

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 461/GT/2014

Coram:

Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member

Date of Hearing: 22.9.2015

Date of Order: 26.5.2016

In the matter of

Revision of tariff of Indira Sagar Power Station (8x125 MW) for the period from 1.4.2009 to 31.3.2014 based on true-up exercise

And

In the matter of

NHDC Limited
(A JV of NHPC & GOMP)
NHDC Parisar,
Shyamla Hills
Bhopal - 462013 (M.P)

....**Petitioner**

Vs

1. Madhya Pradesh Power Management Company Ltd,
Shakti Bhawan, Vidyut Nagar
Jabalpur (M.P)

2. Narmada Valley Development Department,
Govt. of Madhya Pradesh,
Mantralaya, Vallabh Bhawan,
Bhopal (M.P)

....**Respondents**

Parties Present:

1. Shri Anurag Seth, NHDC
2. Shri Ashish Jain, NHDC
3. Shri Manoj Dubey, MPPTCL
4. Shri M.L. Agrawal, NVDA

ORDER

This petition has been filed by the petitioner, NHDC Ltd, for revision of generation tariff of Indira Sagar Power Station (8 x 125 MW) (hereinafter referred to as "the generating station") for the period from 1.4.2009 to 31.3.2014, after true-up exercise in terms of Regulation 6(1) 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 joint venture company of NHPC Ltd and the Government of Madhya Pradesh (GoMP). The generating station was declared under commercial operation on 25.8.2005 and the cut-off date of the generating station in terms of the 2004 Tariff Regulations is 31.3.2007. The generating station comprises of three units, of which Unit-I comprise of dam and appurtenant works, Unit-II comprise of irrigation system and Unit-III is dedicated to power generation. Unit-I is common to both power generation and irrigation system. Unit-III comprises of power station with installation of 8 machines each of 125 MW installed capacity, associated water conductor system and switchyard.

3. The Commission by order dated 13.6.2012 in Petition No.154/2010 had determined the annual fixed charges of the generating station for the period 2009-14 based on the capital cost of ₹309451.55 lakh as on 1.4.2009. Accordingly, the annual fixed charges for the period 2009-14 approved in order dated 13.6.2012 in respect of this generating station is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	20464.24	20563.55	20680.94	20784.27	20894.82
Interest on Loan	12417.92	12343.31	11287.92	10201.94	9116.76
Depreciation	13001.30	13080.69	13174.55	13257.15	13345.54
Interest on Working Capital	1204.01	1220.35	1217.73	1214.81	1213.08
O & M Expenses	4951.87	5235.12	5534.57	5851.14	6185.83
Total	52039.35	52443.02	51895.72	51309.31	50756.03

4. Clause (1) of 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."



5. The petitioner in this petition has sought the revision of the annual fixed charges based on the admitted capital cost of ₹309451.55 lakh as on 31.3.2009 and the actual additional capital expenditure incurred for the period 2009-14 in accordance with clause (1) of Regulation 6 of the 2009 Tariff Regulations. Accordingly, the annual fixed charges for 2009-14 claimed by the petitioner are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	13002.95	13065.52	13136.45	12793.56	12906.80
Interest on Loan	13241.04	12670.13	13252.30	13620.12	12479.73
Return on Equity	21878.95	22788.74	22614.01	23428.54	25061.53
Interest on Working Capital	1250.69	1273.22	1304.42	1331.51	1360.87
O&M Expenses	4951.87	5235.12	5534.47	5851.14	6185.83
Total	54325.51	55032.72	56141.75	57024.86	57994.76

6. None of the respondents have filed reply in the matter. Accordingly, we proceed to examine the claims of the petitioner, on prudence check, based on the submissions and the documents available on records as stated in the subsequent paragraphs

Capital Cost as on 1.4.2009

7. 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.”

8. The Commission vide order dated 13.6.2012 in Petition No.154/2010 had approved the capital cost of ₹309451.55 lakh as on 31.3.2009. Accordingly, the capital cost of ₹309451.55 lakh has been considered as the opening capital cost as on 1.4.2009, in respect of the power component of the generating station for revision of tariff for the period 2009-14.

Additional Capital Expenditure for 2009-14

9. Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides as under:

“9(2).The capital expenditure 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.”

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 kilometres of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”

10. The additional capital expenditure allowed with adjustment of power component, R&R subvention, adjustment of liabilities etc., by order dated 13.6.2012 is as under:

(₹ in lakh)						
Sl. No		2009-10	2010-11	2011-12	2012-13	2013-14
1	Additional capital expenditure allowed after adjustment of R&R subvention but prior to adjustment on account of un-discharged liabilities	1609.50	2162.73	190.44	1500.00	2885.29
2	Un-discharged liabilities at the beginning of the financial year	6204.00	6529.00	6189.00	4405.00	3939.00
3	Un-discharged liabilities as on 31 st March of the financial year	6529.00	6189.00	4405.00	3939.00	4574.00
4	Increase/Decrease of Un-discharged liabilities during the period (3-2)	325.00	(-) 340.00	(-) 1784.00	(-) 466.00	635.00
5	Additional Capital Expenditure allowed for the purpose of tariff (1-4)	1284.50	2502.73	1974.44	1966.00	2250.29

11. The re-conciliation of the additional capital expenditure (before adjustments of R&R subvention, Sardar Sarovar and irrigation components) claimed for Unit-I i.e Dam and Unit-III i.e Power component for 2009-14 duly certified by Auditor is as under:

(₹ in lakh)						
		2009-10	2010-11	2011-12	2012-13	2013-14
	Opening cumulative projected capital expenditure at the beginning of respective years	427927.00	430516.27	432823.11	434968.71	441540.64
Additional Capital Expenditure claimed under Regulation 9(2)						
(i)	Liabilities to meet award of arbitration or for compliance of the	2351.36	2312.99	1696.30	6135.34	11575.23



	order or decree of a court –Regulation 9(2)(i)					
(ii)	Change in Law-Regulation 9(2)(ii)	-	-	-	-	-
(iv)	Additional work which has become necessary for successful and efficient plant operation-Regulation 9(2)(iv)	245.99	(-) 62.79	489.07	377.80	384.03
	Minor Assets	(-) 8.08	56.64	(-) 39.76	58.79	64.14
	Total capital expenditure incurred	2589.27	2306.84	2145.61	6571.93	12023.40
	Closing cumulative capital expenditure at the end of the year	430516.27	432823.11	434968.71	441540.64	453564.04

12. It is pertinent to mention that the approved capital cost of ₹427927.00 lakh as on 31.3.2009 is as per Commission's order dated 19.4.2011 in Petition No. 207/2010 determining the tariff of this generating station for 2004-09. It is also noticed that during the year 2013-14, there is re-appropriation of ₹4117.77 lakh between the cost of the Dam (excluding R&R) and R&R expenditure. While the Dam (excluding R&R) cost has decreased by ₹4117.77 lakh, R&R expenditure has increased by the same amount. As such, the net impact on account of such re-appropriation is zero. This re-appropriation has not been objected to by the beneficiaries and hence allowed. Accordingly, the R&R expenditure for 2013-14 is revised as ₹15693 lakh.

13. Against capital expenditure incurred (before adjustments of R&R subvention, Sardar Sarovar and Irrigation components), the additional capital expenditure claimed by the petitioner for Power component after adjustment of R&R subvention, Sardar Sarovar and Irrigation components is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Additional Capital Expenditure on dam and power station (before adjustments of R&R subvention, Sardar Sarovar and Irrigation components)	2589.27	2306.84	2145.61	6571.93	12023.40



Net Additional Capital Expenditure for Power component before adjustment of liabilities	1013.34	787.51	952.29	2417.35	3507.43
Un-discharged liabilities discharged (for Power component)	897.56	1034.48	766.24	807.74	296.04
Net Additional Capital Expenditure (Power component) claimed for the purpose of tariff after adjustment of liabilities	1910.90	1821.99	1718.53	3225.09	8903.47

14. The summary of the actual additional capital expenditure claimed by the petitioner during the period 2009-14 is as detailed under:

(₹ in lakh)						
SI No	Head	2009-10	2010-11	2011-12	2012-13	2013-14
A	Additions against works already approved by Commission	282.00	282.10	171.08	27.45	15.97
B	Capital expenditure not projected/not allowed by Commission but incurred and claimed	(-) 40.85	(-) 359.17	85.42	316.41	316.13
C	Minor Assets	13.58	8.31	(-) 34.40	14.39	63.78
D	Actual capitalization of Main assets- Corporate Office	4.85	14.07	232.57	52.85	33.01
E	Corporate Office - Minor Assets	(-) 21.66	48.33	(-) 5.36	25.49	19.27
Total additional capital expenditure – Regulation 9(2)(iv)		237.91	(-) 6.36	449.31	436.59	448.16
R&R expenditure-Regulation 9(2)(i)		2351.36	2312.99	1696.30	6135.34	11575.23
Total additional capital expenditure		2589.27	2306.63	2145.61	6571.93	12023.40

* R&R expenditure for the year 2013-14 gets modified to Rs. 15693 lakh as explained above.

15. After examining the asset-wise details and justification for additional capital expenditure claimed by the petitioner, and after prudence check, the admissibility of the additional capital expenditure is discussed below.

A- Additions against works already approved by Commission –Regulation 9(2)(iv)

(₹ in lakh)				
SI. No.	Asset	Unit-I (Dam)	Unit-III (Power House)	Amount
2009-10				
1	Development of approach road to PH Top at EL 231 from Bhopal to ISPS	0.00	8.02	8.02
2	Double Storey building near GM office at ISPS including its electrification and driver room	34.41	13.98	48.40



3	Construction of Store Shed 1-B including Parking Sheds / Car Sheds/ Heavy Vehicle Sheds/ Washing Ramp at central stores premises at ISPS	20.58	8.36	28.94
4	Construction of Extra Room in F -Type Quarters at Indira Sagar Power Station, Narmada Nagar, (M.P.)	26.91	10.94	37.85
5	Construction of Boundary wall around NHDC Quarters and main gate	49.42	20.08	69.51
6	Purchase of Chartless recorder	0.00	55.04	55.04
7	Augmentation of Dewatering Facilities	17.20	6.99	24.19
8	Purchase of LP Compressor, HP Compressor, Air Dryer for LP & HP Compressor & Air Dryers,	7.16	2.91	10.06
	Total amount claimed	155.68	126.32	282.00
2010-11				
1	Construction of various toilet near CISF Check post at ISPs	0.00	2.25	2.25
2	Slope protection on right bank	6.41	0.00	6.41
3	2X500 KVA DG Sets including DG Room and LT Distribution	97.96	0.00	97.96
4	Implementation of Restricted FGMO	0.00	71.36	71.36
5	Construction of 33/11 kV sub-station including Additional Work demanded by MPSEB before taking over 33/11 kV sub-station.	0.00	47.13	47.13
6	Augmentation of Communication facilities by OFC / LAN connectivity between various location of Project.	0.00	47.99	47.99
7	Providing 2 nos High Mast at various sites in Colony	6.41	2.59	9.00
	Total amount claimed	110.79	171.32	282.10
2011-12				
1	Construction of store shed 1-B including parking sheds / car sheds/ Heavy vehicle sheds/ Washing ramp at central stores premises at ISPS	8.11	3.26	11.37
2	Rehabilitation of 506M long HLB over river Narmada	105.04	42.21	147.25
3	Providing & Fixing of Acoustic enclosures of 2 x 1000 KVA, 11 KV D.G. Sets	8.89	3.57	12.46
	Total amount claimed	122.04	49.04	171.08
2012-13				
1	CCTV at ISPS	0.00	15.93	15.93
2	Construction of approach road from HLB to D/S of Dam at ISPS	11.52	0.00	11.52
	Total amount claimed	11.52	15.93	27.45
2013-14				
1	Providing 2 nos High Mast at various sites in Colony	11.57	4.40	15.97
	Total amount claimed	11.57	4.40	15.97

16. The petitioner in justification of the above said claims has submitted that the projected additional capitalization of the above said assets/works have been approved by the Commission in its order dated 13.6.2012 in Petition No.154/2010 under Regulation 9(2)(iv) of the 2009 Tariff Regulations, on the ground that these works/assets were considered necessary for efficient &



successful operation of plant. Accordingly, the petitioner has prayed for allowing the actual additional capital expenditure incurred on these assets/works. In consideration of the submission of the petitioner and keeping in view that these assets/works are necessary for efficient operation of the generating station, the actual additional capital expenditure claimed by the petitioner is allowed. Accordingly, the actual additional capital expenditure allowed under this head is summarized as under:

(₹ in lakh)

	Unit-I	Unit-III	Amount
2009-10	155.68	126.32	282.00
2010-11	110.79	171.32	282.10
2011-12	122.04	49.04	171.08
2012-13	11.52	15.93	27.45
2013-14	11.57	4.40	15.97

B - Capital expenditure not projected/not allowed by Commission but incurred and claimed-Regulation 9(2) (iv)

17. It is observed that some of the assets/works claimed by the petitioner on projected basis under this head were earlier disallowed by the Commission. However, considering the fact that these assets which are necessary for efficient operation have been put to use and the benefits of the same have been repeated by the respondents by way of supply of power from the generating station, the same is examined and admitted on prudence check, as stated below:

(₹ in lakh)

Sl. No.	Asset	Unit-I (Dam)	Unit-III (Power House)	Total	Justification for admissibility of the expenditure
2009-10					
1	Purchase of 5 No. Oil storage Tank at Power House.	0.00	21.29	21.29	The petitioner has submitted that previously there was no storage facility of transformer oil of Generator Transformers (54 KL each). It has also stated that it is a mandatory requirement to care of any exigency. In view of the submissions and as the asset is considered necessary for successful and efficient operation of the plant, the expenditure is allowed under Regulation 9(2)(iv)



					of the 2009 Tariff Regulations.
2	Security Equipments	0.00	16.17	16.17	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of Security safety committee. In view of the submissions and as the asset is considered necessary for safe operation & security of the plant, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
3	Fabrication & Erection TCT Sheet Chajja Over D- Line Windows EI201m 257/7	0.00	0.83	0.83	The petitioner has submitted that the work has been executed to prevent leakage of water during rainy season in Power house. Not allowed as the assets claimed is of a minor nature.
4	Capitalization Work of Design Drawing Fab Of Intake Gates Draft Tube 1/109	0.00	12.35	12.35	The petitioner has submitted that the expenditure is part of original contract on reconciliation with contractor. Considering the fact that the expenditure incurred is balance payment against the asset already capitalized and put to use, the claim is allowed .
5	Capitalization of electrification of 72 Additional Bathroom In G Type Qtrs.32/7	2.12	0.86	2.98	The petitioner has submitted that claim is for electrification work of additional bathroom, which were capitalized before 1.4.2009. Since the expenditure incurred on the said asset is for the benefit of the employees working in remote area and would eventually lead to efficient and successful operation of plant, the same is allowed under Regulation 9(2) (iv) of the 2009 Tariff Regulations
6	Design, Drawing Supp & Installation Of 20 Nos. Radial Gates	0.48	0.00	0.48	The petitioner has submitted that the expenditure is part of original contract on reconciliation with contractor. Considering the fact that the expenditure incurred is balance payment against the asset already capitalized and put to use, the claim is allowed .
7	Neutral CT For Abb Make 154 Mva Generator Transformer	0.00	0.57	0.57	The petitioner has submitted that the asset has been procured as spare to increase the reliability of Generator Transformer. Not allowed as the asset claimed is in the nature of "spares".



8	Purchase Of Ventwell Make Axial Flow Exhaust Fan	0.00	2.89	2.89	The petitioner has submitted the work was executed for proper ventilation of Power house to increase the efficiency of manpower and healthy working environment. Not allowed as the asset claimed is of a minor nature
9	Purchase of Shaft Current Monitor Relay, Raric Version-1, Ac Supply-Rk 649 101-Ad Including Current relay RXIX, Time relay Rskl1, AC/DC Convertor Rx Tub 2 Auxiliary Relay Rxme18 ABB make	0.00	10.35	10.35	The petitioner has submitted that the work has been executed for proper monitoring of the TG unit which enhances the reliability of the system. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
10	Design, Manufacturing Supply & Erection, Comm of RTU And HMI System Balance Payment	0.00	0.12	0.12	The petitioner has submitted that the expenditure is to increase the accessibility of generation and transmission data to SLDC Jabalpur. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
11	Purchase Of Centrifuging Machines 02 Nos & Recycling Oil Tank Of 8 KL Capacity.	0.00	15.10	15.10	The petitioner has submitted that as the power station is having 20 no of power packs for operation of radial gates and 8 no for intake gates, the oil of these power packs are required to be filtered at regular intervals. Therefore minimum two nos of centrifuging machines, one no LVDH and one no ELC machine had been purchased to meet the desired frequency of filtration in a year. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations..



12	Purchase Of 1 No. LVDH Machine	0.00	3.18	3.18	The petitioner has submitted that Augmentation of in-house capability of Oil Filtration in the Power House to ensure the successful and efficient operation of Generating Station. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
13	Lifting Beam for Radial Gates , Draft Tube gate and Intake gate	0.00	8.94	8.94	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles.
14	Reversal of liability of Capital works	(-) 39.48	(-) 96.63	(-) 136.12	The petitioner has submitted that the Reversal of liability of capital works is adjustment as per balance sheet. Hence allowed .
	Total Claimed	(-) 36.88	(-) 3.97	(-) 40.85	
	Total Allowed	(-) 36.88	(-) 17.21	(-) 54.09	
2010-11					
1	Purchase of ABB REL 670 Relays	0.00	12.73	12.73	The petitioner has submitted that this is an inbuilt disturbance recorder system as per norms of CEA to record the disturbances in the line. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
2	Purchase Of 1 No.ELC Machine	0.00	3.74	3.74	The petitioner has submitted that Augmentation of in-house capability of Oil Filtration in the Power House to ensure the successful and efficient operation of generating station. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.



3	Store Room In VIP GH	1.11	0.45	1.56	The petitioner has submitted that there was no store room facility in the VIP guest house/transit camp and the store room was constructed to facilitate the storage at Guest house. In consideration of the submission of the petitioner, the expenditure incurred is not allowed and the respondents cannot be burdened on this count.
4	Watching Tower & Toilet At Downstream Of Dam	6.53	0.00	6.53	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of the Security safety committee. In consideration of the submissions of the petitioner and since the same is for the safety and benefits the employee working in the power station, which contributes to the efficient and successful operation of the generating station, the expenditure is allowed under Regulation 9(2) (iv) of the 2009 Tariff Regulations.
5	Store Room (7 M x 5.5 M) near Switch yard	0.00	2.86	2.86	The petitioner has submitted that the store room was constructed for safe storing of spares of switch yard. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
6	Protection Work On Left Bank Near D/S Face Of Dam	4.75	0.00	4.75	The petitioner has submitted that The work was undertaken to protect the erosion during flood. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
7	Hydraulic Nrv Size 3/8 Inch	0.00	0.43	0.43	Since capitalization of spares after the cut-off date of the generating station is not permitted under the 2009 Tariff Regulations, the expenditure is not allowed to be capitalized.



8	Generator Transformer	0.00	15.00	15.00	The petitioner has submitted that the claim is for balance payment of original package of GT upon final reconciliation with the supplier. In consideration of the expenditure being balance payment of the asset already capitalized and put to use, the expenditure incurred is allowed .
9	VVVF AC Drive along With Control Panels For 3 Phase 90 kW Induction Motor used For Driving Screw Pump of 50kg/Sq. Cm oil Pressure Unit of 125 Mw Hydro Generator Unit Ora Ast Ref No 2232	0.00	36.36	36.36	The petitioner has submitted that the said asset has reduced the auxiliary consumption thereby resulting in energy saving of systems installed in Power house and improves reliability of the generating units. As the expenditure is in the nature of replacement and the gross value of the old asset has not been furnished, the expenditure is not allowed .
10	S/E/T/C Of Aerial Bunched Conductor With ACC for existing Lt Line at ISPS Ora Ast Ref No. 2235	9.72	3.93	13.65	The petitioner has submitted that the asset is to reduce the pilferage of electricity supplied at township. As the expenditure is in the nature of O&M expenses, the same is not allowed .
11	Electrical Hoisting System at catwalk at Radial gate Including approach ladder from dam top	4.94	0.00	4.94	Since the asset is in the nature of tools and tackles, the expenditure is not allowed
12	Single Phase Welding machine	0.00	0.87	0.87	
13	Adjustment in carrying amount of assets	(-) 334.33	(-) 128.28	(-) 462.61	The petitioner has submitted that the claim is based on adjustment as per balance sheet. In view of this, the expenditure is allowed .
	Total Claimed	(-) 307.27	(-) 51.90	(-) 359.17	
	Total Allowed	(-) 323.05	(-) 93.95	(-) 417.00	
2011-12					
1	Shed for Protection of Diesel Pump and CISF cabin near access tunnel gate	2.62	0.00	2.62	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of the Security safety committee. In view of the submissions and as the asset is considered necessary for safe operation & security of the plant, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff



					Regulations.
2	Valve Regulated Lead Acid(Vrla) Battery Bank Set 13 Cell Of Capacity 24 V Each Make Microtex Ora Arn No: 2361	0.00	2.28	2.28	The petitioner has submitted that New Battery bank has been installed to improve the reliability of the control system. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
3	Sf6 Gas Purity Analyser Wika Make Model Ga-50 Arn. No. 2329 So No: NHDC/2/C/712/10/0 649 dated 28/12/2010	0.00	6.50	6.50	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles.
4	Chain Pulley Block For 3 Ton Capacity	0.00	0.44	0.44	
5	Control Panel With Power And Control Scheme Suitable For Operation Of Power Pack Of Hs Lub Oraarn No: 2353	0.00	2.18	2.18	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of spares.
6	Hydraulic Power Pack Suitable For HS Lubrication	0.00	3.69	3.69	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles
7	Portable Digital Contact Resistance Meter	0.00	1.26	1.26	
8	Mobile Oil Storage Tank Capacity 2500 Liters, Arn No 2387	0.00	4.69	4.69	The petitioner has submitted that Facility for storing the turbine bearing oil was not available at power station and usually it was stored in 200ltr drums. This storage has improved the efficiency of the maintenance. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
9	Air Circuit Breaker Model Sace E1n Make Abb	0.00	1.63	1.63	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset



	Arn No 2405				is in the nature of spares
10	Photovoltaic Solar Power System	16.15	0.00	16.15	The petitioner has submitted that the Ministry of Power, GOI had nominated this station for implementation of photo voltaic solar system as pilot project and this helps in conservation of fossil fuel based energy and energy saving. In our view, the said expenditure cannot be allowed as the respondent beneficiaries cannot be burdened on this count, without examining the Cost benefit analysis of the energy generated by such solar panels viz-a-viz the extra hydro energy the beneficiaries shall be getting by placing these solar panels at the hydro generating stations. As such, the benefits of the said asset shall however accrue to the petitioner as secondary energy charges.
11	Photovoltaic Solar Power System	0.00	16.15	16.15	
12	Bottom Elements For Intake Gate Stoplog	0.00	35.30	35.30	Since the asset/work was not allowed by Commission's order dated 13.6.2012 in Petition no. 154/2010 for the reasons stated therein, the same is not allowed .
13	Lifting Beam For Radial Gates , Draft Tube Gate And Intake Gate	0.00	17.20	17.20	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles
14	Security Equipments	0.79	0.32	1.11	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of the Security safety committee. In view of the submissions and as the asset is considered necessary for safe operation & security of the plant, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
15	Purchase Of Acrobat XP Professional, Auto CAD 2012 , Office XP Professional 2010	2.51	1.01	3.52	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of minor assets.
16	Adjustment In Carrying Amount Of Assets	0.00	(-) 29.31	(-) 29.31	The petitioner has submitted that the claim is based on adjustment as per balance sheet. In view of this, the expenditure is allowed .
	Total Claimed	22.06	63.35	85.42	
	Total Allowed	3.41	(-) 22.02	(-) 18.61	



2012-13					
1	Store, Canteen, Lockers Room Civil Store Over W/Shop Building	0.00	27.51	27.51	The petitioner has submitted that the expenditure is incurred to provide facility to workers as per factory act and storage of emergency spare parts. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
2	Additional Toilet In Office Building	1.72	0.68	2.40	The petitioner has submitted that as per requirement of the Senior Officers additional toilets has been constructed. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
3	Parking Shed In Nhdc Office Area	7.86	3.10	10.96	The petitioner has submitted that the shed has been constructed to provide parking facility to employees as well as departmental vehicles. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
4	Parking Shed In NHDC Colony Area	34.20	13.48	47.67	The petitioner has submitted that to provide parking facility to employees. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.



5	Development Of Fountain Near Main Gate Of Colony Area	9.02	3.55	12.57	In consideration of the submission of the petitioner, we are of the view that such expenditure cannot be allowed and the respondents cannot be burdened on this count.
6	Store Shed Near DCR And Dam Gallery	7.60	0.00	7.60	The petitioner has submitted that the shed has been constructed for storage of HM tools and equipments and emergency spares. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations..
7	Double Layer Concertina Coil Rr Msonry Security Fencing	44.31	0.00	44.31	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of the Security safety committee. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for safety and security of the plant which will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
8	Parking Shed At Power House Top	0.00	4.11	4.11	The petitioner has submitted that the shed has been constructed to provide parking facility to employees as well as departmental vehicles. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
9	Additional Rooms In H Type Qtr M/S Krishna Engineering, Indore	79.16	31.20	110.36	The petitioner has submitted that the residential quarters were taken over by NHDC for NVDA which were nearly 30 years old. Additional rooms had been constructed to provide residential facility to



					employees as per entitlements. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
10	Supply, Fab, Of Ms Cage Ladders For Intake Gate Groove	7.34	0.00	7.34	Since the asset/work was not allowed in Commission's order dated 13.6.2012 in Petition No. 154/2010 on the ground of minor assets, the expenditure is not allowed .
11	Numerical Distance Protection Relay	0.00	18.91	18.91	Expenditure is not allowed as the same has been reversed in 2013-14. Similarly, the negative entry has been ignored in the year 2013-14.
12	Dry Block Temp Calibrator along with Reference probe.	0.00	2.97	2.97	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles.
13	Purchase of Centrifuging Machines 02 nos & recycling oil tank of 8 KL capacity.	0.00	11.34	11.34	The petitioner has submitted that as the power station is having 20 no of power packs for operation of radial gates and 8 no for intake gates, the oil of these power packs are required to be filtered at regular intervals. Therefore minimum two nos. of centrifuging machines, recycling tank had been purchased/constructed to meet the desired frequency of filtration in a year and resulting in economy. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
14	Electrical Hoisting system at Catwalk at radial gate including approach ladder from dam top	8.36	0.00	8.36	In consideration of the submission of the petitioner, the expenditure incurred is not allowed as the asset is in the nature of tools and tackles.
	Total Claimed	199.57	116.84	316.41	
	Total Allowed	174.85	91.42	266.27	



2013-14					
1	Renovation Of Community Hall – 1 No.	17.17	6.54	23.71	The petitioner has submitted that the community hall was taken over by NHDC for NVDA which were nearly 30 years old. Renovation has been undertaken to provide better facility in the township. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
2	Additional Rooms In H Type Qtr	18.58	7.07	25.65	The petitioner has submitted that the residential quarters were taken over by NHDC for NVDA which were nearly 30 years old. Additional rooms had been constructed to provide better residential facility to employees as per entitlement. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
3	Additional Bathroom In G Type Qtr	17.57	6.69	24.25	The petitioner has submitted that the residential quarters were taken over by NHDC for NVDA which were nearly 30 years old. Additional bath rooms had been constructed to provide better residential facility to employees. In consideration of the submission of the petitioner and since the asset is for the benefit of the employees working in remote area and will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.



4	Capitalization – Double Layer Concertina Coil Rr Masonry Security Fencing	1.27	0.00	1.27	The petitioner has submitted that the work has been executed as per security requirement of CISF and recommendation of the Security safety committee. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for safety and security of the plant which will facilitate the efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
5	Shell And Tube Heat Exchanger (Vertical Mounting) – 532001000001, Ph Mechanical Maintenance	0.00	7.37	7.37	The expenditure is not allowed as the same is in the nature of O&M expenses.
6	Refrigerated Air Dryer for LP Compressed Air System	0.00	2.45	2.45	The petitioner has submitted that the expenditure is incurred to improve the reliability and quality of the supply of compressed air supply of the power station. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
7	15 Tr Capacity Water cooler Air conditioning Units	0.00	2.15	2.15	The expenditure is not allowed as the same is in the nature of minor assets.
8	Vibration Monitoring System	0.00	34.43	34.43	The petitioner has submitted that to improve the condition monitoring facility, thereby improving reliability of the generating unit. Vibration monitoring system helps timely detection of problems and may help in reduction of forced outages. In consideration of the submissions of the petitioner and since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
9	Valve – Gear Operated Manual Size 65 Nb	0.00	3.68	3.68	The expenditure is not allowed as the same is in the nature of O&M expenses/tools and tackles



10	Electrostatic Oil Mist Extractor With Supervisory System	0.00	5.09	5.09	
11	Relay Test Kit – Three Phase With Current Generators Incl Inbuilt Modules Laptop With Software	0.00	20.32	20.32	The expenditure is not allowed as the same is in the nature of tools and tackles.
12	APFC Panel And Capacitor 440 Volts, Complete With Switchgears	0.00	3.82	3.82	The petitioner has submitted that the asset has been procured to enhance the power factor resulting in saving in electricity expenditure. However, considering the fact that the O&M expenses allowed to the station is on normative basis and the saving in electricity expenses (as part of O&M expenses) would only benefit the petitioner, the expenditure incurred is not allowed .
13	Valve Port Ball Gear Operated Size 40,80,100 Nb	0.00	4.59	4.59	The expenditure is not allowed as the same is in the nature of O&M expenses.
14	Vvuf Ac Drive Make Abb For 02 Nos 3 Phase 5.5 Kw Sq. Cage Induction Motor For Long Travel Mechanism Of Gantry Crane	0.00	1.26	1.26	
15	Cylinder Hydraulic For Intake Gate 420 X 160 X 9050 Capacity 210 Ton	0.00	93.12	93.12	The expenditure is not allowed as the same is in the nature of "spares".
16	Modification Of Stator Cooler Outlet Cooling Water Line Handwheel Valves With Motorised Actuators	0.00	20.63	20.63	The expenditure is not allowed as the same is in the nature of O&M expenses.
17	Purchase Of Jack & Pack For PTPS System	0.00	9.69	9.69	The expenditure is not allowed as the same is in the nature of tools and tackles
18	60HP Submersible Dewatering Pump With Control Panel- 820100000108, Of Hydro Mechanical Division	0.00	27.62	27.62	The petitioner has submitted that dewatering submersible pumps had been procured to increase the reliability of drainage of seepage water in sumps. Since the asset/work is considered necessary for efficient and successful operation of the generating station, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations,
19	Computer Software	17.34	6.60	23.95	Not allowed , since the expenditure on



					assets in the nature of minor assets.
20.	Numerical Distance Protection Relay	0.00	(-) 18.91	(-) 18.91	Not allowed as it represents the reverse entry for the same asset procured and capitalized during 2012-13. Moreover, the corresponding positive entry has also been ignored during 2013-14.
	Total Claimed	71.93	244.20	316.13	
	Total Allowed	54.59	84.80	139.39	

C-Minor Assets

18. It is noticed that the petitioner has not considered an amount of ₹65.66 lakh under the head 'Minor assets' inclusive of capitalization and de-capitalization of minor assets during 2009-14. In this regard it is pertinent to mention that in terms of the provisions of the 2009 Tariff Regulations, the expenditure incurred towards procurement/replacement of minor assets after the cut-off date is not permissible for the purpose of tariff. Accordingly, the petitioner has considered these additions under exclusions. As such, the exclusions of the positive entries under the head are in order and are allowed.

19. The petitioner has also ignored/ excluded negative entries for the purpose of tariff as the corresponding positive entries for purchase of such assets are not being allowed for the purpose of tariff in terms of the provisions of the 2009 Tariff Regulations. In this regard the observations of the Commission in order dated 7.9.2010 in Petition No.190/2009 as under:

“20. After careful consideration, we are of the view that the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block, if the cost of the new assets is not considered on account of implication of the regulations. In other words, the value of the old assets would continue to form part of the gross block and at the same time the cost of new assets would not be taken into account. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of those assets are being rendered by similar assets which do not form part of the gross block.”

20. Also, the Commission in its order dated 24.2.2016 in Petition No.230/GT/2013 while revising the tariff of Dhauliganga HEP of NHPC for the period 2009-14, based on truing-up exercise has clarified as under:



“31. In our view, since the cost of new assets would not be taken into account by implication of the regulations, the value of old assets should be permitted to continue to form part of the gross block. In other words, if the cost of the new assets is not considered on account of implication of the regulations, the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of these assets are being rendered by similar assets which do not form part of the gross block. In this background and in line with the decision of the Commission in order dated 7.9.2010, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.”

21. Accordingly, in line with the above decision, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.

D. Corporate Office-Actual capitalization of Main Assets

22. The petitioner has claimed an expenditure of ₹337.34 lakh during 2009-14 under the head ‘Corporate Office Actual Capitalization of Main Assets’. In is pertinent to mention that the generating companies use Liaison office/Corporate office/Regional offices for various activities like operations of existing plants, construction of new plants, consultancy services, etc. As such, the capital cost incurred on creation of these offices cannot form part of a particular generating station. In this regard, it may be pointed out that the Commission in its order dated 26.4.2006 in Petition No. 3/2006 had disallowed the expenditure on creation of " Corporate office and other offices" of NTPC and the same was affirmed by the Appellate Tribunal for Electricity. In line with the said decision, the expenditure of ₹337.34 lakh under the head ‘Corporate Office Actual Capitalization of Main assets’ **is not allowed**.

E. Corporate Office-Minor Assets

23. The petitioner has not claimed expenditure on ‘Corporate Office - Minor Assets’ during 2009-14. Since capitalization under the head ‘Corporate Office Actual Capitalization of Main Assets’ in has not been allowed for the purpose of tariff, as above, the capitalization/de-



capitalization of minor assets under this head has been excluded and /or not considered for the purpose of tariff.

24. Based on the above, the additional capital expenditure [except the R&R liabilities allowed under Regulation 9(2)(i) claimed and allowed under Regulation 9(2)(iv) for 2009-14 including assets allowed earlier on projection basis and assets/works not projected/not allowed earlier, is summarized as under:

(₹ in lakh)										
	2009-10		2010-11		2011-12		2012-13		2013-14	
	Unit-I	Unit-III	Unit-I	Unit-III	Unit-I	Unit-III	Unit-I	Unit-III	Unit-I	Unit-III
Claimed	118.80	122.35	-196.48	119.42	144.1	112.39	211.09	132.77	83.50	248.60
Allowed	118.80	109.11	-212.26	77.37	125.45	27.02	186.37	107.35	66.16	89.20

R&R Expenses

Liabilities to meet Award of arbitration or for compliance of the order or decree of a Court-Regulation 9 (2) (i)

25. The petitioner has submitted that in compliance with the decision of the Court, the GoMP (the respondent No. 2) vide letter dated 24.8.2012 had allowed for raising the Reservoir Level upto FRL EL 262.13 M, beyond the permitted level of EL 260.0 M and accordingly, the FRL of EL 262.13 M was attained at Indira Sagar Reservoir during September, 2012. The petitioner has however submitted that on attaining the FRL, several un-acquired properties of Agricultural land and Residential houses in many villages were severely affected and moreover, many roads, culverts and approaches also got badly damaged. Accordingly, it has submitted that the respondent No. 2, GoMP got such un-acquired properties surveyed and directed to release the compensation to such additional PAFs, besides carrying out additional civil works for new roads, culverts etc. and / or restoring the damaged structures wherever warranted. Thus, the petitioner has submitted that the completion cost for R&R works is anticipated to be ₹2002.18 crore which has been approved and conveyed by the respondent No.2, GoMP as against the R&R expenditure of ₹1723.13 crore claimed in Petition No. 154/2010.



26. It is observed that the gross capital expenditure on R& R works as on 31.3.2014 is ₹1923.24 crore. Moreover, a balance additional capital expenditure of ₹78.00 crore has been projected to be incurred by the petitioner during the tariff period 2014-19 as evident from the tariff petition filed by the petitioner for the said period. As per Clause 7 of CCEA sanction dated 28.3.2002, an amount of ₹1160 crore was capped for R&R works and any increase in the cost beyond this amount was to be borne equally by the respondent No.2 and the petitioner. Accordingly, 50% of the increased R&R cost beyond the capped amount of ₹1160 crore, as on 31.3.2014, amounting to ₹381.62 crore is required to be borne by the respondent No.2, as Subvention and the balance 50% amount of ₹381.62 crore is to be borne by the petitioner and booked to the cost of Unit-I (Dam). The details of sharing of R&R expenses as per Clause 7 of CCEA approval is as under:

(₹ in crore)

Date	Gross Expenditure on R&R works	Sharing of R&R Expenditure as per Clause 7.0 of CCEA Approval		Remarks
		Project's Share	GoMP's Subvention (50%) (accrued)	
31-03-09	1641.34	240.67	240.67	(as admitted vide order dated 13.6.2012 in Petition No.154/2010)
31-03-10	1664.85	252.43	252.43	
31-03-11	1687.98	263.99	263.99	
31-03-12	1704.95	272.47	272.47	
31-03-13	1766.30	303.15	303.15	
31-03-14	1923.24	381.62	381.62	

27. The petitioner has claimed R&R expenses under Regulation 9(2)(i) of the 2009 Tariff Regulations as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
2351.36	2312.99	1696.30	6135.34	15693.00

28. In view of the submissions of the petitioner and since the expenditure on account of R&R works incurred by the petitioner is in compliance with directions of the Court, the expenditure is



allowed to be capitalized under this head. Accordingly, R&R expenses allowed for the purpose of tariff (Power component) is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
(a) R&R expenses	2351.36	2312.99	1696.30	6135.34	15693
(b) Less: Subvention from GoMP (1/2 of above)	1175.68	1156.50	848.15	3067.67	7846.50
(c) Less SSP @17.63% of (a)-(b)	207.27	203.89	149.53	540.83	(-) 1383.34
(d) Less Irrigation component @16.75 % of {(a)-(b)-(c)}	162.21	159.56	117.02	423.25	(-) 1082.58
(e) Share of Power Component {(a)-(b)-(c)-(d)}	806.20	793.04	581.60	2103.59	5380.58/2556.90

29. The share of the Power component, after subvention, works out to ₹5380.58 lakh. However, the reduction in dam cost (excluding R&R) by ₹4117.77 lakh would reduce the Power component cost by ₹2823.68 lakh ($4117.77 \times (1 - 0.1763) \times (1 - 0.1675)$). Accordingly, the net impact of cost re-appropriation has been adjusted and the same works out to ₹2556.90 lakh (5380.58-2823.68).

30. The additional capital expenditure booked to Unit-I (dam) has further been apportioned to SSP and Irrigation and their contribution to Power component is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
(a) Expenditure allowed on Unit-I i.e Dam excluding R&R expenditure	118.80	(-) 212.26	125.45	186.37	66.16
(b) Less: SSP @17.63% of (a)	20.94	(-) 37.42	22.12	32.86	11.66
(c) Less: Irrigation component @16.75 % of {(a)-(b)}	16.39	(-) 29.29	17.31	25.71	9.13
(d) Booked to Power component {(a)-(b)-(c)}	81.46	(-) 145.55	86.02	127.80	45.37

31. Based on the above discussions, the additional capital expenditure allowed for Power component for 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Unit-I (Dam) (excluding R&R) allowed Additional capital expenditure booked to Power component (a)	81.46	(-) 145.55	86.02	127.80	45.37



Additional capital expenditure of Unit-III booked to Power component (b)	109.11	77.37	27.02	107.35	89.20
R&R component booked to Power component (c)	806.20	793.04	581.60	2103.59	2556.90
Total additional capitalization allowed for Power component (d)= (a)+(b)+(c)	996.77	724.86	694.64	2338.74	2691.47

Un-discharged liabilities

32. The petitioner has submitted the details of the actual un-discharged liabilities in Power component as on 31st March of the financial year as under:

(₹ in lakh)				
31.3.2010	31.3.2011	31.3.2012	31.3.2013	31.3.2014
5306.44	4271.96	3505.72	2697.98	2401.94

33. In the absence of any information regarding the details of the asset-wise liabilities being submitted by the petitioner, the overall liabilities have been considered. The un-discharged liabilities have been deducted from the year in which claimed and added to the years during which the liabilities have been discharged. Accordingly, the additional capital expenditure (for Power component) approved for the purpose of tariff for 2009-14 is as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost of Power Component (a)	309451.55	311345.88	313105.22	314566.10	317712.58
Additional Capital Expenditure (Power Component) (b)	996.77	724.86	694.64	2338.74	2691.47
Un-discharged liabilities at the beginning of the year (c)	6204.00	5306.44	4271.96	3505.72	2697.98
Un-discharged liabilities at the ending of the year (d)	5306.44	4271.96	3505.72	2697.98	2401.94
Un-discharged Liabilities discharged (e)=(c)-(d)	897.56	1034.48	766.24	807.74	296.04
Additional Capital Expenditure (Power Component) considered for tariff (f)=(b)+(c)	1894.33	1759.34	1460.88	3146.48	2987.51

Capital Cost for 2009-14

34. Accordingly, the capital cost approved for the period 2009-14 is as under:



(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost as on 1 st April of the financial year	309451.55	311345.88	313105.22	314566.10	317712.58
Additional Capital Expenditure allowed	1894.33	1759.34	1460.88	3146.48	2987.51
Capital Cost as on 31st March of the financial year	311345.88	313105.22	314566.10	317712.58	320700.09

Debt- Equity Ratio

35. Regulation 12 of the 2009 Tariff Regulations provides as under:

“(1) 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 utilized 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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

36. The petitioner has submitted that the funding of additional capital expenditure has been made through internal resources and others. In terms of the above regulations, the debt equity ratio of 70:30 has been considered on the additional capital expenditure, after adjustment of the un-discharged liability, for the purpose of tariff.

Return on Equity

37. Regulation 15 of the 2009 Tariff Regulations provides as under:

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

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



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

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

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

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

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

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

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge 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 the 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.”

38. The petitioner has considered the rate of Return on Equity as under:

Year	2009-10	2010-11	2011-12	2012-13	2013-14
Base Rate	15.500%	15.500%	15.500%	15.750%**	16.500%
Applicable Tax Rate	16.995%	19.931%	20.008%	20.008%	20.961%
Rate of ROE (pre-tax)	18.674%	19.358%	19.377%	19.689%	20.876%

(*The Base Rate has been changed from 15.5% to 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage in terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2012, w.e.f. 31.12.2012. Therefore, base rate of 15.75% has been considered for 2012-13).{15.5% x 9/12+16.5% x 3/12}

39. Accordingly, Return on equity has been worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional equity	116876.01	117444.31	117972.11	118410.37	119354.32
Addition due to Additional capitalization	568.30	527.80	438.26	943.94	896.25
Closing Equity	117444.31	117972.11	118410.37	119354.32	120250.57
Average Equity	117160.16	117708.21	118191.24	118882.34	119802.44
Return on Equity (pre-tax)	18.674%	19.358%	19.377%	19.689%	20.876%
Return on Equity	21878.49	22785.95	22901.92	23406.74	25009.96

Interest on loan

40. Regulation 16 of the 2009 Tariff Regulations provides as under:

‘(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.”

41. Interest on loan has been worked out as mentioned below:

(a) The opening gross normative loan as on 1.4.2009 has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations.

(b) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project.

(c) The repayment for the year of the tariff period 2009-14 has been considered equal to the depreciation allowed for that year.

(d) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.



42. Interest on loan is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	192575.54	193901.57	195133.11	196155.72	198358.26
Cumulative Repayment	39983.80	52986.41	66050.02	79176.55	91956.07
Net Loan-Opening	152591.74	140915.16	129083.08	116979.17	106402.19
Repayment during the year	13002.61	13063.61	13126.53	12779.51	12872.74
Addition due to Additional Capitalization	1326.03	1231.54	1022.62	2202.54	2091.26
Net Loan-Closing	140915.16	129083.08	116979.17	106402.19	95620.71
Average Loan	146753.45	134999.12	123031.13	111690.68	101011.45
Weighted Average Rate of Interest	8.995%	9.240%	10.758%	12.176%	12.203%
Interest on Loan	13200.99	12473.63	13235.12	13599.23	12326.33

Depreciation

43. Regulation 17 of the 2009 Tariff Regulations provides as under:

“(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 longterm 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 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.”

44. In terms of the above regulations, the weighted average rate of depreciation has been considered for the calculation of depreciation. Accordingly, depreciation has been worked out as under:



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	309451.55	311345.88	313105.22	314566.10	317712.58
Additional capital expenditure during the period	1894.33	1759.34	1460.88	3146.48	2987.51
Closing gross block	311345.88	313105.22	314566.10	317712.58	320700.09
Average gross block	310398.71	312225.55	313835.66	316139.34	319206.33
Rate of Depreciation	4.189%	4.184%	4.183%	4.042%	4.033%
Depreciable Value	279358.84	281002.99	282452.09	284525.40	287285.70
Remaining Depreciable Value	239375.71	228017.25	216402.74	205349.52	195330.31
Depreciation	13002.61	13063.61	13126.53	12779.51	12872.74

Operation & Maintenance Expenses

45. Regulation 19(f)(iv) of the 2009 Tariff Regulations provides for normative operation and maintenance expenses for hydro generating stations as under:

"19(f) Hydro generating station

(i) Operation and maintenance expenses, for the existing generating stations which have been in operation for 5 years or more in the base year of 2007-08, shall be derived on the basis of actual operation and maintenance expenses for the years 2003-04 to 2007-08, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

(ii) The normalized operation and maintenance expenses after prudence check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2003-04 to 2007-08 at 2007-08 price level. The average normalized operation and maintenance expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10:

Provided that operation and maintenance expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of the employees of the Public Sector Undertakings to arrive at the permissible operation and maintenance expenses for the year 2009-10.

(iii) The operation and maintenance expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible operation and maintenance expenses for the subsequent years of the tariff period.

(iv) In case of the hydro generating stations, which have not been in commercial operation for the period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @ 5.17% per annum up to the year 2007-08 and then averaged to arrive at the O & M expenses in respective year of the tariff period. [The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation.]

46. Accordingly, the O&M expenses allowed in order dated 13.6.2012 in Petition No. 154/2010 is allowed as under:



<i>(₹ in lakh)</i>				
2009-10	2010-11	2011-12	2012-13	2013-14
4951.87	5235.12	5534.57	5851.14	6185.83

Interest on Working Capital

47. Regulation 18(1)(c) of the 2009 Tariff Regulations provides that the working capital for hydro generating stations shall cover:

- (i) *Receivables equivalent to two months of fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 19;*
- (iii) *Operation and maintenance expenses for one month.*

48. 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.

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

Maintenance Spares

50. Maintenance spares as allowed in order dated 13.6.2012 is considered for the purpose of tariff is as under:

<i>(₹ in lakh)</i>				
2009-10	2010-11	2011-12	2012-13	2013-14
742.78	785.27	830.19	877.67	927.87

Receivables

51. Receivable component of the working capital has been worked out on the basis of two months of fixed cost as under:



(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
9047.30	9137.89	9350.29	9494.49	9625.12

O&M Expenses

52. O & M expenses for 1 month for the purpose of working capital is as under:

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
412.66	436.26	461.21	487.60	515.49

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

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	742.78	785.27	830.19	877.67	927.87
O & M expenses	412.66	436.26	461.21	487.60	515.49
Receivables	9047.30	9137.89	9350.29	9494.49	9625.12
Total	10202.73	10359.42	10641.69	10859.76	11068.48
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	1249.84	1269.03	1303.61	1330.32	1355.89

Annual Fixed Charges

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

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	21878.49	22785.95	22901.92	23406.74	25009.96
Interest on Loan	13200.99	12473.63	13235.12	13599.23	12326.33
Depreciation	13002.61	13063.61	13126.53	12779.51	12872.74
Interest on Working Capital	1249.84	1269.03	1303.61	1330.32	1355.89
O & M Expenses	4951.87	5235.12	5534.57	5851.14	6185.83
Total	54283.79	54827.35	56101.74	56966.95	57750.75

55. The recovery of the annual fixed charges shall be subject to truing up, in terms of Regulation 6 of the 2009 Tariff Regulations.

Design Energy

56. The petitioner has submitted that the Government of Madhya Pradesh (GoMP) is executing Unit-II (Canal) of this multipurpose project. It has also submitted that depending upon the development of canal network and the Irrigation command, the following three stages of the



power generation for 90% dependable year has been defined in the Techno-Economic Clearance (TEC) of CEA for the Project, depending upon the water utilization by the State of Madhya Pradesh in the Narmada Basin.

Stage of Irrigation Development	Total Irrigation Utilization in Basin (BM ³) by MP	Firm Power (MW)
Stage-I	≤6.00	226
Stage-II	>6.00 ≤ 13.00	From 226 to 125
Stage-III	>13.00 ≤ 18.25	From 125 to 100
Final Stage	≥18.25	100

57. The petitioner has submitted that consequent upon the utilization of water in the Narmada Basin by the State of Madhya Pradesh by more than 6 BM³ during the year 2010-11 i.e. 6.624 BM³, as notified by Narmada Control Authority, the Commission in its order dated 13.6.2012 in Petition No. 154/2010 had admitted the commencement of the Stage –II of this multipurpose Project from 2010-11. It has also submitted that Stage-II of power generation shall be continued till the utilization of water by the State of Madhya Pradesh attains 13 BM³ in the Narmada Basin depending upon the development of Irrigation command by the Respondent No.2.

58. The petitioner has further submitted that in order to work out the Reducing Power Benefit i.e. Firm Power during the respective periods of Stage –II, the Commission in Paras 54 & 55 of the said order dated 13.6.2012 has worked out the following formula:

$$FP_{(stage-II)} = 226 - \frac{(226 - 125) \times (Q - 6.00)}{(13 - 6.00)}$$

Where,

$FP_{(stage-II)}$ = Reducing power benefit i.e. Firm Power (in MW) on pro-rata basis during Stage–II period of Indira Sagar Multi-purpose Project.

Q^* = Actual water utilization (in BM³) for Irrigation by MP in the Narmada Basin to be notified by NCA for respective years.

*Note: * The value of Q shall be irreversible and shall not be reduced once attained.*

59. Accordingly, the petitioner has submitted that based on actual water utilization by the State of Madhya Pradesh during Water year 2010-11 as 6.624 BM³, the Commission in Para 55 of the said order dated 13.6.2012 had allowed the Reducing Power Benefits i.e. Firm Power of 217



MW for the year 2010-11 and the corresponding Annual Design Energy of 1901 MU. The petitioner has further submitted that the Commission had directed that for the subsequent years 2011-12, 2012-13 and 2013-14, the Design Energy shall be calculated based on water utilization certification by NCA and shall be trued up at the end of each year based on the actual water utilization certified.

60. The petitioner has submitted that the NCA has notified the Water Accounting for the years 2011-12 & 2012-13 and provided the value of utilization of water by the State of MP and based on the above formula has claimed the firm power corresponding to Restricted Reservoir Level at EL 189.0 M and Design Energy for the year 2011-12 and 2012-13 as under:

	2011-12	2012-13
Utilization of Water by GoMP as Notified by NCA (BM ³)	7.0567	8.09841
Firm Power (MW)	210.753	195.723
MONTHWISE DESIGN ENERGY		
April	151.74	140.92
May	156.80	145.62
June	151.74	140.92
July	156.80	145.62
August	156.80	145.62
September	151.74	140.92
October	156.80	145.62
November	151.74	140.92
December	156.80	145.62
January	156.80	145.62
February	141.63	131.53
March	156.80	145.62
Annual Design Energy	1846.19	1714.55

61. We have examined the matter. In consideration of the formula worked out and allowed by the Commission in order dated 13.6.2012 in Petition No.154/2010, the claim the petitioner above is found to be in order. Accordingly, the firm power and the Design Energy for the years 2011-12 and 2012-13 is approved as under:



	2011-12	2012-13
Firm Power (MW)	210.753	195.723
Annual Design Energy	1846.19	1714.55

62. The methodology as worked out by the Commission as above shall be adopted by the petitioner for working out the Firm Power and Design Energy for the year 2013-14, for the purpose of billing.

63. As regards Normative Annual Plant Availability Factor, the Commission in order dated 13.6.2012 in Petition No. 154/2010 held as under:

42. If a similar exercise is undertaken in respect of this generating station, assuming two units each would be under annual maintenance during months of April, May, June and March respectively and considering 2% allowance on forced outage, the average peaking capacity would be 88% (approx). Thus, the NAPAF for this generating station has been determined as 85% under Regulation 27(5) of the 2009 Tariff Regulations, which is considered for 2009-14. The prayer of the petitioner, is disposed of accordingly

64. Accordingly, NAPAF of 85% as determined in order dated 13.6.2012 in terms of Regulation 27(5) of the 2009 Tariff Regulations shall be considered.

65. The difference between the tariff determined by order dated 13.6.2012 and this order shall be adjusted in terms of the proviso to Regulation 6 (6) of the 2009 Tariff Regulations, amended on 21.6.2011.

66. This disposes of Petition No. 461/GT2014.

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

-Sd/-
(A.S Bakshi)
Member

-Sd/-
(A.K.Singhal)
Member

-Sd/-
(Gireesh B Pradhan)
Chairperson

