CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 564/GT/2020

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

Date of Order: **20th July 2023**

In the matter of

Petition for truing up of tariff for the period 2014-19 and determination of tariff for the period 2019-24 in respect of Koderma Thermal Power Station, Units I & II (1000 MW)

And

In the matter of

Damodar Valley Corporation,
DVC Towers, VIP Road,
Kolkata-700054 **...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. Haryana Power Generation Corporation Limited,
Shakti Bhawan, Sector – 6,
Panchkula – 134109

5. Bangalore Electricity Supply Company Limited,
K.R. Circle, Bangalore-506001

6. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli - 580025,
Karnataka

7. Gulbarga Electricity Supply Corporation Limited,
Station Road, Gulbarga - 585102,
Karnataka

8. Mangalore Electricity Supply Company Limited,
Paradigm Plaza, AB Shetty Circle, Mangalore-575001

9. Chamundeshwari Electricity Supply Corporation Limited,
927, L J Avenue, GF, New Kantharaj Urs Road,
Saraswatipuram, Mysore-570009

10. Jharkhand Bijli Vitran Nigam Limited,
Engineering Building, HEC, Dhurwa,
Ranchi- 834 004 **...Respondents**

11. Damodar Valley Power Consumers Association,
9, A J C Bose Road, 4th Floor, Kolkata – 700017 **...Objector**

Parties Present:

Shri M.G. Ramachandran, Senior Advocate, DVC
Ms. Anushree Bardhan, Advocate, DVC
Ms. Srishti Khindaria, Advocate, DVC
Shri Manik Rakshi, DVC
Shri Sandip Pal, DVC
Shri Samit Mandal, DVC
Shri Arnab Kr. Sinha, DVC
Shri Rajiv Yadav, Advocate, DVPCA

ORDER

This petition has been filed by the Petitioner, Damodar Valley Corporation, for truing-up of tariff of Koderma TPS, Units-I & II (1000 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 (in short '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 a capacity of 1000 MW comprising of two units of 500 MW each. The date of commercial operation of the different Units of the generating station are as under:

	Actual COD
Unit – I	18.7.2013
Unit – II	14.6.2014

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 'the APTEL') on various issues. Similarly, appeals were also filed before the APTEL by some of the objectors / consumers, namely, Maithon Alloys Ltd and others (Appeal No.271/2006), Bhaskar Shrachi Alloys Ltd. and others (Appeal No. 272/2006), State of Jharkhand (Appeal No.275/2006) and the West Bengal Electricity Regulatory Commission (Appeal No.8/2007) challenging the order of the Commission dated 3.10.2006 on various grounds. The 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 de novo 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 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 de novo 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 period 2006-09 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 period 2014-19, 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, were 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 trued-up for the period 2014-19 and also determined for the period 2019-24, as stated in the subsequent paragraphs.

6. The Commission vide its order dated 28.2.2017 in Petition No. 296/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 (1.4.2014 to 13.6.2014)	**2014-15 (14.6.2014 to 31.3.2015)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Capital Cost (A)	241750.50	496289.28	496334.64	507134.64	550534.64	554134.64
Add: Additional Capital Expenditure allowed (B)	0.00	45.36	10800.00	43400.00	3600.00	0.00
Closing Capital Cost (C) = (A) + (B)	241750.50	496334.64	507134.64	550534.64	554134.64	554134.64
Average Capital Cost (D) = (A+C) /2	241750.50	496311.96	501734.64	528834.64	552334.64	554134.64

Annual fixed charges allowed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Depreciation	17197.13	35039.26	35422.10	37335.34	38994.42	39121.50
Interest on loan	18383.91	39229.77	35838.98	33931.11	31563.45	27499.83
Return on Equity	7424.76	12362.88	12615.03	13875.18	14967.93	15051.63
Interest on Working Capital	2073.05	7407.45	8532.33	8620.20	8832.75	8819.27
O&M Expenses	1664.30	13089.47	17385.69	18455.69	19595.69	20805.69
Sub-Total (A)	**53454.54**	**110415.04**	**109794.13**	**112217.52**	**113954.24**	**111297.92**
Additional Claims allowed						
Share of Common Office Expenses	13.96	54.88	73.59	91.43	122.4	138.91
Share of Pension & Gratuity Contribution	0.00	0.00	0.00	0.00	0.00	0.00
Contribution and Interest on Sinking fund	4681.77	4681.77	5009.49	5360.15	5735.37	6136.84
Adjustment of O&M CISF security	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Total (B)	**4695.73**	**4736.65**	**5083.08**	**5451.58**	**5857.77**	**6275.75**
Total Annual Fixed Charges (C = A+B)	**58205.15**	**115165.65**	**114877.21**	**117669.11**	**119812.01**	**117573.67**

<u>Truing-up of tariff for the period 2014-19</u>

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

> *"(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, in the present petition, has claimed the capital cost (in Form 1(I) of the petition) and annual fixed charges for the period 2014-19, as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Opening Capital Cost (A)	241750.50	496289.28	499573.64	510285.26	522723.11	527107.93
Add: Addition during the year / period (B)	-	1751.86	10496.60	4729.92	76.13	24000.44
Less: Decapitalisation during the year / period (C)	-	-	-	-	-	-
Less: Reversal during the year / period (D)	-	-	-	-	-	-
Less: Undischarged liabilities (E)	814.43	401.97	117.14	764.79	437.52	409.94
Add: Discharges during the year / period (F)	269.54	1934.47	332.15	8472.73	4746.21	301.40
Closing Capital Cost (G)=(A+B-C-D-E+F)	**241205.60**	**499573.64**	**510285.26**	**522723.11**	**527107.93**	**550999.83**
Average Capital Cost (H)=(A+G/2)	241478.05	497931.46	504929.45	516504.18	524915.52	539053.88

Annual fixed charges claimed

(Rs in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Depreciation	3482.61	28026.61	33806.25	34396.74	34955.74	34757.24
Interest on loan	3359.10	28299.45	32193.80	31650.24	28819.27	26392.79
Return on Equity	1901.23	12546.22	16226.61	16910.86	17408.11	18292.11
Interest on Working Capital	1,059.23	7,489.68	9,502.63	9,582.83	9,931.34	9,676.03
O&M Expenses	1621.92	12756.16	17010.00	18080.00	19220.00	20430.00
Water Charges	-	-	938.48	570.68	758.24	846.15
Compensation Allowance	-	-	-	-	-	-
Sub-Total (A)	**11424.09**	**89118.13**	**109677.77**	**111191.37**	**111092.70**	**110394.31**
Capital Spares	-	112.53	433.20	346.20	541.93	978.00
Impact of Pay Revision due to recommendation of 7th Pay Commission	-	-	-	1214.62	1528.78	1076.82
Impact of GST as "Change in Law"	-	-	-	0.00	54.27	225.09
Interest & Contribution	533.13	4192.99	5056.95	5410.94	5789.70	6194.98

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
on Sinking Fund (As per section 40, Part IV of DVC Act)						
Share of P&G	150.40	1182.86	3809.93	4186.98	9479.11	1791.04
Share of Common Office Expenditure	19.75	155.31	182.27	154.94	167.78	179.55
Expenses due to Ash evacuation, Mega insurance, CISF expenditure & Expenditure for Subsidiary activity	294.97	2319.89	3376.56	3138.33	3750.34	4482.30
Sub-Total (B)	**998.24**	**7963.58**	**12858.92**	**14452.01**	**21311.91**	**14927.79**
Total annual fixed charges claimed (C = A+B)	**12422.34**	**97081.71**	**122536.69**	**125643.38**	**132404.61**	**125322.10**

9. The Petitioner vide affidavits dated 28.1.2020, 15.11.2021 and 21.3.2022, has furnished certain additional information. This petition was heard on 13.4.2021 through video conferencing and the Commission, after directing the Petitioner to submit certain additional information, reserved its order in the petition. In response, the Petitioner vide affidavit dated 17.5.2021 has filled the additional information after serving copy to the Respondents. The Objector, DVPCA has filed its comments/objections vide affidavit dated 19.4.2021, in response the Petitioner has filed rejoinder to the comments/ objections of DVCPA, vide affidavit dated 16.7.2021. Since, the order in the petition could not be passed, prior to the then Chairperson demitting office, the Petition was re-listed and heard on 31.3.2022, through virtual conferencing. Accordingly, the Commission after hearing the parties, directed the Petitioner to submit additional information and reserved its order in the petition. In response, the Petitioner vide affidavit dated 18.5.2022, has filed additional information after serving copy on the Respondents. Considering 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 22.8.2016 in Petition No. 295/GT/2015, had allowed the closing capital cost of Rs. 241750.50 lakh as on 31.3.2014. The Petitioner has claimed 'Nil' additional capital expenditure for the period from 1.4.2014 to 13.6.2014 i.e. the period before the COD of Unit-II,. However, during the said period, the Petitioner has considered undischarged liabilities of Rs. 814.43 lakh and discharged liabilities of Rs. 269.54 lakh. The Petitioner clarified that the undischarged liabilities of Rs. 814.43 lakh pertains to capital expenditure till COD, and as such, the said amount has been adjusted with the earlier approved opening capital cost of Rs. 241750.50 lakh to arrive at the trued-up opening capital cost (cash basis) as on 1.4.2014 for the purpose of tariff. Accordingly, the opening capital cost as on 1.4.2014 works out to be Rs. 240936.07 lakh. Further, considering the liabilities discharged amounting to Rs. 269.54 lakh during the period from 1.4.2014 to 13.6.2014, the closing capital cost for Unit-I works out to Rs. 241205.60 lakh.

12. As regards Unit-II (COD on 14.6.2014) the Commission vide its order dated 28.2.2017 in Petition No. 296/GT/2015, had approved the capital cost of Rs. 254538.77 lakh (cash basis). Accordingly, the closing capital cost of Rs. 241205.60 lakh, as on 13.6.2014, for Unit-I is added with the approved capital cost of Rs. 254538.77 lakh for

Unit-II to arrive at the capital cost of Rs. 495744.37 lakh of the station, as on station COD i.e. 14.6.2014.

Additional Capital Expenditure

13. 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 obsolesce 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."

14. The additional capital expenditure allowed in order dated 28.2.2017 in Petition No. 296/GT/2015 is summarized below:

(Rs. in lakh)

S. No.	Head of Works/ Equipment	Regulation	Additional Capital expenditure claimed	De-capitalization Claimed	Net Additional Capital expenditure allowed
	2014-15				
1	Plant & Machinery	14(1)(ii)	1751.86	0.00	45.36
	Total		**1751.86**	**0.00**	**45.36**
	2015-16				
1	Land	14(1)(ii)	4000.00	0.00	4000.00
2	Main plant package (Ash pond spill over jobs)		2500.00	0.00	2500.00
3	Overhead		600.00	0.00	600.00
4	Town-ship		1500.00	0.00	1500.00
5	Road and other civil work		700.00	0.00	700.00
6	R&R Compensation		1000.00	0.00	1000.00
7	Socio-Economic Infrastructure		500.00	0.00	500.00
	Total		**10800.00**	**0.00**	**10800.00**
	2016-17				
1	Land	14(1)(ii)	11000.00	0.00	11000.00
2	Main plant package (Ash pond spill over jobs)		3700.00	0.00	3700.00
3	Overhead		400.00	0.00	400.00
4	Township		10500.00	0.00	10500.00
5	Road and other civil work		2400.00	0.00	2400.00
6	R&R Compensation		10000.00	0.00	10000.00
7	Construction of Wagon tippler with allied rail linkage		4000.00	0.00	4000.00
8	Pipradih Koderma rail linkage		1000.00	0.00	1000.00
9	Socio-Economic Infrastructure		400.00	0.00	400.00
	Total		**43400.00**	**0.00**	**43400.00**
	2017-18				
1	Main plant package (Ashpond spill over jobs)	14(1)(ii)	3600.00	0.00	3600.00
2	Township		7500.00	0.00	0.00
3	Construction of Wagon tippler with allied rail linkage		5000.00	0.00	0.00
4	Pipradih Koderma rail linkage		5000.00	0.00	0.00
	Total		**21100.00**	**0.00**	**3600.00**
	2018-19				
1	Township	14(1)(ii)	6500.00	0.00	0.00
2	Socio-Economic Infrastructure		9000.00	0.00	0.00
	Total		**15500.00**	**0.00**	**0.00**
	Total additional capitalization allowed		**92551.86**	**0.00**	**57845.36**

15. The Petitioner has submitted that the un-discharged liabilities and IDC included in additional capital expenditure for individual items, could not be furnished, as data are not recorded in that manner, and therefore, the additional capital expenditure claimed for each item is on accrual basis. Accordingly, the additional capital expenditure claimed by the Petitioner in Form-9A for the period 2014-19, is as under:

(Rs. in lakh)

	2014-15 (14.6.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19	Total
Land & Land Right	-	44321.90	3582.79	14.33	22775.57	**70694.60**
Building	-	13858.96	9.27	40.47	534.82	**14443.52**
Road Culverts & Rly. Sidings	-	1695.86*	653.69	-	-	**2349.55**
Barrage, Gates & Others	-	20788.35	-	-	-	**20788.35**
Power House Plant & Machinery	1751.86	(-)76354.09	212.91	10.35	636.58	**(-)73742.39**
Switch Gear	-	6151.88	-	-	-	**6151.88**
Computer and IT Assets	-	33.61	0.27	3.30	25.23	**62.41**
Other Assets	-	0.11	270.99	7.68	28.25	**307.03**
Total	**1751.86**	**10496.60**	**4729.92**	**76.13**	**24000.44**	**41054.95**

**Including Rs.1631.30 lakh for Railway siding*

16. The Objector, DVPCA has submitted that the Petitioner has claimed the additional capital expenditure under Regulations 14(1)(ii), 14(2)(i), 14(2)(iv) & Regulation 54 (Power to relax) and Regulation 55 (Power to Remove Difficulty) of the 2014 Tariff Regulations. DVPCA has stated that the Petitioner has not submitted any details of asset wise/work wise expenditure included in original scope of work along with the estimate of expenditure, liabilities recognised to be payable in future date and the work deferred for the execution along with the petition. It has further stated that the Petitioner has not submitted any details for claiming additional Capitalization towards Land & Land Rights, Buildings, Power House Plant & Machinery and Other assets for the years 2017-

18 and 2018-19. It has also submitted that the Petitioner has not provided any proper justification or documentary evidence for claiming the additional capital expenditure as per Regulations 14(1) & 14(2) of the 2014 Tariff Regulations. DVPCA has also submitted that the Petitioner has not detailed out reasons for additional capitalization claimed under Regulations 54 (Power to Relax) and Regulation 55 (Power to Remove Difficulty) of the 2014 Tariff Regulations and has put the onus on the Commission to decide and undertake analysis of claims, when it is well settled in law that the Power to Relax and Power to Remove Difficulty has to be exercised in rare cases and not ordinarily. DVPCA has further stated that since the Petitioner has not presented/ cited any extra-ordinary circumstances or events which has led to incurring such additional capitalisation, the items claimed under Regulation 54 and Regulation 55 of 2014 Tariff Regulations may be rejected. DVPCA has also submitted that COD of Unit-I is 18.7.2013 and Unit-II is 14.6.2014 and both are newly commissioned plants, for which the Commission had approved the additional capital expenditure of Rs. 57845.36 lakh for the period 2014-19 in Petition No. 296/GT/2015 and despite being a newly commissioned plant, the Petitioner has claimed additional capital expenditure towards Land & Land Rights, Building, Power House Plant & Machinery and Other Assets for the years 2017-18 and 2018-19 (i.e. after Cut-off date of the generating stations) which is found to be unjustified in the absence of any documentary evidence, approvals, sanctions or Court orders. The Objector has also submitted a comparative of the additional capital expenditure claimed by the Petitioner and to be allowed as under:

(Rs. in lakh)

	2014-15 (Post COD of Unit-II)		**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**
Land & Land Rights	-	-	44321.90	4000.00	3582.79	3582.79	14.33	-	22775.57	-
Buildings	-	-	13858.96	13858.96	9.27	9.27	40.47	-	534.82	-

	2014-15 (Post COD of Unit-II)		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**
Road Culverts & Siding	-	-	1695.86	1695.86	653.69	653.69	-	-		-
Barrage Gates & Others	-	-	20788.35	20788.35	-	-	-	-		-
Power House Plant & Machinery	1751.86	45.36	(-)76354.09	(-)76354.09	212.91	212.91	10.35	-	636.58	-
Switch Gear	-	-	6151.88	6151.88	-	-	-	-	-	-
Computer & IT Assets	-	-	33.61	33.61	0.27	0.27	3.30	3.30	25.23	25.23
Other Assets	-	-	0.11	0.11	270.99	270.99	7.68	-	28.25	-
Grand Total	**1751.86**	**45.36**	**10496.60**	**(-)29825.31**	**4729.92**	**4729.92**	**76.13**	**3.30**	**24000.44**	**25.23**

17. In response, the Petitioner has submitted that the additional capital expenditure claimed, the liability created and discharged has been duly reconciled with books of account and audited by the Comptroller & Auditor General (C&AG) of India. The Petitioner has further submitted that detailed justification against each item has been furnished along with documentary evidence, wherever necessary. It has also submitted that all the additional capital expenditure items incurred by the Petitioner for the generating station are critical in nature to ensure reliable, safe, and efficient operation of the station and are therefore unavoidable. Accordingly, the Petitioner has claimed additional capital expenditure under clauses (1), (2) and (3) of Regulations 14 of the 2014 Tariff Regulations read with Regulation 54 (Power to Relax) with prayer to relax the provisions of these regulations and Regulation 55 (Power to Remove Difficulty) to remove any difficulty which arises in giving effect to the provisions of these Regulations and allow the claims of the Petitioner.

18. The matter has been examined., we noted that the opening capital cost of Rs. 495744.37 lakh as approved on COD of the generating station (14.6.2014) works out to Rs. 4.96 crore/MW, which is reasonable. Based on the submissions of the parties, the documents on record, and on prudence check, the claim of the Petitioner for additional

capital expenditure claimed for the period 2014-19, is examined in terms of the provisions of the 2014 Tariff Regulations and allowed as under:

Additional Capital Expenditure upto the cut-off date

19. The following additional capital expenditure, on accrual basis, as claimed by the Petitioner upto the cut-off date of the generating station (31.3.2017):

(Rs. in lakh)

2014-15 (14.6.2014 to 31.3.2015)	**2015-16**	**2016-17**	**Total**
1751.86	10496.60	4729.92	**16978.38**

20. Considering the fact that the additional capital expenditure claimed Rs. 1751.86 lakh for the period 2014-15 (post COD of the generating station), Rs.10496.60 lakh for 2015-16 and Rs. 4729.92 lakh for 2016-17, are for original scope of work of the project, incurred with-in the cut-off date (31.3.2017) and are as per RCE sanctioned vide order dated 29.9.2015, the claim of the Petitioner is allowed under Regulation 14(1)(ii) of 2014 Tariff Regulations. This is, however, subject to the allowable initial spares as per Regulation 13 of 2014 Tariff Regulations, as discussed below.

Initial Spares

21. As per details furnished by the Petitioner, the details of capitalized spares is as under:

(Rs. in lakh)

2014-15 (14.6.2014 to 31.3.2015)	**2015-16**	**2016-17**	**2017-18**	**2018-19**
2702.89	1071.46	597.18	333.76	278.99

22. A comparison of additional capital expenditure (inclusive of initial spares) and capitalized initial spare is as under:

	2014-15 (14.6.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure claimed (inclusive of initial spares)	**1751.86**	**10496.60**	**4729.92**	**76.13**	**24000.44**
Initial spares capitalized	2702.89	1071.46	597.18	333.76	278.99

23. It is observed that additional capital expenditure (inclusive of initial spares) is less than the capitalized initial spare which is not possible. In this regard, it has been clarified by the Petitioner that initial spares amounting to Rs. 2281.39 lakh for the period from 2015-16 to 2018-19 shown to be capitalized are actually still in Capital Work in Progress and are not part of the additional capital expenditure claimed. The final position of capitalized initial spares as informed by the Petitioner is as under:

(Rs. in lakh)

Capitalized till COD of Unit-II i.e 13.6.2014	2014-15 (14.6.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19
8429.27	1302.00	0.00	0.00	0.00	0.00

24. In view of the above scenario, we proceed to check the limit of initial spares allowable in terms of Regulation 13 of the 2014 Tariff Regulations. As per Form 5B of the petition, the expenditure on Plant & Machinery (excluding IDC, IEDC, land cost and cost of civil works) is Rs. 392261.47 lakh as on COD of the generating station i.e 14.6.2014 and after deducting the expenditure of Rs. 5731.00 lakh, disallowed on account of cost overrun in Main Plant package due to disallowed time overrun vide order dated 28.2.2017 in Petition No.296/GT/2015, the Plant & Machinery cost as on COD of the station works out as Rs. 386530.47 lakh. After taking into account the additional capital expenditure claimed against the heads of Plant & Machinery, Railway siding, Switchgear including negative adjustment during the year 2015-16, the Plant & Machinery cost (cash basis) as on the cut-off date for calculating the allowable initial

spares works out to Rs. 307011.58 lakh (after adjusting for undischarged liabilities and liabilities discharged on pro-rata basis), which also includes initial spares of Rs. 9337.40 lakh (cash basis).

25. Based on the above discussion, the allowable limit of initial spares as per Regulation 13 of 2014 Tariff Regulations works out as follows:

(Rs. in lakh)

Sr. No.		**Amount**
(a)	Plant & Machinery cost as on cut-off date i.e. 31.3.2017	307011.58
(b)	Initial spares included in above	9337.40
(c)	Allowable initial spares = {(a)-(b)} *4%/96	12403.09

26. In view of the above, the initial spares of Rs. 9731.27 lakh (accrual basis)/Rs. 9337.40 (cash basis) capitalized by the Petitioner till the cut-off date are within the ceiling limit as calculated above and as such, no adjustment due to initial spares is being effected in the additional capital expenditure claimed for the period 2014-17. Accordingly, the additional capital expenditure for the period till the cut-off date as claimed by the Petitioner, is allowed for the purpose of tariff, as under in terms of Regulation 14(1)(ii) of 2014 Tariff Regulations, as the same is within the original scope of work and has been incurred within the cut-off date:

2014-15 (14.6.2014 to 31.3.2015)	**2015-16**	**2016-17**	**Total**
1751.86	10496.60	4729.92	**16978.36**

Additional Capital Expenditure beyond the cut-off date (31.3.2017)

27. The additional capital expenditure claimed by the Petitioner under this head, is examined below:

(Rs. in lakh)

Sr. No.	**Assets / Works**	**Amount Claimed**	**Regulations**	**Petitioner Submission**	**Reason for Admissibility**	**Amount Allowed**
	2017-18					
A	**Land & Land Rights**					

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
1	Establishment for Acquiring DVC Land (0111010102) and Compensation for flood damages for Acquiring DVC Land (0111010106)	14.33	14 (2) (i)	This expenditure is against the original scope (under Sl. No. 1 of the Sanction Order of KTPS dt. 29.09.2015). The expenditure includes compensation payment made by DVC in respect of acquisition of land based on the directives of the LA Court, Koderma from time to time in the various LA cases corresponding to the different mouzas of KTPS. Sanction Orders issued by DVC from time to time towards approval of payments for land compensation following the LA Court directives are enclosed as with petition. Further, the Commission had also allowed Rs. 15000 lakh under the head 'Land' for 2014-19 period in its order dated 28.2.2017 in Petition No. 296/GT/2015.	The expenditure claimed is towards payment of compensation by the Petitioner for acquisition of land, based on the directions of the LA Court, Koderma, from time to time in the various LA cases corresponding to the different mouzas of the Project, the additional capital expenditure claimed **is allowed** under Regulation 14(2)(i) of the 2014 Tariff Regulations.	14.33
	Total - Land & Land Rights	**14.33**				**14.33**
B	**Buildings**					
1	Cable Trenches & Acc. (0111020108)	0.99		This expenditure is towards the	The expenditure clamed pertains	0.99

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
2	Canteen Building (0111020120)	24.04	14 (2) (iv), 54 & 55	work within the original scope (under Sl. No. 3(i) of the Sanction Order of KTPS dt. 29.9.2015). The expenditure is capitalized in this year after resolution of the punch-points by the EPC Contractor.	to works capitalized before the cut-off date and the balance payment made to the vendors has been capitalized after reconciliation and closure of contracts. In view of this, the additional capital expenditure claimed (@sl. Nos. 1 to 3) **are allowed** under Regulation 14(2)(iv) of the 2014 Tariff Regulations.	24.04
3	Water Works & Water Supply Sys (0111020134)	15.44	14 (2) (iv), 54 & 55	This expenditure is towards the work within the original scope (under Sl. No. 3(iii) of the Sanction Order of KTPS dt. 29.9.2015). The expenditure is capitalized in this year after resolution of the punch-points by the EPC Contractor.		15.44
	Total - Buildings	**40.47**				**40.47**
C	**Power House Plant & Machinery**					
1	31. Central Air Conditioning System (0111080113)	1.81	14 (2) (iv), 54 & 55	This expenditure is towards the work within the original scope (under Sl. No. 3 of the Sanction Order of KTPS dt. 29.9.2015). The expenditure is capitalized in this year after resolution of the punch-points by the EPC Contractor.	The expenditure claimed by the Petitioner pertains to works capitalized before the cut-off date and balance payment to the vendors has been capitalized after reconciliation and closure of contracts. In view of this, the additional capital expenditure claimed (@ sl. Nos. 1 to 7) **are allowed** under	1.81
2	12. Ash Pond and Water Recovery System (0111080118)	1.09				1.09
3	DC Battery & CH (0111080239)	0.11				0.11
4	Accessory Elec. Equipment (0111080241)	1.30				1.30
5	Transformer (0111080259)	0.30				0.30
6	Coal Handling Plant (0111080260)	5.53				5.53
7	Dry Fly Ash Collecting System (0111083118)	0.22				0.22

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
					Regulation 14(2)(iv) of the 2014 Tariff Regulations.	
	Total - Power House Plant & Machinery	**10.35**				**10.35**
D	**Computer and IT Assets**					
1	Personal Computer (PC) Fixed Asset (0111160318)	1.33	14 (2) (iv), 54 & 55	This expenditure is against the original scope (under Sl. No. 5(6) of the Sanction Order of KTPS dt. 29.09.2015). Major expense under this head has already been capitalized within the cut-off date. Only balance expenditure has been incurred in this year. Computers with updated operating systems are essential to ensure protection against **cyber threat.** This purchase is in compliance with the directives of the Ministry of Power, GOI dt. 12.04.2010 and dt. 02.08.2017 regarding steps to be taken to prevent cyber-attacks. The said directives of the Ministry of Power, GOI are enclosed as with petition.	Since the expenditure is within the original scope of work and is incurred for procurement of minor assets, the same is not allowed after cut-off date, in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations, Accordingly, the claims (@ sl. no. 1 and 2) is **not allowed.**	0.00
2	019-Intangible Assets-Engineering Software (0113010202)	1.97	14 (2) (iv), 54 & 55			0.00
	Total - Computer and IT Assets	**3.30**				**0.00**

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
E	**Other Assets**					
1	Office Furniture-Steel (O/assets) (0111160101)	2.32	14 (2) (iv), 54 & 55	This expenditure is against the original scope (under Sl. No. 5(5) of the Sanction Order of KTPS dt. 29.09.2015). Expenditure is capitalized during this year based on site requirements.	Since the expenditure claimed is within the original scope of work and is incurred for procurement of minor assets/ tools and tackles, the claim is not allowed after the cut-off date in terms of the first proviso to Regulation 14 of the 2014 Tariff Regulations. Accordingly, the claim of the Petitioner (@ sl nos. 1 to 7) is **not allowed.**	0.00
2	Office Furniture-Elec. (O/assets) (0111160103)	0.02				0.00
3	Residential Furniture. (O/assets) (0111160104)	0.05				0.00
4	Office Equipment (O/assets) (0111160301)	0.49				0.00
5	Television and Radio (O/assets) (0111160312)	2.44	14 (2) (iv), 54 & 55			0.00
6	Internal Telephone Sys. (O/assets) (0111160313)	0.06				0.00
7	016/13 Chemical Lab Equipment (0111164404)	2.31				0.00
	Total - Other Assets	**7.68**				**0.00**
	Total amount claimed	**76.13**				
	Total amount allowed					**65.15**
	2018-19					
A	**Land & Land Rights**					
1	Cost of land (0111010101)	6332.06	14 (2) (i)	This expenditure is against the original scope (under Sl. No. 1 of the Sanction Order of KTPS dt. 29.9.2015). The expenditure includes compensation payment made by DVC in respect of acquisition of land based on the directives of the LA Court, Koderma from time to time in the various LA cases	The expenditure claimed is towards payment of compensation by the Petitioner for acquisition of land, based on the directions of the LA Court, Koderma, from time to time in the various LA cases corresponding to the different mouzas of the Project, the additional capital expenditure claimed (@sl nos 1 to 3) is **allowed**	6332.06
2	Establishment for Acquiring DVC Land (0111010102)	15.59				15.59
3	001/01 Land & Land Right-Freehold (0111014201)	16778.39				16778.39

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
				corresponding to the different mouzas of KTPS. Sanction Orders issued by DVC from time to time towards approval of payments for land compensation following the LA Court directives are enclosed with petition	under Regulation 14(2)(i) of the 2014 Tariff Regulations.	
4	001 Land and Land Rights (0111010350)	(-)350.47		Rectification entry. Reversal of excess amount earlier booked under this head.	Allowed as rectification entry.	(-)350.47
	Total - Land & Land Rights	**22775.57**				**22775.57**
B	**Buildings**					
1	30. Power House Building (Main Plant & Building in Equipment Tree) (0111020101)	362.05	14 (2) (iv), 54 & 55	This expenditure is towards the work within the original scope (under Sl. No. 3 of the Sanction Order of KTPS dt. 29.09.2015). The work has been executed in previous years and kept in CWIP. The expenditure is transferred from CWIP to Fixed Asset in this year after resolution of the punch-points by the EPC Contractor.	The expenditure claimed by the Petitioner pertains to works capitalized before the cut-off date and balance payment to the vendors has been capitalized after reconciliation and closure of contracts. In view of this, the additional capital expenditure claimed (@ sl. nos. 1 to 4) are **allowed** under Regulation 14(2)(iv) of the 2014 Tariff Regulations.	362.05
2	Store Building (0111020106)	7.78				7.78
3	Meters Testing Equipment (0111020131)	27.57				27.57
4	Plantation (Colony) (0111020140)	137.41				137.41
	Total - Buildings	**534.82**				**534.82**
C	**Power House Plant & Machinery**					

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
1	60. Boiler Plant & Accessories (0111080101)	447.50	14 (2) (iv), 54 & 55	This expenditure is towards the work within the original scope (under Sl. No. 3 of the Sanction Order of KTPS dt. 29.09.2015). The work has been executed in previous years and kept in CWIP. The expenditure is transferred from CWIP to Fixed Asset in this year after resolution of the punch-points by the EPC Contractor.	The expenditure claimed by the Petitioner pertains to works capitalized before the cut-off date and balance payment to the vendors has been capitalized after reconciliation and closure of contracts. In view of this, the additional capital expenditure claimed (@ sl. no. 1 to 9) are **allowed** under Regulation 14(2)(iv) of the 2014 Tariff Regulations.	447.50
2	31. Central Air Conditioning System (0111080113)	32.14				32.14
3	12. Ash Pond and Water Recovery System (0111080118)	0.21				0.21
4	Accessory Elec. Equipment (0111080241)	55.00	14 (2) (iv), 54 & 55			55.00
5	Misc. Power Plant Equipment (0111080267)	11.15				11.15
6	008/02/01 BFP-(500 MW Green Belt) (0111080431)	16.62				16.62
7	008/06/06 Mill Rejecting System (0111080470)	17.53				17.53
8	008/15/07 EOT Crane (0111080517)	10.00				10.00
9	008/01 Boiler & Accs. Equip (0111084101)	46.44				46.44
	Total - Power House Plant & Machinery	**636.58**				**636.58**
D	**Computer and IT Assets**					
1	Personal Computer (PC) Fixed Asset (0111160318)	20.52	14 (2) (iv), 54 & 55	This expenditure is against the original scope (under Sl. No. 5(6) of the Sanction Order of KTPS dt. 29.9.2015). Major expense under this head has already been capitalized within the cut-off date. Only balance expenditure has been incurred in this year. Computers with updated	Since the expenditure claimed within the original scope is incurred for procurement of minor assets, the claims (@sl nos. 1 & 2) is **not allowed** after the cut-off date in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations.	0.00
2	019-Intangible Assets-Engineering Software (0113010202)	4.70				0.00

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
				operating systems are essential to ensure protection against cyber threat. This purchase is in compliance with the directives of the Ministry of Power, GOI dt. 12.4.2010 and dt. 02.08.2017 regarding steps to be taken to prevent cyber-attacks. The said directives of the Ministry of Power, GOI are enclosed with petition.		
	Total - Computer and IT Assets	**25.23**				**0.00**
E	**Other Assets**					
1	Office Equipment (O/assets) (0111160301)	1.26	14 (2) (iv), 54 & 55	This expenditure is against the original scope (under Sl. No. 5(5) of the Sanction Order of KTPS dt. 29.09.2015). Expenditure is capitalized during this year based on site requirements.	Since the expenditure claimed is within the original scope of work and is incurred for procurement of minor assets/ tools and tackles, the claim of the Petitioner (@ sl nos. 1 to 7) is **not allowed,** after the cut-off date in terms of the first proviso to Regulation 14 of the 2014 Tariff Regulations.	0.00
2	Books & Maps (O/assets) (0111160327)	0.60				0.00
3	Hospital Equp (O/assets) (0111160330)	1.93				0.00
4	Air Conditioning Machine (Window /Split AC) (0111160331)	3.40				0.00
5	Miscellaneous (O/assets) (0111160399)	17.18				0.00
6	016/13 Chemical Lab Equipment (0111164404)	3.73				0.00
7	016 Other Asset (Hospital) (0111165502)	0.15				0.00
	Total - Other Assets	**28.25**				**0.00**

Sr. No.	Assets / Works	Amount Claimed	Regulations	Petitioner Submission	Reason for Admissibility	Amount Allowed
	Total amount claimed for 2018-19	**24000.44**				
	Total amount allowed					**23946.97**

28. Accordingly, the summary of additional capital expenditure allowed for the period 2014-19 is as under:

(Rs. in lakh)

	2014-15 (14.6.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19	Total
Land and Land Rights	0.00	44321.90	3582.79	14.33	22775.57	70694.60
Building	0.00	13858.96	9.27	40.47	534.82	14443.52
Road Culverts & Rly. Sidings	0.00	1695.86	653.69	0.00	0.00	2349.55
Barrage, Gates & Others	0.00	20788.35	0.00	0.00	0.00	20788.35
Power House Plant & Machinery	1751.86	(-) 76354.09	212.91	10.35	636.58	(-) 73742.39
Switch Gear	0.00	6151.88	0.00	0.00	0.00	6151.88
Computer and IT Assets	0.00	33.61	0.27	0.00	0.00	33.88
Other Assets	0.00	0.11	270.99	0.00	0.00	271.10
Total	**1751.86**	**10496.60**	**4729.92**	**65.15**	**23946.97**	**40990.50**

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

(Rs. in lakh)

	2014-15 (14.6.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19	Total
Claimed	1751.86	10496.60	4729.92	76.13	24000.44	**41054.95**
Allowed	1751.86	10496.60	4729.92	65.15	23946.97	**40990.50**
Disallowed	0.00	0.00	0.00	10.98	53.48	**64.46**

De-Capitalization

29. The Petitioner has not claimed any de-capitalisation during the period 2014-19.

Un-discharged liabilities

30. The Petitioner has submitted that the total undischarged liabilities created during the period 2014-19 is Rs. 2121.36 lakh (Rs. 401.97 lakh for 2014-15, Rs. 117.14 lakh for 2015-16, Rs. 764.79 lakh for 2016-17, Rs. 437.52 lakh for 2017-18 and Rs. 409.94

lakh for 2018-19). However, it is observed that information submitted by the Petitioner is not in line with the 2014 Tariff Regulations i.e. details of item-wise undischarged/ discharge of liabilities has not been furnished. In the absence of item-wise availability of undischarged liability, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure against the claimed additional capital expenditure (excluding negative entries), during each year of the period 2014-19. Accordingly, as against an un-discharged liability amounting to Rs. 2131.36 lakh claimed for the period 2014-19 by the Petitioner, a corresponding amount of Rs. 2067.36 lakh (Rs. 401.97 lakh for 2014-15, Rs. 117.14 lakh for 2015-16, Rs. 764.79 lakh for 2016-17, Rs. 374.42 lakh for 2017-18 and Rs. 409.04 lakh for 2018-19) for allowed assets has been allowed for the period 2014-19.

Discharge of liability

31. The Petitioner has submitted year-wise details of total liability discharged for Rs. 16056.49 lakh for 2014-19 (i.e Rs. 2204.00 lakh for 2014-15, Rs. 332.15 lakh for 2015-16, Rs. 8472.73 lakh for 2016-17; Rs. 4746.21 lakh for 2017-18 and Rs. 301.40 lakh for 2018-19), instead of item wise liability discharges. In the absence of any item-wise availability of liabilities discharged, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure against the claimed expenditure (net of negative entries), during each year of the period 2014-19. Further, the opening balance of liability discharged as on 1.4.2014, has been allowed to be discharged in full. Accordingly, the discharge of liabilities, allowed as part of additional capital expenditure, corresponding to the assets allowed, are as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Opening Un-discharged liabilities (A)	31478.55	31209.01	29724.69	29517.92	22015.03	17768.94

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
Additions during the period 2014-19 (corresponding to allowed additional capital expenditure) (B)	0.00	401.97	117.14	764.79	374.42	409.04
Discharges during the period 2014-19 (corresponding to allowed additional capital expenditure) (C)	269.54	1886.28	323.91	8267.68	4620.51	293.58
Reversal of Liabilities out of liabilities added during the period 2014-19 (corresponding to allowed additional capital expenditure) (D)	0.00	0.00	0.00	0.00	0.00	0.00
Closing Un-discharged liabilities (E) = (A+B-C-D)	31209.01	29724.69	29517.92	22015.03	17768.94	17884.40

Capital cost allowed for the period 2014-19

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

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
Opening Capital Cost (A)	240936.07	495744.37	498980.55	509683.92	521916.73	526227.97
Add: Addition during the year / period(B)	0.00	1751.86	10496.60	4729.92	65.15	23946.97
Less: De-Capitalization during the year /period (C)	0.00	0.00	0.00	0.00	0.00	0.00
Less: Undischarged liabilities (D)	0.00	401.97	117.14	764.79	374.42	409.04
Add: Discharges during the year /period (E)	269.54	1886.28	323.91	8267.68	4620.51	293.58
Closing Gross Block (F) = (A+B-C-D+E)	**241205.60**	**498980.55**	**509683.92**	**521916.73**	**526227.97**	**550059.48**
Average Gross Block (F) = (A+F)/2	241070.83	497362.46	504332.24	515800.33	524072.35	538143.73

Debt-Equity Ratio

33. 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."

34. The gross normative loan and equity amounting to Rs. 193848.82 lakh and Rs. 47901.68 lakh, as considered in order dated 16.2.2016 in Petition No. 295/GT/2015 has been adjusted on account of undischarged liabilities of Rs. 814.43 lakhs (as in para 11 above) and accordingly the loan and equity amounting to Rs. 193195.76 lakh and Rs.47740.30 lakh has been considered as on 1.4.2014 for the purpose of tariff. Further, the additional capital expenditure admitted as above 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, as on 14.6.2014 and as on 31.3.2019 are as under:

(Rs. in lakh)

	Capital Cost as on 1.4.2014	%	Capital Cost as on 14.6.2014	%	Net Additional Capital expenditure* for period 2014-19	%	Capital Cost as on 31.4.2019	%
Debt	193195.76	80.19%	407018.83	82.10%	38020.57	70.00%	445039.40	80.90%
Equity	47740.30	19.81%	88725.55	17.90%	16294.53	30.00%	105020.08	19.10%
Total	**240936.07**	**100.00%**	**495744.37**	**100.00%**	**54315.11**	**100.00%**	**550059.48**	**100.00%**

- *Since there is no de capitalization, so Additional capital expenditure and de capitalization has not been shown separately.*

Return on Equity

35. 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."

36. 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%

(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 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."

37. The Objector, DVPCA has submitted that the audited accounts of the Petitioner reveal that Petitioner has not paid any actual tax during the period 2014-18. DVPCA has further submitted that it is apparent from the annual accounts of 2018-19, that the deferred tax liability which gets materialised in 2018-19 pertains to 2012-13. Further, referring to Regulation 49 of the 2014 Tariff Regulations, the Objector, 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

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

38. The submissions have been considered. Since the Petitioner has not been paying any income tax in any of the financial year for the period 2014-19, '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 as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Normative Equity-Opening (A)	47740.30	88725.55	89696.40	92907.41	96577.25	97870.63
Addition of Equity due to additional capital expenditure (B)	80.86	970.85	3211.01	3669.84	1293.37	7149.45
Normative Equity-Closing (C) = (A) + (B)	47821.16	89696.40	92907.41	96577.25	97870.63	105020.08
Average Normative Equity (D) = (A+C)/2	47780.73	89210.97	91301.90	94742.33	97223.94	101445.35
Return on Equity (Base Rate) (E)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (F)	0.00%	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%	15.50%
Return on Equity (Pre-Tax) (Annualized) (H) = (D)*(G)	7406.01	13827.70	14151.80	14685.06	15069.71	15724.03
Return on Equity (Pre-Tax) (Pro-rated) (H) = (D)*(G)	**1501.49**	**11024.28**	**14151.80**	**14685.06**	**15069.71**	**15724.03**

Interest on Loan

39. 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."

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

a. The gross normative loan of Rs. 193195.76 lakh (Rs. 193848.82 lakh as considered gross normative loan balance of Rs. 193848.82 lakh as on 31.3.2014 in order dated 22.8.2016 in Petition No. 295/GT/2015, adjusted with Rs. 653.06 lakh, i.e. proportionate debt component corresponding to undischarged liabilities adjusted from capital cost as on 1.4.2014 as already discussed in paragraph 11 above) has been considered as on 1.4.2014.

b. The gross normative loan as on 14.6.2014 (post COD of Unit-II) is considered as per the approved debt equity ratio.

c. In addition to this, loan component towards additional capitalization has been considered as per the approved debt equity ratio.

d. Cumulative repayment of loan as on 31.3.2014 has been considered as cumulative repayment as on 1.4.2014.

e. Addition to normative loan on account of additional capital expenditure approved above has been considered on year to year basis.

f. Depreciation allowed has been considered as repayment of normative loan 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.

41. In line with the Regulations, the weighted average rate of interest (WAROI) 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**
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Gross opening loan (A)	193195.76	407018.83	409284.15	416776.51	425339.48	428357.35
Cumulative repayment of loan upto previous year (B)	11842.87	15319.61	43314.19	77080.46	111430.33	146329.92
Net Loan Opening (C) = (A) - (B)	181352.89	391699.22	365969.96	339696.05	313909.15	282027.43
Addition due to additional capital expenditure (D)	188.68	2265.32	7492.36	8562.97	3017.87	16682.05
Repayment of loan during the year (E)	3476.74	27994.59	33766.26	34349.87	34899.59	34698.56
Less: Repayment adjustment on account of de-capitalization (F)	0.00	0.00	0.00	0.00	0.00	0.00
Net Repayment (H) = (E) - (F) + (H)	3476.74	27994.59	33766.26	34349.87	34899.59	34698.56
Net Loan Closing (I) =(C) +(D) -(H)	178064.83	365969.96	339696.05	313909.15	282027.43	264010.93
Average Loan (J) = (C+I)/2	179708.86	378834.59	352833.01	326802.60	297968.29	273019.18
Weighted Average Rate of Interest of loan (K)	9.5669%	9.5669%	9.4286%	10.0315%	10.0315%	10.0315%
Interest on Loan (L) = (J)*(K) (Pro-rated)	**3485.61**	**28894.86**	**33267.35**	**32783.35**	**29890.82**	**27388.04**

Depreciation

42. 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."

xx.

43. 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."*

44. Cumulative depreciation amounting to Rs.11882.90 lakh as on 31.3.2014, as considered in the Commission's order dated 22.8.2016 in Petition No. 295/GT/2015 has been adjusted on account of undischarged liabilities adjustment in opening capital cost and accordingly cumulative depreciation of Rs. 11842.87 lakh as on 1.4.2014 has been considered 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**
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Average Capital Cost (A)	241070.83	497362.46	504332.24	515800.33	524072.35	538143.73
Value of freehold land included in average capital cost (B)	6337.29	13454.95	35615.90	59568.25	61366.81	72761.76
Aggregated Depreciable Value (C)= (A-B)*90%	211260.19	435516.76	421844.70	410608.87	416434.99	418843.77
Remaining aggregate depreciable value at the beginning of the year (D) = [(C) - (Cumulative	199417.32	420197.15	378530.51	333528.41	305004.66	272513.85

Depreciation of Previous year)]						
No. of completed years at the beginning of the year (E)	0.25	0.25	1.25	2.25	3.25	4.25
Balance useful life at the beginning of the year (F) = 25 - (E)	24.75	24.75	23.75	22.75	21.75	20.75
Weighted Average Rate of Depreciation (WAROD) (G)	7.1136%	7.0599%	6.6952%	6.6595%	6.6593%	6.4478%
Combined Depreciation during the year/ period (Pro-rated) (H) = Minimum of [(A)*(G) or (D)]	3476.74	27994.59	33766.26	34349.87	34899.59	34698.56
Cumulative depreciation at the end of the year (before adjustment for de-capitalisation) (I) = (H) * (K of the previous year)	15319.61	43314.19	77080.46	111430.33	146329.92	181028.47
Less: Depreciation adjustment on account of de-capitalisation (J)	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative depreciation at the end of the year* (K) = (I) - (J)	15319.61	43314.19	77080.46	111430.33	146329.92	181028.47

Operation & Maintenance Expenses

45. Regulation 29(1)(a) of the 2014 Tariff Regulations provides the following O&M norms for the generating station of the Petitioner:

(Rs in lakh/MW)

2014-15	2015-16	2016-17	2017-18	2018-19
16.00	17.01	18.08	19.22	20.43

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

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
O&M expenses (prorate basis)	1621.92	12756.16	17010.00	18080.00	19220.00	20430.00

47. The normative O&M expenses claimed by Petitioner, are in terms of Regulation 29(1)(a) of the 2014 Tariff Regulations and hence allowed.

Water Charges

48. 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:*
> *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:"*

49. The water charges claimed by the Petitioner are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	938.48	570.68	758.24	846.15

50. The Petitioner was directed 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./M^3) 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* affidavit dated 17.5.2021 has submitted the auditor certificate in support of the water charges.

51. The matter has been considered. It is noticed that as per the Ministry of Environment, Forest and Climate Change (MoEF&CC) notification dated 7.12.2015, the specific water consumption allowed for the generating station is 3.5 m^3/MWh. The 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 charges for the period 2014-19. It is however noticed that the Petitioner

has booked the water consumption charges during 2014-15 and 2015-16 in the audited accounts for 2015-16. The details of water charges claimed are as under:

Year	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	6815151	5.70	388.46	0.00
	Domestic	180000	1.15	2.07	
	Total	**6995151**		**390.53**	
2015-16	Industrial	9557033	5.70	544.75	938.48
	Domestic	278254	1.15	3.20	
	Total	**9835287**		**547.95**	
2016-17	Industrial	9959780	5.70	567.71	570.68
	Domestic	258832	1.15	2.98	
	Total	**10218612**		**570.68**	
2017-18	Industrial	13433623	5.70	765.72	758.24
	Domestic	327507	1.15	3.77	
	Total	**13761130**		**769.48**	
2018-19	Industrial	14764684	5.70	841.59	846.15
	Domestic	396657	1.15	4.56	
	Total	**15161341**		**846.15**	
Total for period 2014-19		**55971521**		**3124.80**	**3113.56**

52. It is observed that the water charges determined, based on consumption and rate, thereof, are at slight variance with the apportioned audited water charges. Accordingly, the audited water charges have been considered. It is also noticed that the water consumption includes domestic water consumption, charges for which are being recovered from its employees. As, the water charges for domestic usage are not allowable, the same have been excluded from the audited apportioned water charges. Accordingly, water charges allowed are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	0.00	938.48	570.68	758.24	846.15
Allowed	0.00	933.21	567.71	754.47	841.59

<u>Capital Spares</u>

53. 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:

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:

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."

54. The Petitioner has claimed total actual expenditure of Rs. 2411.86 lakh towards capital spares consumption for the period 2014-19.

55. The Petitioner was directed to furnish the reasons for claiming both initial spares and capital spares simultaneously; rationale for claiming capital spares in a relatively new generating station and also reasons for not providing any corresponding decapitalization. In compliance to the same, the Petitioner vide affidavit dated 18.5.2022 has submitted that it has already furnished before the Commission the detailed claim on account of capital spares along with value on usage basis, vide Form-17 of the true-up forms for the period 2014-19. The Petitioner has further stated that in order to ensure reliable and efficient operation at all times by the generating station, units/ equipment are taken under overhaul/ maintenance and inspected regularly for wear and tear, during such works, parts of equipment's which became damaged/ unserviceable are replaced/ consumed so that the machine continue to perform at expected efficiency on sustained basis. The Petitioner has also stated that it has already submitted detailed justification that no part of the capital spares has been funded through compensatory allowance or special allowance or claimed as part of additional capitalization or Stores and Spares. The Petitioner has stated that since these capital spares are not part of additional capital expenditure, no decapitalization has been shown against the capital spares consumed and claimed during the period 2017-19, and these capital spare items have been booked and charged under revenue accounts. The Petitioner has further

submitted that the capital spares claimed for respective years has already been consumed as well as put to use and any of the capital spare items consumed for replacement of original item are not pre-mature one. The Petitioner has stated that its competent technical team and O&M personnel reviews prevalent conditions of the machinery performance at regular intervals and only after consultation with OEM as well as taking reference of OEM manuals, the required parts/components are replaced by the concerned departments. The Petitioner has also submitted that, generally there is standard 1 - 1.5 Years warranty available as per Petitioner's purchase manual regarding the capital spares items as a standard defined practice. Based on the above justification, the Petitioner has prayed that capital spares replaced/consumed by the generating station during the period 2014-19 may be allowed.

56. The matter has been considered. For allowing the expenditure incurred on "capital spares", the first and foremost condition is that they should be of capital nature and shall be capitalized in the books of accounts. As such, capital spares capitalized in books upto the cut-off date and claimed as initial spares are allowed to be part of capital cost for the purpose of tariff also, subject to ceiling limit as specified in Regulation13 of 2014 Tariff Regulations. In the present case, initial spares amounting to Rs.9731.27 lakh capitalized in books have been allowed to be a part of capital cost for the purpose of tariff. No part of spares claimed has been denied till the cut-off date. Considering the fact that capital spares claimed were not even capitalized in books, and as per submission of the Petitioner these are of revenue nature, we are not inclined to allow the capital spares consumed by the Petitioner.

57. Accordingly, the O&M expenses allowed for the period 2014-19 are as under:

(Rs. in lakh)

		2014-15		2015-16	2016-17	2017-18	2018-19
		(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Installed Capacity (MW) (A)		500.00	1000.00	1000.00	1000.00	1000.00	1000.00
O&M Expenses under Reg.29(1) in Rs. lakh / MW (B)		16.00	16.00	17.01	18.08	19.22	20.43
Total O&M Expenses (in Rs. lakh) (C) = (A)*(B)	Claimed	1621.92	12756.16	17010.00	18080.00	19220.00	20430.00
	Allowed	**1621.92**	**12756.16**	**17010.00**	**18080.00**	**19220.00**	**20430.00**
Water Charges (in Rs. lakh) (D)	Claimed	0.00	0.00	938.48	570.68	758.24	846.15
	Allowed	**0.00**	**0.00**	**933.21**	**567.71**	**754.47**	**841.59**
Capital Spares Consumed (in Rs. lakh) (E)	Claimed	0.00	112.53	433.20	346.20	541.93	978.00
	Allowed	**0.00**	**0.00**	**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	1621.92	12868.69	18381.68	18996.89	20520.17	22254.15
	Allowed	**1621.92**	**12756.16**	**17943.21**	**18647.71**	**19974.47**	**21271.59**

Operational Norms

58. The operational norms in respect of the generating station claimed by the Petitioner are as follows:

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Annual Plant Availability Factor (NAPAF) (%)	83%	83%	83%	85%	83%
Gross Station Heat Rate (kCal/kWh)	2363	2363	2363	2363	2363
Auxiliary Power Consumption (%)	5.25%	5.25%	5.25%	5.25%	5.25%
Specific Oil Consumption (ml/kWh)	0.50	0.50	0.50	0.50	0.50

Normative Annual Plant Availability Factor (NAPAF)

59. Regulation 36(A) 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."

60. The Petitioner has claimed NAPAF of 83% for the period 2014-19. In justification for the same, the Petitioner has submitted that the Commission in the 2014 Tariff Regulations has provided for consideration of coal shortage while setting the NAPAF. However, in order dated 28.2.2017 in Petition No. 296/GT/2015, the Commission has specified NAPAF as 83% (except 85% for 2017-18 & 2018-19) for the period 2014-19.

61. The matter has been considered. Considering the 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 and to review the same thereafter. In line with this, the coal availability has been reviewed and it is observed that the availability of coal to the thermal generating stations in the country was normal and therefore, the NAPAF was revised as 85% in 2017-18 and 2018-19. In our view, the non-availability of coal to the generating station due to localised or plant specific issue cannot be a factor to reduce NAPAF, particularly, keeping in view that arrangement of coal supply is the sole responsibility of the generator (Petitioner). Thus, the continuation of reduced NAPAF of 83% in 2017-18 and 2018-19 to the generating station is not allowed. 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

62. The Gross Station Heat Rate of 2362.79 Kcal/ kWh 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

63. The Petitioner has claimed Auxiliary Energy Consumption (AEC) of 5.25%. Regulation 36(E)(a) of the 2014 Tariff Regulations provides Auxiliary Energy

Consumption of 5.25% for coal based generating stations of 500 MW sets with steam driven boiler feed pump. Accordingly, claimed AEC of 5.25%, is in line with the Regulations and hence, the same is allowed.

Secondary Fuel Oil Consumption

64. Regulation 36(D)(a) of 2014 Tariff Regulations provides secondary fuel oil consumption to the generating station as 0.50 ml/kWh during the period 2014-19. Based on the above, the operational norms allowed are as under:

	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)	2362.79	2362.79	2362.79	2362.79	2362.79
Auxiliary Power Consumption (%)	5.25%	5.25%	5.25%	5.25%	5.25%
Specific Oil Consumption (ml/kWh)	0.50	0.50	0.50	0.50	0.50

Interest on Working Capital

65. 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."

66. Interest on working capital as claimed by the Petitioner is as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Cost of Coal/Lignite for Stock and Generation	11072.16	21781.74	21841.42	21781.74	22306.60	21781.74
Cost of oil for 2 months (B)	195.70	391.41	392.48	391.41	400.84	391.41
O&M expenses - 1 month (C)	1600.00	3200.00	3589.70	3730.14	3995.65	4255.23
Maintenance Spares - 20% of O&M (D)	21393.23	42454.82	42637.92	43095.44	44737.18	43049.42
Receivables - 2 months (E)	666.67	1333.33	1495.71	1554.22	1664.85	1773.01
Total Working Capital (F) = (A+B+C+D+E)	**34927.75**	**69161.30**	**69957.22**	**70552.95**	**73105.12**	**71250.81**
Rate of Interest (G)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital (H) = (F)x(G)	**955.97**	**7443.84**	**9444.22**	**9524.65**	**9869.19**	**9618.86**

Fuel Cost for Working Capital

67. Sub-clauses (i), (ii) and (iii) of Regulation 28(1) (a) of the 2014 Tariff Regulations provides cost of coal towards stock for 30 days, 30 days of cost of coal towards generation and cost of secondary oil for two months respectively, to be considered for computation of working capital and, further, in terms of Regulation 28(2) of the 2014 Tariff Regulations. Further, 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.

68. Regulation 30 (6) of the 2014 Tariff Regulations provides as follows:

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

xx.

(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 = {(GHR – SFC x CVSF) x LPPF / CVPF+SFC x LPSFi + LC x LPL} x 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.

69. Therefore, in terms of the above Regulation, for determination of working capital, the GCV on 'as received' basis is to be considered. Further, Regulation 30 (7) of the 2014 Tariff Regulations provides as follows:

"(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."

70. The Petitioner has furnished the average GCV of coal as 4023.43 Kcal/kg for Unit-I and 3533.52 Kcal/kg for Unit-I&II (post COD of Unit-II) on “as received” basis for the period from January, 2014 to March, 2014 vide affidavit dated 17.5.2021. The Petitioner has also submitted that it has filed a separate petition (Petition No. 133/MP/2018) before the Commission, wherein, it was submitted that the coal samples were manually taken from the wagon top for measuring GCV of coal on ‘as received’ basis 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 of 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 to be considered on received basis.

71. 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 coal as 4023.43 Kcal/kg for Unit-I and 3533.52 Kcal/kg for Unit-I&II (post CoD of Unit -II). 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

considered for working out cost of fuel components in working capital are as under:

	Unit	2014-15	
		(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**
Weighted average GCV of oil	Kcal/lit	10540.00	10540.00
Average GCV of Coal for Jan to March 2014	Kcal/kg	4023.43	3533.52
Weighted average price of oil	Rs. /KL	64599.17	64599.18
Weighted average price of Coal	Rs. /MT	2899.83	2504.25

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

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Cost of Coal towards stock (30 days)	5077.06	9984.73	9984.73	9984.73	10225.33	10225.33
Cost of Coal towards Generation (30 days)	5077.06	9984.73	9984.73	9984.73	10225.33	10225.33
Cost of Secondary fuel oil 2 months	195.70	391.41	392.48	391.41	400.84	400.84

Working Capital for Maintenance Spares

73. It is noticed that the Petitioner has claimed working capital for maintenance spares by excluding the capital spares. However, Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses, including water charges and capital spares. Accordingly, the cost of maintenance spares @ 20% of the operation & maintenance expenses including water charges and capital spares, allowed are as under:

(Rs. in lakh)

2014-15 (annualised)		2015-16	2016-17	2017-18	2018-19
(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
1600.00	3200.00	3588.64	3729.54	3994.89	4254.32

Working Capital for O&M expenses

74. It is noticed that the Petitioner has claimed working capital for O&M expenses for one month, by excluding capital spares. However, 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 working capital, inclusive of water charges and capital spares. Accordingly, the O&M expenses for one month including water charges and capital spares, allowed are as under:

(Rs. in lakh)

2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
666.67	1333.33	1495.27	1553.98	1664.54	1772.63

Working Capital for Receivables

75. The Petitioner has claimed Energy Charge Rate (ECR) ex-bus of 182.739 Paise/kWh for Unit-I (up to 13.06.2014) and 179.747 Paise/kWh for Unit-I&II (post COD of Unit -II) for the generating station based on the landed cost of coal, GCV of coal & GCV and price of Oil for the preceding three months of 2014-19 for the generating station. Accordingly, the allowable Energy Charge Rate (ECR), based on the operational norms as specified under the 2014 Regulations and on approved weighted average GCV of coal and oil is worked out as Rs. 1.827 /kWh for Unit-I (up to 13.06.2014) and Rs. 1.797/kWh for Unit-I&II (post COD of Unit -II).

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

a) ECR of Rs. 1.827 /kWh for Unit-I (up to 13.06.2014) and Rs. 1.797/kWh for Unit-I&II (post CoD of Unit -II) 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 1000 MW normative availability of 83% for first three years and 85% for last two years and Auxiliary Energy Consumption of 5.25%.

77. The 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
(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
10488.63	20632.80	20689.33	20632.80	21129.98	21129.98

78. Receivables equivalent to two months of capacity charge and energy charge has been worked out duly considering 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
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Variable Charges - for two months of generation at NAPAF (A)	10488.63	20632.80	20689.33	20632.80	21129.98	21129.98
Fixed Charges – for two months of generation at NAPAF (B)	8435.10	18003.62	17963.64	18194.95	18118.69	17998.87
Total (C) = (A+B)	**18923.73**	**38636.42**	**38652.97**	**38827.76**	**39248.67**	**39128.85**

Rate of interest on working capital

79. 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
	(1.4.2014 to 13.6.2014)	**(14.6.2014 to 31.3.2015)**				
Cost of Coal/Lignite for Stock - 30 days of Generation at NAPAF (A)	5077.06	9984.73	9984.73	9984.73	10225.33	10225.33
Cost of Coal/Lignite for 30 days of Generation at NAPAF (B)	5077.06	9984.73	9984.73	9984.73	10225.33	10225.33
Cost of oil for 2 months of generation at NAPAF (C)	195.70	391.41	392.48	391.41	400.84	400.84
O & M expenses - 1 month of O&M Expenses (D)	666.67	1333.33	1495.27	1553.98	1664.54	1772.63
Maintenance Spares - 20% of O&M Expenses (E)	1600.00	3200.00	3588.64	3729.54	3994.89	4254.32
Receivables – capacity and energy charges for 2 months generation at NAPAF (f)	18923.73	38636.42	38652.97	38827.76	39248.67	39128.85

Total Working Capital (G) = (A+B+C+D+E+F)	**31540.21**	**63530.62**	**64098.82**	**64472.15**	**65759.60**	**66007.29**
Rate of Interest (H)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital (I) = (G)*(H)	**863.25**	**6837.81**	**8653.34**	**8703.74**	**8877.55**	**8910.98**

Additional O&M Expense claims

80. 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

81. The Petitioner has claimed total amount of Rs. 3281.13 lakh (Rs. 819.49 lakh in 2015-16, Rs. 513.69 lakh in 2016-17, Rs. 897.39 lakh in 2017-18, and Rs. 1050.56 lakh in 2018-19) during the period 2014-19, towards 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. The Petitioner has prayed that the Commission may approve the proposed 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.

82. The Objector, 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 mandates 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 further 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 Objector, 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.

83. 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 period 2014-19. 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 period 2014-19. Accordingly, the Petitioner has submitted that it has claimed expenses incurred for ash transportation from its thermal generating stations for the period 2014-19 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."

84. 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 under:

(Rs. in lakh)

	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**

85. 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 25.1.2016:
"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."

86. It is observed that the Petitioner had filed Petition no. 101/MP/2019, before this Commission seeking the recovery of the ash transportation charges, through monthly bills of beneficiaries, in terms of the MoEF&CC notification dated 25.1.2016, as 'change in law' and the Commission vide its order dated 29.7.2020, disposed of the same, after observing that the MOEF&CC notification dated 25.1.2016 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 award of transportation through competitive bidding, alternatively scheduled rate of State Government, expenditure incurred and revenue generated up to 25.1.2016 and after 25.1.2016 and to maintain the revenue generated from fly ash in 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 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 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.

87. 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:

(Rs. in lakh)

	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**

88. In consideration of the above 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:

(Rs. in lakh)

	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

	2014-15	2015-16 (w.e.f. 26.1.2016)	2016-17	2017-18	2018-19	Total
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**

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

(Rs. in lakh)

	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**

90. 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 amount shall be recovered from the beneficiaries. In this regard, it is noticed that during the period between 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:

(Rs. in lakh)

	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

91. Admittedly, the 2014 Tariff Regulations, do not contain any provision for allowing

the ash transportation charges. Accordingly, the Commission, in exercise of the regulatory powers, allows the total expenditure of Rs 1721.15 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 interst free instalments, starting from July, 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.

(B) Mega Insurance Expenses

92. The Petitioner has claimed total amount of Rs. 627.59 lakh (Rs. 161.82 lakh in 2014-15, Rs. 16.23 lakh in 2015-16, Rs. 110.26 lakh in 2016-17, Rs. 248.10 lakh in 2017-18 and Rs. 91.18 lakh in 2018-19) during the period 2014-19 towards 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.

93. The Objector, 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 Objector 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 the tariff had allowed expenses towards Mega Insurance.

94. 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 period 2014–19 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 period 2014-19, 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

95. The Petitioner has claimed total amount of Rs. 10756.58 lakh (Rs. 1949.57 lakh in 2014-15, Rs. 1855.87 lakh in 2015-16, Rs. 1943.32 lakh in 2016-17, Rs. 2055.36 lakh

in 2017-18 and Rs. 2952.47 lakh in 2018-19) during the period 2014-19 towards CISF Security expenses, as additional O&M expenses for generating station. In justification of the same, the Petitioner has submitted that:

(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 period 2014-19 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.

96. The Objector, DVPCA has submitted that the actual O&M expenses, including the security expenses, for the period 2014-19 have 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.

97. 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 period 2009-14 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 period 2014-19, 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)

98. The Petitioner has claimed additional O&M expenses of Rs. 54.27 lakh for the period 2017-18 and Rs. 225.09 lakh for 2018-19, as impact towards GST. The Objector, 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".

99. 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, 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..."

100. Further, the escalation rates considered in the O&M expense norms is only after accounting for the variations during the past five years of the period 2014-19, 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

101. The Petitioner has claimed total amount of Rs. 2697.10 lakh (Rs. 503.47 lakh in 2014-15, Rs. 684.97 lakh in 2015-16, Rs. 571.06 lakh in 2016-17, Rs. 549.50 lakh in 2017-18 and Rs. 388.10 lakh in 2018-19) during the period 2014-19, 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 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 and for Chandrapura TPS, Units-1 to 3 vide 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 period 2014-19 for recovery in full, in exercise of the power to relax' under the 2014 Tariff Regulations.

102. The Objector, DVPCA has submitted that the Petitioner has also claimed expenses towards subsidiary activities including additional capital, 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 Objector 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. Inthe 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 byDVC 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 recoveryof 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.

103. 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 basisof 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.
xxxx

(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.

104. It is noticed that the Commission in its various tariff orders on the Petitions for the

period 2014-19, has observed that as per Statement of Objects and Reasons (SOR) 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 floodcontrol, 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."*

105. 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 theCorporation 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, whatis 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 bytariff 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*."

106. Accordingly, the expenses of 'Subsidiary activities' is being allowed as claimed by the Petitioner during the period 2014-19.

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

107. 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.

108. It is noticed that the Petitioner, in truing-up of tariff petitions 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 period 2014-19) 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 Regulation29 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 thetime of truing up of tariff in terms of Regulation 8 of the2014 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."

109. Based on the above, the Petitioner, in 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

110. The Petitioner has claimed total amount of Rs. 3820.22 lakh (Rs. 1214.62 lakh during 2016-17, Rs. 1528.78 lakh during 2017-18 and Rs. 1076.82 lakh during 2018-19) towards impact on account of Pay revision during period 2014-19. Further, the Petitioner has submitted that the Commission, while specifying the 2014 Tariff Regulations, has stated in the 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.

111. The Commission *vide* ROP of the hearing dated 13.4.2021, directed the Petitioner to furnish the following information:

"True-up for period 2014-19
"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)."

112. In compliance to the aforesaid directions, the Petitioner *vide* affidavit dated 17.5.2021, 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:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
7162.32	12403.44	13486.01	14373.86	16052.91

113. 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.

114. The Objector, 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.

115. In response, the Petitioner 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

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

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1333.26	3809.93	4186.98	9479.11	1791.04

117. 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.

118. 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.

119. The Objector, 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.

120. In response, the Petitioner has clarified as under:

(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 ProvisionsAct, 1952 provides for administration of Provident Fund Scheme. Accordingly, DVCis 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 asper 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 requiredto 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.

121. The Petitioner has also submitted that the O&M expenses inclusive of employees cost and Contributory Provident Fund will not cover the revenue requirements of the Petitioner on account of the P&G contribution on the 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 andGratuity 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 contributionsare 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 tothe 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 whichit 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 Pensionand 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 theTariff 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 21and 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 contributionalong with relevant details at the time of truing up.

(g) The principle for apportionment of the contribution towards Pension & Gratuity fundto 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 directedfor 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.

122. The Petitioner has prayed that Commission in consideration of its above submissions may reject Objector's contentions 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

123. 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 has claimed the actual P&G. It is observed that the normative O&M expenses includes 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.

124. 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.

125. 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 truing 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 period 2014-19. 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 exceed 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:

(Rs. in lakh)

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

126. 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:

(Rs. in lakh)

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 Station1-2	3991.24
713/TT/2020	New Elements of Transmission and Distribution (T&D) System	1154.65
466/TT/2020	Non-ISTS 400 kV Transmission Lines of Transmission and Distribution (T&D) System	1724.30
482/TT/2020	Existing Transmission and Distribution (T&D) System (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 auditedfinancial 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**

127. 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. 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)

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

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4726.12	5056.95	5410.94	5789.70	6194.98

129. The Petitioner has allocated sinking fund contribution and interest for DVC Bonds of Rs. 3100 crore amongst the generating stations of the Petitioner as follows:

(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**
MTPS5&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	0.00	0.00	0.00	0.00	0.00
Total	**152.77**	**163.47**	**174.91**	**187.15**	**200.25**

130. 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 judgement dated 23.7.2018 in Civil Appeal Nos. 971-973 of 2008 & batch matters.

131. The Objector, 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. DVPCA has 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.

132. 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.*

133. 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.*

134. The Objector, 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 andits utilization, on the other hand, leaned 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 fundin 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 duplicationin 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 isalso 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"

135. Though the Objector has filed review against the said judgment before APTEL, there is no stay against the 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:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4726.12	5056.95	5410.94	5789.70	6194.98

(B) Share of Common Office Expenditure

136. 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:

(Rs. in lakh)

	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**

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

(Rs. in lakh)

	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**

138. 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 approvedas 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:

(Rs. in lakh)

	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**

(Rs. in lakh)

	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**

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Common Office Expenditure apportioned to Koderma- 1 & 2	194.80	182.27	154.94	167.78	179.55

140. 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

141. 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

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

Power House Plant & Machinery

143. 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

144. 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

145. 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 & Fixatures

146. 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

147. 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

148. 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

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

(Rs. in lakh)

	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

	2014-15	2015-16	2016-17	2017-18	2018-19
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**

150. 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 period 2014-19. The Petitioner has also submitted that the expenditure was essential to copeup 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

151. The Petitioner has claimed total amount 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. Accordingly, the item-wise additional capital expenditure allowed towards various offices is summarised below:

(Rs. in lakh)

	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**

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

(Rs. in lakh)

	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**

153. 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 period 2014-19, '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.

154. 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 vide 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**

155. As regards the common office expenditure for the generating station, it is further observed that the Commission vide Order dated 28.2.2017 in Petition No. 296/GT/2015 had observed as under:

"98. The petitioner has claimed the projected expenditure of Rs. 208.76 lakh in 2014-15, Rs. 194.64 lakh in 2015-16, Rs. 248.00 lakh in 2016-17, Rs. 363.90 lakh in 2017-18 and Rs. 412.33 lakh in 2018-19 and has apportioned the same towards Common Office Expenditure which includes expenditure on Direction Office, Central Office, Other Offices, subsidiary activities, IT and R&D. The apportioned amount of share of Common Office expenditure includes Return on equity, Depreciation and Interest on loan on the Common assets. The generating station is a new 1000 MW capacity station and the normative O&M expense norm specified under the 2014 Tariff Regulations, includes Corporate Office expenses. Also the Corporate Office expenses include depreciation and interest on loan. As per Regulation 53 of 2014Tariff Regulations relating to the generating station of the petitioner and as per Order of the Appellate Tribunal of Electricity (Tribunal) dated 27.11.2007 in Appeal no 273/2006, the Common Office expenditure are to be allowed for the purpose of determination of tariff. The petitioner has furnished the details of total „Office Expenditure" in respect of the generating stations and T&D systems are as under:
xxx

99. The Commission has considered the O&M norms for this generating station as specified for 500 MW units including the expenditure for Common Offices in respect of Depreciation and Interest on loan. Accordingly, Return on equity has been allowed as part of the share of Common office expenses and annual fixed charges for the generating station as under:"

156. Since, the Commission has considered the O&M norms for this generating station as specified for 500 MW units including the expenditure for Common Offices in respect of depreciation and interest on loan. Therefore, only return on equity has been allowed as computed in the above table. Accordingly, the share of Common office expense computed for the generating station is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Total Common Office Expenditure for generating stations (A)	1068.68	1069.90	994.98	979.69	1010.37
Total Common Office Expenditure for T&D (B)	92.17	0.00	0.00	0.00	0.00
Total Common Office Expenditure for generating stations and T&D C=(A+B)	1160.85	1069.90	994.98	979.69	1010.37
Total Depreciation for generating stations and T&D (D)	471.40	407.64	343.93	348.25	368.72
Total Interest on loan for generating stations and T&D (E)	140.86	111.83	99.77	67.56	58.18
Total Return on equity on for generating stations and T&D (F)	548.59	550.43	551.28	563.88	583.46
Total of Depreciation, Interest on Loan and ROE of Generating Station and T&D (G)	1160.85	1069.90	994.98	979.69	1010.37
Return on equity corresponding to the generating stations only (A/C)*F (H)	505.03	550.43	551.28	563.88	583.46
Apportionment of the common office expenditure as claimed to Koderma 1&2 including depreciation, interest on loan and ROE. (I)	153.51	155.12	123.11	121.56	128.52
Apportioned amount of only “Return on Equity” corresponding to the generating station (I/A)xH (J)	72.55	79.81	68.21	69.97	74.22

(Rs. in lakh)

Common Office Expenditure	2014-15	2015-16	2016-17	2017-18	2018-19
KTPS Units 1& 2 *(this generating station)*	72.55	79.81	68.21	69.97	74.22

Annual Fixed Charges for the period 2014-19

157. 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
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
Depreciation	3476.74	27994.59	33766.26	34349.87	34899.59	34698.56
Interest on loan	3485.61	28894.86	33267.21	32783.35	29890.82	27388.04
Return on Equity	1501.49	11024.28	14151.80	14685.06	15069.71	15724.03
Interest on Working Capital	863.25	6837.81	8653.34	8703.74	8877.55	8910.98
O&M Expenses	1621.92	12756.16	17010.00	18080.00	19220.00	20430.00
Water Charges	0.00	0.00	933.21	567.71	754.47	841.59
Capital Spares	0.00	0.00	0.00	0.00	0.00	0.00
Compensation	0.00	0.00	0.00	0.00	0.00	0.00

	2014-15		2015-16	2016-17	2017-18	2018-19
	(1.4.2014 to 13.6.2014)	(14.6.2014 to 31.3.2015)				
Allowance						
Sub-Total (A)	10949.01	87507.70	107781.83	109169.73	108712.14	107993.20
Additional O&M Expenses						
Impact of Pay Revision	0.00	0.00	0.00	0.00	0.00	0.00
Impact of GST	0.00	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	0.00
Share of Subsidiary Activities	56.79	446.68	684.97	571.06	549.50	388.10
Mega Insurance Expenses	0.00	0.00	0.00	0.00	0.00	0.00
CISF Security Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	533.13	4192.99	5056.95	5410.94	5789.70	6194.98
Share of Common Office Expenses	8.18	64.36	79.81	68.21	69.97	74.22
Sub-Total (B)	**598.11**	**4704.03**	**5821.73**	**6050.20**	**6409.17**	**6657.30**
Total Annual Fixed Charges (C) = (A) + (B)	11547.12	92211.73	113603.56	115219.93	115121.31	114650.50
Annual fixed charges allowed vide order dated 28.2.2017 in Petition No. 296/GT/2015	**58205.15 (annualized)**	**115165.65 (annualized)**	**114877.21**	**117669.11**	**119812.01**	**117573.67**

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

158. The Ash disposal expenses to be reimbursed in six monthly instalments, in terms of paragraph 91 above, is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	72.08	513.59	523.69	611.79

159. 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

160. 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. The capital cost and the annual fixed charges claimed by the Petitioner for the period 2019-24 are as under:

Capital Cost claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (A)	550999.83	554749.18	565165.43	572259.34	573846.42
Add: Additional Capital Expenditure (B)*	4419.64	11304.07	7715.51	1851.19	2573.19
Less: Decapitalization during the year /period (C)	670.30	887.81	621.61	264.11	545.87
Less: Undischarged liabilities (D)	-	-	-	-	
Add: Discharges during the year / period (E)	-	-	-	-	
Closing Gross Block (F) = (A+B-C-D+E)	554749.18	565165.43	572259.34	573846.42	575873.74
Average Gross Block (G) = (A+F)/2	**552874.51**	**559957.30**	**568712.39**	**573052.88**	**574860.08**

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	35648.37	36105.06	36669.57	36949.44	37065.96
Interest on loan	24004.21	20887.10	17841.89	14430.29	10822.47
Return on Equity	19109.54	19526.30	20042.03	20297.13	20403.48
Interest on Working Capital	7149.50	7153.79	7179.10	7193.35	7217.33
O&M Expenses	11255.00	11650.00	12060.00	12485.00	12920.00
Water Charges	2780.49	3050.18	3355.20	3690.72	4070.91
Security Expenses	3163.42	3315.60	3475.09	3642.26	3817.48
Special Allowance	-	-	-	-	-
Sub-Total (A)	**103110.54**	**101688.02**	**100622.88**	**98688.19**	**96317.63**
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	6628.63	7092.63	7589.12	8120.35	8688.78
Share of P&G	3726.44	3901.61	4085.01	4277.03	4478.08
Share of Common Office Expenditure	196.65	211.05	213.71	183.79	167.53
Expenses for Ash Evacuation, Mega Insurance and Subsidiary Activities	1604.76	1681.95	1762.86	1847.66	1936.55
Sub-Total (B)	**12156.48**	**12887.24**	**13650.70**	**14428.84**	**15270.94**

	2019-20	2020-21	2021-22	2022-23	2023-24
Total Annual Fixed Charges (A+B)	**115267.01**	**114575.26**	**114273.58**	**113117.03**	**111588.56**

Capital Cost

161. Clause (1), Clause (3) and Clause (5) of Regulation 19 of the 2019 Tariff Regulations provide 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."*

162. The opening capital cost, claimed by the Petitioner, as on 1.4.2019 is Rs. 550999.83 lakh. However, the closing capital cost of Rs. 550059.48 lakh, as on 31.3.2019, as approved by the Commission, in this order, for the period 2014-19, as above, 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 2019 Tariff

Regulations.

Additional Capital Expenditure

163. Regulations 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."

164. The year-wise projected additional capital expenditure claimed by the Petitioner in respect of the generating station for the period 2019-24 are as under:

(Rs. in lakh)

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
A	**AHP Maintenance**							
	Knife Gate Valve, Size -300 NB, Make SISTAG	25 (2) (a)	22.00	13.60	14.50	15.50	16.50	**82.10**
	Knife Gate Valve, Size -400 NB, Make SISTAG		-	28.50	30.21	32.02	33.94	**124.67**
	Knife Gate Valve, Make, Size -450 NB, Make SISTAG		-	20.80	22.00	23.50	25.00	**91.30**
	Silo dry ash retractable chute assembly		11.60	9.05	9.60	10.17	10.85	**51.27**
	Cast steel swing check valve of Size 250 NB		5.42	-	-	-	-	**5.42**
	Cast steel swing check valve of Size 300 NB		3.61	-	-	-	-	**3.61**
	Cast steel swing check valve of Size 400 NB		5.33	-	-	-	-	**5.33**
	Cast steel swing check valve of Size 450 NB		3.72	-	-	-	-	**3.72**
	Impeller 2nd Stage (LH) for BAHP Water Pump		2.60	-	2.80	-	3.10	**8.50**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Impeller 2nd Stage (RH) for BAHP Water Pump	25 (2) (a)	2.65	-	2.85	-	3.16	**8.66**
	Impeller for FAHP Water Pump		2.00	-	2.25	-	2.55	**6.80**
	Impeller, Eqp-HMDC Water Pump		1.00	-	1.12	-	1.25	**3.37**
	450 NB Manualy Operated Plate Valve, Eqp- Valves & Fittings		7.22	-	8.65	-	10.35	**26.22**
	200 NB Knife Edge Gate Valve (Manual Optd.)		3.00	-	3.36	-	3.72	**10.08**
	300 NB Cyl. Optd. Knife Edge Gate Valve		2.70	-	3.20	-	3.40	**9.30**
	Complete Assembly of Bottom Ash High Pressure Pump		-	6.40	-	7.50	-	**13.90**
	Complete Assembly of Fly Ash High Pressure Pump		-	7.60	-	8.50	-	**16.10**
	Complete Assembly of Eco-Booster Pump		-	1.60	1.70	2.00	2.12	**7.42**
	Complete Assembly of Bottom Ash Low Pressure Pump		-	2.40	-	3.00	-	**5.40**
	Complete Assembly of Drain Pump of Ash Slurry Pump House/ Silo Drain Pump		-	6.15	-	-	7.00	**13.15**
	Gear box of Ash Slurry Pump		-	11.72	-	-	13.95	**25.67**
	Complete Assembly of Ash Slurry Disposal Pump		-	-	29.60	-	-	**29.60**
	Door of Feed Gate Assembly		-	-	13.00	-	14.50	**27.50**
	Complete Assembly of SS Cladding Vacuum Pump		-	-	78.00	-	43.00	**121.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Submersible type Sludge Pump/ Goodwyn Pump	25 (2) (a)	-	-	13.50	-	-	**13.50**
	Sub-Total		**72.85**	**107.82**	**236.34**	**102.19**	**194.39**	**713.59**
B.	**C&I System**							
	CAAQMS	76 & 77	65.00	-	-	-	-	**65.00**
	Upgradation of MAX DNA System	25 (2) (c)	580.00	620.00	-	-	-	**1200.00**
	Other Assets (Complete assembly -Furnace CCTV & Drone camera)	76 & 77	-	28.00	12.00	12.00	24.00	**76.00**
	Ultrasonic / Laser/Radar Type Bunker Measurement System	25 (2) (c)	-	-	20.00	-	-	**20.00**
	Gravimetric feeder panel (upgradation)	25 (2) (c) 76 & 77	-	-	24.00	-	24.00	**48.00**
	SWAS	25 (2) (c)	-	-	30.00	-	20.00	**50.00**
	CEMS	76 & 77	-	-	13.00	-	13.00	**26.00**
	ESP Dust	25 (2) (c)	-	-	25.00	-	-	**25.00**
	BHEL Feed Panel Modules		-	-	25.00	-	25.00	**50.00**
	Actuator for CPU	25 (2) (a)	-	-	7.00	-	-	**7.00**
	Schneider PLC Card and Dryer controller card		-	-	7.00	-	-	**7.00**
	Actuator for FOUPH		-	-	5.00	-	-	**5.00**
	Upgradation of GE Fanuc PLC of FOUPH	25 (2) (c)	-	-	40.00	-	-	**40.00**
	Windows system upgradation of CHP along with supporting software of siemens		-	-	12.00	6.00	-	**18.00**
	LVS upgradation of CHP (BARCO made)		-	-	5.00	5.00	-	**10.00**
	maxDNA Modules along with Feeder Panel		-	-	-	30.00	-	**30.00**
	LVS of Control Room		-	-	-	50.00	-	**50.00**
	Upgradation of DM plant, RWPH, IWPH & CPU PLC system.		-	-	-	30.00	-	**30.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Upgradation of HMI of PLC system of DM Plant, RWPH, IWPH, Chlorination plant & CPU	25 (2) (c)	-	-	-	60.00	-	**60.00**
	upgradation of Schneider plc of AHP		-	-	-	60.00	-	**60.00**
	CPU card of PLC	25 (2) (a)	-	-	-	10.00	-	**10.00**
	VMS and TSI Cards, Sensors & TSI Analysis System	25 (2) (c)	-	-	-	-	200.00	**200.00**
	Upgradation of HPBP system		-	-	-	-	100.00	**100.00**
	LPBP Proportional Valve	25 (2) (a)	-	-	-	-	30.00	**30.00**
	Upgradation of Schneider plc of FWS	25 (2) (c)	-	-	-	-	40.00	**40.00**
	Sub-Total		**645.00**	**648.00**	**225.00**	**263.00**	**476.00**	**2257.00**
C.	**Electrical-I**							
	Procurement of HT Motors (ASP, TAC Motors, Recovery water motors etc.)	25 (2) (a)	33.00	-	200.00	-	-	**233.00**
	Procurement of LT Motors for AHP & CAC Plant		22.00	-	25.00	-	20.00	**67.00**
	LT Motor (HVAC) of make Marathon Electric Motors (India) Limited.		15.00	-	-	-	-	**15.00**
	CW Booster Pump Motor		1.30	-	-	-	-	**1.30**
	Absorption Pump & Motor Assembly		5.50	-	-	-	-	**5.50**
	Refrigerant Pump & Motor Assembly		3.20	-	-	-	-	**3.20**
	Procurement of 10Nos. of 20Mtr. High Mast lighting Shaft & its luminaires for KTPS for KTPS Plant area	76 & 77	-	46.00	-	-	-	**46.00**
	Instrument Air Compressor Motor	25 (2) (a)	-	18.00	-	-	-	**18.00**
	LT Motor - Clinker Grinder & LDO Motor	25 (2) (a)	-	2.71	-	-	-	**2.71**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	HFO Pump Motor		-	41.00	-	-	-	**41.00**
	Procurement of Breakers (HT/LT) & Numerical Relay		-	-	20.00	-	25.00	**45.00**
	Procurement of CT & PT and other accessories		-	-	10.00	-	15.00	**25.00**
	Installation of Package / Ductable AC		-	-	32.00	-	-	**32.00**
	Power/Distribution Transformer		-	-	30.00	-	30.00	**60.00**
	Actuators		-	-	10.00	-	10.00	**20.00**
	Battery Bank		-	-	-	-	50.00	**50.00**
	Sub-Total		**80.00**	**107.71**	**327.00**	**-**	**150.00**	**664.71**
D.	**IT & Communication**							
	EPABX System	76 & 77	67.00	-	-	-	-	**67.00**
	Procurement of Desktop Computers	25 (2) (c)	-	12.50	15.00	15.00	15.00	**57.50**
	Procurement of server		-	3.00	-	-	-	**3.00**
	Microsoft Office 2016 licenses		-	14.55	-	-	-	**14.55**
	Procurement of LaserJet Printer (B/W)		-	2.90	5.00	5.00	5.00	**17.90**
	Solar Roof Top Light	76 & 77	-	25.00	-	-	-	**25.00**
	Sub-Total		**67.00**	**57.95**	**20.00**	**20.00**	**20.00**	**184.95**
E.	**PWS INCL. FIRE PROTECTION**							
	V Belt Shaper Machine	76 & 77	3.00	-	-	-	-	**3.00**
	Hose Reel with Drum		3.00	-	-	-	-	**3.00**
	Shaper Machine Assembly		-	3.00	-	-	-	**3.00**
	Service Water Pump Assembly		-	18.00	-	-	-	**18.00**
	Sub-Total		**6.00**	**21.00**	**-**	**-**	**-**	**27.00**
F.	**Boiler & Auxiliaries**							
	ID fan impeller with shaft	25 (2) (a)	51.29	461.62	-	-	-	**512.91**
	Pin rack assy for APH		2.45	27.00	-	-	-	**29.45**
	Plasma cutting machine	76 & 77	3.50	-	-	-	-	**3.50**
	Pinion for APH 47 teeth	25 (2) (a)	1.00	11.00	-	-	-	**12.00**
	APH speed reducer		28.00	-	31.50	-	-	**59.50**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Induction heater	76 & 77	3.50	-	-	-	-	**3.50**
	Flexible coupling between ID fan and motor	25 (2) (a)	4.25	46.80	-	-	-	**51.05**
	ID fan lub oil cooler		-	2.00	-	-	-	**2.00**
	coal mill lub oil cooler		-	16.57	-	-	-	**16.57**
	Portable Tube Bevelling & Facing Machine	76 & 77	-	3.50	-	-	-	**3.50**
	PA fan lub oil cooler	25 (2) (a)	-	2.50	-	-	-	**2.50**
	Hydraulic vertical lifting wedge	76 & 77 77	-	4.00	-	-	-	**4.00**
	Hydraulic Jack		-	-	10.00	-	10.00	**20.00**
	Complete Assembly of LRSB	25 (2) (a)	-	-	30.00	-	-	**30.00**
	Heavy fuel oil pump		-	-	15.00	-	15.00	**30.00**
	Mill Gear Box for Bowl Mill XRP-1003		-	-		275.00		**275.00**
	Sub-Total		**93.99**	**574.99**	**86.50**	**275.00**	**25.00**	**1055.48**
G.	**Electrical -II**							
	220V, Battery set-Exide make, YHP43	25 (2) (a)	169.00	183.00	214.00	-	-	**566.00**
	LA 3rd harmonic resistive leakage current monitor kit	76 & 77	8.50	-	-	-	-	**8.50**
	420kV Capacitive Voltage Transformer 8800pF, 3-Core, Type Capacitive, Single Phase,Oil Filled, Hermetically sealed, Outdoor, Pedestal Type Make-BHEL	25 (2) (a)	4.80	-	-	-	-	**4.80**
	400KV,2000A,5-Core, Dead Tank Type Current Transformer CT Ratio 2000-1000/1 Cores 1,2 and 2000-1000-500/1 Cores 3,4,5 CLASS- PS Cores 1,2,4,5 and 0.2 Core 3, Make-BHEL		18.50	10.00	-	-	-	**28.50**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Testing instruments: vacuum cleaner, Motor Current signature analyzer, Acoustic analyzer, DC fault Locator	76 & 77	18.00	-	-	-	-	**18.00**
	Numerical Relay	25 (2) (a)	-	15.00	-	-	-	**15.00**
	Energy Meter, Make-Elster, Secure		-	3.00	15.00	-	-	**18.00**
	VFD Transformer, Dd0, 11/2.3 KV, 3250KVA		-	38.00	-	-	-	**38.00**
	Complete Isolator assembly 400KV		-	8.00	-	11.00	-	**19.00**
	DG control console		-	-	8.00	9.00	-	**17.00**
	CEP Motor,3.3KV, 900KW, Make-BHEL		-	-	70.00	-	-	**70.00**
	Coal Mill Motor,3.3KV, 525KW, Make-BHEL		-	-	50.00	-	-	**50.00**
	Station Transformer, 90MVA, Make-BHEL		-	-	63.00	621.00	-	**684.00**
	Vacuum Pump(160KW) and its recirculation Pump(4KW)		-	-	12.00	-	-	**12.00**
	UT Incomer Breaker, 11KV,1600A, Make-BHEL		-	-	4.50	-	-	**4.50**
	LPBP Bypass System Motor		-	-	20.00	-	-	**20.00**
	DAVR Electronics cards, Make-BHEL		-	-	35.00	35.00	-	**70.00**
	Motor Protection Relay SEL - 710		-	-	6.80	-	6.80	**13.60**
	Software for VFD system, Siemens relays		-	-	5.00	-	-	**5.00**
	Electronic modules for VFD of ID Fan		-	-	40.00	-	-	**40.00**
	HVR Transformer, 90KVA	25 (2) (a)	-	-	15.00	15.00	-	**30.00**
	Breaker Truck, 7.2KV		-	-	7.00	-	-	**7.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Upgradation of SAS software		-	-	50.00	-	-	**50.00**
	Installation & Commissioning of Electric Hoist, 5 TON	76 & 77	-	-	20.00	-	-	**20.00**
	Lightening Arrestor, 390KV, 10KA	25 (2) (a)	-	-	7.00	-	-	**7.00**
	Transformer Differential Protection relay (7UT61316EB921 AB0/FF)		-	-	12.00	-	-	**12.00**
	Geared Motor CERM/EERM		-	-	-	5.00	5.00	**10.00**
	Complete 400KV Circuit breaker assembly		-	-	-	-	30.00	**30.00**
	Sub-Total		**218.80**	**257.00**	**654.30**	**696.00**	**41.80**	**1867.90**
H.	**Coal Handling Plant**							
	Drive Rack Segment with Pilot hole for Drive Gear Assembly of Wagon Tippler, Make- M/S L T, Model- HI- LIFT XL	25 (2) (a)	-	52.77	-	-	-	**52.77**
	Cylinder Rod End Pivot Pin for Clamp Gear Assembly anf Flanged Bush OD 120 X 67 Lg. for Clamp Bracket of Wagon Tippler, Make- M/S L&T, Model- HI- LIFT XL		-	14.33	-	-	-	**14.33**
	Clamp Beam Pivot Pin for Clamp Gear Assembly and Bush for Cylinder Rod End Pivot Pin of Wagon Tippler, Make- M/S L&T, Model- HI- LIFT XL		-	17.52	-	-	-	**17.52**
	Support Roller (DIA 300/160 X 225) along with Bush for Support Roller (DIA 170 X 150D X 75) for Platform Assembly and Other Accessories	25 (2) (a)	-	6.41	-	-	-	**6.41**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	of Wagon Tippler, Make- M/S L&T, Model- HI- LIFT XL							
	Cup and Cone Arrangement of of Wagon Tippler, Make- M/S L&T, Model- HI- LIFT XL		-	2.61	-	-	-	**2.61**
	Rack segment of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton		-	52.77	-	-	-	**52.77**
	Pinion of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton		-	11.22	-	-	-	**11.22**
	Charger arm Bush of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton		-	3.46	-	-	-	**3.46**
	Arm Pivot Pin along with Bush of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton		-	16.78	-	-	-	**16.78**
	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC- 10		-	-	36.00	-	-	**36.00**
	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC- 11A		-	-	22.00	-	-	**22.00**
	Complete Fluid Coupling, Model no. HFDX-9		-	-	2.16	-	-	**2.16**
	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC- 11		-	-	26.83	-	-	**26.83**
	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC- 14	25 (2) (a)	-	-	48.59	-	-	**48.59**
	Bucket with teeth & pins of Stacker/Reclaimer		-	-	-	39.00	-	**39.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Bucket wheel with Bush of Stacker/Reclaimer		-	-	-	25.00	-	**25.00**
	Slew Bearing		-	-	-	236.00	-	**236.00**
	Complete Gear Box, Model No.: KCN 500, Make-M/s Elecon		-	-	-	-	116.00	**116.00**
	Sub-Total		**-**	**177.87**	**135.58**	**300.00**	**116.00**	**729.45**
I.	**TG & Auxiliaries**							
	Complete HPT Module assembly compatible for 500 MW KWU units installed at Mejia TPS, DSTPS Andal, Koderma TPS and BTPS, DVC, Make: M/s BHEL	25 (2) (a)	-	4314.60	-	-	1380.00	**5694.60**
	Complete bowl assembly/ Internal assembly Model - EN6J40		-	19.61	176.49	-	-	**196.10**
	Complete Bare Vacuum Pump, Model-ELMO 2BE1 353 OBY 4, Make-Gardner Denver Nash Machinery LTD.- PR China		-	125.08	-	-	-	**125.08**
	Gear box between Turbine BFP Booster pump		-	53.10	-	-	-	**53.10**
	Hot Reheat steam Strainer elements		-	3.73	41.00	-	-	**44.73**
	Main steam strainer element		-	2.31	25.00	-	-	**27.31**
	Rotor assembly for MDBFP booster pump		-	5.00	55.00	-	-	**60.00**
	Rotor assembly for TDBFP booster pump		-	5.00	55.00	-	-	**60.00**
	Steam line bellows/ compensators	25 (2) (a)	-	5.00	55.00	5.00	-	**65.00**
	Complete HPT fully bladed rotor assembly compatible for 500 MW KWU Units		-	-	120.00	-	-	**120.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	installed at Mejia TPS, DSTPS Andal, Koderma TPS and BTPS, DVC, Make M/s BHEL							
	Dynamic layout model of KTPS 2X500MW	76 & 77	-	-	25.00	-	-	**25.00**
	Test valve for all stop valves and control valves	25 (2) (a)	-	-	100.00	-	-	**100.00**
	Low pressure bypass control valve and stop valves		-	-	250.00	-	-	**250.00**
	Water injection valve assembly		-	-	50.00	-	-	**50.00**
	Shaft gland seals for HP/IP/LP Turbine		-	-	15.00	-	-	**15.00**
	Internal gears of Voith hydraulic coupling for Boiler feed Pump		-	-	100.00	-	-	**100.00**
	Tube Nest For Vacuum Pump Cooler		-	-	20.00	-	-	**20.00**
	Portable Oil Filtration Machine		-	-	20.00	-	-	**20.00**
	Hydraulic jack capacity 150 ton	76 & 77	-	-	10.00	-	-	**10.00**
	Shaft gland seals for HP/IP/LP Turbine	25 (2) (a)	-	-	-	165.00	-	**165.00**
	Pump casing assembly of Booster Pump for Boiler feed pump		-	-	-	10.00	115.00	**125.00**
	Steam line bellows/ compensators		-	-	-	-	55.00	**55.00**
	Sub-Total		**-**	**4533.43**	**1117.49**	**180.00**	**1550.00**	**7380.92**
J.	**Ash Pond**							
	Construction of Permanent Ash Pond	25 (1) (c)	-	1582.30	1582.30	-	-	**3164.60**
	Sub-Total		**-**	**1582.30**	**1582.30**	**-**	**-**	**3164.60**
K.	**R&R Compensation**							
	R&R Compensation	25 (1) (a) & (f)	3236.00	3236.00	3236.00	-	-	**9708.00**
	Sub-Total		**3236.00**	**3236.00**	**3236.00**	**-**	**-**	**9708.00**

Sl no.		Regulation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
L.	**Condition Monitoring Cell**							
	Advance vibration data collector cum analyzer	76 & 77	-	-	40.00	-	-	**40.00**
	Flow Meter		-	-	15.00	-	-	**15.00**
	Thermovision camera		-	-	15.00	-	-	**15.00**
	Portable Current Signature Analyzer		-	-	25.00	-	-	**25.00**
	Ultra-Probe		-	-	-	15.00	-	**15.00**
	Sub-Total		**-**	**-**	**95.00**	**15.00**	**-**	**110.00**
	Grand Total		**4419.64**	**11304.07**	**7715.51**	**1851.19**	**2573.19**	**27863.60**

165. The Objector, DVPCA has submitted that the Petitioner has claimed Rs. 9708 lakh of additional capital expenditure held towards R&R Package & Rs. 3164.60 lakh of additional capital expenditure towards Main Plant Package (Ash pond spill over jobs) under original scope of work and for remaining elements the Petitioner has not provided any proper justification or documentary evidence for claiming the additional capital expenditure held after cut-off date (i.e. 31.03.2017) as per the regulatory provisions of Regulations 25(1) & 25(2) of the 2019 Tariff Regulations. DVPCA has further submitted that the Petitioner has not detailed out reasons for additional capitalization claimed under Regulations 76 & Regulation 77 of the 2019 Tariff Regulations and has put the onus on the Commission to decide and undertake analysis of claims. The Objector has stated that it is well settled in law that the Power to Relax and Power to Remove Difficulty has to be exercised in rare cases and not ordinarily and 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 and accordingly, the items claimed under additional capitalisation of Regulations 76 and Regulation 77 of 2019 Tariff Regulations may be rejected. The Objector has further submitted that the claims of the Petitioner lack detailed justification to satisfy the claim under relevant regulatory provision and needs to be disallowed by

the Commission. The Objector has also worked-out the additional capital expenditure to be allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
3236.00	4818.30	4818.30	-	-

166. The Petitioner in its rejoinder dated 3.6.2021, 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 submitted that most of the additional capital expenditures claimed for KTPS 1&2 for period 2019-24 have been on the following grounds:

(a) Work within the Original scope
(b) Ensuring plant safety based on recommendations from technical audit report
(c) Ensuring reliable and efficient operation of the station

167. The Petitioner has submitted that the additional capital expenditure for the generating station have been claimed under the Regulations 25(1), 25(2), 76 & 77 of the 2019 Tariff Regulations and detailed justification and supporting documents have been furnished, as required under the regulations. It has also submitted that all of 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. Hence, the Petitioner has prayed before this Hon'ble Commission to allow the claimed add-caps under Regulation 76 and Regulation 77 of the 2019 Tariff Regulations, wherever the same could not be claimed under the provisions of Regulation 25(1) and Regulation 25(2) of the 2019 Tariff Regulations.

168. 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 for the period 2019-24, is examined and allowed as under:

(Rs in lakh)

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
2019-20						
A	**AHP Maintenance**					
1	Knife Gate Valve, Size - 300 NB, Make SISTAG	22.00	25 (2) (a)	Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.	As the expenditure claimed are in the nature of O&M expenses, the claim of the Petitioner (@ sl. no. 1 to 6) are **not allowed**. The Decapitalization of old assets have been ignored for the purpose of tariff.	0.00
2	Silo dry ash retractable chute assembly	11.60		4 Nos ash retractable chute are installed for 2 SILOs. Considering the Life of 7-8 months. The requirement has been estimated.		0.00
3	Cast steel swing check valve of Size 250 NB	5.42		4 Nos valve swing Cast are installed. Considering the Life of swing check valve of 3-4 years. Requirement has been estimated.		0.00
4	Cast steel swing check valve of Size 300 NB	3.61				0.00
5	Cast steel swing check valve of Size 400 NB	5.33	25 (2) (a)	4 Nos valve swing Cast are installed. Considering the Life of swing check valve of		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
6	Cast steel swing check valve of Size 450 NB	3.72		3-4 years. Requirement has been estimated.		0.00
7	Impeller 2nd Stage (LH) for BAHP Water Pump	2.60		Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated. .	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl. no. 7 to 13) are **not allowed.** However, spares of capital nature not covered by normative O&M expenses may be claimed as capital spares consumed, as and when they are actually put into service.	0.00
8	Impeller 2nd Stage (RH) for BAHP Water Pump	2.65				0.00
9	Impeller for FAHP water pump	2.00				0.00
10	Impeller, EQP-HMDC water pump	1.00				0.00
11	450 NB Manually Operated Plate Valve, Eqp-Valves & Fittings	7.22		Considering the life of plate valves and extension of Ash Ponds, Requirements have been estimated.		0.00
12	200 NB Knife Edge Gate Valve (Manual Optd.)	3.00	25 (2) (a)	Considering the Life of Valves operating the Dry Fly Ash, the requirement has been estimated.		0.00
13	300 NB Cyl. Opted Knife Edge Gate Valve	2.70				0.00
14	Knife Gate Valve, Size - 300 NB, Make SISTAG	22.00		Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of	As the expenditure claimed relate to asset which is in the nature of O&M expenses, the claim of the Petitioner is **not allowed.** The decapitalization of old asset has also been ignored for the purpose of tariff.	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.		
	Total amount	**72.85**				**0.00**
B	**C&I system**					
1.	CAAQMS	65.00	76 & 77	Modules & Analysers for CAAQMS.	Considering the fact that the expenditure is incurred for compliance with existing law, the claim of the Petitioner is **allowed** under Regulation 25 (1)(b) of 2019 Tariff Regulations.	65.00
2.	Upgradation of MAX DNA System	580.00	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.	As the expenditure claimed is for replacement of the asset which form part of the original scope, due to obsolescence, the claim of the Petitioner is **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	580.00
	Total amount	**645.00**				**645.00**
C	**Electrical-I**					
1	Procurement of HT Motors (ASP, TAC Motors, Recovery water motors etc.)	33.00	25 (2) (a)	For Ash Recovery Motor & CW Motor	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl. no. 1 to 5) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative	0.00
2	Procurement of LT Motors for AHP & CAC Plant	22.00		Motors of Various ratings for OPH (Electricals)		0.00
3	LT Motor (HVAC) of make	15.00		Spare item		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Marathon Electric Motors (India) Limited.				O&M expenses as capital spare consumed, as and when actually put into service.	
4	CW Booster Pump Motor	1.30				0.00
5	Absorption Pump & Motor Assembly	5.50				0.00
	Total amount	**80.00**				**0.00**
D	**IT & Communication**					
1**.**	EPABX System	67.00	76 & 77	Extension of Present EPABX System	The asset does not form part of the original scope of work of the project; However, considering the fact that the said asset is essential for the smooth functioning of the generating station, the claim of the Petitioner **is allowed** in exercise of the Power to relax under Regulation 76 of the 2019 Tariff Regulations.	67.00
E	**PWS incl. fire protection**					
1	V BELT SHAPER MACHINE	3.00	76 & 77	It will be required in Machine Shop at KTPS	The creation of additional facility over and above the original scope is not allowed. Further, the Petitioner has not provided enough justification for seeking additional capitalisation in exercise of the power under Regulation 76 or Regulation 77 of the 2019 Tariff Regulations. Accordingly, the additional capital expenditure claimed is **not allowed.**	0.00
2	Hose Reel with Drum	3.00	76 & 77	It will be required in Machine Shop at KTPS	Since the items claimed are in the nature of O&M expenses and since no justification has been furnished by the	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					Petitioner seeking additional capitalisation in exercise of the power under Regulation 76 or Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.**	
	Total amount	**6.00**				**0.00**
F	**Boiler & Auxiliaries.**					
1	ID fan impeller with shaft	51.29	25 (2) (a)	Pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl. no. 1 and 2) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Pin rack assy for APH	2.45	25 (2) (a)			0.00
3	Plasma cutting machine	3.50	76 & 77	Critical Tools & plant.	No justification has been provided by the Petitioner for invocation of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations. Hence, the additional capital expenditure claimed is **not allowed.**	0.00
4	Pinion for APH 47 teeth	1.00	25 (2) (a)	Pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl. no. 4 and 5) are	0.00
5	APH speed reducer	28.00	25 (2) (a)	Pool spare.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					not allowed. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	
6	Induction heater	3.50	76 & 77	Critical Tools & plant.	Since the items claimed are in the nature of O&M expenses and since no justification has been provided by the Petitioner seeking invocation of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.**	0.00
7	Flexible coupling between ID fan and motor	4.25	25 (2) (a)	Pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed.** The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service. "	0.00
	Total amount	**93.99**				**0.00**
G	**Electrical -II**					
1	220V, Battery set-Exide make, YHP43	169.00	25 (2) (a)	For phase wise replacement of existing battery banks.	Considering the fact that the item was deployed within the original scope of work since COD and is being replaced before	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					17 years, which is the period required for recovering full depreciation, the claim of the Petitioner towards replacement before the asset gets fully depreciated, is **not allowed**. Normally battery banks are maintained by utilizing normative O&M expenses allowed to the generating station. The decapitalisation of old asset has however been ignored for the purpose of tariff.	
2	LA 3rd harmonic resistive leakage current monitor kit	8.50	76 & 77	For condition monitoring of LA's.	Creation of additional facility over and above those procured under original scope of work cannot be loaded to the beneficiaries. Moreover, the Petitioner has not provided any justification for invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations. Hence the claim of the Petitioner is **not allowed.**	0.00
3	420kV Capacitive Voltage Transformer Make-BHEL	4.80	25 (2) (a)	To maintain minimum inventory.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl. no. 3 and 4) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare	0.00
4	400KV,2000A, 5-Core, Dead Tank Type Current Transformer CT Ratio 2000-1000/1 Cores 1,2 and 2000-1000-500/1 Cores 3,4,5 Class- PS	18.50	25 (2) (a)	To maintain minimum inventory.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Cores 1,2,4,5 and 0.2 Core 3, Make-BHEL				consumed, as and when actually put into service.	
5	Testing instruments: vacuum cleaner, Motor Current signature analyser, Acoustic analyser, DC fault Locator	18.00	76 & 77		No justification has been provided by the Petitioner seeking additional capitalisation for invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.**	0.00
	Total amount	**218.80**				**0.00**
H	**R&R Compensation**					
1	R&R Compensation	3236.00	25 (1) (a) & (f)	This expenditure is against the original scope (under Sl. No. 5(9) of the Sanction Order dt. 29.09.2015). CERC in tariff order dt. 28.02.2017 in Petition no. 296/GT/2015 had allowed Rs. 11000 lakh under head 'R&R Compensation' for 2014-19 period (para 39 and 41). The spill-over amount is claimed for admittance for the 2019-24 period.	The claim of the Petitioner **is allowed** under Regulation 26(1) (a) of the 2019 Tariff Regulations, with direction to submit the documentary proof during truing up of tariff.	3236.00
	Total amount claimed	**4419.64**				
	Total amount allowed					**3948.00**
2020-21						
A	**AHP Maintenance**					
1	Knife Gate Valve, Size - 300 NB, Make SISTAG	13.60	25 (2) (a)	Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been	Since the items claimed are in the nature of O&M expenses, the additional capital expenditure claimed (@ sl no. 1 to 3) are **not allowed.** The de capitalization of old assets have also been ignored for the purpose of tariff.	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.		
2	Knife Gate Valve, Size - 400 NB, Make SISTAG	28.50		Twelve nos. of 400NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.		0.00
3	Knife Gate Valve, Make, Size -450 NB, Make SISTAG	20.80	25 (2) (a)	20 (twenty) nos. of valves are installed in wet ash slurry line which handle highly erosive slurry ash. The average life of these valve is approx. 4-5 year. Therefore, it will be prudent to procure 2 nos. valves in each financial year for replacement to improve the reliability		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				of Ash disposal slurry system.		
4	Complete Assembly of Bottom Ash High Pressure Pump	6.40		Two nos. of pumps are installed in AHP. These pumps are running since last three years and we do not have its modular assembly. So, in case of any breakdown of the pump, it takes more time to make it available. Therefore, it will be prudent to procure one no. of complete assembly in financial year 20-21 & 22-23 to ensure the availability of the pump in least possible time.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl. no. 4 to 10) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
5	Complete Assembly of Fly Ash High Pressure Pump	7.60		Three nos. of pumps are installed to supply the water in wetting head and main trench. These pumps handle AWRS water. It is observed that one no. of these pump needs replacement and one no. should be kept in stock for modular replacement. Therefore, it will be prudent to procure one no. of complete assembly in the financial year 20-21 & 22-23 to tackle any sort of breakdown.		0.00
6	Complete Assembly of Eco-Booster Pump	1.60	25 (2) (a)	Four nos. of pumps are installed to supply the water in economiser flushing apparatus so that ash from economiser hoppers can be evacuated smoothly in wet mode. Complete assembly of pump is required as modular assembly to meet up requirement during		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				breakdown or overhauling to reduce the duration of unavailability of equipment.		
7	Complete Assembly of Bottom Ash Low Pressure Pump	2.40		5 nos. of pumps are installed in ash water pump house to supply the water in bottom ash hopper, trough seal and refractory cooling line. They handle AWRS water and run continuously. Therefore, the complete assembly will be required as modular assembly to tackle any unforeseen breakdown.		0.00
8	Complete Assembly of Drain Pump of Ash Slurry Pump House/ Silo Drain Pump	6.15		Four nos. of pumps are installed to drain out the water from ash slurry pump house and silo sludge sump. These pumps handle highly abrasive slurry of ash and water which cause erosion in the housing and impeller. So, one complete assembly is required as a modular to tackle unforeseen breakdown and reduce the duration of unavailability of the equipment.		0.00
9	Gear box of Ash Slurry Pump	11.72	25 (2) (a)	4 Nos of Gear Box are installed for 4 Ash Slurry Pumps. Considering the Life of 7-8 years. It has been estimated the requirement		0.00
10	Silo dry ash retractable chute assembly	9.05		4 Nos. ash retractable chute are installed for 2 SILOs. Considering the Life of 7-8 months. It has been estimated the requirement		0.00
	Total	**107.82**				**0.00**

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
B	**Coal Handling Plant**					
1	Drive Rack Segment with Pilot hole for Drive Gear Assembly of Wagon Tippler, Make- M/S L T, Model- HI-LIFT XL	52.77	25 (2) (a)	Total installed quantity is 21 nos. in Wagon Tippler. Out of these 21 nos., 20 nos. of segment have got worn out and consequently, the backlash and root gap have also increased to 16 mm and 12 mm respectively whereas the recommended backlash and root gap is 8-10 mm & 3-4 mm respectively. Recently, abnormal sound is also noticed during wagon tippling operation. Hence, it is proposed to procure 19 nos. of segment as 1 no. of segment is already in stock for carrying out the overhauling of Wagon Tippler. Pinions of Wagon Tippler are in stock.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl. no. 1 to 9) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Cylinder Rod End Pivot Pin for Clamp Gear Assembly and Flanged Bush OD 120 X 67 Lg. for Clamp Bracket of Wagon Tippler, Make- M/S L&T, Model- HI-LIFT XL	14.33		Total installed quantity is 8 nos. in Wagon Tippler. It has been observed that clearance between bush and pin have increased than the recommended value as the bushes have worn out, hence needs replacement. In this context, it is proposed to procure 8 nos. of the indented item and it will be utilized while carrying out the overhauling of Wagon Tippler.		0.00
3	Clamp Beam Pivot Pin for Clamp Gear Assembly and Bush for Cylinder Rod End Pivot Pin of Wagon Tippler, Make-	17.52	25 (2) (a)			0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	M/S L&T, Model- HI-LIFT XL					
4	Support Roller (DIA 300/160 X 225) along with Bush for Support Roller (DIA 170 X 150D X 75) for Platform Assembly and Other Accessories of Wagon Tippler, Make- M/S L&T, Model- HI-LIFT XL	6.41		Total installed quantity is 02 nos. in Wagon Tippler. It has been found that the bush for the support rollers have got worn out, resulting in gap between the pin and bush. This situation is restricting horizontal alignment of the rail table of Wagon Tippler and as a result BOX-N wagons after placement at the rail table rolls back towards the inhaul side. Hence, it is proposed to procure 02 nos. of these items and it will be utilized while carrying out the overhauling of Wagon Tippler.		0.00
5	Cup and Cone Arrangement of Wagon Tippler, Make- M/S L&T, Model- HI-LIFT XL	2.61	25 (2) (a)	Total installed quantity is 02 nos. Cup and cone arrangement have got worn out and needs replacement. Worn out Cup & cone arrangement together with worn out support rollers is restricting horizontal alignment of the rail table of Wagon Tippler and as a result BOX-N wagons after placement at the rail table rolls back towards the inhaul side. Hence, it is proposed to procure 02 nos. of these items and it will be utilized while carrying out the overhauling of Wagon Tippler.		0.00
6	Rack segment of Side Arm	52.77		Total installed quantity is 30 nos. in Wagon		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton			Tippler. Out of these 30 nos., 20 nos. of segment have got worn out and consequently, the backlash and root gap have also increased to 11.5 mm and 5 mm respectively whereas the recommended backlash and root gap is 8-10 mm & 3-4 mm respectively. Recently, abnormal sound is also noticed during wagon tippling operation. Hence, it is proposed to procure 17 nos. of segment as 3 nos. of segment is already in stock for carrying out the overhauling of Side Arm Charger.		
7	Pinion of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton	11.22	25 (2) (a)	Total 3 nos. of pinion are installed in Side Arm Charger for the forward and reverse movement of Side Arm Charger. As mentioned point sl. No. 6, due to increase in backlash and root gap than the recommended value, it needs replacement. Since, 02 nos. of pinion is already in stock, hence it is proposed to procure 01 no. of pinion to be utilized during the overhauling of Side Arm Charger.		0.00
8	Charger arm Bush of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton	3.46		Total installed quantity is 01 no. Earlier 01 no. of charger arm bush was procured earlier and it had been utilized while replacing the worn-out bush of Side Arm Charger.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				Since the stock position is nil and after continuous running bush has got worn out and needs replacement. Hence, it is proposed to procure 01 no. of the indented item to be utilized while carrying out overhauling of Side Arm Charger.		
9	Arm Pivot Pin along with Bush of Side Arm Charger (Make: M/S L&T), Hauling Capacity- 37.5 Ton	16.78		This specification of pin & bush is installed in the arm of Side Arm Charger fixed to basement of Side Arm Charger. Total installed quantity is 02 nos. It has been observed that the bush has got worn out resulting in further lowering of arm than the recommended down position. As a result of which, shim packing has been inserted to level the arm in its downward position with the knuckle of the railway wagons for clamping. Hence, it is proposed to procure 02 nos. of these specifications and will be utilized while carrying out overhauling of Side Arm charger.		0.00
	Total amount	**177.87**				**0.00**
C	**TG & Auxiliaries**					
1	Complete HPT Module assembly compatible for 500 MW KWU units installed at Mejia TPS, DSTPS Andal, Koderma TPS and BTPS,	4314.60	25 (2) (a)	PO placed vide no. DVC/contract/KTPS/TG maintenance Incl compressor/ C&M purchase & contract/ supply/00015 Dated: - 31/01/2019. Advance payment of 10% already made in BE: 2018-19. Balance	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl. no. 1 to 9) are **not allowed**. The	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	DVC, Make: M/s BHEL			payment of 90% PO amount along with full taxes & duties are expected to be made in BE: 2020-21.	Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	
2	Complete bowl assembly/ Internal assembly Model - EN6J40	19.61		For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares. 10% of the total value is kept in 2020-21for advance payment and 90% with taxes in 2021-22		0.00
3	Complete Bare Vacuum Pump, Model-ELMO 2BE1 353 OBY 4, Make- Gardner Denver Nash Machinery Ltd.- PR China	125.08		For maintaining the minimum level of defined inventory already identified as insurance spares/ critical spares		0.00
4	Gear box between Turbine BFP Booster pump	53.10	25 (2) (a)	For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares		0.00
5	Hot Reheat steam Strainer elements	3.73		For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares. 10% of the total value is kept in 2020-21for advance payment and 90% with taxes in 2021-22		0.00
6	Main steam strainer element	2.31				0.00
7	Rotor assembly for MDBFP booster pump	5.00				0.00
8		5.00				0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
9	Steam line bellows/ compensators	5.00		As per insurance spares/critical spares list some of the items are kept for procurement in 2020-21 and accordingly 10% of the total value is kept in 2020-21for advance payment and 90% with taxes in 2021-22. For balance items as per the list amount is kept in 22-23 & 23-24		0.00
	Total amount	**4533.43**				**0.00**
D	**C&I system**					
1	Upgradation of MAX DNA System	620.00	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.	Since the expenditure has been claimed for replacement of asset with the original scope, due to obsolescence, the claim of the Petitioner is **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	620.00
2	Other Assets (Complete assembly - Furnace CCTV & Drone camera)	28.00	76 & 77	New procurement as per CISF for Drone Camera	The expenditure claimed **is allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations, subject to submission of the CISF directions, at the time of truing up of tariff.	28.00
	Total amount	**648.00**				**648.00**
E	**Electrical-I**					
1	Procurement of 10Nos. of 20Mtr. High Mast lighting Shaft & its luminaires for KTPS for KTPS Plant area	46.00	76 & 77	To illuminate reservoir and CHP area	Since the item claimed is in the nature of O&M expenses, the additional capital expenditure claimed is **not allowed.**	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
2	Instrument Air Compressor Motor	18.00	25 (2) (a)	Spare item	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl. no. 2 to 4) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
3	LT Motor - Clinker Grinder & LDO Motor	2.71				0.00
4	HFO Pump Motor	41.00				0.00
	Total amount	**107.71**				**0.00**
F	**IT & Communication**					
1	Procurement of Desktop Computers	12.50	25 (2) (c)	To replace old computers. Computers with updated operating systems are essential to ensure protection against cyber threat. This purchase is in compliance with the directives of the Ministry of Power, GOI dt. 12.4.2010 and dt. 2.8.2017 regarding steps to be taken to prevent cyber-attacks.	As the expenditure claimed is for replacement of assets under original scope, due to obsolescence, the claims of the Petitioner are **allowed** under Regulation 26(1)(d) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	12.50
2	Procurement of server	3.00				3.00
3	Microsoft Office 2016 licences	14.55				14.55
4	Procurement of LaserJet Printer (B/W)	2.90		To replace old printers	As the expenditure for the asset is in the nature of O&M expenses, the same is **not allowed.**	0.00
5	Solar Roof Top Light	25.00	76 & 77	No justification Provided	Since no justification has been provided by the Petitioner for invocation of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.**	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					However, the same may be claimed at the time of truing up of tariff, after proper justification and the need for these assets.	
	Total amount	**57.95**				**30.05**
G	**PWS INCL. Fire Protection**					
1	Shaper Machine Assembly	3.00	76 & 77	It will be required in Machine Shop at KTPS	Since no justification has been provided by the Petitioner for invocation of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.** However, the same may be claimed at the time of truing up of tariff, after proper justification and the need for these assets.	0.00
2	Service Water Pump Assembly	18.00		It will require to reduce down time.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
	Total amount	**21.00**				**0.00**
H	**Boiler & Auxiliaries.**					
1	ID fan impeller with shaft	461.62	25 (2) (a)	Pool spares.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of	0.00
2	ID fan lub oil cooler	2.00		Critical spares.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
3	Pin rack assy for APH	27.00		Pool spare.	Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl. no. 1 to 5) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
4	Pinion for APH 47 teeth	11.00				0.00
5	coal mill lub oil cooler	16.57		Critical spare.		0.00
6	Portable Tube Bevelling & Facing Machine	3.50	76 & 77	Critical Tools & plant.	Since no justification has been provided by the Petitioner for invocation of Regulation 76 and Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.** However, the same may be claimed at the time of truing up of tariff, after proper justification and the need for these assets.	0.00
7	PA fan lub oil cooler	2.50	25 (2) (a)	critical spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
8	Hydraulic vertical lifting wedge	4.00	76 & 77	Critical Tools & plant.	As the item claimed is in the nature of O&M expenses, the claim is **not allowed.**	0.00
9	Flexible coupling between ID fan and motor	46.80	25 (2) (a)	Pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
	Total amount	**574.99**				**0.00**
I	**Electrical -II**					
1	220V, Battery set-Exide make, YHP43	183.00	25 (2) (a)	For phase wise replacement of existing battery banks.	Considering the fact that the item was deployed within the original scope of work since COD and is being replaced before 17 years, which is the period required for recovering full depreciation, the claim of the Petitioner towards replacement before the asset gets fully depreciated, is **not allowed**. Normally battery banks are maintained by utilizing normative O&M expenses allowed to the generating station. The decapitalisation of old asset has however been ignored for the purpose of tariff	0.00
2	NUMERICAL RELAY	15.00	25 (2) (a)	Spares relays for need based replacement.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	
3	Energy Meter, Make-Elster, Secure	3.00	25 (2) (a)	For replacement of defective energy meters.	As the item claimed is in the nature of O&M expenses, the claim is **not allowed.**	0.00
4	VFD Transformer, Dd0, 11/2.3 KV, 3250KVA	38.00	25 (2) (a)	As pool spare for VFD	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl no.4 & 5) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
5	400KV,2000A, 5-core, Dead Tank Type Current Transformer CT ratio 2000-1000/1 Cores 1,2 and 2000-1000-500/1 Cores 3,4,5 CLASS- PS Cores 1,2,4,5 and 0.2 Core 3, Make-BHEL	10.00	25 (2) (a)	To maintain minimum inventory.		0.00
	Total amount	**257.00**				**0.00**
J	**Ash Pond**					
1	Construction of Permanent Ash Pond	1582.30	25 (1) (c)	This expenditure is for construction of permanent ash pond within the original scope (Sl. No. 3(i) of KTPS Sanction Order dt. 29.09.2015). Work was delayed due to local unrest and is projected to be completed during the 2019-24 period. The amount of projected	As the expenditure claimed is for works pertaining to Ash Pond, the claim **is allowed** under Regulation 25(1)(c) of the 2019 Tariff Regulations.	1582.30

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				additional capital expenditure claimed by DVC for 2019-24 period is excluding GST. DVC craves leave to furnish the actual amount of additional capital expenditure under this head at the time of truing up.		
K	**R&R Compensation**					
1	R&R Compensation	3236.00	25 (1) (a) & (f)	This expenditure is against the original scope (under Sl. No. 5(9) of the Sanction order dt. 29.09.2015). CERC in tariff order dt. 28.02.2017 in Petition No. 296/GT/2015 had allowed Rs. 11000 lakh under head 'R&R Compensation' for 2014-19 period (para 39 and 41). The spill-over amount is claimed for admittance for the 2019-24 period.	The claim of the Petitioner **is allowed** under Regulation 26(1) (a) of the 2019 Tariff Regulations, with directions to submit the documentary proof at the time of truing up of tariff.	3236.00
	Total amount claimed	**11304.07**				
	Total amount allowed					**5496.35**
2021-22						
A	**AHP Maintenance**					
1	Complete Assembly of Ash Slurry Disposal Pump	29.60	25 (2) (a)	Total 8 nos. of said items are installed in AHP to dispose the slurry from slurry compartment to Ash Pond. One no. of complete Ash Slurry Pump Assembly is required for modular replacement in case any unforeseen breakdown or schedule maintenance which will improve the availability of the ash handling system.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
2	Knife Gate Valve, Size - 300 NB, Make SISTAG	14.50	25 (2) (a)	Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.	Since the expenditure on items claimed are in the nature of O&M expenses, the claims of the Petitioner (@ sl. no. 2 to 4) are **not allowed.** The decapitalisation of old asset has also been ignored for the purpose of tariff.	0.00
3	Knife Gate Valve, Size - 400 NB, Make SISTAG	30.21		Twelve nos. of 400NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.		0.00
4	Knife Gate Valve, Make,	22.00	25 (2) (a)	20 (twenty) nos. of valves are installed in		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Size -450 NB, Make SISTAG			wet ash slurry line which handle highly erosive slurry ash. The average life of these valve is approx. 4-5 year. Therefore, it will be prudent to procure 2 nos. valves in each financial year for replacement to improve the reliability of Ash disposal slurry system.		
5	Complete Assembly of Eco-Booster Pump	1.70		Four nos. of pumps are installed to supply the water in economiser flushing apparatus so that ash from economiser hoppers can be evacuated smoothly in wet mode. Complete assembly of pump is required as modular assembly to meet up requirement during breakdown or overhauling to reduce the duration of unavailability of equipment.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 5 to 16) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
6	Door of Feed Gate Assembly	13.00	25 (2) (a)	There are 8 nos. of feed gate in Bottom Ash Hopper for both units. Replacement of four nos. of Doors of Feed gate will be needed during the next overhauling of Unit # 2.		0.00
7	Complete Assembly of SS Cladding Vacuum Pump	78.00	25 (2) (a)	16 nos. of vacuum pumps are installed in AHP to evacuate the dry fly ash from ESP. Initially Material of construction of Vacuum pump was CI, so the erosion rate of different components of vacuum pump were quite high, causing smaller useful life span		0.00

Sl. No	Asset/Work	Amount claimed	Regula tion	Petitioner submissions	Remarks for admissibility	Amount allowed
				and also required more maintenance works. Two nos. of vacuum pumps with SS cladding were installed two years ago and its performance as well as life span has enhanced by 2-3 times of previous one. Therefore, we have planned to procure 4 nos. of improved version of vacuum pumps in each financial year so that all of the old vacuum pumps of CI material may be replaced with the improved metallurgy for reliability of vacuum system to improve the evacuation of dry fly ash.		
8	Silo dry ash retractable chute assembly	9.60	25 (2) (a)	4 Nos ash retractable chute are installed for 2 SILOs. Considering the Life of 7-8 months. It has been estimated the requirement		0.00
9	Submersible type Sludge Pump/Goodwyn Pump	13.50		Considering the life of existing Goodwin Pump, it is estimated the requirement of New Goodwin Pump in 2021-22		0.00
10	Impeller 2nd Stage (LH) for BAHP Water Pump	2.80		Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated		0.00
11	Impeller 2nd Stage (RH) for BAHP Water Pump	2.85	25 (2) (a)	Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
12	Impeller FOR FAHP WATER PUMP	2.25		Considering the quality of effluent, the impeller is prone to be damaged and accordingly requirement have been estimated		0.00
13	IMPELLER, EQP- HMDC WATER PUMP	1.12		Considering the quality of effluent, the impeller is prone to be damaged and accordingly requirement have been estimated		0.00
14	450 NB MANUALY OPERATED PLATE VALVE, EQP-VALVES & FITTINGS	8.65		Considering the life of plate valves and extension of Ash Ponds, Requirements have been estimated		0.00
15	200 NB Knife Edge Gate Valve (Manual Optd.)	3.36		Considering the Life of Valves operating the Dry Fly Ash, the requirement has been estimated		0.00
16	300 NB Cyl. Optd. Knife Edge Gate Valve	3.20		Considering the Life of Valves operating the Dry Fly Ash, the requirement has been estimated		0.00
	Total amount	**236.34**				**0.00**
B	**Coal Handling Plant**					
1	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC-10	36.00	25 (2) (a)	Total installed quantity of these model of Scoop Coupling is 10 nos. This item has been identified as Critical item by OS&U, Kolkata. As per Critical spare recommendation by OS &U, Kolkata, for installed quantity more than 5 nos., the stock position at site should be 2 nos. Presently, stock position is 01 no. and hence another 01 no. to be kept in stock to cater the	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 to 5) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				emergency situation. Rotating assemble has been proposed to avoid LHS & RHS orientation problem.	when actually put into service.	
2	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC-11A	22.00	25 (2) (a)	Stock position is nil. Since, it is installed in Con. # 1A/1B, which are the vital equipment's of CHP, hence 01 no. has to be kept in stock to cater the emergency situation. Moreover, it is identified as Critical Item by OS&U.		0.00
3	Complete Fluid Coupling, Model no. HFDX-9	2.16		Total installed quantity of these model of Scoop Coupling is 12 nos. This item has been identified as Critical item by OS&U, Kolkata. As per Critical spare recommendation by OS &U, Kolkata, for installed quantity more than 5 nos., the stock position at site should be 2 nos. Presently, stock position is 01 no. and hence another 01 no. to be kept in stock to cater the emergency situation.		0.00
4	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC-11	26.83		Stock position is nil. Since, it is installed in Con. # 4A/4B, which are the vital equipment's of CHP, hence 01 no. has to be kept in stock to cater the emergency situation.		0.00
5	Rotating Assembly of Scoop Type Fluid Coupling, Model no.: SC-14	48.59	25 (2) (a)	Stock position is nil. Since, it is installed in 4 nos. of Ring Granulators, which are the vital equipment's of CHP, hence 01 no. has to be kept in stock to cater the		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				emergency situation. Moreover, it is identified as Critical Item by OS&U.		
	Total amount	**135.58**				**0.00**
C	**TG & Auxiliaries**					
1	Complete HPT fully bladed rotor assembly compatible for 500 MW KWU Units installed at Mejia TPS, DSTPS Andal, Koderma TPS and BTPS, DVC, make M/s BHEL	120.00	25 (2) (a)	For maintaining the minimum level of defined inventory already identified as assigned pool spares for KTPS.10% of the total value is kept in FY 2021-22for advance payment and 90% with taxes in FY 2023-24	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 to 7) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Complete bowl assembly/ Internal assembly Model - EN6J40	176.49		For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares. 10% of the total value is kept in FY 2020-21for advance payment and 90% with taxes in FY 2021-22		0.00
3	Hot Reheat steam Strainer elements	41.00		For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares. 10% of the total value is kept in FY 2020-21for advance payment and 90% with taxes in FY 2021-22		0.00
4	Main steam strainer element	25.00	25 (2) (a)	For maintaining the minimum level of defined inventory already identified as insurance spares/critical spares.10% of the total value is kept in 2020-21for advance		0.00
5	Rotor assembly for MDBFP booster pump	55.00				0.00
6	Rotor assembly for	55.00				0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	TDBFP booster pump			payment and 90% with taxes in 2021-22		
7	Steam line bellows/ compensators	55.00		As per insurance spares/critical spares list some of the items are kept for procurement in 20-21 and accordingly10% of the total value is kept in 2020-21for advance payment and 90% with taxes in 2021-22. For balance items as per the list amount is kept in 22-23 & 23-24		0.00
8	Dynamic layout model of KTPS 2X500MW	25.00	76 & 77	For training purpose in line with procurement made by MTPS, DSTPS, RTPS	As the expenditure on the item claimed is in the nature of O&M expenses, the same is **not allowed.**	0.00
9	Test valve for all stop valves and control valves	100.00	25 (2) (a)	01 set of each is required to be kept in hand to meet any exigency	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 9 to 14) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
10	Low pressure bypass control valve and stop valves	250.00		01 set of each is required to be kept in hand to meet any exigency		0.00
11	Water injection valve assembly	50.00		01 set is required to be kept in hand to meet any exigency		0.00
12	Shaft gland seals for HP/IP/LP Turbine	15.00		01 set of each is required to be kept in hand to meet any exigency. 10% of the total value is kept in FY 2021-22 for advance payment and 90% with taxes in FY 2022-23		0.00
13	Internal gears of Voith hydraulic coupling for Boiler feed Pump	100.00	25 (2) (a)	01 set is required to be kept in hand to meet any exigency		0.00
	TUBE NEST FOR VACUUM PUMP COOLER	20.00	25 (2) (a)	01 set is required to be kept in hand to meet any exigency		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
14	Portable Oil Filtration Machine	20.00	25 (2) (a)	01 set is proposed for procurement for oil cleaning as per requirement		0.00
15	Hydraulic jack capacity 150 ton	10.00	76 & 77	Kept for procurement to performing heavy lifting work during TG overhauling	As no justification has been furnished by the Petitioner for invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations, the additional capital expenditure claimed is **not allowed.** However, the same may be claimed at the time of truing after furnishing proper justification for the same.	0.00
	Total amount	**1117.49**				**0.00**
D	**C&I system**					
1	Ultrasonic / Laser/Radar Type Bunker Measurement System	20.00	25 (2) (c)	System upgradation	As the expenditure claimed is for replacement of asset within the original scope, due to obsolescence, the claim is **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	20.00
2	Other Assets (Complete assembly - Furnace CCTV & Drone camera)	12.00	76 & 77	New procurement as per CISF for Drone Camera	The expenditure claimed is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations, with a direction to furnish documentary evidence of CISF directions, at the time of truing up of tariff.	12.00
3	Gravimetric feeder panel (UPGRADATION)	24.00	25 (2) (c)	Technology obsolescence and upgradation	As the expenditures claimed is for replacement of assets within original scope,	24.00

Sl. No	Asset/Work	Amount claimed	Regula tion	Petitioner submissions	Remarks for admissibility	Amount allowed
4	SWAS	30.00			due to obsolescence, the claims of the Petitioner (@ sl. no. 3 and 4) are **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	30.00
5	CEMS	13.00	76 & 77	For emission quality monitoring	Considering the essential nature of the item, the additional capital expenditure **is allowed** under Regulation 25 (1)(b) of 2019 Tariff Regulations	13.00
6	ESP DUST	25.00	25 (2) (c)	Technology obsolescence and upgradation	As the expenditures claimed is for replacement of assets within original scope, due to obsolescence, the claims of the Petitioner (@ sl. no. 6 and 7) are **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	25.00
7	BHEL FEED PANEL MODULES	25.00	25 (2) (c)	Upgradation		25.00
8	Actuator for CPU	7.00	25 (2) (a)	Actuator for CPU	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 8 to 10) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare	0.00
9	Schneider PLC Card and Dryer controller card	7.00	25 (2) (a)	To procured as critical spare		0.00
10	Actuator for FOUPH	5.00	25 (2) (a)	To procured as critical spare		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					consumed, as and when actually put into service.	
11	Upgradation of GE Fanuc PLC of FOUPH	40.00	25 (2) (c)	GE make PLC system is declared obsolete by the OEM requires upgradation.	As the expenditures claimed is for replacement of assets within original scope, due to obsolescence, the claims of the Petitioner (@ sl. no. 11 to 13) are **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff	40.00
12	Windows system upgradation of CHP along with supporting software of siemens	12.00	25 (2) (c)	HMI is Windows XP based requires upgradation along with PLC software upgradation		12.00
13	LVS upgradation of CHP (BARCO made)	5.00	25 (2) (c)	Technology obsolescence and upgradation.		5.00
	Total	**225.00**				**206.00**
E	**Electrical-I**					
1	Procurement of HT Motors (ASP, TAC Motors, Recovery water motors etc.)	200.00	25 (2) (a)	For Ash Recovery Motor & CW Motor	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 & 2) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Procurement of LT Motors for AHP & CAC Plant	25.00		Motors of Various ratings for OPH (Electricals)		0.00
3	Procurement of Breakers (HT/LT) & Numerical Relay	20.00	25 (2) (a)	Replacement of Old Existing switchgear & Battery Bank	As the expenditure on the items claimed (@sl. no. 3 & 4) are in the nature of O&M expenses, the claims are **not allowed.**	0.00
4	Procurement of CT & PT and other accessories	10.00		Replacement of Old Existing switchgear & Battery Bank		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
5	Installation of Package / Ductable AC	32.00		To Replace Split AC & for better Control of Temperature	The expenditure on items claimed (@sl. no. 5 & 6) **are allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations, along with decapitalisation of old asset.	32.00
6	Power/Distribution Transformer	30.00		Replacement of Old transformer & Actuator		30.00
7	Actuators	10.00		Replacement of Old transformer & Actuator	As the expenditure on items claimed are in the nature of O&M expenses, the claims are **not allowed.**	0.00
	Total amount	**327.00**				**62.00**
F	**Condition Monitoring Cell**					
1	Advance vibration data collector cum analyser	40.00	76 & 77	For analysing vibration of different rotary equipment.	Creation of additional facilities over and above the original scope is not permissible. The Petitioner has also not furnished proper justification for invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations Therefore, the items claimed (@ sl. no. 1 to 4) are **not allowed**. However, the same may be claimed at the time of truing up of tariff subject to submission of proper justification.	0.00
2	Flow Meter	15.00		For flow measurement of fluid.		0.00
3	Thermovision camera	15.00		For thermography of Boiler and Electrical equipment.		0.00
4	Portable Current Signature Analyser	25.00		For Motor Current Signature analysis		0.00
	Total amount	**95.00**				**0.00**
G	**IT & Communication**					
1	Procurement of Desktop Computers	15.00	25 (2) (c)	To replace old computers. Computers with updated operating systems are essential to ensure protection against cyber threat. This purchase is in compliance with the directives of the Ministry of Power, GOI	The expenditure on the item claimed **is allowed** under Regulation 26(1)(d) for safe operation of the plant.	15.00

Sl. No	Asset/Work	Amount claimed	Regula tion	Petitioner submissions	Remarks for admissibility	Amount allowed
				dt. 12.04.2010 and dt. 02.08.2017 regarding steps to be taken to prevent cyber attacks		
2	Procurement of Laser jet Printer (B/W)	5.00		To replace old printers	As the expenditure on item claimed is in the nature of O&M expenses, the claim is **not allowed.**	0.00
	Total	20.00				**15.00**
H	**Boiler & Auxiliaries.**					
1	APH speed reducer	31.50	25 (2) (a)	pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 to 4) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Hydraulic Jack	10.00	76 & 77	critical Tools & plant.		0.00
3	Complete Assembly of LRSB	30.00	25 (2) (a)	pool spare.		0.00
4	Heavy fuel oil pump	15.00		critical spare.		0.00
	Total amount	**86.50**				**0.00**
I	**Electrical -II**					
1	220V, Battery set-Exide make, YHP43	214.00	25 (2) (a)	For phase wise replacement of existing battery banks.	It is expected that the battery bank is maintained by utilizing the normative O&M expenses allowed to the generating station. Accordingly, the claim of the Petitioner is **not allowed**. The de capitalisation of old asset has also been ignored for the purpose of tariff.	0.00
2	DG control console	8.00	25 (2) (a)	Local control console consists of PCC2000 cards. **Cards** became obsolete, needed to be replaced in phased manner.	As the expenditure on the item claimed is of the nature of O&M expenses, the claim is **not allowed.**	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
3	CEP Motor,3.3KV, 900 KW, Make-BHEL	70.00	25 (2) (a)	One spare motor required for 6 nos. motors in service.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 3 to 19) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
4	Coal Mill Motor,3.3KV, 525 KW, Make-BHEL	50.00		Spare motor for need based replacement of defective motor.		0.00
5	Station Transformer, 90MVA, Make-BHEL	63.00		As pool spare for 500MW units of DVC.		0.00
6	Vacuum Pump(160KW) and its recirculation Pump(4KW)	12.00		No spare motor available.		0.00
7	UT Incomer Breaker, 11KV,1600A, Make-BHEL	4.50		For immediate replacement of defective breakers.		0.00
8	LPBP Bypass System Motor	20.00		No spare motor available.		0.00
9	DAVR Electronics cards, Make-BHEL	35.00		Critical cards of DAVR.		0.00
10	Energy Meter, Make-Elster, Secure	15.00		For replacement of defective energy meters.		0.00
11	Motor Protection Relay SEL - 710	6.80		No spare relays available.		0.00
12	Software for VFD system, Siemens relays	5.00		No Justification		0.00
13	Electronic modules for VFD of ID Fan	40.00		Critical cards are required to be maintained.		0.00
14	HVR Transformer, 90KVA	15.00		HVR transformer for ESP. No spare transformer available.		0.00
15	Breaker Truck, 7.2KV	7.00		Spare breaker truck for immediate replacement of breaker, to ensure availability of ID Motor channels.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
16	Upgradation of SAS software	50.00		Already obsolete to be upgraded to newer version.		0.00
17	Installation & Commissioning of Electric Hoist, 5 TON	20.00	76 & 77	Installation at PA#1A		0.00
18	Lightening Arrestor, 390KV, 10KA	7.00	25 (2) (a)	To maintain minimum inventory.		0.00
19	Transformer Differential Protection relay (7UT61316EB 921AB0/FF)	12.00		No spare relays available.		0.00
	Total amount	**654.30**				**0.00**
J	**Ash Pond**					
1	Construction of Permanent Ash Pond	1582.30	25 (1) (c)	This expenditure is for construction of permanent ash pond within the original scope (Sl. No. 3(i) of KTPS Sanction Order dt. 29.09.2015). Work was delayed due to local unrest and is projected to be completed during the 2019-24 period. The amount of projected additional capital expenditure claimed by DVC for 2019-24 period is excluding GST. DVC craves leave to furnish the actual amount of additional capital expenditure under this head at the time of truing up.	The item claimed **is allowed** under Regulation 25(1)(c) of the 2019 Tariff Regulations.	1582.30
K	**R&R Compensation**					
1	R&R Compensation	3236.00	25 (1) (a) & (f)	This expenditure is against the original scope (under Sl. No. 5(9) of the Sanction Order of KTPS dt. 29.09.2015). The Hon'ble CERC in Tariff Order for KTPS	The item claimed is **allowed** under Regulation 26(1) (a) of the 2019 Tariff Regulations, with direction to submit the documentary proof	**3236.00**

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				dt. 28.02.2017 in petition no. 296/GT/2015 allowed Rs. 11000 lakh under head 'R&R Compensation' for 2014-19 period (para 39 and 41). The spill-over amount is claimed for admittance for the 2019-24 period.	during truing up of tariff.	
	Total amount claimed	**7715.51**				
	Total amount allowed					**5101.30**
2022-23						
A	**AHP Maintenance**					
1	Knife Gate Valve, Size - 300 NB, Make SISTAG	15.50	25 (2) (a)	Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.	As the expenditure on the items claimed (@sl. no. 1 to 3) are in the nature of O&M expenses, the claims are **not allowed.** The de capitalisation of old asset has also been ignored for the purpose of tariff.	0.00
2	Knife Gate Valve, Size - 400 NB, Make SISTAG	32.02	25 (2) (a)	Twelve nos. of 400NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.		
3	Knife Gate Valve, Make, Size -450 NB, Make SISTAG	23.50		20 (twenty) nos. of valves are installed in wet ash slurry line which handle highly erosive slurry ash. The average life of these valve is approx 4-5 year. Therefore, it will be prudent to procure 2 nos. valves in each financial year for replacement to improve the reliability of Ash disposal slurry system.		0.00
4	Complete Assembly of Bottom Ash High Pressure Pump	7.50		Two nos. of pumps are installed in AHP. These pumps are running since last three years and we do not have its modular assembly. So, in case of any breakdown of the pump, it takes more time to make it available. Therefore, it will be prudent to procure one no. of complete assembly in financial year 20-21 & 22-23 to ensure the availability of the pump in least possible time.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 4 to 8) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
5	Complete Assembly of Fly Ash High	8.50	25 (2) (a)	Three nos. of pumps are installed to supply the water in wetting head and main trench.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Pressure Pump			These pumps handle AWRS water. It is observed that one no. of these pump needs replacements and one no. should be kept in stock for modular replacement. Therefore, it will be prudent to procure one no. of complete assembly in the financial year 20-21 & 22-23 to tackle any sort of breakdown.		
6	Complete Assembly of Eco-Booster Pump	2.00		Four nos. of pumps are installed to supply the water in economiser flushing apparatus so that ash from economiser hoppers can be evacuated smoothly in wet mode. Complete assembly of pump is required as modular assembly to meet up requirement during breakdown or overhauling to reduce the duration of unavailability of equipment.		0.00
7	Complete Assembly of Bottom Ash Low Pressure Pump	3.00	25 (2) (a)	5 nos. of pumps are installed in ash water pump house to supply the water in bottom ash hopper, trough seal and refractory cooling line. They handle AWRS water and run continuously. Therefore, the complete assembly will be required as modular assembly to tackle any unforeseen breakdown.		0.00
8	Silo dry ash retractable chute assembly	10.17	25 (2) (a)	4 Nos ash retractable chute are installed for 2 SILOs. Considering the Life of 7-8 months.		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				It has been estimated the requirement		
	Total amount	**102.19**				**0.00**
B	**Coal Handling Plant**					
1	Bucket with teeth & pins of Stacker/Reclaimer	39.00	25 (2) (a)	Both the stacker/reclaimers are running for the last seven (07) years. Life of the slew bearing is 10 years or 30000 working years, whichever is earlier. Hence overhauling has been scheduled in the year 2022-23 for Stacker # 2 & in 2023-24 for Stacker # 1. Hence, recommended spares have to be procured.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 to 3) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Bucket wheel with Bush of Stacker/Reclaimer	25.00				0.00
3	Slew Bearing	236.00				0.00
	Total amount	**300.00**				**0.00**
C	**TG & Auxiliaries**					
1	Steam line bellows/ compensators	5.00	25 (2) (a)	As per insurance spares/critical spares list some of the items are kept for procurement in FY 20-21 and accordingly10% of the total value is kept in FY 2020-21for advance payment and 90% with taxes in FY 2021-22. For balance items as per the list amount is kept in FY 22-23 & 23-24	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos. 1 to 3) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Shaft gland seals for HP/IP/LP Turbine	165.00	25 (2) (a)	01 set of each is required to be kept in hand to meet any exigency. 10% of the total value is kept in 2021-22 for advance payment and 90% with taxes in 2022-23		0.00
3	Pump casing assembly of Booster Pump	10.00		01 set is required to be kept in hand to meet any exigency. 10% of		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	for Boiler feed pump			the total value is kept in 2022-23 for advance payment and 90% with taxes in 2023-24		
	Total amount	**180.00**				**0.00**
D	**C&I system**					
1	Other Assets (Complete assembly - Furnace CCTV & Drone camera)	12.00	76 & 77	New procurement as per CISF for Drone Camera	The expenditure claimed is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations, with a direction to furnish documentary evidence of CISF directions, at the time of truing up of tariff.	12.00
2	Max DNA Modules Along with Feeder Panel	30.00	25 (2) (c)	Technology obsolescence and upgradation	As the expenditures claimed is for replacement of the assets within the original scope, due to obsolescence, the claims of the Petitioner (@ sl. no. 2 to 8) are **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	30.00
3	LVS of control room	50.00		Technology obsolescence and upgradation		50.00
4	Upgradation of DM plant, RWPH, IWPH & CPU PLC system.	30.00		GE make PLC system is declared obsolete by the OEM & Its HMI is Windows XP based requires upgradation.		30.00
5	Upgradation of HMI of PLC system of DM Plant, RWPH, IWPH, Chlorination plant & CPU	60.00		HMI of PLC system is Windows XP based for which support service is no longer available. Hence Upgradation is required.		60.00
6	Upgradation of Schneider plc of AHP	60.00		Schneider make PLC system and the network topology equipped is declared obsolete by the OEM requires upgradation.		60.00
7	Windows system upgradation of CHP along with supporting software of siemens	6.00	25 (2) (c)	HMI is Windows XP based requires upgradation along with PLC software upgradation		6.00
8	LVS upgradation of	5.00		Technology obsolesce and upgradation.		5.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	CHP (BARCO made)					
9	CPU card of PLC	10.00	25 (2) (a)	To procured as critical spare	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
	Total amount	**263.00**				**253.00**
E	**Condition Monitoring Cell**					
1	Ultra-Probe	15.00	76 & 77	Bearing condition, pump cavitation, Leakages from valves etc. detection.	The Petitioner has not provided any justification for seeking invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations. The claim of the Petitioner is **not allowed**.	0.00
	Total amount	**15.00**				**0.00**
F	**IT & Communication.**					
1	Procurement of Desktop Computers	15.00	25 (2) (c)	To replace old computers. Computers with updated operating systems are essential to ensure protection against cyber threat. This purchase follows the directives of the Ministry of Power, GOI dt. 12.4.2010 and dt. 2.8.2017 regarding steps to be taken to prevent cyber-attacks.	The item claimed **is allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations, for safe operation of the plant.	15.00
2	Procurement of LaserJet Printer (B/W)	5.00	25 (2) (c)	To replace old printers	As the expenditure on the item claimed is in the nature of O&M	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					expenses, the claim is not **allowed.**	
	Total amount	**20.00**				**15.00**
G	**Boiler & Auxiliaries**					
1	Mill Gear Box for Bowl Mill XRP-1003	275.00	25 (2) (a)	Pool spare.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
	Total amount	**275.00**				**0.00**
H	**Electrical -II**					
1	DG control console	9.00	25 (2) (a)	Local control console consists of PCC2000 cards. Cards became obsolete, needed to be replaced in phased manner.	As the expenditure on the item claimed is in the nature of O&M expenses, the claim is not **allowed.**	0.00
2	Station Transformer, 90MVA, Make-BHEL	621.00		As pool spare for 500MW units of DVC.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos.2 to 6) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
3	DAVR Electronics cards, Make-BHEL	35.00		Critical cards of DAVR.		0.00
4	HVR Transformer, 90KVA	15.00		HVR transformer for ESP. No spare transformer available.		0.00
5	Geared Motor CERM/EERM	5.00	25 (2) (a)	Geared motor for rapping system of ESP.		0.00
6	Complete Isolator assembly 400KV	11.00		To maintain minimum inventory.		0.00
	Total amount	**696.00**				**0.00**
	Total amount claimed	**1851.19**				

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Total amount allowed					**268.00**
2023-24						
A	**AHP Maintenance**					
1	Knife Gate Valve, Size - 300 NB, Make SISTAG	16.50	25 (2) (a) 25 (2) (a)	Eight nos. of 300NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly ash evacuation system.	As the expenditure on the item claimed is in the nature of O&M expenses, the claims (@ sl nos. 1 to 3) are **not allowed.** The de capitalisation of old asset has also been ignored for the purpose of tariff.	0.00
2	Knife Gate Valve, Size - 400 NB, Make SISTAG	33.94		Twelve nos. of 400NB KGV valves are installed in dry ash conveying line which handle erosive nature of dry fly ash. Since these valves are being operated frequently due to which wear and tears takes place so Its average life is approx. one year. It has been observed that these valves need replacement in One year. Therefore, it is felt essential to procure 4 nos. of valves in each of the financial year for smooth functioning and improvement in performance of dry fly		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				ash evacuation system.		
3	Knife Gate Valve, Make, Size -450 NB, Make SISTAG	25.00	25 (2) (a)	20 (twenty) nos. of valves are installed in wet ash slurry line which handle highly erosive slurry ash. The average life of these valve is approx. 4-5 year. Therefore, it will be prudent to procure 2 nos. valves in each financial year for replacement to improve the reliability of Ash disposal slurry system.		0.00
4	Complete Assembly of Eco-Booster Pump	2.12		Four nos. of pumps are installed to supply the water in economiser flushing apparatus so that ash from economiser hoppers can be evacuated smoothly in wet mode. Complete assembly of pump is required as modular assembly to meet up requirement during breakdown or overhauling to reduce the duration of unavailability of equipment.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl nos.4 to 16) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
5	Door of Feed Gate Assembly	14.50		There are 8 nos. of feed gate in Bottom Ash Hopper for both units. Replacement of four nos. of Doors of Feed gate will be needed during the next overhauling of Unit # 2.		0.00
6	Complete Assembly of SS Cladding Vacuum Pump	43.00	25 (2) (a)	16 nos. of vacuum pumps are installed in AHP to evacuate the dry fly ash from ESP. Initially Material of construction of Vacuum pump was CI, so the erosion rate of		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				different components of vacuum pump were quite high, causing smaller useful life span and also required more maintenance works. Two nos. of vacuum pumps with SS cladding were installed two years ago and its performance as well as life span has enhanced by 2-3 times of previous one. Therefore, we have planned to procure 4 nos. of improved version of vacuum pumps in each financial year so that all of the old vacuum pumps of CI material may be replaced with the improved metallurgy for reliability of vacuum system to improve the evacuation of dry fly ash.		
7	Complete Assembly of Drain Pump of Ash Slurry Pump House/ Silo Drain Pump	7.00		Four nos. of pumps are installed to drain out the water from ash slurry pump house and silo sludge sump. These pumps handle highly abrasive slurry of ash and water which cause erosion in the housing and impeller. So, one complete assembly is required as a modular to tackle unforeseen breakdown and reduce the duration of unavailability of the equipment.		0.00
8	Gear box of Ash Slurry Pump	13.95	25 (2) (a)	4 Nos of Gear Box are installed for 4 Ash Slurry Pumps. Considering the Life of 7-8 years. It has been		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
				estimated the requirement		
9	Silo dry ash retractable chute assembly	10.85		4 Nos ash retractable chute are installed for 2 SILOs. Considering the Life of 7-8 months. It has been estimated the requirement		0.00
10	Impeller 2nd Stage (LH) for BAHP Water Pump	3.10		Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated		0.00
11	Impeller 2nd Stage (RH) for BAHP Water Pump	3.16		Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated		0.00
12	Impeller for FAHP Water Pump	2.55		Considering the quality of effluent, the impeller is prone to be damaged and accordingly, requirement have been estimated		0.00
13	Impeller, EQP-HMDC Water Pump	1.25		Considering the quality of effluent, the impeller is prone to be damaged and accordingly requirement have been estimated		0.00
14	450 NB Manually Operated Plate Valve, EQP-Valves & Fittings	10.35		Considering the life of plate valves and extension of Ash Ponds, Requirements have been estimated		0.00
15	200 NB Knife Edge Gate Valve (Manual Optd.)	3.72	25 (2) (a)	Considering the Life of Valves operating the Dry Fly Ash, the requirement has been estimated		0.00
16	300 NB Cyl. Optd. Knife Edge Gate Valve	3.40		Considering the Life of Valves operating the Dry Fly Ash, the requirement has been estimated		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	Total amount	**194.39**				**0.00**
B	**Coal Handling Plant**					
1	Complete Gear Box, Model No.: KCN 500, Make-M/s Elecon	116.00	25 (2) (a)	Stock position is nil. Since, it is installed in Con. # 1A/1B & 4A/4B, which are the vital equipment's of CHP, hence 01 no. has to be kept in stock to cater the emergency situation. Moreover, it is identified as Critical Item by OS&U.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
	Total amount	**116.00**				**0.00**
C	**TG & Auxiliaries**					
1	Complete HPT fully bladed rotor assembly compatible for 500 MW KWU Units installed at Mejia TPS, DSTPS Andal, Koderma TPS and BTPS, DVC, make M/s BHEL	1380.00	25 (2) (a)	For maintaining the minimum level of defined inventory already identified as assigned pool spares for KTPS.10% of the total value is kept in 2021-22for advance payment and 90% with taxes in 2023-24	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@ sl nos.1 to 3) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Steam line bellows/ compensators	55.00		As per insurance spares/critical spares list some of the items are kept for procurement in 20-21 and accordingly10% of the total value is kept in 2020-21for advance payment and 90% with taxes in 2021-22. For balance items as per the list amount is kept in 2022-23 & 2023-24		0.00
3	Pump casing assembly of Booster Pump	115.00	25 (2) (a)	01 set is required to be kept in hand to meet any exigency. 10% of the total value is kept		0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
	for Boiler feed pump			in FY 2022-23 for advance payment and 90% with taxes in FY 2023-24		
	Total amount	**1550.00**				**0.00**
D	**C&I system**					
1	Other Assets (Complete assembly - Furnace CCTV & Drone camera)	24.00	76 & 77	New procurement as per CISF for Drone Camera	The expenditure claimed is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations, with a direction to furnish documentary evidence of CISF directions, at the time of truing up of tariff.	24.00
2	Gravimetric feeder panel (upgradation)	24.00	25 (2) (c)	Technology obsolescence and upgradation	As the expenditure claimed are for replacement of asset within the original scope, due to obsolescence, the claims of the Petitioner (@ sl no. 2 and 3) are **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be furnished at the time of truing up of tariff.	24.00
3	SWAS	20.00		Technology obsolescence and upgradation		20.00
4	CEMS	13.00	76 & 77	For emission quality monitoring	Considering the nature of the item, the additional capital expenditure **is allowed** under Regulation 25 (1)(b) of 2019 Tariff Regulations	13.00
5	BHEL Feed Panel Modules	25.00	25 (2) (c)	Upgradation	As the expenditures claimed are for replacement of asset within the original scope, due to obsolescence, the claims of the Petitioner (@ sl. no. 5 to 9) **are allowed** under Regulation 25(2)(c) of	25.00
6	VMS and TSI Cards, Sensors & TSI Analysis System	200.00		Technology obsolescence and upgradation		200.00
7	Upgradation of HPBP System	100.00	25 (2) (a)	Old system. Need proportional valve for trouble-free operation.		100.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
8	LPBP Proportional Valve	30.00	25 (2) (c)	Technology obsolescence and upgradation	2019 Tariff Regulations. However, the OEM certificate for obsolescence shall be submitted by the Petitioner at the time of truing up of tariff.	30.00
9	upgradation of Schneider plc of FWS	40.00		Schneider make PLC system and the network topology equipped is declared obsolete by the OEM requires upgradation.		40.00
	Total amount	**476.00**				**476.00**
E	**Electrical-I**					
1	Procurement of LT Motors for AHP & CAC Plant	20.00	25 (2) (a)	Motors of Various ratings for OPH (Electricals)	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Procurement of Breakers (HT/LT) & Numerical Relay	25.00		Replacement of Old Existing switchgear & Battery Bank	As the expenditure on the item claimed is in the nature of O&M expenses, the claim is **not allowed.**	0.00
3	Battery Bank	50.00		Replacement of Old Existing switchgear & Battery Bank	The items claimed is in the nature of O&M expenses. Normally it is expected that battery banks are maintained by utilizing the normative O&M expenses allowed to the generating station. Accordingly, the claims of the Petitioner (@ sl. no. 3 and 4) are **not allowed.**	0.00
4	Procurement of CT & PT and other accessories	15.00		Replacement of Old Existing switchgear & Battery Bank		0.00
5	Power/Distribution Transformer	30.00	25 (2) (a)	Replacement of Old transformer & Actuator	The item claimed is **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations, along	30.00

Sl. No	Asset/Work	Amount claimed	Regula tion	Petitioner submissions	Remarks for admissibility	Amount allowed
					with de capitalisation of old asset	
6	Actuators	10.00		Replacement of Old transformer & Actuator	As the expenditure on the item claimed is in the nature of O&M expenses, the claim of the Petitioner is **not allowed.**	0.00
	Total amount	**150.00**				**30.00**
F	**IT & Communication.**					
1	Procurement of Desktop Computers	15.00	25 (2) (c)	To replace old computers. Computers with updated operating systems are essential to ensure protection against cyber threat. This purchase is in compliance with the directives of the Ministry of Power, GOI dt. 12.04.2010 and dt. 02.08.2017 regarding steps to be taken to prevent cyber-attacks.	The item claimed **is allowed** under Regulation 26(1)(d) of the 2019 Tariff regulations for safe operation of plant.	15.00
2	Procurement of LaserJet Printer (B/W)	5.00		To replace old printers	The items claimed is of the nature of O&M expenditure, thus **not allowed.**	0.00
	Total amount	**20.00**				**15.00**
G	**Boiler & Aux.**					
1	Hydraulic Jack	10.00	76 & 77	critical Tools & plant.	No justification has been furnished by the Petitioner for invocation of Regulation 76 & Regulation 77 of the 2019 Tariff Regulations, for allowing additional asset over and above the original scope of work. Hence, the claim of the Petitioner is **not allowed**. However, the same may be claimed at the time of truing up after proper justification.	0.00
2	Heavy fuel oil pump	15.00	25 (2) (a)	critical spare.	Since capitalization of spares/spare assets	0.00

Sl. No	Asset/Work	Amount claimed	Regulation	Petitioner submissions	Remarks for admissibility	Amount allowed
					are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claim of the Petitioner is **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	
	Total	**25.00**				**0.00**
H	**Electrical -II**					
1	Motor Protection Relay SEL - 710	6.80	25 (2) (a)	No spare relays available.	Since capitalization of spares/spare assets are not allowed after cut-off date in terms of Regulation 25 (2) (a) of the 2019 Tariff Regulations, the claims of the Petitioner (@sl nos.1 to 3) are **not allowed**. The Petitioner is at liberty to claim the spares of capital nature not covered by normative O&M expenses as capital spare consumed, as and when actually put into service.	0.00
2	Geared Motor CERM/EERM	5.00		Geared motor for rapping system of ESP.		0.00
3	Complete 400KV Circuit breaker assembly	30.00		To maintain minimum inventory.		0.00
	Total amount	**41.80**				**0.00**
	Total amount claimed	**2573.19**				
	Total amount allowed					**521.00**
	Total Gross amount claimed					**27863.60**
	Total Gross amount allowed					**15334.65**

169. Based on the above, the additional capital expenditure allowed for the period 2019-24 is summarised below:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
AHP Maintenance	0.00	0.00	0.00	0.00	0.00	0.00
C&I System	645.00	648.00	206.00	253.00	476.00	2228.00
Electrical-I	0.00	0.00	62.00	0.00	30.00	92.00
IT & Communication	67.00	30.05	15.00	15.00	15.00	142.05
PWS Incl. Fire Protection	0.00	0.00	0.00	0.00	0.00	0.00
Boiler & Auxiliaries.	0.00	0.00	0.00	0.00	0.00	0.00
Electrical -II	0.00	0.00	0.00	0.00	0.00	0.00
Coal Handling Plant	0.00	0.00	0.00	0.00	0.00	0.00
TG & Auxiliaries	0.00	0.00	0.00	0.00	0.00	0.00
Ash Pond	0.00	1582.30	1582.30	0.00	0.00	3164.60
R&R Compensation	3236.00	3236.00	3236.00	0.00	0.00	9708.00
Condition Monitoring Cell	0.00	0.00	0.00	0.00	0.00	0.00
Total	**3948.00**	**5496.35**	**5101.30**	**268.00**	**521.00**	**15334.65**

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Claimed	4419.64	11304.07	7715.51	1851.19	2573.19	27863.60
Allowed	**3948.00**	**5496.35**	**5101.30**	**268.00**	**521.00**	**15334.65**
Disallowed	471.64	5807.72	2519.21	1568.19	2052.19	12418.95

Discharge of Liabilities

171. The Petitioner has submitted that the entire additional capital expenditure projections submitted in Form-9, are on accrual basis and un-discharged liabilities, if any, will be submitted on actual basis at the time of truing up of tariff. Accordingly, the we have not allowed any discharge of liabilities 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 and also furnish the 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

172. The Petitioner has claimed the total decapitalisation of Rs. 1200.60 lakh as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24	Total
670.30	887.81	621.61	264.11	545.87	**2989.70**

173. After prudence check of the details, the decapitalisation allowed (against allowed additional capital expenditure) is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24	Total
484.70	524.91	201.78	193.27	354.04	**1758.70**

174. Based on the above, the additional capital expenditure allowed for the period 2019-24 is as under:

Additional Capital Expenditure eligible for Normal ROE

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Admitted additions in projected additional capital expenditure (A)	712.00	2202.30	1838.30	241.00	482.00
Less: De-capitalization considered for assets (B)	484.70	500.64	190.07	181.95	343.08
Less: Un-discharged Liabilities (C)	0.00	0.00	0.00	0.00	0.00
Add: Discharges of liabilities (against allowed assets / works) (D)	0.00	0.00	0.00	0.00	0.00
Net projected additional capital expenditure allowed (on cash basis) (E) = (A-B-C+D)	227.3	1701.66	1648.23	59.05	138.92

Additional Capital Expenditure eligible for WAROI ROE

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Admitted additions in projected additional capital expenditure (A)	3236.00	3294.05	3263.00	27.00	39.00
Less: De-capitalization considered for assets (B)	0.00	24.27	11.71	11.32	10.96
Less: Un-discharged Liabilities (C)	0.00	0.00	0.00	0.00	0.00
Add: Discharges of liabilities (against allowed assets / works) (D)	0.00	0.00	0.00	0.00	0.00
Net projected additional capital expenditure allowed (on cash basis) (E) = (A-B-C+D)	3236	3269.78	3251.29	15.68	28.04

Exclusions

175. The Petitioner has not claimed exclusions for the period 2019-24.

Capital cost allowed for the period 2019-24

176. Accordingly, the capital cost allowed in respect of the generating station, for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Capital Cost (A)	550059.48	553522.78	558798.66	563801.09	563960.86
Add: Addition during the year / period (Net of Exclusion not allowed) (B)	3948.00	5496.35	5101.30	268.00	521.00
Less: Decapitalization during the year /period (C)*	484.70	524.91	201.77	193.28	354.03
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
Net Additional capitalization (F) = (B-C-D+E)	3463.30	4971.44	4899.53	74.72	166.97
Closing Capital Cost (G) = (A+F)	553522.78	558494.22	563393.74	563468.46	563635.43
Average Gross Block (H) = (A+G)/2	**551791.13**	**556008.50**	**560943.98**	**563431.10**	**563551.95**

Debt Equity Ratio

177. Regulations 18 and 72 of the 2019 Tariff Regulations provides as follows:

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

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

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

(3) In case of the generating station and the transmission system including communication

system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

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

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

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

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

178. The gross loan and equity amounting to Rs. 445039.40 lakh and Rs. 105020.08 lakh respectively as on 31.3.2019, as determined in this order, for the period 2014-19 above, has been considered as 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 year-wise admitted additional capital expenditure for arriving at the additions to loan and equity during each year of the period 2019-24. Further, for de-capitalisation during the period 2019-24 debt to equity ratio of 82.10%:17.90% as on COD of the generating station has been considered. Accordingly, the details of the debt and equity in respect of the generating station is as follows:

(Rs. in lakh)

	Capital Cost as on 1.4.2019	%	Additional Capital Expenditure for period 2019-24	%	De capitalisation for period 2019-24	%	Capital Cost as on 31.3.2024
Debt	445039.40	80.91%	10734.26	70.00%	1443.94	82.10%	454329.72
Equity	105020.08	19.09%	4600.40	30.00%	314.76	17.90%	109305.71
Total	**550059.48**	**100.00%**	**15334.65**	**100.00%**	**1758.70**	**100.00%**	**563635.43**

Return on Equity

179. 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."*

180. 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."

181. The Objector, DVPCA has submitted that though the Petitioner has considered effective tax rate of 21.5488% for the computation of Return on Equity for the period 2019-24, the same is premature and needs to be claimed under true-up based on actual tax paid in terms of Regulation 31 of the 2019 Tariff Regulations. Regarding the Petitioner's claim with respect to ROE at weighted average rate of interest on actual loan portfolio as per submission in the Form-1(I) of the tariff formats for additional

capitalisation, the Objector, DVPCA has submitted that the Petitioner has neither submitted any details of assets nor any justification for claiming the additional capitalisation after cut-of date and beyond the original scope of work.

182. The Petitioner, in its rejoinder dated 3.6.2021 has submitted and prayed to the Commission to compute ROE without considering the income tax rates for the period 2019-24. However, the Petitioner has craved leave of the Commission to claim the income tax liability, if any, for any year of the period 2019-24 as and when arising in the future. As regards DVPCA's contention, the Petitioner has submitted that details of assets and detailed justifications have already been furnished in Form-9 as part of the petition for determination of tariff for the generating station for the period 2019-24.

183. 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 submissions of the Petitioner above, 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 is worked out and allowed as follows:

(a) Return on Equity at Normal Rate

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Equity - Opening	A	105020.08	105146.93	105718.02	106235.49	106275.22
Normative Equity - Opening	C=(A-B)	126.85	571.09	517.47	39.73	83.20
Addition to Equity due to additional capital expenditure	D	105146.93	105718.02	106235.49	106275.22	106358.42
Normative Equity - Closing	E=(C+D)	105083.50	105432.47	105976.75	106255.36	106316.82
Average Normative Equity	F=Average (C,E)	105020.08	105146.93	105718.02	106235.49	106275.22
Return on Equity (Base Rate) (%)	G	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for the year (%)	H	0.000%	0.000%	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre-Tax) (%)	I=G/(1-H)	15.500%	15.500%	15.500%	15.500%	15.500%
Return on Equity (Pre-Tax) annualized	**J=(FxI)**	**16287.94**	**16342.03**	**16426.40**	**16469.58**	**16479.11**

(b) Return on Equity at WAROI

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Equity - Opening	A	0.00	970.80	1954.67	2931.48	2937.55
Normative Equity - Opening	C=(A-B)	970.80	983.87	976.80	6.07	9.74
Addition to Equity due to additional capital expenditure	D	970.80	1954.67	2931.48	2937.55	2947.29
Normative Equity - Closing	E=(C+D)	485.40	1462.74	2443.07	2934.51	2942.42
Average Normative Equity	F=Average (C,E)	0.00	970.80	1954.67	2931.48	2937.55
Return on Equity (Base Rate) (%)	G	10.032%	10.032%	10.032%	10.032%	10.032%
Tax Rate for the year (%)	H	0.000%	0.000%	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre-Tax) (%)	I=G/(1-H)	10.032%	10.032%	10.032%	10.032%	10.032%
Return on Equity (Pre-Tax) annualized	**J=(FxI)**	**48.70**	**146.74**	**245.09**	**294.39**	**295.18**

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	16287.94	16342.03	16426.40	16469.58	16479.11
Return on Equity at WAROI	B	48.70	146.74	245.09	294.39	295.18
Total Return on Equity allowed	**C=(A+B)**	**16336.64**	**16488.77**	**16671.49**	**16763.97**	**16774.29**

Interest on Loan

184. 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 upto the date of de-capitalisation of such asset.

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

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

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

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

(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."

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

a. Gross normative loan amounting to Rs. 445039.40 lakh on 31.3.2019 as considered for the period 2014-19 in this order, has been considered as on 1.4.2019;

b. Cumulative repayment of Rs. 181028.47 lakh as on 31.3.2019 as considered for the period 2014-19 in this order, has been considered as on 1.4.2019;

c. Accordingly, the net normative opening loan as on 1.4.2019 works out to Rs. 264010.93 lakh;

d. Weighted average rate of interest on loan, as claimed by the Petitioner has been considered;

e. The repayments 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;

f. Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

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

(Rs. in lakh)

		2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross opening loan	A	445039.40	447405.05	450821.53	454226.78	454255.69
Cumulative repayment of loan upto previous year	B	181028.47	216437.34	252067.33	288137.13	324357.94

		2019-20	2020-21	2021-22	2022-23	2023-24
Net Loan Opening	C=(A-B)	264010.93	230967.70	198754.20	166089.64	129897.75
Addition due to additional capital expenditure	D	2365.65	3416.48	3405.25	28.91	74.03
Repayment of loan during the year	E	35578.52	35850.45	36168.68	36329.04	36336.83
Repayment adjustment on account of decapitalization	F	169.65	220.46	98.87	108.24	223.04
Ney repayment of the loan during the year	G=(E-F)	35408.87	35629.98	36069.81	36220.81	36113.79
Net Loan Closing	H=(C+D-G)	230967.70	198754.20	166089.64	129897.75	93857.99
Average Loan	I=Average (C,H)	247489.32	214860.95	182421.92	147993.70	111877.87
Weighted Average Rate of Interest of loan	J	10.03%	10.03%	10.03%	10.03%	10.03%
Interest on Loan	**K=(IxJ)**	**24827.00**	**21553.87**	**18299.74**	**14846.05**	**11223.08**

Depreciation

187. 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.
xxx

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:
……
(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."*

188. Depreciation has been worked out considering the admitted capital cost of Rs. 550059.48 lakh as on 1.4.2019 and the cumulative depreciation of Rs. 181028.47 lakh as on 31.3.2019, as determined for the period 2014-19' in this order. Accordingly, in terms of Regulation 33 read with Regulation 72 (2) (iii) of the 2019 Tariff Regulations, depreciation is worked out and allowed as under:

(Rs. in lakh)

		2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Capital Cost	A	550059.48	553522.78	558494.22	563393.74	563468.46

Add: Net Additional Capital Expenditure	B	3463.30	4971.44	4899.53	74.72	166.97
Closing Capital Cost	(C) = (A+B)	553522.78	558494.22	563393.74	563468.46	563635.43
Average Capital Cost	D=(A+C)/2	551791.13	556008.50	560943.98	563431.10	563551.95
Value of freehold land	E	84149.55	84149.55	84149.55	84149.55	84149.55
Value of software and IT equipment included in average capital cost	F	0.00	0.00	0.00	0.00	0.00
Aggregated Depreciable Value	G= [(D-E)x90%]	420877.42	424673.06	429114.99	431353.40	431462.16
Remaining Aggregate Depreciable value at the beginning of the year	H=[(G)-(Cumulative Depreciation of Previous year)]	239848.95	208235.71	177047.66	143216.27	107104.22
No. of completed years at the beginning of the year	I	5.25	6.25	7.25	8.25	9.25
Balance useful life at the beginning of the year	J	19.75	18.75	17.75	16.75	15.75
Weighted Average Rate of Depreciation (WAROD)	K	**6.4478%**	**6.4478%**	**6.4478%**	**6.4478%**	**6.4478%**
Depreciation (annualized)	L = [Min (H, D*K)]	35578.52	35850.45	36168.68	36329.04	36336.83
Cumulative depreciation (at the end of the year)	M= [(Cumulative Depreciation of Previous year)+(L)]	216606.99	252287.79	288236.00	324466.18	360694.77
Less: Depreciation adjustment on account of de-capitalisation	N	169.65	220.46	98.87	108.24	223.04
Cumulative depreciation at the end of the year	O=(M-N)	216437.34	252067.33	288137.13	324357.94	360471.73

Operation & Maintenance Expenses

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

(Rs. Lakh/MW)

2019-20	2020-21	2021-22	2022-23	2023-24
22.51	23.30	24.12	24.97	25.84

190. The Normative O&M expenses claimed by the Petitioner are as follows:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
22510.00	23300.00	24120.00	24970.00	25840.00

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

Water Charges,

192. Regulation 35(1)(6) of the 2019 Tariff Regulations provides as follows:

> *"35(1)(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;*
>
> *xxxxxxxx."*

193. 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 m^3/MWh, generation as per NAPAF and claimed as follows:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
2780.49	3050.18	3355.20	3690.72	4070.91

194. The Objector, 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 control period 2014-19. Accordingly, the Objector has worked out the weighted average water charge rate Rs. 5.68/KL. As against this, 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. The Objector has stated that the Petitioner did not furnish the relevant Office Memorandum dated 23.7.2019. The Objector has also submitted that the increase sought is more than 85% which is certainly unreasonable and arbitrary and requested the Commission to conduct a strict prudence check on arriving at the allowable water charge rate, such that, it is comparable with the rates prevailing in other States, derived at arms' length and there

should be no cross-subsidisation of other activities of the Petitioner. The Objector has added that the arbitrary escalation of 10% ought to be rejected as there is neither any basis for the same nor provided in 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 Office Memorandum dated 23.7.2019.

195. The matter has been considered. In view of the above, and considering the MOEF&CC norms, 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, based on actual consumption:

	Units	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Projected Gross Generation @ 85% load factor	MU	7466.40	7446.00	7446.00	7446.00	7466.40
Normative Specific Water Consumption as per MoEFCC stipulations	Cubic Meter/MWh	3.50	3.50	3.50	3.50	3.50
Normative Water Consumption as per MoEFCC's Norms	Cubic Meter	26132400	26061000	26061000	26061000	26132400
Rate of Water Charges based on 2018-19 approved rates	Rs. / Cubic Meter	10.64	11.70	12.87	14.16	15.58
Total Normative Water Charges	**(Rs. lakh)**	**2780.49**	**3050.18**	**3355.20**	**3690.72**	**4070.91**

196. The Petitioner is however, directed to submit detailed justification for the high rate of the water charges along with comparison in rate from alternative sources at the time of truing-up of tariff.

Security Expenses

197. 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(6) of the 2019

Tariff Regulations.

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
3163.42	3315.60	3475.09	3642.26	3817.48

198. It is observed that the Petitioner has escalated the actual Security expenses for the year 2018-19 at the rate of 4.81% per annum to project the security expenses figures for the period 2019-24. The Petitioner has also submitted that escalation of Security expenses has been proposed to accommodate the year-on-year growth of salary expenditures and associated CISF activities that are primarily governed by the CISF Rules.

199. The Objector, DVPCA has submitted that there is no requirement for separate allowance of CISF security expenses as they are covered under normative O&M expenses and separate allowance of same would lead to unjust enrichment of the Petitioner. The Objector has also submitted that the security expense claims of DVC are premature, without any detailed justifications and rationale and cannot be allowed at this stage. In response, the Petitioner has submitted that the actual Security expense for 2018-19 has been escalated at 4.81% (which is the CAGR of Normative O&M Expenses of the generating station from for the period from 2018-19 to 2023-24) per annum to obtain the projected figures for period 2019-24. The Petitioner has further submitted that escalation of Security expenses has been proposed to accommodate the year-on-year growth of salary expenditures and associated CISF activities that are primarily governed by the CISF Rules.

200. The matter has been considered. It is noticed that the 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. Accordingly, the Security expenses as claimed by the Petitioner are allowed, subject to truing up, as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
3163.42	3315.60	3475.09	3642.26	3817.48

Capital spares

201. The Petitioner has not projected any capital spares for the period 2019-24, but has submitted that the same shall be claimed at the time of truing up of tariff, on actual basis. In view of this, liberty has been granted to the Petitioner. The Petitioner shall also substantiate that the capital spares are 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 during the true-up.

202. Based on the above discussion, the O&M expenses allowed under Regulation 35(1)(1) of the 2019 Tariff Regulations and Water Charges, Security Expenses and Capital Spares allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations is summarised as under:

(Rs. in lakh)

		2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Installed Capacity (MW)		1000.00	1000.00	1000.00	1000.00	1000.00
O&M Expenses under Regulation 35(1) in Rs lakh / MW		22.51	23.30	24.12	24.97	25.84
Total O&M Expenses (A)	Claimed	22510.00	23300.00	24120.00	24970.00	25840.00
	Allowed	**22510.00**	**23300.00**	**24120.00**	**24970.00**	**25840.00**
Water Charges (B)	Claimed	2780.49	3050.18	3355.20	3690.72	4070.91
	Allowed	**2780.49**	**3050.18**	**3355.20**	**3690.72**	**4070.91**
Security Expenses (C)	Claimed	3163.42	3315.60	3475.09	3642.26	3817.48
	Allowed	**3163.42**	**3315.60**	**3475.09**	**3642.26**	**3817.48**
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**
	Claimed	28453.91	29665.78	30950.29	32302.98	33728.39

		2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses as allowed (including Water Charges and Security Expenses) (D=A+B+C)	**Allowed**	**28453.91**	**29665.78**	**30950.29**	**32302.98**	**33728.39**

Operational Norms

203. Regulation 49 of the 2019 Tariff Regulations providing for operational norms for the generating station are as follows:

> ***"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:***
>
> xxx
>
> ***(b) Thermal Generating Stations achieving COD on or after 1.4.2009:***
>
> *(i) For Coal-based and lignite-fired Thermal Generating Stations:*
> *1.05 X Design Heat Rate (kCal/kWh)*
>
> *Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.*
>
> *Provided that the design heat rate shall not exceed the following maximum design, unit heat rates depending upon the pressure and temperature ratings of the units:*

Pressure Rating (Kg/cm2)	*150*	*170*	*170*
SHT/RHT (^{0}C)	*535/535*	*537/537*	*537/565*
Type of BFP	*Electrical Driven*	*Turbine Driven*	*Turbine Driven*
Max Turbine Heat Rate (kCal/kWh)	*1955*	*1950*	*1935*
Min. Boiler Efficiency			
Sub-Bituminous Indian Coal	*0.86*	*0.86*	*0.86*
Bituminous Imported Coal	*0.89*	*0.89*	*0.89*
Max. Design Heat Rate (kCal/kWh)			
Sub-Bituminous Indian Coal	*2273*	*2267*	*2250*
Bituminous Imported Coal	*2197*	*2191*	*2174*

> ***(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%*

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

Parameter	Value
Normative Annual Plant Availability Factor (NAPAF) (%)	85.00
Gross Station Heat Rate (kcal/kwh)	2374.10
Auxiliary Power Consumption (%)	5.75
Specific Oil Consumption (ml/kwh)	0.50

205. It is observed that the Petitioner has submitted that the generating station is of 500 MW units with induced draft and tube type coal mills. Since the operational norms claimed are in line with the aforesaid regulations, the same are allowed.

Interest on Working Capital

206. The Petitioner has claimed the weighted average GCV and Cost of coal as 4071.78 kCal / kg and Rs. 3453.13/kg, respectively, and those of Secondary oil as 10399.01 kCal/Lit and Rs. 42951.32/Kl Accordingly, Interest on working capital as claimed by the Petitioner is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Coal/Lignite for Stock and Generation (A)	20833.11	20776.19	20776.19	20776.19	20833.11
Cost of oil for 2 months (B)	267.24	266.51	266.51	266.51	267.24
O&M expenses - 1 month (C)	2371.16	2472.15	2579.19	2691.92	2810.70
Maintenance Spares - 20% of O&M (D)	5690.78	5933.16	6190.06	6460.60	6745.68
Receivables – 45 days (E)	34835.77	34749.36	34765.46	34676.67	34594.48

	2019-20	2020-21	2021-22	2022-23	2023-24
Total Working Capital (F) = (A+B+C+D+E)	**63998.06**	**64197.37**	**64577.42**	**64871.89**	**65251.22**
Rate of Interest (G)	12.05%	12.05%	12.05%	12.05%	12.05%
Total Interest on Working capital (H) = (F)x(G)	**7711.77**	**7735.78**	**7781.58**	**7817.06**	**7862.77**

207. Regulation 34(1)(a) of the 2019 Tariff Regulations provide 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."*

208. 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."*

Fuel Cost and Cost of Liquid Stock for Working Capital

209. The Petitioner has claimed the following 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 of October 2018 to December 2018, as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of coal for 50 Days	21988.11	20833.11	20776.19	20776.19	20776.19
Cost of Secondary fuel oil 2 months	267.24	266.51	266.51	266.51	267.24

210. 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. 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 x CVSF) x LPPF / CVPF+SFC x LPSFi + LC x LPL} x 100 / (100 – AUX)*
>
> ***(b) For gas and liquid fuel based stations:***
> *ECR = SHR x LPPF x 100 / {(CVPF) x (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."*

211. 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 for computation of IWC. Accordingly, the fuel components of working capital have been worked out and allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of coal for stock - 20 Days of generation at NAPAF	8371.39	8371.39	8371.39	8371.39	8371.39
Cost of coal for generation for 30 days at NAPAF	12557.09	12557.09	12557.09	12557.09	12557.09
Cost of Secondary fuel oil 2 months of generation at NAPAF	267.24	266.51	266.51	266.51	267.24

212. 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 the year 2018-19. However, Regulation 34(C)(2) provides that the cost of fuel shall be based on the landed fuel cost (considering normative transit and handling losses, in terms of Regulation 39 of these Regulations) by 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 subject to the truing-up, based on the actual data to be furnished by Petitioner, for each year, at the time of truing-up of tariff.

Energy Charges for 45 days for Working Capital

213. The Petitioner has claimed Energy Charge Rate (ECR) of Paisa 215.433/kWh based on the weighted average price and GCV of coal as received, during the preceding three months i.e., October 2018, November 2018 and December 2018.

214. However, based on the operational norms and the price and GCV of the oil and price and GCV of coal [after adjusting margin of 85 kCal/kg allowable as per Regulation 43(2)(b) of the 2019 Tariff Regulations], received at the generating station during the stipulated three months i.e., October 2018, November 2018 and December 2018 the

ECR, for the purpose of working capital, has been worked out and allowed for the period 2019-24, as under:

Gross Station Heat Rate (kcal/kwh)	2374.10
Auxiliary Power Consumption (%)	5.75
Specific Oil Consumption (ml/kwh)	0.50
Weighted average price of coal (Rs./MT)	3453.13
Weighted average GCV of coal (kCal/kg)	3986.78*
Weighted average price of oil (Rs./kl)	42951.32
Weighted average GCV of oil (kCal/l)	10399.01
Total Energy Charge Rate ex-bus (Ex-bus) (Rs./kWh)	2.200

**after adjustment of 85kcal/kg as per Regulation 43(2)(b)*

215. Energy charges for 45 days, on the basis of weighted average GCV and weighted average cost allowed as above for coal and oil, for the purpose of interest on working capital, has been worked out as under:

(Rs. in lakh)

2019-20	2020-2021	2021-22	2022-23	2023-24
19034.73	19034.73	19034.73	19034.73	19034.73

Working Capital for Maintenance Spares

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

(Rs. in lakh)

2019-20	2020-2021	2021-22	2022-23	2023-24
5690.78	5933.16	6190.06	6460.60	6745.68

217. Since the claim for maintenance spares for the purpose of interest on working capital are in accordance with Regulation 34(1)(b)(iii) of the 2019 Tariff Regulations, the same are allowed.

Working Capital for Receivables

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Variable Charges (45 days)	19034.73	19034.73	19034.73	19034.73	19034.73
Fixed Charges (45 days)	13854.69	13631.16	13394.15	13168.34	12865.71
Total	**32889.42**	**32665.89**	**32428.88**	**32203.07**	**31900.44**

Working Capital for O&M Expenses

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
2371.16	2472.15	2579.19	2691.92	2810.70

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
2371.16	2472.15	2579.19	2691.92	2810.70

Rate of Interest for Working Capital

221. Regulation 34(3) of the 2019 Tariff Regulations provides for the rate of interest on working capital considered on projection basis, for the period 2019-24 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 period 2019-24, is being determined during the year 2023-24, 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 under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for non-pit-head thermal generating station					
Working Capital for Cost of Coal towards Stock – 20 days of generation at NAPAF	8371.39	8371.39	8371.39	8371.39	8371.39
Working Capital for Cost of Coal towards Generation – 30 days of generation at NAPAF	12557.09	12557.09	12557.09	12557.09	12557.09
Working Capital for Cost of Secondary fuel oil – 2 months of generation at NAPAF	267.24	266.51	266.51	266.51	267.24
Working Capital for Maintenance Spares @ 20% of O&M expenses	5690.78	5933.16	6190.06	6460.60	6745.68
Working Capital for Receivables - 45 days of capacity and energy charges at NAPAF	32889.42	32665.89	32428.88	32203.07	31900.44
Working Capital for O&M expenses - 1 month of O& M Expenses	2371.16	2472.15	2579.19	2691.92	2810.70
Total Working Capital (A+B+C+D+E+F)	62147.08	62266.16	62393.08	62550.52	62652.47
Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
Interest on Working capital (G x H)	**7488.72**	**7004.94**	**6551.28**	**6567.81**	**6578.52**

Additional Claims

222. In addition to the Depreciation, Interest on Loan, Return on Equity, O&M Expenses, Water Charges, Security Expenses, Interest on Working Capital, 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, 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)	6628.63	7092.63	7589.12	8120.35	8688.78
Share of P&G	3726.44	3901.61	4085.01	4277.03	4478.08
Share of Common Office Expenditure	196.65	211.05	213.71	183.79	167.53
Expenses due to Ash evacuation, Mega insurance & expenditure for Subsidiary activity	1604.76	1681.95	1762.86	1847.66	1936.55

	2019-20	2020-21	2021-22	2022-23	2023-24
Total	**12156.48**	**12887.24**	**13650.70**	**14428.84**	**15270.94**

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

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

(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)	6628.63	7092.63	7589.12	8120.35	8688.78

224. The Petitioner has allocated sinking fund contribution and interest for DVC Bonds of Rs. 3100 Crore amongst the generating stations of the Petitioner as follows:

(Rs. in Crore)

	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	0.00	0.00	0.00	0.00	0.00
Total	**214.27**	**229.27**	**245.32**	**262.49**	**280.87**

225. The Objector, 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 of 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 DVC's old plants, 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 such cases where normative debt is not allowed for funding capital cost. The objector 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. Accordingly, the Objector has prayed that the Commission may direct the Petitioner to compute the station-wise contribution by making the redemption of bonds station specific. The Objector, 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 Objector 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 Objector has 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 Objector 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. In response, the Petitioner has submitted that though Review Petition No. 4 of 2019 has been filed by the Objector, 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 further submitted that the plea of the Objector may be rejected.

226. 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
6628.63	7092.63	7589.12	8120.35	8688.78

Share of P&G Contribution

227. 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
3726.44	3901.61	4085.01	4277.03	4478.08

228. The Objector, 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 various stations, on Plant capacity basis. The Objector 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. It has further stated that the Petitioner has not furnished any justification for claiming such higher amount in 2019-20. DVPCA has further 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. It 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.

229. 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. This will 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

230. The Petitioner has claimed projected expenditure towards Ash Evacuation, Mega Insurance and share of Subsidiary Activities, as additional O&M expenses as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Ash Evacuation Expenses	1102.42	1155.46	1211.04	1269.30	1330.36
Mega Insurance Expenses	95.56	100.16	104.98	110.03	115.32
Share of Subsidiary activities	406.77	426.34	446.84	468.34	490.87
Total	**1604.76**	**1681.95**	**1762.86**	**1847.66**	**1936.55**

231. The Objector DVPCA 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, which are in the nature of a price-cap. It has further submitted there is no provision in the 2019 Tariff Regulations, which allows the recovery of employee pay revision arrears from the beneficiaries over and above the specified O&M expenses. Thus, the objector has submitted that these expenses ought to be met from the normative O&M expenses allowed to the Petitioner and cannot be allowed separately.

Ash Evacuation Expenses

232. The Petitioner has claimed total expenditure of Rs. 6068.57 lakh (Rs. 1102.42 lakh in 2019-20, Rs. 1155.46 lakh in 2020-21, Rs. 1211.04 lakh in 2021-22, Rs. 1269.30 lakh in 2022-23 and Rs. 1330.36 lakh in 2023-24) in the period 2019-24, 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.

233. The Objector, 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 Objector has stated that there is no rationale to allow such expenses over and above the normative O&M expenses for the period 2019-24.

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

> (i) Thermal power plants w.e.f. 1.4.2022, preferably utilize 100 % ash generated during that year and in no case, utilization shall fall below 80 % in any year subjected to 100 % utilization in a three years cycle. In addition, the unutilized accumulated ash i.e., legacy ash, which is stored before the publication of this notification, shall be utilized 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 utilize 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 unutilized ash and that of users is Rs.1500 per ton of ash for the quantity they fall short off.

235. 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 4.81% thereof. As noted, the ash transportation charges for the generating station in 2018-19, are based on apportioned audited ash transportation charges of Koderma TPS and the same was allowed in 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 this order, in 6 (six) equal instalments commencing from July 2023, in accordance with the Regulation 10 of the 2019 Tariff Regulations and thereafter, the recovery of the same, may be effected through monthly bills. The Petitioner is however, directed to submit all relevant documents in terms of the MoEF&CC notification and the provisions of the 2019 Tariff Regulations, 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 allowed @ 90% of the claimed expenses is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
992.18	1039.91	1089.94	1142.37	1197.32

Mega Insurance Expenses

236. The Petitioner has claimed total amount of Rs. 526.05 lakh (Rs. 95.56 lakh in 2019-20, Rs. 100.16 lakh in 2020-21, Rs. 104.98 lakh in 2021-22, Rs. 110.03 lakh in 2022-23 and Rs. 115.32 lakh in 2023-24) in the period 2019-24, towards Mega Insurance expenses under Regulations 76 and 77 of the 2019 Tariff Regulations.

237. The Objector, 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 period 2014-19, on this issue.

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

Share of Subsidiary Activities

239. The Petitioner has claimed total amount of Rs. 2239.16 lakh (Rs. 406.77 lakh in 2019-20, Rs. 426.34 lakh in 2020-21, Rs. 446.84 lakh in 2021-22, Rs. 468.34 lakh in

2022-23 and Rs. 490.87 lakh in 2023-24) in the period 2019-24, towards Share of Subsidiary Activities under Regulations 76 and 77 of the 2019 Tariff Regulations.

240. The Objector, 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 period 2019-24 under the nomenclature "share of common office expenditures". As such, 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 Objector 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 Objector, has also submitted that it has demonstrated that the actual O&M expenses, including the expenditure on subsidiary activity, for the period 2014-19, 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 the period 2019 – 24 also. In response, the Petitioner has reiterated its submissions in the matter of expenses for subsidiary activities made w.r.t. the replies for the period 2014-19.

241. 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. Since, the amount claimed is small, we are not allowing the share of subsidiary activities at this juncture. However, the Petitioner may at the time of truing-up of tariff for the period 2019-24, furnish the actual audited apportioned

expenditure associated with subsidiary activities for the consideration of the Commission.

Share of Common Office Expenditure

242. 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:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Direction Office	-	-	-	-	-
Subsidiary Activities	-	-	-	-	-
Other Offices	132.00	66.39	222.42	15.52	-
R&D	-	-	-	-	-
IT	960.00	1240.00	-	-	-
Central Office	-	-	-	-	-
Total	**1092.00**	**1306.39**	**222.42**	**15.52**	**-**

243. The head-wise, additional capital expenditure claimed by the Petitioner towards various offices is summarised 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	-
Network Access Controller and Data Centre	960.00	1240.00	-	-	-
Total	**1092.00**	**1306.39**	**222.42**	**15.52**	**-**

244. The Petitioner has computed the ROE, Interest on Loan and Depreciation on the Common Assets for the period 2019-24, 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**	**169.83**	**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**

245. 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 KTPS- 1 & 2	196.65	211.05	213.71	183.79	167.53

246. 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	-	-	-	-
2	10 kV Digital Insulation Tester (CRITM)	17.00	-	-	-	-
3	Relay Test Kit (CRITL)	80.00	-	-	-	-
4	Dielectric Frequency Response Analysis (DFRA) Test Kit (CRITL)	-	36.17	-	-	-

		2019-20	2020-21	2021-22	2022-23	2023-24
5	Flash Point of Transformer Oil Measurement Kit (CRITL)	-	4.70	-	-	-
6	3-Phase Portable Power Source (CRITM)	-	21.00	21.00	-	-
7	Laptop (CRITM)	-	4.52	4.52	-	-
8	Fully Automatic Three Phase Transformer Test Kit (CRITM)	-	-	75.58	-	-
9	Swift Frequency Response Analysis (SFRA) Test Kit (CRITL)	-	-	21.72	-	-
10	Furan Test Kit (CRITL)	-	-	60.00	-	-
11	3-Phase Portable Reference Standard Meter (0.02 Class) (CRITM)	-	-	39.60	-	-
12	Line Impedance Measurement Kit	-	-	-	15.52	-
13	Network Access Controller, Next Generation Firewall (NGFW) and Networking Switches	160.00	40.00	-	-	-
14	Data Centre (Hardware & Licenses)	800.00	1200.00	-	-	-
	Total	**1092.00**	**1306.39**	**222.42**	**15.52**	**-**

247. 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.

248. 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.

249. Based on the above, the total additional capital expenditure allowed under Common Office expenses for the period 2019-24 is summarised 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	960.00	1240.00	0.00	0.00	0.00
Total	**1092.00**	**1306.39**	**222.42**	**15.52**	**0.00**

250. It is observed 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.

251. 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 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 are 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**

252. As regards the common office expenditure for the generating station, it is further observed that the Commission vide Order dated 28.2.2017 in Petition No. 296/GT/2015 has stated as follows:

"98. The petitioner has claimed the projected expenditure of `208.76 lakh in 2014-15, `194.64 lakh in 2015-16, `248.00 lakh in 2016-17, `363.90 lakh in 2017-18 and `412.33 lakh in 2018-19 and has apportioned the same towards Common Office Expenditure which includes expenditure on Direction Office, Central Office, Other Offices, subsidiary activities, IT and R&D. The apportioned amount of share of Common Office expenditure includes Return on equity, Depreciation and Interest on loan on the Common assets. The generating station is a new 1000 MW capacity station and the normative O&M expense norm specified under the 2014 Tariff Regulations, includes Corporate Office expenses. Also the Corporate Office expenses include depreciation and interest on loan. As per Regulation 53 of 2014Tariff Regulations relating to the generating station of the petitioner and as per Order of the Appellate Tribunal of Electricity (Tribunal) dated 27.11.2007 in Appeal no 273/2006, the Common Office expenditure are to be allowed for the purpose of determination of tariff. The petitioner has furnished the details of total

„Office Expenditure" in respect of the generating stations and T&D systems are as under:
xxx
The Commission has considered the O&M norms for this generating station as specified for 500 MW units including the expenditure for Common Offices in respect of Depreciation and Interest on loan. Accordingly, Return on equity has been allowed as part of the share of Common office expenses and annual fixed charges for the generating station as under:
xxx
Based on this, the amount allowed towards Return on equity element for allocation to this generating station under the head of cost of Common Offices Expenditure is as under:

2014-15	*2015-16*	*2016-17*	*2017-18*	*2018-19*
68.84	*73.59*	*91.43*	*122.40*	*138.91*

253. Since the Commission has considered the O&M norms for this generating station as specified for 500 MW units, including the expenditure for Common Offices in respect of depreciation and interest on loan, only ROE has been allowed, as computed in the above table. Accordingly, the share of Common office expense computed for the generating station is as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Total Common Office Expenditure for generating stations (A)	981.93	965.06	958.12	957.47	874.16
Total Common Office Expenditure for T&D (B)	84.69	83.23	82.63	82.58	75.39
Total Common Office Expenditure for generating stations and T&D C=(A+B)	1066.62	1048.29	1040.75	1040.05	949.55
Total Depreciation for generating stations and T&D (D)	458.06	357.82	300.14	310.67	232.58
Total Interest on loan for generating stations and T&D (E)	91.10	136.51	163.38	148.52	135.87
Total ROE on for generating stations and T&D (F)	517.46	553.96	577.23	580.86	581.10
Total of Depreciation, Interest on Loan and ROE of Generating Station and T&D (G)	1066.62	1048.29	1040.75	1040.05	949.55
Return on equity corresponding to the generating stations only (A/C) *F (H)	476.38	509.98	531.40	534.74	534.96
Apportionment of the common office expenditure as claimed to KTPS 1 & 2 including depreciation, interest on loan and ROE. (I)	135.68	133.35	132.39	132.30	120.79
Apportioned amount of "ROE" only corresponding to the generating station (I/A)xH (J)	65.82	70.47	73.43	73.89	73.92

(Rs. in lakh)

Common Office Expenses	2019-20	2020-21	2021-22	2022-23	2023-24
KTPS (1&2)-(*this generating station)*	65.82	70.47	73.43	73.89	73.92

Annual Fixed Charges approved for the period 2019-24

254. Based on the above discussion, the annual fixed charges approved for the generating station for the period 2019-24 is summarized below:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	35578.52	35850.45	36168.68	36329.04	36336.83
Interest on loan	24827.00	21553.87	18299.74	14846.05	11223.08
Return on Equity	16336.64	16488.77	16671.49	16763.97	16774.29
Interest on Working Capital	7488.72	7004.94	6551.28	6567.81	6578.52
O&M Expenses	22510.00	23300.00	24120.00	24970.00	25840.00
Water Charges	2780.49	3050.18	3355.20	3690.72	4070.91
Security Expenses	3163.42	3315.60	3475.09	3642.26	3817.48
Sub-total (A)	**112684.79**	**110563.81**	**108641.47**	**106809.86**	**104641.11**
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	6628.63	7092.63	7589.12	8120.35	8688.78
Share of P&G contribution	0.00	0.00	0.00	0.00	0.00
Share of Common Office Expenditure	65.82	70.47	73.43	73.89	73.92
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)	**6694.45**	**7163.10**	**7662.54**	**8194.24**	**8762.70**
Total Annual Fixed Charges allowed	**119379.24**	**117726.91**	**116304.01**	**115004.10**	**113403.80**

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.

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

(Rs in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
992.18	1039.91	1089.94	1142.37	1197.32

256. 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

257. The Petitioner has sought the reimbursement of filing fee paid by it for filing the tariff petition for the period 2019-24 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.

258. 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.

259. Petition No. 564/GT/2020 is disposed of in terms of the above.

Sd/-	***Sd/-***	***Sd/-***
(Pravas Kumar Singh)	**(Arun Goyal)**	**(I.S. Jha)**
Member	**Member**	**Member**