

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 471/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 Durgapur Thermal Power Station Units 3 and 4 (1x140 MW + 1x210 MW) for the period 2009-14 after truing-up exercise- Truing-up of tariff determined by order dated 7.8.2013 in Petition No. 276/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**

3. 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
Shri A. Biswas, DVC
Shri Subrata Ghosal, DVC

For Respondents Shri Sanjay Sen, Sr. 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 Durgapur Thermal Power Station, Units 3 and 4 (1x140 MW + 1x210 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 - 3 :	December, 1966
Unit - 4 :	September, 1982

3. The Commission, vide its 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 as on date. 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 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 had filed Petition No. 240/2009 during October, 2009 for determination of tariff of the generating stations and inter-state transmission system for



the period 2009-14. While 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 in 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 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 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 Court of Calcutta and High Court of 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 however, 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 to the Constitution of India 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. 276/GT/2012 filed by the petitioner for the period 2009-14, the Commission vide order dated 7.8.2013, wherein the Commission has done true up for the years 2009-10, 2010-11 and 2011-12 only, has 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	1092.00	1249.29	1700.41	2113.18	2712.08
Interest on Loan	28.37	17.41	33.98	263.08	612.89
Return on Equity	1831.33	1973.58	2089.43	2420.86	2901.74
Interest on Working Capital	2180.51	2204.25	2238.64	2273.53	2322.43
O&M Expenses	10972.50	11287.50	11609.50	11942.00	12281.50
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2420.62	2420.62	2427.25	2420.62	2420.62
Compensation Allowance	0.00	0.00	0.00	0.00	0.00



	2009-10	2010-11	2011-12	2012-13	2013-14
Sub-Total	18525.33	19152.66	20099.23	21433.26	23251.26
Pension & Gratuity	1219.84	1219.84	1219.84	1219.84	1219.84
Sinking Fund Contribution	440.76	465.41	1200.74	1284.79	1374.73
Common Office Expenditure	54.29	51.24	37.30	37.29	37.31
Additional O&M	1198.38	1222.99	1343.15	1444.39	1555.85
Sub-Total	2913.27	2959.48	3801.03	3986.31	4187.73
Annual Fixed Charges	21438.61	22112.14	23900.26	25419.58	27439.00

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 7.11.2014 has filed the petition for revision of tariff based on truing up of 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:

	2009-10	2010-11	2011-12	2012-13	2013-14
	<i>(₹ in lakh)</i>				
Depreciation	1092.00	1249.30	1700.41	1834.62	1236.75
Interest on Loan	28.37	17.41	33.99	36.42	0.00
Return on Equity	1831.33	1973.58	2089.43	2197.19	2265.10
Interest on Working Capital	2185.30	2209.04	2243.44	2263.13	2270.43
O&M Expenses	10972.50	11287.50	11609.50	11942.00	12281.50
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2422.02	2422.02	2428.65	2422.02	2422.02
Compensation Allowance	227.50	227.50	227.50	227.50	227.50
Sub-Total	18759.02	19386.35	20332.92	20922.87	20703.30
Pension & Gratuity Contribution	7195.72	7195.72	3848.40	2431.35	2803.69
Sinking Fund Contribution	436.81	422.13	403.95	401.70	429.82



	2009-10	2010-11	2011-12	2012-13	2013-14
Common Office Expenditure	202.51	228.49	140.77	75.33	65.83
Additional O&M	1198.38	1222.99	1343.15	2609.89	2624.83
Adjustment for secondary fuel oil	(-)92.03	(-)134.39	293.43	439.04	542.60
Sub-Total	8941.39	8934.93	6029.70	5957.31	6466.78
Annual Fixed Charges	27700.41	28321.28	26362.62	26880.18	27170.07

10. The Energy Charges as approved in the order dated 7.8.2013 in Petition No. 276/GT/2012 has been claimed in this petition.

11. In compliance with the direction of the Commission, the petitioner has filed additional information with a 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. The petitioner has considered the capital cost of ₹19403.26 lakh as on 31.3.2009 as determined by order dated 7.8.2013 in Petition No. 276/GT/2012.



14. The Objector, DVPCA vide affidavit dated 1.12.2014 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. DVPCA has further submitted that the accounts of DVC does not contain any provision for bifurcation of expenses between the two States i.e. Jharkhand and West Bengal, as regards the distribution of energy, sale of energy etc. allocating the 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".

15. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 had approved the opening capital cost of ₹19403.26 lakh as on 1.4.2009. As per Regulation 7 of the 2009 Tariff Regulations, the capital cost of ₹19403.26 lakh is to be considered as the opening capital cost as on 1.4.2009, and the said capital cost 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

16. Clause (2) 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.”

17. The actual additional capital expenditure allowed vide order dated 7.8.2013 in Petition No. 276/GT/2012 is as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capital Expenditure claimed	1807.72	1176.43	3555.49	9453.86	8800.50
De-capitalization	(-)207.96	(-)217.34	(-)555.80	(-)1040.89	(-)668.64
Expenditure disallowed	(-)34.28	(-)22.90	(-)9.98	0.00	0.00
Net Additional Capital Expenditure allowed	1565.48	936.18	2989.70	8412.97	8131.86
Less : Liabilities included in additional capital expenditure	4.37	6.67	0.00	0.00	0.00
Add: Discharge of liabilities	98.22	0.00	0.00	0.00	0.00
Total Additional capital expenditure allowed	1659.33	929.51	2989.70	8412.97	8131.86

18. There is no change in the claim of the petitioner for additional capital expenditure for the years 2009-10, 2010-11 and 2011-12, as against those approved vide order 7.8.2013. The petitioner has, however, revised its claim for additional capital expenditure for the years 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 investments undertaken by it 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)	
	Claimed	
	2012-13	2013-14
Buildings	169.89	0.00
Power House Plant & Machinery	551.75	234.17
Other Assets	65.31	0.00
Other Assets- concreting, fencing and civil works	0.00	299.03
Miscellaneous power plant equipments	0.00	171.78



	Claimed	
	2012-13	2013-14
Miscellaneous power plant equipments (others)	0.00	83.80
De-capitalization	(-)62.87	(-)89.48
Total	724.08	699.30
Liability Discharges	(-)6.31	(-)6.62
Total	717.77	692.68

19. The Commission, in the order dated 7.8.2013 in Petition No. 276/GT/2012, has observed following with respect to the claim of the petitioner and additional capital expenditure observed as under:-

“31. Keeping in view the serious concern of the petitioner that the performance cannot be improved overnight without R&M of the old and vintage units of the generating station and based on the proposal of the petitioner for a trajectory improvement in norms accompanied by R&M, the Commission had allowed relaxed norms for gradual improvement in the performance of the generating station for the period 2006-09...

...

32. It was expected that the petitioner would take appropriate action to undertake and complete the R&M of these units in order to achieve the operational norms/performance improvement as specified by the Commission. The petitioner despite having planned the R&M during 2004-09, could not undertake comprehensive R&M and has instead undertaken Short-term & Medium term investment plan under the PIE programme required to bring about improvement in PLF by 20% to 30% (approx) in the immediate time frame as directed by Ministry of Power, Govt. of India. Though there has been improvement in the PLF under the short-term and medium-term PIE programme, yet the petitioner had fallen short of achieving the operational /performance norms specified by the Commission. Further, the norms of operation for the generating station were further tightened by the Commission under the 2009 Tariff Regulations applicable for the period 2009-14

...

33. It is observed that Unit-III (140 MW) of this generating station is in operation for 43 to 46 years (approx) and most of the equipments/systems have become obsolete. As per R&M policy of the Ministry of Power, Govt. of India dated 12.1.2004 and the subsequent clarification dated 3.2.2004 which was revised further in October, 2009, units with such low capacity of 100 MW or less do not qualify for RLA based R&M programme for life extension as these units have very low design efficiencies. Further, due to ageing & technological obsolescence, these units are performing at a further lower efficiency than their design value and such units are required to be retired in a phased manner. Under this scenario, it would only be prudent for the petitioner to run this unit of the generating station at an optimum level by undertaking selective replacement of failure prone equipment's/systems and also to chalk out a plan for gradual phasing out of the said unit. Unit-IV of 210 MW is stated to be first generation units of LMZ class and the poor performance of 210 MW units at this generating station is attributable to design deficiencies leading to frequent breakdowns and frequent tube leakages. Unit-IV has completed its useful life of 25 years. Hence, this unit can be refurbished with the replacement of old components/ systems which either frequently failed or are under performing due to design deficiencies, obsolescence, etc. Thus, the comprehensive



renovation of the Unit-IV could extend its life of the generating station to a further period of 20 to 25 years. The petitioner has been incurring additional capital expenditure for renovation and modernization of the old units in order to achieve the benchmark norms specified by the Commission. The additional capital expenditure incurred/proposed to be incurred may be recovered over a period of 20 years from the terminal year of this tariff period. We however, make in clear that in case of any improvement in the actual operating performance beyond the norms specified by the Commission after completion of R&M, the benefit of better performance would be passed on to the respondents/beneficiaries during the next tariff period in the form of improved norms. In the above background, we now consider the claims of the petitioner for additional capital expenditure on this count in relaxation under Regulation 44 of the 2009 Tariff Regulations,..."

20. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 has allowed capital expenditure excluding de-capitalization on replacement of old assets and assets which are either minor and/or in the nature of O&M expenses. The additional capitalization approved by the Commission in the order dated 7.8.2013 and Petitioner's claim in petition is as under:-

(₹ in lakh)

	Additional Capital Expenditure (2009-14)					
	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Approved in order dated 7.8.2013 in Petition No. 276/GT/2012	1659.33	929.51	2989.70	8412.97	8131.86	22123.37
Claimed	1659.33	929.51	2989.70	717.77	692.68	6988.99

21. In the above background, we consider the claims of the petitioner for additional capital expenditure in this petition as stated in the subsequent paragraphs.

22. The petitioner was directed to submit additional information on the following:

- a) Certificate to the effect that all the assets under Gross Block during 2009-10 to 2013-14 are in use for generation of power. If any asset is taken out from Gross



- block then the date of taking out from useful service along with depreciation recovered till the date of taking out from service;
- b) Asset-wise details of de-capitalization for the period 2012-14 towards replacement of old assets by new assets, if any;
 - c) In respect of the claim under "Other Assets" in common office expenditure, submit the details/ bifurcation of "Expenditure pending allocation".
 - d) Details of works which were not completed during the period 2009-14 in respect of unit/station along with clarification as to what were the factors which prevented the completion of these works during 2009-14;
 - e) Reconciliation statement of actual additional capital expenditure incurred during 2012-14 with the books of accounts along with apportionment of capital cost in different stages/ units duly certified by Auditor;
 - f) Auditor certificate statement showing capital cost claimed of the project for the period 2009-14;
 - g) Assets-wise and party-wise of details of liabilities as at the end of each financial year and liabilities discharged during the relevant financial years;

23. In response, the petitioner, vide affidavit dated 31.3.2016 submitted the additional information required against the above clarifications in compliance with the above direction.

24. As the petitioner has claimed the same additional capitalization as approved in order dated 7.8.2013 in Petition No. 276/GT/2012 for the 2009-10 to 2011-12, the same is not discussed in this order. After examining the asset-wise details and its justification submitted by the petitioner, based on documents available on record and on



admissibility of the additional capital expenditure claimed by the petitioner for the years 2012-13 and 2013-14 is discussed as under:-

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

25. The petitioner has claimed actual additional capital expenditure for 2012-13 and 2013-14 as under:

Years	Additional capitalization (after adjustment of decapitalization) claimed including liability discharge
2012-13	717.77
2013-14	692.68
Total	1410.45

26. It is observed from the details of the additional capital expenditure claimed by the petitioner, the assets proposed to be capitalized during the period 2012-14 are mainly of following nature:

- Buildings
- Power House Plant & Machinery
- Other Assets
- Other Assets- concreting, fencing and civil works
- Miscellaneous power plant equipments
- Miscellaneous power plant equipments (others)

Buildings:

27. The petitioner has claimed expenditure of ₹169.89 lakh in 2012-13 for works including civil works of garage building including completion of cycle/scooter Stand at old staff dormitory, construction of residential building including face lifting of different types of quarters at DTPS and benachity under Regulation 9(2) & 44 of the 2009 Tariff Regulations and has submitted that the same have been constructed for the welfare of employees. We are of the view the expenditures on this count can be met from the O&M expenses allowed by the Commission. Accordingly, these are not allowed to be capitalized.



Power House Plant and Machinery

28. The additional capital expenditure of ₹533.56 lakh in 2012-13 and ₹181.38 lakh 2013-14 has been claimed by the petitioner under replacement of equipments including radial thrust bearing of turbo-generator and accessories, tuning gear set of turbo-generator and accessories, 26th and 36th stage diaphragms of turbo-generator accessories, 11 kV 400 A horn gap fuse along with accessories, APH baskets for boiler and accessories, station service water pump, design, engineering, supply, erection of conductivity type electronic level indicator for drum of Unit-3, ash slurry pump, 25 kV circuit breakers, transformers, isolators, LT motors, starter panels, panel for AOP breaker, copper cables, erection and commissioning of drum level hydrastep and gate valves under Regulation 9(2) & 44 of the 2009 Tariff Regulations. The petitioner has also submitted the corresponding de-capitalization value of ₹32.72 lakh in 2012-13 and ₹18.61 lakh in 2013-14 for the said assets. It is observed that these equipments were installed against the replacement of old equipments that had become obsolete as the assets were around more than 25 years. Considering the fact that these assets are necessary for successful and efficient operation of the generating station, the expenditure claimed is allowed along with the de-capitalization of the these assets.

29. Further, the petitioner has claimed an expenditure of ₹37.89 lakh in 2012-13 incurred in purchase of re-heater bends (inlet and outlet) of different size for boiler and accessories equipments under replacement action based on thickness survey report. The petitioner has also submitted the gross value of ₹27.62 lakh of replaced old asset which was commissioned in 2008. As such expenditure was necessary, the expenditure claimed is allowed along with the de-capitalization of these assets.



30. Further, the claim of expenditure of ₹0.13 lakh in 2012-13 for removal of ferrous scrap from running coal conveyer belt and ₹8.71 lakh in 2013-14 for replacement of vacuum circuit breakers have been allowed as the old replaced assets were more than 15 years old. Considering the fact that these assets are necessary for successful and efficient operation of the generating station, the expenditure claimed is allowed along with the corresponding de-capitalization of ₹0.06 lakh in 2012-13 and ₹4.87 lakh in 2013-14.

31. Further, an expenditure of ₹24.93 lakh in 2013-14 has been incurred in installing CW Pump motor type and RTG. In this regard, the petitioner has submitted that Unit-3 of this generating station have 2 nos. CW Pumps in continuous service from 2007 without any standby pump. One no. motor was having vibration problem and in spite of all efforts the same could not be rectified and as such replaced with new motor. The petitioner has also submitted the gross value of ₹20.19 lakh of replaced old motor which was commissioned in 2007. Considering the fact that these assets are necessary for successful and efficient operation of the generating station, the expenditure claimed is allowed along with the de-capitalization of the these assets.

32. Further, the petitioner has claimed an expenditure of ₹25.06 lakh in 2012-13 and ₹0.90 lakh in 2013-14 for new items like duplex relays and control panels for railway transformers, electrical augmentation system, SKF inspector 400 ultrasonic probe CMIN 400 K for turbo-generator accessories, panels for air circuit breaker, portable generator hydrogen gas detector, commissioning of public address system (BOSCH make) for entire CHP, dew point meter, poly carbonate JB, digital multi meter and digital clamp meters and has submitted that these equipments were essential for proper monitoring and maintenance in view of stability and reliability of plant performances through



minimization of break down. We are of the view that the expenditures on this count can be met from the O&M expenses allowed by the Commission. Accordingly, these are not allowed to be capitalized.

33. Also, the petitioner has claimed an expenditure of ₹6.76 lakh in 2012-13 and ₹22.54 lakh in 2013-14 for the assets such as UPS for office Work and CISF, chartless recorders, online UPS for BTG Control Room, copper cables and 30 kV gapless lighting arrestors along with corresponding decapitalization of ₹0.63 lakh in 2012-13. These expenses have not been allowed to be capitalized as these assets are in the nature of minor assets, and hence not permissible under Regulation 9(2) of Tariff Regulations, 2009. However, the value of ₹4.30 lakh towards replaced copper cables and 30 kV gapless lighting arrestors in 2013-14 have been adjusted as de-capitalization.

Other Assets

34. The petitioner has claimed expenditure of ₹27.60 lakh in 2012-13 on purchase of office/ residential furniture, air conditioning plant for employees, cooler machines, digital photocopier, fax machine, surgical instruments for DTPS hospital, computer, printers, items for DTPS hospital, computer tables, external portable hard disk drive cap, laptops, computer accessories, air conditioners, refrigerator, water coolers, dining table, chairs, fans, almirah, etc. These expenses have not been allowed to be capitalized as these assets are in the nature of minor assets, and hence not permissible under Regulation 9(2) of Tariff Regulations, 2009.

35. The petitioner has further claimed expenditure of ₹37.72 lakh in 2012-13 for installing dual drive fire water pump with fire engine and motor (complete Machine). In this regard, the petitioner has submitted that fire fighting pumps with motor and engine of FAIRBANKS MORSE PUMP make has been in service since inception of the plant and



is more than forty years old. The performance of both the pumps as well as engine has deteriorated over time and had frequent trouble during operation. The original equipment manufacturer of the pumps, FAIRBANKS MORSE PUMP, is neither making these pumps nor supplying spare parts. Therefore, complete replacement with new pumps has been done to ensure safety from fire hazards. In view of above justification, such capital expenditure has been allowed along with corresponding de-capitalisation of ₹1.84 lakh in 2012-13.

Other Assets- concreting, fencing and civil works:

36. The petitioner has claimed expenditure of ₹299.03 lakh in 2013-14 for works including civil works of garage building including completion of Cycle/Scooter Stand at Old Staff Dormitory, construction of residential building including face lifting of Different types of qtrs. at DTPS and benachity constructed for the welfare of employees claimed under Regulation 9(2) & 44 of the 2009 Tariff Regulations. Further, the petitioner has claimed capitalization for colony and fencing of railway siding yard for safety and security of DTPS railway siding yard to arrest coal pilferage under Regulation 9(2) & 44 of the 2009 Tariff Regulations. Since expenditures on this count are covered under the normative O&M expenses allowed to the generating station, these are not allowed to be capitalized.

Miscellaneous power plant equipment

37. The petitioner has claimed the capitalization of ₹2.74 lakh in 2013-14 for installation of PH analyzers that have been executed as per the requirement of the pollution norms set by the Jharkhand State Pollution Control Board. Such expenditure is allowed to be capitalized since the expenditure claimed by the petitioner is a statutory requirement in terms of the directions issued by Jharkhand State Pollution Control Board.



38. Further, the petitioner has claimed capitalization of ₹144.77 lakh in 2013-14 for replacement of equipment like isolators, level measurement system for measurement of level of raw water tank and ash slurry pump, digital controller, two way splitters, portable digital vibration meter, erection & commissioning of dual drive fire water pump with fire engine and motor, coal burners, Greaves make gear box model- 8.5 E, bearing for wheel shaft pumps end, bearing for pinion shaft, david brown roloid gear pump and oil catcher assembly for high speed shaft for gear box of boiler feed pump, that have become old and obsolete and have been replaced with new upgraded version. As the old assets have lived their useful life and the replacement is necessary for operation of the generating station, such expenditure for replacement of old assets along with corresponding de-capitalization of ₹37.54 lakh in 2013-14 has been allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.

39. Further, the petitioner has claimed capitalization of ₹10.27 lakh in 2013-14 for installation of chlorine leak absorption system and chlorine leak detector to take care of any chlorine leakage in chlorine feeding system as per factory norms. Further, the expenditure of ₹8.20 lakh in 2013-14 has been incurred in installation of new equipments like portable hydrogen purity meter, portable digital vibration meter, digital controllers and hand held insulator tester. Such expenditure are necessary for proper monitoring and maintenance in view of stability and reliability of plant performances through minimization of break down. We are of the view the expenditures on this count can be met from the Operation & Maintenance expenses allowed by the Commission. Accordingly, these are not allowed to be capitalized.

40. Further, the petitioner has claimed capitalization of ₹10.65 lakh in 2013-14 for phase wise replacement of old chartless recorders with upgraded version and has



shown corresponding de-capitalization of ₹0.31 lakh. These assets are of minor nature and hence not permissible under Regulation 9(2) of Tariff Regulations, 2009. However, the corresponding de-capitalization of ₹0.31 lakh is allowed as the year of commissioning of old chartless recorders was of 1966-67.

Miscellaneous power plant equipments (others)

41. The petitioner has claimed expenditure of ₹83.80 lakh in 2013-14 on search/dragon light, computer tables, desks, photocopier machines, fax machines, printers, furnitures, water purifier, hard disk drives, computers and accessories, air conditioners, camera, aqua guards, fans, dental items, X ray machines, nebulizer machine, fumigator machine, refrigerator, etc. These expenses have not been allowed to be capitalized as these assets are in the nature of minor assets, and hence not permissible under Regulation 9(2) of Tariff Regulations, 2009. Further, the petitioner has also shown decapitalization of ₹7.96 lakh in 2013-14 for such old minor items and the same have been allowed.

Reversal of provision

42. From the details of the actual additional capital expenditure incurred for the period from 2012-13 to 2013-14, it is observed that the petitioner has reversed provisions of ₹51.66 lakh in 2012-13 under "Power House Plant and Machinery" and ₹4.87 lakh in 2013-14 under "Miscellaneous power plant equipment" since some of the expenditure have been already allowed by the Commission. We have considered the same as these are the accounting adjustments.

De-capitalization

43. The petitioner was directed to submit the asset-wise details of de-capitalization for the period 2012-14 towards replacement of old assets by new assets, if any. In



response, the petitioner vide affidavit dated 31.3.2016 has submitted the asset-wise details of de-capitalization with respect of old assets for the period 2012-14. We have considered de-capitalization of those assets which form part of approved Gross Fixed Assets.

44. The additional capitalization and de-capitalization considered for the years 2012-13 and 2013-14 is as follows:

	<i>(₹ in lakh)</i>	
	Additional capital expenditure Allowed	
	2012-13	2013-14
Power House Plant & Machinery	519.93	215.02
Miscellaneous power plant equipments	0.00	152.92
De-capitalization	(-)62.87	(-)93.77
Total	457.06	274.17
Liability Discharges	(-)6.31	(-)6.62
Total	450.75	267.55

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

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	19403.26	21062.59	21992.10	24981.80	25432.55
Additions Allowed	1659.33	929.51	2989.70	519.93	367.94
Liability discharges	0.00	0.00	0.00	(-)6.31	(-)6.62
Additional Capitalization after adjustment of liability discharges	1659.33	929.51	2989.70	513.62	361.32
De-capitalization	0.00	0.00	0.00	(-)62.87	(-)93.77
Closing Capital Cost	21062.59	21992.10	24981.80	25432.55	25700.10
Average Capital Cost	20232.93	21527.35	23486.95	25207.18	25566.33

Debt: Equity

46. The Commission by its order dated 7.8.2013 in Petition No. 276/GT/2012 has approved Debt:Equity ratio of 50.74:49.26 as on 31.3.2009.

47. 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.”

48. 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. The Commission, in its order dated 7.8.2013 in Petition No. 276/2012 has considered admitted cost as on 31.3.2009 including undischarged liabilities. The Commission has considered the debt-equity ratio of 50.74:49.26 as on 1.4.2009 as approved by the Commission in its Order dated 7.8.2013. Accordingly, gross loan and equity of ₹9845.31 lakh and ₹9557.94 lakh respectively as approved vide order dated 7.8.2013 in Petition No. 276/GT/2012 has been considered as the gross loan and equity as on 1.4.2009. Further, the additional expenditure approved has been considered in the debt-equity ratio of 70:30.

(₹ in lakh)

	As on 31.3.2009		Additional capitalization during 2009-14		As on 31.3.2014	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	9845.31	50.74	4407.79	70.00	14253.10	55.46



	As on 31.3.2009		Additional capitalization during 2009-14		As on 31.3.2014	
	Amount	(%)	Amount	(%)	Amount	(%)
Equity	9557.94	49.26	1889.05	30.00	11446.99	44.54
Total	19403.26	100.00	6296.84	100.00	25700.10	100.00

Return on Equity

49. 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:

Rate of pre-tax return on equity = 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.”



50. 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 as no tax has been paid and therefore applicable tax rate for these years have been considered as 'NIL'. Return on equity has been worked out on the normative equity as on 1.4.2009 after accounting for the admitted actual additional capital expenditure for the period 2009-14 as above. Return on Equity has been computed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening notional equity	9557.94	10055.74	10334.59	11231.50	11366.73
Addition due to Additional Capitalisation	497.80	278.85	896.91	135.22	80.26
Closing Equity	10055.74	10334.59	11231.50	11366.73	11446.99
Average Equity	9806.84	10195.17	10783.05	11299.12	11406.86
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate	16.995%	0.000%	20.008%	20.008%	0.000%
Rate of Return on Equity (Pre Tax)	18.674%	15.500%	19.377%	19.377%	15.500%
Return on Equity	1831.33	1580.25	2089.43	2189.43	1768.06

Interest on Loan

51. 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.”

52. 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 approved debt equity ratio.



- d) Depreciation allowed has been considered as repayment of normative loan during the respective year of the 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 as given in Annexure 1.

53. The interest on loan has been worked out in accordance with the Regulation 16 of the 2009 Tariff Regulations as under:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Loan for the purpose of tariff in the instant petition	9845.31	11006.84	11657.50	13750.29	14065.82
Cumulative repayment of loan up to previous year	9598.56	10612.02	11657.50	12968.85	14065.82
Net opening loan	246.75	394.82	0.00	781.45	0.00
Addition due to Additional Capitalisation	1161.53	650.66	2092.79	315.52	187.28
Less: Repayment of Loan during the period	1092.00	1197.62	1700.41	1140.98	252.93
Add: Repayment adjustment due to de-capitalisation during the year / period	145.57	152.14	389.06	44.01	65.64
Less: Repayment adjustment due to discharges during the year / period	67.03	0.00	0.00	0.00	0.00
Net Closing Loan	394.82	0.00	781.45	0.00	0.00
Average Loan	320.79	197.41	390.72	390.72	0.00
Weighted Average Rate of Interest on Loan (%)	8.8451%	8.8202%	8.6980%	9.3209%	9.6430%
Interest on Loan	28.37	17.41	33.99	36.42	0.00



Depreciation

54. 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.”

55. 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 7.2398%. Proportionate adjustment has been made towards the de-capitalization of assets during the period. 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. Also, 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	19403.26	21062.59	21992.10	24981.80	25432.55
Additional Capitalization	1659.33	929.51	2989.70	450.75	267.55
Closing Capital Cost	21062.59	21992.10	24981.80	25432.55	25700.10
Average capital cost	20232.93	21527.35	23486.95	25207.18	25566.33
Value of freehold land	78.51	78.51	78.51	78.51	78.51
Depreciable value	18138.98	19303.96	21067.60	22615.81	22939.04
Balance depreciable value	1092.00	1414.64	2261.98	2151.16	721.13
Depreciation*	1092.00	1414.64	1700.41	1824.95	721.13
Cumulative depreciation at the end of the period (before adjustment)	17968.37	19303.96	20506.03	22289.59	22939.04
Add: Cumulative depreciation adjustment on account of discharge of liabilities	(-)86.29	0.00	0.00	0.00	0.00
Less: Cumulative depreciation adjustment on account of de-capitalization	165.34	498.33	41.39	71.68	0.00
Cumulative depreciation after adjustment (at the end of the period)	17889.32	18805.63	20464.64	22217.92	22939.04

*Revised on account of rectification of treatment of de-capitalization in cumulative depreciation approved for 2009-10 to 2011-12 vide order dated 7.8.2013

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

56. The Operation & Maintenance expenses considered for the purpose of tariff in accordance to Regulation 19(b) of the 2009 Tariff Regulations 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)	350	350	350	350	350
Allowed	10972.50	11287.50	11609.50	11942.00	12281.50



57. 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. The petitioner has claimed additional O&M expenses towards Ash evacuation, Mega insurance, CISF security and Share of subsidiary activity. There is no change in the claim of the petitioner for additional O&M for the year 2009-10, 2010-11 and 2011-12 against those approved vide order dated 7.8.2013. The petitioner has revised its claim for additional O&M for the year 2012-13 and 2013-14 and the same is covered in this order. The petitioner has claimed additional O&M expenses for the period 2009-10 to 2013-14 as under:-

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash evacuation	392.22	414.66	438.37	1030.57	860.48
Mega insurance	100.99	106.77	112.88	46.30	46.30
CISF security	533.00	563.49	595.72	1139.92	1350.06
Addl claim of Share of subsidiary activity	172.17	138.07	196.18	393.10	367.99
Total	1198.38	1222.99	1343.15	2609.89	2624.83

58. 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.



59. 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 not maintainable. In response, the petitioner vide rejoinder affidavit 17.5.2016 has stated that it has submitted full justification for such additional O&M claimed vide affidavit dated 31.3.2016. The petitioner has further submitted that these expenditures have not been considered in the base amount while fixing the O&M norms. The Commission vide ROP of the hearing dated 3.3.2016 had directed the petitioner to submit the details of the actual O&M expense of the Generating station for the period 2009-14. In response, the petitioner vide affidavit dated 31.3.2016 has submitted the actual O&M expenses of ₹241.23 lakh in 2012-13 and ₹211.89 lakh in 2013-14. The Commission further directed the petitioner to submit the reconciliation of the 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.

60. In response, the petitioner vide affidavit dated 23.6.2016, has submitted that the expenditure on Ash evacuation, Mega insurance and CISF security is project specific and therefore there has no allocation. The petitioner has also submitted the reconciliation of the said amount with the book of accounts. Taking into consideration the submissions of the parties and documents on record, we now proceed to examine the additional O&M expenses by the petitioner as under:-



Ash Evacuation

61. The Commission vide order dated 7.8.2013 in Petition No. 276/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 on Ash evacuation system as prayed for by the petitioner in relaxation of the provisions of the 2009 Tariff Regulations.”

62. The petitioner has claimed expenses of ₹1030.57 lakh and ₹860.48 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.

63. Accordingly, the objector 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.



64. It is observed that the petitioner in its Petition No. 276/GT/2012 has submitted additional O&M expenses on account of ash evacuation for 2009-10 to 2013-14 as follows.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash evacuation claimed in (276/GT/2012)	392.22	414.66	438.37	463.45	489.96
Approved by Order dated 7.8.2013	392.22	414.66	438.37	463.45	489.96
Now Claimed	392.22	414.66	438.37	1030.57	860.48

65. 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% for 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, we have allowed the expenditure towards additional O&M on Ash evacuation in relaxation of the provisions of the 2009 Tariff Regulations for 2009-14.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	392.22	414.66	438.37	1030.57	860.48
Approved in this order	392.22	414.66	438.37	454.93	472.12

Mega Insurance

66. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 had allowed the expenditure towards Mega Insurance for the period 2009-14 and has observed as under:-

“The Commission in its 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.”

67. The petitioner has claimed ₹46.30 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.

68. 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.

69. 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.



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	100.99	106.77	112.88	46.30	46.30
Approved in this order	100.99	106.77	112.88	46.30	46.30

CISF Security

70. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 had allowed the expenditure towards CISF security for the period 2009-14 and has observed as under:-

“69..... 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.”

71. The petitioner has claimed expenditure of ₹1139.92 lakh and ₹1350.06 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 of the 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 as under:-

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



72. The matter has been examined. 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.

73. However, it is observed that the petitioner in its Petition No. 276/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.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
CISF Security claimed in (276/GT/2012)	533.00	563.49	595.72	629.79	665.82
Approved by Order dated 7.8.2013	533.00	563.49	595.72	629.79	665.82
Now Claimed	533.00	563.49	595.72	1139.92	1350.06

74. 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% for 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 view of the above, we have allowed the expenditure towards additional O&M on CISF expenses in relaxation of the provisions of the 2009 Tariff Regulations for 2009-14.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed	533.00	563.49	595.72	1139.92	1350.06
Approved in this order	533.00	563.49	595.72	618.23	641.58



Share of subsidiary activities

75. The Commission vide order dated 7.8.2013 in Petition No. 276/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 the balance sheet for the years 2012-13 and 2013-14, these expenses have been arrived at by escalating the expenses of 2011-12 and 2013-14 by 5.72% as per methodology specified under the 2009-14 Tariff Regulations relating to escalation of O&M expense norms.”

76. The petitioner has claimed expenditure of ₹393.10 lakh and ₹367.99 lakh for 2012-13 and 2013-14 respectively towards Share of subsidiary activity. The petitioner vide affidavit 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.



77. The petitioner vide rejoinder dated 17.5.2016 has also submitted that the activities of DVC are not restricted to generation and transmission of electricity but also 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.

78. 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, 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



petitioner's company as a whole for years 2012-13 and 2013-14. Accordingly, the expenditure towards soil conservation has been worked out considering the total soil conservation expenditure and 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 total soil conservation expenditure 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 required for soil conservation as the same is 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	172.17	138.07	196.18	393.10	367.99
Approved in this order	172.17	138.07	196.18	150.82	156.43

79. The total additional O&M expense allowed for this generating station as under:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash evacuation	392.22	414.66	438.37	454.93	472.12
Mega insurance	100.99	106.77	112.88	46.30	46.30
CISF security	533.00	563.49	595.72	618.23	641.58
Addl claim of Share of subsidiary activity	172.17	138.07	196.18	150.82	156.43
Total	1198.38	1222.99	1343.15	1270.28	1316.42

Interest on working capital

80. 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.”

81. 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”

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

Fuel components in working capital

83. 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	5600.08	5600.08	5615.42	5600.08	5600.08
Cost of secondary fuel oil for 2 months	403.67	403.67	404.78	403.67	403.67



84. Receivables equivalent to two months of capacity charge and energy charge for sale of electricity has been have been worked same as that approved by the Commission in order dated 7.8.2013 as shown below:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal for 2 months	5600.09	5600.09	5615.43	5600.09	5600.09
Cost of secondary fuel oil for 2 months	403.44	403.44	404.54	403.44	403.44

Maintenance Spares

85. The petitioner has claimed the following maintenance spares in the working capital:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
	2194.50	2257.50	2321.90	2388.40	2456.30

86. The expenses for maintenance spares as claimed by the petitioner are found to be in order and are allowed for computing the interest on working capital.

Receivables

87. Receivables have been worked out on the basis of two months of Fixed and Energy Charges as shown below:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable charges for two Months	5600.09	5600.09	5615.43	5600.09	5600.09
Fixed charges for two months	3087.56	3153.32	3349.87	3445.23	3239.31
Total	8687.65	8753.41	8965.30	9045.32	8839.40



88. 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	5600.09	5600.09	5615.43	5600.09	5600.09
Cost of secondary fuel oil – 2 month	403.44	403.44	404.54	403.44	403.44
O&M expenses – 1 month	914.38	940.63	967.46	995.17	1023.46
Maintenance Spares	2194.50	2257.50	2321.90	2388.40	2456.30
Receivables – 2 months	8687.65	8753.41	8965.30	9045.32	8839.40
Total working capital	17800.05	17955.06	18274.64	18432.42	18322.68
Rate of interest (%)	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	2180.51	2199.49	2238.64	2257.97	2244.53

Other Elements

89. 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

90. 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 and 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 given below:-

			(₹ 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



Valuation as on		Claimed	2009-10	2010-11	2011-12	2012-13	2013-14
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

91. 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.

92. In response, the petitioner vide affidavit 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 petitioners 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.

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



94. The petitioner was 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 1.3.2016 submitted the same along with reconciliation statement of P&G Fund paid to the trust as per audited accounts.

95. The Commission vide ROP of the hearing dated 18.5.2016 and 27.6.2016 had 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 were 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.

96. 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 7.8.2013 in Petition No. 276/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. The Commission vide 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...”

97. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 had allowed the yearwise P&G liability of this generating station as observed below:-

“The Commission in its order dated 8.5.2013 in Petition No.272/2010 had decided the P&G liability and accordingly directed that the petitioner would recover 40% of the said liability which was staggered for the period 2009-14 along with the 40% of the liability due to pay revision...

...

Thus, the amount towards P&G liability is recoverable by the petitioner in five annual equal installments during the period 2009-14 in addition to the staggered P&G



contribution allowed by the Commission for the period 2006-09. Based on the approved capital cost as on 31.3.2009 vide order dated 8.5.2013 in Petition No. 272/2010, the total P&G liability has been apportioned among all the generating stations of the petitioner. Accordingly, the year-wise P&G liability for this generating station, which is subject to trueing-up in terms of the 2009 Tariff Regulations is worked out and allowed..."

98. Thus, the Commission in its order dated 7.8.2013 in Petition No. 276/GT/2012 has 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 by the Commission 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.

99. As the petitioner has submitted the certificate from the Actuary in terms of the Accounting Standard 15 (AS 15), the Commission directed the petitioner to furnish the detailed actuarial valuation report submitted by the Actuary of 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.

100. 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.

101. As stated, the Commission in order dated 7.8.2013 in Petition No. 275/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 its 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.

102. 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 7.8.2013 taking into consideration Mejia Unit 5 & 6. Therefore, the P&G liability for the generating station is worked out from the actuarial valuation report of DVC generating stations as under:-

	<i>(₹ in lakh)</i>					
	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



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

103. Further the above P&G liability has been allocation 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

(₹ in lakh)

Durgapur Thermal Power Station	2009-10	2010-11	2011-12	2012-13	2013-14
Contribution to P&G	780.13	780.13	780.13	780.13	780.13

Contribution to Sinking Fund

104. The Commission vide order dated 7.8.2013 in Petition No. 276/GT/2012 has allowed the contribution towards sinking fund for 2009-12 and for 2012-14 as hereunder:-



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Sinking Fund	440.76	465.41	1200.74	1284.79	1374.73

105. 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
Sinking Fund	436.81	422.13	403.95	401.70	429.82

106. 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.



107. 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.

108. 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.

109. The petitioner has further submitted that 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.

110. 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.

111. The matter has been examined. The Tribunal in its judgment dated 23.11.2007 in Appeal No. 271/ 2006 has decided as under:-

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

112. The Commission vide ROP of the proceeding 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.

113. 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 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)

114. 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. Accordingly we consider the bonds claimed are hence only for existing generating stations and does not include the new stations.

115. 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. Further sinking fund has not been allocated to Mejia Units- 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, the amount approved for this generating station is as under:

	(₹ in lakh)				
	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	263.80	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 un-discharged liabilities on cash basis

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Sinking Fund Contribution	436.91	422.23	404.04	401.79	429.92

Cost of Common Offices

116. 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 extracted 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.”

117. Further in order dated 7.8.2013 in Petition No. 276/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:-

“99. We have examined the matter. 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...”

...

102. 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.”



118. The petitioner has claimed expenses pertaining 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 and 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

119. The petitioner has computed 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 the installed capacity. Accordingly, 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



120. The objector DVPCA vide affidavit 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 for the period 2014-19 and has claimed such expenses under the head "Share of other office expenditure". As such 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".

121. The Commission vide its RoP dated 18.5.2015 directed the petitioner to submit the Allocation/Reconciliation statement of Plant/Unit wise allocation/reconciliation 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 its affidavit dated 15.6.2015 has submitted the Reconciliation statement duly matching with audited accounts and certified by the auditor.

122. 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 expense. 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.

123. 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.

124.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.

125.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.

126. 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



	Capacity (MW)	2009-10	2010-11	2011-12	2012-13	2013-14
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

127. 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.

128. 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:-

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Common Office Expenditure	180.59	191.20	111.96	78.98	60.95

Secondary Fuel Oil

129. The Commission in its Order dated 7.8.2013 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	2420.62	2420.62	2427.25	2420.62	2420.62

130. 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:



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

Where,

SFC – Normative Specific Fuel Oil consumption in ml/kWh

NPAF – 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”

131. The petitioner has claimed adjustment in cost of Secondary Fuel Oil in addition to cost of secondary fuel oil allowed vide order dated 7.8.2013 in Petition No. 276/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 period 2009-14 as compared to weighted average price of Secondary Fuel Oil considered in said order dated 7.8.2013. 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 7.8.2013 in Petition No. 276/GT/2012.

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of Secondary Fuel Oil	2420.62	2420.62	2427.25	2420.62	2420.62

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Adjustment to cost of Secondary Fuel Oil	(-)92.03	(-) 134.39	293.43	439.04	542.60



Compensation Allowance

132. The petitioner has claimed Compensation allowance for the period 2009-14 as under:

(₹ in lakh)						
	COD	2009-10	2010-11	2011-12	2012-13	2013-14
Unit-3	December, 1966	91.00	91.00	91.00	91.00	91.00
Unit-4	September, 1982	136.50	136.50	136.50	136.50	136.50
Total		227.50	227.50	227.50	227.50	227.50

133. 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:

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

134. As both the units of the generating station have completed more than 25 years of useful life, the generating station is not entitled for any Compensation Allowance in terms of Regulation 19(e) of the 2009 Tariff Regulations. Hence, Compensation Allowance has not been allowed.

Annual Fixed charges for 2009-14

135. Based on the above discussions, 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	1092.00	1414.64	1700.41	1824.95	721.13
Interest on Loan	28.37	17.41	33.99	36.42	0.00



	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	1831.33	1580.25	2089.43	2189.43	1768.06
Interest on Working Capital	2180.51	2199.49	2238.64	2257.97	2244.53
O&M Expenses	10972.50	11287.50	11609.50	11942.00	12281.50
Cost of secondary fuel oil (for coal-based & lignite fired generating stations only)	2420.62	2420.62	2427.25	2420.62	2420.62
Sub-Total	18525.33	18919.92	20099.22	20671.39	19435.84
Common Office Expenditure	180.59	191.20	111.96	78.98	60.95
Additional O&M on account of Ash evacuation, Mega insurance, CISF security and Share of subsidiary activities	1198.38	1222.99	1343.15	1270.28	1316.42
Pension & Gratuity Contribution	780.13	780.13	780.13	780.13	780.13
Sinking Fund Contribution	436.91	422.23	404.04	401.79	429.92
Adjustment of secondary fuel oil	(-)92.03	(-)134.39	293.43	439.04	542.60
Sub-Total	2503.99	2482.15	2932.71	2970.22	3130.02
Total Annual Fixed Charges	21029.32	21402.07	23031.93	23641.62	22565.86

136. The difference in the annual fixed charges determined by order dated 7.8.2013 in Petition No. 276/GT/2012 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

137. Petition No.471/GT/2014 is disposed of in terms of the above.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)*(₹ in lakh)*

	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 PERIOD 2009-14*(₹ 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
Cummulative 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

