CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 569/GT/2020

Coram:

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

Date of Order: **10th July, 2023**

In the matter of

Petition for truing up of tariff for the period 2014-19 in respect of Bokaro Thermal Power Station, Units 1, 2 & 3 (630 MW) and for determination of tariff for the period 2019-24 in respect of Bokaro Thermal Power Station, Unit No. 3 (210 MW).

And

In the matter of

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

Vs

1. West Bengal State Electricity Distribution Company Limited,
   Block 'DJ' Sector-11, Salt Lake City,
   Kolkata-700 091

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

3. Damodar Valley Power Consumers Assocaition,
   9, AJC Bose Road, 4th Floor, Kolkata-700017 **...Objector**

Parties Present:

Shri M.G.Ramachandran, Senior Advocate, DVC
Ms. Anushree Bardhan, Advocate, DVC
Ms. Surbhi Kapoor, Advocate, DVC
Shri Samit Mandal, DVC
Shri Rajiv Yadav, Advocate, DVPCA, Objector
Shri Awanit Kumar Singh

ORDER

This petition has been filed by the Petitioner, Damodar Valley Corporation for truing-up of tariff of Bokaro TPS, Unit Nos. 1 to 3 (630 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 Unit No. 3 (210 MW) of the generating station, for the period 2019-24, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations').

2. The Petitioner is a statutory body established by the Central Government under the Damodar Valley Corporation Act, 1948 (hereinafter referred to as the 'DVC Act') for the development of the Damodar Valley, with three participating Governments, namely, the Central Government, the Government of West Bengal and the Government of Jharkhand. The generating station is a non-pit head station, with an installed capacity of 630 MW, comprising of three units of 210 MW each. The dates of commercial operation of the units of the generating station are as under:

	Actual COD
Unit-I	March, 1986
Unit-II	November, 1990
Unit-III	August, 1993

Background

3. Petition No. 66/2005 was filed by the Petitioner for approval of the revenue requirements and for determining the tariff for electricity related activities, that is, the generation, transmission and distribution of electricity, undertaken by it for the period from 1.4.2004 to 31.3.2009. The Commission by its order dated 3.10.2006 determined

tariff in respect of the generating stations and inter-state transmission systems of the Petitioner, after allowing a special dispensation to the Petitioner to continue with the prevailing tariff till 31.3.2006. Against the Commission's order dated 3.10.2006, the Petitioner filed Appeal No. 273/2006 before the Appellate Tribunal for Electricity (hereinafter referred to as 'APTEL') on various issues. Similarly, appeals were also filed before APTEL by some of the objectors/ consumers, namely, Maithon Alloys Ltd. and others (Appeal No. 271/2006), Bhaskhar Shrachi Alloys Ltd. and others (Appeal No. 272/2006), State of Jharkhand (Appeal No. 275/2006) and the West Bengal State Electricity Regulatory Commission (Appeal No. 8/2007) challenging the order of the Commission dated 3.10.2006 on various grounds. APTEL by its judgment dated 23.11.2007 disposed of the said appeals ('Appeal Nos. 273/2006 & batch') as under:

> *"113. In view of the above, the subject Appeal No. 273 of 2006 against the impugned order of Central Commission passed on October 3, 2006 is allowed to the extent described in this judgment and we remand the matter to Central Commission for 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 State Electricity Regulatory Commission (Civil Appeal No.804/2008), M/s Bhaskhar 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 generation and inter-state transmission systems of the Petitioner for the 2006-09 tariff period was re-determined by order dated 6.8.2009,

subject to the final outcome of the said Civil Appeals pending before the Hon'ble Supreme Court. Against the Commission's order dated 6.8.2009, the Petitioner filed appeal (Appeal No.146/2009) before APTEL on various issues. However, APTEL by its judgment dated 10.5.2010, rejected the prayers of the Petitioner and upheld the order of the Commission dated 6.8.2009. Against the judgment of APTEL dated 10.5.2010, the Petitioner filed appeal (Civil Appeal No.4881/2010) before the Hon'ble Supreme Court and the Hon'ble Court by interim order dated 9.7.2010 stayed the directions of APTEL for refund of excess amount billed, until further orders. However, on 17.8.2010 the Hon'ble Court had passed interim order in the said appeal. During the pendency of these appeals, the Commission, in terms of the judgment of APTEL, while notifying the 2014 Tariff Regulations, applicable for the 2014-19 tariff period, incorporated Regulation 53, containing special provisions related to the generating stations of the Petitioner. Accordingly, the tariff of the generating stations of the Petitioner for the period 2014-19, was determined by this Commission, subject to the final decision of the Hon'ble Supreme Court, in the said civil appeals. Similar provisions were made by the Commission under Regulation 72, while notifying the 2019 Tariff Regulations, applicable for the period 2019-24.

5. Meanwhile, the Hon'ble Supreme Court vide its common judgment dated 23.7.2018 in Civil Appeal No(s) 971-973/2008 (along with C.A Nos. 1914/2008, C.A No. 4504-4508/2008 and C.A No. 4289/2008) dismissed all the Civil Appeals thereby affirming the judgment of APTEL dated 23.11.2007 in Appeal Nos. 273/2006 & batch. Further, vide judgment dated 3.12.2018, the Hon'ble Supreme Court dismissed the Civil Appeal No. 4881/2010 filed by the Petitioner, against the judgment of APTEL dated 10.5.2010. In this background and in terms of the special provisions under the

2014 and 2019 Tariff Regulations, the tariff of the generating station of the Petitioner, is being trued-up for the period 2014-19 and is also determined for the period 2019-24, as stated in the subsequent paragraphs.

6. The Commission vide its order dated 27.9.2016 in Petition No. 350/GT/2014 read with corrigendum order dated 19.5.2017 had approved the capital cost and the annual fixed charges of the generating station for the period 2014-19, as under:

Capital cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	62114.40	62114.40	62431.80	63989.42	64168.21
Add: Additional Capital Expenditure allowed (B)	0.00	317.40	1557.61	178.80	99.82
Closing Capital Cost (C) = (A) + (B)	62114.40	62431.80	63989.42	64168.21	64268.03
Average Capital Cost (D) = (A+C) / 2	62114.40	62273.10	63210.61	64078.82	64218.12

Annual fixed charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	156.51	313.06	1216.92	795.96	147.14
Interest on loan	19.76	14.14	27.85	21.90	0.00
Return on Equity	4598.82	4606.20	4649.80	4690.17	4696.65
Interest on Working Capital	3990.62	4061.07	4137.77	4195.43	4251.01
O&M Expenses	15057.00	16002.00	17010.00	18081.00	19221.30
Compensation Allowance	420.00	420.00	210.00	210.00	210.00
Sub-Total (A)	**24242.72**	**25416.47**	**27252.35**	**27994.47**	**28526.09**
Additional claims allowed					
Share of Common Office Expenses	99.64	91.77	85.72	85.62	84.63
Additional O&M on account of Ash Evacuation, Mega Insurance, CISF Security and Share of subsidiary activities	0.00	0.00	0.00	0.00	0.00
Share of Pension & Gratuity Contribution	0.00	0.00	0.00	0.00	0.00
Sub-Total (B)	**99.64**	**91.77**	**85.72**	**85.62**	**84.63**
Total Annual Fixed Charges (C = A+B)	**23342.36**	**25508.24**	**27338.06**	**28080.09**	**28610.72**

Truing-up of tariff for the period 2014-19

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

"8. *Truing up*
(1) The Commission shall carry out truing up exercise along with the Tariff petition filed

for the next Tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up.

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

8. The Petitioner has submitted that Units-1 and 2 of the generating station, were decommissioned on 30.7.2017 and Unit-3 was decommissioned on 1.4.2021 i.e. after submission of this petition. Accordingly, the Petitioner has filed the present petition, for truing-up of tariff for the period 2014-19 and has claimed the capital cost (in Form 1(I) of the petition) and annual fixed charges as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital cost (A)	62114.40	66903.21	69243.10	69415.43	36120.53
Add: Addition during the year/ period (B)	4863.05	2324.07	290.15	104.88	370.54
Less: De-capitalization during the year / period (C)	45.14	4.02	40.24	33386.94	91.04
Less: Reversal during the year / period (D)	0.00	0.00	0.00	0.00	0.00
Less: Undischarged liabilities (E)	218.18	246.02	308.10	274.18	311.59
Add: Discharges during the year / period (F)	189.08	265.85	230.51	261.34	372.29
Closing Capital Cost (G)=(A+B-C-D-E+F)	66903.21	69243.10	69415.43	36120.53	36460.73
Average Capital Cost (H)=(A+G/2)	64508.81	68073.16	69329.26	52767.98	36290.63

Annual Fixed Charges claimed

(Rs in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2311.48	3248.54	1134.12	-	349.69
Interest on loan	80.90	68.36	1.22	1.10	1.82
Return on Equity	5959.25	6198.84	6273.09	5294.05	4331.38
Interest on Working Capital	4251.18	4470.46	4507.82	2544.00	1540.21
O&M Expenses	15057.00	16002.00	17010.00	10022.98	6407.10
Water Charges	-	1379.91	348.64	124.17	132.43
Compensation Allowance	420.00	420.00	210.00	210.00	210.00
Special allowance	1575.00	1675.01	3562.75	1256.07	-
Sub-Total (A)	29654.81	33463.12	33047.64	19452.37	12972.62
Impact of Pay revision due to recommendation of 7th Pay Commission	-	-	765.21	533.90	226.13
Impact of GST as 'Change in law'	-	-	-	46.28	60.51
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	1751.89	1880.57	2159.04	-	-

Share of P&G	934.71	2400.26	2637.80	3310.42	376.12
Share of Common Office Expenditure	122.72	114.83	97.61	58.60	37.70
Expenses due to Ash evacuation, Mega insurance, CISF expenditure & Expenditure for Subsidiary activities	2937.47	2985.88	4187.91	1491.61	1016.11
Sub-Total (B)	5746.79	7381.54	9847.57	5440.79	1716.57
Total annual fixed charges claimed (C = A+B)	**35401.60**	**40844.66**	**42895.21**	**24893.17**	**14689.19**

9. The Petition was heard on 27.7.2021, through video conferencing, and the Commission had directed the Petitioner to submit certain additional information. In response, the Petitioner vide affidavit dated 17.8.2021, has filed additional information after serving copies on the Respondents/Objector. The Objector, DVPCA has filed its comments/objection vide affidavit dated 19.4.2021 and the Petitioner has filed its rejoinder to the same vide affidavit dated 1.10.2021. The Petition was subsequently, heard on 6.12.2022 and the Commission after directing the Petitioner to submit certain additional information and based on consent of the parties, reserved its order in the Petition. In response, the Petitioner vide affidavit dated 9.1.2023, has filed the additional information after serving copies on the Respondents/Objector. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner in this petition, on prudence check, as stated in the subsequent paragraphs.

<u>Capital Cost</u>

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 29.7.2016 in Petition No. 469/GT/2014 had

approved the closing capital cost of Rs. 62114.40 lakh, as on 31.3.2014. The same has been considered as the opening capital cost as on 1.4.2014, in accordance with Regulation 9(3)(a) of the 2014 Tariff Regulations.

Additional Capital Expenditure

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

"14. Additional Capitalization and De-capitalization:

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

(i) Un-discharged liabilities recognized to be payable at a future date;

(ii) Works deferred for execution;

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

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

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

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff."

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

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

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

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

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

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

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

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

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

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

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

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

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

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

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to 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."

13. The details of the additional capital expenditure allowed in order dated 27.9.2016 in Petition No. 350/GT/2014 is summarized below:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Additional Capital Expenditure	0.00	510.00	2054.00	195.00	74.00	2883.00
Decapitalisation	0.00	192.60	496.39	16.20	24.18	729.37
Net Additional Capital Expenditure	0.00	317.40	1557.61	178.80	99.82	2153.63

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Addition during the year/ period	4863.05	2324.07	290.15	104.88	370.54
Less: De-capitalization during the year / period	45.14	4.02	40.24	33386.94	91.04
Less: Undischarged liabilities	218.18	246.02	308.10	274.18	311.59
Add: Discharges during the year / period	189.08	265.85	230.51	261.34	372.29
Net Addition during the year/ period	4788.81	2339.89	172.33	(-)33294.90	340.20

15. The Objector, DVPCA has submitted that the Petitioner has not provided details of works asset wise/ work wise included in the original scope of work and were not claimed or approved by the Commission in order dated 27.9.2016 in Petition No 350/GT/2014. In response, the Petitioner has stated that vide Form-9A, it has given detailed justification against each of the additional capital expenditure items claimed along with documentary evidence. It has also submitted that additional capital expenditure has been claimed under Regulation 14(3) read with Regulation 54 (Power to Relax) of the 2014 Tariff Regulations with a prayer to relax the provisions of these regulations and Regulation 55 (Power to Remove Difficulty) to support the Petitioner

to remove the difficulty which arises in giving effect to the provisions of these regulations and allow the claims of the Petitioner.

16. The matter has been examined. Before we proceed to consider the truing up of the additional capital expenditure claimed by the Petitioner for the period 2014-19, we observe that the units of the generating station are in operation since 1986 (Unit-1), 1990 (Unit-2) and 1993 (Unit-3). As such, Unit-1, Unit-2 and Unit-3/generating station have completed their useful life in 2011, 2015 and 2018 respectively and have been eventually decommissioned in 2017 (two units) and 2021 (last unit). As such, post the completion of useful life of these units, the Petitioner has claimed Special Allowance in terms of Regulation 16 of the 2014 Tariff Regulations. However, as per proviso to the said regulation, Special Allowance is not allowable for generating units which are operating under relaxed operational and performance norms in terms of the 2014 Tariff Regulations, which are as under, in comparison to other thermal units of 210 MW:

Operational norms	**Bokaro generating station**	**As per the 2014 Tariff Regulations**
NAPAF (%)	80	85
Gross station heat rate (kcal/kWh)	2700	2450
AEC (%)	10.25%	8.5%- 9.5%
Secondary fuel oil consumption (ml/kWh)	1.5	0.5

17. As such, the Special allowance of Rs.8068.83 lakh claimed by the Petitioner as compensation for meeting the requirement of expenses including R&M beyond the useful life of the units, is not allowable to the generating station, in terms of proviso to Regulation 16 of the 2014 Tariff Regulations. Accordingly, the units of the generating station are placed in peculiar circumstances post completion of useful life as these have not gone for comprehensive R&M apprehending decommissioning in near future which eventually happened. Further, these units are also not eligible for Special allowance and Compensation allowance, after completion of their useful life. In this

background, we consider the claim of the Petitioner for additional capital expenditure for the period 2014-19, based on the submissions and documents on record, and on prudence check, as under:

2014-15

18. All the three units of the generating station were in operation in 2014-15. However, one of the unit was running beyond its useful life of 25 years and was not admissible for Compensation allowance of Rs.1.00 lakh per MW. Accordingly, only two units of 210 MW each, which were within the elapsed life of 21-25 years, are eligible for the said Compensation allowance. Accordingly, the compensation allowance of Rs.420 lakh is allowed to the generating station in 2014-15 for meeting the expenses of capital nature including minor assets. In this background, the following claims of the Petitioner for assets earlier allowed on projection basis and which are not covered under Compensation allowance are considered against the total claim of Rs. 4863.05 lakh:

(Rs. in lakh)

	2014-15	**List of assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the expenditure**	**Amount allowed**
1.	Ash Bund	The claim has been made under Regulation 14(3)(vii) read with Regulation 54 & Regulation 55 of the 2014 Regulations. The Petitioner has stated that this expenditure is towards construction of new ash bund to handle ash disposal requirements of both BTPS 1-3 and BTPS A. The associated capital expenditure is allocated between BTPS 1-3 and BTPS A in the ratio of installed capacity and capitalized in the current year. In our view, the ash generation and ash disposal is a continuous process for which expenditure on ash bund creation/raising is incurred from time to time during the operating life of the plant. In view of this and in consideration of the fact that all three units were under operation during 2014-15, we **allow** the actually incurred expenditure on Ash Bund under Regulation 14(3)(iv) of the 2014 Regulations. The Petitioner has also prayed that after the decommissioning of Unit-3/generating station on 1.4.2021, the cost of the Ash Bund claimed here may be shifted to Bokaro-A and the unrecovered depreciation and interest on loan may be allowed to be recovered through tariff of Bokaro-	4718.17

		A. In this regard, it is held that this preposition may be considered by the Commission at the time of truing up of tariff for the period 2019-24 in respect of Bokaro-A.	
2.	Personal Computer (Pc) Fixed Assets	The claim is under Regulation 14(3)(vii) along with Regulation 54 & Regulation 55 of the 2014 Regulations. This expenditure is towards procurement of personal computers with updated operating systems for use of various sections (Dispensary /Office/O. T/Medical Store /Indoor / Metron chamber). Computers with updated operating systems are essential to ensure protection against cyber threat and to ensure 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. Commission allows the expenditure under Regulation 14(3)(iii) of the 2014 Regulations i.e. for safe operation of the plant as advised by the MOP.	3.53
		Total amount allowed	**4721.70**

19. The following additional capital expenditure claimed for 2014-15 has not been allowed for the purpose of tariff, after prudence check:

(Rs. in lakh)

	2014-15	**List of disallowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount Disallowed**
1.	Clinker Grinder motor	Claimed under Regulation 14 (3) (vii), Regulation 54 & Regulation 55 of the 2014 Regulations. The Petitioner has claimed this expenditure towards replacement of the existing Clinker Grinder motors with new motors. The motors are located near dusty environment and moisture-prone area which resulted in frequent report of low IR value of the motors. Due to several times rewinding, performance of the motors got deteriorated. M/S NGEF, who was the OEM of the motors, already closed their manufacturing units and hence the spares of the motors were not readily available. Therefore, in order to ensure operational reliability of the units, replacement of the motors was necessary.The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) for allowing capitalization of such expenses.	1.28
2.	PA Fan Motors	The claim is under Regulation 14(3)(vii) along with Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. The Petitioner has submitted that the existing PA fan motors have completed around 25 years of service. There were frequent tripping and breakdown of the motors during recent years (average break down rate was 8 to 15 per year). Therefore, in order to ensure operational reliability of the units, replacement of the PA fan motors was necessary. Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based	37.16

		stations. As such, the same is not applicable to the instant coal based generating station. However, Commission, in consideration of the fact that these assets have outlived their life and have become obsolete, allowed replacement of these items in Tariff Order dated 27.09.2016 in Petitioner No. 350/GT/2014 under Regulation 14(3) (vii) in exercise of the power to relax under Regulations 54, subject to furnishing of the OEM/technical committee report for replacement of these assets due to obsolescence at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations. However, it is observed that in spite of such explicit directions, the Petitioner has not submitted any supporting document to substantiate replacement of these items. Accordingly, the Commission is not inclined to allow the claimed expenditure. The Petitioner may meet the expenditure from compensation allowance allowed to the station.	
3.	Misc. Power Plant Equipment.	The claim is under Regulation 14(3)(vii) along with Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. The Petitioner has submitted that the expenditure is towards **replacement of existing Coal Mill motors** with new motors. The existing coal mill motors had already completed their useful lives. There was frequent breakdown of the motors (4-7 breakdowns per year) due to failure of Stator/Rotor windings. M/S NGEF, the OEM of the coal mill motors, had shut down its manufacturing operation. Therefore, spares of the motors were not readily available. Hence, the motors were to be replaced with new ones in order to ensure reliability of the equipment. Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based stations. As such, the same is not applicable to the instant coal based generating station. However, Commission, in consideration of the fact that these assets have outlived their life and have become obsolete, allowed replacement of these items in Tariff Order dated 27.09.2016 in Petitioner No. 350/GT/2014 under Regulation 14(3) (vii) in exercise of the power to relax under Regulations 54, subject to furnishing of the OEM/technical committee report for replacement of these assets due to obsolescence at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations. However, it is observed that in spite of such explicit directions, the Petitioner has not submitted any supporting document to substantiate the replacement of these items. Accordingly, the Commission is not inclined to allow the claimed expenditure. The Petitioner may meet the expenditure from compensation allowance allowed to the station.	26.39

4.	Misc. Power Plant Equipment	The claim is under Regulation 14(3)(vii) along with Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. The Petitioner has submitted that the expenditure is towards replacement of the existing **motors of CW Booster pump and DM circulating Pump** with new motors. The existing motors had already completed their useful life. The performance of these motors was not satisfactory and regular trouble was being reported. Therefore, replacement of these old motors was necessary considering smooth operation of the units. Regulation 14(3)(vii) of the 2014 Tariff Regulations is not applicable to the instant coal based generating station. Further, in consideration of the fact that the Petitioner has not substantiated its claim by producing the OEM/technical committee report for replacement of these assets, Commission is not inclined to allow the claim of the Petitioner. The Petitioner may meet the expenditure from compensation allowance allowed to the station	42.04
5.	Misc. Power Plant Equipment	Claimed under Regulation 14 (3) (vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. The Petitioner has stated that this expenditure is toward procurement of **Ultrasonic/Radar type level transmitters** used for measurement of levels of the Ash Slurry sump, filter water tank, CW sump. Earlier there was no instrument installed for measurement of Ash Slurry Sump level. But for smooth running of the Units, Ash slurry sump level is required to be maintained at a certain level which was being locally monitored. For remote indication of Ash Slurry Sump level, level transmitters were required to be installed for all the three Units. The Instrument installed earlier for measurement of Clear Water/ Filter Water tank level was air balance type pressure gauge which was being operated by Service Air pressure at Water Treatment Plant. Due to fluctuation in air pressure, gauge reading fluctuated and became erratic. But for smooth running of the Units & to avoid wastage of Clear Water/Filter Water, its level was required to be maintained at a certain level. Also, for CW Sump level, there was no measurement system. Therefore, for remote & reliable indication of Clear Water/ Filter Water & CW sump level, level transmitters were required to be installed in each tank. The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax). Accordingly, the claim is not allowed.	9.01
6.	Misc. Power Plant Equipment (111080267)	The claim is under Regulation 14(3)(iii) along with Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. The Petitioner has submitted that the expenditure is towards installation of High Mast light (20 mtr) for OPH area. Originally, there were two nos.	4.32

		of **High Mast lights** at CHP area. Considering satisfactory performance of the same, it was advised by the higher authority for procurement, erection and commissioning of another High Must light (20 mtr.) for OPH area. The new light is necessary for better illumination as well as for ensuring enhanced safety and security in respect of the plan activities. In our view, creation of additional facility at the fag end of station life shall be met by the Petitioner from its own resources/compensation allowance. Further, the expenditure incurred for assets which are minor in nature is **not allowable** in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. May be met from compensation allowance allowed. Moreover, the Petitioner has not submitted any advice or direction from appropriate Government agency for its claim under Regulation 14(3)(iii) of the 2014 tariff Regulations.	
7.	Circuit breaker	The claim is under Regulation 14(3)(vii) along with Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. It has been stated by the Petitioner that ooriginally manual air circuit breaker without any protection was installed for performing as an isolation switch. During total power failure, it caused frequent problem for normalization of supply of emergency board which is also fed through DG set for supplying auxiliary power to emergency equipment's. With this consideration, it was decided to replace the existing breaker with new air circuit breaker with protection for quick restoration of emergency supply to avoid any damage of plant and machinery. The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) . Accordingly, the claim is not allowed.	10.28
8.	Office Furniture Steel	This expenditure is towards procurement of furniture's (including chairs & tables etc.) used in the different offices within the plant such as chairs & tables etc. The expenditure incurred is for assets of minor nature which is not allowable in terms of first proviso to Regulation 14 of the 2014 Tariff Regulations. As such, the Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) for allowing capitalization of such expenses. The petitioner may meet the expenditure from compensation allowance. Accordingly, the claim is not allowed.	10.86
		Total amount disallowed	**141.34**

20. In view of the above, against a total claim of Rs.4863.04 lakh in 2014-15, a total expenditure of Rs. 4721.70 lakh has been allowed and Rs.141.34 lakh has been disallowed.

2015-16

21. All the three units were in operation in 2015-16. However, one of the Unit was running beyond its useful life of 25 years and was not admissible for Compensation allowance of Rs.1 lakh per MW. Accordingly, only two units of 210 MW each, which were within elapsed life of 20-25 years is eligible for Compensation allowance of Rs.1lakh per MW. Accordingly, a compensation allowance of Rs.420 lakh is allowed to the generating station for 2015-16 for meeting the expenses of capital nature including minor assets. In this background, the following claim of the Petitioner for assets earlier allowed on projection basis and that which is not covered by compensation allowance is allowed against the total claim of Rs. 2324.07 lakh.

(Rs. in lakh)

	2015-16	**List of allowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount allowed**
1.	Dry Fly Ash Collecting System	Claimed under Regulation 14(3)(ii) of the 2014 Tariff Regulations i.e. Change in law or for compliance of existing Law. This expenditure is towards the supply, erection and commissioning of the Dry Fly Ash Handling System. Earlier, fly ash collected in different hoppers of BTPS Units 1-3 was transported in slurry form to the existing ash slurry sump, from where the slurry was transported to the nearby ash ponds with the help of ash slurry pumps. In order to reduce the loading of the ash pond and to ensure compliance with the effluent discharge norms of the Jharkhand State Pollution Control Board, the Dry Fly Ash Handling System was implemented. The dry fly ash system will also help BTPS in utilization of fly ash as per the statutory directives by the Ministry of Environment, Forest and Climate Change, Government of India vide Notification dated 14.9.1999 (and its amendments dt. 27.8.2003, 3.11.2009 and 25.01.2016). Considering the Petitioner's submission, the said claim is **allowed** under Regulation 14(3)(ii) of the 2014 Tariff Regulations.	2285.98
	Total amount allowed		**2285.98**

22. The following additional capital expenditure claimed for 2015-16 has not been allowed for the purpose of tariff, after prudence check:

(Rs. in lakh)

	2015-16	List of disallowed assets	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount disallowed**
1	Residential Building	Claimed under Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards construction of residential building blocks for accommodation of employees of the plant. The claim is **not being allowed** as Petitioner is availing compensation allowance. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) for allowing such expenses at fag end of life. Accordingly, the claim is not allowed.	28.29
2	Clinker Grinder motor - Booked under the ledger code of ID Fan Motors	Claimed under Regulation 14(3)(vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This is the balance expenditure toward replacement of the existing Clinker Grinder motors with new motors (part of the expenditure is claimed in FY 2014-15; justification for this work is also provided in Form-9A for FY 2014-15). The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) . Accordingly, the claim is not allowed.	1.92
3	Circuit Breaker (S.S.Equip)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards replacement of existing Air Circuit breakers installed in the different feeders and incomers board, with new breakers. The performance of the existing breakers was not satisfactory and there was regular breakdown. Spares for the breakers were not readily available in the market as the OEM had stopped manufacturing of the breakers. The OEM recommended for replacement of the old breakers with the advanced version of air circuit breakers. The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax). Accordingly, the claim is not allowed.	4.45
4	Circuit Breaker (S.S.Equip)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards replacement of existing Air Circuit breaker installed in the emergency board with new breaker (part of the expenditure is claimed in FY 2014-15; justification for this work is also provided in Form-9A for 2014-15). The expenditure incurred is for assets of O&M nature. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax). Accordingly, the claim is not allowed.	3.43
	Total amount disallowed		**38.09**

23. In view of the above, against the total claim of Rs.2324.07 lakh for 2015-16, an amount of Rs.2285.98 lakh has been allowed and a total amount of Rs.38.09 lakh has been disallowed.

2016-17

24. All the three units were in operation in 2016-17. However, two of the units were running beyond their useful life of 25 years and were not admissible for Compensation allowance of Rs.1lakh per MW. Accordingly, only one unit of 210 MW, which was within the elapsed life of 20-25 years is eligible for compensation allowance of Rs.1lakh per MW. Accordingly, the compensation allowance of Rs.210 lakh is allowed to the one unit of the generating station for 2016-17, for meeting the expenses of capital nature including minor assets. In this background, the following claim of the Petitioner for assets earlier allowed on projection basis and which is not covered by compensation allowance, is allowed against the total claim of Rs.290.15 lakh.

(Rs. in lakh)

	2016-17	**List of allowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount allowed**
1	Misc. Power Plant Equipment	Claimed under Regulation 14(3)(ii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards the procurement, installation and commissioning of SPM, SOx, NOx and ETP analyzers along with accessories for monitoring of SPM, SOx, NOx, and effluent parameters of BTPS along with data transmission to CPCB & JSPCB for compliance of pollution norms requirement. Considering the submissions of the Petitioner, the additional capital expenditure claimed is **allowed** under 14(3)(ii) of 2014 Tariff Regulations.	94.31
2	Dry Fly Ash Collecting System	Claimed under Regulation 14(3)(ii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement, installation and commissioning of different instruments and parts of the Dry Fly Ash Collecting System for BTPS 1-3. The instruments are parts include Ash hopper level switches for monitoring of ash levels inside hoppers, different cards for PLC	20.81

		of the dry fly ash system, different switches used for permissive, interlock & protection of different equipment's in dry fly ash system, hose pipes for connection of different instruments in dry fly ash system, V-Belts as spares for the various belt driven compressors and blowers of dry fly ash system, ball valves and solenoid valves for operation of different pneumatic valves/cylinders, transmitters and associated fittings for monitoring of pressure at different points in Dry Fly Ash system. Major part of the expenditure for Dry Fly Ash system has been claimed for FY 2015-16; Considering that the capitalization of Dry Fly Ash Collecting System has been allowed during 2015-16, the additional capital expenditure claimed for items required for successfully operating the same is also allowed under Regulation 14(3)(ii).	
		Total amount allowed	**115.12**

25. The following additional capital expenditure claimed for 2016-17 has not been allowed for the purpose of tariff, after prudence check:

(Rs. in lakh)

	2016-17	**List of Disallowed assets**	
Sl. No	**Head of Work/ Equipment**	**/Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount disallowed**
1	Misc. Power Plant Equip	Claimed under Regulation 14(3)(vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards replacement of 2 nos. of old gear boxes (used in Coal mills) with new ones. The old gear boxes had completed their useful life. The replacement was necessary for reliable operation of the coal mills. The Hon'ble Commission in Tariff Order for BTPS 1-3 dt. 27.09.2016 has already approved additional capital expenditure for this item (Para 49, Page 28 of the Order). Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based stations. As such, the same is not applicable to the instant coal based generating station. However, Commission, in consideration of the fact that these assets have outlived their life and have become obsolete, allowed replacement of these items in Tariff Order dated 27.09.2016 in Petitioner No. 350/GT/2014 under Regulation 14(3) (vii) in exercise of the power to relax under Regulations 54 of the 2014 Tariff Regulations, subject to furnishing of the OEM/technical committee report for replacement of these assets due to obsolescence at the time of truing up in	119.91

		terms of Regulation 8 of the 2014 Tariff Regulations. However, it is observed that in spite of such explicit directions, the Petitioner has not submitted any supporting document to substantiate the replacement of these items. The Petitioner may meet the expenditure from compensation allowance allowed to the station. Accordingly, the claim is not allowed.	
	Other Building	Claimed under Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards upgradation of the residential building for convenience of the staffs staying at the township. The claim is **not allowed** as the Petitioner is availing compensation allowance. The Commission is not inclined to invoke Regulation 54 of the 2014 Tariff Regulations (power to relax) for allowing such expenses at fag end of life. May be met from the compensation allowance allowed. Accordingly, the claim is not allowed.	42.33
2.	Misc. Power Plant Equipment	Claimed under Regulation 14(3)(vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This is residual payment towards procurement of Insulation Tester (Megger), major part of which has already been claimed in FY 2013-14. The capitalization of tools and tackles is not permissible as per first proviso to Regulation 14 of the 2014 Tariff Regulations. The expenditure may be met from compensation allowance. Accordingly, the claim is not allowed.	0.05
3	Office Furniture-Steel (O/assets)	Claimed under Regulation 14(3)(vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement of multiflex file storage cabinets, four nos. of inverters, procurement of UPS, air coolers, and various hospital equipment. Since, the capitalization of minor assets is not permissible as per first proviso to Regulation 14 of the 2014 Tariff Regulations. The expenditure may be met from compensation allowance. Accordingly, the claim is not allowed.	0.51
4	Office Furniture-Elec. (O/assets)		0.98
5	Office Equipment (O/assets)		0.03
6	016 Other Assets (BTPS B)		3.32
5	Hospital Equipment (O/assets)		7.90
		Total amount disallowed	**175.03**

26. In view of the above, against the total claim of Rs.290.15 lakh in 2016-17, an amount of Rs.115.12 lakh is allowed and a total amount of Rs.175.03 has been disallowed.

2017-18

27. All the three units were in operation during the period from 1.4.2017 till 29.7.2017, as the same were decommissioned on 30.7.2017. However, only one unit was in operation from 30.7.2017 to 31.3.2018, and was eligible for compensation allowance. Accordingly, an amount of Rs.210 lakh is allowed to the generating station for the year 2017-18, for meeting the expenses of capital nature including minor assets. In this background, the following claim of the Petitioner for assets earlier allowed on projection basis and which is not covered by compensation allowance, is allowed against the total claim of Rs. 104.88 lakh:

(Rs. in lakh)

	2017-18	**List of allowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount allowed**
1	Boiler & Accs. Equip	Claimed under Regulation 14(3)(vii), Regulation 54 & Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards installation of Tertiary Air duct in the Boiler of Unit-3 with the aim to reduce unburnt carbon in the bottom and fly ash. The work was executed based on recommendations of NTPC in the Technical Audit report. After execution of the work, marked improvement noticed in unburnt carbon loss was noticed. Relevant pages of the NTPC Technical Audit Report containing recommendations, and the BTPS energy audit report showing reduction in unburnt carbon loss are submitted. Regulation 14(3) (vii) of the 2014 Tariff Regulations is not applicable for thermal generating stations, however, in consideration of the justification and supporting documents furnished by the Petitioner, the claim is **allowed** for efficient operation of the Unit-3 under Regulation 14(3)(vii) of the 2014 Tariff Regulations by invoking power to relax under Regulation 54 of 2014 Tariff Regulations.	56.01
2	Dry Fly Ash Collecting System	Claimed under Regulation 14(3) (ii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This is balance payments in respect of procurement, installation and commissioning of the Dry Fly Ash Collecting System. Major part of the expense under this head is already claimed in FY 2015-16 and 2016-17; justifications for undertaking this work is also provided in Form-9A for 2015-16.	12.96

		As the said claim is towards balance payment for the asset allowed during the year 2015-16 in respect of procurement, installation and commissioning of the Dry Fly Ash Collecting System, the same is also allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.	
		Total amount allowed	**68.97**

28. The following additional capital expenditure claimed for the year 2017-18 is disallowed for the purpose of tariff:

(Rs. in lakh)

	2017-18	**List of Disallowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount disallowed**
1	Other Building	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulations 55 of the 2014 Tariff Regulations. This expenditure is towards construction of toilet, urinal and shed for the staff and workers engaged in ash evacuation work at the permanent ash pond of BTPS. The claim is **not being allowed** as Petitioner has been allowed compensation allowance to meet such expenses.	4.33
2	Other Building	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards installation of deep tube well with water storage tank and pipe line as part of construction of drinking water facility required for the staffs and workers engaged in ash evacuation work at the permanent ash pond of BTPS. The claim is **not being allowed** as Petitioner has been allowed compensation allowance to meet such expenses.	3.43
3	Residential Building	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards installation of deep tube well with water storage tank and pipe line as part of construction of drinking water facility required for the staffs and workers engaged in ash evacuation work at the permanent ash pond of BTPS. The claim is **not being allowed** as Petitioner has been allowed compensation allowance to meet such expenses.	6.75
4	Water Works & Water Supply System	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations.	2.86

		This expenditure is towards procurement and installation of PVC tanks on the roof of quarters for storage of water for daily use purpose. The claim for asset of minor nature is not permissible for capitalization as per first proviso to Regulation 14 of the 2014 Tariff Regulations. May be met from compensation allowance.	
6	Fencing	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards fencing of ash pond by barbed wire and RCC post for the purpose of plantation of tree in the peripheral area of ash pond for complying with the pollution norms of CPCB & Jharkhand State Pollution Control Board. Considering the fact that the expenditure incurred is for assets which are minor in nature, the additional capital expenditure claimed is **not allowed** in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. May be met from compensation allowance.	1.59
7	Plantation (Colony)		0.94
8	Misc. Power Plant Equip.	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement of Portable Dissolved Oxygen Analyzer. Portable Dissolved Oxygen Analyzer is very much essential to monitor the concentration of dissolved oxygen in the boiler water system and various other points in the feed cycle, with the aim to minimize the rate of corrosion in the tubes due to increase in dissolved oxygen in the water. The existing portable ppb level DO meter was out of order. The cost of repairing the same (as per budgetary estimates by the OEM) was comparable with the cost of a new meter. Hence, it was decided to procure a new meter instead of going for repair. Capitalization of tools and tackles is not allowable in terms of first proviso to Regulation 14 of the 2014 Tariff Regulations. May be met from compensation allowance allowed to the station.	8.82
9	Misc. Power Plant Equip.	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards replacement of existing different LT motors for mobile trippers, sump pumps (for handling waste water from RCTS), vibro feeders (for feeding raw and crushed coals at CHP), sump pumps (installed at the tail ends of coal conveyors # 2A/2B/5A/5B for removal of waste water), with new motors. These motors are essential for smooth operation of CHP and RCTS of BTPS-B. These motors were almost in continuous running and had direct impact on the coal feeding in the mill feeders. Performance of the existing motors was not satisfactory due to aging,	4.16

		frequent cut-in/ cut-out, unfavorable working conditions and repeated rewinding, which resulted in frequent breakdown of these motors. Due to non-availability of spare motors, it was decided to procure new motor for replacement of the old motors. Considering the fact that the expenditure incurred is for assets of O&M nature, the additional capital expenditure claimed is **not allowed.**	
10.	Misc. Power Plant Equip.	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement of Pressure Transmitters Considering the fact that the expenditure incurred is for assets of O&M nature, the additional capital expenditure claimed is **not allowed.**	2.08
11.	Misc. Power Plant Equipment	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement of instrument hose and fitting (for connection of different instruments), butterfly & solenoid valves and nipples (for operation of different pneumatic valves/cylinders), spare V-belts (for blowers), and gasket fronts (for instrument air compressors) for use in the Dry Fly Ash system. Considering the fact that the expenditure incurred is for assets of O&M nature, the additional capital expenditure claimed is **not allowed.**	0.96
		Total amount disallowed	**35.92**

29. In view of above deliberations, an amount of Rs.68.97 lakh is allowed against the total claim of Rs.104.88 lakh, disallowed amount being Rs.35.92 lakh for the year 2017-18.

2018-19

30. During 2018-19, only one unit of 210 MW, was operating and was eligible for compensation allowance of Rs. 1 lakh/MW. Accordingly, an amount of Rs.210 lakh has been allowed as compensation allowance to the station to meet expenses of capital nature including assets of minor nature. Under this background, the following claim of the Petitioner for assets earlier allowed on projection basis and that which is not covered by compensation allowance, is allowed against the total claim of

Rs.370.54 lakh:

(Rs. in lakh)

	2018-19	List of allowed assets	
Sl. No	**Head of Work/ Equipment**	**Regulation/Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount allowed**
1	Transformer	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This expenditure is towards procurement and installation of new 80MVA Power Transformer at the BTPS B switchyard as a replacement of the existing 50MVA transformer. The 50MVA transformer has been used for supplying power to DVC's 33kV consumers such as CCL, JSEB, DVC Bermo mines, colony and BTPS A construction supply. Total MVA demand on the 33kV side was to the tune of 65 MVA. Hence the 50MVA transformer was not sufficient to cater the load demand. Therefore, to meet the load demand procurement of the 80MVA transformer was necessary. This is to further state that after procurement of the new 80MVA transformer, the existing 50MVA transformer was shifted to the DVC's Jamuria substation (West Bengal) for further use. Regulation 14(3)(vii) of the 2014 Tariff Regulations provides for additional capital expenditure to generating stations other than coal/lignite-based stations. Considering the fact that said item is crucial for to cater the load demand, we are inclined to **allow** the claim of the Petitioner, under Regulation 14(3) (vii) of the 2014 Tariff Regulations, in exercise of the power to relax under Regulations 54 of the 2014 Tariff Regulations. With regard to the Petitioner's prayer that after decommissioning of the Unit-3/station on 1.4.2021, the cost of the 80 MVA transformer and Switchyard of BTPS 1-3 may be added to T&D system of DVC and unrecovered depreciation and interest on loan etc. may be allowed to be recovered through tariff of T&D system, it is held that Commission shall examine and consider such preposition during truing up of the tariff for the period 2019-24 of T&D system. Further, the Petitioner has prayed not to de-capitalize 50 MVA transformer from asset base, since the same shall be reused, as claimed by DVC. The same is not acceptable as the asset is not in use and as such has to be decapitalized from capital base of BTPS 1-3. Accordingly, the corresponding de-capitalization against the said additional capital expenditure is also considered as the old transformer is not in use.	318.09
2	Misc. Power Plant Equipment	Claimed under Regulation 14(3)(ii) and 14(3)(iii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations.	17.70

		This amount is towards procurement of Fire extinguishing system for the newly installed 80MVA power Transformer. The Firefighting system is mandatory from safety point of view as well as to comply with the Fire Safety Code of Practice IS:3034 of 1993 and clause 8B of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2010. Considering that the capitalization of 80MVA power Transformer has been allowed, the claimed expenditure for its fire safety is allowed under Regulation 14(3) (iii) of the 2014 Tariff regulation.	
3	Personal Computer (PC) Fixed Asset	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the procurement of desktop computer with updated operating systems to facilitate various activities at different offices in the plant. Computers with updated operating systems are essential to ensure protection against cyber threat and also to ensure 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. The claim is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations for safe operation of the plant against cyber-attacks.	17.02
		Total amount allowed	**352.81**

31. The following additional capital expenditure claimed for 2018-19 has not been allowed for the purpose of tariff, after prudence check:

(Rs. in lakh)

	2018-19	**List of disallowed assets**	
Sl. No	**Head of Work/ Equipment**	**Justification of the Petitioner and Commission's decision on admissibility of the claimed expenditure**	**Amount disallowed**
1	Fencing	Claimed under Regulation 14(3)(ii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is for creation of Green Belt in DVC land from CISF Complex to Chhat Ghat, in order to comply with the stipulations of The Ministry of Environment, Forest and Climate Change, Government of India. The Petitioner has not submitted any supporting document that substantiates that said claim is towards change in law. Hence the same is **not allowed**. May be met from compensation allowance	0.79
2	Ash Handling Equipment (0111080263)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards procurement of spare Temperature switch and compressor for the Ash Handling system, in order to remain prepared for any exigency / breakdown with the ultimate aim to ensure plant availability.	2.81

		There is no provision in 2014 Tariff Regulation to allow spares after cut-off date. Hence the same is **disallowed**. May be met from compensation allowance.	
4	Misc. Power Plant Equipment (0111080267)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the procurement of Jaw Crusher & Roll Crusher used for sample preparation of coal for testing. The said items are necessary for quality testing of coal samples thereby facilitating, monitoring and supervision of plant performance. Considering the fact that the expenditure incurred is for procuring tools and tackles, the additional capital expenditure claimed is **not allowed** in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. May be met from compensation allowance allowed to the station.	2.59
5	Misc. Power Plant Equipment (0111080267)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the replacement of old pressure switch and pressure transducer with new one, in order to ensure proper monitoring thereby facilitating the plant operations. Considering the fact that the expenditure incurred is for assets of O&M nature, the additional capital expenditure claimed is **not allowed.**	3.50
6	Misc. Power Plant Equipment (0111080267)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the procurement hose pipe V belt for use in the Ash Handling System.Considering the fact that the expenditure incurred is for assets of O&M nature, the additional capital expenditure claimed is **not allowed**.	0.35
2	Office Furniture-Elec. (O/assets)	Claimed under Regulation 14(3)(vii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the procurement of ceiling fans and hospital equipment for installation at different locations in the plant. Considering the fact that the expenditure incurred is for procuring assets of minor nature, the additional capital expenditure claimed is **not allowed** in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. May be met from compensation allowance allowed to the station.	1.55
3	Hospital Equipment (O/assets) (0111160330)		1.13
4	Miscellaneous (O/assets) (0111160399)	Claimed under Regulation 14(3)(iii), Regulation 54 &Regulation 55 of the 2014 Tariff Regulations. This amount is towards the procurement of CCTV System to ensure enhanced security at the plant area as well as the colony area. The Petitioner has not submitted any supporting document from appropriate Government Agency. Hence the same is **not allowed**. May be met from compensation allowance.	5.01
		Total amount disallowed	**17.73**

32. In view of above, against the total claim of Rs.370.54 lakh in 2017-18, an amount of Rs.352.81 lakh has been allowed and an amount of Rs.17.73 lakh has been disallowed.

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

(Rs. in lakh)

Additional capital expenditure	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	4863.05	2324.07	290.15	104.88	370.54
Allowed	4721.70	2285.98	115.12	68.97	352.81

De-capitalization

34. The Petitioner has furnished the asset-wise details for de-capitalization for the period 2014-19, as under:

(in Rs.)

Sr. No.	Name of the Asset	De-capitalization
2014-15		
1	PA Fan Motors (111080206)	760301
2	Clinker Grinder motor - Booked under the ledger code of ID Fan Motors (111080204)	61118
3	Misc. Power Plant Equip. (111080267) - CW Booster pump motor and DM circulating Pump motor	2008610
4	Misc. Power Plant Equip. (111080267) - Coal Mill motors	1260565
5	Circuit Breaker (111120102) - Air Circuit breaker installed in the emergency board	423145
	TOTAL	**4513739**
2015-16		
1	Clinker Grinder motor - Booked under the ledger code of ID Fan Motors (111080204)	89075
2	Circuit Breaker (S.S.Equip)(0111120102) - Air Circuit breakers installed in the different feeders and incomers board	176899
3	Circuit Breaker (S.S.Equip)(0111120102) - Air Circuit breaker installed in the emergency board	136249
	TOTAL	**402223**
2016-17		
1	Misc. Power Plant Equip.(0111080267) - Coal Mill Gear Box	4023676
	TOTAL	**4023676**
2017-18		
1	Misc. Power Plant Equip. (0111080267) - Different LT motors	182494

Sr. No.	Name of the Asset	De-capitalization
2	Power House Plant & Machinery (Decommissioning of BTPS Units-1 & 2)	
i	Turbine, Generator & Auxiliary (0111080102)	41411402
ii	Boiler & Accs. Equip(0111080212)	9474792
iii	STEAM TURB GEN (0111080226)	45128775
iv	Turbo Generator & Accs.(0111080230)	4135550
v	P.H. Plant & Mach. (BTPS B)(0111081101)	2407921407
vi	Plant & Mach. BTPS (C Spons)(0111081102)	495014
vii	Plant & Mach. BTPS (Own Sch)(0111081103)	37771497
viii	Plant & Mach. BTPS I-III(0111081104)	83432327
ix	Plant & Mach. BTPS IV(0111081105)	19554578
x	Plant & Mach. Ext. BTPS I-III(0111081106)	143704903
xi	Plant & Mach. Ext. BTPS IV(0111081107)	3308306
xii	Plant & Mach. Extn. BTPS B(0111081108)	541145365
	Total of Power House Plant & Machinery (Decommissioning of BTPS Units-1 & 2)	**3337483916**
3	Other Assets (Decommissioning of BTPS Units-1 & 2)	
i	Other Assets	1027619
	Total of Other Assets (Decommissioning of BTPS Units-1 & 2)	1027619
	TOTAL	**3338694029**
2018-19		
1	Transformer (0111080259) - existing 50MVA Power Transformer at the BTPS B switchyard	8986962
2	Misc. Power Plant Equip. (0111080267) - Pressure switch and Pressure transducer	117366
	Total	**9104329**

35. The matter has been considered. It is observed that the assets claimed under decapitalisation were from the original scope and Unit 1 & 2 got decommissioned in 2017-18. Hence, the decapitalisation of assets as claimed by the Petitioner for the period 2014-19 has been allowed, considering that the said assets are not in use. Accordingly, decapitalisation of assets allowed for the period 2014-19 are as under:

(Rs. In lakh)

Decapitalisation	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	45.14	4.02	40.24	33386.94	91.04
Allowed	45.14	4.02	40.24	33386.94	91.04

Un-discharged liabilities

36. The Petitioner has submitted that total undischarged liabilities created during the period 2014-19 is Rs.1358.07 lakh (Rs.218.18 lakh in 2014-15, Rs.246.02 lakh in

2015-16, Rs.308.10 lakh in 2016-17, Rs.274.18 lakh in 2017-18 and Rs.311.59 lakh in 2018-19). It is also observed that the information submitted by the Petitioner, is not in line with the 2014 Tariff Regulations i.e., no item-wise and year-wise position of undischarged/discharged liabilities is made available. In the absence of the item-wise availability of undischarged liability, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure, as against the additional capital expenditure claimed, during each year of the period 2014-19. Accordingly, as against an un-discharged liability of Rs.1358.07 lakh claimed for the period 2014-19, a corresponding amount of Rs.1053.05 lakh has been allowed. Accordingly, the year-wise details of un-discharged liabilities are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
211.84	241.98	122.24	180.31	296.67

Discharge of liability

37. The Petitioner has submitted the year-wise, total discharge of liabilities of Rs.1319.08 lakh during the period 2014-19 (Rs.189.08 lakh in 2014-15, Rs.265.85 lakh in 2015-16, Rs.230.51 lakh in 2016-17, Rs.261.34 lakh in 2017-18 and Rs.372.29 lakh in 2018-19), instead of item wise discharges of liability. In the absence of the item-wise availability of liabilities discharged, the same is determined on a *pro-rata* basis, considering the admitted additional capital expenditure, as against the additional capital expenditure claimed, during each year of the period 2014-19. Further, the opening balance of the liability discharged, as on 1.4.2014, has been allowed to be discharged in full. Accordingly, the discharge of liabilities, allowed as part of the additional capital expenditure, corresponding to the assets allowed, are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Un-discharged liabilities (A)	31.90	60.13	40.17	65.27	89.11

	2014-15	2015-16	2016-17	2017-18	2018-19
Additions during the period 2014-19 (corresponding to allowed additional capital expenditure) (B)	211.84	241.98	122.24	180.31	296.67
Discharges during the period 2014-19 (corresponding to allowed additional capital expenditure) (C)	183.61	261.95	97.13	156.48	324.14
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
Closing Un-discharged liabilities (E) = (A+B-C-D)	60.13	40.17	65.27	89.11	61.64

<u>Capital cost allowed for the period 2014-19</u>

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	62114.40	66762.74	69064.67	69114.44	35772.64
Add: Addition during the year / period (B)	4721.70	2285.98	115.12	68.97	352.81
Less: De-Capitalisation during the year /period (C)	45.14	4.02	40.24	33386.94	91.04
Less: Undischarged liabilities (D)	211.84	241.98	122.24	180.31	296.67
Add: Discharges during the year /period (E)	183.61	261.95	97.13	156.48	324.14
Closing Gross Block (F) = (A+B-C-D+E)	66762.74	69064.67	69114.44	35772.64	36061.87
Average Gross Block (G) = (A+F)/2	64438.57	67913.70	69089.55	52443.54	35917.25

<u>Debt-Equity Ratio</u>

39. 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- *xxxxx*

(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."

40. The gross normative loan and equity as considered in order dated 27.9.2016 in Petition No. 350/GT/2014, has been retained for the purpose of tariff. Further, the admitted additional capital expenditure and de-capitalisation of assets put to use after 1.4.1992, has been allocated in the debt-equity ratio of 70:30. whereas the de-capitalisation, being related to assets put in use prior to 1992 has been allocated in the debt-equity ratio of 50:50. Also, the impact of decommissioning of Unit-I &II has been allocated in the opening debt-equity ratio of the year of decommissioning, i.e. 1.4.2017, as 54.04%: 45.96%. Accordingly, the details of the debt-equity ratio in respect of the generating station, as on 1.4.2014 and 31.3.2019, allowed is as under:

(Rs. in lakh)

	Capital Cost as on 1.4.2014	**%**	**Additional Capital expenditure for 2014-19**	**De-Capitalization during 2014-19 of assets put to use after 1.4.1992**	**De-Capitalization during 2014-19 of assets put to use before 1.4.1992**	**Decommissioning of Unit-I &ii for 2014-19**	**Capital Cost as on 31.4.2019**	**%**
Debt	32444.57	52.23%	5260.39	122.26	3.80	18039.71	19539.19	54.18%
Equity	29669.83	47.77%	2254.45	52.40	3.80	15345.41	16522.68	45.82%
Total	**62114.40**	**100%**	**7514.85**	**174.66**	**7.60**	**33385.12**	**36061.87**	**100%**

Return on Equity

41. 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."*

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

"25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee as the case may be. The actual tax income on other income stream (i.e. income of non-generation or non-transmission business as the case may be) shall not be considered for the calculation of "effective tax rate".

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

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

Illustration.

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

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

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

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

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

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

(2) The generating company or the transmission licensee as the case may be shall true up the grossed-up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty if any arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after truing up shall be recovered or refunded to beneficiaries or the long-term transmission customers/DICs as the case may be on year-to-year basis."

43. The base rate of Return on Equity (ROE) as allowed under Regulation 24 of the 2014 Tariff Regulations, is to be grossed up with the effective tax rate, of the respective financial years. Also, in term of Regulation 25(3) of the 2014 Tariff Regulations, the generating company shall true-up the grossed up rate of ROE, at the end of every financial year, based on the actual tax paid, together with any additional tax demand, including interest thereon, duly adjusted for any refund of tax, including interest received from the income tax authorities, pertaining to the period 2014-19, on actual gross income of any financial year.

44. The Objector, DVPCA has submitted that though the Petitioner has considered

the effective tax rate of 19.610%, 19.705%, 19.705%, 19.705% and 19.758% for computation of ROE for the period 2014-19, the Audited accounts reveals that the Petitioner has not paid any actual tax during the period 2014-18. It has also submitted that for 2018-19, the deferred tax liability, which gets materialised in the year, pertains to the year 2012-13. DVPCA has Referred to Regulation 49 of the 2014 Tariff Regulations and submitted 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.

45. The matter has been considered. Since the Petitioner has not been paying any income tax in any of the financial year of 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 and allowed as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Normative Equity-Opening (A)	29669.83	31062.81	31753.39	31768.32	16435.91
Addition of Equity due to additional capital expenditure (B)	1392.98	690.58	14.93	(-)15332.41	86.77
Normative Equity-Closing (C) = (A) + (B)	31062.81	31753.39	31768.32	16435.91	16522.68
Average Normative Equity (D) = (A+C)/2	30366.32	31408.10	31760.86	24102.12	16479.29
Return on Equity (Base Rate) (E)	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (F)	0.00%	0.00%	0.00%	0.00%	0.00%
Rate of Return on Equity (Pre-Tax) (G) = (E)/(1-F)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity (Pre-Tax) annualized (H) = (D)*(G)	**4706.78**	**4868.26**	**4922.93**	**3735.83**	**2554.29**

Interest on Loan

46. 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."

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

a. The gross normative loan of Rs.32444.57 lakh has been considered on 1.4.2014, in line with the gross normative loan balance as on 31.3.2014, in terms of order dated 29.7.2016 in Petition No. 469/GT/2014. In addition to this, loan component towards additional capitalization has been considered as per the approved debt equity ratio.

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

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

d. Depreciation allowed has been considered as repayment of normative loan, if any during the respective years of the period 2014-19.Proportionate adjustment has been made to the repayments on account of de-capitalizations considered in the additional capital expenditure approved above.

48. 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. Further, 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. For the year 2018-19, as only PFC loan is left in the loan portfolio which was also fully repaid during the year, the PFC rate of interest on loan i.e., 6.91%, has been considered as WAROI for the year 2018-19. The necessary calculation for interest on loan is as follows:

(Rs in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross opening loan (A)	32444.57	35699.93	37311.28	37346.12	19336.73
Cumulative repayment of loan up to previous year (B)	32173.43	34391.62	37311.28	37346.12	19305.13
Net Loan Opening (C) = (A) - (B)	271.14	1308.31	0.00	0.00	31.60
Addition due to additional capital expenditure (D)	3255.36	1611.35	34.84	(-)18009.39	202.46
Repayment of loan during the year (E)	2248.26	2922.47	63.01	0.00	229.39
Less: Repayment adjustment on account of de-capitalization (F)	30.08	2.82	28.17	18040.99	63.73
Net Repayment (G) = (E) - (F)	2218.19	2919.66	34.84	(-)18040.99	165.66

	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan Closing (H) =(C) +(D) -(G)	1308.31	0.00	0.00	31.60	68.40
Average Loan (I) = (C+H)/2	789.72	654.15	0.00	15.80	50.00
Weighted Average Rate of Interest of loan (J)	8.9403%	8.9424%	8.9405%	6.3140%	6.9100%
Interest on Loan (K) = (I)*(J)	**70.60**	**58.50**	**0.00**	**1.00**	**3.45**

Depreciation

49. 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."

50. 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."

51. The cumulative depreciation amounting to Rs.55154.69 lakh as on 31.3.2014, as allowed in order dated 29.7.2016 in Petition No. 469/GT/2014 has been considered as the opening cumulative depreciation, as on 1.4.2014, for the purpose of tariff. The weighted average rate of depreciation, calculated in terms of the Regulation 53(2)(iii) read with Regulation 27 of the 2014 Tariff Regulations, has been considered for the calculation of depreciation. The cumulative depreciation has been adjusted on account of de-capitalization, considered during the period 2014-19, for the purpose of tariff. Accordingly, depreciation is worked out and allowed as under: