

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 125/GT/2013

Coram:

Shri V.S.Verma, Member

Shri M.Deena Dayalan, Member

Date of Hearing: 25.7.2013

Date of Order: 11.11.2013

In the matter of

Revision of tariff of Chamera-I Hydro Power Station (540MW) for the period from 1.4.2009 to 31.3.2014 -Truing up of tariff determined by Commission's order dated 12.7.2011 in Petition No. 84/2010

And

In the matter of

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

.....Petitioner

Vs

1. Punjab State Power Corporation Ltd,
The Mall, Near Kali Badi Mandir,
Patiala-147001 (Punjab)
2. (a) Dakshin Haryana Bijili Vitaran Nigam Ltd,
(b) Uttar Haryana Bijili Vitaran Nigam Ltd
Shakti Bhawan, Sector – 6
Panchkula – 134 109(Haryana)
3. BSES-Rajdhani Power Ltd
BSES Bhawan,
Nehru Place, New Delhi – 110019
4. Uttar Pradesh Power Corporation Ltd
Shakti Bhavan, 14, Ashok Marg,
Lucknow – 226001(Uttar Pradesh)
5. BSES-Yamuna Power Ltd.,
Shakti Kiran Building,
Karkardooma, Delhi- 110072
6. Jaipur Vidyut Vitaran Nigam Ltd.,
Vidut Bhavan, Janpath,
Jyoti Nagar, Jaipur-302005(Rajasthan)
7. Jodhpur Vidyut Vitaran Nigam Ltd.,
New Power House, Industrial Area, Jodhpur-342003



8. Ajmer Vidyut Vitaran Nigam Ltd.,
Vidut Bhavan, Janpath,
Jyoti Nagar, Jaipur-302005(Rajasthan)
9. Tata Power Delhi Distribution Ltd.,
Hudson Lane, Kingsway Camp,
New Dlehi-110009
10. Uttaranchal Power Corporation Ltd,
Urja Bhawan, Kanwali Road,
Dehradun-248001(Uttarakhand)
11. Himachal Pradesh State Electricity Board,
Vidut Bhavan, Kumar House
Shimla-171004 (Himachal Pradesh)
12. Engineering Department, UT Secretariat,
UT Secretariat, Sector 9D
Chandigarh-160009
13. Power Development Department,
Government of J&K,
New secretariat,
Jammu-180001 (J&K)

.....Respondents

Parties present:

Shri Parag Saxena, NHPC
Shri S.K. Meena, NHPC
Shri Padamjit Singh, PSPCL
Shri R.B. Sharma, Advocate, BRPL

ORDER

This petition has been filed by the petitioner, NHPC, for revision of tariff of Chamera-I Hydroelectric power station (540 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014, in terms of the proviso to 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. Petition No. 84/2010 was filed by the petitioner for determination of tariff of the generating station for the period from 1.4.2009 to 31.3.2014 and the Commission by its order dated 12.7.2011 had determined the annual fixed charges for the generating station for the said period. Subsequently, the annual fixed charges determined by order dated 12.7.2011 were revised by Commission's order dated 10.12.2012 in Review Petition No.18/2011 after correction of certain clerical errors and re-calculation of O&M expenses. The annual fixed



charges determined by order dated 10.12.2012 based on the capital cost of ₹203272.04 lakh as on 1.4.2009 was as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	10803.35	10832.54	10867.49	10893.84	10891.93
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	4079.90	4108.58	4152.58	4181.42	4181.34
Interest on Working Capital	755.29	781.95	810.52	840.12	870.16
O & M Expenses	8898.02	9406.98	9945.06	10513.92	11115.31
Total	24536.57	25130.05	25775.65	26429.31	27058.74

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

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

4. The petitioner in this petition has claimed revision of tariff for the period 2009-14 based on the actual additional capital expenditure incurred during the period 2009-12 and revised projections for additional capital expenditure for the period 2012-14. Reply to the petition has been filed by the respondents UPPCL, PSPCL and BRPL. The petitioner has filed its rejoinder to the said replies of the respondents.

5. The respondent, BRPL in its reply has submitted that for the purpose of truing-up, the petitioner should be directed to file the complete details of additional capital expenditure for the period 2009-12 duly audited and certified by the auditors in terms of Regulation 6(3) of the 2009 Tariff Regulations. It is noticed that pursuant to the directions of the Commission in the record of the proceedings held on 25.7.2013, the petitioner by its affidavit dated 12.8.2013 has submitted the year-wise/item wise actual additional capital expenditure incurred for the years 2009-10, 2010-11 and 2011-12 duly certified by auditor. Accordingly, we proceed to examine this petition filed by the petitioner in terms of the proviso to Regulation 6(1) for revision of tariff of the generating station for 2009-14 after truing up, as discussed in the subsequent paragraphs.

6. The annual fixed charges claimed by the petitioner in this petition for the period 2009-14 are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	14518.92	14383.19	14231.00	11022.46	11549.75
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	4084.68	4120.22	4130.48	4136.61	4139.26
Interest on Working Capital	832.83	856.20	880.16	841.87	883.00
O & M Expenses	8898.02	9406.98	9945.06	10513.92	11115.31
Total	28334.45	28766.59	29186.69	26514.86	27687.32

Capital Cost

7. Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:

“7. Capital Cost. (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 funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;”

8. The Commission had considered the capital cost of ₹203272.04 lakh as on 31.3.2009 in Petition No.206/2009 as the opening capital cost as on 1.4.2009 for the purpose of approval of tariff for the period 2009-14 in order dated 12.7.2011 in Petition No. 84/2010. Accordingly, this capital cost has been considered as on 1.4.2009 for the purpose of revision of tariff in this petition.

Actual/ Projected Additional Capital Expenditure

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

“9. Additional Capitalisation. (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Un-discharged liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;*
- (iii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in law:*

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.

- (vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations.

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

- (vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station.
- (viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.
- (ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility."

10. The reconciliation of the actual additional capital expenditure claimed with respect to the additional capital expenditure as per books of accounts certified by auditor for the period 2009-12 is as under:

	(₹ in lakh)		
	2009-10	2010-11	2011-12
Additions as per books (a)	790.17	4496.64	259.28
Additions claimed (b)			
Additions against works already approved	261.23	207.72	57.94
Additions not projected earlier but incurred and claimed	992.11	4323.96	127.82
Total (b)	1253.34	4531.69	185.76
Deletions (c)	(-) 527.21	(-) 38.53	(-) 11.69
Exclusions in additions (incurred, capitalised in books)	95.62	292.98	286.01

but not to be claimed for tariff purpose) (d1)			
Exclusions in deletions (de-capitalised in books but not to be considered for tariff purpose) (d2)	(-) 31.58	(-) 289.48	(-) 200.81
Net value of exclusions (d=d1+d2)	64.04	3.49	85.20
Total (e)=(b)+(c)+(d)	790.17	4496.64	259.28
Net claim before un-discharged/discharged liabilities (f)=(b)+(c)	726.13	4493.15	174.07
Less: Un-discharged liabilities in the additional capital expenditure claimed	12.48	4318.60	2.12
Less: Assumed deletions	0.79	0.00	7.07
Add: Liabilities discharged	0.00	0.00	20.13
Add: Liabilities discharged (related to un-discharged liability as on 31.3.2009)	19.68	7.23	0.67
Additional Capital Expenditure claimed	732.54	181.79	185.69

11. Based on the above reconciliation, the year-wise admissibility of the works, expenditure allowed by the Commission for these works, actual expenditure against these works along with admissibility of the actual expenditure in terms of the 2009 Tariff Regulations for 2009-10, 2010-11 and 2011-12 under various heads is discussed in the subsequent paragraphs.

Additions against works already approved

12. The year-wise actual additional capital expenditure claimed by the petitioner vis-à-vis the additional capital expenditure allowed by the Commission on projected basis in order dated 12.7.2011 in Petition No. 84/2010 is as under:

	<i>(₹ in lakh)</i>		
	2009-10	2010-11	2011-12
Additional capital expenditure allowed in order dated 12.7.2011 in Petition No. 84/2010	518.51	594.56	738.37
Actual additional capital expenditure claimed	261.23	207.72	57.94

13. The details of works, the expenditure allowed by the Commission for the works, the actual expenditure against these works along with justification for admissibility of the actual expenditure in terms of the 2009 Tariff Regulations for 2009-10, 2010-11 and 2011-12 after prudence check, is summarized as under:

2009-10

<i>(₹ in lakh)</i>				
Sl.No.	Assets/works	Projected expenditure allowed by order dated 12.7.2011	Actual expenditure incurred/claimed	Justification for admissibility of expenditure
1.	Construction of components for Sewage Treatment Plant (STP) & sewage line	125.00	38.22	Part expenditure incurred on works already approved under Regulation 9(2)(ii) of Tariff Regulations, 2009

				has been allowed . The balance expenditure on these works have been capitalized during 2010-11
2.	CISF Barrack	30.00 (25.00 lakh during 2009-10 & 5.00 lakh during 2010-11)	35.64	Actual expenditure based on the rates quoted by bidders has been allowed for approved works under Regulation 9(2)(iv).
3.	Addition of OFC Network and Wireless Connectivity of LAN at CPS-I	40.00 (25.00 lakh during 2009-10 and 5.00 lakh each during 2010-12)	19.21	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
4.	Equipment for compliance of OHSAS and environment policy requirement	50.00 (10.00 lakh for each year for the period 2009-14)	1.69	As the assets added are of minor nature like food warmer, water purifier, fire extinguishers, etc, the expenditure has not been allowed .
5.	Security and Surveillance System	95.00 (60.00 lakh during 2009-10 and 25.00 lakh during 2010-11 and 10.00 lakh during 2011-12)	48.13	Actual additional capital expenditure has been allowed for approved asset under Regulation 9(2)(iv).
6.	Replacement of Bypass valve	20.00	19.14	The additional capital expenditure has been claimed for the purchase of spare butterfly valve. As such, the expenditure incurred for spares after the cut-off date has not been allowed .
7.	Replacement of 01 No. 40 HP Vertical Turbine Type Goulds Pump	35.00	32.04	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
8.	Replacement of 02 Nos. 27 HP Submersible Flygt Pump	12.00	10.49	
9.	Purchase of crane	60.00	56.68	
		Total claimed	261.23	
		Total allowed		240.41

2010-11

				(₹ in lakh)
Sl.No.	Assets/works	Projected expenditure allowed by order dated 12.7.2011	Actual expenditure incurred/claimed	Justification for admissibility of expenditure
1.	Addition of OFC Network and Wireless Connectivity of LAN at Chamera Power Station-I	40.00 (₹25.00 lakh during 2009-10 and ₹5.00 lakh each during 2010-11 and 2011-12)	2.20	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
			1.16	Expenditure on minor assets has not been allowed .
2.	Fencing of Adits and security posts at vulnerable locations (CISF building near switchyard, Adit-I & Adit-II)	10.00	11.70	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
3.	Equipment for compliance of OHSAS and environment policy requirement	50.00 (₹10.00 lakh for each year for the period 2009-14)	2.14	Expenditure on minor assets like fire extinguishers, etc. has not been allowed.

4.	Distribution Transformers	100.00 (₹20.00 lakh for 2009-10 and ₹40.00 lakh each for 2010-11 and 2011-12)	12.21	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
Items allowed in 2009-10 but capitalized during 2010-11				
5.	Construction of frisking & visitor room at Power House portal	15.00	17.70	Since actual expenditure is based on award of the works through open tender, the expenditure has been allowed for already approved works, under Regulation 9(2)(iv).
6.	Hydraulic Cylinder for sluice gates	75.00	69.39	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
7.	Construction of components for STP & sewage line for lower Simbleu.	125.00	91.22	Since actual expenditure is based on award of the works through open tender, the expenditure has been allowed for already approved works, under Regulation 9(2)(iv).
Total claimed			207.72	
Total allowed				204.42

2011-12

(₹ in lakh)				
Sl.No	Assets/works	Projected expenditure allowed by order dated 12.7.2011	Actual expenditure incurred/claimed	Justification for admissibility of expenditure
1.	Addition of OFC Network and Wireless Connectivity of LAN at CPS-I	5.00	0.11	Expenditure not allowed as the asset (switch) is minor in nature
2.	Replacement of 02 No. 50 HP Submersible Flygt Pump	60.00 (30.00 lakh for 2009-10 and 15.00 lakh each for 2010-11 and 2011-12)	26.30	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
3.	Distribution Transformers	100.00 (20.00 lakh for 2009-10 and 40.00 lakh each for 2010-11 and 2011-12)	16.13	
Items allowed in previous years but capitalized in 2011-12				
4.	Purchase of High Mast Light	40.00 (20.00 lakh each in the year 2009-10 and 2011-12)	15.39	Actual additional capital expenditure has been allowed for already approved works under Regulation 9(2)(iv).
Total claimed			57.94	
Total allowed				57.82

Additions not projected for capitalization but incurred and claimed

2009-10

(₹ in lakh)			
Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1.	LAND- compensation in favor of land out sees	6.31	As the expenditure has been made as per award passed by Land Acquisition Officer /DC, Chamba, the same is allowed under Regulation 9(2)(i)
2.	Power house building at Khairi 410301	374.23	The expenditure has been allowed under Regulation 9(2)(i) as the payment has been made to the contactor on account of settlement of final bill by the arbitrator.
3.	Arbitration payment to JBIL against const work of dam	460.21	
4.	Arbitration payment for construction of power tunnels and pipelines	112.43	
5.	Hospital equipment including TMT Machine, HBA 1C Analyzer, Wall Mounted O.T. Light, Shoulder Wheel Exerciser, Lumber Cum Cervical Traction Unit, Transtutaneous Electronic Nerve Stimulator and assets of minor nature like table over beds, weighing machine, footstep, etc.	11.93	Except on assets of minor assets, the expenditure on hospital equipment amounting to Rs 11.02 lakh has been allowed under Regulation 9(2)(iv) keeping in view that these equipment's are for the benefits of employees of the petitioner company working in remote areas of the project.
6.	Air conditioners	27.00	As the asset is minor in nature, the claim of the petitioner on projected basis was rejected by order dated 12.7.2011 in Petition No.84/2010. Hence, not allowed
	Total claimed	992.11	
	Total allowed		964.20

2010-11

(₹ in lakh)			
Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1.	LAND- compensation in favor of land out sees	1.80	As the expenditure has been made as per award passed by Land Acquisition Officer /DC, Chamba, the same is allowed under Regulation 9(2)(i)
2.	Provision made against arbitration case	4310.08	As there is no cash expenditure incurred under this head, the provision made under AS-29 towards contingent liability for liability which may arise due to arbitration cases has not been allowed.
3.	Replacement Electronic pressure switches in Auxiliary and ancillary system	9.44	May not be allowed as the assets are of minor nature.
4.	Hospital Equipments	2.64	The expenditure on hospital equipment may be allowed under Regulation 9(2)(iv) for the benefit of employees working at remote area
	Total claimed	4323.96	
	Total allowed		4.44

2011-12

(₹ in lakh)			
Sl.No	Assets/works	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1.	LAND- Enhanced compensation in favor of land out sees	109.28	Expenditure allowed under Regulation 9(2)(i) as the expenditure has been made as per the award announced by the Hon'ble High Court of Shimla.
2.	Providing gallery for entry into main access tunnel of power house	5.69	Expenditure allowed under Regulation 9(2)(iv) as the expenditure has been incurred for reinforcement of security measure at the entrance of the power house as suggested by the Security enforcement agency during inspection.
3.	Replacement Electronic pressure switches in Auxiliary and ancillary system	12.85	Expenditure disallowed as the assets are of minor nature.
	Total claimed	127.82	
	Total allowed		114.97

Deletions

14. The following year-wise expenditure de-capitalized by the petitioner on the ground that these assets have become unserviceable/obsolete, waiver of guarantee fees, transfer of assets to corporate office etc.

(₹ in lakh)			
	2009-10	2010-11	2011-12
Deletions	(-) 527.21	(-) 38.53	(-) 11.69

15. As the corresponding assets do not render any useful service in the operation of the generating station, the de-capitalization of the above said expenditure as effected in the books of accounts has been allowed for the purpose of tariff. However, for the year 2009-10, deletion of an amount of ₹19.14 lakh against the purchase of capital spare has been ignored in view of the fact that corresponding positive entry towards expenditure for purchase of replacement of bypass valve, has been disallowed as stated in the table under para 13 above. Accordingly, the year-wise expenditure considered as deletions for the purpose of tariff is as under:

(₹ in lakh)			
	2009-10	2010-11	2011-12
Deletions allowed	(-) 508.07	(-) 38.53	(-) 11.69

Exclusions in additions (incurred, capitalized in books but not claimed for tariff purpose)

16. The following year-wise expenditure has been incurred on replacement of minor assets, purchase of capital spares, purchase of miscellaneous assets etc.

	(₹ in lakh)		
	2009-10	2010-11	2011-12
Exclusions in additions (incurred, capitalized in books but not claimed for tariff purpose)	95.62	292.98	286.01

17. As capitalization of expenditure on procurement /replacement of minor assets and procurement of capital spares after the cut-off date are not allowed for the purpose of tariff, the exclusions of the positive entries under the head is in order and is allowed.

Exclusions in deletions (de-capitalised in books but not to be considered for tariff purpose)

18. The petitioner has de-capitalized following expenditure in books of accounts towards minor assets like computers, fixed assets of minor value, TVs, projectors, fax machines, etc. on the ground that these spares have become unserviceable/obsolete and towards de-capitalization of capital spares.

	(₹ in lakh)		
	2009-10	2010-11	2011-12
Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)	(-) 31.58	(-) 289.48	(-) 200.81

19. The petitioner has prayed that the negative entries as above may be ignored/excluded for the purpose of tariff as the corresponding positive entries for purchase of such minor assets and capital spares are not being allowed for the purpose of tariff in terms of the provisions of the 2009 Tariff Regulations. In support of this prayer, the petitioner has referred to the observations of the Commission in its order dated 7.9.2010 in Petition No. 190/2009 pertaining to determination of impact of additional capital expenditure for the years 2006-07, 2007-08 and 2008-09 in respect of this generating station as under:

"Replaced Minor assets

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. The respondent BRPL in its reply has submitted that reliance made by the petitioner to the observations contained in the Commission's order dated 7.9.2010 is not acceptable as the said order was covered under the 2004 Tariff Regulations, whereas the instant case is governed by the provisions of the 2009 Tariff Regulations. Accordingly, the respondent has prayed that the de-capitalized minor assets shall be deleted from the capital cost as per proviso to Regulation 7(1)(c) of the 2009 Tariff Regulations. In response, the petitioner in its rejoinder has clarified as under:

"There cannot be two approaches, one for capitalization and de-capitalization. For example, capitalization of tools and tackles, furniture & fixtures, AC, Minor assets etc. are not allowed for tariff purpose therefore by the same logic and regulation, de-capitalization of these assets are not allowed for tariff purpose and generator has to service these assets from the return earned from original capitalized assets. This has been justified by CERC in order dated 07.09.2010 in petition no. 190/2009.

If this methodology is not considered than one day generator would not have any value of tools and tackles, furniture & fixtures, AC, Minor assets etc. and its return would be reduced"

21. We have considered the submissions of the parties. The provisions of both, the 2004 and the 2009 Tariff Regulations provide that the expenditure on minor items/assets, tools and tackles etc brought after the cut-off date shall not be considered for additional capitalization for determination of tariff. Considering the fact that new assets of minor nature are not considered for capitalization on account of implication of the regulations, the Commission in its order dated 7.9.2010 had concluded that 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. In our view, the generating station in this case, having been denied the capitalization of minor assets on account of the provisions of the regulations, should not be debarred from servicing the cost of minor assets originally included in the capital cost of the project and replaced by new assets. Accordingly, in line with the decision contained in order dated 7.9.2010 and for the purpose of consistency, the submissions of the petitioner is accepted. Hence, the negative entries corresponding to the deletion of minor assets have been allowed to be excluded/ignored for the purpose of tariff, as prayed for by the petitioner. As regards the prayer of the petitioner for exclusion of negative entries

corresponding to de-capitalization of capital spares on consumption is concerned, it is to mention that the expenditure on minor assets and capital spares are not allowed to be capitalized after the cut-off date under the 2009 Tariff Regulations. While the recovery of expenditure on capital spares is allowed through O&M expenses on consumption, the recovery of additional expenditure on minor assets beyond the cut-off date is neither allowed to be capitalized nor permissible under O&M expenses. Hence, the observations of the Commission in order dated 7.9.2010 (as quoted above) cannot be made applicable in respect of de-capitalization of spares. Hence, the claim of the petitioner for exclusion of negative entries arising out of de-capitalization of capital spares is justifiable provided that the de-capitalized spares are the ones which were not considered in the capital base for the purpose of tariff. In terms of Regulation 7(1)(c) of the 2009 Tariff Regulations, initial spares and spares procured within the cut-off date whenever de-capitalized in books of accounts on consumption shall be de-capitalized for the purpose of tariff as these do not render any useful service to the generating station.

22. The petitioner has claimed exclusion of negative entries i.e (-) ₹49.47 lakh and (-) ₹107.98 lakh during the years 2010-11 and 2011-12 respectively as deletions on account of consumption of capital spares. In order to ascertain as to whether the de-capitalized spares were part of the capital base, the petitioner was directed to submit clarification on the following:

'Details of de-capitalized spares during 2010-11 and 2011-12 including year of their capitalization with the certificate that these were not a part of the capital base for the purpose of tariff along with the trail of petitions/orders in which they were disallowed for the purpose of tariff.'

23. In response, the petitioner vide its communication dated 5.9.2013 addressed to the Commission has clarified as under:

"Policy of capitalisation of spares was introduced by NHPC in 2002 based on AS-2. According to this policy all the spares lying in the stores by that date were capitalised and depreciated accordingly. Further, new purchase of capital spares are also capitalised in the year of purchase. Whenever, such capital spares are consumed, the same are transferred to O&M expenses at their net value. CERC while allowing additional capitalisation for 2001-02 to 2003-04 did not allow the capital spares for the purpose of tariff. In accordance to the decision of CERC regarding capital spares, NHPC since then never claimed capitalisation of capital spares for the purpose of tariff. In view of this de-capitalisation of capital spares is always kept in exclusion category to avoid double deduction from capital cost. Therefore, it is

to clarify that all the capital spares de-capitalised from the books pertains to the period beyond 2001-02 which was not included in capital cost for the purpose of tariff. It is also to mention here that initial spares are capitalised with the original equipments and whenever de-capitalised appear as normal assets.

24. The submission of the petitioner as above has been examined in the background of the observations of the Commission in its order dated 27.4.2006 in Petition No. 86/2005 in respect of this generating station. The relevant para of the said order is extracted as under:

"Capitalization of spares

34. The petitioner has claimed an amount of ₹854.73 lakh (₹852.58 lakh in 2002-03 and ₹2.15 lakh in 2003-04) towards capitalization of spares, as per its accounting policy and as per Accounting Standard-2 of Institute of Chartered Accountants of India. The capitalization of additional spares is over and above the reasonable spares already capitalized as initial spares within the approved capital cost. The generating station has been in operation for nearly 11 years. Capitalization of spares as claimed by the petitioner cannot be allowed at this stage. However, the spares to the extent actually consumed for repairs and maintenance of works during the years 2002-03 and 2003-04 may be considered as part of O&M expenses for the tariff period 2004-09."

25. In line with the observations of the Commission as above and keeping in view that the de-capitalized spares do not form part of the capital base for the purpose of tariff as confirmed by the petitioner, the negative entries of (-) ₹49.47 lakh and (-) ₹107.98 lakh during the years 2010-11 and 2011-12 respectively have been allowed to be ignored/excluded for the purpose of tariff.

26. On scrutiny of the list of assets claimed under the category of exclusions, it is observed that the petitioner has claimed exclusion of (-) ₹199.15 lakh as deletions, on account of final settlement with M/s NPCC, a contractor engaged in the construction of dams and barrages. The claim of the petitioner for exclusion has not been allowed as the expenditure towards settlement of bills is passed on to the beneficiaries. In view of this, the exclusion of (-) ₹199.15 lakh claimed by the petitioner has not been allowed for the purpose of tariff. Accordingly, the following amounts have been allowed/disallowed under this head:

(₹ in lakh)

	2009-10	2010-11	2011-12
Exclusions in deletions claimed	(-) 31.58	(-) 289.48	(-) 200.81
Exclusions in deletions allowed	(-) 31.58	(-) 90.33	(-) 200.81
Exclusions in deletions not allowed	0.00	(-) 199.15	0.00

Un-discharged liabilities in the Additional Capital Expenditure

27. The details of the un-discharged liabilities included in the actual additional capital expenditure claimed as certified by the petitioner are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12
Un-discharged liabilities	12.48	4318.60	2.12

28. In terms of the provisions of the 2009 Tariff Regulations, the above said un-discharged liabilities are required to be deducted in order to arrive at the admissible additional capital expenditure, on cash basis, provided that these un-discharged liabilities are in respect of the approved assets/works. Accordingly, un-discharged liabilities amounting to ₹4310.08 lakh in respect of the claim of the petitioner during 2010-11 towards provision for arbitration case has been ignored as the said amount has been disallowed. As the balance un-discharged liabilities are in respect of the approved assets/works as discussed earlier, the following amounts of un-discharged liabilities have been deducted from the additional capital expenditure allowed:

(₹ in lakh)

	2009-10	2010-11	2011-12
Un-discharged liabilities in the Additional Capital Expenditure	12.48	8.52	2.12

Assumed deletions

29. As per consistent methodology adopted by the Commission, expenditure on replacement of assets, if found justified is allowed for the purpose of tariff provided that the capitalization of the said asset is followed by the de-capitalization of the value of the old asset. However, in certain cases where de-capitalization is proposed to be effected /affected during the future years to the year of capitalization of new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as "Assumed deletion". The amounts considered by the petitioner under this head are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12
Assumed deletions	0.79	0.00	7.07

30. From the details provided by the petitioner it is noticed that the de-capitalization of ₹0.79 lakh towards old crane has been considered during the year 2009-10 as against the purchase of new crane. However, in books of accounts, the said amount which has been entered during the year 2010-11, has been shifted to the year 2009-10 i.e year of capitalization of the new asset. Accordingly, the said amount has been allowed to be deducted during the year 2009-10 for the purpose of tariff.

31. It has also been observed that against the expenditure towards the replacement of 40 HP vertical pump and 27 HP submersible pump during the year 2009-10 allowed for the purpose of tariff, the de-capitalization amount has not been indicated in the list of deleted assets during the year of capitalization i.e 2009-10 nor the petitioner has included the said amount under the category of 'Assumed deletions'. Hence, in order to arrive at the de-capitalized amount against the replacement of the said assets, reference was made to the submissions made by the petitioner in Petition No. 84/2010, wherein, the de-capitalization of amounts of ₹16.82 lakh and ₹5.77 lakh had been proposed based on 5% de-escalation against the projected capital expenditure of ₹35.00 lakh and ₹12.00 lakh, respectively. Accordingly, considering the fact that the actual expenditure allowed against the said replacement of asset is ₹32.04 lakh and ₹10.49 lakh respectively, the amounts against these replacements under 'assumed deletions' has been worked out as ₹15.40 lakh (16.82 x 32.04/35.00) and ₹5.04 lakh (5.77x 10.49/12.00) for the years 2009-10 and 2010-11 respectively.

32. For the year 2011-12, the assumed deletion of ₹7.07 lakh as submitted by the petitioner is towards the replacement of distribution transformer (deletion of ₹1.46 lakh) and replacement of electronic pressure switches in auxiliary and ancillary system (deletion of ₹5.61 lakh). Since capitalization of ₹12.85 lakh towards the replacement of electronic

pressure switches has not been allowed, the corresponding assumed deletion of ₹5.61 lakh has been ignored.

33. Based on the above discussions, the assumed deletions worked out for the period 2009-12 is as under:

(₹ in lakh)			
	2009-10	2010-11	2011-12
Assumed deletions	21.23	0.00	1.46

Liabilities discharged during 2009-12

34. The petitioner has discharged liabilities amounting to ₹20.13 lakhs during 2011-12 out of the un-discharged liabilities of ₹21.00 lakh for the years 2009-10 and 2010-11. From the list of discharged liabilities, it is noticed that that the amounts pertain to assets allowed for the purpose of tariff. Accordingly, the same has been allowed to arrive at the approved additional capital expenditure for the year 2011-12. In view of this, the following discharged liabilities are allowed to be capitalized:

(₹ in lakh)			
	2009-10	2010-11	2011-12
Liabilities discharged during the year out of the additional capital expenditure	0.00	0.00	20.13

Liabilities discharged (related to un-discharged liability as on 31.3.2009)

35. In terms of the order dated 12.7.2011 in Petition No. 84/2010, un-discharged liabilities amounting to ₹29.25 lakh existed as on 31.3.2009 in respect of assets allowed for the purpose of tariff. Out of this amount, the petitioner has discharged total amount of ₹27.54 lakh during 2009-12 (₹19.68 lakh during 2009-10, ₹7.23 lakh during 2010-11 and ₹0.67 lakh during 2011-12). Accordingly, the said liabilities discharged by the petitioner have been included in the additional capital expenditure for the period 2009-12.

36. Based on the above discussions, the actual additional capital expenditure allowed for the period 2009-12 for the purpose of tariff is summarized as under:

(₹ in lakh)			
	2009-10	2010-11	2011-12
Additions			
Additions against works already approved	240.41	204.42	57.82
Additions not projected earlier but incurred and	964.20	4.44	114.97

claimed			
Total additions allowed (a)	1204.61	208.86	172.79
Deletions allowed (b)	(-) 508.07	(-) 38.53	(-) 11.69
Exclusions in deletions not allowed (c)	0.00	(-)199.15	0.00
Total Additional capital expenditure allowed before un-discharged/assumed deletion/ discharged liabilities (d)=(a)+(b)+(c)	696.54	(-) 28.82	161.10
Less: Un-discharged liabilities in the allowed Additional capital expenditure	12.48	8.52	2.12
Less: Assumed deletions	21.23	0.00	1.46
Add: Liabilities discharged out of additional capital expenditure	0.00	0.00	20.13
Add: Liabilities discharged (related to un-discharged liability as on 31.3.2009)	19.68	7.23	0.67
Additional Capital Expenditure allowed	682.51	(-) 30.11	178.32

Projected Additional Capital Expenditure for 2012-14

37. As against the admitted additional capital expenditure of ₹266.65 lakh and (-) ₹339.81 lakh on projected basis by order dated 12.7.2011 in Petition No.84/2010, the petitioner has revised the additional capital expenditure claim to ₹24.65 lakh and ₹56.90 lakh for the years 2012-13 and 2013-14 respectively. The detailed justification for revision of the projected additional capital expenditure for the said years under different heads submitted by the petitioner is examined as under:

2012-13

(₹in lakh)				
Sl.No.	Name of the Asset	Projected Additional capital expenditure allowed in order dated 12.7.2011 in Petition No.84/2010	Revised Projected Additional capital expenditure	Justification for revision of projected expenditure
1.	Replacement of Excitation System	Gross value= 250.00 Decap. value= 32.67 Net value = 217.33	0.00	Amount has been proposed as Capital assets and had accordingly been allowed earlier. However, as these assets are being purchased / capitalized as capital spares, the same has been surrendered for purpose of tariff.
2.	Modification / up gradation of Power house Ventilation System with Humidity Control	Gross value= 25 Decap. value= 10.37 Net value = 14.63	0.00	
3.	Equipment for compliance of OHSAS and environment policy requirement	10.00	3.36	Commission had allowed ₹10.00 lakh. However, only ₹3.36 lakh is to be incurred on this account and hence Rs. ₹6.64 lakh has been surrendered
4.	Purchase of Vehicle	Gross value= 8.00 Decap. value= 2.93 Net value = 5.07	0.00	Due to austerity measure, vehicle is not being purchased now. Therefore, ₹8.00 lakh of addition and ₹2.93 lakh of deletion has been surrendered.
	Total	247.03	3.36	

38. As regards the expenditure towards replacement of excitation system and modification / up gradation of power house ventilation system with humidity control as above, we are of the view that these cannot be considered as regular capital spares and as such the corresponding capitalization and de-capitalization is considered as capital addition, if the said expenditure is incurred. As of now the said amounts have not been allowed to be shifted from capital addition to capital spares. In view of this, the projected additional expenditure allowed for the year 2012-13 is worked out as ₹256.61 lakh after reduction of the surrendered amount of ₹11.71 lakh from the already approved projected expenditure of ₹266.65 lakh and after addition of the liabilities of ₹1.67 lakh discharged during the year.

2013-14

(₹ in lakh)				
Sl.No.	Name of the Asset	Projected Additional capital expenditure allowed in Petition No.84/2010	Revised Projected Additional capital expenditure	Justification for revision of projected expenditure
1.	Modification / up gradation of Power house Ventilation System with Humidity Control	Gross value= 50.00 Decap. value= (-)19.76 Net value = 30.24	0.00	Amount has been proposed as Capital assets and had accordingly been allowed earlier. However, as these assets are being purchased / capitalized as capital spares, the same has been surrendered for purpose of tariff.
2.	Replacement of Vibration Measurement System	Gross value= 100.00 Decap. value= (-) 524.14 Net value =(-) 424.14	0.00	

39. The modification / up-gradation of power house ventilation system with humidity control and replacement of vibration measurement system cannot be considered as regular capital spares and as such the corresponding capitalization and de-capitalization has been considered as capital addition, if the said expenditure is incurred. As of now, the said amounts have not been allowed to be shifted from capital addition to capital spares. Accordingly, the projected expenditure allowed for the year 2013-14 by order dated 12.7.2011 in Petition No. 84/2010 shall remain as (-) ₹339.81 lakh.

Additional capital expenditure allowed for 2009-14

40. In the above background, the revised additional capital expenditure allowed for the purpose of tariff for 2009-14 is as summarized as under:

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
		Actual			Projected	
Addition						
1	Addition against work already approved	240.41	204.42	57.82	311.29	215.00
2	Addition not projected earlier but incurred and claimed	964.20	4.44	114.97	0.00	0.00
3	Total Addition (1+2)	1204.61	208.86	172.79	311.29	215.00
Deletion						
4	Deletion allowed	508.07	38.53	11.69	56.35	554.81
5	Exclusion in deletion (not allowed)	0.00	199.15	0.00	0.00	0.00
6	Assumed Deletion	21.23	0.00	1.46	0.00	0.00
7	Total Deletion (4+5+6)	529.30	237.68	13.15	56.35	554.81
8	Total additional capital expenditure allowed before adjustment of discharge/un-discharge of liabilities (3-7)	675.31	(-) 28.82	159.64	254.94	(-) 339.81
9	Less: Un-discharged liabilities in the admitted Additional capital expenditure	12.48	8.52	2.12	0.00	0.00
10	Add: Liabilities discharged during the year out of additional capital expenditure during 2009-12	0.00	0.00	20.13	1.67	0.00
11	Add: Liabilities discharged during the year (Related to un-discharged liabilities as on 31-03-2009)	19.68	7.23	0.67	0.00	0.00
12	Additional Capital Expenditure allowed (8-9+10+11)	682.51	(-) 30.11	178.32	256.61	(-) 339.81

Capital Cost for 2009-14

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

		(₹ in lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
	Opening Capital Cost	203272.04	203954.55	203924.44	204102.76	204359.37
	Additional Capitalization allowed for the purpose of tariff	682.51	(-) 30.11	178.32	256.61	(-) 339.81
	Capital Cost as on 31 March of the financial year	203954.55	203924.44	204102.76	204359.37	204019.56

Return on Equity

42. The petitioner has considered pre-rate rate of return on equity @23.481% for 2009-10, 23.210% for 2010-11, and 22.944% for 2011-12 on the normative equity after accounting for the admitted additional capital expenditure. However, in terms of Regulation 15 of the 2009 Tariff Regulations, amended on 31.12.2012, the pre-tax rate of return on equity of 17.763%

and 18.608% have been considered during 2012-13 and 2013-14 respectively. 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	61722.77	61927.52	61918.49	61971.99	62048.97
Addition due to Additional Capitalization	204.75	(-) 9.03	53.50	76.98	(-) 101.94
Closing Equity	61927.52	61918.49	61971.99	62048.97	61947.03
Average Equity	61825.15	61923.01	61945.24	62010.48	61998.00
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.5%/16.5%	16.500%
Tax rate	33.990%	33.218%	32.445%	11.330%	11.330%
Rate of Return on Equity	23.481%	23.210%	22.944%	17.763%	18.608%
Return on Equity	14517.16	14372.33	14212.72	11014.77	11536.59

Interest on loan

43. The normative loan in respect of the project has already been repaid. The normative loan on account of the admitted additional capital expenditure during the respective years of the entire tariff period have been considered as fully paid, as the admitted depreciation is more than the amount of normative loan in these years. As such, the Interest on loan during the period 2009-14 is 'Nil'.

Depreciation

44. The date of commercial operation of the generating station is 1.5.1994. Since the generating station has completed 12 years of operation as on 1.5.2006, the remaining depreciable value has been spread over the balance useful life of the assets. Assets amounting ₹529.30 lakhs, ₹237.68 lakh, ₹13.15 lakh, ₹56.35 lakh and ₹554.81 lakh have been de-capitalized during the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively. As per methodology adopted, the amount of cumulative depreciation allowed in tariff against those de-capitalized assets has been calculated on pro-rata basis. Further, proportionate adjustment has been made to the cumulative depreciation on account of de-capitalization of assets considered for the purpose of tariff. The necessary calculations in support of depreciation are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	203272.04	203954.55	203924.44	204102.76	204359.37
Additional capital expenditure during 2009-14	682.51	(-) 30.11	178.32	256.61	(-) 339.81
Closing gross block	203954.55	203924.44	204102.76	204359.37	204019.56
Average gross block	203613.29	203939.49	204013.60	204231.06	204189.46

Depreciable Value	180997.60	181291.18	181357.87	181553.59	181516.15
Balance useful life of the asset	20.1	19.1	18.1	17.1	16.1
Remaining Depreciable Value	82012.11	78488.90	74567.12	70646.47	66505.36
Depreciation	4083.58	4112.94	4123.51	4135.39	4135.03

O&M Expenses

45. The O&M expenses allowed by Commission's order dated 10.12.2012 in Review Petition No. 18/2011 has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	8898.02	9406.98	9945.06	10513.92	11115.31

Interest on Working Capital

46. In accordance with sub-clause (c) of clause (1) of Regulation 18 of the 2009 regulations, working capital in case of 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.*

47. Clauses (3) and (4) of Regulation 18 of the 2009 Tariff Regulations, the rate of interest on working capital shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later. Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

48. Accordingly, Interest on Working capital has been calculated as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1334.70	1411.05	1491.76	1577.09	1667.30
O & M expenses	741.50	783.92	828.76	876.16	926.28
Receivables	4721.92	4791.35	4860.15	4417.63	4611.59
Total	6798.13	6986.31	7180.67	6870.87	7205.17
Interest on Working Capital @12.25%	832.77	855.82	879.63	841.68	882.63

Annual Fixed charges for 2009-14

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	14517.16	14372.33	14212.72	11014.77	11536.59
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	4083.58	4112.94	4123.51	4135.39	4135.03
Interest on Working Capital	832.77	855.82	879.63	841.68	882.63
O & M Expenses	8898.02	9406.98	9945.06	10513.92	11115.31
Total	28331.53	28748.07	29160.92	26505.76	27669.56

50. The annual fixed charges allowed as above are subject to truing up in terms of Regulation 6 of the 2009 Tariff Regulations.

51. The difference in the annual fixed charges determined by order dated 12.7.2011/10.12.2012 and those determined by this order shall be adjusted in accordance with the relevant provisions of Regulation 6 (6) of the 2009 Tariff Regulations.

52. Petition No. 125/GT/2013 is disposed of in terms of the above.

Sd/-
[M.Deena Dayalan]
Member

Sd/-
[V. S. Verma]
Member