

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 469/GT/2014

Coram:

**Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

**Date of Hearing : 11.7.2016
Date of Order : 29.7.2016**

In the matter of:

Revision of tariff of Bokaro Thermal Power Station Unit-I to III (3x210 MW) for the period 2009-14 after truing-up exercise- Truing-up of tariff determined by order dated 29.7.2013 in Petition No. 268/GT/2012

And in the matter of:

Damodar Valley Corporation (DVC),
DVC Towers, VIP Road
Kolkata

.....**Petitioner**

Versus

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**

Damodar Valley Power Consumers Association (DVPCA)

.....**Objector**

Parties present:

For Petitioner:

Shri M. G. Ramachandran, Advocate, DVC
Mrs Poorva Saigal, Advocate, DVC
Shri D. K. Aich, DVC



For Respondents

Shri A. Biswas, DVC
Shri Subrata Ghosal, DVC
Shri Sanjay Sen, Senior Advocate, Damodar Valley Power
Consumers' Association (DVPCA)
Shri Ruth Elwn, Advocate, DVPCA
Shri Rajiv Yadav, Advocate, DVPCA

ORDER

This petition has been filed by the petitioner, Damodar Valley Corporation (DVC), for revision of tariff based on actual expenditure of Bokaro Thermal Power Station, Units I to III (3x210 MW)(hereinafter referred to as "the generating station") for the period from 1.4.2009 to 31.3.2014, in terms of clause 1 of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 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 dates of commercial operation of the different units of this generating station is as under:-

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

3. The Commission vide order dated 3.10.2006 in Petition No. 66/2005 had 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 (Tribunal) on various issues. Similarly, appeals were also filed before the Tribunal by some of the objectors/consumers challenging the order dated 3.10.2006. The Tribunal by its Judgment dated 23.11.2007 disposed of the said appeals on various grounds and remanded the matter to the Commission for de novo consideration of the tariff order dated 3.10.2006 in terms of the findings and observations made therein and according to the law. Against the Judgment dated 23.11.2007, some of the parties namely, the Central Commission (Civil Appeal No. 4289/2008) and few others filed Civil Appeals before the Hon'ble Supreme Court which are pending. Therefore, in terms of the direction contained in the judgment of the Tribunal dated 23.11.2007 in Appeal No. 273/2006, the tariff for the period 2006-09 in Petition No. 66/2005 was re-determined by the Commission vide 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 the Tribunal on various issues, including the question of non-consideration of different elements of the tariff.

4. Thereafter petitioner filed Petition No. 240/2009 for determination of tariff of the generating stations and inter-state transmission system for the period 2009-14. Where so the tribunal by its judgment dated 10.5.2010 in Appeal No.146/2009 rejected the prayers of the petitioner and upheld the order of the Commission dated 6.8.2009 in Petition No. 66/2005. Against the judgment of the Tribunal dated 10.5.2010, the petitioner has filed appeal (Civil Appeal No. 4881/2010) before the Hon'ble Supreme Court and the Court by its interim order dated 9.7.2010 stayed the directions of the Tribunal for refund off excess amount billed, until further orders. The Civil Appeals filed before the Hon'ble Supreme Court are still pending.



5. Pursuant to the above, the petitioner filed Petition No. 272/2010 for determination of deferred elements of tariff for generation and inter-State transmission systems of the petitioner for the period 2006-09 in terms of the provisions of the 2004 Tariff Regulations and the Judgment dated 13.6.2007 of the Tribunal. Subsequently, in Petition No. 240/2009 filed by the petitioner for approval of tariff for 2009-14, the Commission, by its order dated 23.6.2011 has granted provisional tariff for the period 2009-14, pending determination of the final tariff as per Regulation 5(3) of the 2009 Tariff Regulations. Against the said order dated 23.6.2011, some of the HT consumers of the petitioner in the States of West Bengal and Jharkhand, filed several Writ Petitions before the Hon'ble High Court of Calcutta (W. P. No. 15077 (W) of 2011) challenging amongst others, the constitutional validity of the Clause 4 of Regulation 5 of the 2009 Tariff Regulations and the provisional tariff order dated 23.6.2011.

6. During the pendency of the above Writ Petitions before the High Courts of Calcutta and Jharkhand, the petitioner, in terms of the direction contained in the order of the Commission dated 23.6.2011 in Petition No. 240/2009, filed separate petitions for determination of tariff for the period 2009-14. The High Court of Jharkhand by its judgment dated 23.3.2012 in W.P. 4097/2011 upheld the Constitutional validity of Regulation 5(4) of the 2009 Tariff Regulations and the provisional tariff order dated 23.6.2011 and the High Court of Calcutta by its judgment dated 7.12.2012 in W.P. No. 15077/2011 and others, declared Regulation 5(4) of the 2009 Tariff Regulations as ultra vires the Constitution and the Electricity Act, 2003 and set aside the same along with the provisional tariff order dated 23.6.2011. Against the Judgment of the High Court of Jharkhand, some of the HT Consumers/objectors have filed SLPs [SLP (c) 10945/2012 (GFL-v- UOI &ors) and other connected petitions] before the Hon'ble Supreme Court of



India. Similarly, against the judgment of the High Court of Calcutta, SLPs have been filed by Central Commission in SLP(c) No. 12929-12961/2013(CERC-v- BSAL & others) and the petitioner, DVC in SLP (C) No 13167-13212/2013 before the Hon'ble Supreme Court and the same are pending. Thereafter, the Commission by its order dated 8.5.2013 in Petition No. 272/2010 determined the deferred elements of tariff for generating stations and inter-state transmission system of the petitioner the period 2006-09, which included this generating station also.

7. Thereafter, in Petition No. 268/GT/2012 filed by the petitioner for different items of the period 2009-14, the Commission vide order dated 29.7.2013 where the Commission has done true-up for the year 2009-10, 2010-11 and 2011-12 only and determined the annual fixed charges for this generating station as summarized under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	828.21	1323.56	221.72	2076.57	3703.05
Interest on Loan	40.22	39.75	0.00	48.43	48.82
Return on Equity	5389.65	5630.56	5630.63	5764.76	6003.94
Interest on Working Capital	3005.36	3052.60	3064.71	3136.03	3209.32
O&M Expenses	19750.50	20317.50	20897.10	21495.60	22106.70
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2496.53	2496.53	2503.36	2496.53	2496.53
Compensation Allowance	283.50	283.50	210.00	210.00	210.00
Sub-Total	31793.95	33143.99	32527.53	35227.92	37778.35
Pension & Gratuity Contribution	3662.69	3662.69	3662.69	3662.69	3662.69
Sinking fund Contribution	1323.41	1397.44	3605.33	3857.70	4127.74
Common Office Expenditure	163.01	153.85	111.99	111.97	112.02
Annual Fixed Charges	36943.07	38357.97	39907.53	42860.28	45680.80

8. The first proviso to Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(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 31.3.2014, 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, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

9. The petitioner vide affidavit dated 12.11.2014 has filed the petition for revision of tariff based on truing up of actual expenditure in terms of Regulation 6(1) of the 2009 Tariff Regulations. Accordingly, the annual fixed charges claimed by the petitioner for the period 2009-14 in respect of the generating station is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	828.21	1323.55	221.72	529.19	1330.92
Interest on Loan	40.22	39.75	0.00	36.07	37.02
Return on Equity	5389.65	5630.56	5630.63	5664.81	5798.42
Interest on Working Capital	3005.36	3052.60	3067.55	3104.29	3158.19
O&M Expenses	19750.50	20317.50	20897.10	21495.60	22106.70
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2496.53	2496.53	2503.37	2496.53	2496.53
Compensation Allowance	283.50	283.50	346.50	346.50	346.50
Sub-Total	31793.96	33143.99	32666.87	33672.99	35274.28
Pension & Gratuity Contribution	12952.29	12952.29	6927.12	4376.42	5046.65
Sinking fund Contribution	1318.15	1273.83	1218.97	1212.19	1297.04
Common Office Expenditure	364.51	411.29	253.39	135.59	118.50
Additional O&M	0.00	0.00	0.00	4256.49	3353.10
Adjustment for secondary fuel oil	(-)175.79	308.26	1135.40	2071.47	1877.57
Annual Fixed Charges	46253.12	48089.66	42201.75	45725.15	46967.14

10. The Energy Charges as approved in order dated 29.7.2013 in Petition No. 268/2012 has been claimed in this petition.

11. In compliance with the direction of the Commission the petitioner has filed additional information with copy to the respondents including the objector. The objector, DVPCA



has filed its reply to the petition and the petitioner has filed its rejoinder to the same. Taking into consideration the submissions of the parties and the documents available on record, we now proceed to consider the claims of the petitioner and revise the tariff in respect of this generating station for the period 2009-14 after truing-up exercise. This is however, subject to the final outcome of the Civil Appeals pending before the Hon'ble Supreme Court.

Capital cost

12. The last proviso to Regulation 7 of the 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff.”

13. Regulation 43(3)(i) of the 2009 Tariff Regulations provides as under:

*“43. **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).*

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

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

14. The petitioner has considered the capital cost of ₹58552.09 lakh (excluding liabilities of ₹2.74 lakh) as on 1.4.2009 as determined by order dated 29.7.2013 in Petition No. 268/GT/2012.

15. The objector, DVPCA vide affidavit dated 3.12.2014 has submitted that the petitioner in its various filings has stated that accounts are duly audited by C& AG and



does not contain provision for separating the expenses relating to distribution/retail business. The objector, DVPCA has further, submitted that the accounts of DVC does not contain any provision for bifurcation of expenses between the two States as regards the distribution of energy, sale of energy etc. and allocation of expenses for each functional area. Hence, the objector has submitted that the petitioner should prepare separate accounts in respect of its activities under "Power business".

16. The petitioner vide letter dated 15.6.2015 has filed Form-9A (statement of capital cost) & 9B (statement of CWIP) along with reconciliation/allocation statement for the 2009-14 tariff period duly matching with audited accounts certified by Auditor for gross fixed assets, CWIP and depreciation. In response vide affidavit dated 15.6.2015 the petitioner has submitted above forms.

17. The Commission vide order dated 29.7.2013 in Petition No. 268/GT/2012 has considered the capital cost as on 31.3.2009 as ₹58554.83 lakh to the extent its apportionment to generating station covered in the instant petition. As per Regulation 7 of the 2009 Tariff Regulations, the admitted capital cost as on 31.3.2009 is to be considered as the opening capital cost as on 1.4.2009. Accordingly, the admitted capital cost of ₹58552.09 lakh after removal of un-discharged liabilities of ₹2.74 lakh as on 31.3.2009 has been considered as the opening capital cost as on 1.4.2009 for the purpose of tariff.

Actual Additional Capital Expenditure during 2009-14

18. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011 and 31.12.2012, provides as under:

*"9. **Additional Capitalisation.** (1) The capital expenditure 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;
- (ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

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

(v) Change in law: Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities 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 on the following counts after the cut-off date may, in its discretion, 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;

(ii) Change in law;

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

(iv) 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) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) 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 of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, 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. 1.4.2009.

(vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15



year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations.

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

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

(viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.

(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”

19. The actual additional capital expenditure allowed vide order dated 29.7.2013 in Petition No. 268/GT/2012 is as under:-

	Approved			Projected	
	2009-10	2010-11	2011-12	2012-13	2013-14
Plant & Machinery	1710.23	104.46	0.00		
Ash Handling System	0.00	0.00	48.91		
Buildings	29.52	0.00	3.70		
Roads, culverts, railway sidings	0.00	0.00	0.00		
Other Assets	0.00	0.00	0.00		
De-capitalization	0.00	(-)318.90	-		
Additional capital expenditure allowed	1739.75	(-)214.44	52.61	4562.00	3667.00
Less: Replacement not considered	0.00	21.17	0.00	0.00	0.00
Less: Liabilities included in Additional capital expenditure	3.53	7.14	0.00	0.00	0.00
Add: Discharge of Liabilities	1.50	2.71	0.00	0.00	0.00
Total Additional capital expenditure allowed	1737.72	(-)240.04	52.61	4562.00	3667.00



20. There is no change in the claim of the petitioner for additional capital expenditure for the year 2009-10, 2010-11 and 2011-12 as against those approved vide order dated 29.7.2013. The petitioner has however, revised its claim for additional capital expenditure for the year 2012-13 and 2013-14 and the same is considered in this order. The objector, DVPCA has submitted that, the petitioner has not furnished any details of additional capitalization and hence the same should be disallowed. The breakup details of the additional capital expenditure claimed by the petitioner for the years 2012-13 and 2013-14 are as under:-

	(₹ in lakh)	
	2012-13	2013-14
Land	0.00	587.37
Buildings	0.00	6.15
Power House Plant & Machinery	1455.42	710.02
Other Assets	36.42	16.55
De-capitalization	(-)375.61	(-)218.25
Total	1116.22	1101.86
Discharge of liabilities	7.14	1.19
Total	1123.36	1103.05

21. The Commission, while examining and approving in order dated 29.7.2013 in Petition No. 268/GT/2012 with respect to the claim of the petitioner and additional capital expenditure and had observed as under:

“.....

28. Further, the norms of operation specified for the year 2006-09 were adopted by the Commission under the 2009 Tariff Regulations applicable for the period 2009-14, keeping in view that the petitioner would be able to achieve the norms by completion of R&M and sustain the performance of the generating station during the period 2009-14. However, it is noticed that achieving operational norms as specified by the Commission has not been possible by the petitioner without R&M of the units of this generating station. One unit of the generating station has already completed useful life of 25 years and the other two units are to complete their useful life of 25 years during the years 2015 and 2018 respectively. The petitioner has proposed the capitalization of expenditure of 344.45 crore during the fag end of the useful life of the generating station without indicating the period over which the life would be extended. However, the petitioner has suggested the recovery of the said investment during a period of 8 to 10 years of operation. We are of the considered view that since major components of R&M of these units are to be taken up after 2014, the additional capital expenditure incurred/proposed to be incurred shall be recovered over a period of 15 years from the



terminal year of this tariff period. In this background, we consider the claims of the petitioner for additional capitalization.

29. After examining the asset-wise details and justification submitted by the petitioner, the replies and rejoinders filed by the parties, on prudence check, the admissibility of the additional capital expenditure claimed by the petitioner under various categories is discussed as under:

....

35. Regulation 9(2)(iv) of the 2009 Tariff Regulations provides for consideration of expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation for hydro projects only, Considering the fact that these assets are required for successful operation of the generating station and in order to achieve the operational norms specified by the Commission, we as a special case, in exercise of the power under Regulation 44 of the 2009 Tariff Regulation, relax the provision under Regulation 9(2)(iv) of the 2009 Tariff Regulations and allow the capitalization of the said expenditure for sustenance of operation of the generating station”.

22. The commission in the order dated 29.7.2013 has allowed capital expenditure of ₹4562.00 lakh and ₹3667.00 lakh. In the above background, we consider the claims of the petitioner for additional capital expenditure in this petition as stated in the subsequent paragraphs.

Actual capital expenditure for the period 2012-13 to 2013-14

23. The petitioner has proposed additional capital expenditure during the period 2012-14 mainly under following heads:-

- Land & Building
- Power House Plant and Machinery.
 - i. Station Service Transformer Bay
 - ii. IP & HP Rotor
 - iii. Turbine Oil Centrifuge
 - iv. ID Fan Motor
- Ash handling System.
- Other Assets.



2012-13

24. It is noticed that major expenditure of additional capital expenditure has been incurred by the petitioner towards Plant & Machinery. The assets capitalized are towards IP rotor and Turbine Oil Centrifuge. Against the replacement of these assets, the gross value of old assets has also been furnished by the petitioner. It is observed that IP rotor is in service since inception and due to prolonged operation, assets has been affected due to thermal stress, erosion, material deformity etc. As a result, these old asset has become prone to frequent failures. However keeping in view the need to consider the additional capital expenditure for this generating station as observed by the Commission in order dated 29.7.2013 to achieve the operational norms specified by the Commission, we allow the expenditure of ₹401.20 lakh (₹738.96 lakh - ₹337.76 lakh {de-capitalization}) towards the replacement of old assets along with the adjustment of the corresponding de-capitalization value. Also the capitalization of ₹30.20 lakh (₹35.65 lakh - ₹5.45 lakh {un-discharged liability}) towards up-gradation & augmentation of electrical Auxiliary system along with conversion of existing 6.6 kV ungrounded to grounded system has been allowed on cash basis under PIE programme. The petitioner has claimed ₹2.88 lakh towards disposal of other assets and we have considered the same towards de-capitalization.

25. The petitioner has claimed ₹568.69 lakh towards Supply, erection, testing & commissioning of third Station Service Transformer (SSTs) Bay at BTPS 'B' 220 kV Switchyard. The petitioner has submitted that this is required to feed additional power to newly commissioned combined ash slurry system and dry fly ash system (yet to commissioned) and also the existing SSTs were inadequate to cater the present auxiliary consumptions of units 1-3. The said expenditure is found necessary for successful and efficient operation of generating station and therefore has been allowed.



Since the said asset is new asset there is no adjustment of the corresponding de-capitalized value.

26. The petitioner has claimed ₹8.00 lakh and ₹64.87 lakh (excluding liability and opening Gross Block) towards High Voltage Transformer-Rectifier Unit and ID Fan motor. From the petitioners submission it is observed that the petitioners claim is in the nature of capital spares which is not permissible as per Regulation as capitalization of spares over and above the initial spares procured after the cut-off-date are not allowed for the purpose of tariff, and they form part of the O&M expenses when consumed. Accordingly, we are not inclined to approve the petitioners claim towards High Voltage Transformer-Rectifier unit and ID Fan motor.

27. The petitioner has claimed total amount of ₹8.26 lakh (₹5.00 lakh + ₹0.28 lakh + ₹0.37 lakh + ₹2.60 lakh) (excluding liability and opening Gross Block) towards Chartless Recorder, Insulation tester, Digital AC Clamp Metre and Pond Ash & Coal survey machine. It is observed that these items claimed are in the nature of tools & tackles and O&M expenses. Therefore the claimed expenditure towards above mentioned items has not been allowed.

28. The petitioner has claimed total amount of ₹37.88 lakh (excluding liability and opening Gross Block) towards scanners, LED light good vision during surgery, Dental chair, Auto traction equipment for Hospital, Hospital equipment (USG machine), Fax machine and Air Conditioning machine for the year 2012-13 under the category Other Assets In our view, these assets are minor in nature. Since, capitalization of minor assets after the cut-off date is not permissible in terms of proviso to Regulation 9(v) of the 2009 Tariff Regulations, the capitalization of the Other Assets are not allowed.



2013-14

29. The petitioner has claimed ₹587.37 lakh towards cost of land for construction of New Ash Pond for discharge of Ash Slurry of both the plants 'A' and 'B'. The Petitioner also submitted that the old ash pond site will be utilized for construction of CHP for new plant 'A'. In this regard the Commission vide ROP to hearing dated 3.3.2016 sought the justification in respect of expenditure incurred. In response the petitioner submitted that it has constructed new ash pond for the station as per direction of Jharkhand State Pollution Control Board, for which it has acquired additional land. The petitioner has also submitted the relevant documents of Government of Jharkhand and Jharkhand State Pollution Control Board (JSPCB). From the documents submitted, it is observed that JSPCB has directed the petitioner to enhance the work of evacuation or limit the production of ash as all the four ponds are filled up and no evacuation work is being carried out, due to which the ash laden effluent is being continuously discharged into river which ultimately is deteriorating the quality of the river water. In response to JSPCB direction, the petitioner submitted that size of the four existing ponds is not adequate and therefore it is making efforts for construction of new ash ponds of higher capacity with combined ash slurry system and also adopting re-cycling methodology to make zero discharge to river Konar. Considering the directions of the JSPCB to the petitioners and the petitioners limitation to comply with the directions we therefore allow the additional capital expenditure towards cost of land for 2013-14.

30. The petitioner has claimed actual capital expenditure towards, Supply, erection, testing & commissioning of 3rd Station Service Transformer (SSTs) Bay at BTPS 'B' 220 kV Switchyard and HP rotor. It is observed that HP rotor is in service since inception and due to prolonged operation, assets has been affected due to thermal stress, erosion,



material deformity etc. As a result, these old asset has become prone to frequent failures. However keeping in view the need to consider the additional capital expenditure for this generating station as observed by the Commission in order dated 29.7.2013 to achieve the operational norms specified by the Commission, we allow the expenditure of ₹417.58 lakh (₹633.92 lakh - ₹28.74 lakh {un-discharged liability} - ₹187.60 lakh {de-capitalization}) on cash basis towards the replacement of old assets along with the adjustment of the corresponding de-capitalization value.

31. The petitioner has claimed ₹4.55 lakh (₹6.59 lakh - ₹0.44 lakh {un-discharged liability} - ₹1.60 lakh {de-capitalization}) towards Boundary wall and has submitted that previously the boundary wall was temporarily made up of GI sheet for safety. The petitioner also submitted that for security of CISF personnel and their arms in barrack, new boundary wall was constructed with top layer of barbed wire. From the above submission it is observed that the petitioner has constructed boundary wall for the security of CISF personnel and their arms in barrack. Therefore, the said expenditure has been allowed on cash basis.

32. The petitioner has claimed ₹51.72 lakh (excluding liability and opening Gross Block) towards 500 kVA Diesel Gen Set, Coal Conveyor Motor and three phase Induction motor during the year 2013-14. It is observed that the petitioners claim is in the nature of capital spares which is not permissible as per Regulation as capitalization of spares over and above the initial spares procured after the cut-off-date are not allowed for the purpose of tariff, and they form part of the O&M expenses when consumed. Accordingly, we are not inclined to approve the said claim.



33. The petitioner has claimed total amount of ₹24.07 lakh (₹3.10 lakh + ₹0.12 lakh + ₹0.32 lakh + ₹4.34 lakh + ₹16.20 lakh) (excluding liability and opening Gross Block) towards plane balancing, 5000 V Insulation tester, Mobile tripper motor 415 V, Conventional Air circuit braker and Chartless Recorder for 2013-14. It is observed that the claimed items are in the nature of tools & tackles and O&M expenses. Therefore the claimed expenditure towards above mentioned items has not been allowed.

34. The petitioner has claimed total amount of ₹19.58 lakh (excluding liability and opening Gross Block) towards UPS, Personal Computer and LED Projector-O/Assets for the year 2013-14 under the category Other Assets In our view, these assets are minor in nature. Since, capitalization of minor assets after the cut-off date is not permissible in terms of proviso to Regulation 9(v) of the 2009 Tariff Regulations, the capitalization of the Other Assets are not allowed.

35. The petitioner has claimed ₹2.88 lakh and ₹3.03 lakh towards disposal of other assets for 2012-13 and 2013-14 respectively and same has been allowed as de-capitalization for the purpose of tariff computation. The petitioner has also claimed discharge of liabilities of ₹7.14 lakh and ₹1.19 lakh for 2012-13 and 2013-14 respectively. The discharge of liabilities during 2012-13 and 2013-14 has been considered as additional capitalization.

36. The year-wise additional capital expenditure allowed for the period 2009-14 after adjustments of liabilities, is as under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Additions Allowed	1739.75	104.46	52.61	1343.31	1227.88
De-capitalization	0.00	(-)318.90	0.00	(-)340.64	(-)192.23
Less: Liabilities included in additional	3.53	7.14	0.00	5.45	29.18



	2009-10	2010-11	2011-12	2012-13	2013-14
capital expenditure					
Add: Discharge of liabilities	1.50	2.71	0.00	7.14	1.19
Net Additional capitalization	1737.72	(-)240.04	52.61	1004.36	1007.66

Capital Cost for 2009-14

37. Accordingly, the capital cost considered for the purpose of tariff for different years of the period 2009-14 is as under:-

	2009-10	2010-11	2011-12	2012-13	2013-14
					<i>(₹ in lakh)</i>
Opening Capital cost	58552.09	60289.82	60049.78	60102.39	61106.74
Additional capital expenditure allowed	1737.72	(-)240.04	52.61	1004.36	1007.66
Closing Capital cost	60289.82	60049.78	60102.39	61106.74	62114.40
Average Capital cost	59420.96	60169.80	60076.08	60606.56	61610.57

Debt: Equity

38. The Commission by its Order dated 29.7.2013 in Petition No. 268/GT/2012 has approved Debt:Equity ratio of 51.15:48.85 as on 31.3.2009.

39. Regulation 12 of the 2009 Tariff Regulations provides that:-

(a) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

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



(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

46. The Commission has considered the debt-equity ratio of 51.15:48.85 as on 1.4.2009 as approved by the Commission in its Order dated 29.7.2013. The commercial operation of the project covered under the petition is prior to 1.4.2009 and hence, the debt:equity admitted as on 31.3.2009 is to be considered as opening capital cost for the tariff as per Regulation 12 of the 2009 Tariff Regulations. Accordingly, gross loan and equity amounting to ₹29952.87 lakh and ₹28601.96 lakh respectively as approved vide order dated 8.5.2013 in Petition No. 272/2010 has been considered as the gross loan and equity as on 1.4.2009. However, un-discharged liabilities of ₹2.74 lakh included in the capital cost as on 31.3.2009 has been adjusted in the debt-equity ratio of 70:30 as these liabilities pertains to the period 2004-09. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹29950.95 lakh and ₹28601.14 lakh respectively. Further, the additional expenditure approved as above has been allocated in debt-equity ratio of 70:30 in accordance with Regulation 12 of the 2009 Tariff Regulations.

Return on Equity

40. Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides that:

“(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation.



Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-II.

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed charges on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

The grossing up of the base rate has been done with respect to the actual tax rate applicable to the petitioner for the period 2009-14. However, since the petitioner's company as a whole has book loss as per Audited accounts for 2010-11 and 2013-14 and no tax has been paid. The Commission, in its order dated 8.2.2016 in petition no 198/GT/2013, NTPC Tamil Nadu Energy Company Ltd versus AP Distribution Company, has considered the applicable tax rate as NIL as the generating company was incurring losses during 2012-13 and 2013-14. Similar approach is also followed in the instant case as the petitioner company has incurred losses during 2010-11 and 2013-14.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening notional equity	28601.14	29122.45	29050.44	29066.23	29367.53
Addition due to Additional Capitalisation	521.32	(-)72.01	15.78	301.31	302.30



	2009-10	2010-11	2011-12	2012-13	2013-14
Closing Equity	29122.45	29050.44	29066.23	29367.53	29669.83
Average Equity	28861.80	29086.45	29058.33	29216.88	29518.68
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate	16.995%	0.00%	20.008%	20.008%	0.00%
Rate of Return on Equity (Pre Tax)	18.674%	15.50%	19.377%	19.377%	15.50%
Return on Equity	5389.65	4508.40	5630.63	5661.35	4575.40

Interest on Loan

41. Regulation 16 of the 2009 Tariff Regulations provides that:

“(1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year.

(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 annual depreciation allowed.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project. 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 re-financing 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 beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

42. Interest on loan has been worked out as under:
- a. The gross normative loan after adjustment of un-discharged liabilities as on 1.4.2009 has been considered on 1.4.2009. In addition loan component towards additional capitalization has been considered as per the approved debt equity ratio.
 - b. Cumulative repayment after adjustment of un-discharged liabilities as on 1.4.2009 has been considered as cumulative repayment as on 1.4.2009.
 - c. Addition to normative loan on account of additional capital expenditure approved above has been considered on year to year basis as per the the approved debt equity ratio.
 - d. Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further proportionate adjustment has been made to the repayments corresponding to discharge of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009. Also, proportionate adjustment has been made to the repayments on account of de-capitalizations considered in the additional capital expenditure approved above.



- e. The weighted average rate of interest of has been considered for 2012-13 and 2013-14 respectively based on actual loan portfolio.

43. The petitioner vide affidavit dated 9.9.2015 has submitted the Form-7 & 8 and Form-13 with reconciliation of loan details as per audited accounts. It has further stated that there are no project specific loans and corporate loans for additional capitalization for existing generating stations of the petitioner. The details of weighted average rate of interest are placed at **Annexure-I**. Accordingly, the calculations for interest on loan are as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan for the purpose of tariff in the instant petition	29950.95	31167.36	30999.33	31036.16	31502.77
Cumulative Repayment of Loan upto previous year	29943.00	30916.90	30999.33	30999.33	31465.76
Net Opening Loan	7.95	250.45	0.00	36.83	37.01
Addition due to Additional Capitalisation	1216.41	(-)168.03	36.83	703.05	705.36
Repayment of Loan during the period	1479.14	320.48	0.00	697.87	839.28
Add: Repayment adjustment due to de-capitalisation during the year / period	506.29	238.05	0.00	236.43	132.44
Less: Repayment adjustment due to discharges during the year / period	1.05	0.00	0.00	5.00	0.83
Net Closing Loan	250.45	0.00	36.83	273.45	34.70
Average Loan	129.20	125.23	18.41	155.14	35.86
Weighted Average Rate of Interest on Loan	8.8451%	8.8202%	8.6980%	9.3209%	9.6430%
Interest on Loan*	11.43	11.05	1.60	14.46	3.46

*Revised on account of change in depreciation approved for 2009-10 to 2011-12 vide order dated 29.7.2013

Depreciation

44. Regulation 17 of the 2009 Tariff Regulations provides that:

“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.



(2) 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 stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.

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

(3) 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.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting 3[the cumulative depreciation including Advance against Depreciation] as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

45. Regulation 43(3)(iii) of the 2009 Tariff Regulations provides as under:

*“43. **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).*

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

(i)....

(ii)....

(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.

46. The rate of depreciation has been arrived by taking the weighted average of depreciation computed on the gross value of asset as on 31.3.2009 at the rates approved by C&AG and it works out to 6.8687%. Further, the proportionate adjustment



has been made to the cumulative depreciation corresponding to discharges of liabilities considered during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. The cumulative depreciation has been adjusted on account of de-capitalization considered during the period 2009-14 for the purpose of tariff. The necessary calculations in support of depreciation are as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	58552.09	60289.81	60049.77	60102.38	61106.74
Additional Capitalization	1737.72	-240.04	52.61	1004.36	1007.66
Closing Capital Cost	60289.81	60049.77	60102.38	61106.74	62114.40
Average capital cost	59420.95	60169.79	60076.08	60604.56	61610.57
Value of freehold land	70.15	70.15	70.15	70.15	657.51
Depreciation rate	6.8687%	6.8687%	6.8687%	6.8687%	6.8687%
Depreciable value	53415.72	54089.68	54005.33	54480.97	55153.63
Balance depreciable value	1479.14	978.70	0.00	697.87	839.28
Depreciation*	1479.14	978.70	0.00	697.87	839.28
Cumulative depreciation at the end of the period (before adjustment)	53415.72	54089.68	54089.68	54480.97	55153.63
Add: Cumulative depreciation adjustment on account of un discharged liabilities	1.33			6.39	1.06
Less: Cumulative depreciation adjustment on account of de-capitalization	306.07		306.57	173.01	
Cumulative depreciation after adjustment (at the end of the period)	53110.98	54089.68	53783.10	54314.35	55154.69

*Revised on account of rectification of treatment of de-capitalization in cumulative depreciation approved for 2009-10 to 2011-12 vide order dated 29.7.2013

Operation & Maintenance Expenses

47. The Operation & Maintenance expenses considered for the purpose of tariff in accordance to Regulation 19(a) for 210 MW coal based generating station is summarized as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Norms (₹lakh/MW)	31.35	32.25	33.17	34.12	35.09



Capacity (MW)	630	630	630	630	630
O&M Expenses	19750.50	20317.50	20897.10	21495.60	22106.70

48. In addition to above, the petitioner has claimed additional O&M expenses towards Ash evacuation, Mega insurance, CISF security and Share of Subsidiary activity. The additional O&M expenses was not allowed for the period 2009-14 in order dated 29.7.2013 in Petition No. 268/GT/2012 and has observed as under:

“58. The petitioner has submitted that these O&M expenses were not part of the base amount included in the determination of O&M cost while specifying the normative O&M expenses by the Commission under the 2009 Tariff Regulations. The respondents and the objectors have objected to the said claims. It is noticed that the actual O&M expense in respect of this generating station for the years 2009-10 and 2010-11 are within the normative O&M expenses allowed to the generating station in terms of the regulations specified by the Commission. In view of this, we find no justification in the claim of the petitioner for additional O&M expenses. We are of the view that the additional O&M expenses claimed as above shall be met from the normative O&M expenses allowed to the generating station. Accordingly, the claim of the petitioner for additional O&M expenses has not been allowed.”

49. In respect to additional O&M expense, the petitioner has submitted that significant amount of expenditure over and above the normative O&M expense allowed for the station, had to be incurred towards successful operation of the plant in 2012-13 and 2013-14. Further, submitted that due to ageing of the plant, the units are frequently shutdown for planned and unplanned outages. The petitioner has claimed additional O&M expenses for the year 2012-13 and 2013-14 as shown below.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash Evacuation	0.00	0.00	0.00	2107.26	1324.86
Mega Insurance	0.00	0.00	0.00	65.55	65.55
CISF Security	0.00	0.00	0.00	1692.01	1627.49
Share of Subsidiary Activity	0.00	0.00	0.00	391.66	335.19
Total	0.00	0.00	0.00	4256.49	3353.10

50. The objector, DVPCA vide affidavit dated 1.3.2016 has submitted following:



- (a) The 2009 Tariff Regulations provide benchmark normative O&M expenses linked with the capacity of the stations
- (b) The Tribunal by its judgement dated 23.11.2007 has held that DVC would be allowed O&M expenses as per the CERC Tariff Regulations.
- (c) The tariff Regulations also provide for escalation factor to offset inflationary increase in O&M expense and also the petitioner has already been allowed significantly relaxed levels compared to other stations.

51. In view of the above the objector, DVPCA has submitted that additional O&M claim towards Ash evacuation, mega insurance, CISF security and share for subsidiary activity are extraneous claims with reference to the 2009 Tariff Regulations and hence is not maintainable. In response the petitioner vide rejoinder dated 17.5.2016 has replied that it has submitted full justification for such additional O&M claim vide affidavit dated 31.3.2016. The petitioner further submitted that these expenditures are not considered in the base amount while fixing the O&M norms. The Commission vide ROP to hearing dated 3.3.2016 had sought the details of actual O&M expense of the station during the period 2009-14. In response the petitioner vide affidavit dated 31.3.2016 has submitted the details of actual O&M expense as ₹24804.00 lakh and ₹30375.00 lakh for 2012-13 and 2013-14 respectively which is higher than the normative O&M. The Commission further directed the petitioner to submit the reconciliation of Ash evacuation, mega insurance, CISF security and share for subsidiary activity with the book of accounts and also the basis of allocation to such expenses between:

- (a) "Power and other business",
- (b) Allocation amongst Generation, Transmission and Distribution for "Power business"
- (c) Allocations amongst the various operating generating stations.



52. In response the petitioner vide affidavit dated 23.6.2016 submitted that the expenditure on Ash evacuation, mega insurance and CISF security is project specific and therefore there is no allocation. The petitioner has also submitted reconciliation of amount with the book of accounts.

53. Taking into consideration the submissions of the parties and documents on record, we now proceed to examine the additional O&M expenses as under:-

Ash Evacuation

54. The Commission vide order dated 7.8.2013 in Petition No. 275/GT/2012 has allowed expense towards Ash evacuation for the period 2009-14 and observed as under:

“66. The matter has been examined. In respect of this generating station, it has been submitted that at present there is only wet slurry Ash disposal system. It has also submitted that in absence of dry fly ash system and the capacity of ash pond, if existing ash ponds are not evacuated on regular basis, the ash slurry would overflow to the low lying area/river causing river bed pollution. Accordingly, the petitioner has submitted that Ash evacuation was required during 2006-09 for compliance of pollution norms and the expenditure on ash evacuation pertains to evacuation of ash from the already filled up ash ponds in case of old stations like this generating station. The petitioner has further submitted that the Commission had allowed additional O&M expenses after being satisfied that the Ash evacuation was necessary for meeting the environment and pollution control norms as specified and also since the expenditure relating to ash evacuation in abandoned mines was not part of the normal O&M expense norms specified by the Commission. Considering the fact that Ash evacuation is still being carried out in the absence of any dry fly ash system and keeping in view that the normative O&M expenses allowed to this generating station for the period 2009-14 do not include expenditure on this count, we allow the additional O&M expenses on Ash evacuation as prayed for by the petitioner in relaxation of the provisions of the 2009 Tariff Regulations.”

55. The petitioner has claimed ₹2107.26 lakh and ₹1324.86 lakh for 2012-13 and 2013-14 respectively. The objector, DVPCA vide affidavit dated 1.3.2016 has submitted the following:

- (a) Cost of installing ash evacuation equipment, if any, has to be capitalized, and cannot be recovered as a revenue expenditure.
- (b) The petitioner was under an obligation to comply with environmental norms even prior to the enactment of 2003 Act.



56. Accordingly, the objector, DVPCA has stated that the failure to undertake ash evacuation in a sustained manner in the past appears to be the reason for claiming heavy expenditure on this count. Hence, prayed that the cost of past omission of DVC cannot be rectified at the expense of consumer..

57. In response, the petitioner vide affidavit dated 17.5.2016 has submitted that it has complied with the Environment Laws and has carried out ash disposal in a sustained manner. The petitioner has also submitted that it has been taking adequate steps for ash disposal which is consistent with the prudent practice. The petitioner has further submitted that additional expenditure towards ash evacuation is an established procedure and is required to be incurred over and above the normative O&M expenditure.

58. The matter has been examined. It is observed that the said expenditure has been incurred by the petitioner to meet the environment and pollution control norms and normative O&M expenses allowed to this generating station for the period 2009-14 do not include expenditure on this count.

59. The petitioner in its Petition No. 268/GT/2012 had claimed additional O&M expenses on account of ash evacuation for 2009-10 to 2013-14. The expenses claimed by the petitioner, that approved by the Commission and now claimed is as shown below.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash Evacuation claimed in (268/GT/2012)	1666.15	1761.45	1862.21	1968.72	2081.33
Approved by Order dated 29.7.2013	0.00	0.00	0.00	0.00	0.00
Now Claimed	0.00	0.00	0.00	2107.26	1324.86



60. It is observed that the claim of the petitioner has substantially increased in 2012-13 when compared to 2011-12. The Commission has therefore computed the compounded annual growth rate CAGR of 3.78% of ash evacuation expenses considering actual for 2009-10 to 2011-12. The ash evacuation expenses for 2011-12 have then been escalated by CAGR to derive expenses for 2012-13 and 2013-14. The Commission has then considered the minimum of such derived expenses and petitioner's claim. In view of the above the petitioners claim towards additional O&M for 2012-13 and 2013-14 on Ash evacuation is allowed in relaxation of the provisions of the 2009 Tariff Regulations for 2009-14.

	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	0.00	0.00	0.00	0.00	0.00
Approved in this order	0.00	0.00	0.00	1932.56	1324.86

(₹ in lakh)

Mega Insurance

61. The Commission vide order dated 7.8.2013 in Petition No. 275/GT/2012 had allowed the expenditure towards Mega Insurance for the period 2009-14 and has observed as under:-

“67.....The Commission in the order dated 8.5.2013 in Petition No. 272/2010 had allowed additional O&M expenses for the period 2006-09 taking into consideration the location of the generating stations of the petitioner, the security for the generating station against any acts of sabotage/terrorism and keeping in view that the normative O&M expenses allowed to the generating station in terms of the 2004 Tariff Regulations, do not include expenses on insurance. In line with the said order dated 8.5.2013, the Mega Insurance claimed by the petitioner for the period 2009-14, is allowed as additional O&M expenses in relaxation of the provisions of the 2009 Tariff Regulations.”

62. The petitioner has claimed ₹65.55 lakh for both the year 2012-13 and 2013-14. The objector, DVPCA vide affidavit dated 1.3.2016 has submitted the following:



- (a) Not provided any justification for claiming additional O&M expenses on account of “Mega Insurance”, when such expenditure forms part of “O&M expenses”, in the 2009 Tariff Regulations.
- (b) Not cited any extraordinary factors that have necessitated additional insurance cover for its units.
- (c) Any comprehensive insurance is always cost effective in comparison to individual insurance policies and hence it is not understood how mega insurance could lead to additional O&M expenses.

63. In response the petitioner vide rejoinder dated 17.5.2016 has submitted that the expenditure towards Mega Insurance is essential and is in the interest of the consumers to ensure that the consumers do not suffer for any tariff shock in the event of any substantial loss arising out of damage or destruction of the power plants.

64. Considering the location of the generating stations of the petitioner, the expenses towards security for the generating station against any acts of sabotage/terrorism will not be commensurate with the other generating stations. This kind of specific aspects was not considered while arriving the operation and maintenance expenses. We are of the view that the petitioner’s claim of additional operation and maintenance expenses on account of Mega Insurance applicable to the specific generating station as prayed for by the petitioner in relaxation of the provisions of the 2009 Tariff Regulations.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	0.00	0.00	0.00	0.00	0.00
Approved in this order	0.00	0.00	0.00	65.55	65.55



CISF Security

65. The Commission vide order dated 7.8.2013 in Petition No. 275/GT/2012 had allowed the expenditure towards CISF security for the period 2009-14 and has observed as under:-

“69. The petitioner vide its affidavit dated 19.4.2013 has submitted that all its Thermal and Hydro generating stations viz., Bokaro TPS, Chandrapura TPS, Mejia TPS, Durgapur TPS, Maithon HEP, Panchet HEP and Tilayia HEP are located in high alert security zones. In the support of this, the petitioner has submitted documentary evidences such as correspondence from the Ministry of Power, Govt. of India wherein direction to take appropriate security arrangements at hydrogenerating stations, dams etc., and instructions for strengthening the physical security of the various generating stations and for tightening the personal security were given. It has also submitted that IB inspections were undertaken and recommendations were issued from time to time for improvement of the security arrangements in the generating stations. The respondent, JSEB and the Objectors have objected to the claim of the petitioner for additional O&M expenses under this head. The matter has been considered. Based on the documentary evidence and considering the location and significant threat perception to the generating station and the personnel employed there, we consider the matter favorably and allow the claim of the petitioner for additional O&M on this count in relaxation of the provisions of the 2009 Tariff Regulations. However, the petitioner is directed to furnish the generating station-wise CISF personnel deployed/employed in its generating station during the period 2008-09 to 2013-14 at the time of truing up exercise to be undertaken in terms of Regulation 6 of the 2009 Tariff Regulations.”

66. The petitioner has claimed expenditure of ₹1692.01 lakh and ₹1627.49 lakh for 2012-13 and 2013-14 respectively. The petitioner has submitted that this generating station is located in high alert security zones. The objector, DVPCA vide affidavit dated 1.12.2014 submitted that the petitioner has not provided any justification for claiming CISF security when such expenditure forms part of O&M expenses as defined under the 2009 Tariff Regulations and further, it has also not submitted any extraordinary factors that have necessitated additional CISF security. The Commission vide ROP to hearing dated 3.3.2016, sought the details of generating station-wise CISF personnel deployed/employed in generating station during the period 2008-09 to 2013-14. In



response to Commissions direction in order dated 7.8.2013 and ROP, the petitioner vide affidavit dated 31.3.2016 has submitted the details of CISF deployed :-

	2009-10	2010-11	2011-12	2012-13	2013-14
No. of CISF deployed	418	398	379	395	415

67. The matter has been examined. It is observed that that the actual O&M expense for this generating station is higher than the normative O&M expense for the year 2012-13 and 2013-14. Further, in line with the above decision of the Commission in order dated 7.8.2013 and considering the significant threat perception to the generating station and the personnel employed there, we allow the expenditure towards CISF Security claimed by the petitioner for the period 2009-14, in relaxation of the provisions of the 2009 Tariff Regulations.

68. However, it is observed that the petitioner in its Petition No. 268/GT/2012 has submitted additional O&M expenses on account of CISF security for 2009-10 to 2013-14. The expenses claimed by the petitioner that approved by the Commission and now claimed is as shown below.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
CISF Security claimed in (268/GT/2012)	733.00	774.93	819.25	866.11	915.66
Approved by Order dated 29.7.2013	0.00	0.00	0.00	0.00	0.00
Now Claimed	0.00	0.00	0.00	1692.01	1627.49

69. It is observed that the claim of the petitioner has substantially increased in 2012-13 when compared to 2011-12. The Commission has therefore computed the compounded annual growth rate (CAGR) of 3.78% of CISF expenses considering actual for 2009-10 to 2011-12. The CISF expenses for 2011-12 have then been escalated by CAGR to



derive expenses for 2012-13 and 2013-14. The Commission has then considered the minimum of such derived expenses and petitioner's claim.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	0.00	0.00	0.00	0.00	0.00
Approved in this order	0.00	0.00	0.00	850.20	882.32

Share of Subsidiary activities

70. The Commission vide order dated 7.8.2013 in Petition No. 275/GT/2012 had allowed the expenditure towards share of subsidiary activity for the period 2009-14 and has observed as under:-

"71....The matter has been examined. In our order dated 3.10.2006 in Petition No. 66/2005, expenditure towards allocation of share of subsidiary activity for 2006-09 other than soil conservation has not been allowed. In line with said order and as the normative O&M allowed to the generating station during 2009-14 do not include revenue expenses on subsidiary activities, the additional O&M expenses for share of subsidiary activities has been considered and has been limited to the expenditure required for soil conservation. The Operating expenses of subsidiary activities for the years 2009-10, 2010-11 and 2011-12 have been verified/checked from the balance sheet of the petitioner company for the respective years in order to ensure that the expenses for the activities relating to soil conservation have only been accounted for in the computation of subsidiary expenses. However, in absence of balance sheet for the years 2012-13 and 2013-14, these expenses have been arrived at by escalating the expenses of 2011-12 and 2012-13 by 5.72% as per methodology followed under the 2009-14 Tariff Regulations relating to escalation of O&M expense norms."

71. The petitioner has claimed expenditure of ₹391.67 lakh and ₹335.20 lakh for 2012-13 and 2013-14 respectively towards share of subsidiary activity. The petitioner vide rejoinder dated 17.5.2016 has submitted that it has other multifarious functions in the Damodar Valley and has the obligation to undertake development of Damodar Valley, which falls in the provinces of West Bengal and Jharkhand. The petitioner has also submitted that it has been undertaking subsidiary activities in the Damodar Valley area since its inception. The petitioner has stated that in many respects, the need for increasing the subsidiary activities has now arisen particularly in the context of the urgent need in regard to soil erosion, cultivation of reservoirs, check dam, flood control,



afforestation etc. because of the increasing impact of environment. In addition, the petitioner has submitted that there is also a need to increase social integration activities by establishing hospitals, schools, drinking water supply, sanitation, public health, training scheme, roads etc.

72. The petitioner vide rejoinder dated 17.5.2016 has submitted that its activities are not restricted to generation and transmission of electricity but also (a) sale of electricity to consumers/ end users in the command area. It has also submitted that the other functions of the petitioners include promotion and operation of schemes for irrigation, flood control, water supply and drainage and improvement of flow conditions in the Hooghly river, navigation in the Damodar river and its tributaries and channels, afforestation and control of Soil erosion in the Damodar Valley and promotion of public health and agricultural, industrial, economic and general wellbeing in the Damodar valley and its areas of operation. The petitioner submitted that there are three broad divisions of DVC namely, Power, Irrigation and Flood control. The petitioner has added that the other activities mentioned herein above are mostly socio development activities which does not earn any revenue to the petitioner. The petitioner has further submitted that under the provision of DVC Act, the petitioner has been authorised to undertake such subsidiary activities and the cost and expense relating to such subsidiary activities are being allowed to be charged to the activities of power, irrigation and flood control. Further, out of the three activities of power, irrigation and flood control, for the past many years the power activities involving generation, transmission, bulk supply, distribution and retail supply constitutes the main activities for earning money and also for engaging the employees and workmen.



73. Considering the fact that the normative O&M allowed to this generating station for period 2009-14 does not include revenue expenses on subsidiary activities and also the actual O&M expense for this generating station is higher than the normative, we allow the additional O&M expenses for share of subsidiary activities limited to the expenditure required for soil conservation. The petitioner has not submitted the station-wise soil conservation cost but has only submitted the total soil conservation cost for the petitioners company as a whole for the year 2012-13 and 2013-14. Accordingly, the expenditure towards soil conservation activities has been worked out by considering the total soil conservation expenditure and the same has been allocated to each of the generating stations (including Mejia Unit 5 & 6) and T&D system of the petitioner in proportion to the admitted capital cost as on 1.4.2009. Further, the expenditure towards soil conservation activities worked out above pertaining to generating stations has been allocated to different units on the basis of installed capacity. Accordingly, the share of subsidiary activities limited to the expenditure towards soil conservation activities has been allowed as additional O&M expenses in relaxation of the provisions of the 2009 Tariff Regulations.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	0.00	0.00	0.00	0.00	0.00
Approved in this order	0.00	0.00	0.00	271.48	281.57

74. Accordingly, the total additional O&M expense allowed for this generating station is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash Evacuation	0.00	0.00	0.00	1932.56	1324.86
Mega Insurance	0.00	0.00	0.00	65.55	65.55
CISF Security	0.00	0.00	0.00	850.20	882.32
Share of Subsidiary activities	0.00	0.00	0.00	271.48	281.57
Total	0.00	0.00	0.00	3119.80	2554.29



Interest on working capital

75. Regulation 18 (1) (a) of the 2009 Tariff Regulations provides that the working capital for Coal-based/lignite-fired thermal generating stations shall cover:-

“(i) Cost of coal or lignite and limestone, if applicable, for 1½ months for pithead generating stations and two months for non-pit-head generating stations, for generation corresponding to the normative annual plant availability factor;

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

(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.

(iv) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor, and

(v) Operation and maintenance expenses for one month.”

76. Clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

“Rate of interest on working capital shall be on normative basis and shall be considered as follows:

(i) SBI short-term Prime Lending Rate as on 01.04.2009 or on 1st April of the year in which the generating station or unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the unit or station whose date of commercial operation falls on or before 30.06.2010.

(ii) SBI Base Rate plus 350 basis points as on 01.07.2010 or as on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the units or station whose date of commercial operation lies between the period 01.07.2010 to 31.03.2014.

Provided that in cases where tariff has already been determined on the date of issue of this notification, the above provisions shall be given effect to at the time of truing up”

77. Working capital has been calculated considering the following elements:



Fuel components in working capital

78. The petitioner has claimed the following cost of fuel component in working capital based on price and GCV of coal & secondary fuel oil procured and burnt for the proceeding three months of January, 2009, February, 2009 and March, 2009.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal for 2 months	6611.23	6611.23	6629.34	6611.23	6611.23
Cost of secondary fuel oil for 2 months	416.09	416.09	417.23	416.09	416.09

79. The claim of the petitioner for the cost of coal and secondary fuel oil is found to be in order and has been considered for for computing the interest on working capital.

Maintenance Spares

80. The petitioner has claimed the following maintenance spares in the working capital as under:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
	3950.10	4063.50	4179.42	4299.12	4421.34

81. The expenses for maintenance spares as claimed by the petitioner are found to be in order and are allowed.

Receivables

82. Receivables have been worked out on the basis of two months of fixed and energy charges as under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable charges for two Months	6611.23	6611.23	6629.34	6611.23	6611.23
Fixed charges for two months	5404.84	5269.51	5383.80	5613.37	5558.38
Total	12016.07	11880.74	12013.14	12224.60	12169.60



83. SBI PLR of 12.25% as on 1.4.2009 has been considered in the computation of the interest on working capital. Necessary computations in support of calculation of interest on working capital are given as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 2 months	6611.23	6611.23	6629.34	6611.23	6611.23
Cost of secondary fuel oil – 2 month	416.09	416.09	417.23	416.09	416.09
O&M expenses – 1 month	1645.88	1693.13	1741.43	1791.30	1842.23
Maintenance Spares	3950.10	4063.50	4179.42	4299.12	4421.34
Receivables – 2 months	12016.07	11880.74	12013.14	12224.60	12169.60
Total working capital	24639.35	24664.67	24980.55	25342.33	25460.48
Rate of interest (%)	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	3018.32	3021.42	3060.12	3104.44	3118.91

Other Elements

84. In addition, the petitioner has claimed expenditure towards Pension and Gratuity contribution, contribution to sinking fund created for redemption of bond and cost of common offices. The same has been discussed as follows:

Pension and Gratuity Contribution

85. The Commission vide its order dated 6.8.2009 in Petition No. 66/2005 had allowed 60% of the P&G liability as on 31.3.2006 to be recovered during the period 2006-09 and balance 40% of the liability during the period 2009-14 in five equal yearly installments. The relevant portion of the order dated 6.8.2009 in Petition No. 66/2005 is as observed as under:-

“69. The Commission in its order dated 3.10.2006 had worked out an amount of Rs. 153449 lakh towards pension and gratuity fund and directed that 60% of the aforesaid amount be recovered from the consumers over a period of three years starting from the year 2006-07 to 2008-09. The balance 40% of the gratuity fund was to be borne by the petitioner as it was allowed a transition period for two years i.e. 2004-05 and 2005-06 and the petitioner was allowed to retain the surplus fund during the years. Though tariff was allowed to the petitioner from 1.4.2004 due to the transition period, the petitioner was allowed to recover tariff at the rates fixed by it for the period from 1.4.2004 to



31.3.2006 and thereafter at the rates allowed by the Commission by its order dated 3.10.2006. Since the petitioner was allowed to recover tariff at the rates determined by it for 40% of the tariff period and retain the surplus so generated, the Commission took a conscious view that the petitioner should contribute to the extent of 40% of the pension and gratuity fund out of the surplus generated during the years 2004-05 and 2005-06....

...
...

71. It is noticed that the Appellate Tribunal while agreeing with the order of the Commission allowing transition period for two years to the petitioner, has, however rejected the non-allowance of 40% of the pension contribution and observed that the petitioner is entitled to recover the entire amount of pension fund from its consumers, provided that such recovery was staggered and do not create tariff shock to the consumers.

72. It could be observed from the books of accounts of the petitioner that the petitioner had generated a surplus amount of Rs 79487 lakh during the year 2004-05 and Rs. 188634 lakh during the year 2005-06. After adjustments on account of taxes and prior period, the surplus amount was Rs. 69044 lakh for year 2004-05 and Rs.108282 lakh for the year 2005-06. Considering the equity worked out in terms of the direction of the Appellate Tribunal and the additional capitalization allowed, the Return on equity at the rate of interest @ 14% works out to Rs.17700 lakh for 2004-05 and Rs.18000 lakh for 2005-06.

73. Accordingly, in compliance with the directions contained in the judgment of the Appellate Tribunal, it has been decided to stagger the balance 40% of the pension fund over a period of five years during the tariff period 2009-14, without any revision in the pension fund allocated in tariff for the period 2006-09..."

86. The Commission vide order dated 29.7.2013 in Petition No. 268/GT/2012 had allowed the year wise P&G liability of this generating station as stated below:-

74..... Subsequently, in order dated 6.8.2009 in Petition No. 66/2005, the Commission had allowed the petitioner to recover 60% of the admitted liability during the period 2006-09 and the balance 40% of liability during the period 2009-14 in compliance of the directions contained in the judgment of the Tribunal. In line with this, the Commission vide its order dated 22.4.2013 in Petition No. 272/2010 had allowed the recovery of an amount of ₹92069.40 lakh, being 60% of ₹153449 lakh towards Pension and Gratuity Fund for all its generating stations along with the tariff for the period and 2006-09 and ₹61379.60 lakh, being the balance 40% amount in five equal yearly instalments along with the tariff for the period 2009-14.....

...

76. The amount calculated as above is recoverable by the petitioner in five annual equal installments during the period 2009-14 in addition to the staggered P&G contribution amount allowed by the Commission for the period 2006-09. Based on the capital cost of ₹58554.83 lakh as on 31.3.2009, the year wise expenditure allowed for this generating station subject to truing-up is as under:"



87. The petitioner with the petition has submitted the actuarial valuation certificate as on 31.3.2006, 31.3.2009, 31.3.2011, 31.3.2012, 31.3.2013 & 31.3.2014 for all the Generating stations and T&D system duly certified by the Actuary Shri Bhudev Chatterjee, towards Pension and Gratuity (P&G) liability for the existing pensioners and employees. The details of Pension & Gratuity liability claimed are as under:-

(₹ in lakh)							
Valuation as on		Claimed	2009-10	2010-11	2011-12	2012-13	2013-14
31.3.2006	169015	40% of total valuation in five instalments	13521.20	13521.20	13521.20	13521.20	13521.20
31.3.2009	314093	40% of difference with earlier valuation in five instalments	11606.32	11606.32	11606.32	11606.32	11606.32
31.3.2011	399731	Difference with earlier valuation in two instalments	42818.66	42818.66			
31.3.2012	418765	Difference with earlier valuation in 2011-12			19034.00		
31.3.2013	430971	Difference with earlier valuation in 2012-13				12206.00	
31.3.2014	458744	Difference with earlier valuation in 2013-14					27773.00
			67946.18	67946.18	44161.52	37333.52	52900.52



88. The objector, DVPCA vide affidavit dated 1.12.2014 and 1.3.2016 has submitted as under:-

- a) The petitioner has not submitted the activity linked segregation of its employees as its employees are engaged in multifarious activities and is not specific to its power generation and transmission business.
- b) To direct the petitioner to submit details of employees in each of its specific activities and employees engaged in assets servicing the command area and those in respect whereof petitioner has signed PPAs with licensees outside the command area.
- c) The P&G liability towards employees in construction of assets should be capitalized and not charged through the ARR.
- d) The past allowance of Pension and Gratuity liability of employees engaged in DVC's under-construction projects has resulted in advance recovery of such liability from command area consumers that may not even be the beneficiaries of such projects.
- e) The advance recovery of Pension and Gratuity has excessively/ disproportionately burdened the command area consumers.
- f) Such advance recovery from command area consumers in the past has resulted in petitioner claiming relatively small increase in its liability towards contribution to Pension and Gratuity fund in subsequent controls periods.
- g) The interest earned on investments from its Pension and Gratuity Fund has not been accounted for either by reducing the annual provision for such Fund by the amount of interest earned or by reducing the Annual Revenue Requirement.
- h) Whether it is appropriate for the actuary to issue a certificate/ actuarial report based on projected salary data instead of actual salary data.



- i) The contribution to pension and gratuity fund are essentially O&M expenses, recoverable as part of capacity charges and therefore recovery should be linked with achievement of Target Normative Annual Plant Availability Factor (NAPAF).
- j) The annual increase of 6.35% in contribution towards P&G liability submitted by the petitioner would be off-set by the income earned out of the P&G fund investments. The current interest rate on government bonds/securities is around 8% per annum.

89. In response, the petitioner vide rejoinder dated 17.5.2016 has submitted that the claim for Pension contribution for the existing employees is admissible as per the judgment of the Tribunal dated 23.11.2007 in Appeal No. 271, 272, 273 etc of 2007. The petitioner has also submitted that the claim for additional pension contribution is not covered under the normative O&M expenditure and it has correctly claimed as per the actuarial valuation to the extent admissible. It has further, submitted that the Pension and Gratuity fund has been entrusted to a Trust independent of the petitioner's management and interest earned thereon is taken care by the trust. The petitioner has submitted that out of total number of work force of petitioners company, both employees and workmen, 98.90% is engaged in power business, and the remaining is engaged in Irrigation, Flood control as on 31.3.2006 and the amount decided as contribution to be made as per the actuarial valuation as on 31.3.2006 was allocated to 'Power business' in proportion to the above percentage of employees. The petitioner has also submitted that out of the total no. of 11211 employees and workmen (as on 31.3.2013), the Irrigation and flood control accounts for only 24 employees and in terms of the findings of the Tribunal in judgment dated 23.11.2007 in Appeal no. 271, 272, 273 etc of 2007, the employees in the subsidiary activities are to be accounted for in "Power related activities". The petitioner has further submitted that no part of the amount related to



Pension and Gratuity contribution is used by the petitioner for its business activities in any of the years commencing from 1.4.2006.

90. The Commission directed the petitioner to submit the break-up of the total P&G contribution claimed during the period 2009-14 with respect of the generating station, transmission & distribution system. In response, the petitioner vide its affidavit dated 31.3.2016 submitted the same along with reconciliation statement of P&G Fund paid to the trust as per audited accounts

91. The Commission further directed the petitioner to submit the basis of allocation of these P&G liability amongst Irrigation, Flood Control and Power business and also to submit the year wise details of the total number of employees and allocation of employees on different generating stations for the period 2009-14. In response, the petitioner vide affidavit dated 9.6.2016 submitted that it has apportioned the entire P&G liability to each of the generating stations/T&D systems in proportion to their opening capital cost as on 1.4.2009. The petitioner also stated that it has allocated the year wise P&G liability towards all the generating stations in proportion to their installed capacity. The petitioner has further submitted that only an insignificant number of employees are engaged in Irrigation and Flood control activities. Out of the total number of 11211 employees (as on 31.3.2013), the irrigation and flood control accounts for only 24 employees.

92. It is observed that the petitioner has claimed P&G liability as on 31.3.2006 and 31.3.2009 in line with the methodology adopted by the Commission in order dated 29.7.2013 in Petition No. 268/GT/2012. The petitioner has also claimed the P&G liability as valued on 31.3.2011, 31.3.2012, 31.3.2013 and 31.3.2014 during the period 2009-14.



93. Thus, the Commission in its order dated 29.7.2013 in Petition No. 268/GT/2012, had allowed balance 40% of the liability as on 31.3.2006 to be recovered during the period 2009-14 in terms of the judgment of the Tribunal dated 10.5.2010 in Appeal No. 146/2009. In addition to the above, 40% of difference in P&G liability as on 31.3.2009 and 31.3.2006 was also allowed to be recovered in five equal installments during the period 2009-14. The yearly P&G amount allowed for the period 2009-14 was allocated to different generating stations and T&D system of the petitioner on the basis of the capital cost as on 31.3.2009.

94. As the petitioner has submitted the Certificate from the Actuary as per the Accounting Standard -15 (AS-15) the Commission directed the petitioner to furnish the detailed actuarial valuation report submitted by the Actuary to the petitioner. In response the petitioner vide affidavit dated 10.6.2016 has submitted only the Certificate received from the Actuary has been furnished to the Commission and no separate report has been received from the Actuary to the petitioner.

95. The petitioner was further directed to furnish the complete details of all the elements with assumptions considered by the Actuary for arriving at the Pension & Gratuity fund requirement on year to year basis. The petitioner was also directed to submit the details of year wise (for each year from 2009-10 to 2013-14) amount deposited in the trust towards P&G fund alongwith reconciliation of P&G fund booked in annual accounts for the respective year. In response the petitioner vide affidavit dated 23.6.2016 has submitted the details assumptions considered i.e. mortality, attrition, discount rate, normal age retirement, salary escalation (basis salary and Basic + DA) and the method used for computation of P&G liability.



96. As stated, the Commission in order dated 29.7.2013 in Petition No. 268/GT/2012 had allowed the recovery of 40% of the difference in liability as per Actuarial valuation 31.3.2009 and 31.3.2006 in five equal installments. The Commission in the said order had allocated the same on petitioners generating stations except Mejia Unit 5 & 6. The Commission has revised the allocation and has also allocated share of P&G liability to Mejia Unit 5 and 6 on the basis of capital cost of ₹205946.66 lakh admitted by it as on 31.3.2009. It is observed that the O&M expenses norms specified by the Commission under the 2009 Tariff Regulations applicable for the period 2009-14 had taken into consideration the P&G liability as part of O&M expenses. The statement of reason of the 2009 Tariff Regulations, at para 20.3 clearly states that O&M cost for purpose of tariff covers expenditure incurred on the employees including gratuity, CPF, medical, education allowances etc. The expenses on account of CPF considered in Public Sector Undertakings take care of pension liability applicable in Government Undertaking.

97. In this background, the additional claim of the petitioner towards P&G liability for the period 2009-14 based on Actuarial valuation cannot be allowed. However, the allocation of P&G liability pertaining to period 2004-09 has been revised by re-allocating the total P&G liability approved in order dated 29.7.2013 taking into consideration Mejia Unit 5 & 6. Therefore, the P&G liability for the generating station has been worked out from the actuarial valuation report of DVC generating stations as under:-

	(₹ in lakh)					
	Total	2009-10	2010-11	2011-12	2012-13	2013-14
40 % of liability as per actuarial valuation as on 31.3.2006	61379.6	12275.92	12275.92	12275.92	12275.92	12275.92
40 % of the difference in liability as per actuarial valuation as on 31.3.2009 and 31.3.2006	52897.69	10579.54	10579.54	10579.54	10579.54	10579.54
Total	114277.29	22855.46	22855.46	22855.46	22855.46	22855.46



Further, the above P&G liability has been allocated to various generating stations as under:-

(₹ in lakh)

Name of station	Capital cost as on 31.3.2009	Total P&G allocated	2009-10	2010-11	2011-12	2012-13	2013-14
Bokaro TPS	58554.83	11712.05	2342.41	2342.41	2342.41	2342.41	2342.41
Chandrapura TPS	26914.05	5383.31	1076.66	1076.66	1076.66	1076.66	1076.66
Durgapur TPS	19501.48	3900.66	780.13	780.13	780.13	780.13	780.13
Mejia TPS #1 to 3	160713.11	32145.60	6429.12	6429.12	6429.12	6429.12	6429.12
Mejia TPS #5 & 6	205946.66	41193.15	8238.63	8238.63	8238.63	8238.63	8238.63
Maithon HS	5881.05	1176.32	235.26	235.26	235.26	235.26	235.26
Panchet HS	5016.79	1003.45	200.69	200.69	200.69	200.69	200.69
Tilaiya HS	263.80	52.76	10.55	10.55	10.55	10.55	10.55
T&D	88541.73	17709.99	3542.00	3542.00	3542.00	3542.00	3542.00
Total	571333.50	114277.29	22855.46	22855.46	22855.46	22855.46	22855.46

Bokaro TPS

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
2342.41	2342.41	2342.41	2342.41	2342.41

Contribution to Sinking Fund

98. The Commission vide order dated 29.7.2013 in Petition No. 268/GT/2012 has allowed the contribution towards sinking fund for 2009-14 is as hereunder:-

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
1323.41	1397.44	3605.33	3857.70	4127.74

99. Section 40 of the DVC Act provides that the petitioner shall make provision for depreciation and for reserve and other funds at such rates and on such terms as may be specified by the C&AG in consultation with the Central Government. The petitioner has claimed the contribution towards sinking fund as hereunder:-

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
1318.15	1273.83	1218.97	1212.19	1297.04



100. The objector, DVPCA has made following submissions:

- (a) Contribution towards sinking fund is liable to be disallowed as interest on working capital has been allowed for working capital borrowings for debt financing of the capital investment.
- (b) Such bonds were towards the new generating station for selling power to licensees outside the command area under PPAs executed by the petitioner with such licensees and thus are outside the purview of the petition.
- (c) In the absence of evidence from the petitioner that the relevant bonds have been issued for meeting the cost requirements of old plants, the petitioner is not justified in seeking Sinking Fund contribution from all of its generating stations in proportion to their capital cost.
- (d) In order to be consistent with cost plus regime to tariff determination under the Electricity Act, 2003, the petitioner cannot be allowed both contributions to Sinking Fund, as well as interest on loan by treating the funds realised through bond issue as normative loan.

101. In response the petitioner vide rejoinder dated 17.5.2016 has submitted that the Contribution and interest payment for sinking Fund is to be allowed in terms of Section 40 of the DVC Act read with the decision of the Tribunal dated 23.11.2007 in Appeal No. 271/2006. It has also submitted that the provisions for the Sinking Fund have been made by the petitioner and approved by Comptroller and Auditor General of India and the same has been specified under Regulation 43(2)(iv) of the 2009 Tariff Regulations. The petitioner also submitted that it has floated Market Bond (Corporate Bond) of ₹64000 lakh in the year 2009-10 pertaining to existing projects only and as a consequence there is an increase in the contribution during 2009-14 towards Sinking fund.



102. The petitioner has further submitted that the Sinking Fund liability is accounted for in the revenue requirement of the respective generating station or transmission projects for which the bonds are issued and therefore, charged to tariff with respect to each of the generating stations and transmission assets. The petitioner has submitted that in case a generating station is established not for the purpose of generation and supply of electricity in the command area, no part of the tariff element including the sinking fund contribution pertaining to the generating station is recovered from the HT consumers. It has reiterated that its Sinking Fund contribution forms part of the fixed component of tariff of the concerned generating station or transmission asset and would be recovered only from those procurers/consumers for whom the generating station or transmission asset is operated and maintained.

103. The petitioner has further submitted in its application for the determination of ARR before the Jharkhand State Electricity Regulatory Commission, a part of Fixed Charges has been claimed commensurate with the supply from the new units in DVC command area of consumers. The petitioner has also submitted that the balance power from new power stations after supplying power to outside valley as per bilateral PPA, was utilized for meeting the demand of valley consumers and therefore the Sinking Fund for the new Bonds is partly charged to DVC command area consumers and the balance to export consumers.

104. Accordingly, the petitioner has submitted that the sinking fund, established with the approval of Comptroller and Accountant General of India vide letter dated December 29, 1992 under the provision of Section 40 of the DVC Act, 1948 is to be taken as an item of expenditure to be recovered through tariff.



105. The matter has been examined. The Tribunal in its judgment dated 23.11.2007 in Appeal No. 271/ 2006 has decided as under. The relevant portion of the judgment is as extracted as under:-

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

106. The Commission vide ROP of the hearing dated 18.5.2016 has directed the petitioner to file the methodology of allocation of sinking fund into irrigation, power (Generation and T&D) and flood control and further provide allocation of power (Generation) component into different generating stations and reconciliation of the same with Audited Accounts. In response, the petitioner vide affidavit dated 9.6.2016 has submitted that since the bonds were taken for financing power projects and therefore the entire contribution to sinking fund has been allocated to “Power” business”. The petitioner has also submitted that bonds issued against the existing generating stations have been allocated within the existing stations on the basis of MW capacity. The petitioner in this petition has allocated the contribution to sinking fund among generating stations and T&D system on the basis of capital cost as on 31.3.2009.

107. The Commission vide ROP of the proceeding dated 18.5.2016, however, directed the petitioner to submit the details of which bonds were taken for existing projects and also to confirm whether that the contribution to sinking fund towards redemption of such bonds have been claimed by the petitioner. The petitioner vide rejoinder dated 9.6.2016 has clarified that the following bonds have been considered:-

- (i) 12th Series (3.1.2003) 7.70% DVC Public Sector Bond for ₹12000 lakh
- (ii) 13th Series (10.2.2010) 8.95% DVC Bonds for ₹64000 lakh
- (iii) 11.50% DVC Bond for ₹2500 lakh (30.7.1990)



(iv) 11.50% DVC Bond for ₹2500 lakh (20.9.1990)

(v) 11.50% DVC Bond for ₹2500 lakh (11.9.1991)

(vi) 12.00% DVC Bond for ₹2500 lakh (3.12.1991)

108. We have considered the submissions of the parties. From the submissions of the petitioner, it is observed that the Sinking Fund liability is accounted for in the revenue requirement of the respective generating station / transmission assets of the petitioner for which the bonds have been issued and the same is charged to tariff with respect to each of the generating stations and transmission assets. Accordingly, we conclude that redemption of bonds claimed for the sinking fund are only for existing generating stations of the petitioner and does not include new generating stations/under construction generating stations. Further, Sinking fund has not been allocated to Mejia unit 5&6 with capital cost as on 1.4.2009 of ₹205946.66 lakh, as the bond does not pertain to Mejia unit 5&6. Accordingly we consider the bonds.

109. Based on the above discussions, the contribution towards sinking fund created for redemption of bond has been allowed. The total contribution to sinking fund has been allocated among all the generating stations /T&D system of the petitioner, based on the proportion of capital cost as on 31.3.2009. Accordingly, the amount approved for this generating station is as under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Total amount of Sinking Fund allocated among Generating stations and T&D system	9851.61	9520.41	9110.34	9059.69	9693.87



(₹ in lakh)

Station	Capital cost as on 1.4.2009*	2009-10	2010-11	2011-12	2012-13	2013-14
Bokaro TPS	58552.09	1318.45	1274.13	1219.25	1212.47	1297.34
Chandrapura TPS	26909.82	605.94	585.57	560.35	557.23	596.24
Durgapur TPS	19403.26	436.91	422.23	404.04	401.79	429.92
Mejia TPS #1 to 3	160372.63	3611.20	3489.80	3339.48	3320.91	3553.38
Mejia TPS #4	72302.61	1628.08	1573.34	1505.58	1497.21	1602.01
Maithon HS	5881.05	132.43	127.97	122.46	121.78	130.31
Panchet HS	5016.79	112.97	109.17	104.47	103.89	111.16
Tilaiya HS	263.8	5.94	5.74	5.49	5.46	5.85
T&D	88805.81	1999.69	1932.46	1849.23	1838.95	1967.67
Total	437507.86	9851.61	9520.41	9110.34	9059.69	9693.87

*excluding liabilities on cash basis

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Sinking fund Contribution	1318.45	1274.13	1219.25	1212.47	1297.34

Cost of Common Offices

110. In order dated 8.5.2013, the claim of the petitioner for Direction Office, Central office, other office and subsidiary activities were not allowed due to absence of asset-wise details and justification. The relevant portion of the order is observed as under:-

“109. In terms of the observations of the Tribunal in its judgment dated 23.11.2007 in Appeal Nos. 271, 272, 273, 275 of 2006 & Appeal No.8 of 2007, the return on equity, interest on loan and depreciation of the common assets has been calculated and the amount so calculated has been apportioned to each of the productive generating stations/transmission system of the petitioner, in proportion to the capital cost allocated as on 31.3.2004 to Direction office, Other office, Central office and Subsidiary activities. 111. The petitioner has not furnished the nature of assets and proper justification in respect of its claim for additional capital expenditure for the period 2006-09. Hence, in the absence of asset-wise details and justification, the additional capital expenditure for Direction Office, Central office, other office and subsidiary activities have not been allowed.”

111. Further in order dated 7.8.2013 in Petition No. 275/GT/2012, the petitioner's claim for two new offices, namely, IT and R&D offices was not allowed since no justification for the same was submitted by the petitioner. However, the Commission in the said order had specified that the capital expenditure towards these new offices (IT and R&D) will be



considered at the time of truing up subject to prudence check based on the justification of such expenditure. The relevant portion of the order has been extracted as under:-

“86. The matter has been examined. We notice that the claim of the petitioner is in accordance with the Commission order dated 6.8.2009 in Petition No. 66/2005 which was based on the judgment of the Tribunal dated 23.11.2007. Accordingly, the annual fixed cost for common offices has been worked out by taking the capital cost admitted by the Commission as on 31.3.2009 as the opening capital cost as on 1.4.2009. The annual fixed charges of Common offices so computed are then apportioned to each of the productive generating stations/T&D system of the petitioner in proportion to the capital cost of generating stations/ T&D systems as admitted by the Commission as on 31.3.2009 in order dated 8.5.2013 in the Petition No. 272/2010. In the common office expenditure, the petitioner has claimed expenses for another two offices viz. R&D Centre and Information Technology (IT) for the period 2009-14 in addition to Direction Office, Central Office, Other Offices and for Subsidiary activities. Since no justification has been submitted by the petitioner for inclusion of expenditure of these new offices (IT and R&D) in the common office expenditure, the expenditure on IT and R&D have not been considered at this stage. However, the same would be considered at the time of truing up, subject to prudence check based on the justification of such expenditure. Further, no justification has been submitted by the petitioner for additional capitalization on different offices during 2009-14 and the same will be considered at the time of truing up, subject to prudence check based on the justification of such expenditure...”

...
89. We agree with submissions of the respondents/objectors that the expenses on Common Assets are required to be apportioned to all the operating units/ generating stations of the petitioner. In this view, we direct that the Common Office expenditure as allowed by this order would be subject to truing-up in terms of Regulation 6 of the 2009 Tariff Regulations and would be apportioned to all the units/generating stations and Transmission & Distribution systems of the petitioner which would be in operation during 2009-14.”

112. The petitioner has claimed expenses pertain to Common offices such as Direction office, Central office, R&D, IT centre, Subsidiary activities, Other offices etc. catering services in respect of each of the generating stations as well as the Transmission & Distribution systems. The additional capital expenditure claimed by the petitioner towards various offices is as shown below.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Direction office	44.59	35.46	1.11	67.21	74.93
Subsidiary activities	1196.54	(-) 292.64	(-) 4372.76	7.13	0.00
Other offices	7.28	3.54	(-) 6.86	155.87	126.29
R&D	1914.05	125.13	0.00	0.00	5.99
IT	0.00	0.00	0.00	0.00	230.90
Central Office	89.89	45.47	166.55	18.03	199.21
Total expenditure	3252.35	209.60	167.66	248.24	637.32



113. The petitioner has computed the Return on Equity, Interest on Loan and Depreciation on the Common Assets for the period 2009-14 based on the opening capital cost as on 1.4.2009 for different offices and has apportioned them to each generating stations and T&D system in proportion to the capital cost approved as on 31.3.2009. Further, the petitioner has allocated the cost of common offices among Generating stations on the basis of installed capacity. The annual fixed charges claimed towards Common Assets are as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Direction office	70.39	85.34	74.62	84.00	112.66
Subsidiary activities	559.31	562.75	560.41	561.71	565.56
Other offices	40.86	42.29	38.17	75.07	111.80
R&D	1082.23	1138.39	612.80	107.72	107.92
IT	0.00	0.00	0.00	0.00	19.87
Central Office	159.38	328.79	329.40	328.16	324.38
Total expenditure	1912.18	2157.57	1615.41	1156.66	1242.18

114. The objector, DVPCA vide affidavits dated 1.12.2014 and 1.3.2016 has submitted that the petitioner has claimed the Return on Equity, Interest on Loan and Depreciation on the common assets namely Direction Office, Subsidiary Activities, Other Offices, R&D, IT Centre and Central Office and has claimed such expenses under the head "Share of other office expenditure". Therefore, the contribution to subsidiary fund is not allowable as the Return on Equity, Interest on Loan and Depreciation on the common assets is being claimed separately in terms of "Share of other office expenditure".

115. The Commission vide RoP of hearing dated 18.5.2016 directed the petitioner to submit the Plant/Unit wise allocation/reconciliation statement duly matching with the audited accounts and certified by the auditor in respect of Common Cost – Director, Central, R&D, IT, Subsidiary, Other Office etc for the period 2009-14. In response, the



petitioner vide affidavit dated 15.6.2015 has submitted the reconciliation statement duly matching with audited accounts and certified by the auditor

116. The Commission vide RoP of hearing dated 18.5.2016 also directed the petitioner to clarify the discrepancies in the computation of claims along with the variation under various heads. The Commission also directed the petitioner to submit the methodology followed for allocation of common office expenses. In response, the petitioner vide affidavit dated 9.6.2016 has submitted that it has considered the same methodology, as considered by it for allocation of liability towards P & G fund.

117. It is noticed that the claim of the petitioner is in line with the Commission's order dated 6.8.2009 in Petition No. 66/2005. Accordingly, the annual fixed charges for Common offices has been worked out by considering as the admitted opening capital cost as on 1.4.2009. The annual fixed charges of Common offices as worked out have been apportioned to generating stations / T&D systems as considered as on 31.3.2009. This is in line with the decision of the Commission order dated 8.5.2013 in Petition No. 272/2010.

118. The petitioner has submitted the justification for additional capitalization for Common Office along with the breakup of expenditure towards common office duly certified by the auditor as under:-

- i. **Direction Office:** Principal Chief Engineer-Director Project, Chief Engineer-O&M, Commercial Engineering, Staff Quarter Electricity Department.
- ii. **Other Office:** Central electrical Test lab, CMSF shop, Central Service Organization, Central Load Dispatch,



iii. **Subsidiary activity:** Afforestation, Soil Conservation, use of land, Agricultural development, Industrial development, Research, Public health and sanitation, navigation.

iv. **Central Office:** Administration office, central work shop service, other office.

119. It is observed that the petitioner has procured additional assets in order to meet the increased capacity addition, augmented and upgraded Central testing laboratory in order to take care of generation relays and metering equipment installed in power stations. It has also incurred expenditure to equip the existing relay testing laboratory, procured testing equipments for Dissolved Gas Analysis (DGA), High Accuracy meter testing facility with state of the art technology for accreditation by the National Accreditation Board for Testing and Calibration Laboratories (NABL). In view of this, we allow the expenditure towards common office viz. Central office, Subsidiary activity, Other office, Direction office, IT and R&D for this generating station as claimed by the petitioner.

120. The fixed charges have been computed as per the admitted capital cost and have been allocated to various stations as under.

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	713.394	836.713	321.563	395.689	452.428
Interest on loan	205.706	243.649	178.771	147.563	141.966
Return on Equity	791.194	730.402	788.261	673.053	558.976
Total	1710.29	1810.76	1288.59	1216.31	1153.37

(₹ in lakh)

	Capital cost as on 1.4.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Entire generating station	554648.71	1474.25	1560.85	1110.75	1048.44	994.19
T&D	88805.81	236.04	249.91	177.84	167.87	159.18
Total	643454.52	1710.29	1810.76	1288.59	1216.31	1153.37

(₹ in lakh)



	Capacity (MW)	2009-10	2010-11	2011-12	2012-13	2013-14
Bokaro TPS	630	325.07	344.16	201.53	142.16	109.71
Chandrapura TPS	390	201.23	213.05	124.76	88.00	67.91
Durgapur TPS	350	180.59	191.20	111.96	78.98	60.95
Mejia TPS #1 to 3	630	325.07	344.16	201.53	142.16	109.71
Mejia TPS #4	210	108.36	114.72	67.18	47.39	36.57
Mejia TPS #5 & 6	500	257.99	273.14	159.95	112.83	87.07
Maithon HS	63.2	32.61	34.53	20.22	14.26	11.01
Panchet HS	80	41.28	43.70	25.59	18.05	13.93
Tilaiya HS	4	2.06	2.19	1.28	0.90	0.70
Total	2857.2	1474.25	1560.85	914.00	644.74	497.54
Chandrapura TPS #7 & 8	500	0	0	90.27	112.83	87.07
Mejia TPS 7 & 8	1000	0	0	106.48	183.30	174.14
Durgapur Steel TPS # 1 & 2	1000	0	0	0	107.57	174.14
Koderma TPS	500	0	0	0	0	61.31
Total	3000	0	0	196.76	403.70	496.65

121. The annual fixed charges computed as above has been allocated to each generating stations, (including Mejia Unit 5 & 6) and T&D system in proportion to the admitted capital cost as on 1.4.2009.

122. Further, the annual fixed charges worked out above pertaining to generating stations have been allocated to different units on the basis of installed capacity. The cost of common offices apportioned for this generating station for 2009-14 tariff period is as under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Common Office expenditure	325.07	344.16	201.53	142.16	109.71

Secondary Fuel Oil

123. The Commission in its Order dated 29.7.2013 has approved cost toward secondary fuel oil as under:



(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Secondary Fuel Oil Cost	2496.53	2496.53	2503.37	2496.53	2496.53

124. Regulation 20 of the 2009 Tariff Regulations specifies:-

“20. Expenses on secondary fuel oil consumption for coal-based and lignite-fired generating station.

(2) The secondary fuel oil expenses shall be subject to fuel price adjustment at the end of the each year of tariff period as per following formula:

$$SFC \times NAPA F \times 24 \times NDY \times IC \times 10 \times (LPSFy - LPSFi)$$

Where,

SFC – Normative Specific Fuel Oil consumption in ml/kWh

NAPA F – Normative Annual Plant Availability Factor in percentage

NDY – Number of days in a year

IC - Installed Capacity in MW.

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

LPSFy = The weighted average landed price of secondary fuel oil for the year in Rs./ml”

125. The petitioner has claimed adjustment in cost of Secondary Fuel Oil in addition to cost of secondary fuel oil allowed vide order dated 29.7.2013 in Petition No. 268/GT/2012 in accordance with above regulation for the period 2009-14. The petitioner has claimed adjustment on account of variation of weighted average landed price of secondary fuel oil. It is further observed that there is substantial variation in the weighted average price of Secondary Fuel Oil in the tariff period 2009-14 as compared to weighted average price of Secondary Fuel Oil considered in said order dated 29.7.2013. We have considered the submissions of the petitioner and since the fuel cost is pass through, we have accordingly done the adjustment for Secondary Fuel Oil in addition to cost of Secondary Fuel Oil allowed in order dated 29.7.2013 in Petition No. 268/GT/2012.



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of Secondary Fuel Oil	2496.53	2496.53	2503.37	2496.53	2496.53

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Adjustment to cost of Secondary Fuel Oil	(-)175.79	308.26	1135.40	2071.47	1877.57

Compensation Allowance

126. Regulation 19(e) of 2009 Tariff Regulations provides as under:-

“In case of coal-based or lignite-fired thermal generating station a separate compensation allowance unit-wise shall be admissible to meet expenses on new assets of capital nature including in the nature of minor assets, in the following manner from the year following the year of completion of 10, 15, or 20 years of useful life:

Years of Operation	Compensation Allowance (Rs/lakh/MW/Year)
0-10	Nil
10-15	0.15
15-20	0.35
20-25	0.65”

127. The petitioner has claimed compensation allowance for Unit-I to III as under.:

		(₹ in lakh)				
	COD	2009-10	2010-11	2011-12	2012-13	2013-14
Unit-I	March, 1986	136.50	136.50	0.00	0.00	0.00
Unit-II	November, 1990	73.50	73.50	136.50	136.50	136.50
Unit-III	August, 1993	73.50	73.50	73.50	73.50	73.50
Total		283.50	283.50	210.00	210.00	210.00

128. The Unit-I has completed 25 years during the year 2010-11. Accordingly, we have not allowed compensation allowance for Unit 1. The compensation allowance considered for this Generating station in accordance with above Regulation is same as allowed by the Commission in order dated 29.7.2013 in Petition No. 268/GT/2012 as follows.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Compensation Allowance	283.50	283.50	210.00	210.00	210.00



Annual Fixed charges for 2009-14

129. The annual fixed charges allowed for the period 2009-14 in respect of the generating station are summarized as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1479.14	978.70	0.00	697.87	839.28
Interest on Loan	11.43	11.05	1.60	14.46	3.46
Return on Equity	5389.65	4508.40	5630.63	5661.35	4575.40
Interest on Working Capital	3018.32	3021.42	3060.12	3104.44	3118.91
O&M Expenses	19750.50	20317.50	20897.10	21495.60	22106.70
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2496.53	2496.53	2503.37	2496.53	2496.53
Compensation Allowance	283.50	283.50	210.00	210.00	210.00
Sub-Total	32429.07	31617.09	32302.82	33680.24	33350.27
Common Office Expenditure	325.07	344.16	201.53	142.16	109.71
Additional O&M on account of Ash Evacuation, Mega Insurance, CISF Security and Share of subsidiary activities	0.00	0.00	0.00	3119.80	2554.29
Pension & Gratuity Contribution	2342.41	2342.41	2342.41	2342.41	2342.41
Sinking fund Contribution	1318.45	1274.13	1219.25	1212.47	1297.34
Adjustment of secondary fuel oil	(-)175.79	308.26	1135.40	2071.47	1877.57
Total Annual Fixed Charges	36239.20	35886.05	37201.40	42568.55	41531.59

130. The difference in the annual fixed charges determined by order dated 29.7.2013 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

131. Petition No. 469/GT/2014 is disposed of in terms of the above

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO***(₹ in lakh)*

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2009	Additions during the period	Total
Loan-1 SLR Bonds	10.68%	44000.00	0.00	44000.00
Loan-2 PSU Bonds	3.41%	22019.00	0.00	22019.00
Loan-3 PFC	5.87%	8451.11	0.00	8451.11
Loan 5 GOI RVP	9.00%	500.00	0.00	500.00
Loan 6 US EXIM \$ Loan#	2.00%	5409.77	0.00	5409.77
Loan-6 REC Loan	0.00%	0.00	0.00	0.00
Total		80380.00	0.00	80380.00

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2014-19*(₹ in lakh)*

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Opening Loan	80380.00	144380.00	144380.00	144380.00	184380.00
Cumulative Repayment of loan upto previous year	47520.00	54950.00	64148.00	73251.00	78513.00
Net Loan Opening	33626.00	89827.00	80610.00	71129.00	105867.00
Additions during the year	64000.00	0.00	0.00	40000.00	23500.00
Increase/ Decrease due to FERV	-369.00	-19.00	0.00	154.00	220.00
Increase/ Decrease due to additional capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	7430.00	9198.00	9102.00	5262.00	465.00
Net Loan Closing	89827.00	80610.00	71508.00	106021.00	129122.00
Average Loan	61542.00	85209.00	76059.00	88575.00	117494.50
Rate of Interest	8.8500%	8.8200%	8.7000%	9.3209%	9.6430%
Interest	3003.00	7524.00	7357.00	8256.00	11330.00

