CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 309/GT/2018

Coram:
Shri P.K.Pujari, Chairperson
Dr. M.K. Iyer, Member

Date of Order: 22nd May, 2019

In the matter of

Revision of tariff of Nathpa Jhakri Hydro Electric Power Station (6 x 250 MW) for the period 1.4.2009 to 31.3.2014- Truing-up of the tariff determined by Commission's order dated 20.6.2014 in Petition No. 168/GT/2013

And

In the matter of

SJVN Limited
SJVN Corporate Office Complex,
Shanan, Shimla-171006,
Himachal Pradesh ..…**Petitioner**

Vs

1. Punjab State Power Corporation Ltd.
The Mall, Patiala – 147001

2. Haryana Power Purchase Centre,
Vidyut Sadan, Sector VI,
Panchkula - 134019,

3. Delhi Transco Ltd,
Shakti Sadan, Kotla Road
New Delhi -110002

4. Tata Power Delhi Distribution Ltd.
33 kV Sub-station, Hudson Lines,
Kingsway Camp, Delhi – 110009

5. BSES Rajdhani Power Ltd.
2nd Floor, B Block, Nehru Place,
New Delhi 110019

6. BSES Yamuna Power Limited
Shakti Kiran Building, Karkardooma,
Delhi- 110032

7. Ajmer Vidyut Vitran Nigam Ltd.
Old Power House, Hathi Bhata,
Jaipur Road, Ajmer

8. Jaipur Vidyut Vitran Nigam Ltd.
Vidyut Bhawan, Janpath,
Jaipur – 302005

9. Jodhpur Vidyut Vitran Nigam Ltd.
New Power house, Industrial Area,
Jodhpur

10. Himachal Pradesh State Electricity Board Ltd,
Vidyut Bhawan, Kumar House,
Shimla – 171004

11. Power Development Department (J&K),
Government of J&K,
Mini Secretariat, Jammu

12. Power Department,
Union Territory of Chandigarh,
Additional Office Building, Sector 9D,
Chandigarh

13. Uttar Pradesh Power Corporation Ltd.
Shakti Bhawan, 14, Ashoka Road,
Lucknow – 226001

14. Uttranchal Power Corporation Ltd.
Urja Bhawan, Kanwali Road,
Dehradun- 248001

15. Government of Himachal Pradesh,
H.P. Secretariat,
Shimla -171002 **……Respondents**

Parties Present:

Shri Romesh Kapoor, SJNVL
Shri Rajeev Agarwal, SJVNL
Shri Sanjay Kumar, SJVNL
Shri Atul Harkat, SJVNL
Shri R.B.Sharma, Advocate, BRPL
Shri Mohit Mudgal, Advocate, BRPL

ORDER

Nathpa Jhakri Hydroelectric Power Station (hereinafter referred to as 'the generating station'), located in the State of Himachal Pradesh, has been constructed by the Petitioner, a joint venture between the Government of India and Government of Himachal Pradesh, as a run-of-river project with pondage. The capacity of the generating station is 1500 MW comprising of 6 units of 250 MW each. The dates of commercial operation (COD) of the different units of the generating station are as under:

Units	COD
Unit- 5	6.10.2003
Unit – 6	2.1.2004
Unit – 4	30.3.2004
Unit – 3	31.3.2004
Unit – 2	6.5.2004
Unit – 1	18.5.2004

2. The project was originally approved by the Central Government vide Ministry of Energy, Department of Power, letter dated 5.4.1989 at an estimated cost of ₹167802 lakh, including IDC of ₹20602 lakh (September, 1988 price level) with the completion schedule of March, 1996 including 1½ years for infrastructure works which were under development. The first Revised Cost Estimates (RCE-I) were approved by the Central Government vide Ministry of Power letter dated 24.6.1993 for ₹433795 lakh, including IDC of ₹64869 lakh with the revised commissioning schedule of December, 1998. The second Revised Cost Estimates (RCE-II) were approved by the Central Government vide Ministry of Power letter dated 10.5.1999 at an estimated cost of ₹766631 lakh, including IDC of ₹173479 lakh (June, 1998 price level) with the commissioning schedule of March 2002. The third Revised Cost Estimates (RCE-III) were approved by the Central Government vide Ministry of Power letter dated 14.8.2007 at the cost of ₹818771 lakh, including IDC of ₹195181 lakh, but excluding an expenditure of ₹14500 lakh which had already been incurred as advances to contractors on account of extension of time (EOT), Dispute Review Board (DRB) and other claims in respect of major civil works. The fourth Revised Cost Estimates (RCE-IV) was approved by the Central Government vide Ministry of Power letter dated 21.8.2018 at the cost of ₹857528 lakh, including cost overrun of ₹38757 lakh. Accordingly, the Commission vide its order dated 9.4.2019 in Petition No. 310/GT/2018 had determined the tariff of the

generating station for the period 2004-09, based on the opening capital cost of ₹493335.22 as on 1.4.2004.

3. Petition No. 168/GT/2013 was filed by the Petitioner for determination of tariff of the generating station for the period 2009-14 in accordance with the provisions of the 2009 Tariff Regulations. The Commission by its order dated 20.6.2014 determined the tariff of the generating station for the said period based on the approved RCE-III cost of ₹818771.30 lakh including IDC of ₹195181 lakh as on 31.3.2009, as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	71868.20	72604.72	73088.37	74332.67	77986.98
Interest on Loan	14243.78	11108.42	7571.67	3282.35	551.96
Depreciation	41640.20	42181.71	43069.51	43305.53	43409.56
Interest on Working Capital	3854.96	3884.45	3911.42	3929.10	4031.11
O & M Expenses	23836.31	25199.75	26641.18	28165.05	29776.09
Total	**155443.46**	**154979.04**	**154282.16**	**153014.70**	**155755.70**

4. 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."

5. In terms of the above, the Petitioner in this petition has claimed annual fixed charges as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	82895.19	86946.62	87879.37	88145.49	89341.94
Interest on Loan	15690.41	12536.69	9119.61	4781.90	1182.03
Depreciation	43352.49	44208.57	44930.33	45157.35	45269.59
Interest on Working Capital	4308.83	4443.11	4496.17	4505.67	4553.60
O & M Expenses	26999.08	28952.81	30747.92	32539.71	34452.53
Total	**173246.00**	**177087.80**	**177173.39**	**175130.12**	**174799.69**

6. Replies to the petition have been filed by the Respondents, BRPL and UPPCL vide their affidavits dated 14.11.2018 and 27.11.2018 respectively and the Petitioner has filed its rejoinders to the said replies. Taking into consideration the submissions of the parties and the documents available on record, we proceed to revise the tariff of the generating station, on prudence check, as stated in the subsequent paragraphs.

7. The Petitioner in this petition has submitted reconciliation with fixed asset statement as under:

(₹ in lakh)

	31.3.2009	31.3.2010	31.3.2011	31.3.2012	31.3.2013	31.3.2014
Gross Block as per Balance Sheet	855232.78	856443.79	867978.66	874503.36	876422.23	877698.11
Less. Assets not to be included in capital cost	(-)504.24	(-)504.24	(-)504.24	(-)504.24	(-)766.99	(-)504.24
Gross Block as per Balance Sheet	854728.54	855939.55	867474.42	873999.12	875655.24	877193.87
ADD Interest/OFC as per RSVPN	10386.19	10386.19	10386.19	10386.19	10386.19	10386.19
ERV to be claimed separately	(-)4024.65	(-)3044.09	(-)3044.09	(-)3240.92	(-)3240.92	(-)3268.23
Gross Block as on 31.03.04 of Rs. 501787 Lacs as per Petition submitted to CERC	**861090.07**	**863281.64**	**874816.51**	**881144.39**	**882800.51**	**884311.83**
ADD: OPENING BALANCE	6265.35	8828.56	11026.43	13747.16	12757.72	12757.72
Add: Additional capitalisation of advances after settlement of claims	5.67	1123.50				
Reversal of additional capitalisation for settled claims in the respective years of capitalisation	(-)2389.11	(-)941.58	(-)2135.40	(-)990.73	0.00	0.00
Additional Amount Paid under CAT Plan charged to P& L A/c (Refer Annex-C for details)	600.00	0.00	700.00	0.00	0.00	782.20
Add. Intt. On claims settled but charged to P&L Account	4346.64	2015.95	4156.13	1.29	0.00	0.00
Additional capitalisation during the period	2563.21	2197.87	2720.73	(-)989.44	0.00	782.20
Additional capitalisation upto the period	**8828.56**	**11026.43**	**13747.16**	**12757.72**	**12757.72**	**13539.92**
Total	869918.63	874308.07	888563.67	893902.11	895558.23	897851.75
Less: Undischarged Liabilities as per Balance Sheet	(-)26989.96	(-)17109.63	(-)10782.31	(-)9201.51	(-)9229.47	(-)9024.03

Add: Adhoc Payment/Advances paid for unsettled claims but not capitalised	2556.70	537.18	423.06	454.22	476.61	555.28
Net Gross Block for the purpose of Tariff	**845485.37**	**857735.62**	**878204.42**	**885154.83**	**886805.37**	**889383.00**

8. 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."*

9. The capital cost claimed by the petitioner based on above reconciliation for the period 2009-14 is as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	845485.37	857735.63	878204.42	885154.83	886805.40
Additional Capital Expenditure claimed	12250.26	20468.79	6950.41	1650.57	2577.63
Closing capital cost	**857735.63**	**878204.42**	**885154.83**	**886805.40**	**889383.00**

10. The Commission in order dated 9.4.2019 in Petition No. 310/GT/2018 had approved the closing capital cost of ₹839420.55 lakh as on 31.3.2009 for the purpose of determination of tariff for the period 2009-14. Accordingly, the same has been considered as the opening capital cost as on 1.4.2009.

Additional Capital Expenditure

11. 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 cutoff 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;

(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.

(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."

12. The actual additional capital expenditure for 2009-13 and the projected additional capital expenditure for 2013-14 allowed vide Commission's order dated 20.6.2014 in Petition No. 168/GT/2013 is as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
11574.37	16513.81	1931.14	674.91	3404.55

13. In terms of the liberty granted by the Commission in order dated 20.6.2014, the petitioner has claimed additional capital expenditure for the period 2009-13 based on revised justification for certain assets disallowed during the said period. Accordingly, the additional capital expenditure claimed by the Petitioner for the period 2009-14, over and above the additional capital expenditure allowed vide Commission's order dated 20.6.2014 is as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
530.14	3874.50	4952.81	869.59	2577.63

2009-13

14. The additional capital expenditure claimed by the petitioner with revised justification for the period 2009-13 includes expenditure in respect of assets/works under the heads namely, Land for corporate office, I.T equipment, Plant & Machinery in generating station including plant foundation, non-residential buildings, data processing equipment (hard and software), hospital equipment, minor items, vehicles etc. We proceed to examine the revised justification furnished by the Petitioner along

with admissibility of the expenditure made by the petitioner during the period 2009-13 as stated under:

2009-10

Justification for items/assets disallowed in order dated 20.6.2014					
Sl. No	**Name of assets**	**Additions in Gross Block from 1.4.2009 to 31.3.2010** *(₹ in lakh)*	**Revised Justification**	**Remarks on admissibility**	**Amount Allowed**
1	LAND-Land acquired for Corporate Office in Shimla. Refer Page no.3 "A" (enclosed) of Petition	411.28	Corporate Office Land is an approved component of original cost estimate/RCE as submitted earlier at page-3 (copy enclosed). Presently Corporate Office in Shimla is functioning in various buildings taken on lease/ hire. The land has been acquired for the construction of Corporate Office which will result in reduction of O&M Expenses and increase in efficiency of Operation of the Project.	The Commission in its Order dated 26.4.2006 in Petition No 3/2006 had disallowed the servicing of expenditure incurred by generating companies on liason offices, corporate offices and other offices. This has been affirmed by the Appellate Tribunal for Electricity in its judgment dated 30.8.2011 in Appeal No. Hence, the expenditure claimed is **not allowed.**	0.00
2	Aluminium Ladders, garbage container other items procured	4.70	Aluminium ladders have been procured for Power Supply & Safety deptt., further garbage container have been procured for maintaining hygienic condition and good health in the colony for safe and efficient working	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on Minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00

3	Data Processing Equipment's-Hardware/ Software-Computer hardware's procured	90.48	Data processing equipment are procured for improvement in IT & communication infrastructure for increasing the efficiency and smooth line functioning of NJHPS. Further, The Regulations-2009 does not cover the data processing equipment in the definition of Minor items. Therefore, these items may be allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations-Expenditure necessary for efficient plant operation.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
4	Software-Software (MS office, Hindi software and Autocade procured	23.68		In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
	Total claimed	**530.14**			**0.00**
	Total amount allowed				**0.00**

2010-11

Justification for items/assets disallowed in order dated 20.6.2014					
Sl. No	**Name of assets**	**Additions in Gross Block from 1.4.2010 to 31.3.2011** (Rs. in lakh)	**Revised Justification**	**Remarks on admissibility**	**Amount Allowed**
1	Land-Registration charges for the Land acquired in 2009-10 for Corporate Office in Shimla.	14.10	Corporate Office Land is an approved component of original cost estimate/RCE as submitted at page-3 (copy enclosed). Presently Corporate Office in Shimla is functioning in various buildings taken on lease/hire. The land has been acquired for the construction of Corporate Office which will result in reduction of O&M	The Commission in its Order dated 26.4.2006 in Petition No 3/2006 had disallowed the servicing of expenditure incurred by generating companies on liason offices, corporate offices and other offices. This has been affirmed by the Appellate Tribunal for Electricity in its judgment dated	0.00

			Expenses and increase in efficiency of Operation of the Project.	30.8.2011 in Appeal No. Hence, the expenditure claimed is **not allowed**.	
2	Insurance Spares	3591.89	The Insurance spares are machine specific spares. The failure of these spares in operating equipment cannot be predicted and may result into shut down of the machine. These were procured to ensure availability and the efficient operation of the plant. Therefore it is prayed that the spares may be allowed under Regulation 9(2)(iv)-Expenditure necessary for the efficient plant operation. As also earlier submitted that the machine specific spares are to be capitalised with that machine and to be amortised over useful life of the machine as per the Accounting Standard. Further, the use of these capital spares is irregular and consumption of which cannot be predicted in future. Accordingly, the recoveries of the same may be allowed as capital cost. In view of these reasons it may also not be	Capitalization of spares after the cut-off date is not permissible under the 2009 Tariff Regulations. May be booked to O&M on consumption. Hence, **not allowed**	0.00

			appropriate to recover total amount on consumption basis in O&M expenses as it may take a very long time even up to life of NJHPS Project. However, it is also prayed that if it could not be allowed as the part of capital cost, the same may be allowed as one time expenditure in totality in the year of incurring/capitalisation such expenditure i.e. 2010-11. 3. Limit of 1.5% as per the Regulations is for initial spares only and not for subsequent capital expenditure/spares necessary for efficient operation of the plant.		
3	Workshop Equiptment- Plant- Robot stool at hard coating workshop capitalised and aluminium single wall extension ladder for ₹20589/- capitalised	2.2	The River Satluj carries lot of silt and in order to operate Plant during high silt/ monsoon period hard coating of underwater parts is very necessary. The stool for Robot of hard coating plant & other accessories are necessary. This not only improves the efficiency/ time required for hard coating of various components but also significantly reduce the consumption of spare parts for robot. Hence may allow as the necessary component of the Plant.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on Minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00

4	Non-Residential Buildings-Model Rooms- Memorial	90.71	The memorial for persons who lay down their life is required/ necessary, not only to honour sentiments of employees but also required to boost the moral of workers. This is a permanent asset of NJHPS and being used by employees for evening stroll, various functions during raising day, various oath taking ceremonies, cultural programs, competitions of employees etc. are being arranged at this Place. The permanent industrial canteen block is also housed in this location. Through this place the feeling of togetherness inculcate among employees which improves working efficiency.	Since the expenditure incurred is for the benefit of the employees working at remote site of the project, the same is **allowed.**	90.71
5	P&M-Others-Treadmill (motorized) and Garbage container capitalised	3.21	The items are necessary for good health of the employees & maintaining hygienic condition in the Project colony which consequently result in increased efficiency of the Plant.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on Minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
6	Data Processing Equipment-Hardware/Software	115	Data processing equipment are procured for improvement in IT & communication infrastructure for increasing the efficiency and smooth line functioning of NJHPS. Further, The Regulations-2009 does not cover the data processing equipment in the	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on Minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
7	Software	57			0.00

			definition of Minor items. Therefore, these items may be allowed under Regulation 9(2)(iv)-of the 2009 Tariff Regulations		
8	Negative entry of ₹73.06 lakh left out inadvertently in order dated 20.6.2014	(-) 73.06		Inadvertent error is corrected	(-) 73.06
	Total claimed	**3801.44**			
	Total amount allowed				**17.65**

2011-12

Justification for items/assets disallowed in order dated 20.6.14 for 2011-12					
Sl. No	**Name of assets**	**Additions in Gross Block from 1.4.2011 to 31.3.2012** *(Rs. in lakh)*	**Revised Justification**	**Remarks on admissibility**	**Amount Allowed**
1	Complete 420 kV, 2000a Or 4000a, Single Phase, Generator Circuit Breaker Interrupting Chamber Type-Fb-16 Cb Pole Without Hydraulic Operating Mechanism	239.87	NJHPS is being operated as a peaking station during September to May i.e. during lean season. During winters the voltage on 400 KV line also increases as lines remains highly loaded due to less availability of water. As the Plant is being operated as a peaking station which requires frequent start & stop of machine and consequently switching on & off of 400 kV CB's at high voltage is not an normal operation but a system requirement. Because of above reasons, the failure of 400 KV CB's are quite frequent despite of all precautions taken by the Project. In view of this, additional 400 KV CB's are necessary to	Capitalization of spares after the cut-off date is not permissible under the 2009 Tariff Regulations. May be booked to O&M on consumption. Hence, **not allowed**	0.00

			reduce down time of machines at 400 kV lines and loss of generation.		
2	Lower Labyrinth Seal Rotating Pre Machined For 300 Micron Hard Coating	324.00	The river Satluj carries lot of silt during high flow season with 50-55% as quartz contents. This heavy silt cause extensive damages to the underwater parts, thus leaving them not worthy of use. These extensively damaged components needs replacements with new components in order to ensure safety and reliability of plant. The extensively damaged components were declared scrap by duly constituted committee with the approval of competent authority and sold through e-auction as scrap. Such components were also de-capitalised in the books of accounts and in order to operate the Plant safely, securely & reliably new components as replacement of old ones are procured.		0.00
3	Lower Labyrinth Seal Stationery Pre Machined For 300 Micron Hard Coating	1608.74			0.00
4	Lower Turbine Cover Cheek Plate For Turbine	1128.41			0.00
5	Upper Turbine Cover Cheek Plate For Turbine	1128.41			0.00
6	Upper Labyrinth Seal Stationery Pre Machined For 300 Micron Hard Coating	97.13			0.00
7	Upper Labyrinth Seal Rotating Pre Machined For 300 Micron Hard Coating	47.70			0.00
8	Complete 420 kV, 2000a Or 4000a, Single Phase, Generator Circuit Breaker Interrupting Chamber (Live Part) Type-Fb-16 With All Necessary Apparatus (Installed In Existing Reusable Encloser & Mobile Contact Without Hydraulic Operating Mechanism)	370.65	The NJHPS is being operated as peaking station during September to May i.e. during lean season. During winters the voltage on 400KV line also increases as lines remains highly loaded due to less availability of water. As the Plant is being operated as a peaking station which requires frequent start & stop of machine and consequently switching on & off of 400 KV CB's at high voltage which is		0.00

			not an normal operation but a system requirement. Because of above reasons, the failure of 400 kV CB's are quite frequent despite of all precautions taken by the Project. In view of this additional 400 kV CB's are necessary to reduce down time of machines at 400 kV lines and loss of generation.		
9	Electrode Dyeing Oven 2 kW Portable Item De-capitalised	(-) 1.39		De-capitalisation allowed as the asset is not rendering useful service in the operation of the plant	(-) 1.39
10	Insurance Spares De-capitalised During The Year	(-) 121.12	The Insurance spares capitalised in the financial year 2010-11. If it is not allowed as part of Capital cost of NJHPS in the financial year 2010.11, then the same should be allowed as exclusions for the purpose of tariff.	Exclusion allowed keeping in view the justification submitted	0.00
11	Entry Tax Paid On Cb Pole De-capitalised	(-) 25.79		Exclusion allowed as the capitalization of CB pole has not been allowed for the purpose of tariff	0.00
12	Control And Instrumentation Equipment-Plant-Digital Display Board For Displaying Dam Reservoir Level And Trt Outfall Water Level	0.49	The level of Dam reservoir and level of TRT outfall are very important parameters to plan the operation of the Plant. If level at reservoir falls below EL 1480 then there is an emergency situation and shutting down of machines is necessary at the earliest. Similarly if the level is around EL 1494 then generation needs to be increased to avoid spillage. Similarly the TRT pond level indicates the	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00

			gross head available for generation to the control room engineers. The manual communication of these levels may increase error, so automatic display system of these levels was installed to avoid chances of error which results into increased efficiency.		
13	Workshop Equipment-Plant-Industrial Vacuum Cleaner For Hard Coating Plant Work And Grit Reclaimer Equipment Procured	5.60	a) The residual of hard coating powder which bounce back after hard coating is hazardous to health. Hence industrial vacuum cleaner is necessary to take out/ collect all the residual left outs to improve occupational health & safety. b) The grit blasting of the underwater components cause grit to fly over and spread all over the floor. In order to improve efficiency and reduce the consumption of grit during sand blasting operation, the grit reclaimer equipment was procured and installed to improve efficiency of grit blasting operation.	Since the expenditure incurred is for the benefit of the employees working at remote site of the project, the same is **allowed.**	5.60

14	Diversion Dam-P/F U.V. Stabilised Fibre Glass Reinforced Plastic Sheet Roofing In Btrdt Pump House And Painting Work In Bhaba New Mat	15.37	(a) There is continuous dripping of seepage water on BTRDT Pump house floor/ equipment which endanger life of equipment. In order to avoid dripping of water over piece of equipment the UV stabilised fibre glass reinforced plastic sheet roofing was installed to improve machine efficiency. (b) The amount of ₹4.20 lac is a left out work of BTRDT allowed in financial year 2010-11 by CERC refer (g) of page no. 22&23 of Tariff Order dated 20.06.2014 in Petition No. 168/GT/2013.	Expenditure claimed for installation of UV stabilised fibre glass reinforced plastic sheet roofing [sl no.(a)] is in the nature of O&M expenses and hence not **allowed**. However, the expenditure of ₹4.20 lakh claimed for balance payment for work already allowed by the Commission during the year 2010-11, [sl.no.(b)] is **allowed.**	4.20
15	Non-Residential Buildings-Blower Room-Civil Work Capitalised	0.01	This work has been capitalised through liabilities. The same amount is deducted under the head of un-discharged liabilities. Hence this amount should be allowed as it has nil impact on net additional capitalisation.	Expenditure is **allowed** keeping in view the justification submitted	0.01
16	Non-Residential Buildings-Model Rooms-Balance Work At Memorial Capitalised	1.60	The memorial for persons who lay down their life is required/ necessary, not only to honour sentiments of employees but also required to boost the moral of workers. This is a permanent asset of NJHPS and being used by employees for evening stroll, various functions during raising day, various oath taking ceremonies, cultural programs, competitions of employees etc. are being arranged at this Place. The permanent industrial canteen block is also housed in	Since the expenditure incurred is for the benefit of the employees working at remote site of the project, the same is **allowed.**	1.60

			this location. Through this place the feeling of togetherness inculcate among employees which improves working efficiency.		
17	P&M-Others-One Set Of Hydrolic Boom Barrier Of 2*4 Mtr. Length Integrated With Automatic Flat Type Spike Killer Along With Automatic Trrafic Bollards At Mat Gate .	23.67	NJHPS being sensitive project from security point of view. Numbers of advisory are issued by Ministry of Power, Ministry of Home Affairs & IB to improve security of plant in view of possible terrorist attack. In view of this as per the recommendations of IB these were installed.	Expenditure is allowed since the same is considered necessary for the safety of the project and the employees.	23.67
18	Miscellaneous /various items de-capitalised	(-) 8.85	It is prayed that these items may be considered as minor items	Exclusion/ignoring of negative entry arising due to de-capitalization of minor assets may be allowed as the capitalization of the same is not allowed	0.00
19	Office Equipment-Other Misc Equipment-Digital Franking Machine Procured	1.27	New microprocessor based franking machine has been procured as the spare parts for old machine are not available in market due to technology change. This also has increased the efficiency of despatch section of the Project.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
20	Generator And Other Electricals Items Procured	5.25	Generator and other electrical items have been procured to ensure the backup supply of power for continuous/ efficient operation of the offices/ Project.	Expenditure is **allowed** under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the same is necessary for efficient and successful operation of the generating station	5.25

21	General Illumination-Providing Street Lights On The Approach Roads From Nathpa Adit-1 To Dam On The Left Bank And From Nathpa Adit-1 To Btrdt Discharge Tunnel On The Right Bank Of Nathpa	33.62	This work is necessary for safety and security of Dam. This was left out work & could not be completed during construction of project due to the fault of contractor to whom this work was awarded & work was short closed.	Since the expenditure is in the nature of O&M expenses, the same is **not allowed**	0.00
22	Data Processing Equipment-Hardware/ Software	51.26	Data processing equipment are procured for improvement in IT & communication infrastructure for increasing the efficiency and smooth line functioning of NJHPS. Further, The Regulations-2009 does not cover the data processing equipment in the definition of Minor items. Therefore, these items may be allowed under Regulation 9(2)(iv)	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
23	Software-Access Control System, Visitor Management System And M.S. Office, Hindi Software And Autocade Etc. procured	26.91			0.00
	Total claimed	**4952.81**			
	Total Allowed				**38.94**

2012-13

Justification for items/assets disallowed in Order dated 20.6.14					
Sl. No	**Name of assets**	**Additions in Gross Block from 1.4.2011 to 31.3.2012** *(Rs. in lakh)*	**Revised Justification**	**Remarks on admissibility**	**Amount Allowed**
1	Portable Ultrasonic Flow meter for flow measurement working on Dual mode principle (Doppler as well as transit mode)	5.18	The safe operation of turbine is compromised if labyrinth leakage increases beyond 400 LPS. The labyrinth leakage is measured on line for each unit through Ultrasonic Flow meter. In case of malfunction of these Ultrasonic flow meters	Since the expenditure is in the nature of Tools and Tackles", the same is **not allowed**	0.00

			it becomes difficult to decide/ allow the generation to continue for such emergencies and therefore Portable instrument was purchased for cross checking. This definitely improves decision making and efficiency of the Plant.		
2	Upper Labyrinth seal Rotating, pre-machined ready for 300 microns hard coating	239.51	The river Satluj carries lot of silt during high flow season with 50-55% as quartz contents. This heavy silt cause extensive damages to the underwater parts, thus leaving them not worthy of use. These extensively damaged components needs replacements with new components in order to ensure safety and reliability of plant. The extensively damaged components were declared scrap by duly constituted committee with the approval of competent authority and sold through e-auction as scrap. Such components were also de-capitalised in the books of accounts and in order to operate the Plant safely, securely & reliably new components as replacement of old ones are procured.	Capitalization of spares after the cut-off date is not permissible under the 2009 Tariff Regulations. May be booked to O&M on consumption. Hence, **not allowed**.	0.00
3	Upper Labyrinth seal Stationary, pre-machined ready for 300 microns hard coating	151.01			0.00
4	Insurance Spares de-capitalised during the year	(-)100.89	The Insurance spares capitalised in the financial year 2010-11. If it is not allowed as part of Capital cost of NJHPS in the financial year 2010.11, then the same should be allowed as exclusions for the purpose of tariff.	Since capitalization of spares was not allowed in 2010-11, the de-capitalization the same has been excluded for the purpose of tariff	0.00
5	Sholding Works (Dam Weir)	(-) 2.80		Negative entry indicated by the	(-) 2.80

				petitioner is considered	
6	Head Race Tunnel including Sholding-Works of cement concrete pavement drains and shot creting in Wadhal and Nathpa Adit of NJHPS. The Invert lining of Nathpa & Wadhal Adit were the balance part of Major Contract 2.1. Hence the work were the part of Major Civil Works of HRT i.e. part of original scope of work of HRT as the both adits are the permanent access for the inspection of HRT during any casualty through permanent gate.	337.57	During design and construction of Project the manholes were provided in the concrete plugs at Nathpa, Wadhal and Manglad Adits for inspection of HRT during future contingencies, if any. The annual inspection of civil structures of Plant also envisage inspection of these manholes to ascertain any leakages etc. The invert lining was envisaged for Nathpa & Wadhal Adits being permanent access to manholes for HRT but the work was not carried out during initial construction. The work was subsequently awarded and completed because without this invert lining it is not possible to inspect the manholes of HRT. Further if situation so arise in future to inspect HRT then there will also be no access to HRT if these works are not completed. In view of above, this is necessary for safe and reliable operation of Power Plant and to meet future contingencies.	As the expenditure is in respect of asset which fall within the original scope of work of the project, the capitalisation of the same after the cut-off date is not allowed	0.00
7	Adjustment For Liabilities	(-) 35.25	Un-discharged liabilities increased from ₹9202 lakh (out of this ₹2172 lac pertain to land) as on 31.03.12 to ₹9229 lacs (Out of this, an amount of ₹2164 lacs pertain/ shown under land head) as on 31.03.2013	Negative adjustment of liabilities is allowed	(-) 35.25

8	Roads-Township	1.00	The expenditure is incurred towards the benefit of employees & efficient operation of the Project. This balance payment made against PCD-1439 for work" Approach road to Type-B accommodation at Nathpa" may also be allowed since the original work/expenditure was capitalised in 2009-10 and allowed by CERC in 2009-10 refer (h) of page no. 16 of the Tariff Order dated 20.6.2014	Since the expenditure incurred is for the benefit of the employees working at remote site of the project, the same is **allowed.**	1.00
9	Residential Buildings-0 Type/ Shelter/ Transit-Civil works of Play stations in type-0 colony below NH-22 at Jhakri capitalised	7.16	In order to beautify the township the children park was developed. In hills no grounds/plain surfaces are available for children to play and if they continue to play on hill slopes there is always a danger of mis-happening.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
10	Non-residential buildings-model rooms-memorial-8 Nos. LED Recessed fixtures capacity between 3.0 to 4.2 Watts beam spread of symmetrical range from 12" to 25" IP rating of 67	0.92	The Memorial for persons who lay down their life is required/ necessary not only to honour sentiments of employees but also required to boost the morale of workers. This is a permanent asset of NJHPS and being used by employees for evening stroll, the various functions during raising day, various other taking ceremonies, cultural programmes, competitions of employees etc. at this Place. The permanent industrial canteen block is also housed in this location. Through this place the feeling of togetherness inculcate among		0.00

			employees which improves working efficiency.		
11	3 phase 4 wire 110 volt-5 amp ct/pt operated energy meter capitalised	0.38	The item has been procured as per the requirement of Project.		0.00
12	P&M-others- Two step play station procured for ₹4.77 lac and Balance payment on account of service cost plus service tax paid for barrier boomer capitalised in 2011-12 for ₹0.55 lakh	5.32	In order to beautify the township the children park was developed. In hills no grounds/plain surfaces are available for children to play and if they continue to play on hill slopes there is always a chance of mis-happening.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure on play station is **not allowed** However, the balance expenditure of ₹0.55 lakh (5.32-4.77) for service cost plus service tax paid on barrier boomer is allowed as the asset has been allowed in 2011-12	0.55
13	P&M-Cranes- Light & Heavy	99.07	25T capacity crane was totally damaged due to land slide at Sholding. This is necessary T&P for operation of gates at Sholding & Nathpa therefore a new crane is purchased of same model & make as replacement (against de-capitalisation in 2011-12).	Expenditure is **allowed** under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the same is necessary for efficient and successful operation of the generating station	99.07
14	Vehicles	30.44	Two no. of vehicles/cars procured as replacement (Refer Annex-2 submitted with Tariff Petition filed for 2014-19-copy enclosed) as per the requirement for efficient operation of the Project.		30.44

15	3 No. Refrigerator procured for Hospital of ₹0.49 lac and air cooler for Power House capitalised for ₹0.10 lakh	0.59	The item has been procured as per the requirement of Project.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
16	P & M - hospital equipment's - Lab life robochem (fully automatic biochemistry analyser) with all accessories was procured as per the requirement of the Project Hospital to cater to the need of employees for the multiple blood tests which earlier were done outside the Project Hospital	7.00	The Project is located at remote location. Initially the blood analysis was carried out manually at Project Hospital. In order to improve the accuracy of results of blood samples an automatic biochemistry blood analyser was purchased to avoid unnecessary referral to specialized hospitals. This not only improves the efficiency of employees but also cost effective.	Since the expenditure incurred is for the benefit of the employees working at remote site of the project, the same is **allowed.**	7.00
17	Riso make digital duplicator machine for ₹1.99 lac procured , Work centre 5325 digital copier duplex/DADF/ Stand-25 CPM fully adjustable & auto size paper trays procured	4.12	These items have been procured for efficient operation of offices/ the Project.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
18	P&M- Equipment's With CISF-DCP extinguisher 75 capacity procured as	0.80	The expenditure is incurred as per the requirement of CISF for the safety of hard coating plant.	Expenditure is **allowed** under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the same is necessary for efficient and	0.80

	per the requirement of CISF			successful operation of the generating station	
19	Micro earth Station/Wireless/VSAT, Photocopier Machine/Xerox machine, Projector/ Public address system etc. Procured	24.94	These items have been procured for efficient operation of offices/ the Project.		0.00
20	Billing machine BP-100AF procured	0.22	The item has been procured as per the requirement of Project.	In terms of proviso to Regulation 9(2) of the 2009 Tariff Regulations, expenditure on minor assets is not permissible. Hence, the expenditure is **not allowed**	0.00
21	Generator/water lifter pumps/ Invertors procured	25.63	Generator and other electrical items have been procured to ensure the backup supply of power for continuous/ efficient operation of the offices/ Project.		0.00
22	Data Processing Equipment hardware/Software-Data processing equipment .i.e. Desktop/ Laptops/ computer hardware, printers etc. procured.	49.99	Data processing equipment are procured for improvement in IT & communication infrastructure for increasing the efficiency and smooth functioning of NJHPS. Further, The Regulations-2009 does not cover the data processing equipment in the definition of Minor items. Therefore, it is prayed that these items may be allowed under Regulation 9(2)(iv)-		0.00
23	SOFTWARE-Software like MS office, Hindi software/ autocade procured.	17.66			0.00
	Total claim	**869.57**			
	Total allowed				**100.82**

15. The Petitioner vide affidavit 6.2.2019 has submitted that the amount of ₹56.26 lakh de-capitalized for assets in the year 2009-10 under the head “Asset Reported to losses” is for the assets claimed during the year 2007-08 in Petition No. 310/GT/2018

under the head "Assets reported lost". Since, the assets had not been considered for the purpose of tariff during the year 2007-08, the said amount of ₹56.26 lakh claimed during 2009-10 has been excluded for the purpose of tariff. This has been allowed.

16. Based on the above, the year-wise additional capital expenditure allowed (over and above the additional capital expenditure allowed in Commission's order dated 20.6.2014) for the period 2009-13 for the purpose of tariff is summarised as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13
56.26	17.65	38.94	100.82

Truing-up of additional capital expenditure for 2013-14

17. The Commission in its order dated 20.6.2014 in Petition No.168/GT/2013 had allowed the additional capital expenditure of ₹3404.55 lakh for 2013-14. The certified actual additional capital expenditure claimed by the Petitioner is ₹2577.63 lakh with break up details as under:

		Regulation	Amount *(₹ in lakh)*
1(a)	Liabilities to meet award of arbitration or in compliance of the order or decree of a court	9(2)(i)	685.25
1(b)	Additional works/expenditure which has become necessary for efficient and successful operation of plant	9(2)(iv)	1813.21
1(c)	Impact/ discharge of Capital Liabilities	9(2) (discharge of capital liabilities)	147.06
1(d)	Minor Assets	9(2)	53.06
1(e)	Deletion of amount on account of obsolete/ unserviceable items/assets written off	9(2)	(-)120.94
	Total claim (as per Form-9)		**2577.63**

18. The reconciliation of the additional capital expenditure claimed with the balance sheet, as furnished by the petitioner is as follows:

(₹in lakh)

	31.3.2013	31.3.2014
Capital cost as per books (a)	875655 (876422 -767 for assets not to be included in capital cost)	877194
Less: FERV to be claimed separately	3241	3268
Less: un-discharged liability as per balance sheet	9229	9024
Capital cost as per books on cash basis	863185	864902
Additional capitalization on cash basis as per books for the year 2013-14	**1717** (864902 – 863185)	

19. Over and above the capitalization of ₹1716.76 lakh in books of accounts, the petitioner has worked out its claim for expenditure of ₹2577.63 lakhs as under:

(₹in lakh)

Additional capitalization on cash basis as per books for the year 2013-14	1716.76
Add: Payment for CAT plan made during the year 2013-14 but charged to P&L	782.20
Add; Adhoc Payment/advances paid for unsettled claims but not capitalized	78.67
Additional capitalization considered by the petitioner for tariff purpose	**2577.63**

20. We now examine the claim of the petitioner based on the justification furnished and the admissibility of the same is discussed hereunder:

Liabilities to meet award of arbitration or in compliance of the order or decree of a court - Regulation 9(2)(i)

21. The petitioner has claimed additional capital expenditure of ₹685.25 lakh incurred towards Land compensation award paid u/s 28A of the Land Acquisition Act. As per the award of the Land Acquisition Collector, alternate package to the landless families, Catchment Area Treatment (which is a statutory requirement) was to be paid in a phased manner to the Himachal Pradesh Forest Department, GoHP and towards the adjustment amount of ICF cost received from M/s Jaiprakash Power Venture Ltd on account of settlement of EOT Claim. Since these expenditure is to meet the award of arbitration or in compliance of the order or decree of a court, the same is allowed

under Regulation 9(2)(i) of the 2009 Tariff Regulations. It is observed that an expenditure of ₹78.67 lakh included in the above claim is towards advance payments for enhancement of compensation (unsettled claims) and the same has not been capitalized in books. Hence, the advance amount of ₹78.67 lakh has been disallowed and has been dealt with in para 32 below. Accordingly, the additional capital expenditure of ₹685.25 lakh has been allowed under Regulation 9(2)(i) of the 2009 Tariff Regulations.

Additional works/expenditure which has become necessary for efficient and successful operation of plant - Regulation 9(2)(iv)

22. An additional capital expenditure of ₹1813.21 lakh has been claimed by the petitioner under Regulation 9(2)(iv) of the 2009 Tariff Regulations. On prudence check of the justifications furnished by the petitioner, only an amount of ₹1226.33 lakh has been allowed in respect of the following assets/works which have been considered necessary for efficient and successful operation of plant:

Sl. No.	Asset/Works	Amount allowed *(₹ in lakh)*
1	Excitation System for 2 Nos. Units	390.72
2	5KVA Portable Petrol Generator Set	3.50
3	Design, Engineering, Fabrication, Supply, Transportation, Insurance, Installation, E&C, Testing etc. of structural work regarding installation of debris boom barriers at Dam Nathpa	203.35
4	Balance payment against BTRDT works capitalized earlier	2.10
5	Provision against Works adjusted.	(-) 17.08
6	Expenditure towards works pertaining to new office complex at NJHPS	107.48
7	Balance payment for works (road) allowed during 2011-12	0.22
8	Parking along road near SJVN Auditorium at Jhakri	30.46
9	Type B- Quarters & providing EI Works , sewerage line gate, fencing, railing etc.	370.04
10	Electrification works at Memorial Park	33.12
11	LT distribution panel for New Office Complex	5.40
12	Step down distribution transformer for New Office Complex	6.39
13	Providing underground LT distribution network along street light from Main Control Room to Main Check Post to Shiv Mandir	2.85
14	IGBT Inverter based DC welding machine	0.62
15	Replacement of Biometric attendance machines	4.65
16	Attendance recording system	(-) 5.79
17	10 KVA online UPS with isolation transformer suitable for three phase AC input & single phase AC output, floor mounted type	10.65

18	Fire Fighting system in New Office Building.	19.22
19	Submersible pump and control panel procured for civil mtc. Of Dam Site Nathpa	1.21
20	Motor Cycles for security staff	3.15
21	Micro Earth Station/Wireless/VSAT procured for smooth line functioning of the Project.	64.16
22	Main EPBAX System (SV8100), E-1 Modem Mediat-800, TUL-76 & Main distribution frames ,VOIP GATE WAY CARD procured	11.48
23	Adjustment of earlier capitalization	(-) 21.57
	Total allowed	**1226.33**

23. Except the above, the balance additional capital expenditure claimed by the petitioner under Regulation 9(2) (iv) which are in the nature of spares, minor assets and tools and tackles have not been allowed to be capitalized, since capitalization of spares (after the cut-off date) and capitalisation of minor assets/tools & tackles are not permissible under the 2009 Tariff Regulations.

Discharge of capital liabilities- Regulation 9(2)(viii)

24. An amount of ₹147.06 lakh has been claimed by the petitioner for capitalization under this head. Since the capital liabilities deducted earlier has been discharged/ paid by the petitioner, the same is allowed to be capitalized.

Expenditure incurred towards procurement of minor assets

25. An amount of ₹53.06 lakh has been claimed by the petitioner procurement of minor assets is not allowed since the capitalization of minor assets after the cut-off date is not allowed for the purpose of tariff, as per proviso to Regulation 9(2) of the 2009 Tariff Regulations.

Deletion of amount on account of obsolete/ unserviceable items/assets written off-Regulation 9(2)

26. The following are the amounts furnished by the petitioner under this head:

Sl. No	Name of assets	Amount *(₹ in lakh)*
1.	Insurance Spares de-capitalized during the year	(-) 60.18
2.	Single Phase Portable AC Welding Machines de-capitalized	(-) 1.61
3.	Vehicles	(-) 22.89
4.	P&M-equipment's with CISF	(-) 0.72

5.	Data Processing equipment's-Hardware/Software	(-) 35.53
	Total	**(-) 120.94**

27. As regards the de-capitalization of Insurance spares amounting to (-) ₹60.18 lakh, it is observed that the petitioner had claimed capitalization of insurance spares amounting to ₹3592 lakh during the year 2010-11. However, in view of the fact that capitalization of spares is not allowed after the cut-off date, the claim for ₹3592 lakh has been disallowed for the purpose of tariff. Accordingly, the negative entry of (-) ₹60.18 lakh due to de-capitalization of the insurance spares has been ignored for the purpose of tariff.

28. Similarly, the capitalization of 'Data Processing Equipment's-Hardware/ Software' has been disallowed after the cut-off date. Accordingly, the negative entry of (-) ₹35.53 lakh arising due to de-capitalization of "Data Processing Equipment's-Hardware/ Software has been excluded/ignored for the purpose of tariff.

29. Also, the de-capitalization of other assets as indicated in the table under para 26 above has been considered for the purpose of tariff, as these assets do not render any useful service in the operation of the plant. Accordingly, out of the amount of (-) ₹120.94 lakh, an amount of (-) ₹25.22 lakh, has been de-capitalized for the purpose of tariff.

30. Based on the above deliberations, the additional capital expenditure allowed for 2013-14 the purpose of tariff is as under:

(₹ in lakh)

Sl.No		**2013-14**
1.	Liabilities to meet award of arbitration or in compliance of the order or decree of a court	685.25
2.	Additional works/expenditure which has become necessary for efficient and successful operation of plant	1226.33
3.	Impact/ discharge of Capital Liabilities	147.06
4.	Minor Assets	0.00

5.	Deletion of amount on account of obsolete/ unserviceable items/assets written off	(-)25.22
	Total additional capital expenditure allowed	**2033.42**

31. Accordingly, the additional capital expenditure allowed for the period 2013-14 for the purpose of tariff is summarized as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
56.26	17.65	38.94	100.82	2033.42

32. It is observed that that the Commission while determining the tariff of the generating station for the period 2009-14 in Petition No. 168/GT/2013 had in its order dated 20.6.2014 allowed tariff on advance amounts prior to its capitalization. This inadvertent error of allowing tariff on expenditure not capitalized is corrected in this order. Accordingly, the advances paid to the contractors on settled as well as un-settled claims have been disallowed along with the reversal of advances for the purpose of tariff on capitalization. The following advances/reversal of advances on capitalization has been adjusted and has been re-considered on capitalization during the subsequent years:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
1837.60	2249.52	959.57	(-) 22.39	(-) 78.67

33. Accordingly, the additional capitalization allowed for the period 2009-14 is summarised as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Actual additional capital expenditure allowed for the period 2009-13 vide order dated 20.6.2014 in Petition No. 168/GT/2013	11574.37	16513.81	1931.14	674.91	0.00
Add: Additional capital expenditure allowed for 2009-13 (over and above expenditure allowed in Petition No. 168/GT/2013)	56.26	17.65	38.94	100.82	

Add: Actual additional capital expenditure allowed for 2013-14	-	-	-	-	2033.42
Add: Adjustment of advance/reversal of advances considered in this order	1837.60	2249.52	959.57	(-) 22.39	(-) 78.67
Total additional capitalization allowed	**13468.23**	**18780.98**	**2929.65**	**753.34**	**1954.75**

Capital cost for 2009-14

34. Accordingly, the capital cost considered for the purpose of the tariff is as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	839420.55	852888.78	871669.76	874599.41	875352.75
Total admitted additional capitalization	13468.23	18780.98	2929.65	753.34	1954.75
Closing Capital Cost	**852888.78**	**871669.76**	**874599.41**	**875352.75**	**877307.50**

Debt-Equity ratio

35. Regulation 12 of Regulation 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.

.....

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.
(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation

36. The petitioner has submitted that additional capital expenditure has been financed through internal resources. Accordingly, the debt-equity ratio of 70:30 has been considered on the additional capital expenditure allowed for the purpose of tariff.

Return on Equity

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

"15. Return on Equity. (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 normal tax rate for the year 2008-09 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.

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

Rate of pre-tax return on equity = Base rate / (1-t)

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

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed 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. In terms of the above regulations, Return on Equity has been worked out and allowed as under:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Gross Notional Equity	402603.86	406644.33	412278.62	413157.52	413383.52
Addition due to ACE	4040.47	5634.29	878.90	226.00	586.43
Closing Equity	406644.33	412278.62	413157.52	413383.52	413969.95
Average Equity	404624.09	409461.48	412718.07	413270.52	413676.73
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%
Return on Equity	**75559.50**	**79263.55**	**79972.38**	**81368.83**	**86359.15**

Interest on Loan

39. 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."

40. The salient features of computation of interest on loan as allowed in tariff are summarized as under:

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

ii) 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.

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

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

41. Accordingly, interest on loan has been calculated as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	436816.69	446244.45	459391.14	461441.89	461969.23
Cumulative Repayment	255619.35	298694.10	342612.82	387107.69	431704.18

Net Loan-Opening	181197.34	147550.35	116778.32	74334.20	30265.05
Repayment during the year	43074.75	43918.72	44494.87	44596.49	31633.38
Addition due to Additional Capitalization	9427.76	13146.69	2050.76	527.34	1368.33
Net Loan-Closing	147550.35	116778.32	74334.20	30265.05	0.00
Average Loan	164373.85	132164.33	95556.26	52299.63	15132.53
Weighted Average Rate of Interest	9.928%	9.972%	10.050%	9.817%	8.850%
Interest on Loan	**16318.49**	**13179.48**	**9603.05**	**5134.06**	**1339.30**

Depreciation

42. 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 up to 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.

43. The weighted average rates of depreciation have been calculated for each year in terms of the above regulation and accordingly depreciation has been worked out as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	839420.55	852888.78	871669.76	874599.41	875352.75
Additional capital expenditure during the period	13468.23	18780.98	2929.65	753.34	1954.75
Closing gross block	852888.78	871669.76	874599.41	875352.75	877307.50
Average gross block	846154.67	862279.27	873134.59	874976.08	876330.13
Rate of Depreciation	5.091%	5.093%	5.096%	5.097%	5.097%
Depreciation	**43074.75**	**43918.72**	**44494.87**	**44596.49**	**44669.93**

O&M Expenses

44. Regulation 19 (f) of the 2009 Tariff Regulations provides as under:

Normative operation and maintenance expenses shall be as follows, namely:
(a).......
(e).......

(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 a 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 & 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 at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period.

(v) In case of the hydro generating stations 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 cost of rehabilitation & resettlement works) and shall be subject to annual escalation of 5.72% per annum for the subsequent years.

45. The O&M expenses claimed by the Petitioner are as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
26999.08	28952.81	30747.92	32539.71	34452.53

46. In terms of the above regulation, O&M Expenses for the period 2009-14, based on original project cost of ₹794080.88 lakh as on the cut-off date (31.3.2006) works out as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
24009.60	25382.95	26834.86	28369.81	29992.56

Interest on Working Capital

47. The Petitioner is entitled to claim interest on working capital in terms of Regulation 18 of the 2009 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:

(a) 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.

(b) Maintenance Spares

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

(c) 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. This has been considered in the working capital.

(d) Rate of interest on working capital

In terms of clause (3) of Regulation 18 of the tariff regulations, as amended, rate of interest on working capital shall be on normative basis and 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. In the present petition, the SBI PLR rate as on 1.4.2009 was 12.25% and the same has been considered for the purpose of tariff.

48. Necessary computations in support of interest on working capital are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	3601.44	3807.44	4025.23	4255.47	4498.88
O & M expenses	2000.80	2115.25	2236.24	2364.15	2499.38
Receivables	27162.67	27642.74	27506.97	27270.11	27770.01
Total	32764.91	33565.43	33768.43	33889.74	34768.27
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	**4013.70**	**4111.77**	**4136.63**	**4151.49**	**4259.11**

Annual Fixed Charges

49. Based on the above, the annual fixed charges approved for the generating station for the period 2009-14 is summarised as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	75559.50	79263.55	79972.38	81368.83	86359.15
Interest on Loan	16318.49	13179.48	9603.05	5134.07	1339.30
Depreciation	43074.75	43918.72	44494.87	44596.49	44669.93
Interest on Working Capital	4013.70	4111.77	4136.63	4151.49	4259.11
O & M Expenses	24009.60	25382.95	26834.86	28369.81	29992.56
Total	**162976.05**	**165856.47**	**165041.80**	**163620.69**	**166620.05**

NAPAF

50. The NAPAF of 82% is allowed for the period 2009-14 for the generating station in terms of Regulation 27(v) of the 2009 Tariff Regulations.

Design Energy

51. CEA vide its Letter No.3/88/2009/HP&I (1)/286 dated 7th July, 2009 has approved the annual Design Energy of the generating station as 6612 MU. The same has been considered for the purpose of tariff of the generating station. The month-wise details are as under:

Months	**(10 Daily)**	**Design Energy (MU)**
April	i(1st-10th)	92.55
	ii(11th-20th)	113.87
	iii(21st-30th)	146.61
May	i(1st-10th)	265.59
	ii(11th-20th)	222.91
	iii(21st-31st)	376.07
June	i(1st-10th)	301.80
	ii(11th-20th)	342.00
	iii(21st-30th)	342.00
July	i(1st-10th)	342.00
	ii(11th-20th)	342.00
	iii(21st-31st)	376.20
August	i(1st-10th)	342.00
	ii (11th-20th)	342.00
	iii (21st-31st)	376.20
September	I (1st-10th)	281.85
	ii (11th-20th)	212.75
	iii (21st-30th)	190.57
October	i (1st-10th)	171.31
	ii (11th-20th)	146.88
	iii (21st-31st)	147.02
November	i(1st-10th)	129.00
	ii(11th-20th)	114.29
	iii(21st-30th)	101.78
December	i(1st-10th)	79.67
	ii(11th-20th)	67.93
	iii(21st-31st)	71.46
January	i(1st-10th)	66.69
	ii(11th-20th)	61.83
	iii(21st-31st)	66.84
February	i(1st-10th)	52.10
	ii(11th-20th)	54.10
	iii(21st-29th)	41.13
March	i(1st-10th)	61.26
	ii(11th-20th)	79.75
	iii(21st-31st)	89.79
Total		6611.77
	Say	6612

52. The difference between the annual fixed charges already recovered by the petitioner and the annual fixed charges determined by this order shall be settled by the parties in terms of Regulation 6 (6) of the 2009 Tariff Regulations.

53. This order disposes of Petition No. 309/GT/2018.

Sd/-	*Sd/-*
(Dr. M.K.Iyer)	**(P.K.Pujari)**
Member	**Chairperson**