.73	0.00	0.00	283.73
Asset-III	23519.34	0.00	0.00	23519.34

22. Further, the Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2015 has approved the following capital cost as on COD and ACE up to 31.3.2019 in respect of Asset-IV for 2014-19 tariff period:



(₹ in lakh)

Asset-IV					
Approved apportioned cost as per Sanction Order	Approved apportioned cost as per revised Sanction Order	Capital Cost allowed as on COD	ACE		Total Capital cost as on 31.3.2019
			2017-18	2018-19	
43490.26	58400.00	45950.37	36.86	0.00	45987.24

23. The Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 held as follows:

“26. We have considered the submissions of the Petitioner. The estimated completion cost of ₹45987.23 lakh is within the revised apportioned approved cost of ₹58400.00 lakh. Therefore, the capital cost ₹45987.23 lakh claimed by the Petitioner is allowed and considered for the purpose of computation of tariff for Asset-IV.”

24. The Petitioner *vide* affidavit dated 12.8.2020 has submitted the element wise break-up of apportioned approved cost as per original estimate, apportioned revised cost estimate, capital cost as on COD, additional capitalisation and completion cost as on 31.3.2019 duly certified by the Committee of Executive Directors of DVC (deemed to be Management Approved capital cost) in respect of Asset-IV. The completion cost of ₹48145.66 lakh (including capital cost of ₹45913.50 as on COD and ACE of ₹2232.15 up to 31.3.2019) is within the revised apportioned approved cost (RCE) of ₹56452.90 lakh. Hence there is no cost over-run.

Time Over-run

25. The details of time over-run and the period of time over-run condoned/ not condoned in respect of Asset-IV *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 is as follows:

Asset	SCOD	Actual COD	Time over-run (in days)	Time over-run Condoned (days)	Time over-run not Condoned (days)
Asset-IV	15.8.2010	30.8.2017	2573	2082	491

26. The Commission, *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 has held as follows:

“30. We have considered the submissions of the Petitioner and MPPMCL. There was a time over-run of 2573 days and the Petitioner has submitted that it was due to (a) delay



in forest clearance approval, (b) stay order passed in a PIL (c) delay in obtaining Railway and Power Line crossing and (d) theft of the Conductor. The Petitioner has provided the reasons of delay and has also submitted the chronology of activities leading to the time over-run. We have also perused the chronology of activities submitted by the Petitioner and the documentary evidence to justify the time over-run.

31. The Asset-IV passes through forest area of 62.5 Ha in West Bengal and Jharkhand. Therefore, the delay due to forest clearance for 2382 days was beyond the control of the Petitioner. We are of the view that time period beyond 300 days is not within the control of the Petitioner. Accordingly, out of the total time over-run of about 2573 days, time over-run of 2082 was beyond the control of the Petitioner and the same is condoned.

32. The Petitioner has submitted that because of High Court order regarding cutting of trees, the Petitioner stopped the cutting of trees and the tree cutting work resumed in the month of June, 2016 and the Petitioner finally completed the tree cutting work in the month of March, 2017. We have gone through the submissions of the Petitioner. It is observed that the Petitioner has obtained tree cutting clearance on 16.7.2014 and the PIL was filed for stopping of tree cutting on 9.6.2015. The Petitioner has not explained the reasons for delay from 16.7.2014 to 9.6.2015. Accordingly, the time over-run from 16.7.2014 to 9.6.2015 is not condoned. The Petitioner was apprised about the suspension of all tree cutting activities under Ranchi Forest Division vide letter dated 13.6.2015 and the Petitioner started the tree cutting work on June, 2016. The Petitioner has completed tree cutting activities in the month of March, 2017. The Petitioner has failed to provide any reasonable justification as to why the Petitioner took 9 months after getting permission to work from June, 2016. The Petitioner's inaction during the time period 16.7.2014 to 9.6.2015 had a cascading effect on the execution of the Asset-IV and the Petitioner has not explained time delay from June, 2016 to March, 2017. Accordingly, the time over-run on account of court cases is not condoned. However, the Petitioner is given liberty to provide evidence, if any, for consideration at the time of truing-up.

.....

37. Accordingly, out of the total time over-run of 2573 days, time over-run of 2082 days is condoned and 491 days is not condoned."

27. The Commission vide RoP dated 13.7.2020 directed the Petitioner to submit the details in respect of time over-run in case of Asset-IV including justification for time over-run on account of tree cutting with reference to paragraph 32 of the order dated 5.2.2020 in Petition No. 334/TT/2018.

28. The Petitioner vide affidavit dated 12.8.2020 has submitted that it had to cut 2778 trees of various sizes and species in the locality of Silli, Jonha, Angara, Tatisilwai (Under Block Angara & Namkom), District-Ranchi to get the required Right of Way. Accordingly, it has submitted the following facts and figures related to tree cutting activity:



(A) From 16.7.2014 to 9.6.2015

(a) DVC obtained tree cutting permission on 26.6.2014 *vide* letter no. 1310 of DFO, Ranchi. Divisional Manager, Minor Forest Produce Project Division, Ranchi directed for joint inspection of trees with forest officials and DVC *vide* letter no. 1080 dated 2.7.2014 in order to estimate the supervision charges associated with work involved in felling of 2778 trees. After estimation of supervision charges by forest officials Divisional Manager, Minor Forest Produce Project Division, Ranchi had issued a demand note of ₹7,34,110/- *vide* letter no. 1195 dated 16.7.2014 in order to start the tree felling work. The Petitioner deposited the supervision charges of ₹7,34,110/- *vide* letter no. 1056 dated 7.8.2014 with a request for early start of trees felling work. Forest department, in turn, instructed to adhere to the technical guidelines regarding trees felling, logging, transportation and storage at forest depot before taking up trees felling work.

(b) After obtaining permission and in coordination with forest officials, the Petitioner initiated action towards cutting of trees observing steps as mentioned in technical guidelines of Forest Department such as Identification and matching of trees with tress enumeration list, tree felling as per technical guidelines, cutting/ logging, hammering on trees logs by forest officials, measurement and marking of tress logs in presence of forest officials. Based on measurement, request for issuance of Transport Permit (TP), its transportation to forest depot and unloading of trees logs in forest depot with direction of forest officials.

(c) The above sequential activities had to be carried out in series and step-wise as per instruction and in presence of official(s) of Forest Department and parallel activities were not allowed until a certain number of trees which were felled were to be transported to forest depot to avoid theft of logs by miscreants (as per clause no. 21 and 31 of technical guidelines).

(d) Moreover, the entire process was required to be carried out (specially – hammering, measurement and marking on trees logs, issuance of TP and unloading of trees logs) under the supervision and availability of forest official(s).

(e) By following the above procedures and ensuring availability of forest official(s), on an average only 35 to 40 number of trees could be processed/ cut in a week. The presence of forest official(s) was mandatory to ensure that no



theft/ pilferage of trees/ logs takes place at site. Revenue loss, if any, on this account would go to DVC's account and had to be compensated (as per clause no. 31 of technical guidelines)

(f) As per trees enumeration list, DVC had to cut about 1100-1200 Sal trees wherein the Petitioner had to follow the technical guidelines of clause 09 by removing the bark of Sal trees in order to protect from woodworm before their transportation. Thus, transportation of the Sal logs was much more time taking in comparison to other logs.

(g) Obstruction from local people preventing tree cutting activity was also faced which attracted involvement of forest official(s) time and again.

(h) Tree cutting activity could not be taken up in full swing in some cases due to hilly terrain, inaccessible site, head/ manual loading of trees logs etc. During rainy/ monsoon season, it was very difficult to execute the job considering safety aspect of workers as Silli, Jonha, Angara, Tatisilwai (Under Block –Angara and Namkom), District-Ranchi are lightning-prone areas. Numerous lightning strikes were reported with loss of life & serious injury during entire rainy/ monsoon season. Despite the above, the Petitioner with its best endeavour completed almost 50% job in between August 2014 and May 2015.

(B) From 9.6.2015 to June 2016

(a) In the month of June 2015, a PIL was filed vide Reference No. W.P. (PIL) No. 2470 of 2015 dated 9.6.2015 in the Hon'ble High Court at Ranchi against felling/ cutting of trees in the entire State of Jharkhand. Immediately, DFO, Ranchi vide letter number 1322 dated 13.6.2015 issued suspension order against all tree cutting activities under Ranchi Forest Division till further orders/ instructions with an intimation to the forest officials and utilities. The suspension of tree cutting activities continued for more than one year from 9.6.2015 to June 2016.

(C) From June 2016 to March 2017

(a) The Petitioner further acted as per the instruction of DFO, Ranchi towards resumption of tree cutting work in June 2016 and followed the same procedures as stated above. After overcoming constraints and after observing statutory formalities, the balance 50% job was completed by March 2017.



(D) A list of relevant evidence/ documents are as follows:

Sl. No.	Documents (attached)	Description/ Remarks
1	Letter No. 1310 dated 26.6.2014 from the DFO, Ranchi	Trees cutting permission (Total 2778 number trees) with instruction of Measurement & issuance of Transport Permit of trees with trees enumeration list.
2	Letter No. 1080 dated 2.7.2014 from the Divisional Manager, Minor Forest Produce Project, Division Ranchi	Direction of Joint inspection of trees with Forest officials & DVC in order to estimate the supervision charges against the tree felling (2778 number) with associated work involved in trees felling.
3	Letter No. 1195 dated 16.7.2014 from the Divisional Manager, Minor Forest Produce Project, Division Ranchi	Issuance of Demand note against supervision charges for trees felling work, forest Depot & miscellaneous charges in order to start the trees felling work by user agency.
4	Letter No. 1056 dated 7.8.2014 from the SE(E), DVC, TSC-IV, Hazaribagh	Regarding deposition of supervision charges for trees felling work, forest Depot & miscellaneous charges in order to start the trees felling work by DVC.
5	Technical guidelines of trees felling, Logging, Transportation & storage at forest depot issued by Minor Forest Produce Project, Division Ranchi	Regarding technical guidelines of trees felling, Logging, Transportation & storage at forest depot for following up procedure was adopted during trees cutting as directed by forest department.
6	Letter No.1322 dated 13.6.2015 from the DFO, Ranchi	Suspension of all tree cutting activities under Ranchi forest division till further order/instruction with intimation to the forest officials and user agencies.
7	PIL filed W.P. (PIL) No. 2470 of 2015 in the Hon'ble High Court of Jharkhand, Ranchi	PIL filed W.P. (PIL) No. 2470 of 2015 in the Hon'ble High Court of Jharkhand, Ranchi against felling/ cutting of trees in the entire state of Jharkhand.
8	Newspaper cutting	Suspension of tree-cutting activity in entire Jharkhand following PIL has been published in leading newspaper.
9	Proceeding/ order regarding W.P. (PIL) No. 2470 of 2015 filed in the Hon'ble High Court of Jharkhand, Ranchi	Issuance of court proceeding/ order regarding W.P. (PIL) No. 2470 of 2015 filed in the Hon'ble High Court of Jharkhand, Ranchi.
10	Technical guidelines of trees felling, logging, transportation & storage at forest depot issued by Minor Forest Produce Project, Division Ranchi	Forest technical guidelines which depots that tree-cutting activities are to be taken up zone/ step wise in series i.e. new zone/ step to be taken after completion of one activity & with best effort around 25 trees can be cut in a week after following all Forest technical guidelines.
11	Enumeration list of Trees (Forest land)	2778 number of trees cut by DVC

29. We have considered the submissions of the Petitioner w.r.t. Asset-IV. There is a total time over-run of 2573 days. As per the Petitioner, the time over-run was mainly due to (a) delay in forest clearance approval, (b) stay order passed in a PIL, (c) delay in obtaining Railway and Power Line crossing; and (d) theft of conductor. The Petitioner has provided the reasons of delay and has also submitted the chronology of



activities leading to the time over-run. We have also perused the chronology of activities submitted by the Petitioner and the documentary evidence to justify the time over-run.

30. The Commission has already condoned the time over-run of 2082 days out of total time over-run of 2573 days *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 on account of delay in forest clearance. The Commission had not condoned the remaining time over-run of 491 days. The Commission observed in the order dated 5.2.2020 in Petition No. 334/TT/2018 that the time taken for obtaining Railway line crossing and Power Line crossing was subsumed in the time taken for obtaining forest clearance which has already been condoned.

31. The Petitioner has submitted that the Commission in order dated 5.2.2020 in Petition No. 334/TT/2018 has observed that the Petitioner has not explained the reasons of delay from 16.7.2014 (date of tree cutting clearance) to 9.6.2015 (stay order of Hon'ble Court against tree cutting). Further, the Petitioner resumed the tree cutting work in June 2016 and completed the same in March 2017 in about 9 months' time. However, the Petitioner failed to provide reasonable justification for consuming 9 months for completing balance tree cutting activity. Accordingly, the time over-run on account of court cases was not condoned. However, the Petitioner was given liberty to provide evidence, if any, for consideration at the time of truing-up.

32. The Petitioner *vide* affidavit dated 12.8.2020 has submitted justification regarding the time periods of (a) 16.7.2014 to 9.6.2015, (b) 9.6.2015 to June 2016 and (c) June 2016 to March 2017. The Petitioner has submitted documentary evidence in support of its claim for condonation of delay on account of tree cutting and court cases. The Petitioner has submitted that there are strict guidelines for tree felling and the whole process is a combination of 7 to 8 steps. These steps are to be carried out



in series and some of them even have to be carried under the supervision of forest officials. This process of identification and matching of trees with trees enumeration list, tree felling as per technical guidelines, cutting/ logging, hammering on trees logs by forest officials, measurement and marking of tree logs in presence of forest officials, measurement request for issuance of transport permit (TP), issuance of transport permit (TP) and its transportation to forest depot, unloading of trees logs in forest depot with direction of forest officials etc. is time consuming and did not allow the Petitioner to speed up the felling process. Additionally, the felling process was completely halted for almost 12 months between June 2015 to June 2016 due to stay order of the Hon'ble High Court of Ranchi on the basis of PIL dated 9.6.2015 and subsequent order dated 13.6.2015 of DFO, Ranchi regarding suspension of all tree cutting activities under Ranchi forest division till further order/ instruction.

33. The time over-run of 12 months due to court order was beyond the control of the Petitioner and, therefore, the same is condoned.

34. The Petitioner resumed tree cutting work in June 2016 and the balance 50% tree felling activity was completed by March 2017. The Petitioner has submitted that about 35-40 trees can be felled in a week due to strict implementation of felling guidelines and multiple involvement of supervision staff of forest department. It is noted that the Petitioner initially took about 39 weeks (August 2014 to June 2015) to complete 50% of felling work and the remaining 50% felling work was also carried out by the Petitioner in about 39 weeks (June 2016 to March 2017). Thus, the Petitioner took total 78 weeks for tree felling activity. The additional time over-run due to tree cutting activity is beyond the control of the petitioner and the same is condoned.



35. In view of the above discussion, we condone time over-run of 491 days which was not condoned *vide* order dated 5.2.2020 in Petition No. 334/TT/2018. Accordingly, total time over-run of 2573 days is condoned.

Interest During Construction (“IDC”) and Incidental Expenditure During Construction (“IEDC”)

36. Due to non-submission of complete details in respect of IDC computation for Asset-IV, the Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 had treated the entire claimed IDC as discharged as on COD and allowed the entire IDC after adjustment of IDC on account of time over-run not condoned. The Commission had decided to review the same at the time of truing up. The relevant paragraph of the order dated 5.2.2020 in Petition No. 334/TT/2018 is as follows:

“38. The Petitioner has submitted Auditor’s Certificates in support of the IDC claimed for Asset-IV. Taking into consideration “Tariff Form 5”, entire IDC has been assumed fully discharged as on COD. The Petitioner has not submitted asset wise statement of IDC identifying amount of loan, drawl date, repayment schedule and rate of interest. In the absence of loan wise details (rate of interest, drawl date of loan, asset wise apportioned loan amount) IDC has not been computed and IDC claimed by the Petitioner has been considered as it is, subject to disallowance on account of time over-run. Accordingly, out of the Petitioner’s claim of IDC of ₹10460.89 lakh, ₹1512.90 lakh is disallowed on account of time over-run disallowed. The Petitioner is directed to provide asset wise apportionment of individual gross loan used in construction of the new assets, specific loan drawl date and rate of Interest of Loan used in construction period at the time of true-up.”

37. However, the Petitioner has not submitted asset-wise statement of IDC identifying amount of loan, drawl date, repayment schedule and rate of interest in the present true-up petition. Further, the Commission *vide* RoP dated 13.7.2020 directed the Petitioner to submit asset-wise apportionment of individual gross loan used in construction of the new assets, specific loan drawl date and rate of Interest on Loan (IoL) used during the construction period in terms of paragraph 38 of the order dated 5.2.2020 in Petition No. 334/TT/2018. In response, the Petitioner *vide* affidavit dated 12.8.2020 has submitted that in the meeting held on 20.4.2011, the Board of Directors of the Petitioner approved borrowings of ₹1130 crore from “Bonds & REC” for on-going



T&D Projects of DVC based on estimated 70% of the Projects Cost, subject to borrowing approval from Ministry of Power, GOI in terms of Section 42 of DVC Act, 1948. MoP later approved the borrowing proposal. The above loan from REC and PSU Bond was allocated to 28 different on-going projects. 400 kV RTPS-Ranchi Transmission Line was among the 28 on-going projects and there was no project specific loan other than REC loan and PSU Bond. As per the terms and conditions of loan from REC, 51.71% of the project cost is funded by REC and rest portion up to the threshold limit of 70% fixed by the Regulatory Commission is allocated from PSU Bond (i.e. 18.29 %).

38. In the absence of loan-wise details (rate of interest, drawl date of loan, asset wise apportioned loan amount), IDC has not been computed and IDC claimed by the Petitioner has been considered subject to disallowance on account of time over-run, broadly on the basis of Auditor's Certificate and detailed break-up of capital cost submitted in tariff forms. As the total delay in commissioning of Asset-IV has been condoned, IDC of ₹10460.89 lakh as claimed in respect of Asset-IV is allowed. Due to non-submission of complete details in respect of IEDC computation for Asset-IV, the Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 had treated the entire claimed 'overhead' as on COD as IEDC and allowed the same. The Commission had decided to review the same at the time of truing up. The relevant paragraph of the order dated 5.2.2020 in Petition No. 334/TT/2018 is as follows:

"39. The Petitioner has claimed for "Overhead Expense" up to COD vide Auditor's certificate. However, the petitioner has not submitted any discharge statement. Overhead expense head up to COD has been considered as IEDC and presumed to be discharged as on COD. However, "Overhead Expense" after COD has not taken into consideration. Pro-rata IEDC, claimed up to COD, disallowed on account of time over-run not condoned has been considered as ₹562.43 lakh for Asset-IV. Accordingly, the above mentioned IEDC has been allowed in the instant petition at the time of true-up subject to reconsideration in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018 against Commission's orders dated 29.7.2016 and 5.10.2017 in Petition Nos. 46/TT/2014 and 2/RP/2017 respectively."



39. The Petitioner *vide* affidavit dated 12.8.2020 has claimed 'overheads' of ₹3888.92 lakh as on COD and submitted Auditors Certificate dated 20.1.2020 and Form-5 in support of the same. The Petitioner has not submitted discharge statement of IEDC in respect of Asset-IV. Hence, in the absence of discharge statement, we have considered the 'overheads' as on COD to be IEDC. Further, as the total time over-run in case of Asset-IV has been condoned, adjustment of IEDC on account of time over-run is no longer required.

Initial spares

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

- “(d) Transmission System*
- (i) Transmission line: 1.00%*
- (ii) Transmission sub-station (Green Field): 4.00%*
- (iii) Transmission sub-station (Brown Field): 6.00%*
- (iv) GIS Sub-station: 5.00%”*

41. The Petitioner did not claim Initial Spares at the time of determination of tariff *vide* order dated 5.2.2020 in Petition No. 334/TT/2018. However, the Petitioner has now proposed capitalisation of ₹163.83 lakh during 2017-18 on account of spare conductor for Asset-IV at the truing-up stage. The Petitioner has also proposed tower material spare at an estimated cost of ₹305.43 lakh for Asset-IV. The Petitioner has submitted that the total cost of these Initial Spares, i.e. conductor (already procured) and tower materials (under process of procurement) is well within the limit in the relevant regulation of the Commission.

42. The cut-off date of Asset-IV is 31.3.2020 and the cost admitted *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 with respect to the transmission element of Asset-IV as on 31.3.2019 is ₹43911.90 lakh.



43. The Petitioner was directed to furnish year-wise and asset-wise discharge statement of the Initial Spares, if any, in respect of the transmission assets along with COD during 2014-19 period. In response, the Petitioner *vide* affidavit dated 12.8.2020 has submitted as follows:

(a) The Petitioner has submitted that it has considered 'Conductor' and 'Tower Material' to be kept as 'Initial Spares' as follows:

Conductor

(i) 50 km ACSR MOOSE Conductor (54/3.53 mm Aluminium + 7/3.53 mm steel) was procured at a cost of ₹163.83 lakh as Initial Spare in respect of Asset-IV through purchase order No. DVC/ Contract/ Head Quarter/ SPE/ CMM/ Supply/ 00011 dated 23.11.2017 and is kept in the store. The material has been procured as spare but is yet to be issued to work. Thus, it has not been converted to asset. Hence, booking of the same is yet to appear in the project cost.

(ii) The amount of ₹163.83 lakh may be allowed as Initial Spare over and above the claimed capital expenditure as on 31.3.2018, as the expenditure has already been incurred in the month of July 2018.

(iii) Revised Tariff filing Forms in respect of Asset-IV, after inclusion of revised claim is submitted before the Commission.

Tower Materials

(i) Spare towers weighing 362.63 MT was procured as Initial Spare and, accordingly, the EPC contractor i.e. Jyoti Structure Limited (JSL), Mumbai was asked to supply the same. But, JSL failed to supply the same because of their internal financial problem as State Bank of India (SBI), lead lending bank of JSL initiated Corporate Insolvency Resolution Process (CIRP) against JSL in June 2017 before the National Company Law Tribunal (NCLT), Mumbai bench.

(ii) Therefore, the Petitioner had to procure the tower materials through separate contract/ order at an estimated cost of ₹305.43 lakh. The flow is already under process and will take some more time to take final shape i.e. to arrive at the ultimate figure (amount) after observing all the formalities delineated in the rule books of the Petitioner. Accordingly, liberty may be granted to submit the



claim during 2019-24 period, based on actual accounts booking against above spare tower material, as and when the same is procured and handed over to O&M wing.

44. We have considered the submissions of the Petitioner. Regulation 9(2)(e) of the 2014 Tariff Regulations provides as follows:

“9. Capital Cost: (1)

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

.....

(e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;”

45. Regulation 14(1)(iii) of the 2014 Tariff Regulations provides as follows:

“14. Additional Capitalisation and De-Capitalisation: (1) The capital expenditure in respect of the 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:

.....

(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;

46. The Petitioner had not claimed Initial Spares at the time of determination of tariff *vide* order dated 5.2.2020 in Petition No. 334/TT/2018. However, the Petitioner has now proposed capitalisation of ₹163.83 lakh during 2017-18 on account of spare conductor for Asset-IV at the truing-up stage. The cut-off date of Asset-IV is 31.3.2020 and the cost admitted *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 of transmission element of Asset-IV as on 31.3.2019 is ₹43911.90 lakh. Therefore, the proposed capitalisation of conductor spare during 2017-18 is within the permissible limit of ‘Transmission line: 1.00%’ of the ‘Plant and Machinery cost up to cut-off date’ as per Regulation 13(d)(i) of the 2014 Tariff Regulations.

47. Accordingly, the capital expenditure of ₹163.83 lakh during 2017-18 on account of spare conductor for Asset-IV is allowed under Regulation 9(2)(e) and 14(1)(iii) of the 2014 Tariff Regulations. The capital expenditure of ₹163.83 lakh shall be allowed as



actual ACE during 2017-18. As regards Initial Spares towards tower material for capital cost of ₹305.43 lakh, the same falls under 2019-24 period and, therefore, has been dealt while determining tariff for 2019-24 tariff period in later part of this order.

Capital Cost as on COD

48. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(2) of the 2014 Tariff Regulations. The details of the capital cost approved after true-up of 2014-19 tariff period, as on COD after adjustment of IDC, IEDC and Initial Spares for Asset-I, Asset-II, Asset-III and Asset-IV are as follows:

(₹ in lakh)

Asset	Capital Cost allowed as on 1.7.2017/ COD* (as per Order dated 5.2.2020 in Petition No. 334/TT/2018)	Adjustment of capital cost incurred in 2017-18 but inadvertently admitted in COD cost (in Order dated 5.2.2020 in Petition No. 334/TT/2018)	Un-discharged liability as on COD	IDC disallowed (due to time over-run not condoned)	IEDC disallowed (due to time over-run not condoned)	Capital cost allowed (as on COD)
	(A)	(B)	(C)	(D)	(E)	(F)=A-B-C-D-E
Asset-I	189.05	Already settled vide order dated 5.2.2020 in Petition No. 334/TT/2018 in line with earlier order dated 9.8.2019 in Petition No. 150/TT/2017.				189.05
Asset-II	283.73					283.73
Asset-III	23519.34					23519.34
Asset-IV	45950.37	36.87	1538.70	0.00	0.00	44374.80

* for Asset-IV only

Additional Capital Expenditure (“ACE”)

49. The Commission, vide order dated 5.2.2020 in Petition No. 334/TT/2018 in respect of Asset-I, Asset-II and Asset-III had held as follows:

“20. The additional capital expenditure claimed by the Petitioner upto 31.3.2017 has already been considered/ allowed in order dated 9.8.2019 in Petition No. 150/TT/2018. As regards the additional capital expenditure claimed by the Petitioner for 2017-18 and 2018-19, the Petitioner has submitted that while booking against individual element of Package-A and B, some expenditure was inadvertently booked. However, while submitting this petition, line-wise actual expenditure has been clearly worked out and necessary adjustment entry has been made. The Petitioner has submitted that the actual capital expenditure against individual lines is submitted from 2017-18 onwards after necessary adjustment entry amongst individual line(s) while overall booking against the Package(s) remaining unchanged. The adjustment entry claimed by the Petitioner for period 2017-18 and 2018-19 is not supported by Auditor certificate. Further, the

Petitioner has not submitted any sanction/ work order for the works. Therefore, we are not inclined to allow any Additional Capital Expenditure or Decapitalisation for the said assets at this stage. The Petitioner is directed to submit the same along with the justification at the time of truing up for consideration.”

50. The Commission, vide order dated 5.2.2020 in Petition No. 334/TT/2018 in respect of Asset-IV, had held as follows:

“42. The Petitioner vide affidavit dated 10.5.2019 has claimed the Audited additional capital expenditure of ₹36.86661 lakh for period 2017-18 on account of balance and retention payments and the Petitioner has not claimed any additional capital expenditure for 2018-19 period. We have considered the submissions of the Petitioner. The Petitioner claims of ₹36.86661 lakh as additional capital expenditure towards balance and retention payments for period 2017-18 is allowed under Regulation 14 of the 2014 Tariff Regulations. Thus, the same has been considered for the period 2017-18 for tariff calculation, subject to truing up.”

51. In compliance to the above directions of the Commission, the Petitioner has submitted its claim for actual ACE and decapitalisation for 2017-18 and 2018-19 and has submitted Auditor's certificate dated 20.1.2020 in support of the same, as follows:

(₹ in lakh)

Particulars	Asset Name	ACE		
		2017-18	2018-19	Total
Asset-I	S/C LILO of 400 kV D/C Durgapur (PG)-Jamshedpur (PG) at DSTPS;	601.58	80.03	681.61
Asset-II	S/C LILO of 400 kV D/C Maithon (PG)-Ranchi (PG) at RTPS;	1733.75	154.93	1888.68
Asset-III	D/C 400 kV DSTPS-RTPS transmission line;	(8622.69)	(41.06)	(8263.75)
Asset-IV	D/C 400 kV D/C RTPS-Ranchi (PG) transmission line.	36.87	2031.45	2068.32

52. The Petitioner has submitted asset-wise Form-7 in respect of Asset-I vide affidavit dated 13.5.2021 as per the direction of the Commission and asset-wise Form-7 for Assets-II, Asset-III and Asset-IV in the instant petition along with justification for claiming ACE, as follows:



(₹ in lakh)

Asset	Element	Regulation	2017-18	2018-19	Justification
Asset-I	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	601.58	80.03	Adjustment entry against year wise part payment / adjustment towards construction of 400 kV LILO portion from DSTPS (2x500 mw) of DVC has been undertaken for connectivity with CTU line for evacuation of power from DSTPS through CTU network to meet the increasing load growth of DVC.
Asset-II	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	1733.75	154.93	Adjustment entry against year wise part payment / adjustment towards construction of 400 kV LILO portion from RTPS (2x600 mw) of DVC has been undertaken for connectivity with CTU line for evacuation of power from RTPS through CTU network to meet the increasing load growth of DVC.
Asset-III	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	(8622.69)	(41.06)	Adjustment entry against year wise part expenditure pertaining to the D/C Transmission line from DSTPS & RTPS and system strengthening to meet load growth in the entire valley area. Amount claimed is the part expenditure pertaining to Asset-III.
Asset-IV	Line (New work)	14(1) of the 2014 Tariff Regulations	36.87	2195.28 (2031.45 +163.83)	Balance and Retention payment (including ₹163.83 lakh discharge of initial spare (conductor) in 2018-19)

53. ACE claimed by the Petitioner in Petition No. 334/TT/2018 vis-a-vis allowed by the Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 and actually incurred in respect of the transmission assets during 2014-19 period are furnished in a consolidated manner in the following table:

(₹ in lakh)

Particulars	Asset	2017-18	2018-19	Total	Remarks
ACE claimed by DVC in Petition No. 334/TT/2018	Asset-I	784.13	0.00	784.13	Adjustment entry against year wise part payment / adjustment towards construction
	Asset-II	1881.69	0.00	1881.69	
	Asset-III	(-) 8622.69	0.00	(-) 8622.69	
	Asset-IV	36.86	0.00	36.86	Balance and Retention Payment
ACE allowed	Asset-I	0.00	0.00	0.00	To be considered at the



vide order dated 5.2.2020 in Petition No. 334/TT/2018	Asset-II	0.00	0.00	0.00	time of true-up
	Asset-III	0.00	0.00	0.00	
	Asset-IV	36.86	0.00	36.86	Balance and Retention Payment
Actual ACE claimed in the instant true up petition	Asset-I	601.58	80.03	681.61	Adjustment entry against year wise part payment / adjustment towards construction
	Asset-II	1733.75	154.93	1888.68	
	Asset-III	(-) 8622.69	(-) 41.06	(-) 8263.75	
	Asset-IV	36.87	2195.28	2232.15	Balance and Retention payment (including ₹163.83 lakh due to discharge of initial spare (conductor) in 2018-19)

54. DVPCA has made the following submissions with respect to ACE claimed by the Petitioner in respect of Asset-IV:

(a) The Commission in order dated 5.2.2020 in Petition No. 334/TT/2018, has inadvertently allowed ACE of ₹36.87 lakh in 2017-18. It is worth noting that the Petitioner did not claim any ACE in 2018-19 in Petition No. 334/TT/2018. The relevant extracts of the order is reproduced as follows:

“Additional Capital Expenditure

42. The Petitioner vide affidavit dated 10.5.2019 has claimed the Audited additional capital expenditure of ₹36.86661 lakh for period 2017-18 on account of balance and retention payments and the Petitioner has not claimed any additional capital expenditure for 2018-19 period. We have considered the submissions of the Petitioner. The Petitioner claims of ₹36.86661 lakh as additional capital expenditure towards balance and retention payments for period 2017-18 is allowed under Regulation 14 of the Tariff Regulations 2014. Thus, the same has been considered for the period 2017-18 for tariff calculation, subject to truing up.

43. Accordingly, the capital cost as on COD and the additional capital expenditure considered for computation of tariff computation of Asset-IV are as follows: -

(₹ in lakh)

Capital Cost allowed as on COD	Additional capital expenditure during 2017-18	Capital cost allowed as on 31.3.2019
43,875.04	36.866	43,911.90

”

(b) This can also be observed from the following table:



(₹ in lakh)	
Capital Cost allowed as on COD	Amount
Capital Cost allowed as on COD: 45,913.50 (Capital Cost for FY 2017-18 as per Appendix 2: Statement of Capital Cost) + 36.87 (Additional Capitalisation for FY 2017-18 as per Appendix 2: Statement of Capital Cost)	45950.37
IDC disallowed due to time over-run	1512.90
IEDC disallowed due to time over-run	562.43
Capital Cost on COD considered for tariff calculation	43875.04
Additional Capitalisation for FY 2017-18 as per Appendix 2: Statement of Capital Cost	36.87
Capital cost allowed as on 31.3.2019	43911.90

(c) The correct computation of capital cost is as follows:

(₹ in lakh)	
Capital Cost allowed as on COD	Amount
Capital Cost allowed as on COD: Capital Cost for FY 2017-18 as per Appendix 2: Statement of Capital Cost	45913.50
IDC disallowed due to time over-run	1512.90
IEDC disallowed due to time over-run	562.43
Capital Cost on COD considered for tariff calculation	43838.17
Additional Capitalisation for FY 2017-18 as per Appendix 2: Statement of Capital Cost	36.87
Capital cost allowed as on 31.3.2019	43875.04

(d) However, in the instant Petition, the Petitioner has claimed much higher ACE of ₹2031.45 lakh in 2018-19, without any justification.

55. In response, the Petitioner in its rejoinder, *vide* affidavit dated 21.5.2021, has submitted as follows:

(a) DVPCA's assessment in respect of capital cost and ACE is same as per the submissions made by the Petitioner.

(b) The Sanction Order dated 1.3.2008 for 400 kV Double Circuit Transmission line has already been submitted along with the instant petition. The Petitioner has submitted detailed justifications supported by documents in support of the claim in respect of capital cost and ACE.

(c) Revised cost estimate (RCE)/ Sanction against 400 kV D/C Raghunathpur–Ranchi Quad Moose Transmission Line has also been submitted.

56. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has claimed actual ACE during 2014-19 period in respect of the transmission assets and has submitted Auditor's Certificate in support of the same. The Petitioner has submitted Form-7 and has claimed actual ACE for Assets-I, Asset-II



and Asset-III, under Regulation 14(2) and Regulation 14(3) of the 2014 Tariff Regulations. The Petitioner has submitted that ACE in respect of Asset-IV on account of balance payment of work executed within cut-off date has been claimed under Regulation 14(1) of the 2014 Tariff Regulations. Further, the Petitioner has submitted that ACE on account of work executed within cut-off date, but balance and retention payment done after cut-off date after final accounting has been claimed under Regulation 14(2) and Regulation 14(3) of the 2014 Tariff Regulations. The Petitioner has also claimed spares procured within cut-off period for Asset-IV under Regulation 14(1) of the 2014 Tariff Regulations.

57. The Petitioner has further submitted that out of ₹36.87 lakh of ACE during 2017-18 in respect of Asset-IV, ₹3.15 lakh remained un-discharged during the year. Hence, the un-discharged amount of ₹3.15 lakh has been deducted to arrive at ACE allowable for 2017-18 in respect of Asset-IV on cash basis. No information of discharge of ACE has been provided for the other assets.

58. The cut-off date in case of Asset-I, Asset-II, Asset-III and Asset-IV is 31.3.2014, 31.3.2015, 31.3.2016 and 31.3.2020, respectively. Accordingly, ACE on actual basis is allowed in respect of the transmission assets, for balance payment within cut-off date under Regulations 14(1) and the balance payment after cut-off date is allowed under Regulation 14(2) of the 2014 Tariff Regulations towards true-up of 2014-19 tariff period as follows:

(₹ in lakh)

Asset	Element	Regulation	2017-18	2018-19	Justification
Asset-I	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	601.58	80.03	Adjustment entry against year wise part payment / adjustment towards construction of 400 kV LILO portion from DSTPS (2x500 mw) of DVC has been undertaken for connectivity with CTU line for evacuation of power from DSTPS through CTU network to meet the increasing load growth of DVC.



Asset-II	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	1733.75	154.93	Adjustment entry against year wise part payment / adjustment towards construction of 400 kV LILO portion from RTPS (2x600 mw) of DVC has been undertaken for connectivity with CTU line for evacuation of power from RTPS through CTU network to meet the increasing load growth of DVC.
Asset-III	Line (New work)	14(2) and 14(3) of the 2014 Tariff Regulations	(8622.69)	(41.06)	Adjustment entry against year wise part expenditure pertaining to the D/C Transmission line from DSTPS & RTPS and system strengthening to meet load growth in the entire valley area. Amount claimed is the part expenditure pertaining to Asset-III.
Asset-IV	Line (New work)	14(1) of the 2014 Tariff Regulations	33.72 (36.87- 3.15)	2195.28 (2031.45 +163.83)	Balance and Retention payment (excluding ₹3.15 lakh undischarged during 2017-18 but including ₹163.83 lakh discharge of initial spare (conductor) in 2018-19)

59. ACE allowed *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, as claimed in the subject petition by the Petitioner and allowed under true-up of 2014-19 tariff period in respect of transmission asset is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
ACE allowed <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant petition	601.58	80.03	1733.75	154.93
ACE approved after true-up in this order	601.58	80.03	1733.75	154.93

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18	2018-19
ACE allowed <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	0.00	0.00	36.86	0.00
Claimed by the Petitioner in the instant petition	(-) 8622.69	(-) 41.06	36.87	2195.28
ACE approved after true-up in this order	(-) 8622.69	(-) 41.06	33.72	2195.28

Capital cost considered as on 31.3.2019

60. Accordingly, the details of the capital cost as on COD, ACE during 2014-19



period and capital cost as on 31.3.2019 for true-up of 2014-19 tariff period in respect of the transmission asset are as follows:

(₹ in lakh)				
Asset	Capital cost allowed (as on 1.4.2017/ COD*)	ACE allowed for 2017-18	ACE allowed for 2018-19	Capital cost allowed (As on 31.3.2019)
Asset-I	189.05	601.58	80.03	870.66
Asset-II	283.73	1733.75	154.93	2172.41
Asset-III	23519.34	(-) 8622.69	(-) 41.06	14855.59
Asset-IV	44374.80	33.72	2195.28	46603.80
Total	68366.92	(-) 6253.64	2389.18	64502.46

* as on COD for Asset-IV

Debt-Equity Ratio

61. Debt-equity ratio is dealt in accordance with Regulations 19(1), 19(3) and 19(5) of the 2014 Tariff Regulations. However, debt-equity ratio in respect of the transmission assets have been considered as 70:30 as per Special Provisions relating to DVC as per Regulation 53(2)(iii) of the 2014 Tariff Regulations. Accordingly, the details of debt-equity ratio as on COD and 31.3.2019 in respect of the transmission asset considered for the purpose of determination of tariff for 2014-19 period are as follows:

Asset-I				
Particulars	Amount as on 1.4.2017 (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	132.34	70.00	609.46	70.00
Equity	56.72	30.00	261.20	30.00
Total	189.05	100.00	870.66	100.00
Asset-II				
Particulars	Amount as on 1.4.2017 (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	198.61	70.00	1520.69	70.00
Equity	85.12	30.00	651.72	30.00
Total	283.73	100.00	2172.41	100.00
Asset-III				
Particulars	Amount as on 1.4.2017 (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	16463.54	70.00	10398.91	70.00
Equity	7055.80	30.00	4456.68	30.00
Total	23519.34	100.00	14855.59	100.00



Asset-IV				
Particulars	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	31062.36	70.00	32622.66	70.00
Equity	13312.44	30.00	13981.14	30.00
Total	44374.80	100.00	46603.80	100.00

Depreciation

62. Regulation 53 of the 2014 Tariff Regulation provides as follows:

“53. Special Provisions relating to Damodar Valley Corporation:

(1) Subject to clause (2), this regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).

(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:

xxxxx

(iii) **Depreciation:** The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC.”

63. Depreciation has been worked out as per the methodology provided in Regulation 27 read with Regulation 53 of the 2014 Tariff Regulations. The transmission assets will complete 12 years after 31.3.2019. The Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 held as follows:

“61. Depreciation rate @7.72%, as approved vide order dated 9.8.2019 in Petition No. 150/TT/2018, has been considered in the instant petition subject to submission of the revised rate at the time of true-up, if any.”

64. The Petitioner vide affidavit dated 12.8.2020 has submitted the detailed computation of year wise Weighted Average Rate of Depreciation (WAROD) on the overall basis of GFA opening balance as on 31.3.2014, ACE during 2014-19 period and GFA closing balance as on 31.3.2019 in respect of existing T&D system of DVC (including transmission assets), towards true-up of 2014-19 tariff period which is as follows:

Particulars	2017-18	2018-19
WAROD (in %)	7.752	7.752



65. The details of the trued-up depreciation allowed during 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Opening Gross Block	189.05	790.63	283.73	2017.48
ACE	601.58	80.03	1733.75	154.93
Closing Gross Block	790.63	870.66	2017.48	2172.41
Average Gross Block	489.84	830.65	1150.61	2094.95
Weighted Average Rate of Depreciation (WAROD) (in %)	7.752	7.752	7.752	7.752
Aggregated Depreciable Value	440.86	747.58	1035.54	1885.45
Depreciation during the year	37.97	64.39	89.19	162.40
Cumulative Depreciation at the end of the year	37.97	102.36	89.19	251.60
Remaining Aggregated Depreciable Value at the end of the Year	402.88	645.22	946.35	1633.86

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Opening Gross Block	23519.34	14896.65	44374.80	44408.52
ACE	-8622.69	-41.06	33.72	2195.28
Closing Gross Block	14896.65	14855.59	44408.52	46603.80
Average Gross Block	19208.00	14876.12	44391.66	45506.16
Weighted Average Rate of Depreciation (WAROD) (in %)	7.752	7.752	7.750	7.750
Aggregated Depreciable Value	17287.20	13388.51	39952.49	40955.54
Depreciation during the year	1489.00	1153.20	2017.08	3526.73
Cumulative Depreciation at the end of the year	1489.00	2642.20	2017.08	5543.81
Remaining Aggregated Depreciable Value at the end of the Year	15798.19	10746.31	37935.41	35411.73

66. The details of depreciation approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, claimed in the instant petition by the Petitioner and trued up depreciation allowed in the instant order for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2017-18
Depreciation approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	14.59	14.59	21.90	21.90
Claimed by the Petitioner in the instant petition	37.97	64.39	80.06	153.27



Allowed after true-up in this order	37.97	64.39	89.19	162.40
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(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2017-18
Approved vide order dated 5.2.2020 in Petition No. 334/TT/2018	1815.69	1815.69	1986.73	3390.00
Claimed by the Petitioner in the instant petition	1498.16	1162.34	3560.70	3640.84
Allowed after true-up in this order	1489.00	1153.20	2017.08	3526.73

Interest on Loan (“IoL”)

67. The Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 held as follows:

“49. The Petitioner has submitted Form-9C incorporating consolidated actual loans for the entire project. In the absence of separate Form-9C for the individual assets, the weighted average rate of interest claimed by the Petitioner in consolidated tariff Form-9C has been considered in tariff calculations subject to review at the time of true-up. The Petitioner is directed to submit Form 9-C for individual assets at the time of true-up.”

68. The Petitioner vide affidavit dated 12.8.2020 has submitted Form-9C for individual assets towards truing-up of tariff. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan and rate of interest has been considered based on allocated loan of T&D system of DVC.

69. Accordingly, 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 the trued-up IoL allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Gross Normative Loan	132.34	553.44	198.61	1412.24
Cumulative Repayments up to Previous Year	0.00	37.97	0.00	89.19
Net Loan-Opening	132.34	515.47	198.61	1323.04
Addition due to ACE	421.11	56.02	1213.63	108.45
Repayment during the year	37.97	64.39	89.19	162.40



Net Loan-Closing	515.47	507.10	1323.04	1269.09
Average Loan	323.90	511.28	760.83	1296.07
Weighted Average Rate of Interest on Loan (WAROI) (in %)	10.15%	10.15%	10.15%	10.15%
Interest on Loan	32.88	51.90	77.22	131.55

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Gross Normative Loan	16463.54	10427.66	31062.36	31085.96
Cumulative Repayments up to Previous Year	0.00	1489.00	0.00	2017.08
Net Loan-Opening	16463.54	8938.65	31062.36	29068.88
Addition due to ACE	-6035.88	-28.74	23.60	1536.70
Repayment during the year	1489.00	1153.20	2017.08	3526.73
Net Loan-Closing	8938.65	7756.71	29068.88	27078.85
Average Loan	12701.09	8347.68	30065.62	28073.86
Weighted Average Rate of Interest on Loan (WAROI) (in %)	10.15%	10.15%	10.15%	10.15%
Interest on Loan	1289.16	847.29	1789.19	2849.50

70. The details of IoL approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, as claimed by the Petitioner in the instant petition and trued up in the instant order in respect of transmission asset is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2017-18
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	12.33	10.89	18.50	16.34
Claimed by the Petitioner in the instant petition	23.41	42.49	63.00	118.41
Allowed after true-up in this order	32.88	51.90	77.22	131.55

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2017-18
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	1533.79	1354.76	1718.79	2667.78
Claimed by the Petitioner in the instant petition	642.99	204.41	1620.42	3148.14
Allowed after true-up in this order	1289.16	847.29	1789.19	2849.50



Return on Equity ("RoE")

71. The Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 has held as follows:

"47. The RoE is allowed in accordance with Regulations 24 and 25 of the 2014 Tariff Regulations. The pre-tax rate of 19.610 has been considered. The grossing up RoE of non-ISTS lines carrying ISTS is not allowed. Thus, pre-tax rate of 15.50% is allowed."

72. The Petitioner in the instant true-up petition has submitted that RoE has not been grossed up with the Income Tax rate as there is no income tax liability on the Petitioner for the 2014-19 period. Accordingly, RoE has been worked out in accordance with Regulation 24 and Regulation 25 of the 2014 Tariff Regulations considering applicable tax rate as "Nil". RoE allowed is as follows:

Particulars	(₹ in lakh)			
	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Opening Equity	56.72	237.19	85.12	605.24
Addition due to ACE	180.47	24.01	520.13	46.48
Closing Equity	237.19	261.20	605.24	651.72
Average Equity	146.95	249.19	345.18	628.48
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	0.000	0.000	0.000	0.000
Rate of Return on Equity (Pre-tax) (in %)	15.500	15.500	15.500	15.500
Return on Equity (Pre-tax)	22.78	38.62	53.50	97.41

Particulars	(₹ in lakh)			
	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata for 214 days)	2018-19
Opening Equity	7055.80	4469.00	13312.44	13322.56
Addition due to ACE	-2586.81	-12.32	10.12	658.58
Closing Equity	4469.00	4456.68	13322.56	13981.14
Average Equity	5762.40	4462.84	13317.50	13651.85
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50%	15.50%
Tax Rate applicable (in %)	0.000	0.000	0.000%	0.000%
Rate of Return on Equity (Pre-tax) (in %)	15.500	15.500	15.500%	15.500%
Return on Equity (Pre-tax)	893.17	691.74	1210.25	2116.04



73. The details of RoE approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, claimed by the Petitioner in the instant petition and trued up in the instant order in respect of transmission assets is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2017-18
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	8.79	8.79	13.19	13.19
Claimed by the Petitioner in the instant petition	28.96	49.23	61.05	117.19
Allowed after true-up in this order	22.78	38.62	53.50	97.41

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata)	2017-18
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	1093.65	1093.65	1196.67	2041.90
Claimed by the Petitioner in the instant petition	1142.47	888.73	2702.24	2776.47
Allowed after true-up in this order	893.17	691.74	1210.25	2116.04

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

74. Regulation 29(4)(a) and Regulation 29(4)(c) of the 2014 Tariff Regulations provides the year-wise O&M Expenses norms claimed for the transmission system of the Petitioner as follows:

Particulars	2017-18	2018-19
Transmission Lines		
Double circuit (Double conductor) (₹ in lakh/km)	0.780	0.806
Double circuit (Bundled conductor) (₹ in lakh/km)	1.171	1.210
Bays		
400 kV Bays (₹ in lakh/bay)	66.51	68.71

75. The details of O&M Expenses claimed by the Petitioner and allowed *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 for 2014-19 tariff period is as follows:

(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-I	O&M Expenses	136.05	140.55
Asset-II		141.25	145.93
Asset-III		320.25	330.85



Asset-IV		183.81	325.58
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76. O&M Expenses claimed by the Petitioner in respect of the transmission assets and allowed after true-up for 2014-19 tariff period is as follows:

O&M Expenses	Asset-I	
Particulars	2017-18	2018-19
Bays for S/C LILO Jamshedpur (PGCIL)-Durgapur (PGCIL)		
400 kV bays (Number)	2	2
Sub-total Substation O&M Expense (₹ in lakh)	133.02	137.42
400 kV LILO DSTPS TRANSMISSION LINE (LILO PORTION)		
Double circuit (Double conductor) (km)	3.89	3.89
Sub-total Transmission Line O&M Expense (₹ in lakh)	3.034	3.135
Total O&M Expenses (₹ in lakh)	136.05	140.56
O&M Expenses	Asset-II	
Particulars	2017-18	2018-19
Bays for S/C LILO Maithon (PGCIL)-Ranchi (PGCIL)		
400 kV bays (Number)	2	2
Sub-total Substation O&M Expense (₹ in lakh)	133.02	137.42
400 kV LILO RTPS TRANSMISSION LINE (LILO PORTION)		
Double circuit (Double conductor) (km)	10.563	10.563
Sub-total Transmission Line O&M Expense (₹ in lakh)	8.239	8.514
Total O&M Expenses (₹ in lakh)	141.26	145.93
O&M Expenses	Asset-III	
Particulars	2017-18	2018-19
Bays for DSTPS (ANDAL)-RTPS (RAGHUNATHPUR) LINE		
400 kV Bays at DSTPS End (Number)	2	2
400 kV Bays at RTPS End (Number)	2	2
Sub-total Substation O&M expense (₹ in lakh)	266.04	274.84
400 kV D/C DSTPS(ANDAL)-RTPS(RAGHUNATHPUR) TRANSMISSION LINE		
Double circuit (Double conductor) (km)	69.50	69.50
Sub-total Transmission Line O&M Expense (₹ in lakh)	54.210	56.017
Total O&M Expenses (₹ in lakh)	320.25	330.83
O&M Expenses	Asset-IV	
Particulars	2017-18 (pro-rata 214 days)	2018-19
Bays for RTPS (RAGHUNATHPUR)-RANCHI (PGCIL) LINE		
400 kV Bays at RTPS End-COD: 30.8.2017 (Number)	2	2
Sub-total Substation O&M expense (₹ in lakh)	77.595	137.42
400 kV D/C RTPS (RAGHUNATHPUR)-RANCHI (PGCIL) TRANSMISSION LINE		
Double circuit (Four or more conductor)-COD: 30.8.2017 (km)	155.50	155.50



Sub-total Transmission Line O&M Expense (₹ in lakh)	106.22	188.16
Total O&M Expenses (₹ in lakh)	183.81	325.58

77. Accordingly, asset-wise summary of O&M Expenses claimed by the Petitioner and allowed for true-up of 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Transmission Line	3.03	3.14	8.24	8.51
Sub-station	133.02	137.42	133.02	137.42
Communication	-	-	-	-
Total O&M Expenses	136.05	140.56	141.26	145.93

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Transmission Line	54.21	56.02	106.22	188.16
Sub-station	266.04	274.84	77.60	137.42
Communication	-	-	-	-
Total O&M Expenses	320.25	330.86	183.81	325.58

78. Accordingly, O&M Expenses approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, O&M Expenses claimed by the Petitioner in the instant petition and as trued up in the instant order in respect of the transmission asset is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	136.05	140.55	141.25	145.93
Claimed by the Petitioner in the instant petition	136.05	140.56	141.26	145.93
Allowed after true-up in this order	136.05	140.56	141.26	145.93



(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	320.25	330.85	183.81	325.58
Claimed by the Petitioner in the instant petition	320.25	330.86	183.81	325.58
Allowed after true-up in this order	320.25	330.86	183.81	325.58

Interest on Working Capital (“IWC”)

79. IWC has been worked out as per the methodology provided in the Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
WC for Maintenance Spares (15% of O&M Expenses)	20.41	21.08	21.19	21.89
WC for O&M Expenses (O&M Expenses for one month)	11.34	11.71	11.77	12.16
WC for Receivables (Equivalent to two months of annual fixed cost)	39.78	51.01	62.20	92.20
Total Working Capital	71.53	83.80	95.16	126.25
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	9.01	10.56	11.99	15.91

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
WC for Maintenance Spares (15% of O&M Expenses)	48.04	49.63	47.03	48.84
WC for O&M expenses (O&M Expenses for one month)	26.69	27.57	26.13	27.13
WC for Receivables (Equivalent to two months of annual fixed cost)	681.14	516.31	1511.57	1502.79
Total Working Capital	755.86	593.51	1584.72	1578.76
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	95.24	74.78	117.07	198.92



80. The details of IWC of transmission assets approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, IWC claimed by the Petitioner in the instant Petition and as trued up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	7.77	7.97	8.42	8.62
Claimed by the Petitioner in the instant petition	9.61	11.39	12.55	17.10
Allowed after true-up in this order	9.01	10.56	11.99	15.91

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	111.79	108.50	114.62	190.50
Claimed by the Petitioner in the instant petition	93.73	70.34	179.63	224.02
Allowed after true-up in this order	95.24	74.78	117.07	198.92

Approved Annual Fixed Charges for 2014-19 Tariff Period

81. The trued-up AFC approved in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Depreciation	37.97	64.39	89.19	162.40
Interest on Loan	32.88	51.90	77.22	131.55
Return on Equity	22.78	38.62	53.50	97.41
Interest on Working Capital	9.01	10.56	11.99	15.91
O&M Expenses	136.05	140.56	141.26	145.93
Total	238.69	306.03	373.17	553.20

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Depreciation	1489.00	1153.20	2017.08	3526.73
Interest on Loan	1289.16	847.29	1789.19	2849.50
Return on Equity	893.17	691.74	1210.25	2116.04
Interest on Working Capital	95.24	74.78	117.07	198.92
O&M Expenses	320.25	330.86	183.81	325.58
Total	4086.83	3097.87	5317.41	9016.77

82. The details of AFC approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018, AFC claimed by the Petitioner in the instant Petition and trued up in the instant order in respect of transmission assets are as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	179.53	182.80	203.26	205.98
Claimed by the Petitioner in the instant petition	236.01	308.06	357.92	551.90
Allowed after true-up in this order	238.69	306.03	373.17	553.20

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
Approved <i>vide</i> order dated 5.2.2020 in Petition No. 334/TT/2018	4875.18	4703.46	5200.61	8615.77
Claimed by the Petitioner in the instant petition	3697.61	2656.68	8246.81	10115.04
Allowed after true-up in this order	4086.83	3097.87	5317.41	9016.77

83. AFC in respect of the transmission asset (Asset-I, Asset-II and Asset-IV) approved after truing up is higher than the AFC approved *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 mainly due to increase in the capital cost due to ACE allowed during 2017-18 and 2018-19. However, AFC of Asset-III has reduced due to major decapitalisation during 2017-18.



DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

84. The Petitioner has claimed transmission tariff for the transmission assets and submitted asset wise capital cost, projected ACE and tariff forms for Asset-I, Asset-II, Asset-III and Asset-IV for 2019-24 tariff period. Accordingly, we are determining the asset wise tariff for 2019-24 tariff period in respect of the transmission assets on the basis of admitted trued-up capital cost as on 31.3.2019.

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

(₹ in lakh)

Particulars	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	67.49	67.49	67.49	67.49	67.49
Interest on Loan	38.81	31.96	25.11	18.26	11.41
Return on Equity	51.61	51.61	51.61	51.61	51.61
Interest on Working Capital	8.22	8.32	8.42	8.53	8.65
O&M Expenses	132.03	136.67	141.47	146.44	151.57
Total	298.16	296.05	294.1	292.33	290.73

(₹ in lakh)

Particulars	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	159.27	159.27	159.27	159.27	159.27
Interest on Loan	108.47	92.31	76.14	59.97	43.81
Return on Equity	121.78	121.78	121.78	121.78	121.78
Interest on Working Capital	8.89	8.74	8.59	8.44	8.3
O&M Expenses	65.75	68.06	70.46	72.93	75.49
Total	464.16	450.16	436.24	422.39	408.65

(₹ in lakh)

Particulars	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1160.75	1160.75	1160.75	935.97	0.00
Interest on Loan	85.58	13.34	0.00	0.00	0.00
Return on Equity	887.51	887.51	887.51	887.51	887.51
Interest on Working Capital	41.02	40.15	40.24	37.12	23.13
O&M Expenses	189.83	196.5	203.41	210.54	217.9
Total	2364.69	2298.25	2291.91	2071.14	1128.54



(₹ in lakh)

Particulars	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	3736.16	3751.66	3778.79	3794.30	3794.30
Interest on Loan	2873.28	2807.48	2150.18	1780.06	1394.93
Return on Equity	2856.68	2868.53	2889.28	2901.13	2901.13
Interest on Working Capital	25.23	153.61	149.05	144.00	138.29
O&M Expenses	269.87	279.28	289.09	299.28	309.71
Total	9761.22	9860.56	9256.39	8918.77	8538.36

86. The Petitioner has claimed the following IWC in respect of the transmission assets for 2019-24 tariff period:

(₹ in lakh)

Particulars	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Maintenance Spares (15% of O&M Expenses)	19.80	20.50	21.22	21.97	22.74
Working Capital for O&M expenses (O&M Expenses for one month)	11.00	11.39	11.79	12.20	12.63
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	37.42	37.13	36.86	36.61	36.38
Total Working Capital	68.22	69.02	69.87	70.78	71.75
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	8.22	8.32	8.42	8.53	8.65

(₹ in lakh)

Particulars	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Maintenance Spares (15% of O&M Expenses)	9.86	10.21	10.57	10.94	11.32
Working Capital for O&M expenses (O&M Expenses for one month)	5.48	5.67	5.87	6.08	6.29
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	58.44	56.63	54.82	53.03	51.25
Total Working Capital	73.78	72.51	71.26	70.05	68.86
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	8.89	8.74	8.59	8.44	8.30



(₹ in lakh)

Particulars	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Maintenance Spares (15% of O&M Expenses)	28.47	29.48	30.51	31.58	32.69
Working Capital for O&M expenses (O&M Expenses for one month)	15.82	16.38	16.95	17.55	18.16
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	296.08	287.36	286.49	258.89	141.07
Total Working Capital	340.37	333.22	333.95	308.02	191.92
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	41.01	40.15	40.24	37.12	23.13

(₹ in lakh)

Particulars	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Maintenance Spares (15% of O&M Expenses)	40.48	41.89	43.36	44.89	46.46
Working Capital for O&M expenses (O&M Expenses for one month)	22.49	23.27	24.09	24.94	25.81
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	146.42	1209.58	1169.49	1125.15	1075.37
Total Working Capital	209.39	1274.74	1236.94	1194.98	1147.64
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	25.23	153.61	149.05	144.00	138.29

Capital Cost

87. 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 assets before the date of commercial operation;
 - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
 - (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
 - (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 trued up by excluding liability, if any, as on 1.4.2019.
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations.
 - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
 - (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 Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."

88. The trued-up capital cost as on 31.3.2019 admitted for Assets-I, Asset-II, Asset-III and Asset-IV has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations, as follows:

(₹ in lakh)			
Asset	Approved apportioned Cost as per Sanction Order	Approved apportioned cost as per RCE (as per affidavit dated 12.8.2020)	Capital cost Allowed as on 31.3.2019
Asset-I	Admitted earlier vide order dated 29.9.2017 in petition no 547/TT/2014 as part of combined capital cost of DVC's T&D assets. Individual sanctioned cost not available		870.66
Asset-II			2172.41
Asset-III			14855.59
Asset-IV	43490.26	56452.90	46603.80

Initial spares

89. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of plant and machinery cost, subject to the following ceiling norms:



“(d) Transmission System

<i>(i) Transmission line</i>	-	1.00%
<i>(ii) Transmission sub-station</i>		
<i>-Green Field</i>	-	4.00%
<i>-Brown Field)</i>	-	6.00%
<i>(ii) Gas Insulated sub-station (GIS)</i>		
<i>-Green Field</i>	-	4.00%
<i>-Brown Field</i>	-	6.00%

.....

90. The Petitioner has proposed tower material as Initial spares at an estimated cost of ₹305.43 lakh in respect of Asset-IV. The Petitioner has submitted that it may be granted liberty to submit the claim based on actual accounts booking as and when the same is procured.

91. We have considered the submissions of the Petitioner. The Tower Material Spare proposed at an estimated cost of ₹305.43 lakh for Asset-IV shall be dealt at the time of truing up of 2019-24 tariff period on the basis of actual audited capital cost as per the 2019 Tariff Regulations.

Additional Capital Expenditure (“ACE”)

92. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

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

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

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

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

(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work



along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.”

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

(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 cut-off date may be admitted by the Commission, subject to prudence check:

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

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

93. The Petitioner has not projected any ACE for Asset-I, Asset-II and Asset-III. However, the Petitioner has claimed projected ACE with respect to Asset-IV. The Petitioner has submitted Form-7 for Asset-IV in the instant petition along with justification for claiming ACE, as follows:

(₹ in lakh)						
Asset	Element	Regulation	2019-20	2020-21	2021-22	Justification
Asset-IV	Line (New work)	24 & 25 of the 2019 Tariff Regulations	100.00	300.00	400.00	Balance and Retention payment within cut-off date for 2019-20 and beyond cut-off date for 2020-21 & 2021-22

94. We have considered the submissions of the Petitioner. The cut-off date of Asset-IV is 31.3.2020. ACE claimed by the Petitioner has been allowed under



Regulation 24(1)(a) for 2019-20 and 25(1)(d) for 2020-21 and 2021-22 as it is towards undischarged liabilities for works executed prior to the cut-off date, as follows:

(₹ in lakh)

Asset	Element	Regulation	2019-20	2020-21	2021-22	Justification
Asset-I	-	-	-	-	-	The Petitioner has not claimed any ACE for Asset-I, Asset-II and Asset- III
Asset-II	-	-	-	-	-	
Asset-III	-	-	-	-	-	
Asset-IV	Line (New work)	24(1)(a) of the 2019 Tariff Regulations	100.00	-	-	Balance and Retention payment within cut-off date for 2019-20
		25(1)(d) of the 2019 Tariff Regulations	-	300.00	400.00	Balance and Retention payment beyond cut-off date for 2020-21 and 2021-22

Capital cost for 2019-24 tariff period

95. The total capital expenditure of Assets-I, Asset-II and Asset-III was admitted *vide* order dated 29.9.2017 in Petition No. 547/TT/2014 as part of combined capital cost of DVC's T&D assets. The total capital expenditure of Asset-IV is ₹46907.18 lakh as on 31.3.2024 which is within the apportioned cost of ₹56452.90 lakh as per revised sanction order. Accordingly, ACE for 2019-20, 2020-21 and 2021-22 and the capital cost as on 31.3.2024 in respect of the transmission assets for 2019-24 tariff period is considered as follows:

(₹ in lakh)

Asset	Admitted Capital Cost as on 1.4.2019	Admitted ACE during FY					Capital Cost as on 31.3.2024
		2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-I	870.66	-	-	-	-	-	870.66
Asset-II	2172.41	-	-	-	-	-	2172.41
Asset-III	14855.59	-	-	-	-	-	14855.59
Asset-IV	46603.80	100.00	300.00	400.00	-	-	47403.80
Total	64502.46	100.00	300.00	400.00	-	-	65302.46



Debt-Equity Ratio

96. Regulation 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.”

97. Debt-equity ratio in respect of the transmission assets have been considered as 70:30 as per Special Provisions relating to DVC as per Regulation 72(2)(ii) of the 2019 Tariff Regulations. Accordingly, the details of debt-equity ratio as on 1.4.2019 and 31.3.2024 considered for the purpose of tariff in respect of the transmission assets for 2019-24 tariff period, is as follows:

Asset-I						
Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE for the 2019-24 period (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	609.46	70.00	0.00	70.00	609.46	70.00
Equity	261.20	30.00	0.00	30.00	261.20	30.00
Total	870.66	100.00	0.00	100.00	870.66	100.00
Asset-II						
Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE for the 2019-24 period (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1520.69	70.00	0.00	70.00	1520.69	70.00
Equity	651.72	30.00	0.00	30.00	651.72	30.00
Total	2172.41	100.00	0.00	100.00	2172.41	100.00
Asset-III						
Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE for the 2019-24 period (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	10398.91	70.00	0.00	70.00	10398.91	70.00
Equity	4456.68	30.00	0.00	30.00	4456.68	30.00
Total	14855.59	100.00	0.00	100.00	14855.59	100.00
Asset-IV						
Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE for the 2019-24 period (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	32622.66	70.00	560.00	70.00	33182.66	70.00
Equity	13981.14	30.00	240.00	30.00	14221.14	30.00
Total	46603.80	100.00	800.00	100.00	47403.80	100.00

Depreciation

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

“33. Depreciation:



(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

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

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

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

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

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

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

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

Provided that the remaining depreciable value as on 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 assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 from the gross depreciable value of the assets.

7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life



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

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.

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

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

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

99. Regulation 72 of the 2019 Tariff Regulations provides as follows:

"72. Special Provisions relating to Damodar Valley Corporation:

(1) Subject to clause (2), this regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).

(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:

xxxxx

(iii) **Depreciation:** The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC."

100. DVPCA has submitted that depreciation to be allowed at ₹17,006.17 lakh instead of ₹18,791.79 lakh as claimed by the Petitioner for Asset IV. In response, the Petitioner has submitted that DVPCA is just trying to bend facts and figures to suit their line of justification and trying to mislead the Commission, hence, the contention of DVPCA may be rejected and depreciation may be allowed as claimed. Depreciation



has been worked out as per the methodology provided in Regulation 33 read with Regulation 72 of the 2019 Tariff Regulations. The Petitioner vide affidavit dated 12.8.2020 has submitted that WAROD @ 7.752% applicable for true-up of 2018-19 has been considered by it for the entire 2019-24 period. We have considered the same for calculation of depreciation. The Petitioner is directed to submit detailed computation of year wise WAROD at the time of true-up of 2019-24 tariff period.

101. 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 in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	870.66	870.66	870.66	870.66	870.66
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	870.66	870.66	870.66	870.66	870.66
Average Gross Block	870.66	870.66	870.66	870.66	870.66
Weighted Average Rate of Depreciation (WAROD) (in %)	7.7520	7.7520	7.7520	7.7520	7.7520
Aggregated Depreciable Value	783.59	783.59	783.59	783.59	783.59
Depreciation during the year	67.48	67.48	67.48	67.48	67.48
Cumulative Depreciation at the end of the year	169.84	237.31	304.79	372.26	439.74
Remaining Aggregated Depreciable Value at the end of the Year	613.76	546.28	478.81	411.33	343.85

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	2172.41	2172.41	2172.41	2172.41	2172.41
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2172.41	2172.41	2172.41	2172.41	2172.41
Average Gross Block	2172.41	2172.41	2172.41	2172.41	2172.41
Weighted Average Rate of Depreciation (WAROD) (in %)	7.7520	7.7520	7.7520	7.7520	7.7520
Aggregated Depreciable Value	1955.17	1955.17	1955.17	1955.17	1955.17
Depreciation during the year	168.36	168.36	168.36	168.36	168.36
Cumulative Depreciation at the end of the year	419.96	588.32	756.69	925.05	1093.41
Remaining Aggregated Depreciable Value at the end of the Year	1535.21	1366.85	1198.48	1030.12	861.76

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	14855.59	14855.59	14855.59	14855.59	14855.59
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	14855.59	14855.59	14855.59	14855.59	14855.59
Average Gross Block	14855.59	14855.59	14855.59	14855.59	14855.59
Weighted Average Rate of Depreciation (WAROD) (in %)	7.7520	7.7520	7.7520	7.7520	7.7520
Aggregated Depreciable Value	13370.03	13370.03	13370.03	13370.03	13370.03
Depreciation during the year	1151.31	1151.31	1151.31	1151.31	1151.31
Cumulative Depreciation at the end of the year	3793.51	4944.82	6096.12	7247.43	8398.74
Remaining Aggregated Depreciable Value at the end of the Year	9577.20	8425.90	7274.59	6123.28	4971.97

(₹ in lakh)

Asset-IV					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	46603.80	46703.80	47003.80	47403.80	47403.80
ACE	100.00	300.00	400.00	0.00	0.00
Closing Gross Block	46703.80	47003.80	47403.80	47403.80	47403.80
Average Gross Block	46653.80	46853.80	47203.80	47403.80	47403.80
Weighted Average Rate of Depreciation (WAROD) (in %)	7.750	7.750	7.750	7.750	7.750
Aggregated Depreciable Value	41988.42	42168.42	42483.42	42663.42	42663.42
Depreciation during the year	3615.67	3631.17	3658.29	3673.79	3673.79
Cumulative Depreciation at the end of the year	9159.48	12790.65	16448.94	20122.74	23796.53
Remaining Aggregated Depreciable Value at the end of the Year	32828.94	29377.77	26034.48	22540.68	18866.89

Interest on Loan ("IoL")

102. 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”.

103. The Petitioner vide affidavit dated 24.2.2021 has submitted Form-9C in respect of the transmission assets towards truing-up of tariff. The Petitioner has claimed WAROI on loan and rate of interest has been considered based on allocated loan of T&D system of DVC.

104. In view of the above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL considered in respect of the transmission assets is as follows:

(₹ in lakh)					
Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	609.46	609.46	609.46	609.46	609.46
Cumulative Repayments up to Previous Year	102.36	169.84	237.31	304.79	372.26
Net Loan-Opening	507.12	439.65	372.17	304.70	237.22
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	67.48	67.48	67.48	67.48	67.48
Net Loan-Closing	439.65	372.17	304.70	237.22	169.74
Average Loan	473.39	405.91	338.43	270.96	203.48
Weighted Average Rate of Interest on Loan (in %)	10.150	10.150	10.150	10.150	10.150
Interest on Loan	48.05	41.20	34.35	27.50	20.65

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1520.69	1520.69	1520.69	1520.69	1520.69
Cumulative Repayments up to Previous Year	251.60	419.96	588.32	756.69	925.05
Net Loan-Opening	1269.16	1100.80	932.43	764.07	595.71
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	168.36	168.36	168.36	168.36	168.36
Net Loan-Closing	1100.80	932.43	764.07	595.71	427.35
Average Loan	1184.98	1016.61	848.25	679.89	511.53
Weighted Average Rate of Interest on Loan (in %)	10.150	10.150	10.150	10.150	10.150
Interest on Loan	120.27	103.18	86.09	69.00	51.91

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	10398.91	10398.91	10398.91	10398.91	10398.91
Cumulative Repayments up to Previous Year	2642.20	3793.51	4944.82	6096.12	7247.43
Net Loan-Opening	7757.39	6606.09	5454.78	4303.47	3152.16
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	1151.31	1151.31	1151.31	1151.31	1151.31
Net Loan-Closing	6606.09	5454.78	4303.47	3152.16	2000.85
Average Loan	7181.74	6030.43	4879.12	3727.82	2576.51
Weighted Average Rate of Interest on Loan (in %)	10.150	10.150	10.150	10.150	10.150
Interest on Loan	728.88	612.02	495.16	378.30	261.45

(₹ in lakh)

Asset-IV					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	32622.66	32692.66	32902.66	33182.66	33182.66
Cumulative Repayments up to Previous Year	5543.81	9159.48	12790.65	16448.94	20122.74
Net Loan-Opening	27078.85	23533.18	20112.01	16733.72	13059.92
Addition due to ACE	70.00	210.00	280.00	0.00	0.00
Repayment during the year	3615.67	3631.17	3658.29	3673.79	3673.79
Net Loan-Closing	23533.18	20112.01	16733.72	13059.92	9386.13
Average Loan	25306.01	21822.59	18422.86	14896.82	11223.02
Weighted Average Rate of Interest on Loan (in %)	10.150	10.150	10.150	10.150	10.150
Interest on Loan	2568.56	2214.99	1869.92	1512.03	1139.14

Return on Equity ("RoE")

105. 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 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 ceiling 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 true up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

106. The Petitioner has submitted that RoE has not been grossed up with the Income Tax rate since, till now, there is no income tax liability on the Petitioner for 2019-24 period. Accordingly, RoE has been worked out considering applicable tax rate as “Nil”. RoE shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations.

107. RoE allowed in respect of the transmission assets under Regulation 30 of the 2019 Tariff Regulations, subject to true up, is as follows:



(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	261.20	261.20	261.20	261.20	261.20
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	261.20	261.20	261.20	261.20	261.20
Average Equity	261.20	261.20	261.20	261.20	261.20
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	0.000	0.000	0.000	0.000	0.000
Rate of Return on Equity (Pre-tax)	15.500	15.500	15.500	15.500	15.500
Return on Equity (Pre-tax)	40.49	40.49	40.49	40.49	40.49

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	651.72	651.72	651.72	651.72	651.72
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	651.72	651.72	651.72	651.72	651.72
Average Equity	651.72	651.72	651.72	651.72	651.72
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	0.000	0.000	0.000	0.000	0.000
Rate of Return on Equity (Pre-tax)	15.500	15.500	15.500	15.500	15.500
Return on Equity (Pre-tax)	101.02	101.02	101.02	101.02	101.02

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4456.68	4456.68	4456.68	4456.68	4456.68
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	4456.68	4456.68	4456.68	4456.68	4456.68
Average Equity	4456.68	4456.68	4456.68	4456.68	4456.68
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	0.000	0.000	0.000	0.000	0.000
Rate of Return on Equity (Pre-tax)	15.500	15.500	15.500	15.500	15.500
Return on Equity (Pre-tax)	690.78	690.78	690.78	690.78	690.78

(₹ in lakh)

Asset-IV					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	13981.14	14011.14	14101.14	14221.14	14221.14
Addition due to ACE	30.00	90.00	120.00	0.00	0.00
Closing Equity	14011.14	14101.14	14221.14	14221.14	14221.14
Average Equity	13996.14	14056.14	14161.14	14221.14	14221.14
Return on Equity (Base Rate) (in %)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate applicable (in %)	0.000%	0.000%	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre-tax)	15.500%	15.500%	15.500%	15.500%	15.500%
Return on Equity (Pre-tax)	2169.40	2178.70	2194.98	2204.28	2204.28



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

108. Regulation 35(3)(a) of the 2019 Tariff Regulations specifies the norms for O&M Expenses for the transmission system as follows:

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

Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
Norms for sub-station Bays (₹ Lakh per bay)					
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
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563.0	2,653	2,746.00	2,842.00	2,942.00

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 Talcher-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. *the O&M expenses of ± 800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. *the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. *the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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

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

(4) Communication system: *The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."*

109. The Petitioner has claimed O&M Expenses and has submitted Form-2 for the various elements included in the transmission assets for 2019-24 tariff period as follows:

(₹ in lakh)					
Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	132.03	136.67	141.47	146.44	151.57
Asset-II	65.75	68.06	70.46	72.93	75.49
Asset-III	189.83	196.50	203.41	210.54	217.90
Asset-IV	269.87	279.28	289.09	299.28	309.71

110. DVPCA has submitted that the Petitioner has claimed 4 number 400 kV bays for O&M Expenses as on 31.3.2019 against 2 number 400 kV bays claimed and allowed for 2014-19 period. In response, the Petitioner *vide* affidavit dated 21.5.2021 has submitted that 4 number 400 kV bays were considered as on 31.3.2019 due to inadvertent error and the correct number of bays are 2. Accordingly, 2 numbers of 400 kV may be considered for calculation of O&M Expenses for 2019-24 tariff period.

111. The Petitioner has submitted revised Form-2 *vide* affidavit dated 21.5.2021 to this effect. The Petitioner has claimed not O&M Expenses of Transformer capacity for 2019-24 tariff period in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations. Further, the Petitioner has not claimed O&M Expenses on account of communication system, security expenses and actual capital spare consumed.

112. We have considered the submissions of the Petitioner and DVPCA. O&M Expenses calculation for the sub-station element of Asset-I has been done considering 2 numbers of 400 kV bays at DSTPS. The total allowable O&M Expenses in respect of the transmission asset has been calculated by multiplying the number of sub-station bays and km of line length with the applicable norms for the O&M Expenses per bay, per km, respectively in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations. Accordingly, O&M Expenses allowed for Asset-I, Asset-II, Asset-III and Asset-IV for 2019-24 tariff period is as per following details:

O&M Expenses	Asset-I: S/C LILO of 400 kV D/C Durgapur (PG)-Jamshedpur (PG) at DSTPS				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bays for S/C LILO Jamshedpur (PGCIL)-Durgapur (PGCIL)					
400 kV bays (Number)	2	2	2	2	2
Sub-total Sub-station O&M expense (₹ in lakh) (A)	64.30	66.56	68.90	71.32	73.82
400 kV LILO DSTPS TRANSMISSION LINE (LILO PORTION)					
Double circuit (Double conductor) (km)	3.89	3.89	3.89	3.89	3.89
Sub-total Transmission Line O&M Expense (₹ in lakh)	3.427	3.548	3.672	3.801	3.933

(B)					
Total O&M Expenses (₹ in lakh) (A+B)	67.73	70.11	72.57	75.12	77.75
O&M Expenses	Asset-II: S/C LILO of 400 kV D/C Maithon (PG)-Ranchi (PG) at RTPS				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bays for S/C LILO Maithon (PGCIL)-Ranchi (PGCIL)					
400 kV bays (Number)	2	2	2	2	2
Sub-total Sub-station O&M Expense (₹ in lakh) (A)	64.30	66.56	68.90	71.32	73.82
400 kV LILO RTPS TRANSMISSION LINE (LILO PORTION)					
Double circuit (Double conductor) (km)	10.563	10.563	10.563	10.563	10.563
Sub-total Transmission Line O&M Expenses (₹ in lakh) (B)	9.306	9.633	9.971	10.320	10.679
Total O&M Expenses (₹ in lakh) (A+B)	73.61	76.19	78.87	81.64	84.50

O&M Expenses	Asset-III: D/C 400 kV DSTPS-RTPS transmission line				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bays for DSTPS (ANDAL)-RTPS (RAGHUNATHPUR) LINE					
400 kV Bays at DSTPS End (Number)	2	2	2	2	2
400 kV Bays at RTPS End (Number)	2	2	2	2	2
Sub-total Substation O&M Expense (₹ in lakh) (A)	128.60	133.12	137.80	142.64	147.64
400 kV D/C DSTPS (ANDAL)-RTPS (RAGHUNATHPUR) TRANSMISSION LINE					
Double circuit (Double conductor) (km)	69.50	69.50	69.50	69.50	69.50
Sub-total Transmission Line O&M Expense (₹ in lakh) (B)	61.23	63.384	65.608	67.902	70.265
Total O&M Expenses (₹ in lakh) (A+B)	189.83	196.50	203.41	210.54	217.90

O&M Expenses	Asset-IV: D/C 400 kV D/C RTPS-Ranchi (PG) transmission line				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bays for RTPS (RAGHUNATHPUR)-RANCHI (PGCIL) LINE					
400 kV Bays at RTPS End-COD: 30.8.2017 (Number)	2	2	2	2	2
Sub-total Sub-station O&M expense (₹ in lakh) (A)	64.30	66.56	68.90	71.32	73.82
400 kV D/C RTPS(RAGHUNATHPUR)-RANCHI(PGCIL) TRANSMISSION LINE					
Double circuit (Four or more conductor)-COD: 30.8.2017 (km)	155.50	155.50	155.50	155.50	155.50
Sub-total Transmission Line O&M Expense (₹ in lakh) (B)	205.57	212.72	220.19	227.96	235.89



Total O&M Expenses (₹ in lakh) (A+B)	269.87	279.28	289.09	299.28	309.71
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113. Accordingly, asset-wise summary of O&M Expenses allowed for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	3.43	3.55	3.67	3.80	3.93
Sub-station	64.30	66.56	68.90	71.32	73.82
Total O&M Expenses	67.73	70.11	72.57	75.12	77.75

(₹ in lakh)

Particulars	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	9.31	9.63	9.97	10.32	10.68
Sub-station	64.30	66.56	68.90	71.32	73.82
Total O&M Expenses	73.61	76.19	78.87	81.64	84.50

(₹ in lakh)

Particulars	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	61.23	63.38	65.61	67.90	70.26
Sub-station	128.60	133.12	137.80	142.64	147.64
Total O&M Expenses	189.83	196.50	203.41	210.54	217.90

(₹ in lakh)

Particulars	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	205.57	212.72	220.19	227.96	235.89
Sub-station	64.30	66.56	68.90	71.32	73.82



Total O&M Expenses	269.87	279.28	289.09	299.28	309.71
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Interest on Working Capital (“IWC”)

114. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provides as follows:

“34. Interest on Working Capital:

(1)

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

- i. Receivables equivalent to 45 days of fixed cost;
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- iii. Operation and maintenance expenses, including security expenses for one month”

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

“3. Definitions ...

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

115. 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 considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) whereas 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of



7.00% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	9.56	10.52	10.89	11.27	11.66
O&M Expenses (O&M Expenses for one month)	5.31	5.84	6.05	6.26	6.48
Receivables (Receivables equivalent to 45 days of annual fixed cost)	27.65	27.64	27.06	26.53	25.94
Total Working Capital	42.52	44.00	43.99	44.06	44.08
Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	5.12	4.95	4.62	4.63	4.63

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	11.04	11.43	11.83	12.25	12.68
O&M Expenses (O&M Expenses for one month)	6.13	6.35	6.57	6.80	7.04
Receivables (Receivables equivalent to 45 days of annual fixed cost)	58.07	56.35	54.49	52.71	50.80
Total Working Capital	75.25	74.13	72.90	71.76	70.52
Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	9.07	8.34	7.65	7.54	7.40

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	28.47	29.48	30.51	31.58	32.69
O&M Expenses (O&M Expenses for one month)	15.82	16.38	16.95	17.55	18.16
Receivables (Receivables equivalent to 45 days of annual fixed cost)	345.22	332.04	317.97	304.29	289.83
Total Working Capital	389.52	377.89	365.43	353.41	340.67
Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	46.94	42.51	38.37	37.11	35.77



(₹ in lakh)

Asset-IV					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	40.48	41.89	43.36	44.89	46.46
O&M Expenses (O&M Expenses for one month)	22.49	23.27	24.09	24.94	25.81
Receivables (Receivables equivalent to 45 days of annual fixed cost)	1077.16	1039.11	1001.66	961.35	913.58
Total Working Capital	1140.13	1104.28	1069.11	1031.19	985.84
Rate of Interest on working capital (in %)	12.05	11.25	10.5	10.50	10.50
Interest on Working Capital	137.39	124.23	112.26	108.27	103.51

Annual transmission charges for 2019-24 tariff period

116. The transmission charges allowed in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	67.48	67.48	67.48	67.48	67.48
Interest on Loan	48.05	41.20	34.35	27.50	20.65
Return on Equity	40.49	40.49	40.49	40.49	40.49
Interest on Working Capital	5.12	4.95	4.62	4.63	4.63
O&M Expenses	63.73	70.11	72.57	75.12	77.75
Total	224.86	224.22	219.50	215.21	210.99

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	168.36	168.36	168.36	168.36	168.36
Interest on Loan	120.28	103.19	86.10	69.01	51.92
Return on Equity	101.02	101.02	101.02	101.02	101.02
Interest on Working Capital	9.07	8.34	7.65	7.54	7.40
O&M Expenses	73.61	76.19	78.87	81.64	84.50
Total	472.33	457.10	442.00	427.56	413.20

(₹ in lakh)

Asset-III					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1151.31	1151.31	1151.31	1151.31	1151.31
Interest on Loan	728.95	612.09	495.23	378.37	261.52
Return on Equity	690.78	690.78	690.78	690.78	690.78
Interest on Working Capital	46.94	42.51	38.37	37.11	35.77
O&M Expenses	189.83	196.50	203.41	210.54	217.90
Total	2807.81	2693.19	2579.10	2468.11	2357.28



(₹ in lakh)

Asset-IV					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	3615.67	3631.17	3658.29	3673.79	3673.79
Interest on Loan	2568.56	2214.99	1869.92	1512.03	1139.14
Return on Equity	2169.40	2178.70	2194.98	2204.28	2204.28
Interest on Working Capital	137.39	124.23	112.26	108.27	103.51
O&M Expenses	269.87	279.28	289.09	299.28	309.71
Total	8760.89	8428.38	8124.54	7797.65	7430.43

Savings in interest cost due to loan restructuring

117. DVPCA vide affidavit dated 19.4.2021 has submitted that the Petitioner has claimed savings in interest cost due to loan restructuring of ₹407.03 lakh for the 2019-24 period with respect to Asset-IV. DVPCA has submitted that based on proposed disallowance on ACE, the loan balances would undergo a change resulting into reduced loan amount than that projected by the Petitioner. The Petitioner has claimed savings of ₹4.60 lakh (₹2.24 lakh in 2019-20 and ₹2.36 lakh in 2020-21) in interest cost due to loan refinancing for 2019-24. Commensurate to the aforesaid proposed disallowances in loan balances, the 'Savings in Interest Cost due to Loan Refinancing', for the period 2019-24 has been assessed by DVPCA. Therefore, it has requested to allow the savings in interest cost due to loan refinancing to the tune of ₹393.98 lakh against ₹407.03 lakh as claimed by the Petitioner for the Asset IV.

118. In response, the Petitioner has submitted that the Petitioner has already submitted revised Tariff Forms for 2014-19 period as per the Commission's direction. The Petitioner has submitted the requisite information and details which are subject to truing up during the respective years. The Petitioner has requested to reject the contention of DVPCA and allow the Savings in Interest Cost due to Loan Refinancing as claimed by DVC.

Additional O&M Expenses, Common Office Expenditure and Pension & Gratuity Contribution

119. The Petitioner has requested for grant of additional O&M Expenses (expenses due to Mega insurance, CISF expenditure and expenditure for subsidiary), Common



Office Expenditure and Pension & Gratuity Contribution. DVPCA vide affidavit dated 19.4.2021 has submitted that the Petitioner has already claimed the same amount in Petition No. 482/TT/2020. DVPCA has prayed that the repeated claims may be disallowed. In response, the Petitioner has submitted that DVPCA's assessment is based on submissions made by DVC on 29.1.2020 while it has already filed revised petition with separate asset-wise tariff forms through additional information vide affidavit dated 24.2.2021.

120. The Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 had held as follows:

"69. We have considered the submissions of the Petitioner. The Commission vide order dated 9.8.2019 in Petition No.150/TT/2018 has already allowed the above mentioned additional O&M Expenses. Accordingly, the additional O&M Expenses claimed by the Petitioner are not allowed in the instant petition."

121. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 had held as follows:

"57. The petitioner has requested for grant of additional O&M Expenses towards Mega insurance and share of subsidiary activity and has submitted that these expenses are in addition to the O&M expenses approved under the 2014 Tariff Regulation."

"61. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has approached the Commission for grant of additional O&M Expense and has submitted that these expenses are in addition to the O&M Expenses approved under the 2014 Tariff Regulations. Considering the fact that these norms were specified under the 2014 Tariff Regulations after extensive stakeholder consultation and no details were furnished by the Petitioner at the time of framing these regulations, we are not inclined to allow the relief as prayed for by the Petitioner."

122. We have considered the submissions of the Petitioner and DVPCA. We have already taken a view in aforesaid order dated 9.8.2019 in Petition No. 150/TT/2018 and reiterated the same in order dated 5.2.2020 in Petition No. 334/TT/2018 regarding disallowance of additional O&M Expenses claimed by the Petitioner.

123. As regards other claims, they shall be dealt in Petition No. 482/TT/2020.



Filing Fee and Publication Expenses

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

Security Expenses

125. The Petitioner has not claimed security expenses separately in respect of the transmission assets in the subject petition. However, the Petitioner has submitted that security expenses for DVC's Existing T&D Network (including that of instant assets) which has been claimed in Petition No. 482/TT/2020. Accordingly, these claims shall be dealt in Petition No. 482/TT/2020.

Sharing of Transmission Charges

126. The Petitioner has prayed for recovery of transmission charges for 2014-19 tariff period from beneficiaries in accordance with Regulation 43 of the 2014 Tariff Regulations.

127. The Commission *vide* order dated 5.2.2020 in Petition No. 334/TT/2018 in case of the existing and new 400 kV inter-State transmission lines of the Transmission and Distribution Network of the Damodar Valley Corporation for the 2017-19 period, has held as follows:

“72. As prayed by the Petitioner, the transmission charges allowed in this order, as provided in Regulation 43 of the 2014 Tariff Regulations, shall be recovered on monthly basis and the billing collection and disbursement shall be governed by provisions of the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.”

128. We have considered the submissions of the Petitioner and our previous order dated 5.2.2020 in Petition No. 334/TT/2018 in respect of the transmission assets. 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. With effect from 1.11.2020, (after the repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

129. To summarise:

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

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18	2018-19	2017-18	2018-19
AFC	238.69	306.03	373.17	553.20

(₹ in lakh)

Particulars	Asset-III		Asset-IV	
	2017-18	2018-19	2017-18 (pro-rata 214 days)	2018-19
AFC	4086.83	3097.87	5255.93	8915.31

- b) AFC allowed in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Assets	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	224.86	224.22	219.50	215.21	210.99
Asset-II	472.33	457.10	442.00	427.56	413.20
Asset-III	2807.81	2693.19	2579.10	2468.11	2357.28
Asset-IV	8760.89	8428.38	8124.54	7797.65	7430.43

130. This order disposes of Petition No. 466/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P.K. Pujari)
Chairperson

