

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 482/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: 10.06.2022

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 "Existing Transmission and Distribution (T&D) System Network" of Damodar Valley Corporation in Eastern Region.

And in the matter of:

Damodar Valley Corporation,
DVC Towers, VIP Road,
Kolkata-700054.

.... Petitioner

Versus

1. West Bengal State Electricity Distribution Company Limited,
(Previously West Bengal State Electricity Board),
Vidyut Bhawan, Block `DJ', Sector-11, Salt Lake City,
Kolkata-700091.
2. Jharkhand Bijlee Vitran Nigam Limited,
Engineer's Building, Dhurwa,
Ranchi-834004.

...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 present petition has been filed by the Petitioner, Damodar Valley Corporation (DVC), a statutory body established by the Central Government under the provisions of Damodar Valley Corporation Act, 1948 (hereinafter referred to as the 'DVC Act') for the development of Damodar Valley, with three participating Governments, namely, Central Government, Government of West Bengal and Government of Jharkhand, for trueing up of 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 "Existing Transmission and Distribution (T&D) System Network of DVC" (hereinafter referred as "the transmission assets").

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

"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 the Existing T&D System of DVC as on 31.03.2014 along with actual add-capex during F.Y 2014-15, F.Y 2015-16, F.Y 2016-17, F.Y 2017-18 and F.Y 2018-19;*
- b) *Allow notional IDC on add-cap and allow DVC to combine capital cost, debt and equity for new individual element or group of elements submitted before the commission for determination of tariff for combined asset vide no 335/TT/2018, with the existing asset base determined through this petition, as directed by the Hon'ble Commission in order dated 10.10.2017;*
- c) *Allow Single AFC for T&D System of DVC as the tariff for T&D System for existing and new elements up to 220 KV level, however, excluding the 400 KV network.*
- d) *Allow normative O&M claim of DVC based on actual number of bays existing and used for 'Transmission & Distribution System of DVC' for which O&M is being done by DVC;*
- e) *Allow normative O&M of DVC for 2009-14 period in present 2014-19 period for bays which normative O&M were not claimed by DVC during 2009-14 period;*
- f) *Allow additional 1% ROE against 'Distribution Asset part of integrated T&D System' as per provision within the state regulation;*
- g) *Allow under-recovery of loan during 2009-14 period due to computational error;*



- h) Allow claim of DVC against 'Additional impact on pay revision';
- i) Allow claim of DVC Claim against Additional impact due to GST;
- j) Allow claim of DVC Claim against Sinking Fund;
- k) Allow claim of DVC against Mega Insurance;
- l) Allow claim of DVC against 'CISF security';
- m) Allow claim of DVC against 'Subsidiary activities';
- n) Allow claim of DVC against 'Common office';
- o) Allow DVC to recover shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per 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;
- p) Allow to recover of transmission charges from consumers by considering the tariff determined herein by this Hon'ble Commission as an input cost of Aggregate Revenue Requirement (ARR) while determining the retail tariff by the respective State Electricity Regulatory Commissions of West Bengal and Jharkhand;
- q) Allow any other claim made by the Petitioner in the present Petition but not specifically prayed for as made above.
- r) 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 'T&D System' of DVC network for the period 01.04.2019 to 31.03.2024 considering projected capital expenditure as furnished in the instant petition under Section 62(1) (a) of the Electricity Act, 2003 read with regulation-9(2) of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 issued on 07.03.2019.
- b) Consider and allow net additional capitalization and other costs as proposed by DVC for the period 2019-24 as claimed in para- (Part-B) 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;
- c) To allow the additional O&M expenses as mentioned in para-52 (d) (Part-B).
- d) To allow the estimated security expenses separately to be recovered from beneficiaries during 2019-24 as mentioned in para-52(d) (Part-B).
- e) The Annual Fixed Charges (AFC) of Existing T&D system for the period 2019-24 has been worked out as Rs. 54985.77 lakh, Rs. 60596.48 lakh, Rs. 60858.02 lakh, Rs. 60559.23 lakh & Rs. 61778.31 lakh for the FY 2019-20, 2020-21, 2021-22, 2022-23 & 2023-24 respectively, as mentioned in para-64 (Part-B) above.
- f) Allow additional capital expenditure on account of acquiring the minor items or the assets including tools and tackles at the time of truing up of tariff as mentioned in para-58 (Part-B).
- g) Allow reimbursement of expenses incurred on publication of notices in the application of tariff for the period 2019-24.
- h) Allow reimbursement of filing fee of this petition as mentioned in para-66 (Part-B).
- i) 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.



- j) *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.*
- k) *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.*
- l) *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 of the Case

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

- a) The Petitioner has multifarious functions in the Damodar Valley. The activities of the Petitioner are not restricted to generation and sale/supply of electricity. It is also engaged in number of activities wherefrom no significant revenue accrues to the Petitioner. The Petitioner cannot generate required revenue from the users of service in regard to schemes such as drainage, flood control, navigation, afforestation and control of soil erosion or the promotion of public health and general well-being in the Damodar Valley. The Petitioner is a statutory body and after bifurcation of the State of Bihar, the representatives from the Governments of Jharkhand and West Bengal are on the Board of DVC.
- b) With respect to electricity sector, the assets (generation, transmission and distribution) owned by the Petitioner and their dates of commercial operation (COD) are as follows:

Name of the Stations/systems	Installed Capacity (MW)	COD
Bokaro TPS	805	August, 1993
Chandrapur TPS	750	March, 1979
Durgapur TPS	350	September, 1982
Mejia TPS	630	September, 1999
Maithon GPS	82.50	October, 1989



Maithon Hydro Power Station	63.20	December, 1958
Panchet Hydro Power Station	80	March, 1991
Tilaiya Hydro Power Station	4	August, 1953
Transmission System	220/132 kV lines	Existing as on 31.3.2004
Distribution System	NA	Existing as on 31.3.2004

c) Prior to coming into force of the Electricity Act, 2003 (hereinafter referred to as “the 2003 Act”), the tariff for generation and supply of electricity was determined by DVC Board under the DVC Act.

d) The Petitioner filed separate petitions for tariff determination of 2004-09 period (except for Mejia TPS, Unit Number V and VI) and, accordingly, tariff for 2009-14 period was determined with respect to the generating stations and transmission systems in various petitions, the details related thereto are as follows:

Petition No.	Project	Date of Order
268/GT/2012	Determination of tariff for Bokaro TPS	29.7.1993
269/GT/2012	Determination of tariff for Mejia TPS, Units I to III	9.7.1993
270/GT/2012	Determination of tariff for T & D system	27.9.1993
271/GT/2012	Determination of tariff for Maithon Hydel Station	7.8.1993
272/GT/2012	Determination of tariff for Panchet Hydel Station	7.8.1993
273/GT/2012	Determination of tariff for Tilaiya Hydel Station	7.8.1993
274/GT/2012	Determination of tariff for Mejia TPS, Unit-IV	9.7.1993
275/GT/2012	Determination of tariff for Chandrapura TPS	7.8.1993
276/GT/2012	Determination of tariff for Durgapur TPS	7.8.1993

e) The Petitioner filed Petition No. 66/2005 for approval of revenue requirements and for determining the matters concerning the tariff for electricity related activities, that is, generation, transmission and distribution of electricity, undertaken by it for the period from 1.4.2004 to 31.3.2009 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations,



2004 (hereinafter referred to as “the 2004 Tariff Regulations”).

f) The Commission *vide* order dated 21.6.2005 in Petition No. 66/2005 approved the provisional tariff for generation and inter-State transmission for 2004-09 tariff period.

g) The Commission *vide* order dated 8.5.2013 in Petition No. 272/2010 determined the deferred elements of tariff for generation and inter-State transmission of electricity for the period 1.4.2006 to 31.3.2009 based on the 2004 Tariff Regulations. Aggrieved by the said order, the Petitioner filed a Review Petition No. 10/RP/2013 which was disposed by the Commission *vide* order dated 28.1.2014 and it was limited to ignoring the negative entry of (-) ₹264.08 lakh for switchyard equipment in T&D assets in 2007-08 and, accordingly, order dated 8.5.2013 was to be reviewed only to this extent.

h) The Commission *vide* order dated 26.2.2014 in Petition No. 272/2010 revised the capital cost and Annual Fixed Charges (AFC) in respect of T&D assets of the Petitioner for 2007-09 period as determined by order dated 8.5.2013 in Petition No. 272/2010.

i) The Commission *vide* order dated 27.9.2013 in Petition No. 270/TT/2012 determined the tariff of T&D System of DVC network for 2009-10, 2010-11 and 2011-12 on the basis of actual Additional Capital Expenditure (ACE) incurred in 2009-10, 2010-11 and 2011-12, projected ACE in 2012-13 and 2013-14 and had approved AFC for 2009-10 to 2013-14.

j) 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 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.”

k) The Petitioner filed Petition No. 386/TT/2014 seeking approval of tariff in respect of its composite T&D network for 2014-19 period which was disposed of *vide* order dated 10.10.2017 referring to the Commission's directions given in order dated 29.9.2017 in Petition No. 547/TT/2014, directing the Petitioner to file a revised petition for determination of tariff for 2014-19 period separately for the existing and new transmission elements clearly identifying separate capital cost, Initial Spares, loan allocation, debt-equity ratio etc. The relevant extracts of the order dated 10.10.2017 in Petition No. 386/TT/2014 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. The Commission has observed in Para 74 of the order dated 29.9.2017 as under:-

xxx

13. In view of the above direction, 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.”

l) Further, the Petitioner submitted that since DVC supplied pooled power to its consumers using its own T&D network, benefit of strengthening the



system either by adding sub-station/transmission line or by augmentation of the existing sub-stations were shared by all the consumers. Therefore, transmission tariff as determined by the Commission was adopted as input cost by WBERC (West Bengal Electricity Regulatory Commission) and JSERC (Jharkhand State Electricity Regulatory Commission) for determination of Aggregate Revenue Requirement (ARR) in order to formulate retail tariff applicable to the consumers of DVC located in West Bengal and Jharkhand respectively. Therefore, the Petitioner was not in a position to identify any specific consumer or group of consumers in relation to a particular transmission element or group of elements as directed under paragraph 76(a) of the order dated 29.9.2017 in Petition No. 547/TT/2014. As regards the direction at paragraph 76(d) of the order dated 29.9.2017 in Petition No. 547/TT/2014, the Petitioner had submitted that DVC prepares 5-year plans for capacity augmentation of its T&D Network, commensurate with expansion of generation capacity and load growth in consultation with and under guidance of CEA followed by approval from DVC Board. Accordingly, the Petitioner borrowed fund from reputed financial institutions based on the cost of a group of projects as envisaged in the approved 5 years plan on priority basis. The borrowing was made for a group of T&D projects and the said borrowed fund was utilized on the basis of requirement of each project.

m) The Petitioner also filed Petition No. 150/TT/2018 for determination of tariff for 2014-15 to 2018-19 period in respect of existing T&D Network as on 31.3.2014 along with year-wise ACE. Further, ACE claimed during the years 2014-15, 2015-16 and 2016-17 was as per the audited annual accounts and ACE claimed during 2017-18 and 2018-19 was on projected basis.



n) The Petitioner has also submitted relevant details of element wise capital cost required for determination of tariff in respect of the new transmission elements i.e. the elements put on commercial operation starting from 1.4.2014 will be submitted subsequently as per the directions of the Commission *vide* order dated 10.10.2017 in Petition No. 386/TT/2014. The capital cost of the entire T&D network of DVC will also be submitted therein indicating the following details:

- (a) Capital cost of the system as was existing on 31.3.2014,
- (b) Yearly additional capital expenditure for the existing system,
- (c) New transmission elements added,
- (d) Additional capital expenditure in respect of the new elements added.

o) The Commission, *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, determined the transmission tariff for T&D network for 2014-19 tariff period, subject to truing-up, as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges (AFC)	46014.74	46536.23	34599.99	34436.17	34655.33
Common office expenses apportioned to T&D network	85.96	80.14	102.11	149.83	169.78
Total	46100.70	46616.37	34702.10	34586.00	34825.11

p) The details of various petitions filed by the Petitioner with respect to its T&D network is as follows:

Particulars	Petition No.
Existing T&D network of DVC	
AFC approved for 2014-19 tariff period	Petition No. 150/TT/2018 (Order dated 9.8.2019)
AFC approved for 2014-19 period to be trued up and tariff for 2019-24 period to be determined.	Petition No. 482/TT/2020 (instant petition)
New T&D elements added from 1.4.2014 (including ACE upto 31.3.2019)	



AFC approved for 2014-19 tariff period.	Petition No. 335/TT/2018 (Order dated 5.2.2020)
	Petition No. 713/TT/2020 (Order dated 2.3.2022)
4 Number of non-ISTS 400 kV transmission lines of DVC carrying ISTS power (including ACE up to 31.3.2019)	
AFC approved for 2014-19 tariff period	Petition No. 334/TT/2018 (Order dated 5.2.2020)
AFC trued up for 2014-19 period and tariff determined for 2019-24 period.	Petition No. 466/TT/2020 (Order dated 28.2.2022)

q) The instant petition has been filed by the Petitioner for truing up of tariff of 2014-19 period and determination of tariff of 2019-24 tariff period in respect of existing T&D network (excluding 400 kV network) of DVC.

4. The Respondents are distribution licensee, transmission licensee and power department, 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 regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the 2003 Act. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers. None of the Respondents have filed any reply in this matter.

6. Damodar Valley Power Consumer Association (DVPCA), a non-Government Company, representing the interests of its members, who are HT consumers of DVC, made appearance in the matter. During the course of hearing on 27.4.2021, learned counsel for DVPCA ("the objector"), submitted that DVPCA was made a party in Petition No. 150/TT/2018. However, in the instant truing-up petition, DVPCA has not been impleaded as a party.

7. The Commission allowed DVPCA to file/upload its objections in all the three petitions and directed the Petitioner 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. Accordingly, DVPCA filed its statement of objections *vide* affidavit dated 19.4.2021.

8. DVPCA has raised issues of capital cost, non-admissibility of 'minor items' under Regulation 14 of the 2014 Tariff Regulations, inconsistencies in Additional Capital Expenditure (ACE) claims, contribution to Pension and Gratuity Fund, additional O&M Expenses due to mega insurance and expenses for subsidiary activity, pay revision, pension and gratuity fund, contribution towards sinking fund, CISF security expenses etc., separate accounts and income from trading business, depreciation, additional RoE and GST. The Petitioner *vide* dated 21.5.2021 has filed rejoinder to DVPCA's issues/objections. The issues/objections raised by DVPCA and clarifications given by the Petitioner are dealt in the relevant paragraphs of this order.

9. With regard to "Income from Power Businesses other than Firm Domestic Sale and Income from JVs with other Companies", DVPCA has submitted that the Petitioner is engaged in the business of power trading and from the Annual Reports of the Petitioner, it is evident 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 Company Limited-74%), Bokaro Power Supply Company (DVC-50%, SAIL-50%), DVC-EMTA Coal Mines Limited (DVC-26%, EMTA-74%), Damodar Valley Tourism Development Company Private Limited (DVC-50%, IL&FS-IDC-50%), National High Power Testing Laboratory Private Limited (DVC, NTPC, NHPC, PGCIL & CPRI-20% each) and PTC India Limited (DVC



has an equity share of ₹1000 lakh). Such income may be used to reduce the AFC claimed by the Petitioner in the instant petition.

10. In response, the Petitioner has submitted that the Petitioner is engaged in power trading is incorrect. Power is sold to different beneficiaries of the Petitioner like Punjab, Karnataka, Kerala etc. at 400 kV bus connected with CTU network (i.e. without utilizing the T&D System of the Petitioner) through long term PPA at the tariff determined by the Commission. While claiming its ARR before WBERC and JSERC for its distribution activities, the Petitioner simply excludes the power which is sold to different beneficiaries.

11. With regard to the issues of 'other income'/'income from trading', the Commission vide order dated 9.8.2019 in Petition No. 150/TT/202018 has 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 activitiesll 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.”

12. 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 CTU network (i.e. without utilizing the T&D system of the Petitioner) through long term PPA at the tariff so determined by the Commission. We observe that the Petitioner, in compliance of the directions of the Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018, has submitted the details of income generated from trading business and how the same is treated in the books of accounts of the Petitioner. We find no need to go further in this contention of the objector, DVPCA.

13. The Petitioner had filed Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018 in the matter of approval of tariff for T&D System activities of the network in respect of Damodar Valley Corporation for 2014-19 tariff period dealt in order dated 9.8.2019 in Petition No. 150/TT/2018.

14. The Commission vide order dated 21.5.2022 in Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, decided to rectify the issue, if any, at the time of truing up of tariff for 2014-19 period i.e. in the present petition.

15. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 21.1.2020, statement of objections filed by DVPCA vide



affidavit dated 19.4.2021, the Petitioner's affidavits dated 12.8.2020 and 13.5.2021, order dated 21.5.2022 in Petition No. 21/RP/2019 in Petition No. 150/TT/2018 and the Petitioner's rejoinder to the statement of objections of DVPCA filed *vide* affidavit dated 21.5.2021.

16. The hearing in this matter was held on 27.4.2021 through video conference and order was reserved. Having heard the representatives of the Petitioner, learned counsel for DVPCA and having perused the materials on record, we proceed to dispose of the petition.

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

17. 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.

18. 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:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13915.09	14238.59	14477.89	12915.55	0.00
Interest on Loan	1056.18	322.71	32.87	10.21	113.41
Return on Equity	11588.07	11889.74	12069.72	11532.22	10889.33
Interest on Working Capital	3960.86	4117.25	4317.35	4437.25	4149.92
O&M Expenses	56223.46	58435.11	60900.07	63554.65	66170.83
Total	86743.66	89003.40	91797.90	92449.87	81323.49

19. 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	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	8686.54	9015.26	9440.19	9888.82	10266.74
O&M Expenses	4825.86	5008.48	5244.55	5493.79	5703.74
Receivables	15827.34	16474.38	17295.61	17485.90	14769.67



Total Working Capital	29339.74	30498.11	31980.34	32868.51	30740.16
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	3960.86	4117.25	4317.35	4437.25	4149.92

20. Details of additional expenses claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	DVC's share of savings in interest cost due to loan restructuring	0.00	0.00	0.00	0.31	3.49
2	Impact of pay revision due to recommendations of 7 th Pay Commission.	0.00	0.00	779.44	978.27	672.13
3	Impact of GST as "Change in Law"	0.00	0.00	0.00	1.91	5.55
4	Interest & contribution on sinking fund (As per Section 40, Part IV of DVC Act)	3138.95	3358.55	3593.69	0.00	0.00
5	Share of P&G	800.50	2086.41	2686.84	6065.75	1117.93
6	Share of Common Office Expenditure	105.10	99.82	99.43	107.37	112.07
7	Expenses due to mega insurance, CISF expenditure and expenditure for subsidiary activity	1686.82	1666.60	2034.50	2370.81	2274.09
8	Unclaimed normative O&M for bays in existence for 2009-14 period claimed in 2014-19 period	2489.00	2631.50	2781.84	2941.08	3109.29
	Total	8220.37	9842.88	11196.30	12465.50	7294.55

Commercial Operation Date ("COD")

21. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 observed as follows:

"18. As it is not possible to identify and relate a particular transmission asset with a generating station on one-to-one basis for ascertaining its COD, we consider it appropriate to identify a date as the Notional COD for the existing set of transmission assets. This we consider as 1.4.2004, being beginning of the tariff block 2004-09, from which the DVC assets were brought under the jurisdiction of the Commission and tariff was allowed for 2004-09 period. We do understand that, in reality, this would give a skewed result when considered in the context of individual transmission assets' accumulated depreciation and balance useful life etc. However, we feel that for determination of tariff under the Tariff Regulations, a start date is required to be defined, which we are of the opinion should be 1.4.2004. Thus, the existing asset base as defined in order dated 8.5.2013 in Petition No. 272/2010, for tariff purpose, shall be reckoned from 1.4.2004 and tariff in the instant petition is worked out accordingly. Additional capitalization has been considered as per the direction of the Commission in para 75 of the order dated 29.9.2017 in Petition No. 547/TT/2014."



22. Accordingly, COD of the transmission assets shall be reckoned from 1.4.2004 as approved by the Commission *vide* above order dated 9.8.2019 in Petition No. 150/TT/2018 and the same is considered for trueing up of tariff for 2014-19 tariff period.

23. The Petitioner in Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, sought review on notional COD considered by the Commission as 1.4.2004 for the existing T&D System *vide* order dated 9.8.2019 in Petition No. 150/TT/2018.

24. Regulation 53 of the 2014 Tariff Regulations provides special provisions to Damodar Valley Corporation. Regulation 53(2)(iii) of the 2014 Tariff Regulations provides that 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.

25. Accordingly, Regulation 53(2)(iii) of the 2014 Tariff Regulations is applicable in respect of depreciation in case of DVC. However, inadvertently *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, while computing depreciation rate for the transmission assets, usual methodology was adopted and applied to the transmission assets of DVC and the same is contrary to Regulation 53(2)(iii) of the 2014 Tariff Regulations. Since it is an error apparent on record which needs to be corrected. Therefore, depreciation allowed in respect of the transmission assets of the Petitioner for 2014-19 tariff period *vide* order 9.8.2019 in Petition No. 150/TT/2018 is being revised in the instant order in accordance with Regulation 53(2)(iii) of the 2014 Tariff Regulations.

26. In view of above, the Commission is of the view that in the case of Petitioner, computation of depreciation is independent of COD or life of the transmission assets. Therefore, there will not be any impact of COD on computation of depreciation.



Accordingly, prayer of the Petitioner for change of notional COD is hereby rejected.

Capital Cost as on 1.4.2014

27. Capital cost of the transmission assets has been determined in accordance with Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulations. As per Regulation 9(3) of the 2014 Tariff Regulations, admitted capital cost as on 31.3.2014 is to be considered as opening capital cost. The Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 has allowed capital cost of ₹175678.95 lakh as on 31.3.2014 in respect of the Existing T&D system.

28. DVPCA has submitted that the Petitioner has claimed an additional amount of ₹506.51 lakh as on 1.4.2014 in the instant true up petition towards 25 MVA Railway Transformers at Ramkalani. A perusal of order dated 27.9.2013 in Petition No. 270/TT/2012 in the matter of determination of tariff of T&D System activities of DVC network for the period from 1.4.2009 to 31.3.2014, indicates that ACE for replacement of 25 MVA Railway Transformers at Ramkalani and Patherdih was disallowed by the Commission. Moreover, it is evident from the tariff order dated 29.9.2017 in 547/TT/2014, that the Petitioner did not raise any issue regarding disallowance of ACE for 2010-11. The relevant extract of the order dated 29.9.2017 in Petition No. 547/TT/2014 is as follows:

“15. There is no change in the claim of the Petitioner for additional capital expenditure for the years 2009-10, 2010-11 and 2011-12, as against those approved vide order 27.9.2013 in Petition No. 270/TT/2012....”

29. Accordingly, DVPCA has requested to disallow the claim of the Petitioner based on the order dated 27.9.2013 in Petition No. 270/TT/2012. DVPCA has submitted to consider the opening capital cost for 2014-15 at ₹175678.96 lakh, as per order dated 9.8.2019 in Petition No. 150/TT/2018.

30. In response, the Petitioner has submitted as follows:



(i) All the requisite information and justification for claim of ₹506.51 lakh on account of replacement of Railway Transformer at Ramkanali and Patherdih Sub-station has been submitted in the instant petition. The Commission disallowed additional capital cost ₹506.51 lakh for 2010-11 in Petition No. 270/TT/2012. However, the Commission *vide* order dated 29.9.2017 in Petition No. 547/TT/2014 had allowed the same during 2012-13 and 2013-14 under Regulation 9(2)(v) of the 2009 Tariff Regulations.

(ii) The Petitioner has requested for allowing the disallowed ACE of ₹506.51 lakh in the closing capital cost as on 31.3.2014 (i.e. ₹176185.46 lakh = ₹175678.95 lakh as determined as on 31.3.2014 + ₹506.51 lakh) for truing up for 2014-19 period.

(iii) The Commission has allowed ACE for replacement of transformer at Ramkanali and Patherdih Sub-station. Therefore, DVPCA's contention in this matter being baseless is liable to be rejected and allow the capital cost of ₹176185.46 lakh.

31. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has submitted that the Commission *vide* order dated 27.9.2013 in Petition No. 270/TT/2012 disallowed additional capital cost ₹506.51 lakh for 2010-11 on account of replacement of Railway Transformer at Ramkanali and Patherdih Sub-station. However, the Commission allowed ACE for replacement of transformer at Ramkanali and Patherdih Sub-station in 2012-13 and 2013-14 at Para 42 of order dated 29.9.2017 in Petition No. 547/TT/2014 (truing up of order dated 27.9.2013 in Petition No. 270/TT/2012). Therefore, the Commission may consider capital cost as on 31.3.2014 as ₹176185.46 lakh (₹175678.95 lakh + ₹506.51 lakh) for computation purpose.



32. The Commission vide order dated 27.9.2013 in Petition No. 270/TT/2012 held as follows:

“31.

2010-11

(i) Replacement Work

32. *The petitioner has claimed expenditure of ₹2422.62 lakh for the year which includes ₹1597.45 lakh towards Sub-stations and ₹825.17 lakh towards Transmission lines. Out of this, an expenditure of ₹1916.11 lakh which are considered necessary for efficient operation of the transmission system and is allowed in terms of Regulation 9(2)(v) of 2009 Tariff Regulations. The additional capitalization of ₹506.51 lakh has been disallowed as the 25 MVA Railway Transformers at Ramkalani and Patherdih which were commissioned during 1995-96 and thus not having completed the normal life, have been replaced by the petitioner. Since capitalization of the above assets has not been allowed, out of the gross block of old assets (de-capitalization) claimed for ₹363.37 lakh, only ₹75.98 lakh has not been allowed. Accordingly, the decapitalization of ₹287.39 lakh is allowed.”*

33. Further, the Commission vide order dated 29.9.2017 in Petition No. 547/TT/2014 has held as follows:

*“42. **25 MVA Railway transformer at Ramkanali & Pathardih-** The petitioner has claimed additional capital expenditure of ₹0.20 lakh and ₹0.15 lakh for 25 MVA Railway transformer at Ramankali during 2012-13 and 2013-14 respectively and de-capitalization of ₹0.08 lakh and ₹0.06 lakh for 2012-13 and 2013-14 respectively under Regulation 9(2)(v) of the 2009 Tariff Regulations. Further, the petitioner has claimed additional capital expenditure of ₹0.01 lakh for 25 MVA Railway transformer at Pathardih and de-capitalization of ₹0.004 lakh under Regulation 9(2)(v) of the 2009 Tariff Regulations. The petitioner submitted that details of works as replacement of old and outlived 2 nos 132/25 kV, 16 MVA railway transformers by 2 nos, 25 MVA capacity in a phased manner, modification of transformer plinth and new cable laying for necessary connection with transformer marshalling box and other associated works. The replacement of railway transformer was undertaken to meet the enhanced load demand which was necessary for successful and efficient operation of the system. The gross value of the old asset is computed on the basis of engineering estimate. The petitioner vide affidavit dated 28.9.2016 has submitted that replacement was necessary to meet the enhanced load demand. The petitioner has submitted the audited accounts of 2011-12 to 2013-14 in support of load growth and also submitted the methodology of engineering estimates for determining value of the old asset as stated above. We have gone through the submissions of the petitioner and it is observed that we have already approved the additional capital expenditure towards Railway transformers, in Petition No. 270/TT/2012. Hence, the net additional capital expenditure of ₹0.12 lakh (0.20-0.06) and ₹0.09 lakh (0.15-0.06) for 2012-13 and 2013-14 respectively for 25 MVA Railway transformer at Ramankali and net additional capital expenditure of ₹0.005 lakh (0.01-0.004) for 25 MVA Railway Transformer at Pathardih is allowed under Regulation 9(2)(v) of the 2009 Tariff Regulations.*

34. We observe that the Petitioner has claimed an amount of ₹176185.46 lakh as on 31.3.2014 against the earlier admitted capital cost of ₹175678.95 lakh as on 31.3.2014.



35. The Commission vide order dated 27.9.2013 in Petition No. 270/TT/2012 disallowed the amount of ₹506.51 lakh claimed towards ACE in 2010-11 on the grounds that 25 MVA Railway Transformers at Ramkanali and Patherdih were executed during 1995-96.

36. It is evident from the above orders dated 27.9.2013 in Petition No. 270/TT/2012 and vide order dated 29.9.2017 in Petition No. 547/TT/2014 that the Commission has already disallowed the claim of ACE towards 25 MVA Railway Transformers at Ramkanali at the time of truing-up of 2009-14 tariff period and the same has attained finality. Therefore, we are not inclined to re-open the capital cost admitted as on 1.4.2014. Accordingly, the additional capital cost of ₹506.51 lakh claimed towards 25 MVA Railway Transformers at Ramkanali is not allowed and the closing capital cost of ₹175678.95 lakh as on 31.3.2014 approved vide order dated 9.8.2019 in Petition No. 150/TT/2018 has been considered as the opening capital cost of the Existing T&D System as on 1.4.2014.

Additional Capital Expenditure (“ACE”)

37. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 allowed the following ACE in respect of the transmission assets under Regulation 14(i) and Regulation 14(ii) of the 2014 Tariff Regulations:

(₹ in lakh)

Assets	Claimed					Allowed				
	2014-15	2015-16	2016-17	2017-18	2018-19	2014-15	2015-16	2016-17	2017-18	2018-19
Existing System										
Transmission A to N Stage	6929.02	1618.71	4458.63	621.41	5619.57	6929.02	1618.71	4458.63	0.00	0.00
Transmission Main Division	651.02	224.20	701.27	477.20	1016.46	0.00	0.00	0.00	0.00	0.00
CE Stores	0.08	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7580.12	1842.91	5174.90	1098.61	6636.03	6929.02	1618.71	4458.63	0.00	0.00



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

“30.Since, the petitioner has claimed the additional capital expenditure for 2017-18 and 2018-19 on projection basis, the same has not been allowed at this stage. However, the Petitioner is directed to submit the actual additional capital expenditure during 2017-18 and 2018-19 at the time of truing up.”

xxx
xxx

32. Since additional capital expenditure in respect of Transmission Main Division and projected additional capital expenditure for 2017-18 and 2018-19, is not being allowed at this stage, the corresponding de-capitalization will be considered along with the actual additional capital expenditure at the time of truing up.”

39. In Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, the Petitioner stated that the Commission reduced its claim against the main division for the year 2015-16 by ₹101.25 lakh from ₹325.45 lakh and for 2016-17 by ₹121.12 lakh from ₹822.39 lakh, thereby leading to double deduction, i.e. once during past tariff period and again in order dated 9.8.2019 in Petition No. 150/TT/2018.

40. We have considered the submissions of DVC. As pointed out by DVC, there is double deduction as the submissions made by DVC were not clear in the main petition. This inadvertent error in order dated 9.8.2019 Petition No. 150/TT/2018 is being corrected in the instant order while truing up of tariff for 2014-19 period in respect of the transmission assets on the basis of Auditor’s Certificate provided by the Petitioner.

41. The Petitioner in the instant true-up petition has claimed the following ACE in respect of the transmission assets for 2014-19 tariff period:

Particulars		Actual ACE			Projected ACE	
		2014-15	2015-16	2016-17	2017-18	2018-19
Actual ACE claimed in the instant true-up petition	A-N Stage	6929.02	1618.71	4458.63	604.49	162.63
	Main Division	651.02	325.45	822.39	449.24	408.76
	CE Stores	0.08	0.00	15.00	0.00	0.00
	Total	7580.12	1944.15	5296.02	1053.73	571.40



42. The Petitioner has submitted the details of ACE as actually incurred duly reconciled with the audited Annual Accounts for the respective years along with the following:

(i) **Transmission A-N stage:**

(a) The Petitioner has claimed an actual amount of ₹604.49 lakh and ₹162.63 lakh for 2017-18 and 2018-19 respectively. The details of ACE claimed is as follows:

(₹ in lakh)					
Sl. No.	Year	Work/Equipment proposed to be added after COD upto cut-off date/ beyond the cut-off date	Amount capitalized/ proposed to be capitalized	New / Replacement	Regulation
Transformer					
1	2017-18	80 MVA transformer at MTPS (220/33 kV) BBL make	0.03	Replacement	14(3)(vii) of 2014 Tariff Regulations
2	2017-18	31.5 MVA TELK transformer at Kalipahari Sub-station	0.37	Replacement	14(3)(vii) of 2014 Tariff Regulations
3	2017-18	80 MVA, 132/33 kV transformer at Kumardubi Sub-station	0.33	Replacement	14(3)(vii) of 2014 Tariff Regulations
4	2017-18	160 MVA BBL 220/132 kV ATR at Kalyaneswari	15.55	Replacement	14(3)(vii) of 2014 Tariff Regulations
5	2017-18	80 MVA (132/33 kV) transformer at Putki Sub-station	0.25	Replacement	14(3)(vii) of 2014 Tariff Regulations
6	2017-18	80 MVA Alstom/Areva transformer at 132 kV Giridih Sub-station	0.15	Replacement	14(3)(vii) of 2014 Tariff Regulations
Sub-station					
7	2017-18	220 kV Dhanbad Sub-station	21.65	New	14(3)(vii) of 2014 Tariff Regulations
8	2017-18	220/33 kV Giridih Sub-station	6.98	New	14(3)(vii) of 2014 Tariff Regulations
9	2017-18	2 numbers 220 kV bays at CTPS 'a' switchyard for BSL – CTPS line	7.79	New	14(3)(vii) of 2014 Tariff Regulations
10	2017-18	Development of infrastructure at Jamuria Sub-station end for power supply to the consumer	1.35	New	14(3)(vii) of 2014 Tariff Regulations



11	2017-18	Modification of existing DVC T&D system/ re-arrangement (Sub-station and transmission line) in order to facilitate power supply to consumers	37.59	New	14(3)(vii) of 2014 Tariff Regulations
Transmission Line					
12	2017-18	33 kV line diversion for 220 kV Burdwan Sub-station	3.55	New	14(3)(vii) of 2014 Tariff Regulations
13	2017-18	132 kV CTPS-Putki line (4 th circuit) COD of old asset (1967)	16.36	Replacement	14(3)(vii) of 2014 Tariff Regulations
14	2017-18	132 kV D/C BTPS-Barhi line diversion for BTPS-a plant	332.83	New	14(3)(vii) of 2014 Tariff Regulations
15	2017-18	132 kV Govindpur Dhanbad line	59.87	New	14(3)(vii) of 2014 Tariff Regulations
Communication					
16	2017-18	PLCC at Dhanbad-K'swari-Giridih line	28.92	New	14(3)(vii) of 2014 Tariff Regulations
17	2017-18	PLCC equipment at CTPS a & CTPS b	30.59	New	14(3)(ix) of 2014 Tariff Regulations
18	2017-18	PLCC link for 220 kV CTPS a -BSL line	1.85	New	14(3)(ix) of 2014 Tariff Regulations
19	2017-18	PLCC commissioning of RTPS-PGCIL link	1.94	New	14(3)(ix) of 2014 Tariff Regulations
20	2017-18	PLCC for 220 kV D/C Durgapur-Waria (Bidhannagar) line	19.83	New	14(3)(ix) of 2014 Tariff Regulations
21	2017-18	PLCC link for 400 kV RTPS -Ranchi line	1.85	New	14(3)(ix) of 2014 Tariff Regulations
22	2017-18	PLCC at 400 kV RTPS-Ranchi line	0.4	New	14(3)(ix) of 2014 Tariff Regulations
Control Room					
23	2017-18	SLDC scheme at Howrah(m)	8.01	New	14(3)(ix) of 2014 Tariff Regulations
24	2017-18	Capital cost related to SLDC at Maithon	6.08	New	14(3)(ix) of 2014 Tariff Regulations
25	2017-18	Carrier protection at DTPS-Jamuraia & DTPS-Bidhannager	0.3	New	14(3)(ix) of 2014 Tariff Regulations
26	2017-18	Protection system at DTPS Jamuria link	0.07	New	14(3)(ix) of 2014 Tariff Regulations



Total A-N stage 2017-18			604.49		
			Transformer		
27	2018-19	80 MVA BBL make transformer at Barjora Sub-station	4.32	Replacement	14(3)(vii) of 2014 Tariff Regulations
28	2018-19	80 MVA, 132/33 kV transformer at Kumardubi Sub-station	0.05	Replacement	14(3)(vii) of 2014 Tariff Regulations
29	2018-19	160 MVA BBL 220/132 kV ATR at Kalyaneswari	2.42	Replacement	14(3)(vii) of 2014 Tariff Regulations
30	2018-19	80 MVA (132/33 kV) transformer at Putki Sub-station	0.04	Replacement	14(3)(vii) of 2014 Tariff Regulations
31	2018-19	80 MVA Alstom/Areva transformer at 132 kV Giridih Sub-station	0.02	Replacement	14(3)(vii) of 2014 Tariff Regulations
Sub-station					
32	2018-19	MOD of Pooling Station arrangement to WBSEB for Pooling Station to Rupnarayanpur	2.35	New	14(3)(ix) of 2014 Tariff Regulations
33	2018-19	Shifting of tariff meter of WBSEDCL at Dendua	0.29	New	14(3)(ix) of 2014 Tariff Regulations
34	2018-19	220 kV Dhanbad Sub-station	16.64	New	14(3)(vii) of 2014 Tariff Regulations
35	2018-19	220 / 33 kV Giridih Sub-station	1.08	New	14(3)(vii) of 2014 Tariff Regulations
Transmission Line					
36	2018-19	33 kV line diversion for 220 kV Burdwan Sub-station	0.55	New	14(3)(vii) of 2014 Tariff Regulations
37	2018-19	Diversion of 33 kV DTSP-RIPH line to separate 132 kV DTSP -DPL line (newly opened in 17-18)	31.52	New	14(3)(vii) of 2014 Tariff Regulations
38	2018-19	132 kV CTPS-Putki line (4 th circuit)	2.54	Replacement	14(3)(vii) of 2014 Tariff Regulations
39	2018-19	Diversion of 132 kV D/C BTPS-Barhi line for BTPS	7.67	New	14(3)(vii) of 2014 Tariff Regulations
40	2018-19	132 kV Govindpur-Dhanbad line	9.3	New	14(3)(vii) of 2014 Tariff Regulations
Land					
41	2018-19	Land and land rights for existing lines/diversion of lines	63.66	New	14(3)(vii) of 2014 Tariff Regulations
Bays					
42	2018-19	Renovation of DPL bay	0.17	New	14(3)(vii) of



		(I#92) at DTPS			2014 Tariff Regulations
43	2018-19	2 numbers of 220 kV bays at CTP 'a' switch yard for BSL - CTPS line	4.93	New	14(3)(vii) of 2014 Tariff Regulations
44	2018-19	Infrastructure in respect of feeder bay and terminal equipment for power supply to BSL from CTPS 'a' at 220 kV	0.34	New	14(3)(vii) of 2014 Tariff Regulations
IT					
45	2018-19	Desktop computers-IT infrastructure for meter reading and GIS mapping	14.75	New	14(3)(vii) of 2014 Tariff Regulations
TOTAL A - N STAGE 2018-19			162.63		

(ii) **Transmission Main Division**

(a) The Petitioner has claimed ACE of ₹651.02 lakh for 2014-15, ₹822.39 lakh in 2015-16, ₹449.24 lakh in 2017-18, ₹408.76 lakh under Regulation 14(3)(iii), Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 tariff Regulations.

(iii) **CE stores:**

(a) The Petitioner has claimed ACE of ₹0.08 lakh for 2014-15 and ₹15 lakh for 2016-17 under Regulation 14(3)(vii) of the 2014 tariff Regulations.

43. The Petitioner further submitted the following:

- (i) The Commission directed the Petitioner to submit the Relevant Work/Purchase Orders and Sanction Orders related to the items claimed under 'Main Division' and 'CE Stores'. In Response the Petitioner has submitted that Project Specific Approval/Sanction Order and Technical Report/11th & 12th Plan as approved by Board of DVC.
- (ii) The Petitioner has further submitted following justification in support of its claim regarding ACE for 2014-19 tariff period:



- a) Actual ACE from 2014-15 to 2018-19 for Main Division/Transmission department and CE (Store) and,
 - b) Actual ACE for 2017-18 to 2018-19 for A-N Stage/Transmission construction.
- (iii) Form-7 for Main Division/Transmission Department and for A-N stage/Transmission Construction with detailed break-up of the year-wise and item-wise actual ACE incurred by DVC for T&D System along with justifications for the capital work.
- (iv) The capital expenditure and consequent tariff is related to the following work executed by DVC towards replacement of old assets to meet regulatory/statutory compliance, augmentation during 2014-19 period.
- (v) Identification of the old, obsolete and under rated equipment in sub-stations as well as that of transmission lines for replacement with those of proper rating considering fault level, its minimum expected life span and with latest but proven technology.
- a) Complete System Metering & Monitoring System to identify the scope of further optimization of system efficiency and losses.
 - b) Up-gradation and augmentation of existing sub-stations, as well as construction of new sub-stations and associated lines in order to meet the increasing demand of power.
 - c) Technology up-gradation, capacity augmentation, etc. in the age-old sub-station/switchyard/ lines in phases, benchmarking and standardization of operational parameters for harmonious development of new system consistent with the old system for DVC grid as a whole so as to serve the consumers efficiently.
- (vi) DVC prepares 5 years plans for capacity augmentation of its T&D Network commensurate with expansion of generation capacity and load growth in consultation with and guidance of CEA followed by approval from DVC Board. The Petitioner has further submitted that ACE incurred by transmission

department (Main Division) was a part of the above 5 years plan related to replacement and up-gradation work. This was essential for strengthening the transmission network as well as for efficient operation to serve the valley consumers being the end users of the network service.

Additional Capital Expenditure for Transmission Main Division

(vii) DVC's T&D System has evolved over a period of more than six decades and, therefore, having mix of sub-station/switchyard/lines of age-old infrastructures/technology as well as new age infrastructures/technology that are required for effective and reliable system operation. Hence, it has become essential to upgrade the old infrastructure for harmonious operation with the updated equipment at desired efficiency and reliability.

(viii) Growth in DVC's own generation over the decade as well as the power demand, the DVC T&D system, nestled in the National Grid, has become of paramount importance for reliable and quality power supply towards achieving sustainable growth of the Region as well as that of the nation. Operation of such complex and inter-connected T&D system under regulatory framework poses a lot of challenges and demands for perfect balance between economy and efficiency.

Basic Considerations for Augmentation, Strengthening and Modernization

(ix) Grid of DVC was built more than 40 years ago which resulted in a veritable mix of technology where old and primitive equipment and with random increase in size and complexity of the grid, more cautious efforts are becoming necessary to eliminate disruptions in the system which sometimes prove to be fatal and unmanageable due to systems being interconnected across different regions of the country. Therefore, it is felt necessary for strengthening and augmentation of the system alongside modernization of the grid towards

achieving an overall upgrade in its performance while supplying higher quantum of power at the highest quality.

Replacement Work

(x) Replacement of CT, PT

i) The existing instrument transformers (CT and PT) having 0.5 class metering core were required to be replaced with instrument transformer (CT and PT) having 0.2/0.2S class core to meet the required standard.

ii) Short Time Rating

Due to increase in generating capacity in the existing DVC system and uprating/ addition of transformer increased the fault level and result of the software-based system study revealed that fault level of DVC T&D system has increased to 40 KA. Accordingly, the associated system components like Circuit Breaker, Current Transformer, Potential Transformer, and Lightning Arrestor etc. which were rated for 25 KA have been replaced with new ones of 40 KA short time rating.

(xi) Replacement of Circuit Breaker (CB)

a) Due to increase in system fault level of DVC and also due to obsolescence of technology a sizeable number of existing circuit breakers of either Bulk Oil type (BOCB) or Minimum Oil type (MOCB) required to be replaced with Gas Circuit Breaker. Moreover, the old breakers have higher operating time resulting into delayed fault clearance and auto reclose.

b) Accordingly, DVC replaced a number of existing circuit breakers by present day technology based Vacuum Circuit Breaker or SF₆ circuit



breakers to avoid system disturbance and to ensure reliable power supply to consumers.

(xii) **Distribution transformer**

The capacities of the distribution transformers, primarily used for grounding 33 kV delta system, were up-graded by replacing the existing 100 kVA transformers by 250 kVA new transformers to meet additional demand and on expiry of useful life of some existing ones.

(xiii) **Replacement of Tariff Meter, Metering Cubicle etc.**

Old tariff meters, check meters and system meters/ were replaced with 0.2S accuracy class meters having up to date communication platform for integration with online system measurement facilities.

(xiv) **Replacement of Transformer Bushing**

Transformer bushing was replaced based on recommendation from 'Testing Department'.

(xv) **Replacement of Station Battery**

The life of station battery does not commensurate with the life of the sub-station (35 years), therefore, it is required to be replaced on expiry of their useful life to ensure reliable power supply to the Control System of the station.

(xvi) **Replacement of Desktop/Laptop**

The existing desktop/laptop computers having 'Windows-XP' were replaced to ensure cyber security requirements in line with the guidelines issued by Ministry of Power.

(xvii) **Replacement of 'Differential Relay' and 'Distance Protection Relay':**



The old and obsolete electro-mechanical/static type transformer differential relays were replaced by latest 'Numerical Relay' due to obsolescence of technology, faster operation and post fault analysis.

New Work

(xviii) **Installation of Under Frequency Relay:**

As per Indian Electricity Grid Code (effective from 1.4.2006) highlight operating code for regional grid (chapter 5) under paragraph 5.2 (M), all the utilities are required to install under frequency relay in addition to implementation of 'ADMS (Automatic Demand Management System)'.

(xix) **"Gravelling of Switchyard /Concreting Work at Switchyard:**

Graveling of 'Existing Switchyard' has become necessitated in order to comply with the provision exists in CEA 'Technical Standards' and also to meet 'safety of operating personnel'. CEA (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010 dated 20.8.2010

(xx) **Meter Reading Laptop/Desktop Computer for GSM metering Infrastructure**

The laptops were for reading of the present-day electronic tariff meter. The desktop computer was required for analysis of meter reading at Division level and Central level.

(xxi) **Installation of Chartless Recorder & Condition Monitoring equipment**

Recorders are essentially installed for recording and further analysis of any system disturbance, report of low voltage, high voltage etc. in order to improve the quality and reliability of power supply.



The diagnostic tools/equipment are essential for health assessment of system equipment and essential to be implemented as per CEA (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010.

(xxii) **Hand Pump, Deep Bore Well, Submersible Pump**

As per CEA (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010, dated 20.8.2010, fire hydrant is required as per site requirement.”

(xxiii) **Fault Locator**

Required for measurement of fault distance for quick restoration of supply and also for reporting failure to CEA as per Regulation 46(8) of the Technical Standards for Construction of Electrical Plants and Electric Lines of Central Electricity Authority.

44. The expenditure towards ACE claimed by the Petitioner in Petition No. 150/TT/2018 *vis-a-vis* allowed by the Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 and actually incurred by DVC for T&D System during 2014-19 period are as follows:

Particulars		(₹ in lakh)				
		As submitted on actual basis			As submitted on projection basis/ actuals	
		2014-15	2015-16	2016-17	2017-18	2018-19
ACE claimed by DVC in Petition No. 150/TT/2018	A-N Stage	6959.02	1618.71	4458.63	621.41	5619.57
	Main Division	651.02	325.45	822.39	477.20	1016.46
	CE Stores	0.08	0.00	15.00	0.00	0.00
	Total	7580.12	1944.15	5296.02	1098.61	6636.03



ACE allowed vide order dated 9.8.2019 in Petition No. 150/TT/2018	A-N Stage	6929.02	1618.71	4458.63	0.00	0.00
	Main Division	0.00	0.00	0.00	0.00	0.00
	CE Stores	0.00	0.00	0.00	0.00	0.00
	Total	6929.02	1618.71	4458.63	0.00	0.00
Actual claimed in the instant petition ACE true up	A-N Stage	6929.02	1618.71	4458.63	604.49	162.63
	Main Division	651.02	325.45	822.39	449.24	408.76
	CE Stores	0.08	0.00	15.00	0.00	0.00
	Total	7580.12	1944.15	5296.02	1053.73	571.40

- (i) Three number of 400 kV lines which were part of the existing T&D Network of DVC till 2016-17, have been declared as "Non-ISTS Line carrying ISTS Power" by ERPC and have been removed from the existing asset base w.e.f. 2017-18. This aspect was taken into consideration by the Commission in order dated 9.8.2019 in Petition No. 150/TT/2018. The relevant portion of the order dated 9.8.2019 is as follows:

"34.

However, the petitioner has submitted Auditor's certificate, vide affidavit dated 10.5.2019 in Petition No. 334/TT/2018, certifying the capital cost of these 3 nos. of Non-ISTS Lines as ₹23992.10 lakh which has been removed, by the petitioner, from the capital base of existing transmission and distribution system of the petitioner w.e.f. 1.4.2017. We, therefore, allow ₹23992.10 lakh as de-capitalization for assets taken out of use of these 3 lines from the existing base w.e.f. 2017-18."

- (ii) Accordingly, the Petitioner has considered ₹23992.10 lakh to be 'de-capitalized' from capital asset base of Existing T&D System as submitted in the instant petition.

- (iii) The cumulative depreciation against 3 number of 400 kV 'Non-ISTS lines carrying ISTS Power' till 31.3.2017 (amounting to ₹6530.18 lakh as submitted by DVC in Petition No. 334/TT/2018) has been removed from cumulative depreciation of 'Existing T&D System' with effect from 1.4.2017.



45. Accordingly, the opening capital cost, ACE/ de-capitalization during 2014-19 period and closing capital cost in respect of the transmission assets as has been claimed by the Petitioner for the purpose of determination of tariff for 2014-19 period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	176185.46	183385.54	184409.41	189416.00	166399.20
Add: ACE (For existing system)	7580.12	1944.15	5296.02	1053.73	571.40
Less: De-capitalization	380.04	920.28	289.43	(78.43 + 23992.10)	57.06
Closing Capital Cost	183385.54	184409.41	189416.00	166399.20	166913.54

46. The Commission *vide* Record of Proceedings for the hearing dated 13.7.2020 directed the Petitioner to submit statement of de-capitalization (Form 10B for 2014-19 period), legible soft copy of the Forms along with Auditor's Certificate, approval of the SCM/RPC regarding renovation and moderation of existing T&D System for 2014-19 period. In response, the Petitioner *vide* affidavit dated 12.8.2020 has submitted following documents:

- (1) Tariff Form-10B (statement of de-capitalization) for 2014-19 period as part of the 2014-19 forms;
- (2) Auditor's Certificate for capital cost summary of the T&D system, additional actual expenses (e.g. GST impact, sinking fund contribution, pay revision impact, additional O&M expenses, etc.), savings due to loan refinancing, certificates for pension and gratuity funds for 2014-19 period (including Actuarial Valuation certificates for five years, Auditor's Certificate for P&G contribution for five years and audited Annual Accounts of Pension and Gratuity funds for five years);



47. The Petitioner has submitted following justification regarding renovation and moderation of Existing T&D System for 2014-19 period:

(1) The Petitioner has claimed ACE for 2014-19 tariff period, broadly under replacement category i.e. replacement of age-old equipment and up-gradation/adoption of new technology in existing sub-station/transmission lines, in order to maintain uninterrupted 24X7 quality power supply to the Consumers.

(2) The Petitioner has claimed ACE under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations and 'Power to Relax', and not under 'Renovation and Modernisation'. The basic considerations for replacement of equipment and up-gradation of network are as follows:

(i) It may be pertinent to mention here that in order dated 30.9.2013 in Petition No. 277 of 2010, the Commission held as follows:

"16 ----- Thus the direction of the Tribunal pertains to jurisdiction of the Commission which will decide the transmission tariff of DVC considering the peculiar nature of the integrated transmission system of DVC. The Tribunal has held that only for the purpose of determination of tariff and regulatory control over the deemed ISTS lines, the Central Commission can exercise the jurisdiction."

(ii) DVC submitted that as per the Indian Electricity Grid Code (IEGC) 2010, network of DVC has been treated as a State Transmission Utility (STU) under Cl.1.3 (ii) and the same is as follows:

"For the purpose of the IEGC, the Damodar Valley Corporation (DVC) will be treated similar to a SEB, in view of the fact that DVC is a vertically integrated utility like a SEB and has its own generation, transmission and distribution in the identified command area. Accordingly Central Load Despatch at Maithon shall perform functions of SLDC envisaged in this code for the area of DVC."

(iii) Unlike Powergrid, the recovery of tariff of transmission system of the Petitioner as determined by the Commission is not made recoverable through PoC mechanism from different beneficiaries on Pan India basis.



Tariff as determined by the Commission for T&D System of DVC is one of the input parameters along with generation tariff for determination of distribution tariff of DVC by each of the respective State Commission viz. by JSERC for the consumers in Jharkhand region and by WBERC for the consumers in West Bengal region.

(iv) The Petitioner approaches SCM/RPC for major addition of any 220 kV/400 kV Transmission Lines/Sub-stations which is of Regional importance in respect of Grid stability, load flow through Grid network of Eastern Region and is to be constructed in tandem with integrated system planning for Eastern Region. In the tariff petition, the approval of SCM/ERPC for such type of work has been provided on case to case basis. As such, ACE for 2014-19 period has been claimed in line with the earlier claim against similar type of works during previous three tariff period i.e. 2004-09, 2009-14 and 2014-19 which the Commission duly considered and allowed.

48. DVPCA, has made the following submissions with respect to ACE claimed by the Petitioner:

(a) The Petitioner, in Petition No. 150/TT/2018, claimed ₹22,554.93 lakh towards ACE for 2014-19 period for the existing T&D System under the heads, (i) A-N stage, (ii) Transmission Main Division and (iii) CE stores, out of this, the Petitioner claimed ₹14,820.29 lakh for 2014-17.

(b) The Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 in respect of tariff for 2014-19 period allowed ACE claimed by the Petitioner in respect of A-N Stage only for 2014-17 period and further observed that the



Petitioner claimed ACE for 2017-18 and 2018-19 on projection basis which was not allowed. However, the Petitioner was directed to submit actual ACE during 2017-18 and 2018-19 at the time to truing up.

(c) The Commission observed that the Petitioner claimed projected ACE for the transmission assets in respect of Transmission Main Division and CE stores for 2014-15 to 2018-19 under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations. It was observed that the Petitioner did not submit any sanction/work order for the above works, due to which additional capital expenditure for these items was not allowed. The Petitioner was directed to submit the same along with justification for augmentation at the time of truing up for the consideration of the Commission.

(d) The Petitioner has claimed ACE for replacement of old assets like CT, PT, circuit breaker, distribution transformers, tariff meter, metering cubicles, transformer bushing, station battery, differential and distance protection relay, desktop/laptop/furniture etc. and has submitted that assets need to be replaced due to expiry of useful life, technological upgradation and stipulations of Regulations, guidelines for construction of Electrical Plants & Lines and Technical Standards for Grid Connectivity etc.

(e) The Petitioner has claimed ACE for carrying out new works like gravelling/concreting in switchyard and installation of new equipment like Under Frequency Relay, Fault Locator, Meter Reading laptop/desktop computer for GSM metering infrastructure, Chartless Recorder and Condition Monitoring equipment, hand pump, deep bore well, submersible pump etc. and has submitted that the assets need to be replaced due to IEGC Regulations on



ADMS and stipulations of Regulations, guidelines for construction of Electrical Plants & Lines and Technical Standards for Grid Connectivity etc.

(f) The Petitioner has claimed ACE under Regulation 14(3)(vii) and Regulation 14(3)(xi) of the 2014 Tariff Regulations which require the Petitioner to submit technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an Independent Agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level.

(g) The Petitioner has failed to provide the details such as balance useful life, value of the transmission assets to be de-capitalized, replacement cost of asset, benefits of AACE whether there is improvement in technical parameter, increase in useful life of asset etc. for each transmission asset.

(h) The Petitioner has made claims towards minor items or assets, as part of ACE which ought to be disallowed as Regulation 14(3) of the 2014 Tariff Regulations states that any expenditure on acquiring minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014.

49. In response, the Petitioner has submitted as follows:

(a) In compliance of the directions of the Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018, the Petitioner submitted all requisite sanction orders/approvals along with work orders/purchase orders along with



tariff forms in the instant petition in support of the claim for ACE in truing up for its existing T&D Network for 2014-19 period. The supporting documents in respect of ACE have been provided separately for Main Division and A-N Stage in the instant Petition. Hence, the contention of DVPCA regarding non-submission of project specific approvals and technical reports is false. Therefore, DVPCA's contention in this matter may be rejected and the Petitioner's prayer submitted in the instant petition may be allowed.

(b) The Petitioner's claim towards 'minor items' or assets as part of ACE were required for improving system performance and maintaining efficient operation of T&D system including maintaining reliability indices like SAIFI, SAIDI etc. Therefore, the contention of DVPCA in the said matter may be rejected and the Petitioner may be allowed to recover the cost incurred to maintain proper reliable service to its consumers.

50. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has claimed ACE during 2014-19 period for the existing T&D System under the heads, viz- (a) A-N stage (b) Transmission Main Division and (c) CE stores.

(a) A-N Stage

51. The Petitioner has submitted Form-7 and has claimed actual ACE of ₹6929.02 lakh, ₹1618.71 lakh and ₹4458.63 lakh against ACE of ₹6929.02 lakh, ₹1618.71 lakh and ₹4458.63 lakh in 2014-15, 2015-16 and 2016-17, respectively, under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations. Further, the Petitioner has submitted Form-7 and has claimed actual ACE of ₹604.49 lakh and ₹162.63 lakh for 2017-18 and 2018-19 respectively under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations. The Petitioner submitted that the



work was carried out as part of works to be undertaken under 12th plan of T&D infrastructure of DVC which has been approved by the Board.

52. The Petitioner has submitted Auditor's Certificate for capital cost summary for A-N stage of existing T&D system. Accordingly, actual ACE of ₹6929.02 lakh, ₹1618.71 lakh, ₹4458.63 lakh, ₹604.49 lakh and ₹162.63 lakh for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 respectively for replacement of various sub-station equipment is allowed towards A-N stage of existing T&D system, under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations.

(b) Transmission Main Division

53. The Petitioner has claimed projected ACE of ₹651.02 lakh, ₹325.45 lakh, ₹822.39 lakh, ₹477.20 lakh and ₹1016.46 lakh for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19, respectively, in Petition No. 150/TT/2018 for tariff determination of 2014-19 tariff period under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations. The Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 observed that the Petitioner has not submitted any sanction/ work order for the above works, due to which ACE for these items were not allowed at that stage. However, the Petitioner was directed to submit the same along with the justification for the augmentation at the time of truing up for the consideration of the Commission.

54. The Petitioner, in compliance to directives of the Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, has submitted all the requisite sanction orders/ approvals along with work orders/ purchase orders together with tariff forms in the instant petition in support of claim of ACE in truing up of its existing T&D Network for 2014-19 period. The supporting documents in respect of ACE have been provided separately for T&D System in the instant petition. The Petitioner has carried out the replacement works under Transmission Main Division stage and has claimed actual



ACE of ₹651.02 lakh, ₹325.45 lakh, ₹822.39 lakh, ₹449.24 lakh and ₹408.76 lakh for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19, respectively.

55. The Petitioner has submitted Auditor's Certificate relating to capital cost summary for the Transmission Main Division of the existing T&D system. Accordingly, ACE of ₹651.02 lakh, ₹325.45 lakh, ₹822.39 lakh, ₹449.24 lakh and ₹408.76 lakh for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 respectively, is allowed with respect to Transmission Main Division of existing T&D system under Regulation 14(3)(iii), Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations.

(c) CE Stores

56. The Petitioner has carried out works under CE Stores of the Existing T&D system. The Petitioner has submitted Form-7 and has claimed actual ACE of ₹0.08 lakh and ₹15.00 lakh for 2014-15 and 2016-17, respectively. The Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 observed that the Petitioner has not submitted any sanction/ work order for the above works. As such, ACE for these items were not allowed at that stage. However, the Petitioner was directed to submit the same along with the justification for augmentation at the time of truing up for the consideration of the Commission.

57. In compliance of the directions of the Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, the Petitioner has submitted all requisite sanction orders/ approvals along with work orders/ purchase orders together with tariff forms in the instant petition in support of the claim of ACE in truing up for its existing T&D Network for 2014-19 period. The supporting documents in respect of ACE have been provided separately for CE Stores in the instant petition. The Petitioner has submitted Auditor's Certificate for capital cost summary for CE stores of existing T&D system.



58. Accordingly, ACE of ₹0.08 lakh and ₹15.00 lakh for 2014-15 and 2016-17 lakh respectively, is allowed for CE Stores of existing T&D system, under Regulation 14(3)(vii) and Regulation 14(3)(ix) of the 2014 Tariff Regulations.

59. In view of above, ACE allowed for the existing T&D system of the Petitioner for true-up of 2014-19 tariff period is as follows:

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed vide order dated 9.8.2019 in petition No. 150/TT/2018	A-N Stage	6929.02	1618.71	4458.63	0.00	0.00
	Main Division	0.00	0.00	0.00	0.00	0.00
	CE Stores	0.00	0.00	0.00	0.00	0.00
	Total	6929.02	1618.71	4458.63	0.00	0.00
Actual ACE claimed in the instant true up petition	A-N Stage	6929.02	1618.71	4458.63	604.49	162.63
	Main Division	651.02	325.45	822.39	449.24	408.76
	CE Stores	0.08	0.00	15.00	0.00	0.00
	Total	7580.12	1944.15	5296.02	1053.73	571.40
ACE allowed in the instant order	A-N Stage	6929.02	1618.71	4458.63	604.49	162.63
	Main Division	651.02	325.45	822.39	449.24	408.76
	CE Stores	0.08	0.00	15.00	0.00	0.00
	Total	7580.12	1944.15	5296.02	1053.73	571.40

De-Capitalisation

60. The Petitioner has carried out replacement of old assets for A-N stage and Transmission Main Division for efficient and reliable operation of its existing T&D system. Further, 3 number of 400 kV lines which were included in the existing T&D network of DVC have been declared as "Non-ISTS lines carrying ISTS Power" with effect from 2017-18 and have been removed from the existing assets. Accordingly, the Petitioner claimed de-capitalisation for 2014-19 tariff period and submitted audited cost of the old replaced assets in support of the same.

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

“32. Since additional capital expenditure in respect of Transmission Main Division and projected additional capital expenditure for 2017-18 and 2018-19, is not being allowed at this stage, the corresponding de-capitalization will be considered along with the actual additional capital expenditure at the time of truing up.

33. Further, the petitioner has submitted that the following 3 Nos. of 400 kV lines, which were included in the existing transmission and distribution network of DVC, have been declared as "Non-ISTS Line carrying ISTS Power" w.e.f. 2017-18 and have been removed from the existing assets:-

a. Single Circuit LILO of 400 kV D/C Durgapur (PG) - Jamshedpur (PG) at DSTPS-Twin Moose Conductor (COD — 1.2.2011).

b. Single Circuit LILO of 400 kV D/C Maithon (PG) - Ranchi (PG) at RTPS Twin Moose Conductor (COD — 1.7.2012).

c. Double Circuit 400 kV DSTPS – RTPS - Twin Moose Conductor (COD — 1.8.2013).

34. In this regard, the petitioner has submitted a certificate dated 24.8.2017 issued by Member Secretary, Ministry of Power, Government of India; certifying these assets as "Non-ISTS Line carrying ISTS Power". Further, the petitioner has filed a separate petition, (Petition No. 334/TT/2018) for approval of tariff for these assets from 2017-18 onwards. In the instant petition, the petitioner has not clearly indicated the gross value of these assets. However, the petitioner has submitted Auditor's certificate, *vide* affidavit dated 10.5.2019 in Petition No. 334/TT/2018, certifying the capital cost of these 3 nos. of Non-ISTS Lines as ₹23992.10 lakh which has been removed, by the petitioner, from the capital base of existing transmission and distribution system of the petitioner w.e.f. 1.4.2017. We, therefore, allow ₹23992.10 lakh as de-capitalization for assets taken out of use of these 3 lines from the existing base w.e.f. 2017-18.”

62. Accordingly, the Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 allowed de-capitalisation under existing T&D System as follows:

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalisation claimed in Petition No. 150/TT/2018	Gross value of old assets for A-N Stage	296.68	771.92	171.22	1.68	0.00
	Gross value of old assets for Main Division	83.99	166.13	119.62	91.49	145.26
	Sub Total	380.67	938.05	290.84	93.17	145.26
	Gross value of 3 number of 400 kV lines earlier booked in existing T&D system but now separately capitalised as 'ISTS line' in 2017-18	0.00	0.00	0.00	23992.10	0.00
	Total De-capitalisation	380.67	938.05	290.84	24085.27	145.26



Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalisation allowed <i>vide</i> Order dated 9.8.2019 in Petition No. 150/TT/2018	Gross value of old assets for A-N Stage	296.68	771.92	171.22	0.00	0.00
	Gross value of old assets for Main Division	0.00	0.00	0.00	0.00	0.00
	Sub Total	296.68	771.92	171.22	0.00	0.00
	Gross value of 3 number of 400 kV lines earlier booked in existing T&D system but now separately capitalised as 'ISTS line' in 2017-18	0.00	0.00	0.00	23992.10	0.00
	Total de-capitalisation	296.68	771.92	171.22	23992.10	0.00

63. The Commission *vide* Record of Proceedings for the hearing dated 13.7.2020, directed the Petitioner to submit the statement of de-capitalization (Form 10B for 2014-19 period). In response, the Petitioner *vide* affidavit dated 12.8.2020 has submitted Tariff Form-10B (statement of de-capitalization) for 2014-19 period as part of 2014-19 forms. The de-capitalisation claimed by the Petitioner for true-up of 2014-19 tariff period is duly supported with audited cost.

64. We have considered the submissions of the Petitioner. The Petitioner has claimed de-capitalisation during 2014-19 period for carrying out the replacement of old assets of the existing T&D System under the heads, viz- (a) A-N stage and (b) Transmission Main Division for the efficient and reliable operation. Further, 3 Number of 400 kV lines which were included in the existing T&D Network of DVC have been declared as "Non-ISTS line carrying ISTS Power" with effect from 2017-18 and have been removed from the existing assets.

65. Accordingly, de-capitalisation considered for the existing T&D System of the Petitioner for 2014-19 tariff period is as follows:

Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalisation claimed in the	Gross value of old assets for A-N Stage	296.68	771.92	171.22	3.25	0.48



Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
instant true-up petition	Gross value of old assets for Main Division	80.24	148.36	118.21	75.18	56.67
	Sub Total	376.92	920.28	289.43	78.43	57.15
	Gross value of 3 number of 400 kV lines earlier booked in existing T&D system but now separately capitalised as 'ISTS line' in 2017-18	0.00	0.00	0.00	23992.10	0.00
	Total de-Capitalisation	376.92	920.28	289.43	24070.53	57.15
De-capitalisation allowed in the instant true-up petition	Gross value of old assets for A-N stage	296.68	771.92	171.22	3.25	0.48
	Gross value of old assets for Main Division	80.24	148.36	118.21	75.18	56.67
	Sub Total	376.92	920.28	289.43	78.43	57.15
	Gross value of 3 number of 400 kV lines earlier booked in existing T&D system but now separately capitalised as 'ISTS line' in 2017-18	0.00	0.00	0.00	23992.10	0.00
	Total de-Capitalisation	376.92	920.28	289.43	24070.53	57.15

Capital Cost for 2014-19 period

66. In view of above, the following opening capital expenditure, ACE/de-capitalization and closing capital expenditure has been considered for the purpose of determination of tariff for 2014-19 tariff period:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	175678.95	182882.17	183906.04	188912.63	165895.83
Add: ACE (For Existing System)	7580.12	1944.15	5296.02	1053.73	571.40
Less: De-capitalization	376.92	920.28	289.43	24070.53	57.15
Closing Capital Cost	182882.17	183906.04	188912.63	165895.83	166410.08

67. Accordingly, the details of capital cost as on 1.4.2014, net ACE (after accounting for de-capitalisation) during 2014-19 period and capital cost as on



31.3.2019 for truing-up of tariff for 2014-19 period in respect of the transmission assets are as follows:

Capital Cost Allowed (as on 1.4.2014)	Net ACE allowed after deducting de-capitalisation					Capital Cost Allowed As on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	(₹ in lakh)
175678.96	7203.21	1023.87	5006.59	-23016.80	514.25	166410.08

Debt-Equity Ratio

68. Debt-equity ratio is dealt in accordance with Regulation 19(1), Regulation 19(3) and Regulation 19(5) of the 2014 Tariff Regulations. However, debt-equity ratio for the de-capitalised asset has been dealt as per Regulation 14(4) of the 2014 Tariff Regulations. Accordingly, the details of debt-equity ratio as on COD and as on 31.3.2019 in respect of the transmission assets considered for the purpose of determination of tariff for 2014-19 period are as follows:

Particulars	Amount as on 1.4.2014 (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	118386.45	67.39	112242.68	67.45
Equity	57292.50	32.61	54167.39	32.55
Total	175678.96	100.00	166410.07	100.00

Depreciation

69. In Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, the Petitioner made the following contentions with regard to computation of depreciation during 2014-19 period:

- (i) Notional COD considered by the Commission is not justified.
- (ii) Depreciation has been spread after 12 years assuming notional COD
- (iii) Cumulative depreciation has not been considered in respect of de-capitalised assets.

70. Regulation 53(2)(iii) 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.”

71. Depreciation has been allowed as per the methodology provided in Regulation 27 read with Regulation 53 of the 2014 Tariff Regulations. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 held as follows:

“48. Depreciation rate @ 7.72%, as approved vide order dated 29.9.2017 in Petition No. 547/TT/2018, has been considered in the instant petition subject to submission of the revised rate at the time of true-up, if any.”

72. Accordingly, as per Regulation 53(2)(iii) of the 2014 Tariff Regulations, depreciation rate stipulated by Comptroller and Auditor General of India as per Section 40 of the 1948 of Damodar Valley Act is applicable in case of DVC. However, inadvertently in the order dated 9.8.2019 in Petition No. 150/TT/2018, depreciation rate and usual methodology adopted in computation of depreciation in respect of the transmission assets was applied to the transmission assets of the Petitioner which is contrary to Regulation 53(2)(iii) of the 2014 Tariff Regulations. It is an error apparent and is required to be corrected. Therefore, depreciation allowed in respect of the transmission assets of DVC for 2014-19 tariff period vide order 9.8.2019 in Petition No. 150/TT/2018 is being corrected in accordance with Regulation 53(2)(iii) of the 2014 Tariff Regulations in the instant order.

73. The Petitioner vide affidavit dated 12.8.2020 has submitted detailed computation of year wise Weighted Average Rate of Depreciation (WAROD) on 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 the existing T&D System of DVC, towards truing-up of 2014-19 tariff and the same is as follows:



Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Average Rate of Depreciation (WAROD) (in %)	7.740	7.743	7.746	7.752	7.752

74. In Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, the Petitioner has also contended that the Commission has not adjusted the cumulative depreciation till 31.3.2017 amounting to ₹6530.18 lakh in case of three number of de-capitalized non-ISTS lines of DVC while computing depreciation in respect of the transmission assets for 2014-19 tariff period. On the request of the Petitioner, three number of non-ISTS lines of DVC were de-capitalized from T&D System of DVC vide order dated 9.8.2019 in Petition No. 150/TT/2018. However, the cumulative depreciation in case of the three number of non-ISTS lines was not adjusted in the impugned order dated 9.8.2019 in Petition No. 150/TT/2018 inadvertently, which is an error apparent. The same is also being taken into consideration for truing up of tariff of 2014-19 tariff period of the transmission assets in the instant order. However, adjustment of cumulative depreciation in respect of the three number of non-ISTS lines shall be considered as on 1.4.2019, at the time of truing-up of 2019-24 period in Petition No. 713/TT/2020.

75. The details of the trued-up depreciation allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

Sl. No.	Particulars	(₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	175678.96	182882.17	183906.04	188912.63	165895.83
B	Additional Capitalisation	7580.13	1944.15	5296.02	1053.73	571.40
C	De-Capitalisation	-376.92	-920.28	-289.43	-24070.53	-57.15
D	Closing Gross Block (A+B+C)	182882.17	183906.04	188912.63	165895.83	166410.08
E	Average Gross Block [(A+D)/2]	179280.57	183394.11	186409.34	177404.23	166152.96
F	Weighted Average Rate of Depreciation (WAROD) (in %)	7.740	7.743	7.746	7.752	7.752
G	Aggregated Depreciable Value	156073.26	162556.15	163477.63	167983.57	147268.45



H	Cumulative Depreciation at the beginning of the year	103976.87	117586.17	131095.10	145380.28	149944.99
I	Remaining Aggregated Depreciable Value at the end of the Year (G-H)	5537.84	45430.73	34635.50	12245.73	231.41
J	Depreciation during the year (E x F)	13876.32	14200.21	14439.27	12245.73	231.41
K	Adjustment of Depreciation due to De-Cap	-267.02	-691.27	-154.09	-6530.18	-54.68
L	Cumulative Depreciation at the end of the year (After Adjustment for De-Cap)	117586.17	131095.10	145380.28	151095.83	151272.55

76. Depreciation allowed in respect of the transmission assets *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, as claimed in the instant petition and allowed after true-up in the instant order for 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 9.8.2019 in Petition No. 150/TT/2018	13818.42	14107.12	1543.55	1145.11	1307.18
Claimed by the Petitioner in the instant petition	13915.09	14238.59	14477.89	12915.55	0.00
Approved after true-up in this order	13876.32	14200.21	14439.27	12245.73	231.41

Interest on Loan (“IoL”)

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

“42. The Commission, vide order dated 29.9.2017 in Petition No. 547/TT/2014, has approved cumulative repayment of normative loan as ₹104300.74 lakh. This has been taken into account to arrive at the interest on loan for the period 2014-19. The petitioner has submitted the loan portfolio for period 2014-19 in Form-9C. However, the amount indicated for Loan-4 i.e. US Exim Loan is different from the amount approved vide order dated 29.9.2017 in Petition No. 547/TT/2014. Further, the petitioner has indicated DVC Bond in place of earlier PSU Bond. The net loan closing of PSU bonds and the gross loan opening of DVC bonds have been shown as the same by the petitioner, which has been considered in working out the weighted average rate of interest on loans. However, the petitioner is directed to submit the detailed clarification at the time of true-up.”

78. The Petitioner *vide* affidavit dated 12.8.2020 has submitted Form-9C towards true-up of tariff. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan and rate of interest based on allocated loan of T&D system of DVC.



79. In Review Petition No. 21/RP/2019 in Petition No. 150/TT/2018, the Petitioner has submitted that cumulative repayment of loan due to de-capitalization of the transmission assets was added to the 'cumulative repayment of loan' instead of reducing from it. In paragraph 44 of the impugned order, ₹104300.74 lakh (₹91723.75 lakh + ₹12336.32 lakh + ₹240.67 lakh) was considered against 'cumulative repayment of loan up to previous year in 2014-15, which is on account of erroneous addition of 'repayment adjustment due to de-capitalization' amounting to ₹240.67 lakh instead of subtracting the same while computing the 'cumulative repayment of loan'. DVC has further submitted that the cumulative repayment of loan with regard to three number of non-ISTS lines ought to have been considered while computing the interest on loan.

80. We have considered the submissions of the Petitioner. It is observed that the amount of loan repaid in case of the de-capitalized assets up to 2009 amounting to ₹240.67 lakh was inadvertently added instead of being deducted. The same is being corrected while truing up of tariff of 2014-19 tariff period in the instant petition as adjustment in opening cumulative repayment of loan.

81. As regards the adjustment of cumulative repayment in respect of three number of de-capitalized non-ISTS lines, the impact of adjustment of cumulative repayment is being considered in the instant order.

82. 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 assets for 2014-19 tariff period is as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan(A)	118386.45	123428.70	124145.41	127650.02	111538.26
Cumulative Repayments up to Previous Year(B)	103819.40	117428.70	123454.14	127495.93	105008.08



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening C(A-B)	14567.05	6000.00	691.27	154.09	6530.18
Net Addition due to Additional Capitalization (D)	5042.25	716.71	3504.61	-16111.76	359.98
Repayment during the year (E)	13342.28	5593.61	3945.59	-29002.34	122.04
Adjustment in repayment of loan for De-Capitalization (F)	-267.02	-691.27	-154.09	-6530.18	-54.68
Net Loan-Closing (G) = (C+D-E+F)	6000.00	691.27	154.09	6530.18	6713.43
Average Loan (H) = [(C+G)/2]	10283.53	3345.64	422.68	3342.14	6621.80
Weighted Average Rate of Interest on Loan (WAROI) (in %) (I)	10.07	10.22	10.50	10.08	10.12
Interest on Loan (J) = [(HxI) /100]	1035.75	342.06	44.38	336.83	670.25

83. IoL allowed *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, as 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	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 9.8.2019 in Petition No. 150/TT/2018	980.62	286.49	195.32	174.80	0.00
Claimed by the Petitioner in the instant petition	1056.18	322.71	32.87	10.21	113.41
Approved after true-up in this order	1035.75	342.06	44.38	336.83	670.25

Return on Equity (“RoE”)

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

“39. Regulation 24 read with Regulation 25 of the 2014 tariff Regulations provide the grossing up of return on equity with the effective tax rate for the purpose of return on equity. Since, the petitioner company was incurring losses, the Commission vide order dated 29.9.2017 in the true-up Petition No. 547/TT/2014 considered the applicable tax rate for 2013-14 as 'NIL'. The same treatment has been considered for the purpose of Return on Equity for the period 2014-19 which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the petitioner is directed to furnish the tax rate data at the time of true up.”

85. The Petitioner in the instant true-up petition 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 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 in respect of the transmission assets is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	57292.50	59378.08	59501.18	60945.28	54024.55
Net Addition due to ACE/ De-Capitalisation	2085.58	123.11	1444.09	-6920.73	142.85
Closing Equity	59378.08	59501.18	60945.28	54024.55	54167.39
Average Equity	58335.29	59439.63	60223.23	57484.91	54095.97
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) (in %)	15.500	15.500	15.500	15.500	15.500
Return on Equity (Pre-tax)	9041.97	9213.14	9334.60	8910.16	8384.88

86. RoE allowed *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, as 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	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 9.8.2019 in Petition No. 150/TT/2018	9034.54	9208.43	9327.80	8869.67	8311.85
Claimed by the Petitioner in the instant petition	11588.07	11889.74	12069.72	11532.22	10889.33
Approved after true-up in this order	9041.97	9213.14	9334.60	8910.16	8384.88

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

87. The details of O&M Expenses allowed in respect of the transmission assets *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 for 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	1160.08	1200.92	1247.48	1173.67	1214.55
Sub-station	18421.65	19068.99	19832.12	20568.45	21254.76
Communication	918.34	948.83	980.33	1012.88	1046.50
Total O&M for existing T&D System	20500.07	21218.74	22059.93	22755.00	23515.81



88. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 allowed O&M Expenses for the following number of bays and line length of the existing T&D System of the Petitioner as on 31.3.2014 and added during 2014-19 period:

Particulars (Bays)	COD	400 kV	220 kV	220 kV (GIS)	132 kV and below
Number of Bays Existing as on 31.3.2014		0	80	0	495
New bays added during 2014-15	1.4.2014	0	0	0	4
Total number of bays for 2014-15		0	80	0	499
New bays added during 2015-16	18.5.2015	0	0	0	2
Total number of bays for 2015-16		0	80	0	501
New bays added during 2016-17	4.8.2016	0	4	0	0
Total number of bays for 2016-17		0	84	0	501
New bays added during 2017-18	-	0	0	0	0
Total number of bays for 2017-18		0	84	0	501
New bays added during 2018-19	-	0	0	0	0
Total number of bays for 2018-19		0	84	0	501
TOTAL		0	84	0	501

Particulars (Lines)	COD	S/C Single Conductor	D/C Single Conductor	D/C Double Conductor	D/C Four Conductor
Line length existing as on 31.3.2014 (km)		1275.50	2632.51	148.20	0.00
Line length added during 2014-15 (km)	-	0.00	0.00	0.00	0.00
Total line length for 2014-15 (km)		1275.50	2632.51	148.20	0.00
Line length added during 2015-16 (km)					
(1) Diversion of 132 kV Dhanbad - Gobindpur line in order to heighten the bottom conductor in view of ongoing SHAJ-Highway	13.8.2015	0.049	0.00	0.00	0.00
(2) Diversion of 220 kV D/C DTSP Parulia Line due to Airport at Andal	10.4.2015	0.02	0.00	0.00	0.00
(3) ACC Limited	18.8.2015	0.00	11.077	0.00	0.00
Total line length for 2015-16 (km)		1275.569	2643.589	148.20	0.00
Line length added during 2016-17 (km)					
(1) Bokaro Steel Limited	4.8.2016	0.00	18.75	0.00	0.00
Total line length for 2016-17 (km)		1275.569	2662.339	148.20	0.00
Line length added during 2017-18 (km)	-	0.00	0.00	0.00	0.00
Total line length for 2017-18 (km)		1275.569	2662.339	148.20	0.00
Line length added during 2018-19 (km)	-	0.00	0.00	0.00	0.00
Total line length for 2018-19 (km)		1275.569	2662.339	148.20	0.00
TOTAL		1275.569	2662.339	148.20	0.00

89. The Petitioner in the instant true up petition has sought to revise the number of bays and line length as submitted earlier in Petition No. 150/TT/2018. The Petitioner has submitted that there was an inadvertent error at its end while finalising the number of bays and line length and submitted the following detailed justifications:



Sub-station Bays

(a) There are 48 number of sub-stations and 12 number of Power House switchyard which are being used for transmission of bulk power and distribution of power either through radial feeders or by using step down transformers. Bays associated with such transmission or distribution line/ feeder transformers are in addition to the generator bays and station service transformer bays of the switchyard associated with the 12 numbers power stations. The Petitioner further submitted that the bays located in the power house switchyards but used for termination of either transmission or distribution lines have also been considered for computation of normative O&M expenditure as claimed herein.

(b) The bays used for termination of distribution lines at the receiving end are also being maintained by DVC only to ensure uninterrupted quality power supply to the consumer. Accordingly, the responsibility towards O&M Expenses of all such above bays lies with DVC only. However, O&M Expenses for new bays in relation to existing network have been computed on pro-rata basis with the date of commercial operation.

Length the of Transmission Lines of DVC

(c) DVC has submitted that power supply lines and feeders emanating from 12 number of Power House Switchyards and 48 number of sub-stations up to the premises of the consumers are part of integrated transmission network of DVC and O&M Expenses responsibility of the said lines lies with DVC only so as to supply uninterrupted power supply to the end users. As such DVC in the present petition has also considered such lines/feeders for computation of normative O&M expenditure as claimed herein.

(d) The entire normative O&M Expenses have been claimed herein as per the applicable Tariff Regulations for existing system for the total T&D line length as per category (Single Circuit-Single Conductor, Double Circuit-Single Conductor, Double Circuit-Double Conductor, Double Circuit-Quad Conductor) for 33 kV and higher voltage level.

90. Further, the Petitioner *vide* affidavit dated 12.8.2020 has submitted detailed break-up of total 1802 number of bays, claimed in this tariff petition whose details are given below for consideration:

(1) Total 83 number of bays (30 number of 220 kV and 53 number of 132 kV and below level bays) which were added during 2006-09 period on account of Hazaribagh Sub-station, Barjora Sub-station, Ramgarh Sub-station, Burnpur Sub-station and other Sub-station locations for which the Commission allowed capital expenditure as ACE, but did not allow O&M Expenses against bay addition during 2006-09 period. As a result, total number of bays at the end of 2009 remained same as of 2004 which resulted in cascading effect till 2014. Now, DVC is claiming O&M Expenses against those bays which are still in operation and those sub-stations are serving important role in the distribution system of DVC.

(2) Total 585 number of bays (84 number of 220 kV and 501 number of 132 kV and below bays) is the figure which the Commission considered to be in existence as on 31.3.2014 as per the truing-up order for 2009-14 period in Petition No. 547/TT/2014.

(3) Total 324 number of consumer end bays which were in existence prior to 31.3.2014 and still in service for which DVC never claimed normative O&M



Expenses for 2014-19 period, has been claimed in this instant petition. DVC performs O&M Expenses against those consumer end bays on regular basis.

(4) Total 64 number of consumer end bays were added during 2014-19 period. Total 64 number of such consumer applied for new power supply connection during 5 years period and subsequently power supply connections were given to the consumers. Pro-rata O&M charges against the above bays at consumer end, based on their date of connection, has been claimed for which the Petitioner performs O&M on regular basis. O&M Expenses against the above bays were claimed by DVC in Petition No. 335/TT/2018 which was duly acknowledged vide order dated 5.2.2020 in Petition No. 335/TT/2018 by the Commission and DVC was granted liberty to claim the same in truing-up petition. The relevant extract of the above said order is as follows:

“67. We have considered the submissions of the Petitioner. The Petitioner has claimed the O&M Expenses for existing and new elements added during 2014-19 tariff period. It is observed that the instant petition covers new transmission system pertaining to DVC and accordingly the O&M Expenses for 2014-19 for new elements allowed in the instant petition. The Petitioner also claimed O&M Expenses for consumer lines and bays added during 2014-19, but the Petitioner has not submitted asset-wise O& M Expenses for consumer lines and bays added during 2014-19. The O&M Expenses for consumer lines and bays are not allowed in the instant petition. The Petitioner is at liberty to approach the Commission at the time of truing up with asset wise O&M Expenses by including consumer lines and bays added during 2014-19 tariff period.”

Since, the above bays are parts of the sub-stations of existing T&D System, DVC is claiming normative O&M Expenses in the instant petition.

(5) Total 734 number of bays (49 number of 400 kV bays, 87 number of 220 kV bays and 598 number of 132 kV and below level bays) which are either part of Power House Switch Yard but serving T&D purpose only or such bays which are in existence against existing Sub-stations which are still in operation. However, DVC inadvertently never claimed O&M Expenses against such bays.



(6) Total 10 number of bay (4 number of 220 kV and 6 number of 132 kV and below bays) were added in the existing sub-stations during 2014-17 period. Pro-rata O&M charges against the above bays as added with the system has been claimed in the instant petition. Total number of bays during 2014-17 period for which DVC claimed the O&M charges in Petition No. 150/TT/2018 is 595 number (585+10) and the Commission also granted O&M charges for the same in the tariff order dated 9.8.2019 in Petition No. 150/TT/2018 for 2014-19 period.

(7) Further 2 number of 132 kV and below bays were subsequently added in the existing sub-stations during 2017-19 period and pro-rata O&M charges have been claimed in the instant petition.

(8) The State Load Dispatch Centre (SLDC) of DVC has certified total 1811 number of bays in existence as on 31.3.2019 under DVC's T&D network, out of which 1802 number (83+585+324+64+734+10+2) of bays have been considered to be part of the 'Existing T&D System' and accordingly normative O&M claimed in the instant petition. DVC has listed all the assets like bays, transmission lines, and transformer details in Form-2 (tariff filing forms) as per the direction of the Commission, alongwith SLDC certified Single Line Diagram of all the sub-stations and switchyard of Power Houses.

91. Accordingly, the Petitioner has claimed O&M Expenses for true-up of 2014-19 tariff period and submitted revised Form-2 *vide* affidavit dated 12.8.2020 as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	1238.94	1302.31	1373.83	1434.09	1486.50
Sub-station	54066.18	56183.98	58545.91	61107.68	63637.83
Communication	918.34	948.83	980.33	1012.88	1046.50



Total O&M for existing T&D system	56223.46	58435.11	60900.07	63554.65	66170.83
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92. We have considered the submissions of the Petitioner. The Commission *vide* order dated 9.8.2019 in Petition No. 150/TT/2018 has allowed O&M Expenses for 585 number of bays (84 number of 220 kV and 501 number of 132 kV and below bays) which existed as on 31.3.2014.

93. The Petitioner has claimed total 1802 number of bays in the instant petition and the detailed break-up of 1802 number of bays is categorized as follows:

Details	Number of Bays
(a) Bays which existed as on 31.3.2014 and considered in the truing-up order for 2009-14 period and tariff order dated 9.8.2019 for 2014-19 period.	585 numbers
(b) Bays added during 2006-09 but inadvertently could not be considered in 2009-14 and 2014-19 periods (Petition No. 150/TT/2018)	83 in number
(c) Consumer end bays existing on 31.3.2014 but could not be claimed	324 in number
(d) Consumer end bays added during 2014-19 for new consumers & not considered earlier but liberty given to claim in 2014-19 true-up.	64 in number
(e) Bays which are either part of Power house switch yard and serving 734 numbers (f) for T&D purpose or existing substation bays omitted inadvertently	734 in number
(g) Bays added in 2017-19 and considered in order dated 9.8.2019 in Petition No. 150/TT/2018.	10 in number
(h) Bays added in 2014-17 and could not be considered in order dated 9.8.2019 in Petition No. 150/TT/2018.	2 in number

94. The total voltage wise break-up of 1802 number of bays claimed by the Petitioner is as follows:

Particulars		400 kV	220 kV	132 kV & below	Total number of bays
Sub-station end bay(s) as on 31.3.2014 for which DVC carried out O&M Expenses	A	49	201	1152	1402
Existing consumer end bays for consumer as on 31.3.2014 for which DVC carried out O&M Expenses	B	0	4	320	324
Total bays existing as on 1.4.2014 for which DVC carries out O&M	C=A+B	49	205	1472	1726



Particulars		400 kV	220 kV	132 kV & below	Total number of bays
New consumers added during 2014-19 tariff period	D	0	0	64	64
New bays added during 2014-19 period	E	0	4	8	12
Total bays added during 2014-19 tariff period	F=D+E	0	4	72	76
Total bays existing as on 31.3.2019 for which DVC carries out O&M Expenses	G=C+F	49	209	1544	1802

95. Year-wise break-up of bays on the basis of revised quantity of bays claimed in affidavit dated 12.8.2020 for true-up of tariff for 2014-19 period and considered for calculation of O&M Expenses is as follows:

Particulars (Bays)	400 kV	220 kV	132 kV & below	Total number of bays
Number of bays existing as on 1.4.2014 (including consumer end bays)	49	205	1472	1726
Bays added during 2014-15	-	-	12	12
Bays added during 2015-16	-	-	10	10
Bays added during 2016-17	-	4	14	18
Bays added during 2017-18	-	-	15	15
Bays added during 2018-19	-	-	21	21
Bays added during 2014-19	-	4	72	76
TOTAL	49	209	1544	1802

96. We have considered the submissions of the Petitioner. The Commission vide order dated 9.8.2019 in Petition No.150/TT/2018 allowed 84 number of 220 kV bays and 501 number of 132 kV and below level bays. The Petitioner in the instant true-up petition has claimed 49 number of 400 kV bays, 209 number of 220 kV bays and 1544 number of 132 kV and below level bays. Details of allowable/not allowable bays are as follows:

Details	No. of Bays	Allowable /not allowable
(a) Bays which existed as on 31.3.2014 and considered in true-up order for 2009-14 & tariff order dated 9.8.2019 for 2014-19 period	585 number (220 kV: 84+132 kV: 501=585 in number)	These are the existing bays as on 31.3.2019. Therefore, 84 number of 220 kV bays and 501 number of 132 kV and below voltage level bays



		are allowed.
Bays added during 2006-09 but inadvertently could not be considered in 2009-14 and 2014-19 (Petition No. 150/TT/2018)	83 number (220 kV: 30 number and 132 kV and below:53 number)	With respect to these 83 number of bays, we are of the view that these are the existing bays. Accordingly, O&M for 83 number of bays is allowed.
(b) Consumer end bays existing on 31.3.2014 but could not be claimed	324 number (220 kV: 4 number and 132 kV and below: 320 number)	These are the existing consumer bays as on 31.3.2014. Therefore, 324 number of 220 kV bays and 501 number of 132 kV bays are allowed.
(c) Consumer end bays added during 2014-19 period for new consumers & not considered earlier but liberty given to claim in 2014-19 true-up period.	64 numbers (132 kV and below)	The Commission had given liberty to the Petitioner and accordingly the O&M Expenses towards 64 number of bays are allowed.
(d) Bays which are either part of Power house switch yard and serving for T&D purpose or existing substation bays omitted inadvertently	734 numbers (400 kV):	It is observed that out of 734 bays, 303 bays are part of generation switchyard. As per existing tariff regulations, the bays associated with switchyard of power generating station is part of generating plant. Further it is observed that the capital costs of these bays are part of gross block of the respective generating stations. Accordingly, O&M Expenses of 303 number of bays is not allowed under T&D. The balance 431 number of bays which are used for transmission and distribution purpose is allowed. The Petitioner is directed to clarify whether the capital cost of these 431 bays is part of T&D, if so, submit the duly vetted by the Auditor.
(e) Bays added in 2017-19 and considered in order dated 9.8.2019 in Petition No. 150/TT/2018.	10 number	10 number of bays are allowed
(f) Bays added in 2014-17 and could not be considered in order dated 9.8.2019 in Petition No. 150/TT/2018.	2 number	2 number of bays allowed.
Total bays allowed	1499 number of bays	



97. The Petitioner has claimed O&M Expenses in respect of the transmission line for 2014-19 truing-up period and vide affidavit dated 12.8.2020 has submitted the revised details of lines existing as on 31.3.2014 and executed during 2014-19 tariff period. The Petitioner has submitted that pro-rata O&M Expenses have been claimed for lines based on their respective CODs. Year-wise and category-wise line details have been summarized for calculating O&M Expenses for truing-up of 2014-19 tariff period as follows:

SUMMARY OF TRANSMISSION LINE LENGTH					
Particulars	Single Circuit Single Conductor	Double Circuit Single Conductor	Double Circuit Double Conductor	Double Circuit Four Conductor	Total
	(km)	(km)	(km)	(km)	
Total line length as on 1.4.2014	1638.27	2650.14	148.20	0.00	4436.60
Addition during 2014-15	2.59	0.00	0.00	0.00	2.59
Addition during 2015-16	30.79	112.08	0.00	0.00	142.86
Addition during 2016-17	12.50	19.80	0.00	0.00	32.30
Addition during 2017-18	5.65	42.73	0.00	0.00	48.38
Addition during 2018-19	8.49	0.00	0.00	0.00	8.49
Transmission line length as on 31.3.2019	1698.29	2824.74	148.20	0.00	4671.23

98. The Petitioner has claimed O&M Expenses on account of Communication System in accordance with Regulation 29(3)(c) of the 2014 Tariff Regulations. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 allowed the O&M Expenses on account of Communication System. The Petitioner has claimed the same O&M Expenses for truing-up of tariff for 2014-19 period which was approved by the Commission in the said order dated 9.8.2019. The details of the same are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses of Communication System	918.34	948.83	980.33	1012.88	1046.50

99. O&M Expenses have been allowed on the basis of line length, number of bays and norms of O&M Expenses as per the provisions of Regulation 29(4) (a) of the 2014 Tariff Regulations. Accordingly, O&M Expenses allowed in respect of the



elements of transmission assets for trueing-up of tariff for 2014-19 period are as follows:

(i) Sub-station bays:

(₹ in lakh)

Particulars	Normative O&M during 2014-19 tariff period					Total Amount for 5 years (2014-19)
	2014-15	2015-16	2016-17	2017-18	2018-19	
Normative O&M Expenses claim for existing bays as on 31.3.2014 (400 kV bay=49 number of 220 kV bays=205 numbers & 132 kV and below bays= 1472 number)	55989	57846	59760	61746	63805	299145
Normative O&M for switchyard bays	11553	11937	12332	12742	13166	61730
Normative O&M for bays in T&D after excluding switchyard bays as above	44435	45909	47428	49004	50639	237415
Pro rata O&M claimed based on bay addition during 2014-19 period (220 kV = 4 number, 132 kV & below = 72 number)	221	553	1091	1754	2303	5922
Year wise normative O&M Expenses for bays during 2014-19 tariff period	44656	46462	48519	50758	52942	243337

(ii) Transmission lines:

(₹ in lakh)

Details	2014-15	2015-16	2016-17	2017-18	2018-19
Norms for Single circuit (Single Conductor)	0.202	0.209	0.216	0.223	0.23
Total line length in km	1625.86	1656.65	1669.15	1674.80	1683.29
O&M Expenses allowable	328.42372	346.2399	360.5364	373.48	387.16
Norms for Double circuit (Single Conductor)	0.303	0.313	0.324	0.334	0.346
Total line length in km	2650.14	2762.22	2782.02	2824.75	2824.75
O&M Expenses allowable	802.99	864.57	901.37	943.4665	977.36
Norms for Double Circuit Double Conductor	0.707	0.731	0.755	0.78	0.806
Total line length in km	148.2	148.2	148.2	148.2	148.2
O&M Expenses allowable	104.78	108.33	111.89	115.60	119.45
Total transmission lines O&M Expenses	1236.19	1319.15	1373.80	1432.54	1483.97

(iii) Communication System:

(₹ in lakh)

Details	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses of Communication System	918.34	948.83	980.33	1012.88	1046.5
Total O&M Expenses towards Communication System allowable	918.34	948.83	980.33	1012.88	1046.5



100. Accordingly, O&M Expenses approved *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, claimed by the Petitioner in the instant petition and trued up O&M Expenses allowed in this order are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 9.8.2019 in Petition No. 150/TT/2018	20500.07	21218.74	22059.93	22755.00	23515.81
Claimed by the Petitioner in the instant petition	56223.46	58435.11	60900.07	63554.65	66170.83
Allowed after truing-up in this order	46810.53	48729.98	50873.13	53203.42	55472.47

Interest on Working Capital (“IWC”)

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for Maintenance Spares (15% of O&M Expenses)	7021.58	7309.50	7630.97	7980.51	8320.87
Working Capital for O&M Expenses	3900.88	4060.83	4239.43	4433.62	4622.71
Working Capital for Receivables (Equivalent to two months of annual fixed cost)	12316.98	12620.70	13008.33	13021.66	11339.54
Total Working Capital	23239.44	23991.02	24878.73	25435.79	24283.11
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	3137.32	3238.79	3358.63	3433.83	3278.22

102. The details of IWC approved *vide* order dated 9.8.2019 in Petition No. 150/TT/2018, as claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 9.8.2019 in Petition No. 150/TT/2018	1681.08	1715.46	1473.39	1491.60	1520.49



Claimed by the Petitioner in the instant petition	3960.86	4117.25	4317.35	4437.25	4149.92
Approved after truing-up in this order	3137.32	3238.79	3358.63	3433.83	3278.22

Additional Claims

103. The Petitioner has made few other claims such as savings in interest cost due to loan restructuring, additional impact on pay revision, GST, pension & gratuity contribution, sinking fund, mega insurance, CISF security expenses, subsidiary activities and common office expenditure. The Petitioner, vide affidavit dated 12.8.2020, has furnished the details of the claims made during 2014-19 tariff period.

Details of claims are as follows:

(₹ in lakh)						
Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Share of pension & gratuity	800.50	2086.41	2686.84	6065.75	1117.93
2	Impact of pay revision due to recommendations of 7 th Pay Commission	0.00	0.00	779.44	978.27	672.13
3	Impact of GST as "Change in Law"	0.00	0.00	0.00	1.91	5.55
4	Expenses due to mega insurance, CISF expenditure & expenditure for subsidiary activity	1686.82	1666.60	2034.50	2370.81	2274.09
5	DVC's share of savings in interest cost due to loan restructuring	0.00	0.00	0.00	0.31	3.49
6	Interest & contribution on sinking fund (As per Section 40, Part IV of DVC Act)	3138.95	3358.55	3593.69	0.00	0.00
7	Share of common office expenditure	105.10	99.82	99.43	107.37	112.07
8	Unclaimed normative O&M for bays in existence for 2009-14 period claimed in 2014-19 period	2489.00	2631.50	2781.84	2941.08	3109.29
	Total	8220.37	9842.88	11196.30	12465.50	7294.55

104. For the purpose of analysis and deciding whether the additional claims of the Petitioner are over and above the normative O&M Expenses as allowed under the 2014 Tariff Regulations, the duly audited financial statements of the Petitioner have been relied upon. The Financial statements have covered all the O&M Expenses in Notes to Financial Statements. Note No. 29 under O&M Expenses and general administration charges and Note No. 27 of the annual accounts under Employee Benefit Expenses have been considered.



105. The submissions regarding additional claims made by the Petitioner, reply of DVPCA and our observations are detailed as follows:

Contribution to Pension & Gratuity (P&G) Fund and Impact of Pay Revision due to recommendation of 7th Pay Commission:

106. The Petitioner has submitted that the Commission vide order dated 4.9.2019 in Petition No. 197/MP/2016 had directed DVC to furnish the actual impact on account of contribution to P&G Fund and pay revision based on the recommendations of the 7th Pay Commission for 2014-19 period at the time of truing up of tariff for 2014-19 period. Accordingly, the Petitioner has prayed to allow the contribution to Pension & Gratuity fund and impact of pay revision based on the recommendations of the 7th Pay Commission as an additional expenditure to be recovered in full over and above the AFC as claimed by the Petitioner.

107. The Petitioner has submitted that while arriving at the O&M norms for 2014-19 period, the Commission had no occasion to consider the impact of pay revision with effect from 1.1.2016. The recovery of impact of Pension & Gratuity and pay revision is to be considered and allowed in line with tariff principles enshrined under Section 61(d) of the 2003 Act. The Commission while specifying the 2014 Tariff Regulations was of the view that increase in employee expenses on account of pay revision in the case of Central Generating Stations and Private Generating Stations are to be considered appropriately. Therefore, the Commission decided that the said costs shall be examined on case to case basis so that the interests of Generating Stations and consumers remain balanced. The need for allowing impact of pay revision has also been upheld by the Appellate Tribunal for Electricity (APTEL) and Hon'ble Supreme Court in judgment dated 24.3.2015 in Appeal No. 55 of 2013 and batch matters in the case of WBERC vs. CESC Limited (2002) 8 SCC 715 respectively.



108. Further, the Petitioner has submitted that the Commission did not allow the expenses towards Pension and Gratuity contribution for 2009-14 period and the matter is pending before the APTEL. The Petitioner has prayed to allow it to approach the Commission on the said issue for 2009-14 period as and when the matter is disposed by the APTEL.

109. DVPCA has submitted that contribution to Pension & Gratuity Fund and impact of pay revision based on the recommendations of the 7th Pay Commission claimed by the Petitioner is not allowable as the same is to be considered within the normative O&M Expenses and also because actual O&M Expenses including pay revision expenses are well within the limit of normative O&M Expenses.

Impact of GST as "*Change in Law*"

110. The Petitioner has prayed to allow the additional impact of GST of ₹1.91 lakh and ₹5.55 lakh in 2017-18 & 2018-19, respectively as "*Change in Law*" and reimbursement of the additional tax liability for 2014-19 period as an additional expenditure to be recovered in full over and above the AFC as claimed by DVC.

111. DVPCA has submitted that the Commission vide order dated 19.9.2018 in Petition No. 50/MP/2018 and Petition No. 52/MP/2018 in the matter of Prayatna Developers Private Limited vs. NTPC & others observed that GST expenses towards O&M expenses is applicable only if a service is outsourced. In the present case, it is a pure commercial decision of the Petitioner taken for its own advantage and any increase in cost including on account of taxes etc. in the event the Petitioner chooses to employ the services of other agencies, it cannot increase liability of the Respondents. Therefore, the Commission holds that claim of the Petitioner on account of additional tax burden on operation and maintenance expenses (if any), is not maintainable.



112. DVPCA has further submitted that O&M Expenses are already claimed by the Petitioner under Regulation 29(1) of the Tariff Regulations 2014. Therefore, the claim of the Petitioner towards the additional expenditure of GST expenses towards O&M activities for 2014-19 tariff period may be disallowed.

113. The submissions of the parties have been considered. It is observed that the Commission while specifying the O&M expense norms for the 2014-19 tariff period had considered taxes to form part of the O&M expense calculations and accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) issued with the 2014 Tariff Regulations, which is extracted hereunder:

“49.6 With regards to suggestion received on other taxes to be allowed, the Commission while approving the norms of O&M expenses has considered the taxes as part of O&M expenses while working out the norms and therefore the same has already been factored in...”

114. Further, the escalation rates considered in the O&M expense norms is only after accounting for the variations during the past five years of the 2014-19 tariff period, which in our view, takes care of any variation in taxes also. It is pertinent to mention that in case of reduction of taxes or duties, no reimbursement is ordered. In this background, we find no reason to grant additional O&M expenses towards payment of GST.

Expenses due to Mega Insurance, CISF Expenditure and Expenditure for Subsidiary Activity

115. The Petitioner has requested for grant of additional O&M Expenses towards mega insurance, CISF and other security and share of subsidiary activity etc. and has submitted that these expenses are in addition to O&M Expenses approved under the 2014 Tariff Regulation. The details of the said activities are as follows:



(₹ in lakh)					
Additional O&M Expenses	2014-15	2015-16	2016-17	2017-18	2018-19
Mega Insurance (A)	55.34	7.26	49.65	51.90	41.51
CISF & other security expenses (B)	1329.20	1284.23	1618.39	1967.29	1990.34
Total mega insurance, CISF & other security expenses (C=A+B)	1384.54	1291.49	1668.04	2019.19	2031.85
Share of subsidiary activity (D)	302.29	375.11	366.46	351.63	242.24
Total (C+D)	1686.82	1666.60	2034.50	2370.81	2274.09

116. DVPCA has submitted as follows:

(1) The 2014 Tariff Regulations stipulates that O&M Expenses include, a) employee costs i.e. manpower costs; b) repair and maintenance expenses; c) consumables; d) insurance expenses; e) general & administration expenses i.e. overheads etc. However, in addition to the normative O&M Expenses, the Petitioner has also claimed expense items towards Pension and Gratuity expenses, pay revision expenses, CISF security expenses, expenditure for subsidiary activities, mega Insurance expenses and GST on O&M Expenses etc. The normative O&M Expenses are formulated and prescribed after considering the actual O&M Expenses of transmission networks under the control and jurisdiction of the Commission. In fact, the Commission, before approving the tariff regulations for any control period, seeks data (including data in respect of O&M Expenses) in pre-defined templates from all transmission companies including DVC, PGCIL, etc. After considering the submissions, norms for O&M Expenses are approved after giving due consideration to the requirements of various transmission companies.

(2) The Petitioner has not provided any justification for claiming additional O&M Expenses on account of "Mega Insurance", when such expenditure forms

part of "O&M Expenses", as defined under the tariff regulations as well as the 2014 Tariff Regulations. The Petitioner has not cited any extraordinary factors that have necessitated additional insurance cover for its units. Furthermore, any comprehensive insurance is always cost effective in comparison to individual insurance policies and hence it is not understood how mega insurance could lead to additional O&M Expenses.

(3) The Commission dealt with the issue of expenditure of CISF security while framing the 2014 Tariff Regulations and had specifically disallowed such expenses to be charged as additional O&M Expenses *vide* order dated 20.7.2017 in Petition No. 348/GT/2014 in the matter of Damodar Valley Corporation (DVC) v. West Bengal State Electricity Distribution Company Limited (WBSEDCL) & Jharkhand Bijli Vitran Nigam Limited (JBVNL). Further, the Petitioner has neither requested for CISF nor the Commission has granted such expenses in the case of T&D Network, as observed from the past tariff orders dated 29.9.2017 in Petition No. 547/TT/2014 and dated 9.8.2019 in Petition No. 150/TT/2018.

(4) DVPCA has also submitted that the Petitioner has claimed the return on equity, interest on loan and depreciation on common assets, namely, Direction Office, Subsidiary Activities, other offices, R&D, IT Centre and Central Office for the period 2014-19 under nomenclature 'Apportionment of Common Expenditure'. The additional claim for share of subsidiary activity is not admissible. DVPCA has further submitted that the Commission has rejected the Petitioner's claim for mega insurance and share of subsidiary activities in the generation tariff orders issued for 2014-19 tariff period on the ground that they have to be met through normative O&M Expenses.

(5) In this regard, it is observed that actual O&M Expenses including 'Mega Insurance Expenses', 'Security Expenses' and 'Share of Subsidiary Activities' are lower than the normative O&M Expenses and thus, there is no requirement of allowing 'Mega Insurance Expenses' and 'Security Expenses' additionally. DVPCA has prayed that in accordance with the 2014 Tariff Regulations, the expenses claimed by the Petitioner towards 'Mega Insurance', 'Security Expenses' and 'Share of Subsidiary Activities' during 2014-19 tariff period may be disallowed.

117. In response, the Petitioner vide rejoinder dated 21.5.2021 has submitted as follows:

(1) The entire T&D Systems of DVC are located in Damodar Valley area falling within the States of West Bengal and Jharkhand. Since the previous years there has been an increasing need for strengthening the security arrangement for the above system because of increase in the extremist activities. Accordingly, unlike the transmission system situated in other parts of the nation, the requirement of protection of entire T & D System of DVC is much more in order to save the T&D System against any attempt of sabotage, terrorist activities and theft.

(2) Moreover, DVC supplies to some important consumers like Indian Railways, various gaseous underground coal mines under Coal India Limited, underground copper mines under Hindustan Copper Limited and various Steel Industries using Electric furnaces. Any power interruption for long time due to break-down of T&D System because of sabotage, theft etc. may cause havoc to life of the personnel, service of the service provider and property of the consumers. The total number of security personnel deployed



in these T&D System and the cost related thereto are comparatively higher as compared to the other transmission utility like PGCIL etc. Accordingly, for DVC, additional O&M Expenses is required for meeting the expense of security provided by CISF. In this regard DVC would crave reference to the order dated 10.12. 2008 in Petition No. 83/2008 passed by the Commission in the case of Power Grid Corporation of India Limited for dealing with the security to be provided for construction activities in the North Eastern Region. The relevant observation of the Commission is as follows:

“17.The Petitioner has deployed the Central Industrial Security Force (CISF) to protect its establishment and the employees against the threats of militants, which appear to be real and not imaginary. CISF has been raised under the Central Industrial Security Force Act, 1968, enacted by the Parliament to provide for the constitution and regulation of an armed force of Union (CISF) for the better protection and security of industrial undertakings owned by the Central Government and certain other industrial undertakings and the employees of all such undertakings. The Petitioner is an industrial undertaking owned by the Central Government. Thus, deployment of CISF by the Petitioner to safeguard its property and employees is in accordance with law and cannot be faulted.”

(3) The above cost is inclusive of additional impact owing to implementation of 7th CPC to CISF personnel. The additional impact portion has been computed separately and submitted in response to the RoP dated 27.4.2021. However, in the submitted petition, this additional impact has not been claimed separately because the entire expenses on account of CISF, which is inclusive of pay-revision amount, has been claimed in the above petition to be recovered in full on sharing basis.

(4) The mega insurance is necessitated in view of the substantial increase in the risk profile of power plants on account of various issues (including lenders covenants), natural calamities, law and order and various other strategic safeguard measures. This is beneficial for DVC's customers as the mega



insurance protection protects the customers from any tariff shock in the event of any substantial loss arising out of damage or destruction of the power plant.

(5) The Commission vide order dated 13.12.2005 in Petition No. 163/2004 for approval of tariff in respect of Tanda Thermal Power Station has allowed expenditure on mega insurance. Also, in petition for true up for 2009-14 period and tariff determination for 2014-19 period in respect of MTPS 1-3, the Commission had allowed the expenses on 'Mega Insurance Expenses in the case of Mejia Thermal Power Station Units-1 to 3 (vide Tariff order dated 9.7.2013 in Petition No. 269/GT/2012 and true-up order dated 29.7.2016 in Petition No. 465/GT/2014) and Chandrapura Thermal Power Station Units-1 to 3 (vide tariff order dated 7.8.2013 in Petition No. 275/GT/2012 and true-up order dated 29.7.2016 in Petition No. 470/GT/2014).

(6) The Petitioner undertakes various subsidiary activities in terms of Section 12 of the DVC Act, 1948 and the APTEL *vide* judgment dated 23.11.2007 has affirmed that the Petitioner need to be allowed expenses in regard to the above activities as a pass through element in the tariff. This judgment is also upheld by Hon'ble Supreme Court in Civil Appeal Nos. 971-973 of 2008 *vide* judgment dated 23.7.2018.

(7) In view of above, the objections raised are devoid of merit and are liable to be rejected by the Commission. The Petitioner has submitted that mega insurance, water charges, security expenses, expense due to subsidiary activities and ash evacuation expenses have been claimed by DVC as additional O&M Expenses incurred by DVC as per the 2014 Tariff Regulations do not include these expenses under O&M norms. Thus, the Petitioner has requested to allow the same to be recovered in full on sharing basis.



118. We have considered the submissions of the Petitioner and DVPCA. In order to ascertain the justification of additional claims, over and above the normative O&M allowed as per Tariff Regulations, the Commission has made a comparative analysis of actual O&M Expenditure including the additional claims and normative O&M allowed in various truing up petitions of the Petitioner. It has been observed that during tariff control period 2014-19, total normative O&M Expenses allowed as per the tariff regulations in various generation and transmission petitions is ₹1044745.04 lakh. Further, as per the audited financial statements water charges of ₹38226.00 lakh (allowed under Regulation 29(2) of the 2014 Tariff Regulation) and ash evacuation expenses of ₹61182.00 lakh have been incurred by the Petitioner during 2014-19 tariff period. Hence, total amount allowable to DVC against O&M Expenses, water charges and ash evacuation expenses is ₹1144153.04 lakh (i.e. ₹1044745.04 lakh + ₹38226.00 lakh + ₹61182.00 lakh) whereas actual O&M Expenses as per DVC financial statements for 2014-19 period is ₹1219786.00 lakh, which indicates that actual O&M Expenses are exceeding the normative O&M including Water charges and Ash Evacuation charges by ₹75632.96 lakh. However, we observe that the actual O&M Expenses of ₹1219786 lakh also includes provisions for loss, doubtful claims & advances, doubtful debts and shortage/obsolescence in stores etc. of ₹77573 lakh and rebates & discount allowed to consumers of ₹49937 lakh, out of which rebate of ₹40820 lakh pertain to firm consumers which the Petitioner can claim from the State regulators. (Break-up submitted by the Petitioner vide RoP dated 22.4.2022). When we normalise the actual O&M Expenses by excluding ₹77573 lakh (being a non-cash expenditure) and rebates & discounts of ₹40820 lakh pertaining to firm consumers, the actual O&M Expenses works out to ₹1101392.70 lakh (i.e. ₹1219786-₹77573-₹40820 lakh).

119. Computation of normalised actual O&M Expenses are as follows:



(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	TOTAL
A. ACTUAL O&M AS PER DVC AUDITED FINANCIAL STATEMENTS:-						
Note No.27-Employee Benefit Expenses-Power Segment	81960.00	96738.00	126691.00	159010.00	109249.00	573648.00
Note No.29-O&M and General Administration Charges-Power Segment	93447.00	117668.00	132286.00	169568.00	133169.00	646138.00
TOTAL (A)-	175407.00	214406.00	258977.00	328578.00	242418.00	1219786.00
B. PROVISIONS-NOTE NO 29-POWER SEGMENT:						
Provision for Loss on Fixed Assets	446.00	191.00	6544.00	4293.00	0.00	11474.00
Provision for Doubtful Claims and Advances	4586.00	1308.00	0.00	0.00	0.00	5894.00
Provision for Doubtful Debts	205.00	733.00	9126.00	41657.00	8299.00	60020.00
Provision for Shortage /Obsolescence in Stores	12.00	8.00	13.00	128.00	24.00	185.00
TOTAL (B)-	5249.00	2240.00	15683.00	46078.00	8323.00	77573.00
C. REBATE & DISCOUNT ALLOWED TO FIRM CUSTOMERS (as per petitioner submission)						
Rebate & Discount Allowed	3821.32	8983.93	8766.85	8393.73	10854.47	40820.30
TOTAL (C)-	3821.32	8983.93	8766.85	8393.73	10854.47	40820.30
NORMALISED ACTUAL O&M AS PER AUDITED STATEMENT OF ACCOUNTS (A-B-C) :-	166336.68	203182.07	234527.15	274106.27	223240.53	1101392.70

120. Comparison of normative O&M Expenses, expenses allowed under Regulation 29(2) of the 2014 Tariff Regulations, ash evacuation expenses allowed under change in law and normalised actual O&M expenses during 2014-19 tariff period are as follows:

(₹ in lakh)

Petition No.	Generating Station / Transmission petition	Total Normative O&M for 2014-19 Tariff Period
574/GT/2020	Bokaro Thermal Power Station-A	20741.38
569/GT/2020	Bokaro Thermal Power Station-1-3	64499.08
565/GT/2020	Chandrapur Thermal Power Station 1-3	56979.30
570/GT/2020	Chandrapur Thermal Power Station 7-8	67755.00
573/GT/2020	Durgapur Steel Thermal Power Station 1-2	90740.00
567/GT/2020	Durgapur Steel Thermal Power Station 3-4	38527.32



564/GT/2020	Koderma Thermal Power Station 1-2	89118.08
577/GT/2020	Mejia Thermal Power Station 1-3	85371.30
205/GT/2020	Mejia Thermal Power Station 4	28457.10
571/GT/2020	Mejia Thermal Power Station 5-6	67755.00
568/GT/2020	Mejia Thermal Power Station 7-8	90740.00
575/GT/2020	Raghunathpur Thermal Power Station	62340.00
578/GT/2020	Maithon Hydel Station 1-3	10931.64
566/GT/2020	Panchet Hydel Station 1-2	8830.12
572/GT/2020	Tilaiya Hydel Station1-2	3991.24
713/TT/2020	New Elements of Transmission and Distribution (T&D) System	1154.65
466/TT/2020	Non-ISTS 400 kV Transmission Lines of Transmission and Distribution (T&D) System	1724.30
482/TT/2020	Existing Transmission and Distribution (T&D) System	255089.53
(A) Total Normative O&M Expenses allowed		1044745.04
(B) Water charges allowed under Regulation 29(2) of 2014 Tariff Regulations as per DVC Financial statements		38226.00
(C) Ash Evacuation Expenses allowed under Change of Law		61182.00
(D) TOTAL (A+B+C):		1144153.04
(E) Normalised Actual O&M as per audited financial statement of accounts		1101392.70
(F) Excess of Normative O&M, Water Charges & Ash Evacuation over normalised actual O&M Expenses (D-E) :-		42760.34

121. From the above table, we conclude that total normative O&M Expenses allowed in all the generation and transmission tariff petitions for 2014-19 period of ₹1044745.04 lakh along with actual water charges of ₹38226 lakh as per audited financial statements, actual ash evacuation charges of ₹61182 lakh and as per audited financial statements is ₹1144153.04D lakh which is higher than the actual allowable O&M Expenses as per audited financial statements pertaining to power segment of ₹1101392.70 lakh.

122. The Commission is, therefore, of the view that additional O&M Expenses on account of additional impact of pay revision, impact of GST as “Change in law”, Pension & Gratuity contribution, mega insurance, CISF security expenses and subsidiary activities are covered in normative O&M Expenses allowed by the Commission. Since, ‘Normalised Actual O&M Expenses’ do not exceed ‘Normative

O&M Expenses' allowed by the Commission. Accordingly, the Petitioner's claim of additional O&M Expenses on account of additional impact of pay revision, impact of GST as "Change in law", Pension & Gratuity contribution, mega insurance, CISF security expenses and subsidiary activities is not allowed.

Other Additional Claims

DVC's share of savings in interest cost due to loan restructuring

123. The Petitioner has prayed to allow the sharing of benefits accrued due to loan refinancing as per the provisions of Regulation 26(7) of the 2014 Tariff Regulations in the instant petition and in Petition No. 466/TT/2020 as the Petitioner has submitted Auditor's Certificate dated 21.1.2020 in support of the same.

124. DVPCA has submitted that the Petitioner has claimed savings in interest cost due to loan refinancing to the tune of ₹3.80 lakh for 2014-19 tariff period. The proposed reduction is subject to disallowance in ACE and subsequent change in loan balance. Therefore, the Commission may allow the savings in interest cost due to loan refinancing to the tune of ₹2.40 lakh as against ₹3.80 lakh as claimed by the Petitioner.

125. We have considered the submissions of the Petitioner and DVPCA. Accordingly, the sharing of benefits accrued due to loan refinancing in respect of the transmission assets as per the provisions of Regulation 26(7) of the 2014 Tariff Regulations have been allowed as follows:

(₹ in lakh)			
Petition No.	Assets	2017-18	2018-19
482/TT/2020		0.31	3.49
466/TT/2020	Asset-I	0.72	1.31
	Asset-II	1.94	3.64
	Asset-III	19.79	6.28
	Asset-IV	49.87	96.79
	Total	72.32	108.02



Interest & Contribution on Sinking Fund (As per Section 40, Part IV of the DVC Act)

126. The Petitioner has prayed to allow contribution and interest on sinking fund for 2014-19 period as an additional expenditure to be recovered in full over and above the AFC. The contribution of sinking fund is made by the Petitioner from time to time in pursuance of Section 40 of the DVC Act, 1948 and in accordance with the decision taken by the Board of DVC and approved by the Comptroller and Auditor General of India to meet the specific needs including the servicing of the bonds issued for raising money for DVC projects. The sinking fund liability is accounted for in the revenue requirements of the respective generating stations or transmission projects for which bonds are issued. The issue of sinking fund has already been settled by the APTEL in its order dated 23.11.2007 in Appeal Nos. 271, 272, 273, 275 of 2006 and the said judgment of the APTEL dated 23.11.2007 was upheld by the Hon'ble Supreme Court vide order dated 23.7.2018 in Bhaskar-Shrachi Alloys Ltd. vs. Damodar Valley Corporation (2018) 8 SCC 281.

127. The Petitioner has further submitted that the Commission as per Regulation 53 of the 2014 Tariff Regulations and Regulation 72 of the 2019 Tariff Regulations has provided for recovery of the sinking fund contribution through special provision relating to Damodar Valley Corporation. Bonds amounting to ₹640 crore pertain to existing projects of DVC (i.e. BTPS Units 1-3, CTPS Units 1-3, DTPS, MTPS Units 1-3, MTPS Unit 4, MHS, PHS, THS and T&D system of DVC), and bonds amounting ₹700000 lakh (₹440000 lakh + ₹260000 lakh) pertain to new projects of DVC (namely, CTPS Units 7 and 8, DSTPS, KTPS, MTPS Units 5 and 6, MTPS Units 7 and 8 and RTPS). Accordingly, the sinking fund contributions for the bonds amounting ₹64000 lakh and ₹700000 lakh are loaded respectively in the revenue requirements of the existing



projects and new projects of DVC. The sinking fund contribution forms part of the fixed components of tariff of the concerned generating station or transmission assets and would be recovered only from those procurers/ consumers/ beneficiaries for whom the generating station/ transmission system is operated and maintained and not from those for whom the generating station/ transmission system is not intended to generate and supply electricity. The Commission in its true-up orders for 2009-14 period for DVC's generating stations and T&D system and tariff orders for 2014-19 period has approved the sinking fund contribution as claimed by DVC. Accordingly, DVC has adopted the same allocation principle while submitting its true-up petition for 2014-19 period and tariff petition for 2019-24 period.

128. DVPCA has submitted that DVC has claimed contribution to sinking fund set up for redemption of bonds in the instant petition. Out of this, a sum of ₹640 crore has been issued on 10.2.2010, and the same could not have been utilised in old projects of DVC. The Commission in its order dated 29.9.2017 in Petition No. 547/TT/2014 approved only contribution to sinking fund and disallowed the interest on sinking fund. The linkage of bonds needs to be established with each specific generating station and the transmission network. Allocation principal cannot be the norm as different power plants of DVC, supply power to different entities/ beneficiaries.

129. DVPCA has further submitted that the Petitioner has been allowed all expenses related to fixed charges by the Commission under the 2014 Tariff Regulations. The Commission allows capital cost including IDC, time over-run and cost over-run to the extent permissible under the 2014 Tariff Regulations. The Commission also allows funding of the approved capital cost and interest/ returns on the debt/ equity components on actual/ normative basis as the case may be. The loan repayment is also taken care of through higher depreciation for initial 12 years. The



Commission also allowed IWC on normative basis. Creation of funds without any specific purpose cannot be allowed to be recovered as expenditure in tariff even if it is mentioned in the DVC Act and/ or the 2014 Tariff Regulations. Hence, the Commission may seek details about the purpose of borrowing of such funds when all expenses related to capital funding and working capital funding are allowed. Accordingly, the claim made by the Petitioner towards contribution & interest on sinking fund in the present petition may be disallowed.

130. We have considered the submissions of the Petitioner and DVPCA. The Commission vide order dated 29.9.2017 in Petition No. 547/TT/2014 held as follows:

“119. We have considered the submissions of the petitioner. It is observed that the Sinking Fund liability is accounted for in the revenue requirement of the respective generating station / transmission assets of the petitioner for which the bonds have been issued and the same is charged to tariff with respect to each of the generating stations and transmission assets. Accordingly, we conclude that redemption of bonds claimed for the sinking fund are only for existing generating stations of the petitioner and does not include new generating stations/under construction generating stations. Accordingly we consider the bonds.

120. Based on the above discussions, the contribution towards sinking fund created for redemption of bond has been allowed. The total contribution to sinking fund has been allocated among all the generating stations /T&D system of the petitioner, based on the proportion of capital cost as on 31.3.2009.....

121. The details for Sinking fund 2009-14, considered for computation of transmission tariff is as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sinking Fund	1999.69	1932.46	1849.23	1838.95	1967.67

131. The Petitioner has claimed the following overall amount with respect to contribution to sinking fund for its transmission assets:

(₹ in lakh)			
Particulars	2014-15	2015-16	2016-17
Total sinking fund for generation and T&D assets of DVC	7395.41	7395.41	7395.41

132. The details of sinking funds allocated for generation and T&D System are as



follows:

Stations	AppORTIONED Expenditure		
	2014-15	2015-16	2016-17
BTPS (1-3)	1336.52	1340.88	1438.70
CTPS (1-3)	827.37	830.07	828.00
DTPS	742.51	728.61	479.57
MTPS (1-3)	1336.52	1340.88	1438.70
MTPS#4	445.51	446.96	479.57
MHS	134.08	134.51	144.33
PHS	169.72	170.27	182.69
THS	8.49	8.51	9.13
Total of Generating Stations	5000.70	5000.70	5000.70
T&D	2394.71	2394.71	2394.71
Total	7395.41	7395.41	7395.41

133. In view of the above order dated 29.9.2017 in Petition No. 547/TT/2014, the contribution to sinking fund allowed for T&D System of the Petitioner is as follows:

Particulars	(₹ in lakh)		
	2014-15	2015-16	2016-17
Sinking fund for T&D assets of DVC	2394.71	2394.71	2394.71

134. The sinking fund allowed above pertains to T&D assets of DVC on overall basis which were implemented after 10.2.2010 (date of deployment of bond of ₹640 crore) and also pertaining to ACE carried out in respect of old assets after 10.2.2010. In the absence of specific allocation details, the sinking fund allowed herein is deemed to be allowed for assets pertaining to T&D assets of the Petitioner covered in Petition No. 466/TT/2020, Petition No. 713/TT/2020 and the present petition.

Share of Common Office Expenditure

135. The Petitioner has claimed the expenses pertaining to common office such as Direction Office, Central Office, Other Offices, Subsidiary Activities, IT Centre and R&D submitting that the same cater services to all the generating stations as well as



composite T&D Systems. The Petitioner has submitted that the total cost of common assets computed based on the capital cost as on 31.3.2014 as per audited accounts for 2013-14 period have been apportioned based on the opening capital cost of all the generating projects and T&D Systems as on 1.4.2014. Based on the above, the Petitioner has furnished the details of projected expenditure in respect of the common office expenditure for 2014-19 period and the same is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Share of common office expenditure for T&D network	105.10	99.82	99.43	107.37	112.07

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

“69. We have considered the submissions of the petitioner. It is observed that the Commission has allowed the Common Office expenses vide order dated 6.8.2009 in Petition No. 66/2005 and order dated 27.9.2013 in Petition No. 270/TT/2012. Moreover, the petitioner has submitted that the methodology adopted for apportioned for cost of common asset in line with the methodology adopted by the Commission in Order dated 27.9.2013 in Petition No. 270/TT/2012 for T & D network. Accordingly, we allow the common office expenses for the tariff period 2014-2019 as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Common Office Expenses apportioned to T&D network	85.96	80.14	102.11	149.83	169.78

137. We have considered the submissions of the Petitioner. It is observed that the Commission has allowed common office expenses vide order dated 9.8.2019 in Petition No. 150/TT/2018. The Petitioner has submitted the common office expenses in the instant petition on the basis of trued-up cost. Moreover, the Petitioner has submitted that the methodology adopted for apportionment of cost of common asset is in line with the methodology adopted by the Commission in previous orders. Accordingly, we allow the trued-up common office expenses for 2014-2019 tariff period and the same is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Common office expenses apportioned to T&D network	105.10	99.82	99.43	107.37	112.07

Unclaimed Normative O&M for bays in Existence for 2009-14 period claimed in 2014-19 period

138. The Petitioner has submitted that while issuing tariff order for 2009-14 period, the Commission vide order dated 27.9.2013 in Petition No. 270/TT/2012, allowed capital cost for additional of 83 number of bays but disallowed the normative O&M Expenses for the above said 83 number of bays during 2004-09 period as details of additional bays during 2004-09 period was not submitted by the Petitioner. Accordingly, the Commission had considered only 454 number of bays for the purpose of tariff for 2009-14 period.

139. DVPCA has submitted that the Petitioner has not submitted any evidence to support its claim of any residual normative O&M Expenses for bays in existence in 2009-14 period. However, the Petitioner may take up this matter separately as the present petition pertains to 2014-19 tariff period and the matter is beyond the purview of the instant petition. Therefore, the Petitioner's claim may be disallowed.

140. We have considered the submissions of the Petitioner and DVPCA. O&M Expenses claimed by the Petitioner for the bays of 2009-14 tariff period have already been trued up vide order dated 9.8.2019 in Petition No. 150/TT/2018. The additional bays left out during 2009-14 period have already been admitted in this order in 2014-19 tariff period as claimed by the Petitioner.

Approved Annual Fixed Charges for 2014-19 Tariff Period

141. The trued-up Annual Fixed Charges (AFC) approved in respect of the



transmission assets for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13876.32	14200.21	14439.27	12245.73	231.41
Interest on Loan	1035.75	342.06	44.38	336.83	670.25
Return on Equity	9041.97	9213.14	9334.60	8910.16	8384.88
Interest on Working Capital	3137.32	3238.79	3358.63	3433.83	3278.22
O&M Expenses	46810.53	48729.98	50873.13	53203.42	55472.47
Total	73901.89	75724.17	78050.01	78129.97	68037.23

Additional Expenses Allowed

142. Additional expenses approved by the Commission under power to relax as per Regulation 53 of the 2014 Tariff Regulations for T&D Network in the instant order whose details have been given hereunder are in addition to the annual transmission charges approved in the preceding paragraph of this order:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Common office expenses apportioned to T&D network	105.10	99.82	99.43	107.37	112.07
Sinking fund for T&D assets of DVC	2394.71	2394.71	2394.71	-	-
DVC's share of savings in interest cost due to loan restructuring				72.32	108.02

143. As regards additional claims of the Petitioner as mentioned above and the Commission's discussions and analysis in preceding paragraphs, it is observed that additional claims except for common office expenses apportioned to T&D network, sinking fund for T&D assets of DVC and DVC's share of savings in interest cost due to loan restructuring are disallowed.

144. The details of AFC approved vide order dated 9.8.2019 in Petition No. 150/TT/2018, AFC claimed by the Petitioner in the instant petition and as trued up in the instant order in respect of transmission assets are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 9.8.2019 in Petition No. 150/TT/2018	46014.74	46536.23	34599.99	34436.17	34655.33
Claimed by the Petitioner in the instant petition	86743.66	89003.40	91797.90	92449.87	81323.49
Approved after true-up in this order	73901.89	75724.17	78050.01	78129.97	68037.23

145. The trued up AFC approved in this order is higher than AFC approved earlier vide order dated 9.8.2019 in Petition No. 150/TT/2018 and the same is mainly due to increase in the capital cost owing to ACE during 2014-19 period and increased number of bays allowed during 2014-19 tariff period for calculation of O&M Expenses.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

146. The Petitioner has submitted tariff forms for 2019-24 tariff period in respect of the transmission assets. Accordingly, as provided under Regulation 8(1) of the 2019 Tariff Regulations, tariff has been worked out for 2019-24 tariff period in succeeding paragraphs.

147. 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	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	458.96	4114.04	2762.89	933.85	469.02
Interest on Loan	278.28	370.96	240.19	126.48	92.32
Return on Equity	11044.25	11310.10	11481.29	11539.06	11570.22
Interest on Working Capital	1932.33	2055.37	2099.54	2136.13	2197.50
O&M Expenses	36948.00	38238.07	39584.59	40960.53	42399.65
Total	50661.82	56088.54	56168.50	55696.06	56728.71

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for maintenance Spares (15% of O&M Expenses)	5851.21	6055.55	6268.74	6486.73	6714.60
Working Capital for O&M Expenses (O&M Expenses for one month)	3275.15	3389.53	3508.85	3630.88	3758.42
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	6909.61	7611.91	7645.98	7609.65	7763.48
Total Working Capital	16035.97	17056.99	17423.57	17727.26	18236.51
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1932.33	2055.37	2099.54	2136.13	2197.50

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

(₹ in lakh)

Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	DVC's share of savings in interest cost due to loan restructuring	12.85	17.13	11.09	5.84	4.27
2	Share of P&G	2147.89	2248.86	2354.57	2465.25	2581.13
3	Share of Common Office Expenditure	113.35	121.65	123.18	105.93	96.56
4	Expenses due to mega insurance, CISF expenditure & expenditure for subsidiary activity	2353.78	2436.26	2521.62	2609.98	2701.44
	Total	4627.87	4823.90	5010.46	5187.00	5383.40

Capital Cost

150. 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.”

151. The Capital Cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations.

152. The trued-up capital cost of ₹166410.08 lakh as admitted by the Commission as on 31.3.2019 in this order with respect to the transmission assets has been considered as opening capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period.

Additional Capital Expenditure (“ACE”)

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

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

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

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



f) Force Majeure events:

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

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

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

(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.”

154. The Petitioner has claimed projected ACE for 2019-24 tariff period in respect of the transmission assets and has submitted Form-9A in support of the same. The details of projected ACE submitted by the Petitioner in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)						
SI. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A.	Addition during the year/period	4791.70	4432.39	1572.93	432.46	622.46
B.	Less: De-capitalisation during the year/ period	128.81	210.56	74.03	0.56	13.21



Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
C.	Net Addition (A-B)	4662.89	4221.83	1498.89	431.90	609.26

155. The Petitioner has claimed projected ACE for 2019-24 tariff period in respect of the transmission assets on account of replacement of old assets of the existing T&D System and submitted detailed justification in support of its claim. The details of the same are as follows:

- (i) The Petitioner carried out the renovation and modernisation of existing T&D system for 2014-19 and 2019-24 tariff periods by way of replacement of old assets of the existing T&D System under the heads, viz- (a) A-N stage and (b) Transmission Main Division for efficient and reliable operation of the existing T&D network.
- (ii) The Petitioner has carried out augmentation work in the existing T&D System in order to meet the requirement of additional consumers during 2019-24 tariff period.
- (iii) ACE was allowed by the Commission during 2014-19 tariff period in respect of the transmission assets. ACE is essentially required for efficient operation of the T&D System during 2019-24 tariff period since these are spill over items from 2014-19 tariff period.
- (iv) ACE is claimed under the provisions of Regulation 24 and Regulation 25 of the 2019 Tariff Regulations.

156. DVPCA has made the following submissions with respect to ACE claimed by the Petitioner for 2019-24 tariff period:



- (i) The Petitioner has claimed ₹11851.94 lakh towards ACE for 2019-24 tariff period for the existing T&D System.
- (ii) The Petitioner has not attached project specific approval, sanction order or technical report for several items. The Petitioner has not provided detailed expenditure in the petition and has provided brief information in the tariff forms and Regulation number under which it is allegedly claimed.
- (iii) The Petitioner in most of the cases has claimed ACE for 2019-24 period under Regulation 25(2) (ACE after the cut-off date), Regulation 76 (Power to Relax) and Regulation 77 (Power to Remove Difficulty).
- (iv) The Regulations under which the Petitioner has claimed ACE, do not fulfil the conditions considering the nature of expenses, balance life of the asset and the limited information supplied by the Petitioner.
- (v) The Petitioner has not provided any proper justification or documentary evidence for claiming ACE after the cut-off date as per Regulation 25(1) and Regulation 25(2) of the 2019 Tariff Regulations. The Petitioner has also not given detailed reasons for ACE claimed under Regulation 76 and Regulation 77 and has put the onus on the Commission to decide and undertake analysis of claims. It is well settled in law that 'Power to Relax' and 'Power to Remove Difficulty' have to be exercised in rare cases. The Petitioner has not presented/cited any extra-ordinary circumstances or events which have led to incurring such ACE. In view of the same, the items claimed under ACE in terms of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations ought to be rejected.



(vi) In most of the heads of ACE, the Petitioner has not provided detailed reasoning for claiming such expenditure in the instant petition and has provided limited information in the tariff forms and Regulation number under which it is allegedly claimed. The Petitioner ought to have prepared a proper Detailed Project Report (DPR) along with cost benefit analysis for approval from the Commission. DVPCA requested the Commission to seek approval/sanction order copies for claiming such capital expenditure and also provide following information to justify its claim:

- a) Statutory/Safety Requirement
- b) Need for additional capitalization
- c) Technical justification
 - (i) Whether replacement of asset has outlived its normal span of life
 - (ii) Does the investment increase the efficiency in O&M?
- d) Prudence of the investment
- e) Urgency of the investment
- f) Overall benefits of such additional capitalization

(vii) In view of the above, there is no ground to allow ACE for 2019-24 period without proper submissions and justifications towards the expenses claimed by the Petitioner. Hence, the Commission may disallow additional capital expenditure and the corresponding decapitalisation claimed by the Petitioner.

157. In response, the Petitioner has submitted the following:

- (a) The Petitioner has already submitted details of ACE in the tariff forms along with sanction orders as per the 2019 Tariff Regulations.
- (b) The sanction orders relating to ACE has already been submitted with tariff forms for prudence check by the Commission. The contention of DVPCA is



misleading in this matter and requested to allow ACE as proposed for 2019-24 period.

158. The Petitioner vide Record of Proceedings for the hearing dated 13.7.2020, was directed to submit approval of the SCM/RPC regarding renovation and modernization of existing T&D System for 2019-24 period, supporting Form-7 and project specific approval or technical report justifying the augmentation.

159. In response, the Petitioner vide affidavit dated 12.8.2020 has submitted the detailed justification which are common to 2014-19 and 2019-24 periods and the same have already been mentioned above in the portion pertaining to truing up of ACE of 2014-19 tariff period. Therefore, the same are not being repeated here once again. However, the submissions of the Petitioner which are relevant and specific to 2019-24 period are as follows:

(1) DVC has claimed ACE, broadly under replacement category i.e. replacement of age-old equipment and upgradation/adoption of new technology in existing sub-station/transmission lines, in order to maintain uninterrupted 24x7 quality power supply to the Consumers.

(2) ACE has been claimed under Tariff Regulations pertaining to 'Additional Capital Expenditure' and 'Power to Relax', and not under 'Renovation and Modernisation'. The basic considerations for replacement of equipment and upgradation of network is because a significant portion of the grid was built more than 40 years ago and has been subjected to progressive replacement of equipment in different phases. This has resulted in co-existence of old/primitive equipment like electro-mechanical relays and bulk oil circuit breakers together with the latest Intelligent Electronic Devices (IED).



(3) With the growth of demand and generation capacity, increase in size and complexity of the grid and change in standardization of system requirement after the implementation of the 2003 Act and different Regulations framed thereunder and formation of National Grid, it became mandatory for DVC as a transmission utility to comply different regulatory requirements.

(4) The Petitioner approaches SCM/RPC for major addition of any 220 kV and 400 kV transmission lines and sub-stations which is of regional importance in respect of Grid stability, load flow through Grid network of Eastern Region and is to be constructed in tandem with integrated system planning for Eastern Region. In the tariff Petition, approval of SCM/ERPC for such type of work has been provided on case to case basis. As such, ACE has been claimed in line with the earlier claim against similar type of works during previous three tariff period i.e. 2004-09, 2009-14 and 2014-19 periods which the Commission has duly considered and allowed.

(5) As regards project specific approval or technical report justifying the augmentation, the Petitioner has submitted project specific approval and sanction orders against ACE claimed during 2019-24 tariff period.

(6) Therefore, the Petitioner has requested to allow such capital expenditure as claimed in the true-up petition for 2014-19 period and on projection basis for 2019-24 period, considering the mandate entrusted with DVC like other SEBs to supply 24X7 quality power supply to the consumers.

160. The Petitioner has submitted detailed Form-7 along with justification for claiming ACE as follows:



(₹ in lakh)

Elements	Regulations	2019-20	2020-21	2021-22	2022-23	2023-24	Justifications
Transmission Line and Sub-station (New/replacement work)	25(2), 76 and 77 of the 2019 Tariff Regulations	4791.70	4432.39	1572.93	432.46	622.46	(Replacement of old equipment and augmentation of additional equipment etc. in the existing T&D system of DVC

161. We have considered the submissions of the Petitioner and DVPCA. The Petitioner has claimed ACE during 2019-24 period for carrying out the replacement of old assets of the existing T&D System under heads, viz- (a) A-N stage and (b) Transmission Main Division for efficient and reliable operation. Further, the Petitioner has proposed to carry out the augmentation work in the existing T&D System in order to meet the requirement of additional consumers during 2019-24 tariff period. The Petitioner has submitted that ACE was allowed by the Commission during 2014-19 tariff period and the same is essentially required for efficient operation of the T&D System during 2019-24 tariff period since these are spill over items from 2014-19 tariff period.

162. The cut-off date of the project has already lapsed. ACE is being claimed for carrying out works of replacement of old asset and carrying out augmentation work in the existing T&D System. It is observed that the Petitioner has claimed ACE for 2019-24 period by combining spill over of ACE approved in 2014-19 and fresh ACE for 2019-24 period. The Petitioner has, however, not submitted any bifurcation of the same. The Petitioner is directed to submit the same at the time of truing up of tariff for 2019-24 period.

163. The Petitioner has not submitted any information regarding un-discharged liability included in the additional capitalisation during 2019-20 to 2023-24. Hence, the



opening capital cost alongwith ACE, is considered on cash basis for tariff calculation purpose.

164. The Petitioner has submitted that work was carried out as a part of works to be undertaken under 12th plan of T&D infrastructure of DVC which has been approved by the Board. We are of the view that it is difficult to reconcile the proposed ACE claimed by the Petitioner for 2019-24 tariff period. The Petitioner shall bifurcate ACE claimed in the following manner and submit details at the time of true up :

- (i) ACE towards transmission system (upto 33 kV)
 - (a) Transmission lines and associated line bays voltage wise
 - (b) Sub-station and sub-station bays voltage wise
- (ii) ACE towards Distribution System (11 kV and below)
 - (a) Distribution lines and associated line bays
 - (b) Sub-station and sub-station bays

165. The Petitioner is further directed to submit the following details of ACE claimed for 2019-24 period in the following manner at the time of true up:

- (a) The useful life of the assets which 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.



166. In view of the above, ACE claimed by the Petitioner is provisionally allowed under Regulation 25(2) of the 2019 Tariff Regulations towards determination of tariff for 2019-24 tariff period, subject to truing up and the same is as follows:

								(₹ in lakh)
Elements	Regulations	2019-20	2020-21	2021-22	2022-23	2023-24	Total ACE	Justification
Transmission Line and Sub-station (New/replacement work)	25(2), 76 and 77 of the 2019 Tariff Regulations	4791.70	4432.39	1572.93	432.46	622.46	11851.94	Replacement of old equipment and augmentation of additional equipment etc. in the existing T&D system of DVC

De-Capitalisation

167. The Petitioner has claimed de-capitalisation during 2019-24 period for carrying out the replacement of old assets of the existing T&D System under the heads, viz- (a) A-N stage and (b) Transmission Main Division for efficient and reliable operation and also to meet the latest Regulations. The Petitioner vide affidavit dated 12.8.2020 has submitted Tariff Form-10B (Statement of de-capitalization) for 2019-24 period as part of 2019-24 forms. De-capitalisation claimed by the Petitioner for 2019-24 tariff period is duly supported by audited cost certificate.

168. Accordingly, de-capitalisation allowed for existing T&D System of the Petitioner for 2019-24 tariff period, subject to truing-up is as follows:

						(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
De-capitalisation allowed subject to truing-up	128.81	210.56	74.03	0.56	13.21	

Capital Cost for 2019-24 Tariff Period

169. In view of above, the following opening capital expenditure, ACE/de-capitalization and closing capital expenditure has been considered for the purpose of determination of tariff for 2019-24 tariff period, subject to truing up:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening capital cost	166410.08	171072.97	175294.80	176793.70	177225.60
Add: ACE (For existing system)	4791.70	4432.39	1572.93	432.46	622.46
Less: De-capitalization	128.81	210.56	74.03	0.56	13.21
Closing capital cost	171072.97	175294.80	176793.70	177225.60	177834.85

170. Accordingly, details of the capital cost as on 1.4.2019, net ACE (after accounting for de-capitalisation) during 2019-24 period and capital cost as on 31.3.2024 in respect of the transmission assets, subject to truing-up, is as follows:

(₹ in lakh)

Capital Cost allowed (as on 1.4.2019)	Net ACE allowed after accounting for de-capitalisation					Capital Cost allowed (as on 31.3.2024)
	2019-20	2020-21	2021-22	2022-23	2023-24	
166410.08	4662.89	4221.83	1498.90	431.90	609.25	177834.85

Debt-Equity Ratio

171. 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.”

172. Debt-equity ratio is dealt in accordance with Regulations 18 of the 2019 Tariff Regulations. However, debt-equity ratio for de-capitalisation has been considered as per Regulation 26(2) the 2019 Tariff Regulations. Details of the 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, subject to truing-up, is as follows:

Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	Total
Additional Capitalization	Debt (70%)	3354.19	3102.67	1101.05	302.72	435.72	8296.36
	Equity (30%)	1437.51	1329.72	471.88	129.74	186.74	3555.58
	Total (100%)	4791.70	4432.39	1572.93	432.46	622.46	11851.94
De-Capitalization	Debt (50.00%)	-64.41	-105.28	-37.02	-0.28	-6.61	-213.59
	Equity (50.00%)	-64.41	-105.28	-37.02	-0.28	-6.61	-213.59
	Total (100%)	-128.81	-210.56	-74.03	-0.56	-13.21	-427.17
Net Additional Capitalization (Amount)	Debt (Amount)	3289.79	2997.39	1064.04	302.44	429.12	8082.77
	Equity (Amount)	1373.11	1224.44	434.86	129.46	180.13	3342.00



	Total (Amount)	4662.89	4221.83	1498.90	431.90	609.25	8008.49
Net Additional Capitalization (in %)	Debt (%)	70.55%	71.00%	70.99%	70.03%	70.43%	3416.29
	Equity (%)	29.45%	29.00%	29.01%	29.97%	29.57%	11424.78
	Total (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

173. Accordingly, overall 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, subject to truing-up, is as follows:

Funding	Capital cost (as on 1.4.2019) (₹ in lakh)	(in %)	Total capital cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	112243.60	67.45%	120326.37	67.66%
Equity	54166.48	32.55%	57508.48	32.34%
Total	166410.08	100.00%	177834.85	100.00%

Depreciation

174. Regulation 33 and Regulation 72(2)(iii) of the 2019 Tariff Regulations provide as follows:

“33. Depreciation:

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

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

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

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable; Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at



regulated tariff:

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

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset. (5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the 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 upto 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

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

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

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

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

“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.”

175. 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 Weighted Average Rate of Depreciation (WAROD) @ 7.752% applicable for truing-up of 2018-19, has also been considered for the entire period of 2019-24 period. We have considered the same for calculation of depreciation. The Petitioner is, however, directed to submit detailed computation of year wise WAROD at the time of truing-up of tariff of 2019-24 period.

176. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation upto 31.3.2019. The following depreciation is allowed in respect of the transmission assets for 2019-24 tariff period:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	166410.08	171072.97	175294.80	176793.70	177225.60
ACE	4791.70	4432.39	1572.93	432.46	622.46
De-capitalisation	-128.81	-210.56	-74.03	-0.56	-13.21
Closing Gross Block	171072.97	175294.80	176793.70	177225.60	177834.85
Average Gross Block	168741.53	173183.89	176044.25	177009.65	177530.23
Weighted Average Rate of Depreciation (WAROD) (in %)	7.752	7.752	7.752	7.752	7.752
Aggregated Depreciable Value	147884.44	152035.28	154737.67	155640.10	156114.81
Depreciation during the year	0.00	878.65	2890.96	967.42	475.21
Cumulative Depreciation at the beginning of the year	151272.55	151156.63	151846.71	154672.68	155639.60
Remaining Aggregated Depreciable Value at the end of the Year	0.00	0.00	0.00	0.00	0.00

Interest on Loan (“IoL”)

177. 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”.*

178. The Petitioner vide affidavit dated 12.8.2020 has submitted Form-9C in respect of the transmission assets for 2019-24 tariff period. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on loan and rate of interest to be considered based on allocated loan of T&D System of DVC.



179. We have considered the submissions of the Petitioner. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets for 2019-24 tariff period, subject to truing up, is as follows:

(₹ in lakh)					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	112243.60	115533.38	118530.78	119594.81	119897.25
Cumulative Repayments up-to Previous Year	105184.81	105184.81	106063.45	108954.42	109921.83
Net Loan-Opening	7058.79	10348.58	12467.32	10640.40	9975.42
Addition due to ACE	3354.19	3102.67	1101.05	302.72	435.72
De-Capitalisation	-64.41	-105.28	-37.02	-0.28	-6.61
Repayment during the year	0.00	878.65	2890.96	967.42	475.21
Net Loan-Closing	10348.58	12467.32	10640.40	9975.42	9929.33
Average Loan	8703.68	11407.95	11553.86	10307.91	9952.37
Weighted Average Rate of Interest on Loan (in %)	10.12	10.15	10.15	10.15	10.15
Interest on Loan	880.81	1157.91	1172.72	1046.25	1010.17

Return on Equity (“RoE”)

180. 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 cutoff date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to 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 truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

181. RoE allowed in respect of the transmission assets for 2019-24 tariff period, subject to truing up, is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	54166.48	55539.59	56764.02	57198.89	57328.35
Addition due to ACE	1437.51	1329.72	471.88	129.74	186.74
DE-Capitalisation	-64.41	-105.28	-37.02	-0.28	-6.61
Closing Equity	55539.59	56764.02	57198.89	57328.35	57508.48
Average Equity	54853.03	56151.80	56981.46	57263.62	57418.41
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	0.00	0.00	0.00	0.00	0.00
Rate of Return on Equity (Pre-tax)	15.50	15.50	15.50	15.50	15.50
Return on Equity (Pre-tax)	8502.22	8703.53	8832.13	8875.86	8899.85

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

182. Regulation 35(3)(a), Regulation 35(4) and Regulations 8(1)(iii) of the 2019 Tariff Regulations specify the norms for the O&M Expenses for the transmission system and the same is follows:

“35. Operation and Maintenance Expenses

....

(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)					



Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
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.”

“8. Tariff determination

(1) Tariff in respect of a generating station may be determined for the whole of the generating station or unit thereof, and tariff in respect of a transmission system may be determined for the whole of the transmission system or element thereof or associated communication system:

Provided that:

(i).....

(ii).....

(iii) Tariff of the associated communication system forming part of transmission system which has achieved commercial operation prior to 1.4.2014 shall be as per the methodology approved by the Commission prior to 1.4.2014.”

183. The Petitioner has submitted revised Form-2 vide affidavit dated 12.8.2020 and has claimed O&M Expenses for various elements included in the transmission assets for 2019-24 tariff period and the same are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line	1623.46	1681.19	1739.63	1802.18	1863.75
Sub-station bays	31107.46	32192.58	33332.25	34493.50	35711.39
Transformer capacity	3040.67	3151.99	3263.31	3377.13	3497.20
Communication system	1176.41	1212.31	1249.40	1287.72	1327.31
Total O&M Expenses for existing T&D system	36948.00	38238.07	39584.59	40960.53	42399.65



184. The Petitioner has not claimed additional bays during 2019-24 and has claimed the same number of bays (as considered in 2014-19 tariff period) for 2019-24 tariff period vide affidavit dated 12.8.2020. The details of the same are as follows:

Particulars	400 kV	220 kV	132 kV & Below	Total No. of Bays
Total bays of existing elements as on 1.4.2019 (A)	49	209	1544	1802
Total bays added during 2019-24 tariff period (B)	0	0	0	0
Total bays of existing elements as on 31.3.2024 (C)=(A)+(B)	49	209	1544	1802

185. The Petitioner has not claimed additional line length during 2019-24 tariff period and has claimed the same line length (as considered in 2014-19 tariff period) for 2019-24 tariff period vide affidavit dated 12.8.2020. The details of the same are as follows:

Summary of Transmission Line Length					
Particulars	Single Circuit Single Conductor	Double Circuit Single Conductor	Double Circuit Double Conductor	Double Circuit Four Conductor	Total
	(km)	(km)	(km)	(km)	(km)
Total line length as on 1.4.2019	1698.29	2824.74	148.20	0.00	4671.23
Addition during 2019-24	0.00	0.00	0.00	0.00	0.00
Transmission line length as on 31.3.2024	1698.29	2824.74	148.20	0.00	4671.23

186. The Petitioner has claimed O&M Expenses of transformer capacity for 2019-24 tariff period in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations. The Petitioner vide affidavit dated 12.8.2020 has submitted the following details of transformer capacity for 2019-24 tariff period:

Summary of Transformer Capacity					
Particulars	765 kV	400 kV	220 kV	132 kV & Below	Total
	(MVA)	(MVA)	(MVA)	(MVA)	(MVA)
Total capacity of transformers for existing T&D system as on 1.4.2019	0	2505	4850	3901	11256

187. The Petitioner has claimed O&M Expenses on account of Communication System forming part of transmission system which has achieved commercial operation



before and after 1.4.2014 for 2019-24 tariff period. Accordingly, the Petitioner has submitted the claim of Communication System under the provisions of Regulation 8(1)(iii) and Regulation 35(4) of the 2019 Tariff Regulations and the same is as follows:

(₹ in lakh)

O&M Expenses for Communication System						
(a) O&M Expenses of Communication System which has achieved commercial operation prior to 1.4.2014 (as per Regulation 8(1)(iii) of the 2019 Tariff Regulations)						
Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	Normalised O&M Expenditure
O&M Expenses (actual as per accounts)	804.75	733.21	836.62	836.62	964.99	837.48
	2012-13	2013-14				
Base year O&M Expenses (as per Regulation 29(3)(c) of the 2014 Tariff Regulations)	862.78	888.83				
	2019-20	2020-21	2021-22	2022-23	2023-24	
O&M Expenses for 2019-24 period (escalated @3.32% over 2013-14 expenses as per Regulation 29(3)(c) of the 2014 Tariff Regulations) (I)	1081.25	1117.15	1154.24	1192.56	1232.15	
(b) O&M Expenses of Communication System which has achieved commercial operation after 1.4.2014 (as per Regulation 8(1)(iii) and Regulation 35(4) of the 2019 Tariff Regulations)						
Particulars	Amount			Remarks		
Communication asset value as on 31.3.2014 (A)	1738.38			Refer Appendix 11 of tariff forms		
Communication asset value as on 31.3.2019 (B)	6496.51					
Value of communication assets added after 31.3.2014 (C = B - A)	4758.13					
	2019-20	2020-21	2021-22	2022-23	2023-24	
Normative O&M Expenses for communication assets executed after 1.4.2014 @2% of project cost (II)	95.16	95.16	95.16	95.16	95.16	95.16
Total Normative O&M Expenses for Communication system (I+II)	1176.41	1212.31	1249.40	1287.72	1327.31	

188. We have considered the submissions of the Petitioner. O&M Expenses allowed in respect of the transmission assets are as follows:

Sub-station bays

- (a) With respect to sub-stations bays, the Petitioner has not claimed any additional sub-station bays for 2019-24 period and the bays approved as on 31.3.2019 are considered for determination of O&M Expenses and the



details of the sub-station bays are as follows:

Details	400 kV (number)	220 kV (number)	132 kV & below (number)	Total Substation bays (number)
Sub-station bays	0	131	1368	1499

- (b) Total O&M Expenses towards sub-station bays are calculated and allowable O&M Expenses in respect of the elements of transmission assets are as follows:

a. Sub-station bays

(₹ in lakh)

	2019-20	2020-21	2021-2022	2022-23	2023-24
Norms for 220 kV sub-station bays	22.51	23.3	24.12	24.96	25.84
Number of bays	131	131	131	131	131
O&M Expenses allowed	2948.81	3052.30	3159.72	3269.76	3385.04
132 kV and below	16.08	16.64	17.23	17.83	18.46
Number of bays	829	829	829	829	829
O&M Expenses allowed	13330.32	13794.56	14283.67	14781.07	15303.34
Total Sub-station bays O&M Expenses allowed	16279.13	16846.86	17443.39	18050.83	18688.38

* As compared with 2014-19 tariff Period, the O&M towards bays is reduced in 2019-24 period, due to reduction of the normative O&M norms of Substation bays for 2019-24 period.

b. Transformers:

- (c) The Petitioner has claimed 2505 MVA for 400 kV level. We have not allowed any O&M Expenses towards 400 kV bays which are part of power house and, therefore, we are not inclined to allow any O&M Expenses towards 400 kV level transformers. However, the Petitioner is directed to clarify whether the cost of ICTs at 400 kV level is part of generating station or not and the same will be reviewed at the time of truing up.
- (d) Total O&M Expenses towards transformers at 200 kV level and 132 and below level is calculated and the allowable O&M Expenses are as follows:



(₹ in lakh)

	2019-20	2020-21	2021-2022	2022-23	2023-24
Norms for 220 kV transformers (₹ lakh per MVA)	0.245	0.254	0.263	0.272	0.282
Total 220 kV transformer capacity in MVA	4850	4850	4850	4850	4850
O&M Expenses allowed	1188.3	1231.9	1275.6	1319.2	1367.7
Norms for 132 kV and below transformers (₹ lakh per MVA)	0.245	0.254	0.263	0.272	0.282
Total 132 kV Transformer Capacity in MVA	3901	3901	3901	3901	3901
O&M Expenses allowed towards transformers	955.75	990.85	1026	1061.07	1100.082

c. Transmission lines

- (e) The Petitioner has not added any new lines and the line length existing as on 31.3.2019 is considered for calculation of O&M Expenses towards transmission lines and the allowable O&M Expenses towards transmission lines are as follows:

(₹ in lakh)

Details	2019-20	2020-21	2021-2022	2022-23	2023-24
Norms of Single Circuit (Single Conductor)	0.252	0.26	0.27	0.279	0.289
Total line length in km	1698.3	1698.3	1698.3	1698.29	1698.29
O&M Expenses allowable	427.97	441.56	458.54	473.82	490.81
Norms of Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Total line length in km	2824.7	2824.7	2824.7	2824.74	2824.74
O&M Expenses allowable	1064.93	1104.47	1141.19	1183.57	1223.11
Norms of Double Circuit Double Conductor	0.881	0.912	0.944	0.977	1.011
Total line length in km	148.2	148.2	148.2	148.2	148.2
O&M Expenses allowable	130.56	135.16	139.90	144.79	149.83
Total transmission lines O&M Expenses	1623.46	1681.19	1739.63	1802.18	1863.75

d. Communication System:

- (f) O&M Expenses towards Communication System allowable is as follows:

(₹ in lakh)

Details	2019-20	2020-21	2021-2022	2022-23	2023-24
O&M Expenses of Communication System which has achieved commercial operation after 1.4.2014 (as per Regulations 8(1)(iii) and Regulation 35(4) of the 2019 Tariff Regulations)	1081.25	1117.15	1154.24	1192.56	1232.15



O&M Expenses of Communication System which has achieved commercial operation after 1.4.2014 (as per Regulations 8(1)(iii) and Regulation 35(4) of the 2019 Tariff Regulations)	95.16	95.16	95.16	95.16	95.16
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(g) The Petitioner is directed to submit the actual O&M Expenses for 2019-24 period at the time of truing up.

189. The total allowable O&M Expenses in respect of the transmission system have been 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 O&M Expenses per bay, per MVA and per km, respectively in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations. Further, O&M Expenses on account of Communication System have been allowed in accordance with Regulation 8(1)(iii) and Regulation 35(4) of the 2019 Tariff Regulations. Accordingly, O&M Expenses allowed in respect of the elements of transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line claimed	1623.46	1681.19	1739.63	1802.18	1863.75
Transmission Line allowed	1623.46	1681.19	1739.63	1802.18	1863.75
Sub-station bays claimed	31107.46	32192.58	33332.25	34493.50	35711.39
Sub-station bays	16279.13	16846.86	17443.39	18050.83	18688.38
Transformer Capacity claimed	3040.67	3151.99	3263.31	3377.13	3497.20
Transformer Capacity allowed	955.75	990.85	1026.00	1061.07	1100.82
Communication claimed	1176.41	1212.31	1249.40	1287.72	1327.31
Communication allowed	1176.41	1212.31	1249.40	1287.72	1327.31
Total O&M Expenses for Existing T&D system claimed	36948.00	38238.07	39584.59	40960.53	42399.65



Total O&M Expenses for Existing T&D system	20034.75	20731.21	21458.39	22201.80	22979.52
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Additional O&M expenses:

190. The Petitioner has requested for grant of additional O&M Expenses towards Mega insurance, CISF expenditure and expenditure for subsidiary activity and has submitted that these expenses are in addition to the O&M expenses.

Additional O&M Expenses	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
CISF and other Security Expenses	2060.08	2132.37	2206.99	2284.32	2364.37
Mega insurance	42.96	44.47	46.02	47.64	49.31
Share of subsidiary activity	250.73	259.52	268.61	278.02	287.77
DVC's share of savings in interest cost due to loan re-financing	12.85	17.13	11.09	5.84	4.27

191. We have considered the submissions of the Petitioner. The Relevant Regulation of the 2019 Tariff Regulations is as follows:

“35(3)(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.”

192. The Petitioner has submitted that the security expenses on estimation basis and the same is allowed. However, the Petitioner is given liberty to submit the actual security expenses with all relevant details at the time of true-up for appropriate consideration of the Commission.

193. With respect to Mega insurance and Share of subsidiary activity, the Petitioner has not submitted the details. The Petitioner is at liberty to approach the Commission at the time of truing up with relevant details and the same will be reviewed at the time of truing up shall be considered on merits, after prudence check.



DVC's share of savings in interest cost due to loan restructuring

194. The Petitioner has prayed to allow the sharing of benefits accrued due to loan refinancing as per the provisions of Regulation 61 of the 2019 Tariff Regulations in the instant petition.

195. DVPCA has submitted that based on proposed disallowance on additional capitalization by DVPCA, the loan balances would consequently undergo a change resulting into reduced loan amount than that projected by the Petitioner and accordingly submitted that savings in interest cost due to loan re-financing will be NIL. We have considered the submissions of the Petitioner and DVPCA. The sharing of benefits accrued due to loan refinancing in respect of the transmission assets as per the provisions of Regulation 61 of the 2019 Tariff Regulations have been allowed on provisional basis, which shall be subject to true-up.

Pension & Gratuity contribution

196. The Petitioner has claimed P&G contribution, over and above, the normative O&M expenses, on projection basis, as under:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
2347.66	2458.01	2573.56	2694.53	2821.19

197. The Respondent, DVPCA has reiterated its submissions made under this head (as in paragraph 109 above) for the 2014-19 tariff period. The Respondent, has pointed out that the projected P&G contribution for the 2019-24 tariff period has been claimed by the petitioner by considering an yearly escalation of 4.70% on the Actuarial value as on 31.3.2019 i.e. ₹ 6,19,420.12 lakh and thereafter, the station wise projected share of P&G contribution for the 2019-24 tariff period is based on apportionment on Plant capacity basis.



198. We have considered the submissions of the Petitioner and DVPCA. We are not inclined to allow P&G contribution for the 2019-24 tariff period at this stage. The Petitioner is directed to submit the actual O&M expenses for T&D for 2019-24 tariff period at the time of truing up. The claim of the Petitioner for P&G will be analysed vis a vis the allowable normative O&M as done for 2014-19 tariff period and decided after prudence check.

Common Office Expenses:

199. The petitioner has claimed the expenses pertaining to common office such as Direction office, Central Office, Other Offices, Subsidiary Activities, IT Centre and R&D caters services to all the generating stations as well as composite Transmission and Distribution Systems. The petitioner has submitted that the total cost of common assets computed based on the capital cost as on 31.3.2019 as per Audited Accounts of 2018-19 have been apportioned based on the opening capital cost of all the generating projects and T&D systems as on 1.4.2019. This methodology was adopted by the Commission in the order dated 27.9.2013 in Petition No. 270/TT/2012 for T&D system. Based on the above, the petitioner has furnished the details of projected expenditure in respect of the Common Offices for the period 2019-24 as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total of Generating Station	1423.20	1527.40	1546.65	1330.11	1212.42
T&D network	113.35	121.65	123.18	105.93	96.56
Total	1536.55	1649.04	1669.83	436.05	1308.98

200. We have considered the submissions of the petitioner. It is observed that the Commission has allowed the Common Office expenses vide order dated 6.8.2009 in Petition No. 66/2005 and order dated 27.9.2013 in Petition No. 270/TT/2012. Moreover, the petitioner has submitted that the methodology adopted for apportioned for cost of common asset in line with the methodology adopted by the Commission in



Order dated 27.9.2013 in Petition No. 270/TT/2012 for T & D network. Accordingly, we allow the common office expenses for the tariff period 2019-2024 as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
T&D network	113.35	121.65	123.18	105.93	96.56

201. In view of the above, the allowable additional O&M Expenses is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Common office expenses apportioned to T&D network	113.35	121.65	123.18	105.93	96.56
DVC's share of savings in interest cost due to loan restructuring	12.85	17.13	11.09	5.84	4.27
CISF & Other Security Expenses	2060.08	2132.27	2206.99	2284.32	2364.37
Total	2186.28	2271.05	2341.26	2396.09	2465.2

Interest on Working Capital ("IWC")

202. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify 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"*

(2)

(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;”

203. The Petitioner has submitted that it has computed IWC for 2019-24 period considering 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 it 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 it 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 are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	3005.21	3109.68	3218.76	3330.27	3446.93
O&M Expenses (O&M Expenses for one month)	1669.56	1727.60	1788.20	1850.15	1914.96
Receivables (Receivables equivalent to 45 days of annual fixed cost)	3741.63	4002.63	4356.66	4201.20	4226.00
Total Working Capital	8416.41	8839.91	9363.62	9381.62	9587.89
Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	1014.18	994.49	983.18	985.07	1006.73

Annual Transmission Charges for 2019-24 Tariff Period

204. The transmission charges allowed in respect of the transmission assets for 2019-24 tariff period, subject to truing up, are as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.00	878.65	2890.96	967.42	475.21
Interest on Loan	880.81	1157.91	1172.72	1046.25	1010.17
Return on Equity	8502.22	8703.53	8832.13	8875.86	8899.85
Interest on Working Capital	1014.18	994.49	983.18	985.07	1006.73
O&M Expenses	20034.8	20731.2	21458.4	22201.8	22979.5
Total	30431.96	32465.78	35337.38	34076.40	34371.48

Additional Claims for 2019-24 Tariff Period

205. The Petitioner has submitted certain additional claims for 2019-24 tariff period. The Petitioner is directed to submit such claims, if any, at the time of truing up of tariff of 2019-24 period wherein the same shall be examined on merit and after applying prudence check.

Filing Fee and Publication Expenses

206. 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.

Goods and Services Tax

207. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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



Security Expenses

209. The Petitioner has claimed security expenses as additional O&M Expenses in 2014-19 tariff period. The same has been dealt in the relevant para in this order and found that the security expenses have already been included in the normative O&M Expenses allowed for 2014-19 tariff period.

210. The Security expenses for 2019-24 tariff period are being allowed on provisional basis and shall be trued-up as per the provisions of Regulation 35(3)(c) of the 2019 Tariff Regulation at the end of tariff period after prudence check.

Sharing of Transmission Charges

211. The Petitioner has prayed for recovery of transmission charges for 2014-19 tariff period from consumers by considering the tariff determined by the Commission as an input cost of Aggregate Revenue Requirement (ARR) while determining the retail tariff by WBERC and JSERC.

212. The Commission vide order dated 9.8.2019 in Petition No. 150/TT/2018 for the existing T&D System as on 1.4.2014, held as follows:

“76. We have considered the submissions of the Petitioner. As prayed by the Petitioner, the transmission charges allowed in this order shall be included as an input cost in the Aggregate Revenue Requirement and recovered from the distribution consumers on approval by the WBSERC and JSERC. These charges shall not be included in the PoC charges, as specified in the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.”

213. The Commission vide order dated 5.2.2020 in Petition No. 335/TT/2018 in respect of the new transmission elements (transmission lines and sub-stations) added after 1.4.2014, held as follows:

“82. We have considered the submissions of the Petitioner. As discussed in para 3, Petitioner filed the instant petition for new transmission elements by separating the existing elements, tariff for which was determined in Commission’s Order dated 9.8.2019 in Petition no. 150/TT/2018. Accordingly, the transmission charges allowed for the new elements vide this order, along with those determined in Petition no 150/TT/2018, shall be included as an input cost, in the aggregate revenue requirement and recovered from the distribution consumers on approval by the WBSERC and JSERC. These charges shall not



be included in the PoC charges, as specified in the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.”

214. The Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 in respect of the existing and new 400 kV inter-State transmission lines of the T&D Network of the DVC for 2017-19 period, 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.”

215. It is observed that the Petitioner has prayed for separate sharing methodology for 2014-19 and 2019-24 tariff periods. The Petitioner's prayer for sharing of trued-up charges of 2014-19 tariff period is in line with the earlier orders dated 9.8.2019 in Petition No. 150/TT/2018 and dated 5.2.2020 in Petition No. 335/TT/2018 for 2014-19 tariff period, wherein the Commission directed that the charges of existing as well as new T&D System (i.e. Non-ISTS system) shall be included as an input cost, in the ARR and recovered from the distribution consumers on approval by WBSERC and JSERC and shall not be included in the PoC charges as specified in the 2010 Sharing Regulations.

216. The Commission vide order dated 5.2.2020 in Petition No. 334/TT/2018 allowed the charges to be recovered under Regulation 43 of the 2014 Tariff Regulations and the 2010 Sharing Regulations (i.e. PoC mechanism) only in case of 4 number of existing and new 400 kV inter-State transmission lines which were certified by ERPC as non-ISTS lines carrying ISTS power (i.e. deemed ISTS lines) w.e.f. 1.4.2017. Therefore, except for those 4 number of 400 kV transmission lines being treated as deemed ISTS lines, the Commission has consistently maintained that charges of all the other transmission assets forming part of T&D System (old and new) of the Petitioner, shall be included as an input cost in the ARR and recovered from the



distribution consumers on approval by WBSERC and JSERC and shall not be included in the PoC pool.

217. In line with order dated 9.8.2019 in Petition No. 150/TT/2018, the transmission charges allowed in respect of the transmission assets for 2019-24 period, in this order shall be included as an input cost in the ARR and recovered from the distribution consumers on approval by WBSERC and JSERC.

218. 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	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	73901.89	75724.17	78050.01	78129.97	68037.23

- b) In addition to the AFC for 2014-19 tariff period, the following additional O&M Expenses are allowed

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Common office expenses apportioned to T&D network	105.10	99.82	99.43	107.37	112.07
Sinking fund for T&D assets of DVC	2394.71	2394.71	2394.71	-	-
DVC's share of savings in interest cost due to loan restructuring				72.32	108.02
Total	2499.81	2494.53	2494.14	179.69	220.09

219. The additional O&M Expenses shall be payable in twelve (12) equal monthly instalments.

220. AFC allowed in respect of the transmission assets for 2019-24 tariff period in this order is as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	30431.96	32465.78	35337.38	34076.40	34371.48

221. In addition to the AFC for 2019-24 tariff period, the following additional O&M expenses are allowed on provisional basis, which shall be subject to true-up and the same is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Common office expenses apportioned to T&D network	113.35	121.65	123.18	105.93	96.56
DVC's share of savings in interest cost due to loan restructuring	12.85	17.13	11.09	5.84	4.27
CISF & Other Security Expenses	2060.08	2132.27	2206.99	2284.32	2364.37
Total	2186.28	2271.05	2341.26	2396.09	2465.2

222. The additional O&M Expenses shall be payable in twelve (12) equal monthly instalments.

223. This order disposes of Petition No. 482/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

