

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 154/GT/2013**

**Coram:**

**Shri V.S.Verma, Member**

**Shri M.Deena Dayalan, Member**

**Date of Hearing: 12.9.2013**

**Date of Order: 10.12.2013**

**In the matter of**

Revision of tariff of Rangit Hydroelectric Project (60 MW) for the period from 1.4.2009 to 31.3.2014- Truing up of tariff determined by Commission's order dated 30.11.2011 in Petition No. 121/2010 and Order dated 31.8.2012 in Review Petition No.3/2012.

**And**

**In the matter of**

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

**.....Petitioner**

**Vs**

1. West Bengal State Electricity Distribution Company Ltd,  
Bidyut Bhawan (8<sup>th</sup> Floor), Block-DJ, Sector-II  
Salt Lake, Kolkata-700091

2. Damodar Valley Corporation  
DVC Towers, VIP Road  
Kolkata-700054

3. Jharkhand State Electricity Board,  
Doranda, Ranchi  
Jharkhand – 834002

4. Bihar State Electricity Board,  
Vidyut Bhawan, Bailey Road,  
Patna-800021

5. Department of Power,  
Government of Sikkim  
Kazi Road, Gangtok-737101 (Sikkim)

**.....Respondents**

**Parties present:**

Shri Parag Saxena, NHPC  
Shri S.K. Meena, NHPC  
Shri J.K.Jha, NHPC  
Ms. Gayatri Devi, NHPC  
Shri R.B. Sharma, Advocate, JSEB



## ORDER

This petition has been filed by the petitioner, NHPC, for revision of tariff of Rangit Hydro electric power station (60 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014, in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. Petition No.121/2010 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 30.11.2011 had determined the annual fixed charges for the generating station for the said period. Subsequently, the annual fixed charges determined by order dated 30.11.2011 were revised by Commission's order dated 31.8.2012 in Review Petition No.3/2012. The annual fixed charges determined by order dated 31.8.2012 were as under:

	<i>(₹ in lakh)</i>				
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Return on Equity	3279.06	3284.27	3286.81	3288.39	3289.74
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	2512.19	2517.24	2519.70	881.33	882.47
Interest on Working Capital	261.58	269.85	278.47	253.37	262.94
O & M Expenses	2816.33	2977.42	3147.73	3327.78	3518.13
<b>Total</b>	<b>8869.15</b>	<b>9048.78</b>	<b>9232.72</b>	<b>7750.87</b>	<b>7953.29</b>

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. In addition, the petitioner has also claimed additional 1% Return on Equity (ROE) effective from 1.1.2013 for

storage type HEP as well as grossing up of ROE based on applicable corporate tax rate for the period 2009-12. Reply to the petition has been filed by the respondent JSEB and the petitioner has filed its rejoinder to the said reply.

5. 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	4387.98	4327.76	4283.59	3319.37	3478.92
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	2499.70	2494.85	2501.80	875.76	876.90
Interest on Working Capital	284.43	291.13	298.88	253.90	266.77
O & M Expenses	2816.33	2977.42	3147.73	3327.78	3518.13
<b>Total</b>	<b>9988.44</b>	<b>10091.15</b>	<b>10232.00</b>	<b>7776.81</b>	<b>8140.71</b>

### Capital Cost

6. 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.”*

7. The Commission had considered the capital cost of ₹49350.88 lakh as on 31.3.2009 in Petition No.176/2009 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 30.11.2011 in Petition No.121/2010. 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

8. 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."

9. The Commission by its order dated 30.11.2011 in Petition No.121/2010 had approved the following additional capital expenditure for 2009-14:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Admitted additional capital expenditure	137.53	61.30	35.60	24.60	27.00

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:

<i>(₹ in lakh)</i>			
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Additions as per books <b>(a)</b>	(-) 146.18	138.11	117.81
<b>Additions claimed (b)</b>			
Additions against works approved by Commission	102.77	25.25	54.43
Additions not projected earlier but incurred and claimed	84.09	37.26	43.09
<b>Total (b)</b>	<b>186.86</b>	<b>62.50</b>	<b>97.52</b>
<b>Deletions (c)</b>	<b>(-) 516.31</b>	<b>(-) 2.23</b>	<b>0.00</b>
<b>Net additions claimed (A)= (b)+(c)</b>	<b>(-) 329.45</b>	<b>60.28</b>	<b>97.52</b>
Exclusions in additions (incurred, capitalized in books but not to be claimed for tariff purpose) (d1)	192.75	103.69	35.66
Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose) (d2)	(-) 9.48	(-) 25.86	(-) 15.37
<b>Net value of exclusions (d=d1+d2)</b>	<b>183.27</b>	<b>77.83</b>	<b>20.29</b>
<b>Total (e)=(b)+(c)+(d)</b>	<b>(-) 146.18</b>	<b>138.11</b>	<b>117.81</b>
<b>Net Additional capitalization (A)</b>	<b>(-) 329.45</b>	<b>60.28</b>	<b>97.52</b>
<b>Less:</b> Un-discharged liabilities claimed in additional capital expenditure	0.00	0.00	0.00
<b>Add:</b> Liabilities discharged during the year out of the additional capital expenditure	0.00	0.00	0.00
<b>Less:</b> Assumed deletions	(-) 6.09	0.00	0.00
<b>Additional Capital Expenditure claimed</b>	<b>(-) 335.54</b>	<b>60.28</b>	<b>97.52</b>

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 30.11.2011 in Petition No. 121/2010 is as under:

<i>(₹ in lakh)</i>			
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Additional capital expenditure allowed in order dated 30.11.2011 in Petition No.121 /2010	137.53	61.30	35.60
<b>Additional capital expenditure claimed</b>	<b>102.77</b>	<b>25.25</b>	<b>54.43</b>

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**

(₹ in lakh)				
Sl. No.	Assets/works	Projected expenditure allowed by order dated 30.11.2011	Actual expenditure incurred/ claimed	Justification for admissibility for expenditure
1	Construction of new alternate road to dam complex from Rangit Nagar colony	40.00	67.63	The petitioner has submitted that the actual expenditure incurred on construction of new alternate road to Dam complex is higher as some of the works which were not predicted during finalization of estimates were also executed due to site requirements. Accordingly, the expenditure has been <b>allowed</b> against works already approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations.
2	Construction of store for Hydro Mechanical department and Earthing of petrol & oil station near store at dam site	5.00	4.82	The actual additional capital expenditure has been <b>allowed</b> for works already approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations.
3.	Purchase of pumps	26.00	15.25	Expenditure on replacement of pumps already approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations has been allowed. The old pumps have been de-capitalized during 2010-11. However, the de-capitalized amount of ₹5.46 lakh has been shifted to the year 2009-10 under assumed deletions.
4.	Optic fibre cable laying and networking system	10.00	9.27	The expenditure has already been approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations. The actual additional capital expenditure has been <b>allowed</b> taking into consideration the requirement for effective and reliable communication from administration building to the

				remote sites of the project.
5.	Security surveillance, communication & PA system	4.20	4.40	Expenditure towards the installation of LAN communication system has been <b>allowed</b> against the already approved works/assets under Regulation 9(2) (iv) of the 2009 Tariff Regulations.
6.	Digital camera	0.80	0.35	Actual additional capital expenditure against already approved works under Regulation 9(2) (iv) has been <b>allowed</b>
7.	Safety measure equipment	2.00	1.05	Expenditure on heavy duty fume extractor against already approved works under Regulation 9(2) (iv) has been <b>allowed</b> .
	<b>Total</b>	<b>88.00</b>	<b>102.77</b>	
	<b>Total allowed</b>			<b>102.77</b>

14. It is observed from the above that as against the projected expenditure of ₹137.53 lakh allowed by Commission for the year 2009-10, the petitioner has claimed capitalization of works/assets for the projected expenditure of ₹102.77 lakh only during 2009-10. While the same has been allowed, the remaining expenditure on assets/works have been claimed/would be claimed by the petitioner during the ensuing years.

### 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	Purchase of LT panel for dam	8.00	1.24	Actual additional capital expenditure against already approved works under Regulation 9(2) (iv) has been <b>allowed</b>
2	Purchase of different type of pumps against replacement	8.00	6.37	Expenditure on replacement of pumps already approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations has been <b>allowed</b> . However, the de-capitalized value of the old asset has been included under 'deletions' for 2010-11
3.	Safety measure equipment including firefighting equipment, Security surveillance, &	10.00	11.01	Expenditure towards the purchase of minor assets like sirens, metal detectors, portable oil tester, digital

	PA system			multimeter etc, has <b>not been allowed.</b>
	<b>Total</b>	<b>26.00</b>	<b>18.62</b>	
	<b>Total allowed</b>	<b>7.61</b>		

15. It is observed from the above that as against the projected expenditure of ₹61.30 lakh allowed by Commission for the year 2010-11, the petitioner has claimed capitalization of works/assets for the projected expenditure of ₹18.62 lakh during 2010-11 and the remaining expenditure on assets/works have been claimed/would be claimed by the petitioner during the ensuing years.

#### Works allowed in 2009-10 but capitalized during 2010-11

SI.No.	Assets/works	Projected expenditure allowed by order dated 12.7.2011	Actual expenditure incurred/claimed	Justification for admissibility of expenditure
1.	Purchase of different type of pumps against replacement	26.00*	6.37	Expenditure on replacement of pumps already approved under Regulation 9(2) (iv) of the 2009 Tariff Regulations has been <b>allowed</b> . However, the de-capitalized value of old asset has been included in 'deletions' for 2010-11
2.	Digital Camera	0.35	0.25	Expenditure on already approved works/assets, has been <b>allowed</b> under Regulation 9(2)(iv).
	<b>Total</b>	<b>0.35</b>	<b>6.62</b>	
	<b>Total allowed (2010-11)</b>	<b>14.23 (6.62 +7.61)</b>		

\* Out of the projected expenditure of ₹26.00 lakh allowed during 2009-10 an expenditure of ₹15.25 lakh has only been incurred on actual basis which has been allowed at Serial No.3 of the table under para 13 above.

#### 2011-12

(₹in lakh)				
SI.No	Assets/works	Projected expenditure allowed by order dated 12.7.2011	Actual expenditure incurred/claimed	Justification for admissibility of expenditure
1	Purchase of buses against replacement of	24.00	23.84	Purchase of new buses against replacement of old



	old buses			buses has been <b>allowed</b> against already approved works /assets under Regulation 9(2)(iv). However, the de-capitalization of old buses, has been considered under 'assumed deletions'
2	Safety measure equipment & firefighting equipment	2.00	1.08	Expenditure towards the purchase of minor assets like dial gauge, weighing machine etc. has <b>not been allowed</b> .
<b>Works allowed in 2010-11 but capitalized in 2011-12</b>				
1.	Construction of solid waste treatment plant for residential colony at Rangit Nagar	30.00	29.50	Expenditure on already approved works /assets, has been <b>allowed</b> under Regulation 9(2)(iv).
	<b>Total</b>	<b>56.00</b>	<b>54.42.34</b>	
	<b>Total allowed</b>		<b>53.34</b>	

**Capital Expenditure 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	Canteen room at PH	1.79	Expenditure <b>allowed</b> under Regulation 9(2)(iv) keeping in view that the asset is for the benefits of employees of the petitioner company working in remote areas of the project
2	Room over roof of switchyard control room	2.02	Since the asset is required for efficient operation of the generating station, the expenditure is <b>allowed</b> under Regulation 9(2)(iv)
3	Air circuit breaker (ACB)	6.30	Capitalization of expenditure on ACBs has been <b>allowed</b> under Regulation 9(2)(iv) against replacement of the old asset. However, the de-capitalization has been considered under 'assumed deletions'

4	Static balancing arrangement for runner of turbine	6.80	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) keeping in view that proper balancing arrangement of runner is required after repairs.
5	Pan evaporator & sun shine recorder	0.50	Expenditure has not been <b>allowed</b> as the assets are minor in nature.
6	Universal Relay Kit	27.00	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) as a new asset required for testing of digital relays is required. It is observed that old kit has been retained at the power station for testing of electromagnetic relays.
7	LAN, Data & Voice connectivity system	31.54	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) as modernization of plant is considered necessary for efficient operation of the generating station.
8	Projectors, Audio visual equipment	3.56	Expenditure has not been <b>allowed</b> as the assets are minor in nature.
9	Digital water level recorder, particle size analyzer with oven and digital balance	4.48	
10	Purchase of hospital equipments	0.08	Expenditure <b>allowed</b> under Regulation 9(2)(iv) keeping in view that the asset is for the benefits of employees of the petitioner company working in remote areas of the project
<b>Total</b>		<b>84.09</b>	
<b>Total allowed</b>			<b>75.53</b>

### 2010-11

Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1.	Parapet, slope stabilization of new alternate road to dam site	8.41	Expenditure for ₹67.43 lakh has already been allowed during 2009-10 against the approved cost of ₹40 lakh. Hence, <b>not allowed</b> . The expenditure on balance works could be considered under O&M expenses.
2.	Automation of Radial gates at dam site	10.67	Since the asset is required for efficient operation of the generating station, the expenditure is <b>allowed</b> under Regulation 9(2)(iv)
3.	Outdoor type floor mounting Electrical control panel	7.21	Replacement of control panel has been <b>allowed</b> under Regulation 9(2)(iv). However, the de-

			capitalization has been considered under 'assumed deletions'
4.	14,17&24 port Gigabit Stackable management switches +server rack+8 port KVM switch etc. for ERP implementation	6.29	Expenditure has <b>not been allowed</b> as the assets are in the nature of O&M.
5.	Hospital equipment	4.68	Expenditure <b>allowed</b> under Regulation 9(2)(iv) keeping in view that the asset is for the benefits of employees of the petitioner company working in remote areas of the project
	<b>Total claimed</b>	<b>37.26</b>	
	<b>Total allowed</b>		

### 2011-12

Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1.	Variable Auto Transformer & LT panel	13.78	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) towards efficient, effective and reliable distribution system within the generating station.
2.	Integral floodlight Luminaries	2.79	Expenditure has not been <b>allowed</b> as the assets are minor in nature.
3.	Server, EPABX & Network storage system	11.07	Expenditure has <b>not been allowed</b> as the assets are minor in nature. Moreover, the projected expenditure were earlier disallowed by the Commission
4.	OFC Ring Network at Rangit Nagar	9.36	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) as the need based expenditure for modernization of the plant has been considered necessary for the efficient operation of the generating station.
5.	Hospital equipment	3.48	Expenditure has been <b>allowed</b> under Regulation 9(2)(iv) keeping in view that the asset is for the benefits of employees of the petitioner company working in remote areas of the project
6.	Split type Air conditioner	2.61	<b>Expenditure has not been allowed</b> as the asset is of minor nature and is not permissible after the cut-off date.
	<b>Total claimed</b>	<b>43.09</b>	
	<b>Total allowed</b>		<b>26.62</b>

## **Deletions**

16. The following year-wise expenditure de-capitalized by the petitioner on the ground of replacement of assets or that these assets have become unserviceable/obsolete, etc. The de-capitalized assets include assets de-capitalized against replacement of assets like cars, motorcycle, pumps etc.

<i>(₹ in lakh)</i>			
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Deletions	(-) 516.31	(-) 2.23	0.00

17. 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. Accordingly, the year-wise expenditure considered as deletions for the purpose of tariff is as under:

<i>(₹ in lakh)</i>			
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
<b>Deletions</b>	(-) 516.31	(-) 2.23	0.00

## **Exclusions in additions (incurred, capitalized in books but not considered for tariff purpose)**

18. The following year-wise expenditure has been incurred on replacement of minor assets, purchase of capital spares, purchase of miscellaneous assets, additions on account of inter-unit transfer etc.

<i>(₹ in lakh)</i>			
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Exclusions in additions (incurred, capitalized in books but not claimed for tariff purpose)	192.75	103.69	35.66

19. As capitalization of expenditure on procurement /replacement of minor assets and procurement of capital spares after the cut-off date are not admissible for the purpose of tariff as per the provisions of the 2009 Tariff Regulations, 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)**

20. The petitioner has de-capitalized following expenditure in books of accounts towards minor assets like pulling & lifting machine, angle grinder, aqua guard, drill machine, weighing scale, computers, club equipment, vacuum cleaner, etc. on the ground that these have become unserviceable/obsolete and also deletion of minor assets on account of inter-unit transfers.

(₹in lakh)

	2009-10	2010-11	2011-12
Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)	(-) 9.48	(-) 25.86	(-) 15.37

21. 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 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"*

22. The respondent JSEB 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 dated 30.9.2013 has clarified as under:

*"Proviso Under Regulation 7(1)(c) is for the assets which are allowed by CERC under Regulation-7,8&9 of CERC Tariff Regulations,2009. This can be understood from the combined reading of Regulation 7,8 &9 which are reproduced below:*

*Xxxxxxxxxx*

*Secondly, there are no separate regulations for capitalization and de-capitalization and what is applicable for capitalization is applicable for de-capitalization. The minor assets, tools and tackles, furniture & fixtures etc. are not allowed for the purpose of tariff and under the proviso to Regulation 9(2) and therefore cannot be taken out from the capital cost for the purpose of tariff under provision of Regulation 7(1)"*

23. 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. Accordingly, the following amounts have been excluded/ignored under this head:

(₹ in lakh)

	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Exclusions in deletions	(-) 9.48	(-) 25.86	(-) 15.37

### **Liabilities discharged (related to un-discharged liabilities as on 31.3.2009)**

24. There is no additional capital expenditure on account of discharge of liabilities considered for the purpose of tariff.

### **Assumed deletions**

25. 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:

	<i>(₹ in lakh)</i>		
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Assumed deletions	(-) 6.09	0.00	0.00

26. It is observed that out of the assumed deletion of (-) ₹6.09 lakh indicated by the petitioner for the year 2009-10, an amount of (-) ₹5.46 lakh represents the gross value of old pumps against capitalization of ₹15.25 lakh towards purchase of new pumps during 2009-10. However, in books of accounts, the expenditure on old pumps have been de-capitalized during 2010-11. In view of the fact that additional capital expenditure on purchase of new pumps has been allowed during 2009-10, the shifting of the de-capitalization amount from the year 2010-11 to 2009-10 is found to be in order and is accordingly allowed.

27. The balance amount of (-) ₹0.63 lakh (6.09-5.46) represents the gross value of old Air Circuit Breaker (ACB) against the admitted capitalization of ₹6.30 lakh for new ACB during 2009-10. However, the old ACB asset has not been de-capitalized in the books of accounts. The petitioner has submitted that the gross value of the old asset is not available as the ACB

was supplied as part of a package during the commissioning of the generating station. As such, in the absence of gross value of the asset, the petitioner has indicated the de-capitalized value as 10% value of the cost of the new asset in terms of the consistent methodology adopted by the Commission in respect of old generating stations where gross value of old asset was not available. However, this generating station commissioned during 2000 being relatively new, the de-capitalized value to the tune of 63% of the cost of the new asset is considered reasonable based on the de-escalation rate of 5% considered by the petitioner in respect of tariff of Chamera-I hydroelectric project of the petitioner in Petition No. 125/GT/2013. In our view, the de-escalation rate of 5% considered is reasonable taking in view the average O&M escalation rate specified by the Commission for the period 2001-04 and 2004-09. Accordingly, the de-capitalized value of (-) ₹3.97 lakh has been considered as 'assumed deletion' against the de-capitalized value of (-) ₹0.63 lakh as provided by the petitioner.

28. As regards additional capitalization of ₹7.21 lakh allowed during 2010-11 towards the replacement of outdoor type floor mounting electrical control panel, the de-capitalized value of the old asset has not been furnished by the petitioner either in 'deletions' or under 'assumed deletions'. In response to the directions of the Commission vide letter dated 4.6.2013, the petitioner vide its affidavit dated 28.6.2013 has clarified that the gross value of the old asset was not available as this asset was supplied as part of a complete package. Accordingly, the petitioner has suggested that 10% of the cost of new asset may be considered as the gross value of the old asset. However, this generating station being relatively new, the de-capitalized value to the tune of 60% of the cost of new asset is considered reasonable based on the de-escalation rate of 5% considered by the petitioner in respect of tariff of Chamera-I hydroelectric project of the petitioner in Petition No. 125/GT/2013. Accordingly, the de-capitalized value of (-) ₹4.33 lakh has been considered as 'assumed deletion' against the de-capitalized value of (-) ₹0.72 lakh as proposed by the petitioner.



29. As regards the additional capitalization of ₹.23.85 lakh towards the 'Purchase of buses' allowed during 2011-12 as against the approved expenditure of ₹24.00 lakh in Petition No.121/2010, it is observed that the petitioner, instead of de-capitalization of old buses has indicated the de-capitalized value of cars, motorcycle and a Gypsy vehicle totaling (-) ₹4.17 lakh, which has been included in the list of deletions for 2009-10. This in our view is not acceptable. While claiming the projected additional capital expenditure of ₹24.00 lakh in Petition No.121/2010, the petitioner had indicated the de-capitalized amount of (-) ₹12.00 lakh towards old buses. As such, the amount of (-) ₹12.00 lakh has been considered as 'assumed deletion' during 2010-11 against replacement of buses.

30. 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	(-) 9.43	(-) 4.33	(-)12.00

31. 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
<b>Additions</b>			
Additions against works already approved by CERC (a1)	102.77	14.23	53.34
Additions not projected earlier but incurred and claimed (a 2)	75.53	22.56	26.62
<b>Total additions allowed (a)=(a1)+(a2)</b>	<b>178.30</b>	<b>36.79</b>	<b>79.96</b>
Deletions allowed (b)	(-) 516.31	(-) 2.23	0.00
<b>Total additional capital expenditure allowed before un-discharged/assumed deletion/ discharged liabilities (c)=(a)+(b)</b>	<b>(-)338.01</b>	<b>34.56</b>	<b>79.96</b>
<b>Less:</b> Un-discharged liabilities in the allowed additional capital expenditure	0.00	0.00	0.00
<b>Add:</b> Liabilities discharged out of additional capital expenditure	0.00	0.00	0.00
<b>Add:</b> Liabilities discharged during the year (related to un-discharged liability as on 31.3.2009)	0.00	0.00	0.00
<b>Add: Assumed deletions</b>	(-) 9.43	(-) 4.33	(-)12.00
<b>Additional Capital Expenditure allowed</b>	<b>(-) 347.44</b>	<b>30.23</b>	<b>67.96</b>

### Projected Additional Capital Expenditure for 2012-14

32. The projected additional capital expenditure for the years 2012-13 and 2013-14 as allowed by the Commission vide order dated 30.11.2011 in Petition No. 121/2010 has not been revised by the petitioner.

### Additional capital expenditure allowed for 2009-14

33. 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	
	<b>Addition</b>					
1	Addition against work already approved	102.77	14.23	53.34	28.00	32.00
2	Addition not projected earlier but incurred and claimed	75.53	22.56	26.62	0.00	0.00
3	<b>Total Addition (1+2)</b>	<b>178.30</b>	<b>36.79</b>	<b>79.96</b>	<b>28.00</b>	<b>32.00</b>
	<b>Deletion</b>					
4	Deletion allowed	516.31	2.23	0.00	3.40	5.00
5	Exclusion in deletion (not allowed)	0.00	0.00	0.00	0.00	0.00
6	Assumed Deletion	9.43	4.33	12.00	0.00	0.00
7	<b>Total Deletion (4+5+6)</b>	<b>525.74</b>	<b>6.56</b>	<b>12.00</b>	<b>3.40</b>	<b>5.00</b>
8	Total additional capital expenditure allowed before adjustment of discharge/un-discharge of liabilities <b>(3-7)</b>	<b>(-) 347.44</b>	<b>30.23</b>	<b>67.96</b>	<b>24.60</b>	<b>27.00</b>
9	Less: Un-discharged liabilities in the allowed additional capital expenditure	0.00	0.00	0.00	0.00	0.00
10	Add: Liabilities discharged during the year out of additional capital expenditure during 2009-12	0.00	0.00	0.00	0.00	0.00
11	Add: Liabilities discharged during the year (related to un-discharged liabilities as on 31.3.2009)	0.00	0.00	0.00	0.00	0.00
12	<b>Additional Capital Expenditure allowed (8-9+10+11)</b>	<b>(-) 347.44</b>	<b>30.23</b>	<b>67.96</b>	<b>24.60</b>	<b>27.00</b>

### Capital Cost for 2009-14

34. 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	49350.88	49003.44	49033.67	49101.63	49126.23
Additional Capitalization allowed for the purpose of tariff	(-) 347.44	30.23	67.96	24.60	27.00
<b>Capital Cost as on 31 March of the financial year</b>	<b>49003.44</b>	<b>49033.67</b>	<b>49101.63</b>	<b>49126.23</b>	<b>49153.23</b>

## Return on Equity

35. In terms of Regulation 15(3) of the 2009 Tariff Regulations, the petitioner has considered pre-tax rate of return on equity @23.481% for 2009-10, 23.210% for 2010-11, and 22.944% for 2011-12 after grossing up the base rate with corporate tax rate for the respective years on the normative equity after accounting for the admitted additional capital expenditure. The same has been considered. 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	18737.70	18633.47	18642.54	18662.92	18670.30
Addition due to Additional Capitalization	(-) 104.23	9.07	20.39	7.38	8.10
Closing Equity	18633.47	18642.54	18662.92	18670.30	18678.40
Average Equity	18685.58	18638.00	18652.73	18666.61	18674.35
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%
<b>Return on Equity</b>	<b>4,387.56</b>	<b>4,325.88</b>	<b>4,279.68</b>	<b>3,315.70</b>	<b>3,474.92</b>

Note: - The base rate has been changed from 15.5% to 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2012, dated 31.12.2012. The rate of ROE (pre-tax) for the year 2012-13 (17.763%) is the composite rate calculated for the year.

## Interest on loan

36. 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

37. The date of commercial operation of the generating station is 15.2.2000. Since the generating station has completed 12 years of operation as on 15.2.2012, the weighted average rate of depreciation of 5.082%, 5.087% and 5.093% calculated as per provisions of the 2009 Tariff Regulations, has been considered for the calculation of depreciation during

the years 2009-10, 2010-11 and 2011-12 respectively. The remaining depreciable value has been spread over the balance useful life of the project from the year 2012-13 to 2013-14. Assets amounting ₹525.74 lakh, ₹6.56 lakh, ₹12.00 lakh, ₹3.40 lakh and ₹5.00 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	49350.88	49003.44	49033.67	49101.63	49126.23
Additional capital expenditure during 2009-14	(-) 347.44	30.23	67.96	24.60	27.00
Closing gross block	49003.44	49033.67	49101.63	49126.23	49153.23
Average gross block	49177.16	49018.56	49067.65	49113.93	49139.73
Depreciable Value	43990.55	43847.81	43891.99	43933.65	43956.87
Balance useful life of the asset	25.9	24.9	23.9	22.9	21.9
Remaining Depreciable Value	27313.26	24874.67	22428.25	19976.84	19128.37
<b>Depreciation</b>	<b>2499.40</b>	<b>2493.48</b>	<b>2498.92</b>	<b>873.41</b>	<b>874.55</b>

### O&M Expenses

38. The O&M expenses allowed by Commission's order dated 31.8.2012 in Review Petition No. 3/2012 as under has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	2816.33	2977.42	3147.73	3327.78	3518.13

### Interest on Working Capital

39. 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.*

40. 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 1<sup>st</sup> 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.

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

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	422.45	446.61	472.16	499.17	527.72
O & M expenses	234.69	248.12	262.31	277.32	293.18
Receivables	1664.62	1681.31	1704.18	1295.11	1355.71
Total	2321.76	2376.04	2438.65	2071.59	2176.60
<b>Interest on Working Capital @12.25%</b>	<b>284.42</b>	<b>291.06</b>	<b>298.73</b>	<b>253.77</b>	<b>266.63</b>

#### Annual Fixed charges for 2009-14

42. 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	4387.56	4325.88	4279.68	3315.70	3474.92
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	2499.40	2493.48	2498.92	873.41	874.55
Interest on Working Capital	284.42	291.06	298.73	253.77	266.63
O & M Expenses	2816.33	2977.42	3147.73	3327.78	3518.13
<b>Total</b>	<b>9987.71</b>	<b>10087.84</b>	<b>10225.06</b>	<b>7770.66</b>	<b>8134.24</b>

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

44. The difference in the annual fixed charges determined by order dated 30.11.2011/ 31.8.2012 and those determined by this order shall be adjusted in accordance with the relevant provisions of Regulation 6 (6) of the 2009 Tariff Regulations.

45. Petition No. 154/GT/2013 is disposed of in terms of the above.

**Sd/-**  
**[M.Deena Dayalan]**  
**Member**

**Sd/-**  
**[V. S. Verma]**  
**Member**