

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 571/GT/2020

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member**

Date of Order: 14th March 2023

In the matter of

Petition for truing up of annual fixed charges for the period 2014-19 and for determination of tariff for the period 2019-24 in respect of Mejia Thermal Power Station, Unit Nos. 5 & 6 (500 MW)

And

In the matter of

Damodar Valley Corporation,
DVC Towers, VIP Road
Kolkata

...Petitioner

Vs

1. BSES-Rajdhani Power Limited,
PMG Office, 2nd Floor, B-Block,
BSES Bhawan, Nehru Place,
Delhi- 110 019
2. BSES-Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
Delhi- 110072
3. Tata Power Delhi Distribution Limited,
Grid Substation Building, Hudson Lines,
Kingsway Camp, New Delhi- 110 009
4. Madhya Pradesh Power Management Company Limited,
Shakti Bhavan, Vidyut Nagar,
Jabalpur – 482008
5. West Bengal State Electricity Distribution Company Limited,
Block 'DJ' Sector-11, Salt Lake City,
Kolkata-700 091



6. Jharkhand Bijli Vitran Nigam Limited
Engineering Building, HEC, Dhurwa,
Ranchi- 834 004
7. Damodar Valley Power Consumers Association
9, Acharya Jagadish Chandra Bose Road,
Kolkata-700017

...Respondents

Parties Present:

Ms. Anushree Bardhan, Advocate, DVC
Shri Srikanta Pandit, DVC
Shri Subrata Ghosal, DVC
Shri Samit Mandal, DVC
Ms. Megha Bajpeyi, BRPL
Shri R.B. Sharma, Advocate, BRPL
Shri Mohit Mudgal, Advocate, BYPL
Shri Sachin Dubey, Advocate, BYPL
Shri Anurag Naiki, MPPMCL
Shri Mansoor Ali Shoket, Advocate, TPDDL
Shri Nitin Kala, Advocate, TPDDL
Shri Kunal Singh, Advocate, TPDDL
Ms. Shefali Sobti, TPDDL

ORDER

This petition has been filed by the Petitioner, Damodar Valley Corporation truing-up of tariff of Mejia TPS, Unit Nos. 5 to 6 (2 x 250 MW) (in short 'the generating station') for the period 2014-19, in terms of Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short 'the 2014 Tariff Regulations') and for determination of tariff of the generating station for the period 2019-24, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations').

2. The Petitioner is a statutory body established by the Central Government under the Damodar Valley Corporation Act, 1948 (hereinafter referred to as the 'DVC Act') for the development of the Damodar Valley, with three participating Governments,



namely, the Central Government, the Government of West Bengal and the Government of Jharkhand. The generating station is a non-pit head station, with an installed capacity of 500 MW, comprising of two units of 250 MW each. The dates of commercial operation of the units of the generating station are as under:

	Actual COD
Unit-I	29.2.2008
Unit-II	24.9.2008

Background

3. Petition No. 66/2005 was filed by the Petitioner for approval of the revenue requirements and for determining the tariff for electricity related activities, that is, the generation, transmission and distribution of electricity, undertaken by it for the period from 1.4.2004 to 31.3.2009. The Commission by its order dated 3.10.2006 determined tariff in respect of the generating stations and inter-state transmission systems of the Petitioner, after allowing a special dispensation to the Petitioner to continue with the prevailing tariff till 31.3.2006. Against the Commission's order dated 3.10.2006, the Petitioner filed Appeal No. 273/2006 before the Appellate Tribunal for Electricity (hereinafter referred to as 'APTEL') on various issues. Similarly, appeals were also filed before APTEL by some of the objectors/ consumers, namely, Maithon Alloys Ltd. and others (Appeal No. 271/2006), Bhaskhar Shrachi Alloys Ltd. and others (Appeal No. 272/2006), State of Jharkhand (Appeal No. 275/2006) and the West Bengal State Electricity Regulatory Commission (Appeal No. 8/2007) challenging the order of the Commission dated 3.10.2006 on various grounds. APTEL by its judgment dated 23.11.2007 disposed of the said appeals ('Appeal Nos. 273/2006 & batch') as under:

"113. In view of the above, the subject Appeal No. 273 of 2006 against the impugned order of Central Commission passed on October 3, 2006 is allowed to the extent described in this judgment and we remand the matter to Central Commission for denovo consideration of the tariff order dated October 3, 2006 in terms of our findings and observations made hereinabove and according to the law. Appeal No. 271, 272 and 275 of 2006 and No. 08 of 2007 are also disposed of, accordingly"



4. Against the above judgment dated 23.11.2007, some of the parties namely, the Central Commission (Civil Appeal No.4289/2008), the West Bengal State Electricity Regulatory Commission (Civil Appeal No.804/2008), M/s Bhaskar Shrachi Alloys Ltd & Ors (Civil Appeal No 971-973/2008), the State of Jharkhand (Civil Appeal No.4504-4508/2008) and the State of West Bengal (Civil Appeal No.1914/2008) filed Civil Appeals before the Hon'ble Supreme Court. Thereafter, in terms of the directions contained in the judgment of APTEL dated 23.11.2007 in Appeal No. 273/2006 and other connected appeals, for a denovo consideration of the order dated 3.10.2006, the Petition No. 66/2005 (with I.A. Nos.19/2009 and 23/2009) was heard by the Commission and tariff of the generation and inter-state transmission systems of the Petitioner for the 2006-09 tariff period was re-determined by order dated 6.8.2009, subject to the final outcome of the said Civil Appeals pending before the Hon'ble Supreme Court. Against the Commission's order dated 6.8.2009, the Petitioner filed appeal (Appeal No.146/2009) before APTEL on various issues. However, APTEL by its judgment dated 10.5.2010, rejected the prayers of the Petitioner and upheld the order of the Commission dated 6.8.2009. Against the judgment of APTEL dated 10.5.2010, the Petitioner filed appeal (Civil Appeal No.4881/2010) before the Hon'ble Supreme Court and the Hon'ble Court by interim order dated 9.7.2010 stayed the directions of APTEL for refund of excess amount billed, until further orders. However, on 17.8.2010 the Hon'ble Court had passed interim order in the said appeal. During the pendency of these appeals, the Commission, in terms of the judgment of APTEL, while notifying the 2014 Tariff Regulations, applicable for the 2014-19 tariff period, incorporated Regulation 53, containing special provisions related to the generating stations of the Petitioner. Accordingly, the tariff of the generating stations of the Petitioner for the period 2014-19, was determined by this Commission, subject to the



final decision of the Hon'ble Supreme Court, in the said civil appeals. Similar provisions were made by the Commission under Regulation 72, while notifying the 2019 Tariff Regulations, applicable for the period 2019-24.

5. Meanwhile, the Hon'ble Supreme Court vide its common judgment dated 23.7.2018 in Civil Appeal No(s) 971-973/2008 (along with C.A Nos. 1914/2008, C.A No. 4504-4508/2008 and C.A No. 4289/2008) dismissed all the Civil Appeals thereby affirming the judgment of APTEL dated 23.11.2007 in Appeal Nos. 273/2006 & batch. Further, vide judgment dated 3.12.2018, the Hon'ble Supreme Court dismissed the Civil Appeal No. 4881/2010 filed by the Petitioner, against the judgment of APTEL dated 10.5.2010. In this background and in terms of the special provisions under the 2014 and 2019 Tariff Regulations, the tariff of the generating station of the Petitioner, is being trued-up for the period 2014-19 and is also determined for the period 2019-24, as stated in the subsequent paragraphs.

6. The Commission vide its order dated 16.3.2017 in Petition No. 144/GT/2015 had approved the capital cost and the annual fixed charges of the generating station for the period 2014-19, as under:

Capital cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	208194.63	208218.43	208218.43	208218.43	208218.43
Add: Additional Capital Expenditure allowed (B)	23.80	0.00	0.00	0.00	0.00
Closing Capital Cost (C) = (A) + (B)	208218.43	208218.43	208218.43	208218.43	208218.43
Average Capital Cost (D) = (A+C) / 2	208206.53	208218.43	208218.43	208218.43	208218.43

Annual fixed charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	16559.61	16560.56	16560.56	16560.56	16560.56
Interest on loan	4651.68	2867.42	1081.06	93.69	0.00
Return on Equity	9681.60	9682.16	9682.16	9682.16	9682.16
Interest on Working Capital	4062.51	4071.76	4076.69	4106.79	4160.88
O&M Expenses	11950.00	12700.00	13500.00	14350.00	15255.00
Compensation Allowance	0.00	0.00	0.00	0.00	50.00



	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-Total (A)	46905.41	45881.89	44900.47	44793.19	45708.59
Additional claims allowed					
Share of Common Office Expenses	79.08	72.83	68.03	67.96	67.17
Additional O&M on account of Ash Evacuation, Mega Insurance, CISF Security and Share of subsidiary activities	0.00	0.00	0.00	0.00	0.00
Share of Pension & Gratuity Contribution	0.00	0.00	0.00	0.00	0.00
Sinking Fund contribution	1222.19	1307.74	1399.28	1497.23	1602.04
Sub-Total (B)	1301.27	1380.57	1467.31	1565.19	1669.20
Total Annual Fixed Charges (C = A+B)	48206.68	47262.46	46367.78	46358.38	47377.80

Truing-up of tariff for the period 2014-19

7. Regulation 8(1) of the 2014 Tariff Regulations provides as follows:

“8. *Truing up*

(1) The Commission shall carry out truing up exercise along with the Tariff petition filed for the next Tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.”

8. In terms of the above Regulation, the Petitioner has filed the present petition, for truing-up of tariff for the period 2014-19 and has claimed the capital cost (in Form 1(I) of the petition) and annual fixed charges as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital cost (A)	208194.63	212509.80	212529.84	214244.29	214260.70
Add: Addition during the year/ period (B)	23.80	18.47	953.29	18.17	3211.77
Less: De-capitalization during the year / period (C)	0.00	0.00	58.91	0.00	364.12
Less: Reversal during the year / period (D)	0.00	0.00	0.00	0.00	0.00
Less: Undischarged liabilities (E)	8.63	3.07	0.00	1.76	0.00
Add: Discharges during the year / period (F)	4300.00	4.64	820.08	0.00	6.03
Closing Capital Cost (G)=(A+B-C-D-E+F)	212509.80	212529.84	214244.29	214260.70	217114.39
Average Capital Cost (H)=(A+G/2)	210352.21	212519.82	213387.07	214252.50	215687.55



Annual Fixed Charges claimed*(Rs in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	15291.42	15449.10	15517.47	15580.51	15701.93
Interest on loan	4853.85	3365.10	1778.80	460.45	12.74
Return on Equity	12375.30	12563.40	12614.67	12665.83	12784.34
Interest on Working Capital	5568.60	5709.59	5808.16	5749.23	5707.28
O&M Expenses	11950.00	12700.00	13500.00	14350.00	15255.00
Water Charges	0.00	1624.64	886.81	529.32	574.48
Compensation Allowance	0.00	0.00	0.00	0.00	50.00
Sub-Total (A)	50039.18	51411.82	50105.92	49335.34	50085.77
Capital Spares	18.63	0.00	0.00	0.00	0.00
DVC's share of savings in interest cost due to loan restructuring	0.00	0.00	0.00	19.03	0.41
Impact of Pay revision due to recommendation of 7th Pay Commission	0.00	0.00	607.31	764.39	538.41
Impact of GST as 'Change in law'	0.00	0.00	0.00	33.55	114.70
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	1222.19	1307.74	1399.28	1497.23	1602.04
Share of P&G	741.83	1904.97	2093.49	4739.55	895.52
Share of Common Office Expenditure	97.40	91.13	77.47	83.89	89.77
Expenses due to Ash evacuation, Mega insurance, CISF expenditure & Expenditure for Subsidiary activities	4199.69	3364.39	4422.84	2894.12	2560.70
Sub-Total (B)	6279.74	6668.23	8600.40	10031.77	5801.55
Total annual fixed charges claimed (C = A+B)	56318.92	58080.05	58706.32	59367.11	55887.32

9. The Respondent, DVPCA has filed its reply vide affidavit dated 8.7.2020 and the Petitioner has filed its rejoinder, vide affidavit dated 5.11.2020. The Respondent BRPL has filed its reply vide affidavit dated 24.5.2021. The Respondent MPPMCL has filed its reply vide affidavit dated 24.5.2021. The petition was heard on 25.5.2021, through video conferencing and the Commission, after directing the Petitioner to submit certain additional information, reserved its order in the petition. The Respondent, DVPCA has filed additional reply vide affidavit dated 21.6.2021. In response to the directions of the Commission, the Petitioner vide affidavit dated 1.7.2021, has filed the additional information after serving copies on the Respondents. The Respondent TPDDL, has filed its reply vide affidavit dated 9.7.2021. The Petitioner vide its affidavit dated



16.7.2021 has filed its rejoinders to the replies of Respondents DVCPA, BRPL, MPPMCL and TPDDL. However, as the order in the petition could not be passed, prior to the Chairperson Shri P.K. Pujari demitting office, the Petition was re-listed and heard through virtual hearing on 10.8.2022 and the Commission, based on the submissions of the parties, reserved its order in the petition. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner in this petition, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

10. Regulation 9 (3) of the 2014 Tariff Regulations provides as follows:

“9. Capital Cost:

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

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014.*
 - (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
 - (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.*
- xxx...”*

11. The Commission vide its order dated 9.2.2017 in Petition No. 115/GT/2015 had allowed the closing capital cost of Rs. 208194.63 lakh, as on 31.3.2014. The same has been considered as the opening capital cost as on 1.4.2014, in accordance with Regulation 9(3)(a) of the 2014 Tariff Regulations.

Additional Capital Expenditure

12. Regulation 14 of the 2014 Tariff Regulations, provides as under:

“14. Additional Capitalization and De-capitalization:

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

- (i) Un-discharged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*



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

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

(v) Change in law or compliance of any existing law:

Provided that 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 shall be submitted along with the application for determination of tariff."

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

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;

(ii) Change in law or compliance of any existing law;

(iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and

(iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.

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

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;

(ii) Change in law or compliance of any existing law;

(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;

(iv) Deferred works relating to ash pond or ash handling system in the original scope of work;

(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the 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;

(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;



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

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

Provided that any expenditure on acquiring the 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:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal / lignite-based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernization (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation."

13. The details of the additional capital expenditure allowed in order dated 16.3.2017 in Petition No. 144/GT/2015 is summarized below:

<i>(Rs. in lakh)</i>		
Sl. No.	Head of Works/ Equipment	Projected additional capital expenditure allowed
	2014-15	
1	Building	
	002/34 Residential Building (V & VI)(0111024302)	2.61
2	Barrage, Barrage Gates & Other Civil works	
	River Intake Pipeline	13.46
3	Power House Plant & Machinery:	
	Boiler feed pump (V and VI)	7.73
	Total allowed	23.80

14. The Petitioner in Form-9A of the petition, has claimed the additional capital expenditure incurred for the period 2014-19. The Petitioner has submitted that IDC and undischarged liabilities, were maintained on a consolidated year to year basis, but not item wise, and therefore, the additional capital expenditure claimed for each item is on accrual basis. Accordingly, the additional capital expenditure claimed by the



Petitioner for the period 2014-19 is as under:

	<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Building	2.61	0.00	47.03	0.00	0.00	49.64
Barrage & Barrage Gates & other civil works	13.46	(-)13.46	31.50	0.00	0.00	31.50
Powerhouse Plant and Machinery	7.73	31.93	802.13	18.17	3192.99	4052.94
Switchgear	0.00	0.00	26.96	0.00	0.00	26.96
Other Assets	0.00	0.00	45.67	0.00	18.78	64.45
Grand Total	23.80	18.47	953.29	18.17	3211.77	4225.50

15. The Respondent BRPL has submitted that the Petitioner had included the accrual IDC for individual additional capitalization, which is not permissible, as there is no provision under Regulation 14 of the 2014 Tariff Regulations (related to the additional capitalization) to allow accrual IDC. The Respondents TPDDL and MPPMCL have submitted that any claim under Regulation 14(2) of the 2014 Tariff Regulations is liable to be rejected, as the same is applicable only to new projects. Similarly, Regulation 14(3)(vii) of the 2014 Tariff Regulations, under which the Petitioner has claimed additional capital expenditure for (a) rectification of steam turbine generator; (b) replacement of items of Hydrogen generation plant; (c) procurement of automatic coal sampling system, is not allowable as Regulation 14(3)(vii) of the 2014 Tariff Regulations is not applicable to coal based stations. Accordingly, the Respondent has submitted that the additional capital expenditure claimed under the said Regulations, ought to be disallowed. As regards the Petitioner contention that it has claimed residual expenditure, which was kept in CWIP, and transferred from CWIP to fixed assets, the Respondents have submitted that the residual expense, was kept for works which were still under the category of CWIP and hence, not complete. They have stated that the residual work has not been kept as liability on their completion after cut-off date and therefore, the claim does not fall under



Regulation 14(2)(iv) of the 2014 Tariff Regulations. The Respondents have further submitted that the Petitioner, under the garb of Regulation 54 - 'Power to relax', and Regulation 55 - 'Power to remove difficulties', cannot seek to override the provisions of the 2014 Tariff Regulations.

16. The Respondent, DVPCA has submitted that the Petitioner has not provided any proper justification or documentary evidence for claiming the additional capital expenditure incurred after the cut-off date as per Regulations 14(3)(iv) and (vi) of the 2014 Tariff Regulations. It has also pointed out that the Petitioner has not detailed out the reasons for the additional capitalization claimed under Regulations 54 and Regulation 55 of the 2014 Tariff Regulations and that these powers are to be exercised in rare cases and not ordinarily. The Respondent has stated that the Petitioner has not referred to any extra-ordinary circumstances or events, which has led to incurring such additional capitalisation and accordingly, the items claimed under additional capitalisation, in terms of Regulations 54 and 55 of 2014 Tariff Regulations, may be rejected. The Respondent has further submitted that the claims of the Petitioner lack detailed justification and may therefore be disallowed by the Commission. The Respondent, DVPCA has furnished a comparative statement of the additional capital expenditure claimed by the Petitioner and which can be allowed, as under:

(Rs. in lakh)

	2014-15		2015-16		2016-17		2017-18		2018-19	
	Claimed	As per DVPCA	Claimed	As per DVPCA	Claimed	As per DVPCA	Claimed	As per DVPCA	Claimed	As per DVPCA
Building	2.61	2.61	0.00	0.00	47.03	0.00	0.00	0.00	0.00	0.00
Barrage & Barrage Gates & other civil works	13.46	13.46	(-) 13.46	(-)13.46	31.50	0.00	0.00	0.00	0.00	0.00
Powerhouse Plant and Machinery	7.73	7.73	31.93	0.00	802.13	113.53	18.17	0.00	3192.99	2125.94
Switchgear	0.00	0.00	0.00	0.00	26.96	0.00	0.00	0.00	0.00	0.00
Other Assets	0.00	0.00	0.00	0.00	45.67	0.00	0.00	0.00	18.78	6.39
Grand Total	23.80	23.80	18.47	(-)13.46	953.29	113.53	18.17	0.00	3211.77	2132.33



17. The Petitioner, in its rejoinder, has submitted that the items of additional capital expenditure claimed under Regulation 14(2) of the 2014 Tariff Regulations were under the original scope of work and was completed within the cut-off date. It has submitted that most of the capital expenditure was transferred to fixed assets during the period 2009-14 and a part remained in CWIP, pending final settlement with M/s BHEL, the EPC contractor. The Petitioner while pointing out that the capital expenditure approved till 31.3.2014, remained low, compared to the actual capital expenditure, including bookings under CWIP and hence, the consumers/beneficiaries had enjoyed lower tariff till 31.3.2014. The Petitioner has also submitted that it has claimed additional capital expenditure under Regulation 14(2) of the 2014 Tariff Regulations, as the same is nearest to the provisions for such kind of claim and therefore, to remove the difficulty, the Petitioner has claimed additional capital expenditure under Regulation 14(2) of the 2014 Tariff Regulations read with Regulation 54 (Power to Relax) and Regulation 55 (Power to Remove Difficulty). It has further submitted that some rectification / replacement work(s) had to be carried out for efficient operation of the generating station and/or to comply with the directives of MOP, GOI and the same were claimed under Regulation 14(3) of the 2014 Tariff Regulations, since such work(s) were completed after the cut-off date. The Petitioner has claimed the additional capital expenditure under Regulation 14(3) of the 2014 Tariff Regulations, read with Regulation 54 and Regulation 55 to give effect to the provisions of these Regulations and allow the claim of the Petitioner. The Petitioner has submitted that in Petition No. 144/GT/2015 for the generating station, it had claimed projected additional capital expenditure on a conservative basis, based on the past experience and due to this, the annual fixed charges of the generating station, was lower during the period 2014-19, as a result of which, the beneficiaries enjoyed a lower tariff. The Petitioner has



stated that all the additional capital expenditure proposed for the generating station are critical to ensure reliable, safe and efficient operation of the generating station and is therefore unavoidable.

18. The matter has been considered. Based on the submissions and documents on record, and on prudence check, the claim of the Petitioner for additional capital expenditure claimed for the period 2014-19, is examined and allowed as under:

<i>(Rs. in lakh)</i>						
Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
2014-15						
1.	Building					
	Residential Building	2.61	14 (3) (vi)	This expenditure has already been approved by the Commission in the Tariff Order of MTPS Unit 5 & 6 for 2014-19 dt. 16.03.2017 in Petition No. 144/GT/2015.	This expenditure has already been considered in order dated 16.3.2017 in Petition No. 144/GT/2015 under Regulation 14(3)(v) of the 2014 Tariff Regulations, therefore the same is allowed .	2.61
	Total	2.61				2.61
2.	Barrage & Barrage Gates & other civil works					
	River intake pipeline	13.46	14(3)(vi), 14(2)(iv) & 54 & 55	This expenditure has already been approved by the Commission in the Tariff Order of MTPS Unit 5 & 6 for 2014-19 dt. 16.03.2017 in Petition No. 144/GT/2015. DVC submitted that this expenditure has been inadvertently booked in the asset code for Unit 5 & 6 instead of Unit 7 & 8 in FY 2014-15. This work is within the Original Scope of unit 7 & 8 (under Sl. No. 9 (13) of	It is observed that the Petitioner has inadvertently booked additional capital expenditure for River Intake Pipeline in the asset code for Unit 5 & 6 instead of Unit 7 & 8 in FY 2014-15, which has been later on rectified in 2015-16, where the amount has been debited from Unit 5 & 6 and credited to Unit 7 & 8. In view of the above,	0.00



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				Sanction Order of MTPS 7 & 8 dt. 31.03.2015). Rectification entries have been made in FY 2015-16 where the amount has been credited from Unit 5 & 6 and debited to Unit 7 & 8	the additional capital expenditure is not allowed.	
	Total	13.46				0.00
3.	Power House Plant and Machinery					
	Boiler Feed Pump	7.73	14 (3) (vi)	This expenditure has already been approved by the Hon'ble Commission in the Tariff Order of MTPS Unit 5 & 6 for 2014-19 dt. 16.03.2017 in Petition No. 144/GT/2015	As the Commission has already allowed the additional capital expenditure vide order dated 16.03.2017 in Petition No. 144/GT/2015 under Regulation 14(3)(v) of the 2014 Tariff Regulations, the same is allowed	7.73
	Total	7.73				7.73
	Total amount claimed	23.80				
	Total amount allowed					10.34
2015-16						
1.	Barrage & Barrage Gates & other civil works					
	River intake pipeline	(-)13.46	14(3)(vi), 14(2)(iv) & 54 & 55	This expenditure has already been approved by the Commission in the Tariff Order of MTPS Unit 5 & 6 for 2014-19 dt. 16.3.2017 in Petition No. 144/GT/2015. It has submitted that this expenditure has been inadvertently booked in the asset code for Unit 5 & 6 instead of Unit 7 & 8 in 2014-15. This work is within the Original Scope of unit 7 & 8 (under Sl.	It is observed that the Petitioner has inadvertently booked additional capital expenditure for River Intake Pipeline in the asset code for Unit 5 & 6 instead of Unit 7 & 8 in 2014-15, which has been later on rectified in 2015-16, where the amount has been debited from Unit 5 & 6 and credited to Unit 7 & 8.	0.00



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				No. 9 (13) of Sanction Order of MTPS 7 & 8 dated 31.3.2015). Rectification entries have been made in FY 2015-16 where the amount has been credited from Unit 5 & 6 and debited to Unit 7 & 8	Since the claim of the petitioner has not been considered 2014-15, the rectification is not considered in this year.	
	Total	(-) 13.46				0.00
2.	Power House Plant & Machinery					
	008/06/02 Steam TURB GEN (V & VI) MTPS (0111084317)	31.93	14 (2)(iv), 54 & 55	This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. In that event, the Petitioner should have claimed the additional capital expenditure under Regulation 14(3)(v) of the 2014 Tariff Regulations. Accordingly, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	31.93
	Total	31.93				
	Total amount claimed	18.47				
	Total amount allowed					31.93
	2016-17					
1.	Building					
	Office building	0.02	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the original scope (under Sl. No. 2 of Sanction Order of	The expenditure claimed is the balance amount paid to contractor after full and final settlement for	0.02
	Earthing & Lighting Prot System	16.30				16.30
	LT/HT Cable SY	30.71				30.71



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL.	works executed and capitalized prior to cut-off date. Accordingly, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	
	Total	47.03				47.03
2.	Barrage & Barrage Gates & other Civil works					
	Coal Hopper	29.60	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	29.60



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	Cooling tower	1.89	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	1.89
	Total	31.50				31.50
3.	Power House Plant & Machinery					
	008/02 Boiler Feed Pump (V & Vi) MTPS (0111084308)	20.14	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. In view of this, the said additional capital expenditure claimed are allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	20.14
	008/01 Boiler & Accs. Equip (V&VI) MTPS (0111084301)	68.58				68.58
	008/06/02 STEAM TURB GEN (V & VI) MTPS (0111084317)	80.90				80.90
	008/03 HP HEATERS (V&VI) MTPS (0111084309)	63.53				63.53
	008/09/01 GEN TRANSFORMER (V&VI) MTPS (0111084336)	2.31				2.31



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	008/05/04 BALL VALVES (V & Vi) MTPS (0111084315)	7.00		as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL		7.00
	008/05/02 P/CYCLE VALVES (V&VI) MTPS (0111084313)	0.82				0.82
	008/08/02 CONTROL VALVES (V&VI) MTPS (0111084329)	0.92				0.92
	008/10 Coal Handling Plant (V&VI) MTPS (0111084338)	78.20				78.20
	008/06/03 RE JOINTS, F/TANK (V&VI) MTPS (0111084318)	0.03				0.03
	008/01/08 ELEVATOR FOR TG BUILDING (V & VI) MTPS (0111084307)	0.05				0.05
	008/11/01 A H P (V& VI) MTPS (0111084339)	23.03				23.03
	008/07/01 STATION C&I CONT (V&VI) MTPS (0111084321)	28.45				28.45
	008/08/07 P T PLANT (V&VI) MTPS(0111084333)	4.03				4.03
	008/08/06 Chlorination Plant (V & VI) MTPS (0111084332)	6.30				6.57
	008/08/08 D M Plant (V &VI) MTPS (0111084334)	0.21				0.21
	008/08/09 Fire PROT & DETE (V&VI) MTPS (0111084335)	155.77				155.77



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	008/08/03 Misc. Pumps, RE JT (V&VI) MTPS (0111084330)	3.67				3.67
	008/06 Central Lube Oil Purification Unit U 5&6 MTPS (0111084316)	11.50				11.50
	Fuel Oil Tank (0111080264)	79.12				79.12
	008/07/04 Switch Yard (V&VI) MTPS (0111084323)	43.53				43.53
	008/05/03 Thermal Insulation (V&VI) MTPS (0111084314)	2.16				2.16
	008/04/03 SUMP Pumps (V&VI) MTPS (0111084310)	0.67				0.67
	008/08 Plate heat exchanger (V&VI) MTPS (0111084327)	6.96				6.96
	008/08/05 HP/LP Dosing (V&VI) MTPS (0111084331)	0.72				0.72
	008/07/09 DC Battery & CH (V&VI) MTPS (0111084326)	113.53		This expenditure is towards replacement of existing UPS battery banks with new battery banks. UPS battery bank caters various services i.e. providing uninterrupted DC supply to DC drives, Control & instrumentation equipment's etc. M/s Exide Industries limited, the OEM, recommended to replace all the existing old battery banks in their	The asset has been claimed under Regulation 14(2)(vii) of the 2014 Tariff Regulations, which is applicable only for stations other than coal and lignite-based stations. From the submissions of the Petitioner, we find no merit to allow the additional capital expenditure towards replacement, by	0.00



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				inspection report. Accordingly, the replacement was made. The Petitioner has also submitted the inspection report of M/s Exide.	invoking Regulation 54 and Regulation 55 of the 2014 Tariff Regulations. Hence the claim of the Petitioner is not allowed .	
	Total	802.13				688.60
4.	Switchgear					
	013/01 KV Switch Gear (V & VI) MTPS (0111134301)	4.36	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL.	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the additional capital expenditure claimed is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	4.36
	013/02 LV Switch Gear (V & VI) MTPS (0111134302)	20.05				20.05
	013/03 LT Bus Duct (V & VI) MTPS (0111134305)	2.56				2.56
	Total	26.96				26.96
5.	Other Assets					
	016/13 Scientific/Lab. Instrument (MTPS V & VI) (0111164302)	0.96	14(2)(iii), 14(2)(iv), 54 & 55	This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the additional capital	0.96
	016/18 Air Conditioning Plant (O/Assets) (MTPS V & VI) (0111164303)	30.87	14 (2) (iv), 54 & 55			30.87
	016/20 Internal Telephone Sys	10.77	14 (2) (iv), 54 & 55			10.77



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	(O/Assets) (MTPS V & VI) (0111164305)			was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL.	expenditure claimed is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	
	016/24 CRANE HOIST & CH/PU (MTPS V & VI) (0111164306)	1.92	14 (2) (iv), 54 & 55			1.92
	016/25 ELEVATOR MTPS 5&6 (0111164307)	0.93	14 (2) (iv), 54 & 55			0.93
	Air Compressor (O/assets) (0111160325)	0.22	14 (2) (iv), 54 & 55			0.22
	Total	45.67				45.67
	Amount claimed	953.29				
	Amount allowed					839.77
2017-18						
1.	Power House Plant and Machinery					
	008/02 Boiler Feed Pump (V & Vi) MTPS (0111084308)	4.18	14 (2) (iv), 54 & 55	This expenditure is towards the work which is within the original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	4.18
	008/08/06 Chlorination plant (V & VI) MTPS (0111084332)	0.26	14 (2) (iv), 54 & 55			0.26
	008/01/02 Tube Mills (V&VI) MTPS (0111084303)	0.72	14 (2) (iv), 54 & 55			0.72
	008/06/04 TG, LP, CW Piping (V&VI) MTPS (0111084319)	13.01	14 (2) (iv), 54 & 55			13.01
	Amount claimed	18.17				



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
Amount allowed						18.17
2018-19						
1.	Power House Plant and Machinery					
	008/06/02 STEAM TURB GEN (V & VI) MTPS (0111084317)	1836.13	14 (3) (vii), 54 & 55	This expenditure is towards the rectification work carried out by M/S BHEL for rectification of generator stator fault in MTPS Unit 6. The Unit 6 tripped on 15.03.2018; due to Stator Inter-turn fault and Stator Earth fault. Work Order was placed on M/S BHEL for carrying out fault identification and rectification works. BHEL undertook the inspection and repairing work that included testing, replacement of stator bars, complete rewinding of the stator, replacement of the damaged overhang insulation. As observed by BHEL in the Root Cause Analysis report, at the time of failure all generator parameters were observed well within the operating limits. However, there was a flash over at the stator winding bars of the generator that initiated the fault. After completion of the rectification work, the unit was successfully synchronized to the grid on 03.08.2018. Copies of M/S	Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based stations. It is not evident from the submissions of the Petitioner, as to the reasons for the failure of turbo generator in within about 10 years of its operation. Further, the Petitioner has not furnished any details regarding the guarantee, warranty, and insurance availed. Accordingly, we are not inclined to allow the expenditure claimed at this stage. However, the Petitioner is granted liberty to claim this item separately through appropriate petition along with detailed justification / supporting documents, including internal report, if any, which shall be considered in	0.00



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				BHEL's Root Cause Analysis (RCA) report submitted.	accordance with law.	
	008/01/10 AUXILLIARY PRDS (V&VI) MTPS(0111084306)	122.57	14 (3) (vii), 54 & 55	This expenditure is towards replacement of the existing Electrolysis HM Modules and associated items of the Hydrogen generation plant. The Hydrogen generation plant (Make: Teledyne Energy Systems, a US based Company) having two sets of hydrogen generators was put in to service in 2012. The plant has been rendering continuous service since its inception. Hydrogen gas generated from hydrogen plant is used for generator cooling. The Hydrogen generation plant was under shutdown for eight (8) months due to trouble in the electrolysis HM modules of both the hydrogen generators. M/s. Sukan Engineering Private Limited (SEPL), Mumbai, the regular and genuine authorized representative of M/s Teledyne Energy Systems (USA) in India, suggested to replace the existing Electrolysis HM Modules with new modules along with some other spares	Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based stations. Considering the fact that said item is crucial for the running of the plant and the OEM has also suggested the replacement of the existing Electrolysis HM Modules, with new modules, we are inclined to allow the claim of the Petitioner, under Regulation 14(3) (vii) of the 2014 Tariff Regulations, in exercise of the power to relax under Regulations 54 of the 2014 Tariff Regulations, along with de-capitalization of Rs 58.91 lakh.	122.57



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				which are readily available. As per recommendation of M/S Sukan, cost involved for repairing of the existing faulty modules would be at par with the purchase price of the new modules. Accordingly, the old modules were replaced with the new modules. The Petitioner has submitted the copies of authorization letter from M/S Teledyne and MOM between M/S Sukan and DVC.		
	008/10 Coal Handling Plant (V&VI) MTPS (0111084338)	167.23	14 (3) (vii), 54 & 55	This expenditure is towards procurement and installation of Automatic Coal Sampling System. Checking & control of coal quality is vital for Fuel Management for which proper sampling method must be adopted. Installation of Automatic Coal Sampling System eases that job and facilitates collection of coal samples in a standard & faster manner preventing any kind of human error or human bias. The sample collected by the Coal Sampling System is comparatively true representative of the coal provided. Coal sample collection through Coal	Considering the submissions of the Petitioner, the additional capital expenditure claimed is allowed .	167.23



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				Sampling Units (CSU) and testing of the same in laboratory helps to assess the quality of coal in various ways. It assists the thermal power producers to settle the disputes with the coal suppliers by identifying the true sample of coal. It also helps to control the quality of coal fed to the bunkers by facilitating proper blending/ mixing of coals of different grades by knowing the coal qualities of different sources with the help of the lab test results. Installation of Automatic Coal Sampling System was also required to comply with Gazette of India Notification (Extraordinary) Regd. No. D.L. - 33004 / 99 issued by the Ministry of Power, GOI on 31.03.2016.		
	008/01/01 Steam Generator (V&VI) MTPS (0111084302)	68.04		This expenditure is towards the work which is within the Original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the said additional capital expenditure claimed is	68.04
	008/01/02 Tube Mills (V&VI) MTPS (0111084303)	48.16				48.16
	008/05/03 Thermal Insulation (V&VI) MTPS (0111084314)	1.75				1.75
	008/07/07 P.A. System (V&VI)	0.42				0.42



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	MTPS (0111084325)			residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL.	allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	
	008/01 Boiler & Accs. Equip (V&VI) MTPS (0111084301)	263.24				263.24
	008/02 Boiler Feed Pump (V & Vi) MTPS (0111084308)	25.37				25.37
	008/06/02 STEAM TURB GEN (V & VI) MTPS (0111084317)	202.70				202.70
	008/03 HP HEATERS (V&VI) MTPS (0111084309)	11.49				11.49
	008/01/03 ID FAN MOTORS (V&VI) MTPS (0111084304)	2.98				2.98
	008/07/09 DC Battery & CH (V&VI) MTPS (0111084326)	3.85				3.85
	008/05 Piping Valve & Insul. (V&VI) MTPS (0111084311)	15.21				15.21
	008/05/01 Butterfly Valves (V&VI) MTPS (0111084312)	6.18				6.18
	008/05/02 P/Cycle Valves (V&VI) MTPS (0111084313)	0.66				0.66
	008/05/04 Ball Valves (V & Vi) MTPS (0111084315)	0.35				0.35
	008/01/10 Auxiliary PRDS (V&VI) MTPS (0111084306)	1.55				1.55
	008/07/03 DG SET (V&VI) MTPS (0111084322)	1.99				1.99



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	008/08 Plate heat exchanger (V&VI) MTPS (0111084327)	2.19				2.19
	008/08/01 Self-cleaning strainers (V&VI) MTPS (0111084328)	0.57				0.57
	008/08/02 control valves (V&VI) MTPS (0111084329)	3.57				3.57
	008/06 Central lube oil purification UNITU 5&6 MTPS (0111084316)	0.54				0.54
	008/07/05 LV P/Transformer (V&VI) MTPS (0111084324)	3.02				3.02
	008/09/01 GEN Transformer (V&VI) MTPS (0111084336)	22.92				22.92
	008/04/03 SUMP PUMPS (V&VI) MTPS (0111084310)	1.31				1.31
	008/10 Coal Handling Plant (V&VI) MTPS (0111084338)	105.86				105.86
	008/01/07 ESP RECTIFIERS (V&VI) MTPS (0111084305)	1.36				1.36
	008/11/01 A H P (V & VI) MTPS (0111084339)	35.55				35.55
	008/07 CONTROL & RELAY PANEL (V&VI) MTPS (0111084320)	0.66				0.66
	008/07/01 STATION C&I CONT (V&VI) MTPS (0111084321)	60.68				60.68



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	FUEL OIL TANK (0111080264)	0.49				0.49
	008/12/02 FUEL OIL P H DYK (V &VI) MTPS (0111084340)	13.21				13.21
	008/01/08 ELEVATOR FOR TG BUILDING (V & VI) MTPS (0111084307)	0.77				0.77
	008/06/03 RE JOINTS, F/TANK (V&VI) MTPS (0111084318)	3.80				3.80
	008/06/04 TG,LP,CW PIPING (V&VI) MTPS (0111084319)	76.36				76.36
	008/07/04 SWITCH YARD (V&VI) MTPS (0111084323)	21.45				21.45
	008/08/03 MISC PUMPS, RE JT (V&VI) MTPS (0111084330)	3.22				3.22
	008/08/05 HP/LP DOSING (V&VI) MTPS (0111084331)	0.59				0.59
	008/08/06 CHLORINATION PLANT (V & VI) MTPS (0111084332)	2.69				2.69
	008/08/07 P T PLANT (V&VI) MTPS (0111084333)	7.68				7.68
	008/08/08 D M PLANT (V &VI) MTPS (0111084334)	11.16				11.16
	008/08/09 FIRE PROT & DETE (V&VI) MTPS (0111084335)	12.51				12.51



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
2.	008/09/05 Chimney (V&VI) MTPS (0111084337)	20.96				20.96
	Total claimed	3192.99				
	Total allowed					1356.86
	Other Assets					
	016/13 Scientific /Lab. Instrument (MTPS V & VI) (0111164302)	6.39	14 (2) (iv), 14 (3) (iii), 14 (3) (vii), 54 & 55	This expenditure is towards the work which is within the original scope (under Sl. No. 2 of Sanction Order of MTPS 5 & 6 dt. 09.03.2009). The work was already executed within the cut-off date. The major expenditure was already transferred to Fixed Asset. Only the residual expenditure, which was kept in CWIP, is now being transferred from CWIP to fixed assets as and when full and final settlement for the respective part of the job has been achieved between DVC and the EPC contractor - BHEL.	The expenditure claimed is the balance amount paid to contractor after full and final settlement for works executed and capitalized prior to cut-off date. Accordingly, the additional capital expenditure claimed is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	6.39
	016/24 CRANE HOIST & CH/PU (MTPS V & VI) (0111164306)	8.03				8.03
	Air Conditioning Machine (Window / Split AC) (0111160331)	2.71	54 & 55	This expenditure is towards procurement of air conditioning machines for the various offices / departments of the plant.	Considering the fact that the expenditure incurred is for assets which are minor in nature, the additional capital expenditure claimed is not allowed in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations	0.00
	016/05 Office Equip (Comp) (MTPS V & VI) (0111164301)	1.65	54 & 55	This expenditure is towards procurement of desktop computers to facilitate the activities at the various offices / departments of the plant.		0.00



Sl. No.	Asset/Work	Amount claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	Total claimed	18.78				
	Total allowed					14.42
	Total amount claimed	3211.77				
	Total amount allowed					1371.27

19. Accordingly, the additional capital expenditure allowed/disallowed for the period 2014-19 is summarised below:

	<i>(Rs. in lakh)</i>				
Additional capital expenditure	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	23.80	18.47	953.29	18.17	3211.77
Allowed	10.34	31.93	839.77	18.17	1371.27
Disallowed	13.46	(-)13.46	113.53	0.00	1840.50

De-capitalization

20. The Petitioner has furnished the asset-wise details for de-capitalization of Rs. 58.91 lakh for DC Battery & CH (V&VI) MTPS (0111084326) in 2016-17, Rs.311.02 lakh for Steam Turbine Generator (V &VI) MTPS (0111084317) in 2018-19 and Rs.53.10 lakh for Auxiliary PRDS (V&VI) MTPS (0111084306) in 2018-19. We have considered the decapitalization of Rs.53.10 lakh for Auxiliary PRDS (V&VI) MTPS (0111084306) in 2018-19 for the allowed assets only.

Un-discharged liabilities

21. The Petitioner has submitted total undischarged liabilities created during the period 2014-19 is Rs.13.46 lakh (Rs.8.63 lakh in 2014-15, Rs.3.07 lakh in 2015-16,



and Rs.1.76 lakh in 2017-18). It is also observed that the information submitted by the Petitioner, is not line with the 2014 Tariff Regulations i.e., no item-wise and year-wise position of undischarged/discharged liabilities is made available. In the absence of the item-wise availability of undischarged liability, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure, as against the additional capital expenditure claimed, during each year of the period 2014-19. Accordingly, as against an un-discharged liability of Rs.13.46 lakh claimed for the period 2014-19, a corresponding amount of Rs.8.57 lakh (Rs 3.75 lakh in 2014-15, Rs.3.07 lakh in 2015-16 and Rs.1.76 lakh in 2017-18) has been allowed.

Discharge of liability

22. The Petitioner has submitted the year-wise, total discharge of liabilities for Rs.5130.75 lakh during the period 2014-19 (Rs.4300.00 lakh in 2014-15, Rs.4.64 lakh in 2015-16, Rs.820.08 lakh in 2016-17; and Rs.6.03 lakh in 2018-19), instead of item wise liability discharges. In the absence of the item-wise availability of liabilities discharged, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure, as against the additional capital expenditure claimed, during each year of the period 2014-19. Further, the opening balance of the liability discharged, as on 1.4.2014, has been allowed to be discharged in full. Accordingly, the discharge of liabilities, allowed as part of the additional capital expenditure, corresponding to the assets allowed, are as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Un-discharged liabilities (A)	5426.91	1132.76	1131.21	313.72	315.48
Additions during the 2014-19 tariff period (corresponding to allowed additional capital expenditure) (B)	3.75	3.07	0.00	1.76	0.00
Discharges during the 2014-19 tariff period (corresponding to allowed additional capital expenditure) (C)	4297.90	4.62	817.48	0.00	6.03



	2014-15	2015-16	2016-17	2017-18	2018-19
Reversal of Liabilities out of liabilities added during the 2014-19 tariff period (corresponding to allowed additional capital expenditure) (D)	0.00	0.00	0.00	0.00	0.00
Closing Un-discharged liabilities (E) = (A+B-C-D)	1132.76	1131.21	313.72	315.48	309.45

Capital cost allowed for the period 2014-19

23. Accordingly, the capital cost approved for the period 2014-19 for the generating station for the period 2014-19, is as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	208194.63	212499.12	212532.61	214189.86	214206.27
Add: Addition during the year / period (B)	10.34	31.93	839.77	18.17	1371.27
Less: De- during the year /period (C)	0.00	0.00	0.00	0.00	53.10
Less: Undischarged liabilities (D)	3.75	3.07	0.00	1.76	0.00
Add: Discharges during the year /period (E)	4297.90	4.62	817.48	0.00	6.03
Closing Gross Block (F) = (A+B-C-D+E)	212499.12	212532.61	214189.86	214206.27	215530.47
Average Gross Block (F) = (A+F)/2	210346.87	212515.86	213361.23	214198.06	214868.37

Debt-Equity Ratio

24. Regulation 19 of the 2014 Tariff Regulations provides as follows:

"19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. 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 shall submit the resolution of



the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund 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 1.4.2014, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered:

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.”

25. The gross normative loan and equity amounting to Rs. 145736.24 lakh and Rs. 62458.39 lakh, as considered in order dated 16.3.2017 in Petition No. 144/GT/2015, has been retained for the purpose of tariff. Further, the admitted additional capital expenditure, has been allocated in the debt-equity ratio of 70:30. Accordingly, the details of debt-equity ratio, in respect of the generating station as on 1.4.2014, and as on 31.3.2019, are as follows:

	Capital Cost as on 1.4.2014 (Rs. in lakh)	%	Net Additional Capital Expenditure for 2014-19 tariff period (Rs. in lakh)	%	Capital Cost as on 31.4.2019 (Rs. in lakh)	%
Debt	145736.24	70%	5135.09	70%	150871.33	70%
Equity	62458.39	30%	2200.75	30%	64659.14	30%
Total	208194.63	100%	7335.84	100%	215530.47	100%

Return on Equity

26. Regulation 24 of the 2014 Tariff Regulations provides as follows:

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the 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:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return



of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
- (iv) the rate of return of a new project shall be reduced by 1% 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)/ Free Governor Mode
- (v) Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
- (vi) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- (vii) additional RoE shall not be admissible for transmission line having length of less than 50 kilometer.”

27. Regulation 25 of the 2014 Tariff Regulations provides as follows:

“25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 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 the 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 income on other income stream (i.e. income of non-generation or non-transmission business as the case may be) shall not be considered for the calculation of “effective tax rate”.

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

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

Illustration.

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = $15.50 / (1 - 0.2096) = 19.610\%$

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

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.



(b) Estimated Advance Tax for the year on above is Rs 240 crore.

(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore/Rs 1000 Crore = 24%

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$

(2) 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 2014-15 to 2018-19 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 transmission customers/DICs as the case may be on year-to-year basis."

28. The base rate of Return on Equity (ROE) as allowed under Regulation 24 of the 2014 Tariff Regulations, is to be grossed up with the effective tax rate, of the respective financial years. Also, in term of Regulation 25(3) of the 2014 Tariff Regulations, the generating company shall true-up the grossed up rate of ROE, at the end of every financial year, based on the 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 period 2014-19, on actual gross income of any financial year.

29. The Respondent, DVPCA has submitted that though the Petitioner has considered the effective tax rate of 20.9605%, 21.3416%, 21.3416%, 21.3416% and 21.548% for computation of ROE for the period 2014-19, the Audited accounts reveals that the Petitioner has not paid any actual tax during the period 2014-18. It has stated that for 2018-19, the deferred tax liability, which gets materialised in the year, pertains to the year 2012-13. Referring to Regulation 49 of the 2014 Tariff Regulations, the Respondent, DVPCA has stated that the claim is in contravention to the 2014 Tariff Regulations, and ROE is to be allowed at a rate of 15.50% only, without considering any effective tax rate. In response, the Petitioner, has clarified that there is no income

tax liability on the Petitioner for the 2014-19 tariff period. However, it has sought leave of the Commission, to claim income tax liability, if any, which may arise in future.

30. The matter has been considered. Since the Petitioner has not been paying any income tax in any of the financial year of the 2014-19 tariff period, 'Nil' rate has been considered as the effective tax rate for the purpose of grossing up of ROE, in terms of the 2014 Tariff Regulations. Accordingly, ROE has been worked out and allowed as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening (A)	62458.39	63749.74	63759.78	64256.96	64261.88
Addition of Equity due to additional capital expenditure (B)	1291.35	10.05	497.17	4.92	397.26
Normative Equity-Closing (C) = (A) + (B)	63749.74	63759.78	64256.96	64261.88	64659.14
Average Normative Equity (D) = (A+C)/2	63104.06	63754.76	64008.37	64259.42	64460.51
Return on Equity (Base Rate) (E)	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (F)	0.00%	0.00%	0.00%	0.00%	0.00%
Rate of Return on Equity (Pre-Tax) (G) = (E)/(1-F)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity (Pre-Tax) annualized (H) = (D)*(G)	9781.13	9881.99	9921.30	9960.21	9991.38

Interest on Loan

31. Regulation 26 of the 2014 Tariff Regulations provides as follows:

"26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of Decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization 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

(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 generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

32. Interest on loan has been worked out as under:

- a. The gross normative loan of Rs. 145736.24 lakh has been considered on 1.4.2014, in line with the gross normative loan balance as on 31.3.2014, in terms of order dated 9.2.2017 in Petition No. 115/GT/2015. In addition to this, loan component towards additional capitalization has been considered as per the approved debt equity ratio.
- b. Cumulative repayment of loan as on 31.3.2014 has been considered as cumulative repayment of loan as on 1.4.2014.
- c. Addition to normative loan on account of additional capital expenditure approved above has been considered on year-to-year basis.
- d. Depreciation allowed has been considered as repayment of normative loan, if any during the respective years of the period 2014-19. Proportionate adjustment has been made to the repayments on account of de-capitalizations considered in the additional capital expenditure approved above.



- e. In line with the provisions of the Regulations, the weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.4.2014 along with subsequent additions during the period 2014-19, if any, for the generating station. In case of loans carrying floating rate of interest the rate of interest as provided by the Petitioner has been considered for the purpose of tariff. The necessary calculation for interest on loan is as follows:

(Rs in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan (A)	145736.24	148749.38	148772.82	149932.90	149944.39
Cumulative repayment of loan up to previous year (B)	94337.21	109628.18	125076.94	140589.88	149944.39
Net Loan Opening (C) = (A) - (B)	51399.03	39121.20	23695.88	9343.02	0.00
Addition due to additional capital expenditure (D)	3013.14	23.44	1160.07	11.49	926.95
Repayment of loan during the year (E)	15290.97	15448.76	15512.93	9354.51	964.12
Less: Repayment adjustment on account of de-capitalization (F)	0.00	0.00	0.00	0.00	37.17
Net Repayment (G) = (E) - (F)	15290.97	15448.76	15512.93	9354.51	926.95
Net Loan Closing (H) = (C) + (D) - (G)	39121.20	23695.88	9343.02	0.00	0.00
Average Loan (I) = (C+H)/2	45260.11	31408.54	16519.45	4671.51	0.00
Weighted Average Rate of Interest of loan (J)	10.7235%	10.7132%	10.7469%	9.7859%	9.9983%
Interest on Loan (K) = (I)*(J)	4853.48	3364.87	1775.33	457.15	0.00

33. Further, the Petitioner has claimed its share of the savings due to loan restructuring (i.e., one-third share) amounting Rs.19.03 lakh and Rs.0.41 lakh for the years 2017-18 and 2018-19 respectively, in terms of Regulation 26(7) of the 2014 Tariff Regulations. In this regard, it is observed that the sharing of saving in interest due to re-financing of loan, if any, has to be undertaken between the parties, on actual basis, in accordance with the provisions of Regulation 26 (7) of the 2014 Tariff Regulations. However, in case of disputes, the parties may approach the Commission, in terms of Regulation 26(9) of the 2014 Tariff Regulations.



Depreciation

34. Regulation 27 of the 2014 Tariff Regulations provides as follows:

“27. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. 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 or elements thereof.

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 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 in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further 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 generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and 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-II 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 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project



(five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(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.”

35. Regulation 53(2)(iii) of the 2014 Tariff Regulations provides as follows:

“53. Special Provisions relating to Damodar Valley Corporation. (1) Subject to clause (2), these regulations 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:

(i)xx

(ii)xx

(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.”

36. Cumulative depreciation amounting to Rs.94337.23 lakh as on 31.3.2014, as per order dated 9.2.2017 in Petition No. 115/GT/2015, has been considered as the opening cumulative depreciation, as on 1.4.2014, for the purpose of tariff. The weighted average rate of depreciation, calculated in terms of the Regulation 53(2)(iii) read with Regulation 27 of the 2014 Tariff Regulations, has been considered for the calculation of depreciation. The cumulative depreciation has been adjusted on account of de-capitalization, considered during the period 2014-19, for the purpose of tariff. Accordingly, depreciation worked out and allowed as under:

	(Rs in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost (A)	210346.87	212515.86	213361.23	214198.06	214868.37
Value of freehold land included in average capital cost (B)	38.33	38.33	38.33	38.33	38.33
Aggregated Depreciable Value (C)= (A-B) *90%	189277.69	191229.78	191990.61	192743.76	193347.04
Remaining aggregate depreciable value at the beginning of the year (D) = [(C) - (Cumulative Depreciation of Previous year)]	94940.46	81601.58	66913.65	52153.86	37180.64



	2014-15	2015-16	2016-17	2017-18	2018-19
No. of completed years at the beginning of the year (E)	5.80	6.80	7.80	8.80	9.80
Balance useful life at the beginning of the year (F) = 25 - (E)	19.20	18.20	17.20	16.20	15.20
Weighted Average Rate of Depreciation (WAROD) (G)	7.2694%	7.2695%	7.2707%	7.2720%	7.2720%
Depreciation during the year/period (H) = Minimum of [(A)*(G) or (D)]	15290.97	15448.76	15512.93	15576.50	15625.29
Cumulative depreciation at the end of the year (before adjustment for de-capitalization) (I) = (H) + (K of the previous year)	109628.20	125076.96	140589.90	156166.39	171791.69
Less: Depreciation adjustment on account of de-capitalisation (J)	0.00	0.00	0.00	0.00	41.63
Cumulative depreciation at the end of the year* (K) = (I) - (J)	109628.20	125076.96	140589.90	156166.39	171750.06

Operation & Maintenance Expenses

37. Regulation 29(1)(a) of the 2014 Tariff Regulations provides O&M norms to the generating station of the Petitioner as follows:

<i>(Rs in lakh/MW)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
23.90	25.40	27.00	28.70	30.51

38. The O&M expenses claimed by the Petitioner is as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
11950.00	12700.00	13500.00	14350.00	15255.00

39. As the O&M expenses claimed by Petitioner, is in terms of Regulation 29(1)(a) of the 2014 Tariff Regulations, the same is allowed.

Water Charges

40. Regulation 29(2) of the 2014 Tariff Regulations provide as follows:

“29 (2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:



Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:

41. The Petitioner has claimed water charges in terms of the above regulations, as follows:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	1624.64	886.81	529.32	574.48

42. As regards the water charges claimed, the Commission vide ROP of the hearing dated 25.5.2021, directed the Petitioner to submit the year-wise audited computation of actual water charges claimed for the period 2014-19, including the actual quantity of water consumed; rate (Rs./M³) charged by the State authorities; any other charges included in the water charges, in addition to the charges calculated based on the above; and Auditor certificate to the effect that such other charges above were booked under the head 'water charges' during the period 2014-19. In compliance to the same, the Petitioner vide its affidavit dated 1.7.2021, has submitted the auditor certificate in support of the water charges, incurred for the Units 1 to 8 of Mejia TPS, and has apportioned the same for various units/stages, based on the year-wise actual generation during the period 2014-19.

43. The Respondent BRPL submitted that the water consumption must not be allowed more than 3.5m³/MWh as per Environmental norms. The Respondent TPDDL has submitted that the Commission may direct the Petitioner to provide all necessary details required for accurately computing water charges, in terms of the 2014 Tariff Regulations and until such details are scrutinized by the Commission to its satisfaction, the water charges claimed by the Petitioner ought not be allowed. The Respondent MPPMCL has submitted that the water charges claimed for Rs.6094 lakh during the period 2015-16, are very high and abnormal, particularly in view of the functions of the



Petitioner. They have stated that the Petitioner has been made responsible for flood control, irrigation, water supply of Damodar Valley and moderating floods of 3.69 lakh cusecs. The Respondent MPPMCL while objecting to the high rate has submitted that the Petitioner has been constituted for socio-economic development of the Damodar Valley and may not be allowed to perform its activity on commercial principles. Accordingly, Respondent MPPMCL has prayed that water charge @ Rs.1.15/m³ as applicable for domestic purposes, may be applied. It has submitted that water charges may be allowed on normative or actual basis whichever is less and the water used for domestic purpose may be excluded and the water used for generation of electricity may only be considered. The Respondent, DVPCA has submitted that the actual specific water consumption of 3.79 m³/MWh, is higher than the norm of 3.5 m³/MWh.

44. The Petitioner in its rejoinder, has submitted that the Commission in the Statement of Objects and Reasons (SOR) to the 2014 Tariff Regulations has noted the uncontrollable nature of water charges. The Petitioner has also submitted that the norms for specific water consumption, for all existing Cooling Tower-based Thermal Power Plants is 3.5 m³/MWh, which was notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC), GOI in the Environment (Protection) Amendment Rules, 2015. Accordingly, the Petitioner has taken steps for reduction in specific water consumption and improvement in specific water consumption was reflected in the year 2017-18 onwards. The Petitioner has further submitted that the higher water consumption during the years 2014-15, 2015-16 and 2016-17 is attributable to the fact that there has been no proper methods to collect wastewater from the various drains and pits in the plant, as well as from the ash pond, for re-use of the same, in places like ash sump. However, it has submitted that during the recent years, several technical modifications (civil work) have been carried out at the ash pond, as well as



at the pipelines from the ash pond to the plant, that include mending of different leakages, manholes, channel repairing, repairing of defunct pumps, augmentation of area for decantation at ash pond, etc. The Petitioner has stated that all these modifications have increased the wastewater recovery, thereby improving the water consumption efficiency of the generating station.

45. The matter has been considered, Regulation 29(2) provides for consideration of the actual consumption of water depending upon type of plant, type of cooling water system etc, subject to prudence check. The Petitioner vide affidavit dated 1.7.2021, has furnished audited water consumption and charges incurred thereof, for the period 2014-19. It is however noticed that the Petitioner has booked water consumption charges for 2014-15 and 2015-16 in the audited accounts for 2015-16. The details of water charges claimed are as follows:

	Water Use	Quantity of water consumed (M ³)	Rate of water charges (Rs./M ³)	Water Charges as per Rate (Rs. Lakh)	Water Charges apportioned as per Annual Accounts
2014-15	Industrial	14679800	5.70	836.75	0.00
	Domestic	53714	1.15	0.62	
	Total	14733514		837.37	
2015-16	Industrial	13618754	5.70	776.27	1624.64
	Domestic	46831	1.15	0.54	
	Total	13665585		776.81	
2016-17	Industrial	14888225	5.70	848.63	886.81
	Domestic	50033	1.15	0.58	
	Total	14938258		849.20	
2017-18	Industrial	8600379	5.70	490.22	529.32
	Domestic	37736	1.15	0.43	
	Total	8638115		490.66	
2018-19	Industrial	9336189	5.70	532.16	574.48
	Domestic	42018	1.15	0.48	
	Total	9378207		532.65	
Total for the period 2014-19		61353679		3486.68	3615.25

46. It is observed that the water charges determined, based on consumption and rate, thereof, are in slight variance with the apportioned audited water charges.



Accordingly, the audited water charges have been considered. It is also noticed, that the Petitioner has claimed domestic water charges, which are being recovered from its employees. As, the water charges for domestic usage are not allowable, the same has been excluded from the audited apportioned water charges. Accordingly, water charges allowed are as follows:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	0.00	1624.64	886.81	529.32	574.48
Allowed	0.00	1623.48	886.24	528.89	574.00

Capital Spares

47. Regulation 29(2) of the 2014 Tariff Regulations provides as follows:

“29(2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:

xxxxx:

Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.”

48. The Petitioner has claimed total actual expenditure of Rs. 18.63 lakh towards capital spares in 2014-15 and has prayed that capital spares replaced/consumed by the generating station during the period 2014-19 may be allowed.

49. The Respondent BRPL has submitted that as there is no corresponding de-capitalization, it can safely be assumed there is no need for capital spares and therefore, the total amount of Rs.18.63 lakh claimed may be disallowed. The Respondent TPDDL has submitted that as per the second proviso to Regulation 28(2) of the 2014 Tariff Regulations, the Petitioner has not provided any justification/explanation as to how the spares are required for ensuring efficient and reliable operation. The Respondent, DVPCA has submitted that the Petitioner may be directed to submit proper justification for incurring the expenditure on capital spares



and to substantiate as to whether the expenditure incurred is funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and renovation & modernization. It has also submitted that the Petitioner has also not provided any documentary evidence to substantiate its claim of expenditure claimed towards capital spares for the period 2014-19.

50. The Petitioner, in its rejoinder, has submitted that the details of the capital spares have been furnished in Form-17 of the tariff filing form for the period 2014-19. It has also submitted that in order to ensure reliable and efficient operation at all times by the generating station, the units/ equipment is taken under overhaul/ maintenance and inspected regularly for wear and tear and during such works, spares parts of equipment' which became damaged/ unserviceable are replaced/ consumed, so that the machines continue to perform at expected efficiency, on sustained a basis.

51. The matter has been examined. It is observed that capital spares comprise of two categories i.e. (i) spares which form part of the capital cost and (ii) spares which do not form part of the capital cost of the project. In respect of capital spares which form part of the capital cost of the project, the tariff is being recovered since their procurement and, therefore, the same cannot be allowed as part of additional O&M expenses. Accordingly, only those capital spares, which do not form part of the capital cost of the project, are to be considered. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt.



52. We have examined the list of the capital spares consumed by the Petitioner. Keeping in view the principle of materiality and to ensure standardized practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs. 1 (one) lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the petition, has been considered for the purpose of tariff. In view of the above discussion, only those capital spares, which do not form part of the capital cost of the project, have been considered and allowed as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Capital Spares (not part of capital cost) claimed (A)	18.63	0.00	0.00	0.00	0.00
Value of Capital Spares (of Rs. 1 lakh and below) disallowed on individual basis (B)	0.00	0.00	0.00	0.00	0.00
Value of capital spares disallowed on individual basis (C)	0.00	0.00	0.00	0.00	0.00
Net total value of capital spares considered (D) = (A) - (B) - (C)	18.63	0.00	0.00	0.00	0.00

53. We are also of the view that spares do have a salvage value. Accordingly, in line with the practice of considering the salvage value, presumed to be recovered by the Petitioner on sale of capital assets, on becoming unserviceable, the salvage value of 10% has been deducted from the cost of capital spares considered above, for the 2014-19 tariff period. Therefore, on prudence check of the information furnished by the Petitioner in Form-17 and on applying the said ceiling limit, along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered (A)	18.63	0.00	0.00	0.00	0.00
Salvage value @ 10% (B)	1.86	0.00	0.00	0.00	0.00
Net Capital spares allowed (C) = (A)*(B)	16.77	0.00	0.00	0.00	0.00



54. Accordingly, the O&M expenses allowed for the period 2014-19 tariff is as under:

(Rs. in lakh)						
		2014-15	2015-16	2016-17	2017-18	2018-19
Installed Capacity (MW) (A)		500.00	500.00	500.00	500.00	500.00
O&M Expenses under Reg.29(1) in Rs. lakh / MW (B)		23.90	25.40	27.00	28.70	30.51
Total O&M Expenses (in Rs. lakh) (C) = (A)*(B)	Claimed	11950.00	12700.00	13500.00	14350.00	15255.00
	Allowed	11950.00	12700.00	13500.00	14350.00	15255.00
Water Charges (in Rs. lakh) (D)	Claimed	0.00	1624.64	886.81	529.32	574.48
	Allowed	0.00	1623.48	886.24	528.89	574.00
Capital Spares Consumed (in Rs. lakh) (E)	Claimed	18.63	0.00	0.00	0.00	0.00
	Allowed	16.77	0.00	0.00	0.00	0.00
Total O&M Expenses as allowed (including Water Charges and Capital Spares Consumed) (F) = (C+D+E)	Claimed	11968.63	14324.64	14386.81	14879.32	15829.48
	Allowed	11966.77	14323.48	14386.24	14878.89	15829.00

Compensation Allowance

55. Regulation 17 of 2014 Tariff Regulations provides as follows:

“17. Compensation Allowance:

- (1) In case of coal-based or lignite-fired thermal generating station or a unit thereof, a separate compensation allowance shall be admissible to meet expenses on new assets of capital nature which are not admissible under Regulation 14 of these regulations, and in such an event, revision of the capital cost shall not be allowed on account of compensation allowance, but the compensation allowance shall be allowed to be recovered separately.*
- (2) The compensation allowance shall be allowed in the following manner from the year following the year of completion of 10, 15 or 20 years of useful life.*

<i>Years of Operation</i>	<i>Compensation Allowance (Lakh Rs. /MW/Year)</i>
<i>0-10</i>	<i>Nil</i>
<i>11-15</i>	<i>0.2</i>
<i>16-20</i>	<i>0.5</i>
<i>21-25</i>	<i>1.0</i>

56. The Petitioner has claimed Compensation allowance as follows:

(Rs. in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	50.00

57. In line with above, the Compensation allowance allowed to the generating station is allowed as under:

	Unit-V	Unit-VI	Total
Installed Capacity in MW	250	250	500
COD	29-Feb-2008	24-September-2008	



	Unit-V	Unit-VI	Total
Balance Useful life as on 1.4.2014 (in years)	18.91	19.48	
a) 10 Years	1-Mar-18	25-Sept-18	
b) 15 Years	1-Mar-23	25-Sept-23	
c) 20 Years	1-Mar-28	25-Sept-28	
2014-15	0.00	0.00	0.00
2015-16	0.00	0.00	0.00
2016-17	0.00	0.00	0.00
2017-18	0.00	0.00	0.00
2018-19 (Rs in lakh)	50.00	0.00	50.00
Total (Rs in lakh)	50.00	0.00	50.00

58. Based on above, the compensation allowance of Rs. 50.00 lakh for Unit-V is allowed for the period 2014-19.

Operational Norms

59. The operational norms for the generating station claimed by the Petitioner are as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Annual Plant Availability Factor (NAPAF) (%)	83%	83%	85%	83%	83%
Gross Station Heat Rate (kCal/kWh)	2450	2450	2450	2450	2450
Auxiliary Power Consumption (%)	9.00%	9.00%	9.00%	9.00%	9.00%
Specific Oil Consumption (ml/kWh)	0.5	0.5	0.5	0.5	0.5

Normative Annual Plant Availability Factor

60. Regulation 36 of the 2014 Tariff Regulations provides as follows:

“(A) Normative Annual Plant Availability Factor(a) All Thermal generating stations, except those covered under clauses (b),(c),(d) &(e)- 85%.

Provided that in view of the shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.

The above provision shall be reviewed based on actual feedback after 3 years from 1.4.2014.

61. The Petitioner has claimed NAPAF of 83% (except 85% in 2016-17) and has submitted that the Commission, in the 2014 Tariff Regulations, has provided for consideration of coal shortage, while specifying NAPAF. However, it has submitted that in order dated 16.3.2017 in Petition No. 144/GT/2015, the Commission, has



specified NAPAF as 85% for the period 2014-19. The Petitioner has submitted that during the period 2014-19 (except 2016-17), PAF of the generating station was adversely impacted during the monsoon season, due to inadequate supply of quality coal, which resulted in depletion of coal stock. Accordingly, the Petitioner has prayed for relaxation of the NAF of the generating station for the period 2014-19 (except 2016-17) from 85% to 83%, in exercise of the 'Power to Relax' under Regulation 54 of the 2014 Tariff Regulations.

62. The Respondents, BRPL, TPDDL and DVPCA have submitted that the arrangement of the adequate coal supply is the sole responsibility of the Petitioner. They have also submitted that the coal supply is being governed by a separate bilateral Fuel Purchase Agreement (FPA) signed between the Petitioner and Coal Supplier, and the beneficiaries are in no way responsible for coal linkage shortage. Hence, the burden should not be passed on to the beneficiaries, for any lapses which are attributable to the Petitioner/ Coal Supplier. The Respondent MPPMCL has submitted that plea of the Petitioner for relaxation in norms is without any basis and the same is in gross violation of Tariff Regulations as well as Tariff Policy of the Government of India, which categorically states that norms should be based on normative value and not on normative or actuals, whichever is lower.

63. The Petitioner, in its rejoinder, has submitted that it has furnished a day-wise statement of Coal receipt (in MT), Coal consumption (in MT), Closing coal stock (in MT), Closing coal stock (in number of days) and DC loss (in MU) for the generating station for the years 2014-15, 2015-16, 2017-18 and 2018-19. It has also submitted that the coal stock for the majority of the days was below the critical level of coal stock, thereby, severely impacting the PAF of the generating station. Accordingly, the



Petitioner has prayed for relaxation of NAPAF from 85% to 83% for the years 2014-15, 2015-16, 2017-18 and 2018-19.

64. The matter has been considered. Considering the nationwide coal stock availability, Regulation 36(A) of 2014 Tariff Regulations provided for NAPAF of 83% for three (3) years i.e., from 2014-15 to 2016-17, with a provision to review the same thereafter. In line with this, the coal availability after 2016-17, was reviewed and it was observed that the availability of coal to the thermal generating stations in the country became normal and therefore, the Commission in all true up petitions of all generating stations, has consistently adopted the NAPAF of 83% for three (3) years i.e., from 2014-15 to 2016-17 and 85% for 2017-18 and 2018-19. In our view, the non-availability of coal to the generating station of the Petitioner, is a localised or a plant specific issue and cannot be a factor to reduce NAPAF, particularly, keeping in view that arrangement of coal supply is the sole responsibility of the generator (Petitioner). Accordingly, the NAPAF of 83% for 2014-15 to 2016-17 and 85% for 2017-18 and 2018-19 is allowed in accordance with the provisions of Regulation 36 (A) of the 2014 Tariff Regulations.

Gross Station Heat Rate

65. The Gross Station Heat Rate of 2450 Kcal/ kWh, as claimed by Petitioner is in accordance with the provisions of Regulation 36 (C)(a) of the 2014 Tariff Regulations and hence, the same is allowed.

Auxiliary Energy Consumption

66. The Petitioner has claimed Auxiliary Energy Consumption (AEC) of 9.00%. Regulation 36(E)(a) of the 2014 Tariff Regulations provides for Auxiliary Energy Consumption of 8.5%, for coal based generating stations of 210 MW sets, with Natural Draft cooling tower. It further provides that for thermal generating stations with induced

draft cooling towers, the norms shall be further increased by 0.5%. Accordingly, AEC as claimed by the Petitioner, is in line with the Regulations and hence, the same is allowed.

Secondary Fuel Oil Consumption

67. Regulation 36(D)(a) of 2014 Tariff Regulations provides for secondary fuel oil consumption to the generating station as 0.50 ml/kWh during the period 2014-19 and the same is allowed.

68. Accordingly, the operational norms allowed are summarized below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Annual Plant Availability Factor (NAPAF) (%)	83%	83%	83%	85%	85%
Gross Station Heat Rate (kCal/kWh)	2450	2450	2450	2450	2450
Auxiliary Power Consumption (%)	9.00%	9.00%	9.00%	9.00%	9.00%
Specific Oil Consumption (ml/kWh)	0.50	0.50	0.50	0.50	0.50

Interest on Working Capital

69. The Petitioner has submitted details of interest on working capital as follows:

	2014-15	2015-16	2016-17	2017-18	2018-19
	(Rs. in lakh)				
Cost of Coal/Lignite for Stock and Generation	14053.10	14091.60	14391.73	14053.10	14053.10
Cost of oil for 2 months (B)	185.19	185.69	189.65	185.19	185.19
O&M expenses - 1 month (C)	995.83	1193.72	1198.90	1239.94	1319.12
Maintenance Spares - 20% of O&M (D)	2390.00	2864.93	2877.36	2975.86	3165.90
Receivables - 2 months (E)	23624.77	23957.31	24365.77	24132.81	23552.84
Total Working Capital (F) = (A+B+C+D+E)	41248.90	42293.25	43023.41	42586.90	42276.15
Rate of Interest (G)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital (H) = (F)x(G)	5568.60	5709.59	5808.16	5749.23	5707.28

70. Regulation 28 of the 2014 Tariff Regulations provides as follows:

“28. Interest on Working Capital:

(1) The working capital shall cover:

(a) Coal-based/lignite-fired thermal generating stations:



- (i) Cost of coal or lignite and limestone towards stock if applicable for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*
 - (ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;*
 - (iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor and in case of use of more than one secondary fuel oil cost of fuel oil stock for the main secondary fuel oil;*
 - (iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;*
 - (v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and*
 - (vi) Operation and maintenance expenses for one month.*
- (2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this regulation shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.*
- (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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.*
- (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."*

Fuel Cost for Working Capital

71. Sub-clauses (i),(ii) and (iii) of Regulation 28(1) of the 2014 Tariff Regulations provide for cost of coal for 30 days of stock, cost of coal for 30 days of generation and cost of secondary oil for two months respectively, to be considered for computation of working capital and in terms of Regulation 28(2) of the 2014 Tariff Regulations, the computation of cost of fuel is to be based on the landed price and gross calorific value of the fuel as per actuals, for the period from January, 2014 to March, 2014.

72. Regulation 30 (6) of the 2014 Tariff Regulations provides as under:

"30. Computation and Payment of Capacity Charge and Energy Charge for Thermal Generating Stations:

xxx



(6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formula:

(a) For coal based and lignite fired stations

$$ECR = \frac{\{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100}{(100 - AUX)}$$

(b) xxxxx

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal **as received**, in kCal per kg for coal based stations

(b) Weighted Average Gross calorific value of primary fuel **as received**, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations.

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LC = Normative limestone consumption in kg per kWh.

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

SFC = Normative Specific fuel oil consumption, in ml per kWh.

LPSFi = Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month

73. In terms of the above Regulation, for determination of the working capital, the GCV on "as received basis" is to be considered. Further, Regulation 30 (7) of the 2014 Tariff Regulations provides for the following:

"(7) The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the forms prescribed at Annexure-I to these regulations:

Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month:

Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The



details should be available on its website on monthly basis for a period of three months.”

74. The Petitioner has furnished the average GCV of coal as 3262.82 Kcal/kg on “as received” basis for the period from January 2014 to March 2014. The Petitioner has further submitted that it has filed a separate petition before the Commission vide affidavit dated 6.3.2018 (Petition No.133/MP/2018), wherein the Petitioner has submitted that it determines the GCV of the coal on ‘as Received basis’ by taking sample manually from the wagon top for computation of cost of coal and the same is pending. Accordingly, the Petitioner has submitted that the Commission may take on record the statements with regard to measurement of the GCV at the receiving end as submitted in the Petition 133/MP/2018 along with this Petition and determine tariff for the generating station, based on GCV considered on ‘as received’ basis.

75. The matter has been considered. As stated above, the Petitioner, in Form-15, has considered the average GCV of coal on “as received basis” i.e., from Wagon top, for the period from January 2014 to March 2014, for the purpose of computation of working capital for the period 2014-19. Accordingly, the cost for fuel components in working capital has been computed considering the fuel details (price and GCV) as per Form-15, and GCV of 3262.82 Kcal/kg. It is observed that while the Petitioner in Form-15 of the signed hard copy has submitted the details of coal quantity in Million Metric Tonne till two decimal places whereas, in Form-15 of excel soft copy the figures are provided up to 7-8 decimal places. Accordingly, the information furnished in excel soft copy has been considered. In this regard it is observed that the Petitioner has claimed transit & handling loss of coal, GCV and price of primary and secondary fuel in line with the Regulations. Accordingly, the weighted average cost and GCV of primary and secondary fuel and the cost of fuel components in working capital allowed



are as follows:

		Allowed
Weighted average price of Coal	Rs. /MT	3095.28
Weighted average GCV of Coal for Jan to March 2014	Kcal/kg	3262.82
Weighted average price of oil	Rs. /KL	61127.44
Weighted average GCV of secondary fuel oil	Kcal/L	10162.99

76. Based on the above discussion, the cost of fuel components in working capital is worked out and allowed as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (30 days)	6930.30	6930.30	6930.30	7097.29	7097.29
Cost of Coal towards Generation (30 days)	6930.30	6930.30	6930.30	7097.29	7097.29
Cost of Secondary fuel oil 2 months	185.19	185.69	185.19	189.65	189.65

Working Capital for Maintenance Spares

77. The Petitioner, in Form-13B, has claimed maintenance spares in working capital as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2390.00	2864.93	2877.36	2975.86	3165.90

78. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses. Accordingly, the cost of maintenance spares @ 20% of the O&M expenses, including water charges and capital spares, allowed are as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2393.35	2864.70	2877.25	2975.78	3165.80

Working Capital for O&M expenses

79. O&M expenses for 1 month claimed by the Petitioner, in Form-13B, for the purpose of working capital is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
995.83	1193.72	1198.90	1239.94	1319.12

80. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for O&M expenses for one month for coal-based generating station as a part of the working capital. The one-month O&M expenses, as allowed is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
997.23	1193.62	1198.85	1239.91	1319.08

Energy Charge rate (ECR) and Working Capital for Receivables

81. The Petitioner has claimed Energy Charge Rate (ECR) ex-bus for 258.24 Paise/kWh for the generating station, based on the landed cost of coal, GCV of coal & GCV and price of Oil procured and burnt for the preceding three months of the period 2014-19. Accordingly, the allowable ECR, based on the operational norms as specified under the 2014 Tariff Regulations, on weighted average price and 'as received' GCV of coal and weighted average price and GCV of oil as allowed above, works out as Rs. 2.582 / kWh.

82. Energy charges for 2 months as a part of working capital have been calculated on the following basis:

- a) ECR of Rs. 2.582/kWh as calculated above (rounded off to three places as per Regulation 30(6) of 2014 Regulations).
- b) Ex-bus energy (two months), corresponding to the installed capacity of 500 MW, normative availability of 83% for first three years and 85% for last two years during the 2014-19 tariff period, and Auxiliary Energy Consumption of 9.00%.

83. Energy Charges for two months for the purpose of working capital has been worked out as under:



(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
14236.35	14275.35	14236.35	14579.39	14579.39

84. Receivables equivalent to two months of capacity charge and energy charge has been worked out, duly considering the mode of operation of the generating station on secondary fuel, as follows:

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Energy Charges - for two months (A)	14236.35	14275.35	14236.35	14579.39	14579.39
Fixed Charges – for two months (B)	7871.81	8080.20	7837.03	7732.64	7836.53
Total (C) = (A+B)	22108.16	22355.55	22073.37	22312.03	22415.92

Rate of interest on working capital

85. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the rate of interest on working capital has been considered as 13.50% (Bank rate 10.00 + 350 bps). Accordingly, Interest on working capital has been computed as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for Cost of Coal for Stock (30 days) (A)	6930.30	6930.30	6930.30	7097.29	7097.29
Working Capital for Cost of Coal for Generation (30 days) (B)	6930.30	6930.30	6930.30	7097.29	7097.29
Working Capital for Cost of oil for 2 months (C)	185.19	185.69	185.19	189.65	189.65
Working Capital for O&M expenses - 1 month (D)	997.23	1193.62	1198.85	1239.91	1319.08
Working Capital for Maintenance Spares - 20% of O&M (E)	2393.35	2864.70	2877.25	2975.78	3165.80
Working Capital for Receivables - 2 months (F)	22108.16	22355.55	22073.37	22312.03	22415.92
Total Working Capital (G) = (A+B+C+D+E+F)	39544.52	40460.16	40195.25	40911.95	41285.03
Rate of Interest (H)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital (I) = (G)*(H)	5338.51	5462.12	5426.36	5523.11	5573.48



Additional O&M Expenses

86. The Petitioner has also claimed additional O&M expenses, over and above the normative O&M expenses, allowable to the generating station in accordance with the provisions of the 2014 Tariff Regulations. These expenditure heads include Mega Insurance, Expenses for CISF Security, Ash Evacuation Expenses, Impact of GST, Impact of Pay Revision, Share of Pension & Gratuity (P&G) and Share of Subsidiary Activities. In order to examine and decide as to whether the claims of the Petitioner for additional O&M expenses are over and above the normative O&M expenses allowed to the generating station in terms of the 2014 Tariff Regulations, we rely on the duly audited financial statements of the Petitioner. In the Financial statements, all O&M expenses are covered in Notes to Financial Statements i.e. Note No. 29 under Operation & Maintenance and General administration charges and Note No. 27 of the Annual accounts under Employee Benefit Expenses. Accordingly, we examine the head-wise claims of the Petitioner as detailed in the subsequent paragraphs.

(A) Ash Disposal Expenses

87. The Petitioner has claimed total Rs.10960.75 lakh (Rs. 3155.43 lakh in 2014-15, Rs. 2189.92 lakh in 2015-16, Rs. 3027.50 lakh in 2016-17, Rs. 1407.62 lakh in 2017-18 and Rs. 1180.28 lakh in 2018-19) on account of Ash Disposal expenses as additional O&M expenses, for the generating station. In justification of the same, the Petitioner has submitted that due to statutory directions of the Ministry of Environment, Forest and Climate Change (MoEF&CC), GoI vide Notification dated 14.9.1999 (and its amendments dated 27.8.2003, 3.11.2009 and 25.1.2016), the fly ash generated during the course of operation of coal power plants, is required to be utilized under various designated modes, out of which, mine stowing is the most feasible option for the generating station, as the Eastern Coalfields Ltd (ECL) has allowed the Petitioner



to utilize its abandoned mines for this. Accordingly, the Petitioner has engaged various transporters for excavation and transportation of ash from ash ponds of the generating station to the abandoned open cast mines of ECL. Further, the Petitioner has further submitted that the expenses for such ash evacuation and transportation activities for Units 1 to 8 of the Project (MTPS) have been booked in the annual accounts in a consolidated manner and subsequently have been apportioned among the various units of MTPS based on the actual gross generation of the units for the respective years of the 2014-19 tariff period. The Petitioner has prayed that the Commission may approve the Ash Disposal expenses for the period 2014-19 and allow the same to be recovered in full from the beneficiaries, considering the statutory requirement as per notifications under Regulation 8(3)(ii) of the 2014 Tariff Regulations.

88. The Respondent, DVPCA has submitted that the Commission has disallowed the claim of expenses towards Ash Evacuation in a number of orders, stating that the Petitioner was fully aware of the MoEFCC Notification, 2009 which mandated 100% ash utilization to be ensured by the generator within a specific period by installation of dry ash and wet ash disposal system. It has submitted that the Petitioner must have taken necessary steps for installation of the evacuation system at the inception stage. However, the Petitioner has claimed the Ash Transportation charges on the ground that it has not complied with MoEF&CC Notification, 2009 and is taking appropriate measures now. The Respondent, DVPCA has further submitted that as the actual O&M expenses including Ash Evacuation expenses are lower than the normative O&M expenses, thus, there is no requirement to allow the ash evacuation expenses additionally. It has also pointed out that the Commission in its order dated 31.8.2016 in Petition No. 347/GT/2014 had not allowed the Ash Evacuation expenses.



89. The Petitioner in its rejoinder has clarified that the Commission in its order dated 5.11.2018 in Petition No. 172/MP/2016 (NTPC Vs. UPPCL & Ors) had admitted the expenses related to transportation of ash under 'change in law' as additional O&M expenses and NTPC was granted liberty to claim the same at the time of truing-up of tariff for the 2014-19 tariff period. It has also pointed out that the Commission in its order dated 29.7.2020 in Petition No.101/MP/2019, had granted liberty to the Petitioner to claim expenses for ash transportation at the time of truing-up for the 2014-19 period. Accordingly, the Petitioner has submitted that it has claimed expenses incurred for ash transportation from its thermal generating stations for the 2014-19 tariff period for the approval under Regulation 8(3)(ii) of the 2014 Tariff Regulations. The Petitioner has stated that the issue of 'actual vs norms' is no longer res-integra and stands decided by the Hon'ble Supreme Court in UPPCL Vs NTPC & ors (2011) 122 SCC 400, wherein, it has upheld the concept of 'normative basis' and rejected the contention, that tariff should be determined on the basis of 'normative' or 'actuals', whichever is less. The Petitioner has added that even the National Tariff Policy, 2016 prescribes that the operating parameters in tariffs should be at "normative levels" only and not at "lower of normative and actuals" and this is essential to encourage better operating performance. The Petitioner has also stated that the Commission in its order dated 29.7.2020 in Petition No. 101/MP/2019 had directed the Petitioner to furnish some additional information in support to the Petitioner's claim on ash evacuation expenses as under:

"31. Accordingly, we in exercise of the regulatory power hold that the actual additional expenditure incurred by the Petitioner towards transportation of ash in terms of the MOEFCC No as additional O&M expenses. However, the admissibility of the claims is subject to prudence check of the following conditions/ details on case-to-case basis for each station:

(a) Award of fly ash transportation contract has been effected through a transparent competitive bidding procedure. Alternatively, the schedule rates of the respective State Governments, as applicable for transportation of fly ash.

(b) Details of the actual additional expenditure incurred on Ash transportation after



25.1.2016, duly certified by auditors.

(c) Details of the Revenue generated from sale of fly ash/fly ash products and the expenditure incurred towards Ash utilisation up to 25.1.2016 and from 25.1.2016 to till date, separately.

(d) Revenue generated from fly Ash sales maintained in a separate account as per the MoEF notification.”

90. The Petitioner has stated that in compliance to the above, the transportation of fly ash was awarded through competitive bidding and the transportation charges are within the schedule rates of the respective State Governments. In addition, the Petitioner has submitted that the revenue generated from Fly ash sales is maintained in a separate account, as per the MoEF&CC notifications, and an auditor certificate on the information associated with ash evacuation / transportation expenses in respect of various stations are as follows:

	<i>(Rs. in lakh)</i>						
	DSTPS	DTPS	KTPS	CTPS	MTPS	BTPS	Total
Ash transportation Charges 1.4.2014 to 25.1.2016	454.11	880.91	749.75	3202.23	15797.33	761.93	21846.26
Ash transportation Charges 26.1.2016 to 31.3.2019	411.69	1016.24	2533.62	7147.80	24768.26	3457.03	39334.64
Income from sale of Ash / Cenosphere from 1.4.2014 to 25.1.2016	0.00	0.00	0.00	28.97	0.00	11.96	40.93
Income from sale of Ash from 26.1.2016 to 31.3.2019	1964.87	17.04	812.47	10.05	297.11	7.62	3109.16

91. The matter has been examined. The relevant portion of the MoEF&CC Notifications dated 3.11.2009 and 25.1.2016 are extracted as under:

Notification dated 3.11.2009

“6. The amount collected from sale of fly ash and fly ash based products by coal and / or lignite based thermal power stations or their subsidiary or sister concern unit, as applicable should be kept in separate account head and shall be utilized only for development of infrastructure facilities, promotion of and facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved; thereafter as long as 100 % fly ash utilization levels are maintained, the thermal power station would be free to utilize the amount collected for other development programmes also and in case, there is a reduction in fly ash utilization levels in the subsequent year(s), the use of financial return from fly ash shall get restricted to development of infrastructure or facilities and



promotion or facilitation activities for fly ash utilization until 100 percent fly ash utilization level is again achieved and maintained.”

Notification dated 3.11.2009

“10. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometres from a coal or lignite based thermal power plant shall be borne by such coal or lignite based thermal power plant and the cost of transportation beyond the radius of hundred kilometres and up to three hundred kilometres shall be shared equally between the user and the coal or lignite based thermal power plant.”

92. It is observed that the Petitioner had filed Petition No.101/MP/2019 before this Commission seeking recovery of ash transportation charges, through monthly bills of beneficiaries, in terms of the MoEF&CC notification dated 25.1.2016, as ‘change in law’ event and the Commission *vide* its order dated 29.7.2020, disposed of the same, after observing that the said MOEF&CC notification is a change in law event. Accordingly, the Petitioner was granted liberty to approach the Commission at the time of truing up of tariff, along with the audited details, including the award of transportation through competitive bidding, alternatively scheduled rate of State Government, expenditure incurred and revenue generated (up to 25.1.2016/ after 25.1.2016) and to maintain the revenue generated from fly ash in a separate account. In compliance to the above, the Petitioner has furnished the year-wise audited ash transportation details and the income received from sale of ash for its various generating stations i.e., MTPS, CTPS, DTPS, BTPS, DSTPS, KTPS etc., during the period 2014-19 and these charges were apportioned to the various stages, on the basis of their actual generation, in the respective years. Further, in compliance to direction given in order dated 29.7.2020 in Petition No.101/MP/2019, the Petitioner has furnished additional information such as the end user type, category of ash utilization, the award of transportation carried out through competitive bidding/ rate of transportation is lower than Schedule of Rates (SoR), the actual quantum of ash supplied, transported, distance, awarded rate of transportation in Rs./ton per



kilometre, income from sale of ash etc, from 25.1.2016 to 31.3.2019 for DTPS (1 x 210 MW), MTPS (4 x 210 MW + 2 x 250 MW + 2 x 500 MW), KSTPS (2 x 500 MW), DSTPS (2 x 500 MW), CTPS (1 x 130 MW + 2 x 250 MW) and BTPS (1 x 210 MW + 1 x 500 MW). It is noticed that the Petitioner has also claimed Ash transportation charges, pertaining to mine filling (abandoned coal mines of ECL) and low-lying area (DVC & its premises) and the revenue generated through sale of ash to cement / non-cement plants. However, the information regarding the revenue generated from sale of ash as on 25.1.2016 has not been furnished. The Petitioner has also transported ash from its generating stations through road (trucks), the distance varied from 2 kms to 76 kms and has therefore declared that it has not received any money from escrow account / coal mine companies for mine stowing.

93. Considering, the claim of the Petitioner towards Ash Transportation Charges in its various tariff petitions filed in respect of its thermal generating stations, it is noticed that total ash transportation expenses incurred by the Petitioner is Rs.611.75 crore (approx.), which also matches with the audited figures and the annual report (after rounding off), on yearly basis, as detailed below:

	<i>(Rs. in lakh)</i>					
	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018-19	Total
DSTPS	115.00	339.11	46.64	244.45	120.6	865.80
DTPS	608.40	303.99	1016.24	(-) 31.24	0.00	1897.39
KTPS	0.00	819.49	513.59	897.39	1050.56	3281.03
CTPS	1618.10	1891.14	2518.01	2840.98	1478.59	10346.82
MTPS	10292.17	8215.14	10601.33	6535.3	4921.30	40565.24
BTPS	578.44	534.11	1598.27	1068.46	439.68	4218.96
Total	13212.11	12102.98	16294.08	11555.34	8010.73	61175.24

94. In consideration of the submissions of the Petitioner and since the MoEF&CC Notification dated 25.1.2016, is a change in law event, the ash transportation charges from 26.1.2016 to 31.3.2019 are determined as follows:



	<i>(Rs. in lakh)</i>					
	2014 - 15	2015 – 16 (w.e.f. 26.1.2016)	2016 - 17	2017 - 18	2018 -19	Total
DSTPS	0.00	0.00	46.64	244.45	120.6	411.69
DTPS	0.00	31.24	1016.24	(-) 31.24	0.00	1016.24
KTPS	0.00	72.08	513.59	897.39	1050.56	2533.62
CTPS	0.00	310.22	2518.01	2840.98	1478.59	7147.80
MTPS	0.00	2710.33	10601.33	6535.3	4921.30	24768.26
BTPS	0.00	350.62	1598.27	1068.46	439.68	3457.03
Total	0.00	3474.49	16294.08	11555.34	8010.73	39334.64

95. The Petitioner has also generated revenue through the sale of ash and the plant-wise details along with the year-wise income received from sale of fly ash, from 26.10.2016 to 31.3.2019, are as under:

	<i>(Rs. in lakh)</i>					
	DSTPS	DTPS	KTPS	CTPS	MTPS	BTPS
26.1.2016 to 31.3.2016	0.00	0.00	0.00	0.00	0.00	0.00
2016 – 17	272.40	0.00	0.00	0.00	0.00	0.00
2017 – 18	664.47	3.26	373.70	10.05	44.67	7.62
2018 – 19	1027.99	13.78	438.77	0.00	252.44	0.00
Total	1964.87	17.04	812.47	10.05	297.11	7.62

96. In terms of the MoEF&CC notification dated 25.1.2016, the plant-wise revenue generated, shall be first adjusted towards the ash transportation charges of the plant and the balance shall be recovered from the beneficiaries. In this regard, it is noticed that during the period from 26.1.2016 to 31.3.2019, except for DSTPS, the ash transportation charges of all other plants, are higher than the income received from the sale of fly ash as worked out below:

	<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
DSTPS	0.00	0.00	0.00	0.00	0.00	0.00
DTPS	0.00	0.00	999.20	0.00	0.00	999.20
KTPS	0.00	72.08	513.59	523.69	611.79	1721.15
CTPS	0.00	310.22	2518.01	2830.93	1478.59	7137.75
MTPS	0.00	2710.33	10601.33	6490.63	4668.86	24471.15
BTPS	0.00	350.62	1598.27	1060.84	439.68	3449.41
Total	0.00	3443.25	16230.40	10906.08	7198.92	37778.66

97. Accordingly, the ash transportation charges allowed as above during the period



2014-19 in respect of this generating station (MTPS) are apportioned to the various stages, based on their actual generation as under:

<i>(Rs. in lakh)</i>						
Stage	2014-15	2015-16	2016-17	2017-18	2018 -19	Total
MTPS 1, 2 & 3	0.00	497.90	1947.02	1824.89	1097.08	5366.89
MTPS 4	0.00	89.28	291.57	475.09	356.84	1212.78
MTPS 5 & 6	0.00	722.50	3027.51	1397.99	1119.73	6267.73
MTPS 7 & 8	0.00	1400.65	5335.24	2792.65	2095.20	11623.75
MTPS (all stages)	0.00	2710.33	10601.33	6490.63	4668.86	24471.15

98. Admittedly, the 2014 Tariff Regulations, do not contain any provision for allowing the ash transportation charges. Accordingly, we, in exercise of the regulatory powers, allow the total expenditure of Rs.5366.89 lakh towards fly ash transportation for the generating station of the Petitioner for the period 2014-19, after adjusting the revenue received from the sale of ash of such plants, in six equal instalments, starting from March 2023, keeping in view the interest of the beneficiaries. Considering the fact that the reimbursement of the ash transportation expenses is being allowed based on the MOEF&CC notification, these expenses are not made part of the O&M expenses and the consequent annual fixed charges being determined in this order under the 2014 Tariff Regulations. The Petitioner is also directed to utilize the surplus fund of Rs.1553.18 lakh pertaining to DSTPS, in terms of the MOEFCC's notification only.

(B) Mega Insurance Expenses

99. The Petitioner has claimed total amount of Rs. 274.75 (Rs. 57.13 lakh in 2014-15, Rs. 7.50 lakh in 2015-16, Rs. 51.25 lakh in 2016-17, Rs. 116.17 lakh in 2017-18 and Rs. 42.70 lakh in 2018-19) on account of Mega Insurance expenses as additional O&M expenses for the generating station. In justification of the same, the Petitioner has submitted that the generating station is located in high alert security zone and therefore, the Petitioner has to ensure substantial safeguard measures through Mega Insurance, against damage or destruction of the assets. The Petitioner has further



submitted that the expenses for Mega Insurance for Mejia TPS have been booked in the annual accounts in a consolidated manner. Therefore, the accounted Mega Insurance expenses for Mejia TPS have been apportioned amongst Mejia TPS Unit-1 to 8 based on the installed capacity and the same are claimed in the petition.

100. The Respondent, DVPCA has submitted that the Commission in its earlier orders had disallowed the expenditure on Mega Insurance and the same was to be recovered as part of the normative O&M expenses. It has stated that the actual O&M expenses, including the mega insurance expenses for the period 2014-19, is lower than the normative O&M expenses specified under the 2014 Tariff Regulations, and thus, the normative O&M expenses are sufficient to cover such expenses. Accordingly, the respondent has stated that the claim of the Petitioner may not be considered separately. In response, the Petitioner has submitted that the subject expenditure is necessitated due to 'substantial increase in the risk profile of power plants' on account of various issues (including lenders covenants), natural calamities, law and order etc, and it protects the customers from any tariff shock, in the event of any substantial loss, arising out of damage or destruction of the power plant. Accordingly, it shall be allowed as an additional pass-through, over and above the norms. The Petitioner has further submitted, that the Commission in its various orders (i.e., order dated 13.12.2005 in Petition No. 163/2004, order dated 9.7.2013 in Petition No. 269/GT/2012, order dated 29.7.2016 in Petition No. 465/GT/2014, order dated 7.8.2013 in Petition No. 275/GT/2012 and order dated 29.7.2016 in Petition No. 470/GT/2014) while determining tariff had allowed expenses towards Mega Insurance.

101. The matter has been considered. As regards, the submission of the Petitioner that the Commission had allowed expenses towards Mega insurance to Mejia 1, 2 &

3, CTPS 1, 2 & 3 etc, over and above the O&M expenses norms, it is noticed that the grant of Mega insurance was for the period prior to the 2014–19 tariff period and in exercise of its Power to Relax, however, the same was not allowed for other projects of the Petitioner. It is pertinent to mention that the Commission, while specifying the O&M norms for the 2014-19 tariff period, had considered insurance expenses as part of the O&M expense calculations and had factored the same in the said norms. Considering the above, we do not find any reason to allow expenses towards Mega Insurance over and above the O&M expense norms. Accordingly, the expenses claimed towards Mega Insurance is not allowed.

(C) CISF Security Expenses

102. The Petitioner has claimed total amount of Rs.4829.30 lakh (Rs.706.99 lakh in 2014-15, Rs.824.48 lakh in 2015-16, Rs.1058.56 lakh in 2016-17, Rs.1095.59 lakh in 2017-18 and Rs.1143.67 lakh in 2018-19) towards CISF Security expenses as additional O&M expenses for generating station. In justification of the same, the Petitioner has made identical submissions:

- (a) The generating station is located in high alert security zone and any untoward situation arising due to the terrorist attack or theft, may cause loss of property and prolonged interruption of generation. The concerned Ministry, from time to time has directed the Petitioner, to take appropriate security arrangements at hydro generating stations, dams etc. and to strengthen the physical security of various generating stations and tighten personal security.
- (b) The Ministry of Home Affairs, GOI, had granted approval for creation of additional security personnel posts to be stationed at the generating station. Thus, accordingly, the Petitioner has deployed CISF personnel in its plants, to ensure adequate security at the plants, as well as to comply with the directives, on security measures. Accordingly, the Petitioner has been incurring expenses towards CISF security for deployment of CISF personnel and associated CISF activities.
- (c) The expenses for CISF Security for the project have been booked in the annual accounts in a consolidated manner. Therefore, the accounted CISF



Security expenses for the project for the 2014-19 period has been apportioned among Unit- 1 to 8 of the projects, based on the installed capacity of the units. Accordingly, the apportioned CISF Security expenses for Units- 1 to 3 (the generating station) has been claimed.

- (d) The Commission had allowed the CISF expenses in case of this generating station *vide* order dated 9.7.2013 in Petition No. 269/GT/2012 and order dated 29.7.2016 in Petition No. 465/GT/2014 and for Chandrapura TPS (Units 1 to 3) *vide* dated 7.8.2013 in Petition No. 275/GT/2012 and order dated 29.7.2016 In Petition No. 470/GT/2014. Accordingly, the Commission may allow the CISF expenses as incurred by and apportioned to the generating station during the 2014-19 tariff period to be recovered in full, in exercise of the 'Power to Relax' under the 2014 Tariff Regulations, similar to the Commission's treatment in the aforesaid orders.

103. The Respondent, DVPCA has submitted that the actual O&M expenses, including the security expenses, for the period 2014-19 has been lower than the normative O&M expenses specified under the 2014 Tariff Regulations. It has further submitted that the provisions of the 2014 Tariff Regulations, does not allow security expenses over and above the O & M norms. Accordingly, the claim may not be allowed separately.

104. The matter has been considered. As regards the submission of the Petitioner that the Commission had allowed expenses towards CISF security in order dated 29.7.2016 in Petition No. 465/GT/2014 and order dated 29.7.2016 in Petition No. 470/GT/2014, it is observed that the CISF expenses, over and above the O&M expenses norms was allowed only for Mejia Therma Power Station (Units 1-3) and Chandrapura Thermal Power Station (Units-1 to 3) projects of the Petitioner during the 2009-14 tariff period in exercise of its Power to Relax, but was not allowed for other projects of the Petitioner. Further, the Commission while specifying the O&M expense norms for the 2014-19 tariff period, had considered security expenses for the generating station, as part of the O&M expenses and had factored the same in the said norms. Considering the above, we do not find any reason to allow additional O&M



expenses towards CISF security.

(D) Impact of Goods and Service Tax (GST)

105. The Petitioner has claimed additional O&M expenses on account of GST for Rs.33.55 lakh for 2017-18 and Rs.114.70 lakh for 2018-19. The Respondent, DVPCA has submitted that the Petitioner's claim is extraneous to the provisions of 2014 Tariff Regulations and various orders of the Commission. In response, the Petitioner has clarified that the Commission in order dated 14.3.2018 in Petition No. 13/SM/2017 and order dated 17.12.2018 in Petition No. 01/SM/2018 had considered the implementation of GST as "change in law".

106. The submissions have been considered. It is observed that the Commission while specifying the O&M expense norms for the period 2014-19 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..."

107. Further, the escalation rates considered in the O&M expense norms are 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 impact of GST.



(E) Share of Subsidiary Activities

108. The Petitioner has claimed total amount of Rs.1376.95 lakh (Rs. 280.13 lakh in 2014-15, Rs. 342.49 lakh in 2015-16, Rs. 285.53 lakh in 2016-17, Rs. 274.75 lakh in 2017-18 and Rs. 194.05 lakh in 2018-19) towards Share of Subsidiary activities as additional O&M expenses. In justification of the same, the Petitioner has submitted that it has been undertaking various subsidiary activities in terms of Section 12 of the DVC Act, 1948. It has also submitted that in terms of the judgment of the Appellate Tribunal for Electricity ('APTEL') dated 23.11.2007 in Appeal No. 273 of 2006 and batch, the expenses with regard to Subsidiary Activities are to be allowed as a pass-through element in tariff. The Petitioner has stated that above judgment of APTEL has been affirmed by the Hon'ble Supreme Court vide its judgment dated 23.7.2018 in Civil Appeal Nos. 971-973 of 2008 along with Civil Appeal Nos. 4289 of 2008 (Bhaskar Shrachi Alloys Ltd. Vs. DVC) referred to in (2018) 8 SCC 281. The Petitioner has further submitted that the expenses toward share of subsidiary activities were allowed in case of this generating station vide order dated 9.7.2013 in Petition No. 269/GT/2012 and order dated 29.7.2016 in Petition No. 465/GT/2014 order dated 7.8.2013 in Petition No. 275/GT/2012 and order dated 29.7.2016 in Petition No. 470/GT/2014, in relaxation of the provisions of the Tariff Regulations. Accordingly, the Petitioner has prayed that the Commission may allow the expenses toward share of subsidiary activities, as incurred and apportioned to the generating station during the 2014-19 tariff period for recovery in full, in exercise of the power to relax' under the 2014 Tariff Regulations.

109. The Respondent, DVPCA has submitted that the Petitioner has also claimed expenses towards subsidiary activities including additional capital expenditure, O&M, Return on Equity, Interest on loan and Depreciation. It has submitted that the



contribution to subsidiary fund is not allowable as the Return on Equity, Interest on loan and Depreciation, on common assets, have been claimed separately. The Respondent has further submitted that the Commission had dealt with the issue of expenditure of subsidiary activities, while framing the 2014 Tariff Regulations and had specifically disallowed such expenses to be charged as additional O&M expenses, vide order dated 31.8.2016 in Petition No. 347/GT/2014. It has stated that the actual O&M expenses including the share of subsidiary expenses are lower than the normative O&M expenses and thus, there is no requirement of allowing the share of subsidiary expenses additionally. In response, the Petitioner has clarified as under:

(a) DVC has been undertaking multifarious functions in the Damodar Valley area in terms of Section 12 of the DVC Act, 1948 with the obligation to undertake development of Damodar Valley, which falls in the provinces of West Bengal and Jharkhand. The activities of DVC are not restricted to generation and sale/supply of electricity. The functions of the DVC include promotion and operation of schemes for irrigation, water supply and drainage, flood control and improvement of flow conditions in the Hooghly River, navigation in the Damodar River and its tributaries and channels, afforestation and control of soil erosion and promotion of public health and agricultural, industrial, economic and general well-being in the Damodar Valley under its areas of operation. Thus, DVC is engaged in number of activities which are not commercial in nature and where no significant revenue accrues to DVC.

(b) DVC cannot generate required revenue from the users of service in regard to schemes such as drainage, flood control, improvement in the flow conditions, navigation, afforestation and control of soil erosion or the promotion of public health and general well-being in the Damodar Valley. The main revenue earning activity performed by DVC is generation and sale of power. DVC is undertaking various activities in a comprehensive manner for the betterment of Damodar Valley and using the revenues earned from various sources including generation and sale of electricity for the above varied purposes for which DVC has been established. In the facts and circumstances mentioned herein above, DVC occupies a special position.

(c) The activities of DVC are akin to the activities undertaken by the Governments, Central, State or Municipalities. Therefore, it is critical that the expenses incurred by DVC in undertaking the various subsidiary activities be recovered in suitable manner so as to not create financial burden on DVC.



(d) Section 32 of the DVC Act 1948 allows DVC to incur expenditure on activities other than power, irrigation and flood control. The APTEL's judgment dated 23.11.2007 in Appeal No. 271, 272, 273 and 275 of 2006, had allowed the recovery of these expenses through tariff. The said judgment 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, whereupon, the Hon'ble Supreme Court has reiterated the fact that the other activities undertaken by DVC are statutory in nature and provided for recovery of related expenses.

110. The submissions have been considered. The expenses of subsidiary activities include multipurpose dams and other heads. In this regard, the Regulation 53 of the 2014 Tariff Regulations provides as under:

"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:

*(i) **Capital Cost:** The expenditure allocated to the object 'power', in terms of sections 32 and 33 of the Damodar Valley Corporation Act, 1948, to the extent of its apportionment to generation and inter-state transmission, shall form the basis of capital cost for the purpose of determination of tariff:*

Provided that the capital expenditure incurred on head office, regional offices, administrative and technical centers of DVC, after due prudence check, shall also form part of the capital cost.

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*(iv) **Funds under section 40 of the Damodar Valley Corporation Act, 1948:** The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.*

(3) The provisions in clause (2) of this regulation shall be subject to the decision of the Hon'ble Supreme Court in Civil Appeal No 4289 of 2008 and other related appeals pending in the Hon'ble Court and shall stand modified to the extent they are inconsistent with the decision.

111. It is noticed that the Commission in its various tariff orders of the Petitioner for the period 2014-19 has observed that as per Statement of Objects and Reasons to the 2014 Tariff Regulations, the site specific norms in case of thermal generating stations may not serve much purpose as there is a set of advantages and disadvantages associated with every site, which average out, and the proposed norms



are also based on multiple stations with wide geographical spread and therefore, such aspects are already factored in the norms and accordingly, the additional O&M expenses claimed by the Petitioner, including share of subsidiary activities was not allowed. In this regard the relevant sections of DVC Act 1948 are as follows:

“32. Expenditure on objects other than irrigation, power and flood control: The Corporation shall have power to spend such sums as it thinks fit on objects authorised under this Act other than irrigation, power and flood control and such sums shall be treated as common expenditure payable out of the Fund of the Corporation before allocation under Section 33.

33. Allocation of expenditure chargeable to project on main objects: The total capital expenditure chargeable to a project shall be allocated between the three main objects, namely, irrigation, power and flood control as follows, namely:

- 1) expenditure solely attributable to any of these objects, including a proportionate share of overhead and general charges, shall be charged to that object, and*
- 2) expenditure common to two or more of the said objects, including a proportionate share of overhead and general charges shall be allocated to each of such objects in proportion to the expenditure which, according to the estimate of the Corporation, would have been incurred in constructing a separate structure solely for that object, less any amount determined under clause (1) in respect of that object.*

37. Disposal of profits and deficits. —

(1) Subject to the provisions of sub-section (2) of section 40, the net profit, if any, attributable to each of the three main objects, namely, irrigation, power and flood control, shall be credited to the participating Governments in proportion to their respective shares in the total capital cost attributed to that object.

(2) The net deficit, if any, in respect of any of the objects shall be made good by the Governments concerned in the proportion specified in sub-section (1):

Provided that the net deficit in respect of flood control shall be made good entirely by the Government of West Bengal and the Central Government shall have no share in such deficit.”

112. It is noticed that APTEL vide its judgement dated 23.11.2007 had observed that the expenditure incurred by the Petitioner, on objects other than irrigation, power and flood control, are non-commercial in nature and accrue little or no revenue and is not likely to sub serve the objectives of Section 41 and 51 of the Act and therefore, can be allocated to these three heads as per section 32 and 33 of DVC Act, 1948 and the expenditure so allocated to power object, should be allowed to be recovered through the electricity tariff. Subsequently, the Hon'ble Supreme Court vide its judgment dated 23.7.2018 in Civil Appeal No. 4289 of 2008 and batch thereof, upheld the decision of



APTEL as under:

“55. In so far as the issue of allowance of cost relating to ‘other activities’ of the Corporation to be recovered through tariff on electricity is concerned, we have taken note of the objection(s) raised in this regard which in sum and substance is that Sections 32 and 33 of the Act of 1948 are in direct conflict with Sections 41 and 51 of the 2003 Act and, therefore, recovery of cost incurred in “other works” undertaken by the Corporation through power tariff is wholly untenable. Apart from reiterating the basis on which we have thought it proper to affirm the findings of the learned Appellate Tribunal on the purport and scope of the fourth proviso to Section 14 of the 2003 Act and the continued operation of the provisions of the Act of 1948 which are not inconsistent with the provisions of the 2003 Act, we have also taken note of the specific provisions contained in Sections 41 and 51 of the 2003 Act which, inter alia, require maintenance of separate accounts of the other business undertaken by transmission/distribution licensees so as to ensure that the returns from the transmission/distribution business of electricity do not subsidize any other such business. Not only Sections 41 and 51 of the 2003 Act contemplate prior approval of the Appropriate Commission before a licensee can engage in any other business other than that of a licensee under the 2003 Act, what is contemplated by the aforesaid provisions of the 2003 Act is some return or earning of revenue from such business. In the instant case, the “other activities” of the Corporation are not optional as contemplated under Sections 41/51 of the 2003 Act but are mandatorily cast by the statute i.e. Act of 1948 which, being in the nature of socially beneficial measures, per se, do not entail earning of any revenue so as to require maintenance of separate accounts. The allowance of recovery of cost incurred in connection with “other activities” of the Corporation from the common fund generated by tariff chargeable from the consumers/customers of electricity as contemplated by the provisions of the Act of 1948, therefore, do not collide or is, in any manner, inconsistent

113. Accordingly, the expenses of ‘Other activities’ is allowed as claimed by the Petitioner during the period 2014-19.

(F) Impact of Pay Revision and Share of P&G contribution

114. The Petitioner has claimed expenses pertaining to impact of Pay Revision on account of 7th Central Pay Commission and Pension & Gratuity (P&G), over and above, the normative O&M expenses allowable to the generating station.

115. It is noticed that the Petitioner, in its tariff petitions for true-up for the period 2009-14 had made additional claims towards P&G liability based on actuarial valuation. This prayer was, however, rejected by the Commission by its various orders, on the ground that the P&G liability formed part of the O&M expense norms specified under the 2009, Tariff Regulations. Aggrieved by this decision, the Petitioner filed Appeal No.268-275 of 2016 before APTEL and the same is pending. The Petitioner,



as made similar prayers in tariff petitions for the period 2014-19, which was also rejected by the Commission on the ground that the Petitioner's contribution to P&G fund is required to be met through the normative O&M expenses, allowed to the generating stations. However, the Commission in order dated 20.9.2016 in Petition No.353/GT/2014 (approval of tariff for Panchet Hydel Power Station, Units-I & II for the 014-19 tariff period) granted liberty to the Petitioner to claim the said relief through a separate application along with all relevant details, so that a holistic view can be taken in the matter, in accordance with law. Accordingly, the Petitioner had filed Petition No.197/MP/2016, wherein P&G contribution of Rs.3228.86 crore and impact of pay revision from January, 2016 as Rs.420.27 crore for 2014–19 was claimed over and above the normative O&M expenses specified under Regulation 29 of the 2014 Tariff Regulations. The Commission, vide its order dated 4.9.2019, while holding that the said petition was maintainable, disposed of the same as under:

"25.....The employee expenses, in general, form a considerable part of O&M expenses and includes all types of employee related expenses like Salary, contribution to CPF, gratuity, pension, etc., However, the submission of the Petitioner that no part of P&G contribution related to power business were factored in the O&M expenses during the base years cannot be appreciated in the absence of any supporting details/data being furnished by the Petitioner. As stated, the normative O&M expenses were specified under Regulation 29 of the 2014 Tariff Regulations after giving due consideration of the requirements of various generating companies. The Petitioner DVC has argued that in so far as the liability of pension for its employees is concerned, it is unique and different from those prevalent in other central generating stations regulated by this Commission since the revision of pension from time to time, is based on the decision of the Central Govt. However, the information/details available on record do not support the aforesaid submission of the Petitioner that it incurs extra expenditure on terminal benefits to the employees over and above the normative O&M expenses under the 2014 Tariff Regulations. In the above background and in the absence of any supporting details/data, the prayer of the Petitioner cannot be granted in this order. However, the Petitioner is at liberty to claim the said relief with all relevant information/ documents including the (a) actuarial valuation; (b) actual data duly audited and certified by the auditor and (c) annual accounts of the pension fund, at the time of truing up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations

26.xxxxx

27. We notice that subsequently, the Petitioner has implemented the recommendations of the 7th Pay Commission for its employees with effect from 1.1.2016. In view of this, the impact of pay revision, after implementation of



the 7th Pay Commission, is required to be examined on actual basis, on prudence check of the information/ details to be submitted by the Petitioner. Accordingly, we direct the Petitioner to furnish the actual impact of pay revision based on the recommendations of the 7th CPC, effective from 1.1.2016, along with details of HRA and transport allowance from July, 2017. The aforesaid details/information shall be furnished by the Petitioner at the time of truing up of tariff and the same will be considered in accordance with law.”

116. Based on the above, the Petitioner, in respect of its petitions for truing-up of generation tariff for the period 2014-19, has submitted its claim for P&G contribution and for impact of pay revision, as additional O&M expenses, which are examined below:

(i) Impact of Pay revision

117. The Petitioner has claimed total amount of Rs.1910.11 lakh (Rs.607.31 lakh during 2016-17, Rs.764.39 lakh during 2017-18 and Rs.538.41 lakh during 2018-19) towards impact on account of Pay revision during 2014-19 tariff period, due to recommendations of 7th Pay Commission. Further, the Petitioner has submitted that the Commission, while specifying the 2014 Tariff Regulations, has in the Statement of Objects and Reasons (SOR) that the increase in employee expenses on account of pay revision shall be considered appropriately on case-to-case basis, balancing the interest of generating stations and consumers.

118. The Commission *vide* ROP of the hearing dated 25.5.2021, directed the Petitioner to furnish the following information:

“True-up for 2014-19 tariff period

“i. Break-up of the actual O&M expenses of the generating station under various subheads (as per Annexure-A enclosed) after including the pay revision impact (employees, CISF and Corporate Centre) and wage revision impact (minimum wages), if applicable. (in both MS Excel and PDF format).

ii. Break-up of the actual O&M expenses of Corporate Centre/other offices including pay revision impact (as per Annexure-B enclosed) for the generating station along with the allocation of the total O&M expenses to the various generating stations under construction, operational stations and any other offices/business activity, along with basis of allocating such expenditure (in both MS Excel and PDF format).

iii. Breakup of the pay revision impact claimed in respect of employees of the Petitioner



Company, Security personnel stationed at the generating station and Corporate Centre/other offices employee cost allocated to the generating station. (as per Annexure-C enclosed in both MS Excel and PDF format).”

119. In compliance to the aforesaid directions, the Petitioner *vide* affidavit dated 1.7.2021, has furnished the information and submitted that additional O&M expenses including P&G liability claimed as elements of Part B of the total annual fixed charges and the same were not considered, while preparing the data as per Annexure-A, i. e., in pay revision. Accordingly, the total O&M expenses claimed, as per Annexure-A, for the period 2014-19 is as follows:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
9872.33	11315.38	13178.98	15044.52	12421.31

120. The Petitioner has further submitted that in line with the methodology adopted by the Commission, while approving the common office expenditure for the period 1.4.2014 to 31.3.2019 in order dated 27.9.2016 in Petition No.350/GT/2014, the actual O&M expenses of Corporate Centre/ other offices has already been apportioned between O&M expenses of DVC's transmission business & generating stations and is further apportioned to the O&M expenses of various generating stations in operation. The O&M expenses of Corporate Centre / other offices are also apportioned in above manner and considered in Annexure-A. The Petitioner has also stated that it has claimed total Security expenses including the impact of pay revision of the security personnel, however, as per direction of the Commission *vide* ROP for hearing dated 25.5.2021, the breakup of the impact of pay revision claimed in respect of the Security personnel stationed at the generating station and the apportioned cost of security expenses at Corporate Centre / other offices allocated to the generating station, as per Annexure-C, has been submitted. The Petitioner has further submitted that due to frequent transfer of employees from one generation station to other



generating station/ T&D wing, on same post or to the higher post, due to promotion, during the period from 1.1.2016 to 31.3.2019 and due to the delayed implementation of pay revision in DVC, it is difficult to find out the station-wise impact of pay revision. Accordingly, the impact of pay revision of DVC employees has been determined in totality towards Power business and thereafter apportioned to transmission and generation based on the capital cost and further apportioned to various generators, based on their installed capacity, as per methodology adopted by the Commission, while approving the common office expenditure *vide* order dated 20.9.2016 in Petition No. 352/GT/2014.

121. Respondent DVPCA has submitted that the impact of pay revision claimed by the Petitioner shall not be allowed as the same is to be considered within the normative O&M expenses and also actual O&M expenses, including pay revision expenses, are well within the limit of normative O&M expenses. DVPCA has compared the overall claimed O&M expenses by the Petitioner, in its various generation tariff petitions with the overall actual O&M expenses and submitted that the actual O&M expenses are lower than the normative O&M expenses and thus, there is no requirement of allowing pay revision expenses additionally.

122. The Petitioner, in its rejoinder, has reiterated the submissions and has stated that the recovery of impact of pay revision is to be considered and allowed in line with tariff principles enshrined under Section 61(d) of the Act. It has also mentioned that the norms for O&M expenses under the 2014 Tariff Regulations, were determined on the basis of the actual O&M expenses for the years 2008-09 to 2012-13 and the 2014 Tariff Regulations, were notified by the Commission on 21.2.2014 i.e., prior to the implementation of the pay revision (7th CPC). Accordingly, it has submitted that while

arriving at the O&M norms for the period 2014-19, the Commission had no occasion to consider the impact of pay revision w.e.f. 1.1.2016. The Petitioner has further submitted that the Commission while specifying the 2014 Tariff Regulations, was of the view that the increase in employee expenses on account of pay revision, in case of central generating stations and private generating stations are to be considered appropriately and therefore, the Commission decided that the said costs shall be examined on case-to-case basis so that the interest of generating stations and consumers remains balanced. Accordingly, the Commission *vide* its order dated 4.9.2019 in Petition No. 197/MP/2016 had directed the Petitioner to furnish the actual impact of pay revision at the time of truing up of tariff.

(ii) Share of P&G Contribution

123. The Petitioner has claimed share of P&G contribution for the period 2014-19 as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
741.83	1904.97	2093.49	4739.55	895.52

124. The Petitioner, in terms of the directions contained in order dated 4.9.2019, in Petition No.197/MP/2016, has furnished the following data, duly certified by auditor:

- (a) actuarial valuation of pension and gratuity.*
- (b) actual data as per books of accounts on terminal benefits; and*
- (c) annual accounts of pension funds for the period 2014-19.*

125. The Petitioner has further submitted that as per recommendations of the 7th Pay Commission, the Cabinet on 12.9.2017, had cleared the Payment of Gratuity (Amendment Bill 2017), wherein, the upper ceiling of gratuity has been enhanced from the present value of Rs.10 lakh to Rs.20 lakh, effective from 1.1.2016. It has submitted, that since the impact due to enhancement of upper ceiling of gratuity has not been considered / factored by the Commission, while fixing the normative O&M



expenses for the period 2014-19, the Commission may consider the impact while considering the P&G contribution for the period 2014-19.

126. Respondent DVPCA has submitted that the Petitioner has claimed normative O&M expenses, in accordance with the 2014 Tariff Regulations and the same is being allowed, the additional expenses claimed by the Petitioner, over and above the normative O&M expenses, under the heads, P&G, Pay revision, Ash Evacuation expenses, CISF Security expenses, Expenditure for subsidiary activities, Mega Insurance expenses, impact of GST on O&M may be disallowed.

127. In response, the Petitioner in its response has clarified as follows:

- (a) DVC as a statutory body is required to maintain appropriate scheme for meeting the Terminal Benefits of the employees i.e., Pension (wherever the appointment of employees is on pension basis), Gratuity, Contributory Provident Fund i.e., CPF (wherever the employment of the employees is on Provident Fund contribution basis instead of pension). The CPF scheme being an alternative to the pension scheme, is for those who have not opted or otherwise not eligible for pension scheme and DVC makes contribution to the CPF. In addition to the above, there is also a General Provident Fund (GPF), wherein, fund is contributed only by the employees but not by DVC. Thus, Provident Fund schemes are of two types, namely, the CPF and the GPF.
- (b) Article 16 and 17 of Employees Provident Funds and Miscellaneous Provisions Act, 1952 provides for administration of Provident Fund Scheme. Accordingly, DVC is maintaining Provident Fund, both CPF and GPF, in respect of each of the employees with individual account of the employees duly reflecting (a) the contribution apportioned to such employees or the contribution made by DVC, wherever applicable, (b) apportionment to such employees, apportionment of the interest earned on the money invested from the Provident Fund Scheme in approved securities and (c) contribution made by the employees to the GPF. Such contributions are maintained in a separate account of each of the employees as per the applicable scheme.
- (c) The Pension & Gratuity Fund accounts are maintained separately by the Trust. The contributions to the Pension and Gratuity Trust are made based on actuarial valuation undertaken from time to time by actuaries appointed for the purpose. The actuarial valuation is in regard to all the employees and workmen of DVC.
- (d) No part of the amount related to Pension or Gratuity Fund contribution is used by DVC for its business activities in any of the years commencing from 01.4.2006 i.e. for the period in which the tariff is being determined by this Hon'ble Commission, upon coming into force of the Electricity Act, 2003. The contribution to the Pension & Gratuity Fund made by DVC is considered in the audited



accounts of the DVC for the respective financial years.

- (e) In regard to the Provident Fund, the amount contributed is maintained by DVC but is dedicated to the benefit of DVC's employees and workmen. As in the case of Pension & Gratuity Fund, no part of the Provident Fund amount is to the account of DVC or to be utilised for the business activities of DVC. In line with the Employees Provident Funds and Miscellaneous Act, 1952, DVC is investing CPF and GPF amount in approved securities and the interest thereof is apportioned to employees. This has been reflected in Schedule 27 with two corresponding entries, namely, interest payable and interest recoverable on investment. DVC is required to duly account for all such interest.
- (f) The amount contributed by DVC to the Pension & Gratuity Fund is invested by the Trust in the name of the trust and not in the name of DVC. The interest accrued on this investment is considered as the income of the Trust. No part of the interest income is realized by DVC or appropriated by DVC in any manner and nowhere it is reflected in the audited accounts of DVC.
- (g) In view of the above, there is a difference between the Pension & Gratuity Contribution of DVC as compared to the Contributory Provident Fund.

128. The Petitioner also submitted that the O&M expenses inclusive of employees cost and Contributory Provident Fund will not cover the revenue requirements of the DVC on account of the P&G contribution on following grounds:

(a) The Contributory Provident Fund is in respect of the actual amount of contribution during the relevant year, and does not involve adjustments for that year in future years, however, the Pension and Gratuity Contribution is to be constantly adjusted for past period of services also and is dependent on actuary valuation to be undertaken from time to time. The period of past services rendered by the employees of DVC including the deficit amount of contribution in the past in order to meet the pension payment to the employees upon their retirement need to be necessarily considered. Similarly, in case the contribution already made is in excess of the requirement, suitable adjustment is made through actuary valuation. Thus, the contribution to P&G cannot be restricted to current year.

(b) The amount of Pension & Gratuity contribution in the case of DVC is significantly more in the recent past i.e., from 1.1.2006 onwards, on account of the following factors:

- (i) Earlier, as there was no fund maintained for receiving the Pension and Gratuity Contribution, the same was being discharged by DVC on revenue basis pay as you go as in the case of any other Government Department. However, as per the mandate of the Comptroller and Auditor General and in accordance with the directions given by the Central Government, now, DVC has to maintain the Pension and Gratuity Fund. Accordingly, the contributions are being made not only for the present year working of the employees but also for all the past years of services including for persons who have retired from DVC in the past;
- (ii) There has been a substantial increase in Pension and Gratuity payment to the employees on account of wage revision pursuant to the decision taken by the Central Government, firstly, in the year 2006 and secondly in the year 2016.



These higher contributions to be made are not confined to the current year but also relates to the payment for the past services including the services rendered by the retired employees;

- (iii) The liability under Contributory Provident Fund ceases with the year in which it is contributed. There is no actuary valuation or adjustment for upward revision on account of any wage revision etc. however, the pension payment is payable by DVC after the retirement of the employees on a continuous basis along with the revision to the pension from time to time as per the decision of the Central Government applicable to all retired employees; further the pension payment liability continues even after the death of the employee. The family pension needs to be given to the widows and other eligible members under the pension scheme.
- (c) Thus, the matter relating to Pension & Gratuity Contribution and other aspects of Terminal Benefit liabilities to the employees including the increase in such Pension and Gratuity contribution on account of actuarial valuation undertaken from time to time cannot be inter-mixed with the normative O&M expenditure provided for in the Tariff Regulations.
- (d) The normative O&M expenses determined by the Commission is based on the normalized actual quantum of expenditure incurred by the Utilities in the past period and escalation of thereof on account of inflation and other factors. Such normative expenditure would consider matters such as contribution to the Provident Fund etc. where the amount of contribution is duly factored as a percentage of the salaries and wages paid to the employees and is adopted by Central Power Sector Utilities who do not maintain a Pension scheme such as NTPC, NHPC etc, however, it cannot be ipso facto adopted for DVC, wherein, some of its employees are under Pension Scheme, as admissible to the Government departments.
- (e) The contribution which DVC has to make towards the Pension and Gratuity Fund from time to time based on the actuarial valuation including for increase in the Pension and Gratuity Contribution related to the past period on account of pay revision, is not factored into in the determination of the employees cost as part of the normative O&M cost decided by this Hon'ble Commission from time to time. These are also not part of any specific tariff elements given in the Regulation 21 and 14 of the 2009 and 2014 Tariff Regulations, respectively.
- (f) APTEL and the Hon'ble Supreme Court in the orders dated 23.11.2007 and 23.7.2018 respectively have directed in favour of full recovery of the P&G contribution. Further, the Commission *vide* order dated 04.09.2019 in Petition no. 197/MP/2016 granted liberty to DVC to claim the Pension and Gratuity contribution along with relevant details at the time of true-up.
- (g) The principle for apportionment of the contribution towards Pension & Gratuity fund to the different generating stations and T&D system of DVC, based on capital cost and installed capacity has been already approved by the Commission for the 2006-09 period and the same principle has been followed by DVC in its true-up petitions for the period 2014-19.
- (h) As regards linking the recovery of Pension & Gratuity contribution to Plant Availability Factor (PAF), the APTEL in its judgment dated 23.11.2007 had directed for recovery of the entire amount of the Pension & Gratuity contribution from the consumers through tariff. The said judgment of APTEL dated 23.11.2007 was upheld by the Hon'ble Supreme Court *vide* its order dated 23.7.2018. The State Commissions of West Bengal



and Jharkhand in their different orders, had also allowed the full recovery of the Pension & Gratuity contribution of the Petitioner.

129. The Respondent's contentions may be rejected and the amount claimed towards contribution to Pension & Gratuity for the period 2014-19 may be allowed to be recovered in full, on sharing basis.

Analysis and Decision

130. The submissions have been considered. As regards pay revision, it is noticed that the Petitioner has prayed and claimed the impact of pay revision on account of 7th pay commission. However, in respect of P&G, it is noted that the Petitioner has primarily pleaded for impact of pay revision on P&G but claimed the actual P&G. It is observed that the normative O&M expenses includes a gratuity and CPF of public sector undertakings. Accordingly, the O&M norms under the regulations account for gratuity and a part of pension pertaining to serving employees of Petitioner. However, the Petitioner has the liability of Pension for retired employees as well. Thus, the actual impact of pension needs to be assessed to examine the additional O&M claim by the Petitioner. It is observed that the Petitioner is maintaining the audited accounts of its entire power vertical, which consists of 15 generating stations, transmission system and distribution system, on consolidated basis. In this regard, the Petitioner has submitted that due to frequent transfer of employees from one generation station to other generating station / T&D wing, on same post, or to the higher post, due to promotion during the period from 1.1.2016 to 31.3.2019, delayed implementation of pay revision etc., the Petitioner has expressed its difficulty to provide the station-wise impact of pay revision separately but determined it in totality for Power business and thereafter, apportioned as per methodology adopted by the Commission, while approving the common office expenditure *vide* order dated 20.9.2016 in Petition No.352/GT/2014.



131. In view of the above, to assess the impact of Pay Revision on O&M expenses and P&G contribution, it was decided to adopt a holistic approach i.e., to compare the actual normalised O&M expenses of power vertical of DVC as per audited accounts, with the normative O&M expenses specified under the 2014 Tariff Regulations. In case the normative O&M expenses are in excess of the actual normalised O&M expenses associated with power vertical, the additional expenditure claimed by the Petitioner shall not be allowed and in case of any, under-recovery, if any, to the extent of impact of pay revision and expenses on account of P&G contribution shall be allowed, in relaxation of O&M norms under the 2014 Tariff Regulations.

132. In order to ascertain the justification for additional O&M expenses, over and above the normative O&M expenses allowed, a comparative analysis of the actual O&M expenses, was undertaken, including the additional normalised claims and the normative O&M expenses allowable under the various tariff petitions for trueing up filed by the Petitioner. It is observed that during the period 2014-19, the total normative O&M expenses allowed as per the Tariff Regulations for the various tariff petition (both Generation and Transmission) is Rs.1044745.04 lakh. Further, as per audited financial statements water charges for Rs.38226.00 lakh (in terms of Regulation 29(2) of the 2014 Tariff Regulations) and Ash Evacuation expenses of Rs.61182.00 lakh (as change in law) has been incurred by the Petitioner, during the 2014-19 tariff period. However in line with the MoEF&CC Notification dated 25.1.2016, the ash transportation charges have been allowed from 26.1.2016 to 31.3.2019 which works out to Rs.39334.64 lakh. Since the Petitioner maintains separate accounts for each generating station and the Petitioner is granted liberty to claim the ash evacuation expenses separately, the total amount allowable to the Petitioner against O&M, Water charges and allowable Ash Evacuation charges is Rs.1122305.68 lakh.



(Rs.1044745.04 lakh + Rs.38226.00 lakh+Rs.39334.64 lakh) whereas, the actual O&M expenses, as per DVC Financial statements for the 2014-19 period is Rs.1219786.00 lakh (including subsidiary activities), which indicates that the actual O&M expenses exceeds the normative O&M expenses, by Rs.97480.32 lakh. However, we note that the actual O&M expenses of Rs.1219786 lakh also includes Provisions for Loss, Doubtful claims & Advances, Doubtful debts, and Shortage/Obsolescence in stores etc. amounting to Rs.77573 lakh, and Rebates & Discount allowed to consumers for Rs.49937 lakh, out of which rebate of Rs.40820 lakh pertain to firm consumers (breakup submitted by the Petitioner vide ROP dated 22.4.2022). When the actual O&M expenses are normalised, by excluding the provisions amounting to Rs.77573 lakh (being a non-cash expenditure and Rebates & Discounts for Rs.40820 lakh pertaining to firm consumers, as stated above, the actual O&M expenses work out to Rs.1101392.70 lakh (i.e., Rs.1219786 - Rs.77573 - Rs.40820.30 lakh). The computation of the normalised actual O&M expenses is as under:

	<i>(Rs. in lakh)</i>					
	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	3821.32	8983.93	8766.85	8393.73	10854.47	40820.30



Allowed						
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

133. A comparison of the normative O&M expenses (including allowable water charges) with the normalized actual O&M expenses in respect of the various truing-up generation and transmission tariff petitions filed by the Petitioner for the period 2014-19 and allowed for the period 2014-19 (in this petition) is as under:

<i>(Rs. in lakh)</i>		
Petition No.	Generating Station / Transmission Petitions	Normative O&M expenses
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 Station 1-2	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 (allowed)	255089.53
(A) Total Normative O&M Expenses allowable		1044745.04
(B) Water charges as per DVC audited accounts to be considered separately under Regulation 29(2) of 2014 Tariff Regulations		38226.00
(C) Ash Evacuation expenses allowed under change in law (w.e.f. 26.1.2016 till 31.3.2019)		39334.64
(D) TOTAL (A+B+C):		1122305.68
(E) Normalized Actual O&M expenses as per audited financial statement of accounts		1101392.70
(F) Excess of Normative O&M expenses, Water Charges & Ash Evacuation charges over the normalized actual O&M Expenses (D-E):		20912.98



134. It is evident from the above, that the total normative O&M expenses allowable in respect of all the generation and transmission tariff petitions of the Petitioner for the 2014-19 period is Rs.1044745.04 lakh, in terms of the 2014 Tariff Regulations. Also, considering the actual water charges of Rs.38226.00 lakh and Ash Evacuation Charges w.e.f. 26.1.2016 of Rs.39334.64 lakh, the total works out to Rs.1122305.68 lakh, which is higher than the normalised actual O&M expenses of Rs.1101392.70 lakh, as per audited financial statements pertaining to Power segment. Further, as per Regulation 29(2) of the 2014 Tariff Regulations, capital spares are allowable separately, and in this petition an amount of Rs.16.77 lakh has been allowed. Further amounts towards Capital spares will be allowed on prudence check, in the remaining tariff petitions of the Petitioner. Since the normative O&M expenses including the actual Water charges and Ash Evacuation charges allowed separately, are in excess of the actual O&M expenses in the case of the Petitioner, we are not inclined to allow the impact of pay revision and the contribution towards P&G, Mega Insurance, CISF expenditure etc., during the period 2014-19, as sought by the Petitioner, in this petition.

Other Additional Claims

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

135. The Petitioner has claimed additional expenditure towards Interest & Contribution on Sinking fund as follows:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
1222.19	1307.74	1399.28	1497.23	1602.04

136. The Petitioner has allocated sinking fund contribution and interest for DVC Bonds amounting to Rs. 3100 crore, amongst its generating stations, as under:



(Rs. in Crore)

	2014-15	2015-16	2016-17	2017-18	2018-19
Total Contribution and Interest for Debt Borrowing	152.77	163.47	174.91	187.15	200.25
Mejia TPS 5&6	12.22	13.08	13.99	14.97	16.02
CTPS 7&8	22.18	23.73	25.39	27.17	29.07
MTPS 7&8	20.99	22.46	24.04	25.72	27.52
DSTPS	43.37	46.40	49.65	53.13	56.85
KTPS	47.26	50.57	54.11	57.90	61.95
RTPS-I	6.75	7.22	7.73	8.27	8.85
BTPS-A	-	-	-	-	-
Total	152.77	163.47	174.91	187.15	200.25

137. In justification of the claim, the Petitioner has submitted that APTEL vide its judgment dated 23.11.2007 in Appeal No. 273 of 2006 & batch, had allowed the recovery of sinking funds and this judgment has also been affirmed by the Hon'ble Supreme Court vide its by judgement dated 23.7.2018 in Civil Appeal Nos. 971-973 of 2008 & batch matters.

138. Respondent DVPCA has submitted that under the 2014 Tariff Regulations, the Petitioner is allowed all expenses related to energy charges and fixed charges and also allows the funding of approved capital cost and interest/ returns on the debt/ equity components on actual / normative basis, as the case may be. It has further submitted that the loan repayment is provided through higher depreciation for initial 12 years and interest on working capital is allowed on normative basis. The Objector has stated that the creation of funds, without any specific purpose, cannot be allowed to be recovered as an expenditure in tariff, even if it is mentioned in DVC Act and the 2014 Tariff Regulations. It also submitted that the Commission may seek details on the purpose of borrowing such funds, when all expenses related to capital funding and working capital funding are allowed. Accordingly, DVPCA has prayed that the claim of the Petitioner may be disallowed. In response, the Petitioner has reiterated the submissions made in the petition. Further, it has also relied upon the APTEL's judgment dated 17.5.2019 in Appeal No.17/2014 & batch (Maithon Alloys Ltd V CERC



& ors) and submitted that, APTEL while rejecting the submissions, observed that there was no double allowance of bonds. The Petitioner, also pointed out that the Objector herein has preferred review (Review Petition No. 4 of 2019) against the judgment dated 17.5.2019, before APTEL and the same is pending and since there is no stay of operation of the said order the same is binding on the parties. Accordingly, the Petitioner has prayed that the submissions of the Objector may be rejected.

139. The matter has been examined. Section 40 of the DVC Act, 1948 provides that the Petitioner shall make provision for depreciation and for reserve and other funds at such rates and on such terms as may be specified by the C&AG in consultation with the Central Government. The APTEL in its judgment dated 23.11.2007 in Appeal No. 271/ 2006 & batch cases, decided as under:

“E.15 As regards sinking funds which is established with the approval of Comptroller and Accountant General of India vide letter dated December 29, 1992 under the provision of Section 40 of the DVC Act is to be taken as an item of expenditure to be recovered through tariff,

140. Regulation 53(2)(iv) of the 2014 Tariff Regulations provides as under:

(iv) Funds under section 40 of the Damodar Valley Corporation Act, 1948: The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.

141. Respondent DVPCA has objected to the claim of the Petitioner and has submitted that neither the provisions of the Electricity Act, 2003 nor the 2014 Tariff Regulations sanction the recovery of cost of generation assets twice over, through (a) allowance of Contribution to Sinking Fund; and (b) Depreciation and allowance of Interest on loan, by treating the amount realized through bonds, as normative debt. Per contra, the Petitioner has, however pointed out that in Appeal No.17/2014 (MAL v CERC & ors.) & batch cases, filed by HT consumers before APTEL, similar submissions raised by the appellants therein, were rejected by APTEL vide its judgment dated 17.5.2019. It is noticed from the said judgment dated 17.5.2019 that



similar contention of the Objector herein, have been rejected by APTEL vide its judgement dated 17.5.2019 as under:

“8.5 We have carefully considered the submissions of learned counsel for the Appellants and learned counsel for Respondent Nos.1 & 2 and also took note of the various judgments relied upon by the parties. While the main contentions of the learned counsel for the Appellants are against the allowance of contribution to sinking fund to DVC and its utilisation, on the other hand, learned counsel for the Respondents contend that the Central Commission is allowing the same as per settled position of law and its relevant regulations relating to the subject. Learned counsel for the Appellants contended that this Tribunal did not lay down that DVC could be allowed with both interest on loan as well as contribution to sinking fund which tantamount to a particular cost component being allowed twice to a generating company.

8.6. It is relevant to note that as per Section 40 of DVC Act, 1948, DVC is entitled for provision for depreciation, reserve and other fund. This Tribunal in its judgment dated 23.11.2007 in Appeal No.271 of 2006 & batch has held the admissibility of sinking fund in favour of DVC which has also been upheld by the Hon'ble Supreme Court in its judgment dated 23.7.2018 reported as 2018 (8) SCC 281. Regarding the contention of alleged double counting of learned counsel for the Appellant, we find no such duplication in the considerations and findings of the Central Commission.

8.7 Further, from the Tariff Regulation of the Central Commission, it is noticed that interest on loan and interest on working capital are distinct elements of the tariff and at no point of time, the repayment of loan capital is considered as a tariff element to be serviced in the tariff. The redemption of bonds from contribution to sinking fund is a special tariff element provided for DVC under Section 40 of the DVC Act, 1948 in addition to tariff elements provided in the Tariff Regulations. This aspect has already been upheld by the Apex court vide its judgment dated 23.7.2018 (stated supra). It is also noted from the tariff regulations that depreciation and interest on loan payable are two different aspects while sinking fund contribution is an additional tariff element admissible only to DVC under the DVC Act. We, therefore, find no force in the contentions of the learned counsel for the Appellants that by allowing depreciation, interests on loan and sinking fund altogether, results into double counting and in turn yields into undue burden on consumers.

8.8 In view of above facts, we hold that the Central Commission has passed the impugned order in accordance with settled position of law and its Regulations. Thus, the instant case does not give in any manner rise to substantial question of law requiring our intervention / interference”

142. Though the Respondent has sought review of the said judgment before APTEL, there is no stay of operation of the said judgement. Regulation 53(2)(iv) of the 2014 Tariff Regulations categorically provides that the funds created under Section 40 of the DVC Act, 1948 shall be considered as item of expenditure to be recovered through tariff. It is observed that the sinking funds have been created only for redemption of



bonds. Accordingly, the amount claimed by the Petitioner for this generating station is allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
1222.19	1307.74	1399.28	1497.23	1602.04

(B) Share of Common Office Expenditure

143. The Petitioner has submitted that the expenditure pertaining to common offices such as Direction Office, Central Office, Other Offices, Subsidiary activities, IT centre and R&D caters services to all generating stations as well as composite transmission and distribution systems. In this regard, it is noted that the Petitioner *vide* affidavit dated 9.9.2022 in Petition No. 567/GT/2020 (DTPS 3 & 4) has updated the additional capital expenditure pertaining to common offices. The revised additional capital expenditure claimed by the Petitioner towards various offices under Common offices is summarised as below:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Central Office	50.86	94.73	43.26	1,263.95	393.86
R & D	2.72	38.31	0.00	(-)550.49	0.00
Direction Office	26.85	9.17	68.62	50.07	(-)255.83
Subsidiary Activities	0.20	1.66	7.37	3.29	0.13
IT Cell	37.69	0.00	0.00	0.00	185.62
Other Offices	1.49	30.17	44.63	406.40	62.70
Total	119.82	174.04	163.88	1173.22	386.48

144. The head-wise additional capital expenditure claimed by the Petitioner towards common offices is summarised as below:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Land and Land Rights	2.72	0.00	0.00	508.33	70.80
Buildings	1.49	38.31	0.00	34.91	130.47
Power House	0.00	0.00	38.84	0.00	5.42
Sub Station equipment	0.00	8.01	1.15	431.94	52.08
Other assets, Office Furniture and Personalcomputer	77.91	128.60	124.77	198.34	29.09
Cyber Security	0.00	0.00	0.00	0.00	97.85
EBA	37.69	0.00	0.00	0.00	0.00
Machinery & equipment	0.00	(-)0.88	(-)0.88	(-)0.01	0.00
Tower Pole & Fixtures	0.00	0.00	0.00	(-)0.28	0.00



Assets Held for Disposal	0.00	0.00	0.00	0.00	0.76
Total	119.82	174.04	163.88	1173.23	386.48

145. The Petitioner has computed the Return on Equity, Interest on Loan and Depreciation on the Common Assets for the period 2014-19 based on the opening capital cost as on 1.4.2014 for different offices and has apportioned them to each generating stations and T&D system in proportion to the capital cost approved as on 31.3.2014. Further, the Petitioner has allocated the cost of common offices among generating stations of the Petitioner on the basis of installed capacity. The annual fixed charges claimed towards assets of common offices are as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Direction Office	146.09	85.91	107.01	128.92	68.70
Subsidiary Activities	113.33	113.94	114.21	114.52	114.92
Other Offices	129.97	132.58	115.82	171.39	207.12
R&D	319.84	315.43	308.45	248.10	190.53
IT	43.87	46.34	44.98	43.46	58.84
Central Office	570.62	562.94	561.83	645.87	771.37
Total	1323.73	1257.14	1252.29	1352.25	1411.48

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Common Office Expenditure apportioned to all generating Stations of DVC	1218.63	1157.33	1152.86	1244.88	1299.41
Common Office Expenditure apportioned to T&D	105.10	99.82	99.43	107.37	112.07
Total	1323.73	1257.14	1252.29	1352.25	1411.48

146. In line with the above, the Petitioner has claimed the apportioned common office expenses for this generating station as under.

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Common Office Expenditure apportioned to Mejia- V to VI	97.40	91.13	77.47	83.89	89.77

147. The matter has been considered. It is observed that the Petitioner's claim for common office expenditure is in line with the Commission's methodology and decision in the previous tariff orders in respect of the generating stations of the Petitioner.



Accordingly, in order to work out the Common office expenditure to be allowed as a part of truing-up, we have examined the additional capital expenditure claimed by the Petitioner, as under:

Land and Land Rights

148. The Petitioner has claimed an additional capital expenditure of Rs. 2.72 lakh in 2014-15 and (-) Rs.550.49 lakh in 2017-18 in R&D Centre; & Rs.1058.82 lakh in 2017-18 and Rs.70.80 lakh in 2018-19 for Central Office under this head. However, the Petitioner has not furnished any justification for the same. Subsequently, in response to the ROP for the hearing dated 10.8.2022 in another Petition No. 567/GT/2020 (DTPS 3 & 4), the Petitioner submitted that these expenses were incurred for transfer of land from R & D to Central Office as per the Govt. of West Bengal (change in the type of land from educational to business), capitalization of land in Ranchi and Kolkata, decapitalization of asset from R&D etc., considering the nature of expenses, the expenditure claimed as additional capitalization and decapitalization is allowed under the 2014 Tariff Regulations.

Buildings

149. The Petitioner has claimed total additional capital expenditure of Rs.165.38 lakh during 2017-19 (i.e., Rs 34.91 lakh in 2017-18 and Rs.130.47 lakh in 2018-19) for Central Office; Also, an amount of Rs.1.49 lakh in 2014-15 has been claimed for Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)]; and Rs. 38.31 lakh in 2015-16 for R&D Centre under this head. The Petitioner *vide* its affidavit dated 9.9.2022 in revised submissions mentioned that Rs.165.38 lakh pertains to transfer of asset from DAM to central office, stamp paper & registration of a property in Delhi; Rs. 38.31 lakh



pertains to expansion of R & D building and Rs.1.49 lakh towards extension of Central Testing Laboratory building; Considering the nature of expenses, the claimed expenditure as additional capitalization is allowed under the 2014 Tariff Regulations.

Power House Plant & Machinery

150. The Petitioner has claimed additional capital expenditure of Rs. 38.84 lakh in 2016-17 and Rs.5.42 lakh in 2018-19 for Direction Office, towards installation of Rooftop solar power plant at DVC Head Quarters for consumption of solar power for own usage. It is observed that the Petitioner has not justified the need for the work being undertaken and as to how the same would benefit the operations of the Petitioner in general and generating stations in particular. Accordingly, the additional capital expenditure of Rs.38.84 lakh in 2016-17 and Rs.5.42 lakh in 2018-19 for Direction Office is not allowed.

Machinery & Equipment- Workshop

151. The Petitioner has claimed an additional capital expenditure of (-) Rs.0.88 lakh in 2015-16, (-) Rs.0.88 lakh in 2016-17 and (-) Rs. 0.01 lakh in 2017-18 in Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)], as rectification entry under this head. In view of this, the claims are allowed.

Sub-Station Equipment

152. The Petitioner has claimed additional capital expenditure of Rs. 8.01 lakh in 2015-16, Rs.1.15 lakh in 2016-17, Rs. 431.94 lakh in 2017-18 and Rs. 52.08 lakh in 2018-19 for Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM),



Central Service Organization (CSO) and Central Load Despatch (CLD)] and (-) Rs.5.70 lakh in 2017-18 for Direction Office under this head. As regards additional capital expenditure pertaining to Other Offices, the Petitioner has submitted that the expenditure was incurred to upgrade and equip the existing relay testing laboratory for accreditation by the National Accreditation Board for Testing and Calibration. As the additional capital expenditure incurred for NABL accreditation is not covered under the provisions of the 2014 Tariff Regulations, the additional capitalization and decapitalization claimed are not allowed.

Tower Poles & Fixtures

153. The Petitioner has claimed additional capital expenditure of (-) Rs.0.28 lakh in 2017-18 for Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)] under this head as a rectification entry. Accordingly, the same is allowed.

Cyber Security Devices

154. The Petitioner has claimed additional capital expenditure of Rs.97.85 lakh in 2018-19 for IT Cell–HQ towards strengthening the IT Cell to safeguard the IT equipment against any cyber threat, with the overall aim to protect data, and network secrecy to ensure smooth functioning of the system. The Petitioner has submitted that the said work is in compliance to the directives of the Ministry of Power (MOP), Government of India (GOI) dated 12.4.2010 and 2.8.2017, with regard to the steps to be taken to prevent cyber-attacks. As the work is in compliance to the directives of MOP, GOI to prevent cyber-attacks, the additional capital expenditure of Rs.97.85 lakh claimed towards procurement of cyber security devices for the period 2014-19 is allowed.



EBA- Integrated Software

155. The Petitioner has claimed additional capital expenditure of Rs.37.69 lakh in 2014-15 for IT Cell – HQ for supporting system of the integrated software used to facilitate various functions including material management, finance & accounting. It is noticed that the said work is related to ERP implementation at Head Office and hence, the additional capital expenditure claimed under this head is allowed.

Other Assets, Office Furniture and Personal Computers

156. The Petitioner has claimed following additional capital expenditure under the head 'Other Assets', 'Office Furniture' and 'Personal computer' towards procurement of like personal computer, software, hardware, office equipment etc.

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Direction Office	26.85	9.17	29.77	55.79	(-)291.94
Subsidiary Activities	0.20	1.66	7.37	3.29	0.13
Other Offices	0.00	23.04	44.36	(-)30.96	10.62
R&D	0.00	0.00	0.00	0.00	0.00
IT	0.00	0.00	0.00	0.00	87.77
Central Office	50.86	94.73	43.26	170.21	222.52
Total	77.91	128.60	124.77	198.34	29.09

157. In justification for the same, the Petitioner has submitted that to fulfil the demand of valley area as well as other state utilities and distribution licensees, these items had to be additionally procured for capacity addition during the 2014-19 tariff period. The Petitioner has also submitted that the expenditure was essential to cope up with the extra volume of works associated with the huge capacity augmentation program taken up by the Petitioner and for smooth functioning of the offices. Considering the nature of these items, the additional capitalization and decapitalization is not allowed, in terms of first proviso to Regulation 14(3) of the 2014 Tariff Regulations.

Assets Held for Disposal



158. The Petitioner has claimed total of Rs. 0.76 lakh (negative entry of Rs. 29.93 lakh in Central office and positive entry of Rs. 30.68 lakh in Direction office) under Asset held for disposal, however, has not furnished any justification for the same. Accordingly, the additional capitalization and decapitalization under this head is not allowed.

159. Accordingly, the item-wise additional capital expenditure allowed towards various offices is summarised below:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Land and Land Rights	2.72	0.00	0.00	508.33	70.80
Buildings	1.49	38.31	0.00	34.91	130.47
Road Culverts & Rly. Sidings	0.00	0.00	0.00	(-)0.01	0.00
Power House Plant & Machinery	0.00	0.00	0.00	0.00	0.00
Machinery & Equipment-Workshop	0.00	(-) 0.88	(-) 0.88	(-) 0.01	0.00
Sub Station Equipment	0.00	0.00	0.00	0.00	0.00
Tower Poles & Fixtures	0.00	0.00	0.00	(-) 0.28	0.00
Cyber Security Assets	0.00	0.00	0.00	0.00	97.85
EBA - Integrated Software	37.69	0.00	0.00	0.00	0.00
Other Assets	0.00	0.00	0.00	0.00	0.00
Assets Held for disposal	0.00	0.00	0.00	0.00	0.00
Total	41.90	37.43	(-) 0.88	542.94	299.13

160. Based on the above, the additional capitalization allowed for various offices under common offices during the 2014-19 tariff period is summarised as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Direction Office	0.00	0.00	0.00	(-)0.01	0.00
Subsidiary Activities	0.00	0.00	0.00	0.00	0.00
Other Offices	1.49	(-)0.88	(-)0.88	(-)0.29	0.00
R&D	2.72	38.31	0.00	(-)550.49	0.00
IT	37.69	0.00	0.00	0.00	97.85
Central Office	0.00	0.00	0.00	1093.73	201.27
Total	41.90	37.43	(-)0.88	542.94	299.13

161. It is observed, that the Petitioner has worked out ROE by grossing up the rate of ROE with MAT rate. However, as the Petitioner has not been paying any income tax in any of the financial year of 2014-19 tariff period, 'Nil' rate has been considered



as effective tax rate for respective financial year for the purpose of grossing up of ROE in terms of the provisions of the 2014 Tariff Regulations and the rate of return on equity is considered as 15.50% for the period 2014-19.

162. The annual fixed charges for Common offices have been worked out by considering the closing capital cost as on 31.3.2014 as the admitted opening capital cost as on 1.4.2014. The annual fixed charges of Common Offices, as worked out for the period 2014-19, have been apportioned to generating stations / T&D systems, based on the approved capital cost as on 31.3.2014. Accordingly, in line with the decision of the Commission order dated 29.7.2016 in Petition No. 465/GT/2014, the fixed charges have been computed and has been allocated to various generating stations as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	471.40	407.64	343.93	348.25	368.72
Interest on Loan	140.86	111.83	99.77	67.56	58.18
Return on Equity	548.59	550.43	551.28	563.88	583.46
Total	1160.85	1069.90	994.98	979.69	1010.37

(Rs. in lakh)

	Capital Cost as on 1.4.2014	2014-15	2015-16	2016-17	2017-18	2018-19
All DVC Generating Stations	2036943.91	1068.68	984.95	915.98	901.90	930.14
T&D	175678.95	92.17	84.95	79.00	77.79	80.22
Total	2212622.86	1160.85	1069.90	994.98	979.69	1010.37

(Rs. in lakh)

Common Office Expenditure Allocation	2014-15	2015-16	2016-17	2017-18	2018-19
MTPS Units 5-6 (This generating station)	85.41	77.56	61.55	60.78	64.26

163. Accordingly, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	15290.97	15448.76	15512.93	15576.50	15625.29
Interest on loan	4853.48	3364.87	1775.33	457.15	0.00



	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	9781.13	9881.99	9921.30	9960.21	9991.38
Interest on Working Capital	5338.51	5462.12	5426.36	5523.11	5573.48
O&M Expenses	11950.00	12700.00	13500.00	14350.00	15255.00
Water Charges	0.00	1623.48	886.24	528.89	574.00
Capital Spares	16.77	0.00	0.00	0.00	0.00
Compensation Allowance	0.00	0.00	0.00	0.00	50.00
Sub-Total (A)	47230.86	48481.21	47022.15	46395.86	47069.15
Additional O&M Expenses					
Impact of Pay Revision	0.00	0.00	0.00	0.00	0.00
Impact of GST	0.00	0.00	0.00	0.00	0.00
Share of Pension & Gratuity Contribution	0.00	0.00	0.00	0.00	0.00
Share of Subsidiary Activities	280.13	342.49	285.53	274.75	194.05
Mega Insurance Expenses	0.00	0.00	0.00	0.00	0.00
CISF Security Expenses	0.00	0.00	0.00	0.00	0.00
Interest & Contribution on Sinking Fund	1222.19	1307.74	1399.28	1497.23	1602.04
Share of Common Office Expenses	85.41	77.56	61.55	60.78	64.26
Sub-Total (B)	1587.73	1727.79	1746.37	1832.76	1860.35
Total Annual Fixed Charges (C) = (A) + (B)	48818.59	50209.00	48768.52	48228.62	48929.50
Annual fixed charges allowed vide order dated 16.3.2017 in Petition No. 144/GT/2015	48206.68	47262.46	46367.78	46358.38	47377.80

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column

164. The Ash disposal expenses to be reimbursed in six monthly instalments, in terms of paragraph 96 above, is as under.

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	722.50	3027.51	1397.99	1119.73

165. The difference between the annual fixed charges already recovered by the Petitioner and the annual fixed charges determined by this order, shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

DETERMINATION OF TARIFF FOR THE PERIOD 2019-24

166. The Petitioner, in this petition, has also sought determination of tariff of the generating station for the period 2019-24, in terms of the 2019 Tariff Regulations. Accordingly, the capital cost and the annual fixed charges claimed by the Petitioner



are as under:

Capital Cost claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (A)	217114.39	217573.39	220591.07	222201.12	226396.30
Add: Additional Capital Expenditure (B)	596.50	3754.11	1864.05	4241.12	2118.79
Less: De-capitalization during the year / period (C)	137.49	736.44	254.00	45.94	26.73
Less: Reversal during the year / period (D)	0.00	0.00	0.00	0.00	0.00
Less: Undischarged liabilities (E)	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year / period (F)	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost (G) = (A+B-C-D-E+F)	217573.39	220591.07	222201.12	226396.30	228488.36
Average Capital Cost (H) = (A+G)/2	217343.89	219082.23	221396.09	224298.71	227442.33

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15822.51	9863.67	2730.52	2840.95	2870.61
Interest on loan	17.54	30.55	34.61	24.10	16.17
Return on Equity	12882.44	12978.33	13104.39	13272.41	13458.00
Interest on Working Capital	4702.71	4647.10	4584.58	4635.64	4696.96
O&M Expenses	16480.00	17060.00	17655.00	18280.00	18920.00
Water Charges	1390.24	1525.09	1677.60	1845.36	2035.46
Security Expenses	1222.94	1276.75	1332.93	1391.58	1452.82
Sub-Total (A)	52518.38	47381.49	41119.63	42290.04	43450.01
Interest & Contribution ON Sinking Fund (As per section 40, Part IV of DVC Act)	1714.18	1834.17	1962.57	2099.95	2246.94
Share of P&G	1863.22	1950.80	2042.51	2138.52	2239.04
Share of Common Office Expenditure	98.33	105.52	106.85	91.89	83.76
Expenses for Ash Evacuation, Mega Insurance and Subsidiary Activities	1479.47	1544.57	1612.54	1683.49	1757.57
Sub-Total (B)	5155.20	5435.07	5724.46	6013.85	6327.32
Total Annual Fixed Charges (A+B)	57673.58	52816.57	46844.09	48303.89	49777.33



Capital Cost

167. Clauses (1), (3) and (5) of Regulation 19 of the 2019 Tariff Regulations provides as under:

“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.

....

(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 upto 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.

....

(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.”

168. The opening capital cost claimed by the Petitioner, as on 1.4.2019, is Rs. 217114.39 lakh. However, the closing capital cost of Rs. 215530.47 lakh as on 31.3.2019, as approved in this order, for the period 2014-19, has been considered as the opening capital cost as on 1.4.2019, for the purpose of determination of tariff for the period 2019-24, in accordance with the above Regulations.



Additional Capital Expenditure

169. Regulation 25 and Regulation 26 of the 2019 Tariff Regulations, provides as under:

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

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

(g) Raising of ash dyke as a part of ash disposal system.

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

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

26. Additional Capitalisation beyond the original scope

(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

(a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Force Majeure events;

(d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;

(e) Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;

(f) Usage of water from sewage treatment plant in thermal generating station.

(2) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of decapitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.”

170. The year-wise projected additional capital expenditure claimed by the Petitioner in respect of the generating station are as under:

(Rs. in lakh)							
	Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
C&I system							
Upgradation of Bently-Nevada VMS Server of Unit-6	25 (2) (c)	30.30	0.00	0.00	0.00	0.00	30.30
Upgradation of max DNA DCS related HMI system of Unit -5	25 (2) (c)	0.00	385.00	0.00	0.00	0.00	385.00
Upgradation of max DNA DCS related HMI system of Unit -6		0.00	385.00	0.00	0.00	0.00	385.00
Upgradation of GE Fanuc Make PLC system with HMI of AHP & DM Plant of Units-5 & 6.		0.00	103.00	0.00	0.00	0.00	103.00
Upgradation of Bently-Nevada VMS Server of Unit-5		0.00	0.00	35.00	0.00	0.00	35.00
Total		30.30	873.00	35.00	0.00	0.00	938.30
Electrical system of Coal Handling Plant Units 5 & 6 (CHES-II)							
415 V LT Breaker for MCC panel - 1 no.	25 (2) (a)	5.50	0.00	0.00	0.00	0.00	5.50



	Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Installation of Metal Detector - 04 nos.		50.00	0.00	0.00	0.00	0.00	50.00
Replacement of Battery bank		0.00	0.00	15.00	0.00	0.00	15.00
In line magnetic separator (Magnet) - 1 NO.		0.00	0.00	31.00	16.00	0.00	47.00
415 V Air Circuit Breaker L & T Make (Motor feeder)		0.00	0.00	6.00	0.00	0.00	6.00
Procurement of HT Breaker (6.6 KV) Make BHEL		5.00	0.00	0.00	0.00	7.00	12.00
Different types of LT Motors		0.00	0.00	8.00	0.00	0.00	8.00
Total		60.50	0.00	60.00	16.00	7.00	143.50
Electrical Inside Powerhouse							
Coal Mill Motor	25 (2) (a)	0.00	0.00	139.00	0.00	0.00	139.00
Complete Battery Bank 360 V System YKP-35, Unit-5&6		116.00	0.00	0.00	0.00	0.00	116.00
VFD for Seal Air Fan (Units 5,6)		0.00	25.00	25.00	0.00	0.00	50.00
Areca Controllers for ESP (Units-5,6)	25 (2) (a)	0.00	15.00	0.00	0.00	15.00	30.00
Complete Battery Bank 220V System YHP-31, Unit-6		0.00	140.00	0.00	0.00	0.00	140.00
Automatic Test Set-up for Power Transformers	76 & 77	0.00	0.00	88.00	0.00	0.00	88.00
Total		116.00	180.00	252.00	0.00	15.00	563.00
220 KV Switch yard SWS2							
Retrofitting of 415 V ACDB of SWS (5-6)	25 (2) (a)	0.00	0.00	0.00	0.00	25.00	25.00
Replacement of Battery bank of Unit (5-6)		0.00	0.00	0.00	60.00	0.00	60.00
Total		0.00	0.00	0.00	60.00	25.00	85.00
POWERHOUSE CIVIL & AHP							
Ash Dyke raising work in phased manner	26 (1) (e)	0.00	670.00	285.00	0.00	0.00	955.00
Replacement of Ash Slurry Disposal Pipe of 300 NB size due to raise in dyke height	25 (2) (c)	0.00	130.00	150.00	0.00	0.00	280.00
Total		0.00	800.00	435.00	0.00	0.00	1235.00
Capital Spares		389.70	1901.11	1082.05	4165.12	2071.79	9609.77
Grand Total		596.50	3754.11	1864.05	4241.12	2118.79	12574.57



171. The Respondent BRPL has submitted that the Petitioner has included Capital Spares in the category of additional capitalization. Referring to Regulation 35(6) of the 2019 Tariff Regulations, the Respondent has submitted that Water Charges, Security Expenses and Capital Spares for thermal generating station, shall be provided separately for the period 2019-24. Accordingly, it has stated that capital spares cannot form part of the capital cost, but part of O&M expenses under Regulation 35 of the 2019 Tariff Regulations. The Respondent has further submitted that the Petitioner may be directed to indicate the availability of 'initial spares' to facilitate prudence check. Accordingly, the Respondent BRPL has submitted that the claim for additional capitalization under Regulations 76 & 77 of the 2019 Tariff Regulations, may be rejected. The Respondents TPDDL and MPPMCL have submitted that out of the total claim of approx. Rs. 125.75 crores for additional capital expenditure, the claim for capital spares alone is approx. Rs. 96.10 crore, without stating any specific justification. The Respondents have also submitted that the Petitioner has claimed substantial expenses towards capital spares as part of additional capitalisation as opposed to the claim under O&M expenses, in terms of Regulation 35(6) of the 2019 Tariff Regulations, since the Petitioner is aware that the said Regulation mandates it to provide details of the year-wise actual capital spares consumed, at the time of truing up with appropriate justification, for the same. Accordingly, the Respondents have contended that the Petitioner's claim for capital spares as part of additional capitalisation, may be disallowed and the Petitioner be directed to claim the same in terms of Regulation 35(6) of the 2019 Tariff Regulations, at the time of truing-up of tariff, subject to furnishing detailed justification. The Respondents have further submitted that the Petitioner has failed to provide the details/justification/explanation in terms of Regulation 25(1)(a) & (c) of the 2019 Tariff Regulations, wherein, the



Petitioner is entitled to additional capitalisation if the “the useful life of the assets is not commensurate with the useful life of the project” and/or “the replacement of such asset or equipment is necessary on account of obsolescence of technology”. However, contrary to these Regulations, the Petitioner has failed to submit any details/document etc. to substantiate its claim that a particular technology has become obsolete or that the useful life of a particular asset is not the same as that of the units and hence, these need to be replaced etc. The Respondents have added that as the items for which additional capitalisation has been claimed by the Petitioner, are in the nature of O&M / R&M expenses, and the same may be met through the O&M expenses allowed to the Petitioner. The Respondents have stated that the Petitioner, under the garb of Regulations 76 and 77 of the 2019 Tariff Regulations, cannot seek to override the specific provisions of the 2019 Tariff Regulations with regard to additional capital expenditure, as the powers are limited and cannot be used to change the essential provisions of the Regulations. In this regard, the Respondents have relied on the judgment of the Hon'ble Supreme Court in *Madava Upendra Sinai vs. Union of India & Ors* (1975) 3 SCC 765.

172. Respondent, DVPCA has submitted that the Petitioner has not provided any proper justification or documentary evidence for claiming the additional capital expenditure incurred after cut-off date as per the regulatory provisions of Regulations 25(2) & 26(1) of the 2019 Tariff Regulations. It has also submitted that the Petitioner has not furnished detailed reasons for additional capitalization claimed under Regulations 76 & 77 of the 2019 Tariff Regulations and has put the onus on the Commission to decide and undertake analysis of claims. The Respondent has added that it is settled law that ‘Power to Relax’ and ‘Power to Remove Difficulty’ has to be exercised in rare cases and not ordinarily and since the Petitioner has not presented/



cited any extra-ordinary circumstances or events which has led to incurring such additional capitalisation and accordingly, the items claimed under additional capitalisation in terms of Regulations 76 and 77 of the 2019 Tariff Regulations may be rejected. According to the Respondent, DVPCA the following additional capital expenditure may be allowed to the Petitioner:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
196.00	898.00	68.00	0.00	0.00

173. The Petitioner in its rejoinder has submitted that all the additional capital expenditures proposed for the generating station are critical to ensure reliable, safe and efficient operation of the station and are therefore unavoidable. The Petitioner has submitted that most of the additional capital expenditures claimed for Units 5&6 of the generating station for the period 2019-24 is based on the following grounds:

- a. Replacement of age old or obsolete equipment or modification of existing equipment in order to ensure reliable and efficient operation – some of these replacements have been projected based on recommendations from the OEM or technical audit;
- b. Raising of ash dyke;
- c. Procurement of tools and equipment to facilitate monitoring, testing and maintenance works with the aim to ensure reliable operation;
- d. Procurement of spares to ensure reliable and efficient operation.

174. Accordingly, the Petitioner has claimed the additional capital expenditure for the generating station under sub-clauses (a), (c), (d) and (e) of Regulation 25(2) of the 2019 Tariff Regulations, as per detailed justification and supporting documents furnished in terms of the said Regulations. The Petitioner has prayed to allow the additional capital expenditure under Regulations 76 and 77 of the 2019 Tariff Regulations, wherever the same is not covered under the sub-clauses of Regulation 25(2) of the 2019 Tariff Regulations.

175. The matter has been considered. Based on the submissions and documents on record, and on prudence check, the claim of the Petitioner for additional capital



expenditure claimed for the period 2019-24, is examined and allowed as under:

(Rs. in lakh)						
Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
2019-20						
1.	C&I system					
	Upgradation of Bently-Nevada VMS Server of Unit # 6	30.30	25 (2) (c)	Presently, VMS Server of Unit 5 & 6 is based on windows XP and requires upgradation of one unit (Unit # 6) to keep spares available after upgradation for utilization in another unit (Unit # 5).	The Petitioner has submitted that the present VMS Server and GE make PLC system of AHP & DM plant of Unit 5 & 6 of the generating station is based on windows XP which has become non-functional. The Petitioner in support has submitted windows lifecycle factsheet as available on the website of the Microsoft. In addition, the Petitioner has also furnished Product Life Cycle Support Notice from GE Energy (OEM). It is observed that the Petitioner has also provided the decapitalization amount of Rs.20.02 lakh as gross value of the old asset to be replaced. In terms of the above, the claim is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations.	30.30
	Total	30.30				30.30
2	Electrical system of Coal handling plant Unit #5 & 6 (CHES- II)					
	415 V LT Breaker for MCC panel - 1 no.	5.50	25 (2)(a)	This breaker has been installed at Incomers and bus couplers of the LT MCC Boards of CHP, U-5 & 6(MCC-1, MCC-2 & MCC-3).The power is feed to different LT conveyor Motors, Illuminations, Local Panels etc. from these LT boards. Spare breaker will be used to replace	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				the damaged breaker, so that uninterrupted coal feeding can be done to the bunkers without hampering generation moreover system reliability will also increase .	expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check, subject to the declaration by the Petitioner, that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	Installation of Metal Detector – 04 nos.	50.00	25(2)(a)	In CHP # 5 & 6 four (0 4) no.of analog type metal detector were installed As recommended by NTPC audit team these type of metal detectors which does not function well need to be replaced by pulse type metal detector .MD is very 111rushers111 for detection of non-ferrous metal from the coal ;hence these protect the 111rushers and coal mills from damage which may cause the loss of generation and reduce the reliability of system	This expenditure has been claimed for replacement of non-functioning metal detectors under Regulation 25(2)(a) of the 2019 Tariff Regulations, along with de-capitalization for Rs.34.82 lakh. The same is allowed considering the audit report submitted by the Petitioner.	50.00
	Procurement of HT Breaker (6.6 KV) Make BHEL	5.00	25 (2)(a)	These Vacuum circuit breakers have been installed at Incomers, Bus couplers and 6.6KV Motor feeders of HT Boards .It is used to protect the electrical	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				equipment from damage caused by excess current, short circuit, earth fault etc. by interrupting the current flow when a fault is detected. Spare breaker will be used to replace the damaged breaker, so that uninterrupted coal feeding can be done to the bunkers without hampering generation moreover system reliability will also increase .	has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	total	60.50				50.00
3	Electrical Inside Power House					
	COMPLETE BATTERY BANK 360V SYSTEM YKP-35, U#5&6	116.00	25 (2)(a)	OEM recommendation after health survey. Health survey reports of battery banks has also been submitted.	Considering the fact that the battery life is not commensurate with plant life, the additional capital expenditure claimed is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations, for replacement of battery bank along with de-capitalization amount for Rs 75.80 lakh.	116.00
	Total	116.00				116.00
3	Capital Spares (total 111 items)	389.70		For ensuring reliable and efficient operation of the units	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration of the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and R&M.	
	Amount claimed	596.50				
	Amount allowed					196.30
2020-21						
1	C&I system					
	Upgradation of max DNA DCS related HMI system of Unit # 5	385.00	25 (2) (c)	HMI of the DCS is Windows XP based for which support service is not available. In addition to the above Network Switches are OLD & slow. Hence, for safety of the M/c upgradation is required. Letter from BHEL has also been submitted.	The Petitioner has furnished the recommendations of M/s BHEL (OEM). It is observed that the Petitioner has also provided the de-capitalized value of Rs 235.81 lakh for Upgradation of max DNA DCS related HMI system of Unit - 5 and Rs. 245.80 lakh for Upgradation of max DNA DCS related HMI system of Unit -6 as gross value of the old assets to be replaced during respective years. Accordingly,	385.00
	Upgradation of max DNA DCS related HMI system of Unit #6	385.00	25 (2) (c)			385.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					the additional capital expenditure claimed towards replacement is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations.	
	Upgradation of GE Fanuc Make PLC system with HMI of AHP & DM Plant of Unit # 5 & 6.	103.00	25 (2) (c)	GE make PLC system of AHP & DM plant of Unit 5 & 6 is declared obsolete by the OEM & Its HMI is Windows XP based requires upgradation.	The Petitioner has furnished the recommendations of OEM with regard to obsolescence of the asset. It is observed that the Petitioner has furnished the de-capitalized value of Rs 63.09 lakh as the gross value of old assets. Accordingly, the additional capital expenditure claimed as replacement is allowed , under Regulation 25(2)(c) of the 2019 Tariff Regulations.	103.00
	Total	873.00				873.00
2	Electrical system of Coal Handling Plant UNIT # 5 & 6 (CHES-II)					
	VFD for seal air fan (U#5,6)	25.00	25 (2)(a)	For phase wise replacement of Old motors with new energy efficient motors. These are so widely used that often called as the "workhorses of industry". The new regulations came into force in October 2017 and require industrial users to switch to IE2 or higher efficiency motors. A thermal power plant consumes 40 percent of all the energy that is produced, with motors consuming roughly 65 percent of this share. Therefore, large energy savings over time may be achieved after installing higher efficiency motors.	The justification furnished by the Petitioner does not relate to the asset, which is proposed to be replaced. In view of this, additional capital expenditure claimed is not allowed .	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				This will not only help Thermal Power Plant to achieve less APC% but also could help India reach its goal of a 35 percent reduction in carbon dioxide emissions, from 2005 levels by 2030, under the United Nations' Paris Agreement.		
	ARECA controllers for ESP (U#5,6)	15.00	25 (2)(a)	To meet & comply the stringent Pollution Norms of SPM, Phase wise replacement of Old & Frequent trouble giving ESP controllers are required to be replaced with modern ESP controllers for improvement in ESP performance.	The Petitioner has not justified the need for replacing the controllers for ESP by producing documentary evidence showing that the said asset is frequently affecting the plant operation and is beyond repair. The Petitioner is at liberty to claim the expenditure, if incurred, at the time of truing up of tariff. The Petitioner is directed to provide relevant data with regard to SPM levels prior to and after replacement of ESP controllers along with the SPM norms to be achieved by the station, at the time of truing up of tariff.	0.00
	Complete battery bank 220v system yhp-31, u#6	140.00	25 (2)(a)	Would be nearing 20 years of service	The generating station has not yet completed 20 years of operation as stated by the Petitioner. Since, the Petitioner has not furnished any justification for replacement of the asset, the claim is not allowed . However, the Petitioner is at liberty to claim the said asset along with proper justification/ documentary evidence at the time of truing up of tariff.	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	Total	180.00				0.00
3	Power House Civil & AHP					
	Ash Dyke raising work in phased manner	670.00	26 (1)(e)	Ash pond was originally existed for U#1-3 only with an area 600 acre and life of 25 years. Phasewise capacity augmentation of MTPS from 630 MW to 2340 MW occurred, but ash pond area remained same. Though continuous efforts to enhance the utilization of Dry Fly Ash has also been taken and MTPS is utilizing 42-45% of Dry Fly Ash generated, yet condition of Ash Pond is very critical. Raising of Ash Dyke is required to enhance the capacity of Ash pond on very urgent basis.	The ash generation and ash disposal is a continuous process to be carried out from time to time during the operating life of the plant, in order to ensure the successful running of the plant. In view of this, we allow the Petitioner's claim under Regulation 26(1)(e) of the 2019 Tariff Regulations.	670.00
	Replacement of Ash Slurry Disposal Pipe of 300NB size due to raise in dyke height	130.00	25 (2)(c)	Nearly around 20KM of pipes & 58 mtr. bends of size 300NB will be required to be replaced, in view of Augmentation of existing ash slurry disposal pumping system due to increase in proposed dyke height of MTPS, Unit # 5-6.	Considering the fact that work related to ash dyke raising is of continuous nature, the incidental expenditure on replacement of existing piping is allowed under Regulation 25(2)(a) of the 2014 Tariff Regulation along with decapitalization of old asset at gross value of Rs.77.01 lakh.	130.00
	Capital Spares (total 111 items)	1901.11		For ensuring reliable and efficient operation of the units	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis.	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration of the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	Amount claimed	3754.11				
	Amount allowed					1673.00
2021-22						
1	C&I system					
	Upgradation of Bently-Nevada VMS Server of Unit # 5	35.00	25 (2) (c)	VMS & its Server (Which is Windows XP based) of unit # 5 will run for two more years with the available spares from Unit # 6 after upgradation in 2019-20. Thereafter it will require upgradation for smooth running and monitoring of health of the unit.	The expenditure has been claimed for the planned upgradation along with supporting documents. It is observed that the Petitioner has also provided the de-capitalization amount of Rs.20.72 lakh as gross value of the old asset to be replaced. Accordingly, the claim is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations.	35.00
2	Electrical system of Coal Handling Plant UNIT # 5 & 6 (CHES-II)					
	Replacement of Battery bank	15.00	25 (2) (a)	The 220 V dc supply is used for controlling Vacuum Circuit Breakers & Air Circuit Breakers and also utilized for emergency lighting	Considering the fact that the battery life is not commensurate with plant life, the expenditure claimed is allowed under Regulation 25(2)(a)	15.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				throughout the entire CHP, U#5 & 6 at the time of normal power failure. The Battery bank of CHP Unit # 5 & 6 was installed and commissioned more than 10 year back. Since then, it is in service. Now the health of the battery bank in totality is deteriorating rapidly and it is required to be replaced the entire battery bank with a new one so that generation will not be hampered, and system reliability will improve.	for replacement of non-functioning metal detectors along with de-capitalization of Rs 9.20.lakh.	
	In line magnetic separator (Magnet) - 1 NO.	31.00	25 (2) (a)	The CHP system of U#5 & 6 is associated with 04 nos. of In Line Magnetic separators which have been installed in the conveying system to remove any ferrous material from the coal; hence these protect the crushers and coal mills from damage which may cause the loss of generation and reduce the reliability of system. Spare ILMS will be used to replace damaged ILMS unit without hampering the system.	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration of the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	415 V Air Circuit Breaker L & T Make (Motor feeder)	6.00	25 (2) (a)	This L&T make Motor Feeder Air Circuit Breaker has been installed at MCC-1, MCC-2 & MCC-3 .It is used to protect the electrical equipment from damage caused by excess current, short circuit, earth fault etc. by interrupting the current flow when a fault is detected. Spare breaker will be used to replace the damaged breaker, so that uninterrupted coal feeding can be done to the bunkers without hampering generation moreover system reliability will also increase.	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	0.00
	Different types of LT Motors	8.00	25 (2) (a)	For phase wise replacement of Old motors with new energy efficient motors. These are so widely used that often called as the "workhorses of industry". The new regulations came into force in October 2017 and require	The need for switching over to IE2 motors has been mandated by the Department of Industrial policy and promotion under Ministry of Commerce and Industry, GOI. However, the Petitioner has not	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				industrial users to switch to IE2 or higher efficiency motors. A thermal power plant consumes 40 percent of all the energy that is produced, with motors consuming roughly 65 percent of this share. Therefore, large energy savings over time may be achieved after installing higher efficiency motors. This will not only help Thermal Power Plant to achieve less APC% but also could help India reach its goal of a 35 percent reduction in carbon dioxide emissions, from 2005 levels by 2030, under the United Nations' Paris Agreement.	even identified the number of motors to be replaced. As such, the expenditure claimed is not allowed . The Petitioner is at liberty to claim the said asset with proper details at the time of truing up of tariff.	
3	Electrical Inside Power House					
	Coal Mill Motor	139.00	25 (2) (a)	Replacement of old motor for ensuring reliable and efficient plant operation	The Petitioner has not justified the need for replacing the Coal mill motor through documentary evidence to show that the asset is frequently affecting the plant operation and is beyond repair. Accordingly, the claim is not allowed . The Petitioner is at liberty to claim the expenditure, if incurred, in terms of the relevant regulations at the time of truing up of tariff.	0.00
	VFD for seal air fan (U#5,6)	25.00	25 (2) (a)	For phase wise replacement of old motors with new energy efficient motors. These are so widely used that	Since the justification furnished by the Petitioner does not relate to the asset proposed for replacement, the	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				often called as the “workhorses of industry”. The new regulations came into force in October 2017 and require industrial users to switch to IE2 or higher efficiency motors. A thermal power plant consumes 40 percent of all the energy that is produced, with motors consuming roughly 65 percent of this share. Therefore, large energy savings over time may be achieved after installing higher efficiency motors. This will not only help Thermal Power Plant to achieve less APC% but also could help India reach its goal of a 35 percent reduction in carbon dioxide emissions, from 2005 levels by 2030, under the United Nations’ Paris Agreement.	additional capital expenditure claimed is not allowed .	
	Automatic Test Set-up for power transformers	88.00	76 & 77	At present, different test kits are used to measure various test parameters of transformers which are very difficult to move to site & involves more downtime & manpower. Availability of a single test kit capable of testing all the important parameters of CT, PT & Power transformer will greatly systematize & smoothen the testing procedures involved.	Since the Petitioner has not furnished any reason/ justification for creating additional facility, and since the expenditure is in the nature of O&M, the claim is not allowed and the prayer for exercising the power to relax is not maintainable.	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
	Total	252.00				0.00
4	Power House Civil & AHP					
	Ash Dyke raising work in phased manner	285.00	26 (1)(e)	Ash pond was originally existed for U#1-3 only with an area 600 acre and life of 25 years. Phase wise capacity augmentation of MTPS from 630 MW to 2340 MW occurred, but ash pond area remained same. Though continuous efforts to enhance the utilization of Dry Fly Ash has also been taken and MTPS is utilizing 42-45% of Dry Fly Ash generated, yet condition of Ash Pond is very critical. Raising of Ash Dyke is required to enhance the capacity of Ash pond on very urgent basis.	The ash generation and ash disposal is a continuous process to be carried out from time to time during the operating life of the plant, in order to ensure the successful running of the plant. In view of this, we allow the Petitioner's claim under Regulation 26(1)(e) of the 2019 Tariff Regulations.	285.00
	Replacement of Ash Slurry Disposal Pipe of 300NB size due to raise in dyke height	150.00	25 (2) (c)	Nearly around 20KM of pipes & 58 mtr.bends of size 300NB will be required to be replaced, in view of Augmentation of existing ash slurry disposal pumping system due to increase in proposed dyke height of MTPS, Unit # 5-6.	Considering the fact that work related to ash dyke raising is done in phased manner as per the requirement, the incidental expenditure for replacement of existing piping is allowed under Regulation 25(2)(a) along with decapitalized value of old asset at Rs.85.07 lakh during respective years of claim.	150.00
5	Capital Spares (total 111 items)	1082.05		For ensuring reliable and efficient operation of the units	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	Amount claimed	1864.05				
	Amount allowed	485.00				
2022-23						
1	Electrical system of Coal Handling Plant UNIT # 5 & 6 (CHES-II)					
	In line magnetic separator (Magnet) - 1 NO.	16.00	25 (2) (a)	The CHP system of U#5 & 6is associated with 04 nos. of In Line Magnetic separators which have been installed in the conveying system to remove any ferrous material from the coal; hence these protect the crushers and coal mills from damage which may cause the loss of generation and reduce the reliability of system. Spare ILMS will be used to replace damaged	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
				ILMS unit without hampering the system.	Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	Total	16.00				0.00
2	220 KV Switch yard SWS2					
	Replacement of Battery bank of Unit (5-6)	60.00	25 (2) (a)	The 240 V Battery Bank for unit 5-6 switchyard is growing old day by day. The maintenance frequency also increases. This must be replaced in 3-4 years before complete shutdown.	Considering the fact that the battery life is not commensurate with plant life, the expenditure claimed is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations for replacement of battery bank along with decapitalization of Rs 35.66 lakh	60.00
	Total	60.00				60.00
3	Capital Spares (total 111 items)	4165.12		For ensuring reliable and efficient operation of the units	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up,	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	
	Amount claimed	4241.12				
	Amount allowed					60.00
2023-24						
1	Electrical system of Coal Handling Plant UNIT # 5 & 6 (CHES-II)					
	Procurement of HT Breaker (6.6 KV) Make BHEL	7.00	25 (2) (a)	Breakers have been installed at Incomers, Bus couplers and 6.6KV Motor feeders of HT Boards. It is used to protect the electrical equipment from damage caused by excess current, short circuit, earth fault etc. by interrupting the current flow when a fault is detected. Spare breaker will be used to replace the damaged breaker, so that uninterrupted coal feeding can be done to the bunkers without hampering generation. Moreover system reliability will also increase.	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					capitalization or consumption of stores & spares and Renovation & Modernization.	
	Total	7.00				0.00
2	Electrical Inside Power House					
	ARECA CONTROLLERS FOR ESP (U#5,6)	15.00	25 (2) (a)	To meet & comply the stringent Pollution Norms of SPM, Phase wise replacement of Old & Frequent trouble giving ESP controllers are required to be replaced with modern ESP controllers for improvement in ESP performance.	The Petitioner has not justified the need for replacing the controllers for ESP by furnishing documentary evidence to show that the asset is frequently affecting the plant operation and is beyond repair. Hence, the claim of the Petitioner is not allowed . However, the Petitioner is at liberty to claim the expenditure, if incurred, under relevant regulations at the time of truing up of tariff. The Petitioner is also directed to provide relevant data with regard to SPM levels prior to and after replacement of ESP controllers along with the SPM norms to be achieved by the station, at the time of truing up of tariff.	0.00
	Total	15.00				0.00
3	220 KV Switch yard SWS2					
	Retrofitting of 415 V ACDB of SWS(5-6)	25.00	25(2)(a)	AC DB for unit 5-6 become old. Day by day many faults are arises. The Installed module spares are not available.	The Petitioner has not justified the need for upgrading the asset by producing documentary evidence to show that the asset is frequently affecting the plant operation and is beyond repair. Hence, the claim of the Petitioner is not allowed . However, the Petitioner is at liberty to claim the expenditure, if incurred, under	0.00



Sl. No.	Asset/Work	Amount Claimed	Regulations	Petitioner Submission	Reason for admissibility	Amount Allowed
					relevant regulations at the time of truing up of tariff.	
	Total	25.00				0.00
4	Capital Spares (total 111 items)	2071.79		For ensuring reliable and efficient operation of the units	Though Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claiming capital spares separately and on actual consumption basis, the Petitioner has claimed capital spares, as part of the additional capital expenditure, on provisional basis. Accordingly, the additional capital expenditure as claimed by the Petitioner towards capital spares has not been considered. The claim of the Petitioner, if any, at the time of truing up, of tariff, shall be considered on merits, after prudence check subject to the declaration by the Petitioner that the expenditure has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores & spares and Renovation & Modernization.	0.00
	Amount claimed	2118.79				
	Amount allowed					00.00

176. Accordingly, the projected additional capital expenditure claimed allowed/disallowed for the period 2019-24 is as under:



(Rs. in lakh)

Additional Capital Expenditure	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Claimed	596.50	3754.11	1864.05	4241.12	2118.79	12574.57
Allowed	196.30	1673.00	485.00	60.00	0.00	2414.30
Disallowed	400.20	2081.11	1379.05	4181.12	2118.79	10160.27

Discharge of Liabilities

177. The Petitioner has submitted that the entire projected additional capital expenditure claimed in Form-9, are on accrual basis, and un-discharged liabilities, if any, will be submitted on actuals, at the time of truing up of tariff. Accordingly, the no discharge of liabilities has been considered/allowed for the period 2019-24. However, the Petitioner is directed to submit the item-wise and year-wise reconciliation statement, showing details of such liabilities as per balance sheet for the period 2019-24, duly certified by auditor, along with break-up of discharges included in the liabilities discharged within the original scope of work or other than within the original scope of work of the project, at the time of truing-up exercise.

De-capitalization

178. The Petitioner has claimed the total decapitalisation of Rs. 1200.60 lakh for 2019-24 tariff period as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24	Total
137.49	736.44	254.00	45.94	26.73	1200.60

179. The following decapitalisation has been allowed against the additional capitalisation of the assets allowed.

(Rs. in lakh)

Sl. No.		De-capitalization				
		2019-20	2020-21	2021-22	2022-23	2023-24
1	Upgradation of Bently-Nevada VMS Server of Unit # 6	20.02	0.00	0.00	0.00	0.00



Sl. No.		De-capitalization				
		2019-20	2020-21	2021-22	2022-23	2023-24
2	Upgradation of max DNA DCS related HMI system of Unit # 5	0.00	235.81	0.00	0.00	0.00
3	Upgradation of max DNA DCS related HMI system of Unit #6	0.00	245.80	0.00	0.00	0.00
4	Upgradation of GE Fanuc Make PLC system with HMI of AHP & DM Plant of Unit # 5 & 6.	0.00	63.09	0.00	0.00	0.00
5	Upgradation of Bently-Nevada VMS Server of Unit # 5	0.00	0.00	20.72	0.00	0.00
6	Installation of Metal Detector - 04 nos.	34.82	0.00	0.00	0.00	0.00
7	Replacement of Battery bank	0.00	0.00	9.20	0.00	0.00
8	COMPLETE BATTERY BANK 360V SYSTEM YKP-35, U#5&6	75.80	0.00	0.00	0.00	0.00
9	Replacement of Battery bank of Unit (5-6)	0.00	0.00	0.00	35.66	0.00
10	Replacement of Ash Slurry Disposal Pipe	0.00	77.01	85.70	0.00	0.00
	Total	130.64	621.71	115.62	35.66	0.00

Capital cost allowed for the period 2019-24

180. Accordingly, the capital cost approved for the period 2019-24 is as follows:

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (A)	215530.47	215596.13	216647.42	217016.80	217041.13
Add: Addition during the year / period (B)	196.30	1673.00	485.00	60.00	0.00
Less: De-capitalization during the year /period (C)	130.64	621.71	115.62	35.66	0.00
Less: Undischarged liabilities (D)	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year /period (E)	0.00	0.00	0.00	0.00	0.00
Closing Gross Block (F) = (A+B-C-D+E)	215596.13	216647.42	217016.80	217041.13	217041.13
Average Gross Block (F) = (A+F)/2	215563.30	216121.78	216832.11	217028.97	217041.13

Debt Equity Ratio

181. Regulation 18 and Regulation 72 of the 2019 Tariff Regulations provides as under:



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

Provided that:

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

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.”

xxxxx.

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:

xxx

(ii) Debt Equity Ratio: The debt equity ratio of all projects of DVC commissioned prior to 01.01.1992 shall be 50:50 and that of the projects commissioned thereafter shall be 70:30.”



182. The gross loan and equity amounting to Rs.150871.33 lakh and Rs. 64659.14 lakh respectively, as on 31.3.2019, as determined in this order, for the period 2014-19 as above, has been considered as the gross loan and equity as on 1.4.2019. In terms of Regulation 18 of the 2019 Tariff Regulations, the debt-equity ratio of 70:30 has been applied on the year-wise admitted additional capital expenditure, for arriving at the additions to loan and equity, during each year of the period 2019-24. Accordingly, the details of the debt and equity in respect of the generating station is as follows:

	Capital Cost as on 1.4.2019 (Rs. in lakh)	%	Net additional capital expenditure for the period 2019- 24 (Rs. in lakh)	%	Capital Cost as on 31.4.2024 (Rs. in lakh)	%
Debt	150871.33	70%	1057.46	70%	151928.79	70%
Equity	64659.14	30%	453.20	30%	65112.34	30%
Total	215530.47	100%	1510.66	100%	217041.13	100%

Return on Equity

183. Regulations 30 of the 2019 Tariff Regulations provide as follows:

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

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

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

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if 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."

184. Regulation 31 of the 2019 Tariff Regulations provide as follows:

"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:

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

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

Illustration-

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

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."



185. The Respondent, DVPCA has submitted that though the Petitioner has considered the effective tax rate of 21.5488% for computation of Return on Equity (ROE) for the period 2019-24, the same is premature and needs to be claimed during truing-up, based on the actual tax paid in terms of Regulation 31 of the 2019 Tariff Regulations. Regarding the Petitioner's claim with regard to ROE at weighted average rate of interest on actual loan portfolio, as per Form-1(I) of the tariff filing format for additional capitalisation, the Respondent has submitted that the Petitioner has neither submitted any details of the assets nor any justification for claiming the additional capitalisation after cut-of date and beyond the original scope of work. The Petitioner in its rejoinder has prayed for computation of ROE without considering the income tax rates for the period 2019-24 and has also craved leave of the Commission to claim the income tax liability, if any, for any year of the period 2019-24, as and when it arises in future. The Petitioner has submitted that details of assets and justifications have been furnished in Form-9, for the period 2019-24.

186. The matter has been considered. The Petitioner has not been paying any income tax in any of the financial year of the period 2014-19. Also, considering the above submissions of the Petitioner, the effective tax rate has been considered as 'nil' for the purpose of grossing up of ROE and the rate of ROE has been considered as 15.50% for the period 2019-24. Accordingly, ROE has been worked out and allowed as under:

Return on Equity at Normal Rate

		(Rs. in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity – Opening	A	64659.14	64678.84	64793.23	64818.54	64825.84
Addition to Equity due to additional capital expenditure	B	19.70	114.39	25.31	7.30	0.00
Normative Equity – Closing	C=(A+B)	64678.84	64793.23	64818.54	64825.84	64825.84



		2019-20	2020-21	2021-22	2022-23	2023-24
Average Normative Equity	D=Average (A, C)	64668.99	64736.03	64805.88	64822.19	64825.84
Return on Equity (Base Rate) (%)	E	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for the year (%)	F	0.000%	0.000%	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre-Tax) (%)	G=E/(1-F)	15.500%	15.500%	15.500%	15.500%	15.500%
Return on Equity (Pre-Tax) annualized	H=(DxG)	10023.69	10034.09	10044.91	10047.44	10048.01

Return on Equity at WAROI

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity – Opening	A	0.00	0.00	201.00	286.50	286.50
Addition to Equity due to additional capital expenditure	B	0.00	201.00	85.50	0.00	0.00
Normative Equity – Closing	C=A+B	0.00	201.00	286.50	286.50	286.50
Average Normative Equity	D=Average (C, A)	0.00	100.50	243.75	286.50	286.50
Return on Equity (Base Rate) (%)	E	9.998%	9.998%	9.998%	9.998%	9.998%
Effective Tax Rate for the year (%)	F	0.000%	0.000%	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre-Tax) (%)	G=E/(1-F)	9.998%	9.998%	9.998%	9.998%	9.998%
Return on Equity (Pre-Tax) annualized	H=(DxG)	0.00	10.05	24.37	28.64	28.64

Total Return on Equity allowed.

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity at Normal Rate	A	10023.69	10034.09	10044.91	10047.44	10048.01
Return on Equity at WAROI	B	0.00	10.05	24.37	28.64	28.64
Total Return on Equity allowed	C=(A+B)	10023.69	10044.13	10069.28	10076.08	10076.65

187. The Petitioner is directed to furnish the report of RLDC with regard to the commissioning of any Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre, along with relevant information regarding the achievement of 'Ramp Rate' in compliance to proviso (i) and (iii) of Regulation 30(2) of the 2019 Tariff Regulations, at



the time of true-up of tariff.

Interest on Loan

188. Regulation 32 and 61 of the 2019 Tariff Regulations provides as follows:

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to 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.

(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.”

“61. Sharing of saving in interest due to re-financing or restructuring of loan: *(1) If re-financing or restructuring of loan by the generating company or the transmission licensee, as the case may be, results in net savings on interest after accounting for cost associated with such refinancing or restructuring, the same shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 50:50.*

(2) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for settlement of the dispute:

Provided that the beneficiaries or the long-term customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

189. Interest on loan has been worked out as under:

- Gross normative loan amounting to Rs. 150871.33 lakh, on 31.3.2019, as considered in this order for the period 2014-19, has been considered as on 1.4.2019;
- Cumulative repayment of Rs. 150871.33 lakh, as on 31.3.2019, as considered in this order for the period 2014-19, has been considered as on 1.4.2019;
- Accordingly, the net normative opening loan as on 1.4.2019 works out as 'nil'.
- Weighted average rate of interest on loan, as allowed for 2018-19 has been considered for the entire period 2019-24;
- The repayments of loan, if any for the respective years of the period 2019-24, has been considered equal to the depreciation allowed for that year. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff;
- Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

190. Interest on loan has been worked out and allowed as under:

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Gross opening loan	A	150871.33	150917.29	151653.19	151911.76	151928.79
Cumulative repayment of loan up to previous year	B	150871.33	150917.29	151653.19	151911.76	151928.79
Net Loan Opening	C=(A-B)	0.00	0.00	0.00	0.00	0.00
Addition due to additional capital expenditure	D	45.96	735.90	258.56	17.04	0.00
Repayment of loan during the year	E	137.41	1171.10	339.50	42.00	0.00
Repayment adjustment on account of de-capitalization	F	91.45	435.20	80.94	24.96	0.00
Ney repayment of the loan during the year	G=(E-F)	45.96	735.90	258.56	17.04	0.00
Net Loan Closing	H=(C+D-G)	0.00	0.00	0.00	0.00	0.00
Average Loan	I=Average (C, H)	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest of loan	J	9.9983%	9.9983%	9.9983%	9.9983%	9.9983%
Interest on Loan	K=(IxJ)	0.00	0.00	0.00	0.00	0.00

191. Further, the Petitioner has claimed share of savings due to restructuring of loan from PFC for the period 2019-24, on projection basis, as per Regulation 61(1) of the



2019 Tariff Regulations. In this regard, it is clarified that the sharing of saving in interest due to re-financing or restructuring of loan, if any, has to be undertaken between the parties, on actual basis, in accordance with Regulation 61(1) of the 2019 Tariff Regulations. However, in case of disputes, any of the parties may approach the Commission, in terms of Regulation 61(2) of the 2019 Tariff Regulations.

Depreciation

192. Regulations 33 and 72 (2) (iii) of the 2019 Tariff Regulations provides as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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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:

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(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."

193. Depreciation has been worked out by considering the admitted capital cost of Rs. 215530.47 lakh, as on 1.4.2019, and the cumulative depreciation of Rs.171750.06 lakh, as on 31.3.2019, as determined in this order for the period 2014-19. Accordingly, in terms of Regulation 33 and Regulation 72 (2) (iii) of the 2019 Tariff Regulations, depreciation has been worked out and allowed as follows:

(Rs. in lakh)						
		2019-20	2020-21	2021-22	2022-23	2023-24
Average Capital Cost	A	215563.30	216121.78	216832.11	217028.97	217041.13
Value of freehold land	B	38.33	38.33	38.33	38.33	38.33
Aggregated Depreciable Value	C= [(A-B) x90%]	193972.48	194475.10	195114.40	195291.57	195302.52



		2019-20	2020-21	2021-22	2022-23	2023-24
Remaining Aggregate Depreciable value at the beginning of the year	$D = [(C) - (\text{Cumulative Depreciation of Previous year})]$	22222.42	7140.50	1184.09	281.23	43.05
Balance useful life at the beginning of the year	E	14.20	13.20	12.20	11.20	10.20
Weighted Average Rate of Depreciation (WAROD)	F	7.2799%	7.2799%	7.2799%	7.2799%	7.2799%
Depreciation (annualized)	$G = [\text{Min}(D, A \times F)]$	15692.88	7140.50	1184.09	281.23	43.05
Cumulative depreciation (at the end of the year)	$H = (\text{Cumulative Depreciation of Previous year}) + (G)$	187442.94	194475.10	195114.40	195291.57	195302.52
Less: Depreciation adjustment on account of de-capitalisation	I	108.34	544.79	104.06	32.10	0.00
Cumulative depreciation at the end of the year	$J = (H - I)$	187334.60	193930.31	195010.34	195259.48	195302.52

Operation & Maintenance Expenses

194. Regulation 35(1)(1) of the 2019 Tariff Regulations provides for the following O&M expenses in respect of generating station:

<i>(Rs /lakh/MW)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
32.96	34.12	35.31	36.56	37.84

195. The normative O&M expenses claimed by the Petitioner in terms of the above regulations, is as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
16480.00	17060.00	17655.00	18280.00	18920.00

196. As the normative O&M expenses claimed by the Petitioner, is in accordance with Regulation 35(1)(1) of the 2019 Tariff Regulations, the same is allowed.

Water Charges, Security Charges and Capital Spares

197. The 2019 Tariff Regulations provide as under with respect to water charges,



security expenses and capital spares”:

“35. Operation and Maintenance Expenses:

(1) Thermal Generating Station: Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

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(6) The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

Provided that water charges shall be allowed based on water consumption depending upon type of plant and type of cooling water system, subject to prudence check. The details regarding the same shall be furnished along with the petition;

Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;

Provided also that the generating station shall submit the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance as per Regulation 17 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 or Special Allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.”

Water Charges

198. In terms of the first proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations, the Petitioner has considered normative water consumption of 3.5 m³/MWh, generation as per NAPAF, base water charges @ Rs.10.64/KL, with annual escalation of 10% and has accordingly claimed the yearly water charges as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1390.24	1525.09	1677.60	1845.36	2035.46

199. The Respondent, TPDDL has submitted that the Petitioner has only provided the overall estimate of water charges for the period 2019-24, but has failed to provide the details and supporting documents, to indicate as to how the said estimate has been arrived at. The Respondent, while pointing out that the Petitioner has claimed the same at a base rate of Rs. 10.64/KL with a 10% escalation each year., has submitted that the said rate is arbitrary as the actual rate prevailing as on 31.03.2019, for industrial users, was Rs.5.68/KL. It has also submitted that the Petitioner has not

provided any justification for considering a nearly 100% higher rate than the prevailing rate. Accordingly, the Respondent has submitted that the Commission may direct the Petitioner to submit the said information. The Respondent, DVPCA has submitted that the actual water charge rate was Rs. 5.7/KL and Rs. 1.15/KL for industrial use and domestic use respectively, for each year of the period 2014-19 and accordingly, the the weighted average water charge rate is Rs. 5.68/KL. The Respondent DVPCA while pointing out that the Petitioner has considered a water charge rate of Rs. 10.64/KL for the year 2019-20 and thereafter a yearly escalation rate of 10% for the remaining years of the period 2019-24 has submitted that the Petitioner has not furnished the relevant OM dated 23.7.2019. The Respondent has further submitted that the increase sought by the Petitioner is more than 85% ,which is unreasonable and has therefore prayed that that the Commission may exercise prudence check on arriving at the allowable water charge rate, so that the same is comparable with the rates prevailing in other States, and there should be no cross-subsidisation of other activities of the Petitioner. Accordingly, the Respondent DVPCA has stated that the arbitrary escalation of 10% ought to be rejected as there is neither any basis for the same nor has been provided under the 2019 Tariff Regulations. The Petitioner, in its rejoinder, has submitted that the water charges of the generating stations, w.e.f. 1.4.2019 and escalation thereof, are governed by the water tariff, as notified by DVC, vide OM dated 23.7.2019.

200. The matter has been considered. Keeping in view the above submissions and in consideration of the MOEF&CC norms, the generation as per NAPAF and water charges rate of Rs 10.64/KL and annual escalation of 10% thereof, as per OM dated 23.7.2019, the water charges for the period 2019-24 is allowed as under, on projection basis, subject to truing up based on actual consumption:



	Units	2019-20	2020-21	2021-22	2022-23	2023-24
Projected Gross Generation @ 85% load factor	MU	3733.20	3723.00	3723.00	3723.00	3733.20
Normative Specific Water Consumption as per MoEF&CC stipulations	Cubic Meter/MWh	3.50	3.50	3.50	3.50	3.50
Normative Water Consumption as per MoEF&CC Norms	Cubic Meter	13066200	13030500	13030500	13030500	13066200
Rate of Water Charges	Rs. / Cubic Meter	10.64	11.70	12.87	14.16	15.58
Total Normative Water Charges	(in Rs. lakh)	1390.24	1525.09	1677.60	1845.36	2035.46

201. The Petitioner shall, at the time of truing up of tariff, furnish the details of the actual water consumption (in cubic meters), rate (Rs/ cubic meter) etc, separately. The water charges allowed are subject to the truing up, as per actual water charges paid and the ceiling limit of water consumption as per the Regulation 35, after prudence check.

Security Expenses

202. The Petitioner has claimed the following security expenses, on projection basis, for the period 2019-24, in terms of the second proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1222.94	1276.75	1332.93	1391.58	1452.82

203. It is observed that the Petitioner has escalated the actual Security expenses for the year 2018-19 at the rate of 4.40% per annum, to claim the projected security expenses for the period 2019-24. The Petitioner has also submitted that the escalation of Security expenses has been proposed to accommodate the year-on-year growth of salary expenditure and associated CISF activities, that are primarily governed by the CISF Rules.



204. The Respondent TPDDL has submitted that the Petitioner has failed to provide necessary details regarding security requirements, as assessed by a competent authority. It has submitted that the Petitioner has also wrongly considered a CAGR of 4.40% on the normative O&M parameters, for year-to-year escalation, which is not permissible, in terms of the said Regulation. In response, the Petitioner has submitted that the actual Security expense for 2018-19 has been escalated at 4.40% (which is the CAGR of normative O&M expenses of the generating station, for the period from 2018-19 to 2023-24) per annum, to claim the projected expenses for the period 2019-24.

205. The matter has been considered. Keeping in view that the claim of the Petitioner is based on actual security expenses for 2018-19 and that the annual escalation rate of 4.40% is reasonable, we allow the projected Security expenses, as claimed by the Petitioner, as above. However, considering the fact that security expenses for thermal generating stations for the period 2019-24 are to be allowed separately, after prudence check, based on the assessment of the security requirement and estimated expenses furnished by the Petitioner, the Petitioner shall, at the time of truing up, furnish the actual security expenses incurred along with the justification and the same shall be assessed in terms of Regulation 35(1)(6) of the 2019 Tariff Regulations.

Capital spares

206. The Petitioner has not claimed capital spares for the period 2019-24, but has submitted that the same will be claimed at the time of truing-up of tariff, on actuals. The last proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations provides for considering capital spares, after prudence check, on consumption basis, at the truing-up. In line with the Regulations, the Petitioner shall substantiate that the capital spares have not been funded through Compensatory Allowance or Special Allowance or

claimed as a part of additional capitalisation or consumption of stores & spares and Renovation & Modernization, at the time of truing-up of tariff.

Summary

207. Based on the above discussion, the O&M expenses allowed under Regulation 35(1)(1) of the 2019 Tariff Regulations including Water charges, Security expenses under Regulation 35(1)(6) of the 2019 Tariff Regulations is summarised as follows:

		<i>(Rs. in lakh)</i>				
		2019-20	2020-21	2021-22	2022-23	2023-24
Installed Capacity (MW)		500.00	500.00	500.00	500.00	500.00
O&M Expenses under Regulation 35(1) in Rs lakh / MW		32.96	34.12	35.31	36.56	37.84
Total O&M Expenses (A)	Claimed	16480.00	17060.00	17655.00	18280.00	18920.00
	Allowed	16480.00	17060.00	17655.00	18280.00	18920.00
Water Charges (B)	Claimed	1390.24	1525.09	1677.60	1845.36	2035.46
	Allowed	1390.24	1525.09	1677.60	1845.36	2035.46
Security Expenses (C)	Claimed	1222.94	1276.75	1332.93	1391.58	1452.82
	Allowed	1222.94	1276.75	1332.93	1391.58	1452.82
Capital Spares (D)	Claimed	0.00	0.00	0.00	0.00	0.00
	Allowed	0.00	0.00	0.00	0.00	0.00
Total O&M Expenses as allowed (including Water Charges and Security Expenses) (D=A+B+C)	Claimed	19093.18	19861.84	20665.53	21516.94	22408.27
	Allowed	19093.18	19861.84	20665.53	21516.94	22408.27

Operational Norms

208. As regards Operational norms, Regulation 49 of the 2019 Tariff Regulations provides as under:

“Norms of operation for thermal generating station

49. The norms of operation as given hereunder shall apply to thermal generating stations:

(A) Normative Annual Plant Availability Factor (NAPAF)

(a) For all thermal generating stations, except those covered under clauses (b), (c), (d), & (e) - 85% ;

xxx

(C) Gross Station Heat Rate:

(a) Existing Thermal Generating Stations

(i) For existing Coal-based Thermal Generating Stations, other than those covered under clauses (ii) and (iii) below:

200/210/250 MW Sets	500 MW Sets (Sub-critical)
2,430kCal/kWh	2,390kCal/kWh



xx

(D) Secondary Fuel Oil Consumption:

(a) For Coal-based generating stations other than at (c) below: 0.50 ml/kWh

xx

(E) Auxiliary Energy Consumption:

(a) For Coal-based generating stations except at (b) below:

S. No.	Generating Station	With Natural Draft cooling tower or without cooling tower
(i)	200 MW series	8.50%
(ii)	300 MW series and above	
	Steam driven boiler feed pumps	5.75%
	Electrically driven boiler feed pumps	8.00%

Provided that for thermal generating stations with induced draft cooling towers and where tube type coal mill is used, the norms shall be further increased by 0.5% and 0.8% respectively:

Provided further that Additional Auxiliary Energy Consumption as follows shall be allowed for plants with Dry Cooling Systems:

Type of Dry Cooling System	(% of gross generation)
Direct cooling air cooled condensers with mechanical draft fans	1.0%
Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower	0.5%

209. The operational norms claimed by the Petitioner are as follows:

Parameters	Value
Normative Annual Plant Availability Factor (NAPAF) (%)	85.00
Gross Station Heat Rate (kcal/kwh)	2430
Auxiliary Power Consumption (%)	9.80
Specific Oil Consumption (ml/kwh)	0.50

210. The Respondents BRPL and TPDDL have submitted that the arrangement of the adequate coal supply is the sole responsibility of the Petitioner, as supply of coal is governed by a separate bilateral Fuel Purchase Agreement (FPA) signed between the Petitioner and coal supplier(s). The Respondent have submitted that they were not party to such arrangements, and in no way, are responsible for any possible shortage in supply of coal etc. Accordingly, the Respondents have submitted that the burden on this count, may not be passed on to the Respondent beneficiaries. The Petitioner has submitted that it has claimed relaxation of PAF as per Regulations 76 and 77 of the 2019 Tariff Regulations, for unforeseen event or uncontrollable factors.



211. The matter has been considered. We find no merit in the claim of the Petitioner to allow relaxation in NAPAF, in consideration of the reasons furnished by the Petitioner. It is observed that the generating station has 250 MW units equipped with induced draft and tube type coal mills. Accordingly, the operational norms in line with the above regulations, is allowed as under:

Parameter	Value
Normative Annual Plant Availability Factor (NAPAF) (%)	85.00
Gross Station Heat Rate (kcal/kwh)	2430
Auxiliary Power Consumption (%)	9.80
Specific Oil Consumption (ml/kwh)	0.50

Interest on Working Capital

212. Regulation 34(1)(a) of the 2019 Tariff Regulations provides as under:

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

(a) For Coal-based/lignite-fired thermal generating stations:

(i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower; (ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;

(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;

(v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and

(vi) Operation and maintenance expenses, including water charges and security expenses, for one month.”

213. Regulations 34(3) and 34(4) of the 2019 Tariff Regulations provide as under:

“(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.”

214. The Petitioner has claimed the weighted average GCV and cost of coal as 3682 kCal/kg and Rs.4032.27/MT, respectively and the secondary oil as 10000 kCal/Lit and Rs.45279.85/Lit. Accordingly, interest on working capital as claimed by the Petitioner is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Coal/Lignite for Stock and Generation (A)	13769.06	13731.44	13731.44	13731.44	13769.06
Cost of oil for 2 months (B)	140.87	140.48	140.48	140.48	140.87
O&M expenses - 1 month (C)	1591.10	1655.15	1722.13	1793.08	1867.36
Maintenance Spares - 20% of O&M (D)	3818.64	3972.37	4133.11	4303.39	4481.65
Receivables – 45 days (E)	19707.00	19065.73	18319.17	18501.64	18719.97
Total Working Capital (F) = (A+B+C+D+E)	39026.66	38565.17	38046.32	38470.03	38978.90
Rate of Interest (G)	12.05%	12.05%	12.05%	12.05%	12.05%
Total Interest on Working capital (H) = (F)x(G)	4702.71	4647.10	4584.58	4635.64	4696.96

a) Fuel Cost and Cost of Liquid Stock for Working Capital

215. The Petitioner has claimed fuel components as part of working capital, based on the price and GCV of coal as received and secondary fuel oil for the preceding three months from October 2018 to December 2018, as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of coal for 50 days	13769.06	13731.44	13731.44	13731.44	13769.06
Cost of Secondary fuel oil 2 months	140.87	140.48	140.48	140.48	140.87

216. Regulation 34(2) of the 2019 Tariff Regulations provides that the computation of cost of fuel as part of Interest on Working Capital (IWC) is to be based on the landed price and GCV of fuel as per actuals, for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined.

217. Regulation 43(2) of the 2019 Tariff Regulations provides as under:

“(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(a) For coal based and lignite fired stations:

$$ECR = \{(SHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100$$



– AUX)

(b) For gas and liquid fuel based stations:

$$ECR = SHR \times LPPF \times 100 / \{(CVPF) \times (100 - AUX)\}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations less 85 Kcal/Kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations;

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio:

CVSF = Calorific value of secondary fuel, in kCal per ml;

ECR = Energy charge rate, in Rupees per kWh sent out;

SHR = Gross station heat rate, in kCal per kWh;

LC = Normative limestone consumption in kg per kWh;

LPL = Weighted average landed cost of limestone in Rupees per kg;

LPPF = Weighted average landed fuel cost of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed fuel cost of primary fuel shall be arrived in proportion to blending ratio);

SFC= Normative specific fuel oil consumption, in ml per kWh;

LPSFi= Weighted Average Landed Fuel Cost of Secondary Fuel in Rs./ ml during the month:

Provided that energy charge rate for a gas or liquid fuel based station shall be adjusted for open cycle operation based on certification of Member Secretary of respective Regional Power Committee during the month."

218. In line with the above Regulations, a margin of 85 kCal/kg in weighted average Gross Calorific value (GCV) of coal on 'as received' for coal based generating stations on account of variation during storage at the generating station has been considered. As such, weighted average GCV and price of coal and secondary oil claimed by the Petitioner and allowed by the commission are as under for working out the cost of coal and cost of secondary oil for working capital:

	Claimed	Allowed
Weighted average price of coal (Rs./MT)	4032.27	4032.27
Weighted average GCV of coal (kCal/kg)	3682.19	3597.19*
Weighted average price of oil (Rs./kl)	45279.85	45279.85
Weighted average GCV of oil (kCal/l)	10000.00	10000.00

***after adjusting margin of 85 kcal/kg from 'as received GCV' of 3682.19 kcal/kg**

219. Accordingly, considering operational norms as per the 2019 Tariff Regulations allowed as above, and based on the GCV and price of coal and secondary fuel oil

allowed as above the fuel components of working capital have been worked out and allowed as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of coal for 20 days	5545.34	5545.34	5545.34	5545.34	5545.34
Cost of coal for generation for 30 days	8318.02	8318.02	8318.02	8318.02	8318.02
Cost of Secondary fuel oil 2 months	140.87	140.48	140.48	140.48	140.87

220. It is pertinent to mention that the above computation of working capital is based on the GCV and fuel cost furnished for third quarter of 2018-19. However, Regulation 34 (C) (2) provides that the cost of fuel shall be based on the landed fuel cost (taking into account normative transit and handling losses), in terms of Regulation 39 of the said Regulations, at the generating station and gross calorific value of the fuel, as per actual weighted average for the third quarter of preceding financial year, in case of each financial year for which tariff is to be determined. In terms of above, the fuel cost computed above is based on the actual data to be furnished by Petitioner, for each year, at the time of truing-up of tariff.

b) Energy Charges for 45 days for Working Capital

221. The Petitioner has claimed Energy Charge Rate (ECR) of Rs.2.969/kWh based on the weighted average price and GCV of coal as received and secondary oil, during the preceding three months i.e., October 2018, November 2018 and December 2018 as follows:

	Unit	Claimed
Energy Charge Rate Secondary fuel-ex-bus	Rs./kWh	0.025
Energy Charge Rate Primary fuel-ex-bus	Rs./kWh	2.944
Energy Charge Rate (Ex-bus)	Rs./kWh	2.969

222. Based on the operational norms as per the 2019 Tariff Regulations, the weighted average price and GCV of the coal and oil allowed as above, the ECR, for the purpose of working capital, has been worked out and allowed as under:

	(Rs./kWh)	
	Claimed	Allowed
Weighted average price of coal (Rs./MT)	4032.27	4032.27
Weighted average GCV of coal (kCal/kg)	3682.19	3597.19*
Weighted average price of oil (Rs./kl)	45279.85	45279.85
Weighted average GCV of oil (kCal/l)	10000.00	10000.00
Energy Charge Rate Secondary fuel (ex-bus) (Rs./kWh)	0.025	0.025
Energy Charge Rate Primary fuel-ex-bus (Rs./kWh)	2.944	3.014
Energy Charge Rate (Ex-bus) (Rs./kWh)	2.969	3.039

***after adjusting margin of 85 kcal/kg from 'as received GCV' of 3682.19 kcal/kg**

223. Energy charges for 45 days, on the basis of operational norms as per the 2019 Tariff Regulations and weighted average GCV and weighted average cost of fuel as above, for the purpose of interest on working capital, has been worked out as follows:

(Rs. in lakh)				
2019-20	2020-2021	2021-22	2022-23	2023-24
12582.01	12582.01	12582.01	12582.01	12582.01

c) Working Capital for Maintenance Spares

224. The Petitioner has claimed the maintenance spares in the working capital as under:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
3818.64	3972.37	4133.11	4303.39	4481.65

225. Maintenance spares for the purpose of interest on working capital in accordance with Regulation 34(1)(b)(iii) of the 2019 Tariff Regulations, has been worked out as follows:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
3818.64	3972.37	4133.11	4303.39	4481.65

d) Working Capital for Receivables

226. Receivables equivalent to 45 days of capacity charge and energy charges for the purpose of working capital has been worked out and allowed as follows:



	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Energy Charges (45 days)	12582.01	12582.01	12582.01	12582.01	12582.01
Fixed Charges (45 days)	6073.42	5084.69	4412.28	4409.87	4482.40
Total	18655.42	17666.70	16994.29	16991.88	17064.40

e) Working Capital for O&M Expenses

227. The O&M expenses for 1 (one) month claimed by the Petitioner for the purpose of working capital is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
	1591.10	1655.15	1722.13	1793.08	1867.36

228. Considering the O&M expenses allowed, the O&M expenses for 1 (one) month allowed for the purpose of working capital is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
	1591.10	1655.15	1722.13	1793.08	1867.36

g) Rate of Interest for Working Capital

229. Regulation 34(3) of the 2019 Tariff Regulations provides for the rate of interest on working capital considered on projection basis, for the 2019-24 Tariff Period as 12.05% (i.e. 1-year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for the 2019-24 Tariff Period, is being determined during the year 2022-23, the SBI MCLR as on 1.4.2020 (7.75%), as on 1.4.2021 (7.00%) and as on 1.4.2022 (7.00%) is also available. Since, the rate of interest on working capital is subject to revision at the time of truing-up of tariff, based on the bank rate as on 1st April of each financial year, we find it prudent to allow the rate of interest as on 1.4.2020, 1.4.2021 and 1.4.2022, for the subsequent financial years. Accordingly, the rate of interest for the year 2019-20 is 12.05%, 2020-21 is 11.25%, 2021-22 is 10.50%, 2022-23 is 10.50% and for the subsequent years the rate of interest of 10.50% has been considered (i.e., 1year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points, 1-year SBI MCLR of 7.75% as on 1.4.2020 + 350 basis points; 1-year SBI MCLR of



7.00% as on 1.4.2021 + 350 basis points; and 1year SBI MCLR of 7.00% as on 1.4.2022 + 350 basis points). Accordingly, Interest on working capital is allowed as follows:

		(Rs. in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
	Working Capital for non-pit-head Thermal Generating Station					
A	Working Capital for Cost of Coal towards Stock – 20 days	5545.34	5545.34	5545.34	5545.34	5545.34
B	Working Capital for Cost of Coal towards Generation – 20 days	8318.02	8318.02	8318.02	8318.02	8318.02
C	Working Capital for Cost of Secondary fuel oil – 2 months	140.87	140.48	140.48	140.48	140.87
D	Working Capital for Maintenance Spares @ 20% of O&M expenses	3818.64	3972.37	4133.11	4303.39	4481.65
E	Working Capital for Receivables - 45 days	18655.42	17666.70	16994.29	16991.88	17064.40
F	Working Capital for O&M expenses - 1 month	1591.10	1655.15	1722.13	1793.08	1867.36
G	Total Working Capital (A+B+C+D+E+F)	38069.38	37298.06	36853.36	37092.18	37417.64
H	Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
I	Interest on Working capital (G x H)	4587.36	4196.03	3869.60	3894.68	3928.85

Other Claims

230. In addition to the Depreciation, Interest on Loan, Return on Equity, O&M Expenses, Water Charges, Security Expenses, Interest on Working Capital, share of savings in interest cost due to loan restructuring and Special Allowance in accordance with the 2019 Tariff Regulations, the Petitioner has also claimed expenditure towards Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act), Share of P&G contribution, Share of Common office expenditure, Ash Evacuation expenses, Mega Insurance expenses and Expenditure for Subsidiary activity as given below:

		(Rs. in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
	Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	1714.18	1834.17	1962.57	2099.95	2246.94
	Share of P&G contribution	1863.22	1950.80	2042.51	2138.52	2239.04
	Share of Common office expenditure	98.33	105.52	106.85	91.89	83.76



	2019-20	2020-21	2021-22	2022-23	2023-24
Expenses due to Ash evacuation, Mega insurance & expenditure for Subsidiary activity	1479.47	1544.57	1612.54	1683.49	1757.57
Total	5155.20	5435.07	5724.46	6013.85	6327.32

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

231. The Petitioner has claimed expenditure towards Interest & Contribution on Sinking Fund as follows:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1714.18	1834.17	1962.57	2099.95	2246.94

232. The Petitioner has allocated sinking fund contribution and interest for DVC Bonds of Rs. 3100 crore amongst its generating stations as under:

<i>(Rs. in Crore)</i>					
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Contribution and Interest for Debt Borrowing	214.27	229.27	245.32	262.49	280.87
MTPS 5&6	17.14	18.34	19.63	21.00	22.47
CTPS 7&8	31.10	33.28	35.61	38.10	40.77
MTPS 7&8	29.45	31.51	33.71	36.07	38.60
DSTPS	60.83	65.08	69.64	74.51	79.73
KTPS	66.29	70.93	75.89	81.20	86.89
RTPS-I	9.47	10.13	10.84	11.60	12.41
BTPS-A	-	-	-	-	-
Total	214.27	229.27	245.32	262.49	280.87

233. The Respondent TPDDL has submitted that the present methodology of computing the contribution by apportionment (based on station capacity) is arbitrary and tends to wrongly burden the consumers. Accordingly, the Respondent has prayed that the Commission may direct the Petitioner to compute the station-wise contribution by making the redemption of bonds station specific. The Respondent, DVPCA has submitted that the linkage of Bonds has to be established with each specific generating station. It has also stated that the allocation of principal cannot be the norm, as different power plants of the Petitioner, supply power to different entities/ beneficiaries. DVCPA has further submitted that neither the provisions of Electricity Act, 2003 nor



the 2019 Tariff Regulations, sanction the recovery of cost of generation assets twice over through a) allowance of Contribution to Sinking fund; and b) Depreciation and allowance of Interest on loan by treating the amount realised through bonds as normative debt. It has pointed out that in the past tariff orders relating to old plants of the Petitioner, the Commission has treated the amount realised through bonds as normative debt, and accordingly proceeded to grant interest thereon over and above the allowance of contribution to Sinking fund in terms of Regulation 72(2)(iv) of the 2019 Tariff Regulations, which is applicable only in cases where the normative debt is not allowed for funding capital cost. The Respondent has added that the Petitioner cannot be allowed both contributions to Sinking fund, as well as depreciation and interest on loan by treating the funds realised through bond issue as normative loan. It has further submitted that Petitioner is allowed capital cost including IDC, time over and cost overrun, to the extent permissible under the 2019 Tariff Regulations. It has stated that the loan repayment is also taken care through higher depreciation for initial 12 years and the Commission also allows interest on working capital on normative basis. The Respondent, DVPCA further submitted that the 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 the 2019 Tariff Regulations. Accordingly, the Respondent, DVPCA has prayed that 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.

234. The Petitioner in its rejoinder has reiterated that the matter related to Sinking fund has already been settled through various litigations by APTEL from the period from 2007 to 2019 in favour of the Petitioner, which subsequently, was upheld by the Hon'ble Supreme Court in its judgement dated 23.7.2018 in BSAL v CERC & ors



(2018) 8 SCC 281. The Petitioner further submitted that though Review Petition No. 4 of 2019 has been filed by the Respondent, DVPCA in the matter of MAL vs CERC & ors, there is no stay of the judgment by APTEL and therefore the same is binding on all the parties. Accordingly, the Petitioner has submitted that the plea of the Respondent may be rejected.

235. We have examined the matter. Section 40 of the DVC Act provides that the Petitioner shall make provision for depreciation and for reserve and other funds at such rates and on such terms as may be specified by the C&AG in consultation with the Central Government. Regulation 72(2)(iv) of the 2019 Tariff Regulations categorically provides that the funds created under Section 40 of the DVC Act, 1948 shall be considered as item of expenditure to be recovered through tariff. It is observed that the sinking funds have been created only for redemption of bonds. Accordingly, the amount approved for this generating station is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1714.18	1834.17	1962.57	2099.95	2246.94

Share of P&G Contribution

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1863.22	1950.80	2042.51	2138.52	2239.04

237. Respondent DVPCA has pointed out that the projected P&G contribution for the period 2019-24, has been claimed by considering a yearly escalation of 4.70% on the Actuarial value, as on 31.3.2019 i.e., Rs.619420.12 lakh and the same has been apportioned to the various stations, based on apportionment on Plant capacity basis. It has also stated that the P&G contribution claimed in 2019-20 is higher by 108% than



the P&G contribution claimed in 2018-19. The Respondent has further stated that the Petitioner has not furnished any justification for claiming such higher amount in 2019-20. It has also pointed out that during the process of framing the 2019 Tariff Regulations, all the generating companies including the Petitioner, had submitted the operational data for the past years, including O&M expenses, which also included the contribution towards P&G. The Respondent has added that the normative O&M expenses specified under Regulation 35 of the 2019 Tariff Regulations, was only after giving due consideration to the requirement of the various generating companies including P&G contribution. In response, the Petitioner has reiterated its submissions made in the petition.

238. The matter has been considered. It is observed that the normative O&M expenses includes a portion of contribution towards gratuity and pension, which is not separately quantifiable for the Petitioner. It is also noted that under the heading P&G contribution for the period 2014-19, the actual O&M expenses including P&G during the period 2014-19 are lower than the O&M expense norms allowable under the 2014-19 Tariff Regulations. Further, the normative O&M expenses determined by the Commission, while framing the 2019 Tariff Regulations, are based on the information furnished by various generating stations. In view of this, we are not inclined to allow P&G contribution for the period 2019-24 tariff period. This would however be examined at the time of true up if petitioner is unable to meet its expense through normative O&M charges

Ash Evacuation Expenses, Mega Insurance Expenses and Expenditure for Subsidiary activity

239. The Petitioner has claimed projected expenditure towards Ash Evacuation, Mega Insurance and share of Subsidiary activities, as additional O&M expenses as



under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Ash Evacuation Expenses	1232.30	1286.52	1343.14	1402.24	1463.94
Mega Insurance Expenses	44.58	46.54	48.59	50.73	52.96
Share of Subsidiary activities	202.59	211.50	220.81	230.53	240.67
Total	1479.47	1544.57	1612.54	1683.49	1757.57

240. The Respondent TPDDL has submitted that the claim for expenses towards ash evacuation, mega insurance and subsidiary activities ought to be rejected by the Commission, as such expenses are already built-in in the normative O&M expenses and cannot be allowed separately.

Ash Evacuation Expenses

241. The Petitioner has claimed total amount of Rs. 6728.14 lakh towards Ash Evacuation expenses. In justification of the same, the Petitioner has submitted that due to statutory directives by the MOEF&CC notification dated 14.9.1999, the fly ash generated during the course of operation of the coal power plant is required to be utilized under various designated modes. Accordingly, the Petitioner has claimed Ash evacuation expenses under Regulation 76 and Regulation 77 of the 2019 Tariff Regulations. The Respondent, DVPCA has submitted that the Commission had disallowed the claim of the Petitioner for ash evacuation expenses during the period 2009-14 on the ground that the same form part of the normative O&M expenses. Accordingly, the Respondent has stated that there is no rationale to allow such expenses over and above the normative O&M expenses for the period 2019-24.

242. The matter has been examined. The MoEF&CC notification dated 31.12.2021 provides for the following:

- (i) Thermal power plants w.e.f. 1.4.2022, preferably utilise 100 % ash generated during that year and in no case, utilisation shall fall below 80 % in any year subjected to 100 % utilization in a three years cycle. In addition, the unutilised accumulated ash i.e., legacy ash, which is stored before the publication of this

notification, shall be utilised progressively and completed fully within ten years, by 31.12.2031.

- (ii) All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within 300 kms from the thermal power plants shall mandatorily utilise ash in these activities in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government Agencies.
- (iii) Provided that it is delivered at the project site free of cost and transportation cost is borne by such thermal power plants.
- (iv) Provided further that thermal power plant may charge for ash cost and transportation as per mutually agreed terms, in case thermal power plant is able to dispose the ash through other means and those agencies makes a request for it and the provisions of ash free of cost and free transportation shall be applicable, if thermal power plant serves a notice on the construction agency for the same.
- (v) Non-compliance of these provisions by Thermal Power plants attracts an environmental compensation of annual Rs.1000 / ton of unutilised ash and that of users is Rs.1500 per ton of ash for the quantity they fall short off.

243. The Petitioner has proposed ash transportation charges for the period 2019-24, based on the ash transportation charges, associated with the generating station for 2018-19, with an annual escalation rate of 4.40% thereof. As noted, the ash transportation charges for the generating station in 2018-19, are based on apportioned audited ash transportation charges of Mejia TPS, and the same was allowed during the period 2014-19. However, the actual expenses will depend on actual generation, quality of coal, quantity of ash utilized locally, quantity of ash transported, type of end user, distance of end user etc and may be in variance with projected claim of the Petitioner. Also, the Petitioner may generate some revenue by sale of ash. In this background, we are inclined to allow only 90% of the projected ash transportation charges claimed, as additional O&M expenses, for the period 2019-24. The Petitioner is permitted to recover the said expenses from 1.4.2019 upto the date of the instant



order, in 6 equal instalments commencing from March 2023, in accordance with the Regulation 10 of the 2019 Tariff Regulations and thereafter, the recovery of the same, shall be affected through monthly bills. The Petitioner is however, directed to submit all relevant documents in terms of the MoEF&CC notification, including the year-wise audited statements, detailed justification, the ash available, plant wise income from sale of ash, quantity of ash produced, quantity of ash transported within 100 kms and beyond, revenue received, interest accrued, the statement of ash fund account as on 31.3.2014, 25.1.2016 and 31.3.2019, transportation cost borne by the end consumer, scheduled rate, etc., at the time of truing up of tariff. It is noticed that in the past, the Petitioner has used road transportation (trucks) for transportation of ash. In terms of this, the Petitioner is directed to explore other economic and environmentally friendly alternatives for ash disposal such as ash slurry pipeline, wagons instead of road transportation. Accordingly, the ash transportation charges provisionally allowed are as follows:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1109.07	1157.89	1208.83	1262.02	1317.55

Mega Insurance Expenses

244. The Petitioner has claimed total amount of Rs. 243.40 lakh towards Mega Insurance expenses under Regulations 76 and 77 of the 2019 Tariff Regulations. The Respondent, DVPCA has submitted that the Petitioner has not referred to any extraordinary factors that have necessitated additional insurance cover for its units. It has also submitted that any comprehensive insurance is always cost effective in comparison to individual insurance policies and hence, it is not clear as to how mega insurance could lead to additional O&M expenses. The Petitioner in its rejoinder dated 16.7.2021 has reiterated its submissions made in its petition for the 2014-19 tariff



period, on this issue.

245. The matter has been considered. It is observed that the Commission while specifying the O&M expense norms for the period 2019-24 had considered and factored the 'insurance expenses' as part of its calculations. Since the said regulations have been notified after extensive stakeholder consultations, we find no reason to grant relief to the Petitioner by exercise of the power under Regulation 76 or Regulation 77 of the 2019 Tariff Regulations. In view of this, claim of the Petitioner under this head is not allowed.

Share of Subsidiary Activities

246. The Petitioner has claimed total Rs. amount of 1106.10 lakh towards Share of Subsidiary Activities under Regulations 76 and 77 of the 2019 Tariff Regulations. The Respondent, DVPCA has submitted that the Petitioner has also claimed contribution to subsidiary funds and has claimed the Return on Equity, Interest on Loan and Depreciation on the common assets namely Direction Office, Subsidiary Activities, Other Offices, R&D, IT Centre and Central Office for the 2019-24 tariff period under the nomenclature "share of common office expenditures". Accordingly, it has submitted that the contribution to subsidiary fund is not allowable as the Return on Equity, Interest on Loan and Depreciation on the common assets have already been claimed separately. The Respondent has further submitted that the Commission, in its order dated 31.8.2016 in Petition No. 347/GT/2014, had disallowed the expenditure on subsidiary activity and the same was to be recovered as part of the normative O&M expenses. The Respondent, has also submitted that it has demonstrated that the actual O&M expenses, including the expenditure on subsidiary activity, for the 2014-19 tariff period, have been lower than the normative O&M expenses specified under the 2014 Tariff Regulations. Similarly. the normative O&M expenses provided under



the 2019, Tariff Regulations would be sufficient to cover such expenses in 2019 – 24 tariff period also. In response, the Petitioner has reiterated its submissions made in the petition.

247. The matter has been considered. It is noted that APTEL vide its judgement dated 23.11.2007 and Hon'ble Supreme Court judgement dated 23.7.2018, had observed that the apportioned expenditure associated with subsidiary activities can be recovered through electricity tariff. However, the claim of the Petitioner is not considered at this stage. The Petitioner is directed to furnish the actual audited apportioned expenditure associated with subsidiary activities along with proper justification for the expenses claimed, at the time of truing-up of tariff.

Share of Common Office Expenditure

248. The Petitioner has submitted that the projected expenditure pertaining to common office expenditure such as Direction Office, Central Office, Other Offices, Subsidiary activities, IT centre and R&D caters services to all generating stations as well as composite transmission and distribution systems. The Petitioner has stated that it has allocated the cost of common offices amongst its generating stations, on the basis of installed capacity and has claimed additional capital expenditure as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Direction Office	0.00	0.00	0.00	0.00	0.00
Subsidiary Activities	0.00	0.00	0.00	0.00	0.00
Other Offices	132.00	66.39	222.42	15.52	0.00
R&D	0.00	0.00	0.00	0.00	0.00
IT	960.00	1240.00	0.00	0.00	0.00
Central Office	0.00	0.00	0.00	0.00	0.00
Total	1092.00	1306.39	222.42	15.52	0.00

249. The head-wise, additional capital expenditure claimed by the Petitioner towards various offices is as under:



(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station equipment	132.00	66.39	222.42	15.52	0.00
Network Access Controller and Data Centre	960.00	1240.00	0.00	0.00	0.00
Total	1092.00	1306.39	222.42	15.52	0.00

250. The Petitioner has computed the Return on Equity, Interest on Loan and Depreciation on the Common Assets for the 2019-24 tariff period, based on the opening capital cost as on 1.4.2019, for different offices, and has apportioned them to each generating stations and T&D system, in proportion to the capital cost, claimed as on 31.3.2019. Further, the Petitioner has allocated the cost of common offices, amongst its generating stations, on the basis of installed capacity. Accordingly, the annual fixed charges claimed for assets of common offices are as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Direction Office	60.21	60.21	60.21	60.21	60.21
Subsidiary Activities	114.93	114.93	114.93	114.93	114.93
Other Offices	219.28	231.91	250.29	265.43	151.45
R&D	183.01	175.44	167.87	165.66	165.66
IT	149.74	319.41	407.60	394.52	381.44
Central Office	809.38	747.16	668.93	435.29	435.29
Total	1536.55	1649.04	1669.83	1436.05	1308.98

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Common Office expenditure apportioned to all DVC generating stations	1423.20	1527.40	1546.65	1330.11	1212.42
Common Office expenditure apportioned to T&D	113.35	121.65	123.18	105.93	96.56
Total	1536.55	1649.04	1669.83	1436.05	1308.98

251. In line with the above, the Petitioner has claimed apportioned common office expenses, for this generating station as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Common Office Expenditure apportioned to Mejia- 5 & 6	98.33	105.52	106.85	91.89	83.76

252. The matter has been considered. It is observed that the Common office

expenditures are associated with the various offices of the Petitioner, but not to subsidiary activities. In order to work out the Common office expenses to be allowed as a part of determination of tariff for the period 2019-24, we have examined the additional capital expenditure claimed by the Petitioner. The Petitioner has claimed projected additional capital expenditure during the period 2019-24 as under:

		(Rs. in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
1	Fully automated microprocessor-based portable CT&PT Analyzer (CRITL)	35.00	0.00	0.00	0.00	0.00
2	10 kV Digital Insulation Tester (CRITM)	17.00	0.00	0.00	0.00	0.00
3	Relay Test Kit (CRITL)	80.00	0.00	0.00	0.00	0.00
4	Dielectric Frequency Response Analysis (DFRA) Test Kit (CRITL)	0.00	36.17	0.00	0.00	0.00
5	Flash Point of Transformer Oil Measurement Kit (CRITL)	0.00	4.70	0.00	0.00	0.00
6	3-Phase Portable Power Source (CRITM)	0.00	21.00	21.00	0.00	0.00
7	Laptop (CRITM)	0.00	4.52	4.52	0.00	0.00
8	Fully Automatic Three Phase Transformer Test Kit (CRITM)	0.00	0.00	75.58	0.00	0.00
9	Swift Frequency Response Analysis (SFRA) Test Kit (CRITL)	0.00	0.00	21.72	0.00	0.00
10	Furan Test Kit (CRITL)	0.00	0.00	60.00	0.00	0.00
11	3-Phase Portable Reference Standard Meter (0.02 Class) (CRITM)	0.00	0.00	39.60	0.00	0.00
12	Line Impedance Measurement Kit	0.00	0.00	0.00	15.52	0.00
13	Network Access Controller, Next Generation Firewall (NGFW) and Networking Switches	160.00	40.00	0.00	0.00	0.00
14	Data Centre (Hardware & Licenses)	800.00	1200.00	0.00	0.00	0.00
	Total	1092.00	1306.39	222.42	15.52	0.00

253. As regards additional capital expenditure claimed for fully automated microprocessor-based portable CT&PT Analyser and 10 kV Digital Insulation Tester, the Petitioner has submitted that CT&PT analyser is required for replacement of the existing 220 KV & 132 KV CTs in DVC grid with 0.2 Accuracy Class CTs, as per CEA guidelines. As regards Relay Test Kit (CRITL); Dielectric Frequency Response Analysis (DFRA) Test Kit (CRITL); Flash Point of Transformer Oil Measurement Kit (CRITL); 3-Phase Portable Power Source (CRITM); Laptop (CRITM); Fully Automatic Three Phase Transformer Test Kit (CRITM); Swift Frequency Response



Analysis (SFRA) Test Kit (CRITL); Furan Test Kit (CRITL); 3-Phase Portable Reference Standard Meter (0.02 Class) (CRITM); and Line Impedance Measurement Kit, the Petitioner has submitted that these items are required to facilitate testing, condition monitoring of various power equipment's and smart meters. As regards additional capital expenditure claimed for Network Access Controller, next generation Firewall (NGFW) and networking Switches, the Petitioner has submitted that in order to comply with cyber security guidelines, of MOP, GOI, NCIIPC network security layer are proposed to be established, so that access to the system is provided to authenticated users only. As regard claim for Data centre, the Petitioner has submitted that the procurement of hardware and licenses for Oracle to host EBA and other DVC applications, website, Firewall, Managed Back-up services, Load Balancer, IPS and Log Servers, IT infrastructure servers like DHCP, Ex-Bus, DNS, Virtualization, Security Appliances and storage in a DRC at different seismic zone, has been planned to be completed during the year 2019-20 and 2020-21.

254. The matter has been considered. It is observed that the items mentioned under the head 'Substation Equipment's' are required for the efficient functioning of the substations (including generating stations' switchyards) and therefore, the claim is allowed. As regards Network Access Controller, next Generation Firewall (NGFW), Networking switches and Data Centre, it is observed that the proposed additional expenditure is for measures taken to strengthen cyber security, in terms of the MOP, GOI guidelines dated 12.4.2010 and therefore the claim is allowed. Further, considering the nature of works, additional capitalization claimed against the head 'IT Equipment' are allowed. Further, the Petitioner is directed to furnish additional information regarding the total expenditure incurred on this count, segregated claims during the periods 2014-19 and 2019-24, expenditure envisaged in future etc., along



with supporting documents.

255. Based on the above, the total additional capital expenditure allowed under Common Office expenses for the period 2019-24 is summarised below:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station Equipment	132.00	66.39	222.42	15.52	0.00
Network Access Controller and Data Centre	960.00	1240.00	0.00	0.00	0.00
Total	1092.00	1306.39	222.42	15.52	0.00

256. It is observed that that the Petitioner has worked out Common Office expenses for various offices, including Subsidiary activities. However, expenses of subsidiary activities will be dealt at the time of truing-up of tariff for the period 2019-24. Accordingly, the annual fixed charges for Common offices have been worked out by considering the opening capital cost as on 1.4.2014. The annual fixed charges for Common Offices, as worked out has been apportioned to the generating stations / T&D systems of the Petitioner, based on the approved capital cost as on 31.3.2014 and the same is subject to truing-up for the period 2019-24. Accordingly, the share of common office expenses, worked out and allocated to the generating station is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	458.06	357.82	300.14	310.67	232.58
Interest on Loan	91.10	136.51	163.38	148.52	135.87
Return on Equity	517.46	553.96	577.23	580.86	581.10
Total	1066.62	1048.29	1040.75	1040.05	949.55

(Rs. in lakh)

	Capital Cost as on 1.4.2014	2019-20	2020-21	2021-22	2022-23	2023-24
All DVC Generating stations	2036943.91	981.93	965.06	958.12	957.47	874.16
T&D	175678.95	84.69	83.23	82.63	82.58	75.39
Total	2212622.86	1066.62	1048.29	1040.75	1040.05	949.55

(Rs. in lakh)

Common Office Expenses	2019-20	2020-21	2021-22	2022-23	2023-24
MTPS (5&6)-this generating station	67.84	66.67	66.19	66.15	60.39

Annual Fixed Charges allowed for the period 2019-24

257. Based on the above discussion, the annual fixed charges allowed for the generating station is summarized as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15692.88	7140.50	1184.09	281.23	43.05
Interest on loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	10023.69	10044.13	10069.28	10076.08	10076.65
Interest on Working Capital	4587.36	4196.03	3869.60	3894.68	3928.85
O&M Expenses	16480.00	17060.00	17655.00	18280.00	18920.00
Water Charges	1390.24	1525.09	1677.60	1845.36	2035.46
Security Expenses	1222.94	1276.75	1332.93	1391.58	1452.82
Special Allowance	0.00	0.00	0.00	0.00	0.00
Sub-total (A)	49397.12	41242.50	35788.51	35768.94	36456.82
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	1714.18	1834.17	1962.57	2099.95	2246.94
Share of P&G	0.00	0.00	0.00	0.00	0.00
Share of Common Office Expenditure	67.84	66.67	66.19	66.15	60.39
Mega Insurance Expenses	0.00	0.00	0.00	0.00	0.00
Share of subsidiary activities	0.00	0.00	0.00	0.00	0.00
Sub-total (B)	1782.02	1900.85	2028.76	2166.10	2307.33
Total Annual Fixed Charges	51179.14	43143.35	37817.27	37935.04	38764.15

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.

258. The Ash Evacuation Expenses which shall be recovered separately in terms of this order, is as under:

(Rs in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1109.07	1157.87	1208.82	1262.01	1317.55

259. The annual fixed charges approved as above are subject to truing up in terms of Regulation 13 of the 2019 Tariff Regulations.

Application Fee and Publication expenses

260. The Petitioner has sought the reimbursement of filing fee paid by it for filing the



tariff petition for the 2019-24 tariff period and for 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.

261. Similarly, RLDC Fees & Charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2019, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled for recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2019 Tariff Regulations.

262. Petition No. 571/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member