

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 190/GT/2015

Coram:

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

Date of Order : 21.3.2017

In the matter of:

Revision of tariff of Chutak Power Station (4x11 MW) of NHPC Ltd. for the period 2012-14. Truing-up of tariff determined in order dated 23.1.2015 in petition No. 3/GT/2013.

And in the matter of:

NHPC Ltd NHPC Office Complex,
Sector-33 Faridabad-121003 Haryana

...Petitioner

Vs

Power Development Department of Govt. of J&K

...Respondents

Parties present:

For Petitioner: Shri Piyush Kumar, NHPC
Shri Naresh Bansal, NHPC
Shri A.K. Pandey, NHPC
Shri Jitendra Kumar Jha, NHPC

For Respondents: None



ORDER

This petition has been filed by the petitioner NHPC Ltd., for revision of tariff of Chutak Power Station (4x11MW) ('the generating station'), for the period from 29.11.2012 to 31.3.2014 after truing-up in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations").

2. The dates of commercial operation of units of the generating station are given below:

Unit I	29.11.2012
Unit II	29.11.2012
Unit III	29.11.2012
Unit IV	01.02.2013

3. Administrative approval and expenditure sanction for the generating station was accorded by Ministry of Power, GOI vide its letter dated 24.08.2006 at an estimated cost of ₹62126 lakh, including IDC & FC of ₹369 lakh, based on December, 2005 Price Level. As per the administrative approval, the generating station was scheduled to be commissioned within 54 months from the date of its approval, that is, by 23.2.2011. However, the station achieved its COD by 1.2.2013 with a delay of 23 months.

4. The Commission vide order dated 1.04.2013 had approved the provisional tariff for the generating station for the period 01.09.2012 to 31.03.2014 on the basis of 85% of the anticipated capital cost of the project as on 31.12.2012 in Petition No. 3/GT/2013.



5. The petitioner, vide affidavit dated 13.8.2014 had filed an amended petition in Petition No. 3/GT/2013 on the basis of actual cost. As the amended petition was filed after the orders were reserved in the petition, the Commission decided that the affidavit would be taken into consideration at the time of truing-up of tariff of the generating station for the period 2012-14 in terms of Regulation 6(1) of 2009 Tariff Regulations.

6. Accordingly, the Commission determined the capital cost on the basis of actual COD and determined tariff for 2012-14 vide order dated 23.1.2015 in the Petition No. 3/GT/2013. However, the capital cost approved was on the basis of actual audited expenditure till 31.12.2012 and projected expenditure from 1.1.2013 to 1.2.2013. The capital cost and the annual fixed charges allowed vide order dated 23.1.2015 is as under:

Capital Cost

	(₹ in lakh)		
	29.11.2012 to 31.1.2013 (3 Units)	1.2.2013 to 31.3.2013 (4 Units)	2013-14 (4 Units)
Opening Capital cost	56,664.72	75,552.96	75,552.96
Additional capital expenditure	0.00	0.00	7,795.04
Closing capital cost	56,664.72	75,552.96	83,348.00
Average Capital cost	56,664.72	75,552.96	79,450.48

Annual Fixed Charges

	(₹ in lakh)		
	29.11.2012 to 31.1.2013 (3 Units)	1.2.2013 to 31.3.2013 (4 Units)	2013-14 (4 Units)
Depreciation	496.81	610.66	3972.72
Interest on Loan	244.25	297.53	1768.84
Return on Equity	521.05	640.45	4166.51
Interest on Working Capital	40.35	49.54	319.03
O&M Expenses	218.71	268.83	1758.23
Total	1521.17	1867.02	11985.34



7. In the present tariff petition the petitioner has prayed that the amended petition filed by it dated 19.8.2014 may be considered for revision of tariff for the period 29.11.2012 to 1.2.2013 after truing-up exercise in respect of Chutak Power Station (4x11MW) based on the capital cost upto the COD of the respective units of the generating station as certified by the auditors. Accordingly, the annual fixed charges claimed by the petitioner for the period 29.11.2012 to 31.3.2014 are as under:

	(₹ in lakh)		
	29.11.2012 to 31.1.2013 (3 Units)	1.2.2013 to 31.3.2013 (4 Units)	2013-14 (4 Units)
Depreciation	524.35	670.88	4291.73
Interest on Loan	272.48	489.45	3081.14
Return on Equity	608.73	779.53	5041.23
Interest on Working Capital	46.00	61.43	395.46
O&M Expenses	247.05	303.66	1986.04
Total	1698.61	2304.95	14795.61

8. In response to the directions of the Commission, the petitioner has submitted additional information and has served copies of the same on the respondent. None of the respondents have filed reply to the petition. Based on the submissions and the documents available on record, we proceed to revise the tariff of the generating station for the period 2012-14 as stated in the subsequent paragraphs.

Capital Cost

9. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides as under:-

“(1) Capital cost for a project shall include:-

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the fund deployed, - up to the



date of commercial operation of the project, as admitted by the Commission, after prudence check.

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost. (2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

*.....
Provided also that the Commission may issue guidelines for vetting of capital cost of hydro-electric projects by independent agency or expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the hydro generating station:*

Provided also that the Commission may issue guidelines for scrutiny and commissioning schedule of the hydro-electric projects in accordance with the tariff policy issued by the Central Government under section 3 of the Act from time to time.

Provided also that in case the site of a hydro generating station is awarded to a developer (not being a State controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost:

Provided also that the capital cost in case of such hydro generating station shall include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area:

Provided also that the capital cost of the generating station shall include the cost for creating infrastructure for supply of power to the rural households located 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.

Provided also that where the power purchase agreement entered into between the generating company and the beneficiaries or the implementation agreement and the transmission service agreement entered into between the transmission licensee and the long-term transmission customer, as the case may be, provide for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff."

10. The petitioner has claimed revised tariff based on the Capital expenditure as on COD i.e., 1.2.2013, as ₹81536.35 lakh excluding un-discharged liabilities of ₹2725.47



lakh. The petitioner submitted that expenditure claimed as on COD are based on audited accounts.

11. The Commission in its order dated 23.1.2015 in petition no. 3/GT/2013 directed the petitioner to place on record approval of the Board of Directors of the petitioner company for the RCE within next three months. The petitioner submitted that the Board of Directors in its 385th meeting dated 29.06.2015 has approved Revised Cost Estimates (RCE) of the project at ₹89376 lakh. The Commission directed the petitioner to submit the current status of approval of the RCE by the Ministry of Power (MOP), GOI. The petitioner submitted that the Ministry of Power (MOP), GOI has approved the RCE of ₹89376 lakh on 17.8.2015.

Time Overrun

12. In accordance with the administrative approval and expenditure sanction the generating station was to be commissioned by 23.2.2011. However, it was declared under commercial operation on 1.2.2013, with time overrun of about 23 months. The Commission vide tariff order dated 23.01.2015 in petition no. 3/GT/2013 has held that the delay was beyond the control of petitioner and had condoned the delay.

Cost Overrun

13. The administrative approval for the generating station was granted by Ministry of Power, GOI at the estimated cost of ₹62126 lakh at December 2005 price level. Against this the Commission vide tariff order dated 23.01.2015 in petition no. 3/GT/2013 has approved the completion cost of ₹83348 lakh based on DIA report allowing cost overrun of ₹21222 lakh beyond original administrative approval. However, MoP in RCE has allowed the cost over-run of ₹27250 lakh and has allowed the completion cost as



₹89376 lakh which has been allowed / considered by the Commission after prudence check of completion cost.

14. In this true-up petition, the petitioner has claimed revised capital cost based on audited accounts of 2013-14. The petitioner has submitted that the capital cost (cash basis) claimed for 3 Units of the generating station as on COD i.e., on 29.11.2012, is ₹59,721.34 lakh and Capital cost claimed (cash basis) as on COD of the 4th unit i.e., 1.2.2013, for 4 Units of generating station is ₹81,536.35 lakh.

Actual Additional Capital Expenditure

15. Regulation 9 (1) of the 2009 Tariff Regulations provides as under:

“9 (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) Undischarged 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;

(iv) 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.”

16. The additional capital expenditure approved by the Commission for 2012-14 in order dated 23.1.2015 in Petition No. 3/GT/2013 and the claim of the petitioner in instant petition is as under:-

(₹ in lakh)		
Additional Capital Expenditure	Allowed in order dated 23.1.2015 in Petition No. 3/GT/2013	Claimed in the instant petition
2012-13 (1.2.2013 to 31.3.2013)	0.00	2846.28
2013-14	7795.04	2617.83



Additional Capital Expenditure	Allowed in order dated 23.1.2015 in Petition No. 3/GT/2013	Claimed in the instant petition
2012-13 (1.2.2013 to 31.3.2013)	0.00	2846.28
Total	7795.04	5464.11

17. The petitioner has claimed additional capital expenditure under Regulation 9(1)(ii) of the 2009 Tariff Regulations and has submitted the details of works carried out but not submitted the reasons thereof to defer such works.

18. We have gone through the submissions of the petitioner. The details of works/assets executed by the petitioner for the period from 01.02.2013 to 31.03.2014 and reasons for admissibility of the actual additional capital expenditure in terms of the 2009 Tariff Regulations are as under:

2012-13

(₹ in lakh)

Sl. No.	Assets/Works	Actual Capitalisation	Regulation under which claim is made	Justification
1	Buildings-Others	19.61	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
2	Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works- Tunnels and canals, Hydro-mechanical works- Tail race including Draft Tube Gates	152.20	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed



Sl. No.	Assets/Works	Actual Capitalisation	Regulation under which	Justification
3	Main Generating Equipment, Generator step up transformer , Other power plant transformer, Cooling water systems, EHV Switchgear systems, DC Systems / Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection	2,169.12	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
4	Water Supply System/Drainage and Sewerage	34.72	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
5	Environment & Ecology	470.63	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
	Total	2,846.28		

2013-14

(₹ in lakh)

Sl. No.	Assets/Works	Actual Capitalisation	Regulation under which claim is made	Justifications
1	Land –Leasehold & Right of use (R & R)	(-)0.21	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
2	Buildings-Others	122.54	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
3	Miscellaneous	12.74	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed



Sl. No.	Assets/Works	Actual Capitalisation	Regulation under which claim is made	Justifications
4	Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works- Tunnels and canals, Hydro-mechanical works- Tail race including Draft Tube Gates	204.79	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
5	Main Generating Equipment, Generator step up transformer , Other power plant transformer, Cooling water systems, EHV Switchgear systems, DC Systems / Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection	1,818.01	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
6	Construction Equipment	199.52	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
7	Electrical installations	5.09	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
8	Furniture and fixture	1.21	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
9	I.T. Equipment-Computers	17.56	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
10	Communication Equipment	1.29	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
11	Office Equipments	15.80	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
12	I.T. Equipment-Intangible Assets	0.97	Regulation 9 (1)(ii) of 2009 Tariff	As the asset is in original scope of RCE, the same is



Sl. No.	Assets/Works	Actual Capitalisation	Regulation under which claim is made	Justifications
			Regulations	allowed
13	Other assets	16.40	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
14	Fixed assets of minor value	4.66	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
15	Obsolete / surplus assets	9.22	Regulation 9 (1)(ii) of 2009 Tariff Regulations	As the asset is in original scope of RCE, the same is allowed
	Total	2,429.58		

19. In the above background the petitioner has claimed the additional capital expenditure as under:

Sl. No.	Assets/Works	Actual Capitalisation
1	Capital Expenditure for 2012-13 (01.02.2012 to 31.03.2013)	2,846.28
2	Capital Expenditure for 2013-14	2,429.58
	Add: Liability discharged pertaining to COD	1674.03
	Less : Un-discharged liability pertaining to Add.cap	1485.77
	Net Total Additional Capital Expenditure for 2013-14	2617.83

20. It is observed that the total actual additional capital expenditure of ₹5464.11 lakh (₹2846.28 lakh in 2012-13 and ₹2617.83 lakh in 2013-14) claimed in terms of Regulation 9(1)(ii) of the 2009 Tariff Regulation and in respect of assets which are within the original scope of work of the project and has been deferred for execution. However, the actual additional capital expenditure incurred is less than the additional capital expenditure of ₹7795.04 lakh approved by the Commission's order dated 23.1.2015 in Petition No. 3/GT/2013. It is further observed that the additional capital expenditure incurred is part of



the RCE of ₹89376 lakh approved by the central government. In the above background, we on prudence check, allow the actual additional capital expenditure of ₹5464.11 lakh incurred by the petitioner for the period 2012-14.

Capital cost for the period from 1.2.2013 to 31.3.2014

21. The Central Government has approved RCE of ₹89376 lakh including IDC of ₹3126 lakh and FC of ₹60 lakh. The petitioner has claimed capital cost (including Un-discharge liabilities of ₹2725.47) of ₹84262 lakh for four machines as on 1.2.2013 which includes IDC of ₹8226 lakh, FC of ₹59 lakh and FERV of ₹6 lakh. The petitioner's claimed IDC of ₹8226 lakh includes normative IDC of ₹4965 lakh. As such, the actual IDC claimed by the petitioner is ₹3261 lakh. As the IDC approved in the RCE is ₹3126 lakh, the Commission restricts the actual IDC to RCE approved IDC of ₹3126 lakh and allows normative IDC of ₹4965 lakh. Thus, the capital cost approved by the Commission as on 1.2.2013 (excluding Un-discharge liabilities of ₹2725.47lakh) is ₹81401.35 lakh.

22. Based on the above, the capital expenditure arrived at for the purpose of tariff on various applicable dates is as under:

<i>(₹in lakh)</i>		Amount
Capital expenditure as on 29.11.2012 (3 units) (A)		62397.04
Less: Un-discharge Liabilities as on 29.11.2012 (3 units) (B)		2675.70
Capital cost for the purpose of tariff as on 29.11.2012 (3 units) (C)=(A)-(B)		59721.34
Capital expenditure as on 1.2.2013 (4 units) (D)		84261.82
Less: IDC claimed above RCE approved IDC (E)		135.00
Less: Un-discharge Liabilities as on 1.2.2013 (4 units) (F)		2725.47
Capital cost for the purpose of tariff as on 1.2.2013 (4 units) (G)=(E)-(F)		81,401.35
Allowed Additional Capital expenditure for the period from 1.2.2013 to 31.3.2013 (H)		2,846.28



		Amount
Opening capital Cost as on 1.4.2013	(I)=(G)+(H)	84,247.63
Allowed Additional Capital expenditure for 2013-14	(J)	2,617.83
Closing Capital cost as on 31.3.2014	(K)= (I)+(J)	86,865.46

Debt: Equity

23. Regulation 12(1) of the 2009 Tariff Regulations provides as under:

“12. Debt-Equity Ratio

(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, 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:

...”

24. The petitioner has considered the funding of the capital expenditure in debt-equity ratio of 70:30. On the basis of actual capital expenditure (Cash basis) and deployment of debt and equity by the petitioner, the debt and equity on the dates of commercial operation have been allowed in the normative ratio of 70:30 as per Regulation 12(1) of the 2009 Tariff Regulations as follows:

	<i>(₹ in lakh)</i>			
	Capital structure as on			
	29.11.2012	1.2.2013	31.3.2013	31.3.2014
	3 Units	4 Units	4 Units	4 Units
Debt	41,804.93	56,980.95	58,973.34	60,805.82
Equity	17,916.40	24,420.41	25,274.29	26,059.64
Total	59,721.34	81,401.35	84,247.63	86,865.46



Return on Equity

25. Clause (3) of Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

“15 (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:

Provided that return on equity with respect to the actual 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 separately for each year of the tariff period along with the tariff petition filed for the next tariff period.”

26. In terms of Regulation 15 (3) of the 2009 Tariff Regulations, the Return on Equity is computed as under:

	(₹in lakh)		
	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
	3 Units (Pro-rata)	4 Units (pro- rata)	4 Units
Notional Equity- Opening	17916.40	24420.41	25274.29
Addition of Equity due to additional capital expenditure	0.00	853.88	785.35
Normative Equity-Closing	17916.40	25274.29	26059.64
Average Normative Equity	17916.40	24847.35	25666.96
Tax Rate for the year	15.5%	15.5%	15.5%
Return on Equity (Base Rate)	20.008%	20.008%	20.961%
Rate of Return on Equity (Pre Tax)	19.377%	19.377%	19.610%
Return on Equity	608.73	778.26	5033.29

Interest on Loan

27. 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.

28. The opening gross normative loan as on COD of each unit has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations. It is observed that the petitioner has considered the normative loan @ 10.36% interest rate with the actual loan portfolio to work out the weighted average rate of interest. The Regulation 16(5) of the



2009 Tariff Regulations clearly states for the consideration of actual loan portfolio at the beginning of each year for the computation of weighted average rate of interest. Accordingly, the Commission has worked out weighted average rate of interest on the basis of the actual loan portfolio of the respective year (not considering the normative loan) applicable to the project attached as Annexure I. The repayment for the period 2012-14 has been considered equal to the depreciation allowed for that year. Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest as under:

	(₹ in lakh)		
	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
	3 Units (Pro-rata)	4 Units (pro-rata)	4 Units
Gross opening loan	41,804.93	56,980.95	58,973.34
Cumulative repayment of loan upto previous year	0.00	524.35	1194.13
Net Loan Opening	41804.93	56,456.60	57,779.21
Addition due to additional capital expenditure	0.00	1,992.39	1,832.48
Repayment of loan during the year	524.35	669.78	4,284.97
Net Loan Closing	41,280.58	57,779.21	55,326.72
Average Loan	41,542.76	57,117.90	56,552.96
Weighted Average Rate of Interest of loan (annualized)	1.528%	3.635%	3.633%
Interest on Loan	111.27	335.59	2,054.82

Depreciation

29. 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 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.”

30. In terms of Regulation 17 of 2009 Tariff Regulations, the weighted average rate of depreciation claimed by the petitioner is 5.007%, 5.003% and 5.008% which is found in order and have been allowed for the periods 29.11.2012 to 31.1.2013, 1.2.2013 to 31.3.2013 and 2013-14 respectively for the calculation of depreciation. Accordingly, depreciation has been computed as under:

Details of Depreciation	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
	3 Units (Pro-rata)	4 Units (pro-rata)	4 Units
Gross block	59721.34	81401.35	84247.63



Details of Depreciation	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
	3 Units (Pro-rata)	4 Units (pro-rata)	4 Units
Additional capitalization during 2012-14	0.00	2846.28	2617.83
Closing Gross block	59721.34	84247.63	86865.46
Average gross block	59721.34	82824.49	85556.54
Rate of Depreciation	5.007%	5.003%	5.008%
Depreciable Value	53749.20	74542.04	77000.89
Remaining Depreciable Value	53749.20	74017.69	75806.76
Depreciation	524.35	669.78	4284.97

O&M Expenses

31. O&M expenses of new hydro generating station are governed by Regulation 19

(f) (v) of the 2009 Tariff Regulations, which provides as under:

“In case of hydro generating station declared under commercial operation on or after 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding rehabilitation & resettlement works) and shall be subject to annual escalation of 5.72% per annum for subsequent years.”

32. As per Regulation 3 (29) of the 2009 Tariff Regulation, the original project cost is defined as under:

“original project cost’ means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission”

33. The Commission has considered the R&R cost of ₹195.50 lakh as submitted by the petitioner. Accordingly, the following O&M expenses have been worked out:



(₹in lakh)

	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013
	3 Units (Pro-rata)	4 Units (pro-rata)
Allowed Project cost	59,721.34	86,865.46
Less: R&R cost	146.62	195.50
Capital cost for the purpose of O&M	59,574.71	86,669.96
Annualised O&M expenses @ 2% of capital cost	1,191.49	1,733.40
O&M expenses (Pro rata)	208.92	280.19

34. After escalation of annualized O&M expenses of ₹1733.40 lakh at the rate of 5.72% the O&M expenses for 2013-14 works out to ₹1832.55 lakh. However, allowed O&M for first year of operation i.e. 2012-13 is subject to revision based on discovery of original project cost as on cut-off date, in petition no. 252/GT/2014.

Interest on Working Capital

35. The petitioner has claimed interest on working capital as per Regulation 18 of the 2009 Tariff Regulations. The components of the working capital for calculation of interest thereon are discussed hereunder.

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital are equivalent to two months" of fixed cost. In the tariff being allowed, receivables have been worked out on the basis of "2 months" fixed cost.

(ii) Maintenance spares



Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @15% per annum of the O & M expenses as part of the working capital. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

(iv) Rate of interest on working capital

Regulation 18(3)(ii) of the 2009 Regulations provides that SBI Base Rate plus 350 basis points as on 1.7.2010 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 1.7.2010 to 31.3.2014 is to be considered for the purpose of Interest in Working Capital. SBI Base Rate as on 1.4.2012 was 10%. Thus the rate of interest on working capital of 13.50% has been considered.

36. Accordingly, Interest on working capital has been calculated as under:

	(₹ in lakh)		
	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
	3 Units (Pro-rata)	4 Units (pro-rata)	4 Units
O & M expenses- 1 Month	17.41	23.35	152.71
Maintenance Spares	31.34	42.03	274.88
Receivables- 2 months	248.91	353.39	2261.44
Total Working Capital	297.66	418.77	2689.04
Rate of Interest	13.50%	13.50%	13.50%
Interest on Working Capital	40.18	56.53	363.02



Annual Fixed charges for 2012-14

37. Accordingly, annual fixed charges approved for the generating station for the period from 29.11.2012 to 31.3.2014 is summarized as under:

	(₹ in lakh)		
	29.11.2012 to 31.1.2013 (3 Units) (Pro-rata)	1.2.2013 to 31.3.2013 (4 Units) (Pro-rata)	2013-14 (4 Units)
Depreciation	524.35	669.78	4284.97
Interest on Loan	111.27	335.59	2054.82
Return on Equity	608.73	778.26	5033.29
Interest on Working Capital	40.18	56.53	363.02
O&M Expenses	208.92	280.19	1832.55
Total	1493.46	2120.36	13568.65

38. The petitioner has requested the Commission to direct the respondent PDD, J&K to verify the Plant Availability Factor (PAF) and Deemed generation. In this regard, the Commission in order dated 23.1.2015 in Petition No. 3/GT/2013 had decided as under:

"36.As regards the prayer of the petitioner for recovery of annual fixed charges and energy charges based on actual energy generated as per available load, the Commission in order dated 31.12.2012 in I.A.No. 15/2012 has held as under:

"16. The prayer of the petitioner for recovery of annual fixed charges based on actual energy generated from the generating station as per the available load, considered in the above background, cannot be accepted, since the capacity charges are recoverable on monthly basis based on the available capacity declared by the generator depending upon water availability and has no relevance to the actual capacity scheduled by the beneficiaries. In this connection, Regulation 22 (2) of the 2009 Tariff Regulations which provides for recovery of monthly capacity charges reads as under: "The capacity charge (inclusive of incentive) payable to a hydro generating station for calendar month shall be $AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF)$ (in Rupees) Where, Plant Availability Factor achieved during the month, in percentage (PAFM) is to be calculated based on the capacity declared by the generator and not on the basis of capacity scheduled by the beneficiaries."

17. In the circumstances, the petitioner shall be able to recover the capacity charges corresponding to the declared capacity depending upon the water availability. The constraints of the respondent in not making the available load commensurate to the declared capacity would not in any way hamper the recovery of capacity charges corresponding to capacity declared to be available by the petitioner. In view of this, the recovery of capacity charges by the petitioner shall be in terms of the provisions of the 2009 Tariff Regulations. Thus, the prayer of the petitioner on this count is answered accordingly.

18. As regarding recovery of Energy Charges, we notice that the formulae for recovery of monthly energy charge payable to the generator is with regard to the



scheduled energy (ex-bus) and not with respect to the energy declared to be generated (ex-bus) by the generator depending upon the water availability during the month. In this regard, Regulation 22 (4) of the 2009 Tariff Regulations provides as under: "The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex power plant basis, at the computed energy charge rate. Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in Rs/kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 – FEHS) / 100."

19. Taking into consideration that the recovery of energy charges shall be less if the beneficiary demands/schedules for lesser energy (than declared by the generator) due to non-availability of load, we, in exercise of power under Regulation 44 of the 2009 Tariff Regulations, relax the provisions of Clause (4) of Regulation 22 of the 2009 Tariff Regulations and allow the recovery of energy charges, corresponding to difference between energy declared to be generated and the energy scheduled by the beneficiary (due to non-availability of load) as deemed generation along with recovery of monthly energy charges for scheduled energy to be calculated as per provisions of the 2009 Tariff Regulations. The prayer of the petitioner is allowed in terms of the above."

37. The annual fixed charges allowed as above shall be recovered by the petitioner with the relaxation of operational /technical norms, the deemed energy benefit for recovery of Energy charges and the NAPAF of 50% allowed by the Commission in order dated 31.12.2012 in I.A. No.15/2012 (Petition No.3/GT/2013). However, we direct that the recovery of fixed charges and Energy charges in terms of the provisions of the 2009 Tariff Regulations, shall be exclusive of incentive, if any, till the project is connected to the grid or the load commensurate with the plant capacity of 44 MW is available, whichever is earlier.

39. The Commission has already taken the view on recovery of annual fixed charge and energy charge and directs the petitioner and respondent to follow the same.

40. The difference in the annual fixed charges determined in the Petition No. 3/GT/2013 order dated 23.1.2015 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

41. Petition No. 190/GT/2015 is disposed of in terms of the above.

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

Sd/-
(A.S. Bakshi)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure I

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2012-14)

(₹ in lakh)

	Interest rate			Loan deployed as on 29.11.2012	Loan deployed as on 1.2.2013	Addition during tariff period	Total
	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14				
PFC	1.75%	1.60%	9.79%	5,250.00	7,000.00	0.00	7,000.00
Sub-ordinate debt Govt. Of India	0.00%	0.40%	2.50%	27,300.00	36,400.00	0.00	36,400.00
Corporation Bank Loan	1.84%	1.66%	10.25%	66.00	88.00	0.00	88.00
Q Series Bonds	1.62%	1.50%	9.25%	375.00	500.00	0.00	500.00
R-1 Series Bonds	0.00%	2.34%	8.70%	0.00	0.00	192.00	192.00
State Bank Of India Loan	0.00%	0.22%	10.32%	0.00	0.00	358.00	358.00
Total				32,991.00	43,988.00	550.00	44,538.00

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2012-14 TARIFF PERIOD

(₹ in lakh)

	29.11.2012 to 31.1.2013	1.2.2013 to 31.3.2013	2013-14
Gross Opening Loan	32991.00	43988.00	44538.00
Cumulative Repayment of loan upto previous year	656.25	1050.00	1050.00
Net Loan Opening	32334.75	42938.00	43488.00
Additions during the year	0.00	550.00	0.00
Repayment during the year	131.25	0.00	700.00
Net Loan Closing	32203.50	43488.00	42788.00
Average Loan	32269.13	43213.00	43138.00
Interest	86.43	253.89	1567.40
Weighted Average Rate of Interest (annualized)	1.528%	3.635%	3.633%

