

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 310/GT/2018

Coram:

Shri P.K.Pujari, Chairperson

Dr. M.K. Iyer, Member

Date of Order: 9th April, 2019

In the matter of

Revision of annual fixed charges of Nathpa Jhakri Hydro Power Station (1500 MW) for the period from 1.4.2004 to 31.3.2009

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,
Shakti Bhawan, Sector VI,
Panchkula - 134019,

3. Delhi Transco Ltd,
Shakthi 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,
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.



Background

3. Petition No.184/2004 was filed by the Petitioner for approval of provisional tariff for the generating station for the period 1.4.2004 to 31.3.2009 in terms of the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 ('the 2004 Tariff Regulations') applicable for the period from 1.4.2004 to 31.3.2009 and the Commission vide its order dated 17.6.2005 allowed provisional tariff @ ₹2.35/kWh (translated into two part tariff) for the years 2004-05 and 2005-06, based on consensus reached between the Petitioner and the Respondent beneficiaries of Northern Region. Accordingly, the annual fixed charges of ₹133525 lakh and ₹141483 lakh were provisionally allowed for the years 2004-05 and 2005-06 respectively. Subsequently, the Commission approved the continuation of the said provisional tariff up to 31.3.2007. Thereafter, the Commission vide its order dated 5.9.2007 in I.A. No.13/2007 extended the continuation of the said provisional tariff till 31.3.2008 and approved the annual fixed charges of ₹127812 lakh for 2007-08 on the basis of RCE-II approved cost of ₹766631 lakh.

4. Subsequently, Petition No. 20/2008 was filed by the Petitioner for approval of final tariff of the generating station for the period 2004-09, based on actual capitalisation for the period 2004-07 and projected additional capital expenditure for 2007-09. The Commission by its order dated 31.12.2008, while granting liberty to the Petitioner, approved the annual fixed charges of the generating station, without considering the projected capital expenditure for the period 2007-09, based on the capital cost of ₹501786.89 lakh as on 31.3.2004, as under:

(₹ in lakh)

	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Interest on Loan	2153	942	30413	32321	27847	22911	18134
Interest on Working Capital	17	3	2307	3403	3388	3390	3379



Depreciation	1168	510	16725	19704	19797	19930	19930
Advance Against Depreciation	0	0	5387	19879	19621	20024	20024
Return on Equity	3282	1437	46401	55347	55410	55936	55936
O & M Expenses	703	308	9771	12304	12797	13308	13841
Total	7322	3200	111003	142958	138860	135499	131243

5. Petition No. 27/2011 was filed by the Petitioner for revision of annual fixed charges considering the impact of the additional capital expenditure incurred for 2004-09. The Commission by order dated 16.1.2013 disposed of the said petition granting liberty to the Petitioner to approach the Commission for capitalisation of expenditure after RCE-IV is approved by the Central Government as under:

“11.....In our view, the Petitioner should approach the Commission for capitalisation of additional expenditure included in the present petition after approval of RCE-IV in accordance with the provisions of the 2009 Tariff Regulations, which is consistent with our order dated 31.12.2008 granting liberty to the Petitioner to approach the Commission in accordance with the prevailing regulations. Though the order in the petition was reserved on the issue of maintainability, we consider it fit to dispose of this petition finally, since all expenditure claimed in the present petition have been included in RCE-IV, and there is no claim left in the petition for consideration and approval. The Petitioner is however granted liberty to approach the Commission for capitalisation of expenditure after RCE-IV is approved by Central Government. The staff of the Commission is directed to process the tariff petition filed by the Petitioner for the period 2009-14 for disposal at the earliest.”

6. Aggrieved by the said order, the Petitioner filed Review Petition (Petition No. 1/RP/2013) on various issues and the Commission by its order dated 22.8.2013 disposed of the same. As regards the regulations applicable for consideration of actual capital expenditure for the generating station for the period 2004-09, the Commission in the said order had observed as under:

"14. Accordingly, we are of the considered view that the claim of the Petitioner for actual additional capital expenditure incurred during the period 2004-09 is to be governed by the 2004 Tariff Regulations, and not the 2009 Tariff Regulations. We direct accordingly. However, since RCE-IV is yet to be approved by the Central Government, the revision of tariff of the generating station for 2004-09 shall be considered by the Commission after submission of the approved RCE by the Petitioner, through an appropriate application. However, the Petitioner shall not be entitled for any carrying costs till the approval of RCE-IV by the Central Government"



7. Thereafter, 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 and the Commission by its order dated 20.6.2014 determined the tariff of the generating station for 2009-14 based on the approved RCE-III cost of ₹818771.30 lakh including IDC of ₹195181 lakh as on 31.3.2009 as against the capital cost of ₹845485.00 lakh claimed by the Petitioner as on 31.3.2009. It was also clarified in the said order that the tariff of the generating station for 2004-09 shall be revised after submission of approved RCE-IV by the Petitioner, through an appropriate application.

8. Subsequently, Petition No. 262/GT/2014 was filed by the Petitioner for revision of tariff of the generating station for the period 2009-14 based on truing up exercise and Petition No. 261/GT/2014 for determination of tariff of the generating station for the period 2014-19 in accordance with the provisions of the 2014 Tariff Regulations. During the pendency of these petitions, the Petitioner filed Petition No. 8/GT/2016 for revision of tariff of the generating station for the period 2004-09 (in terms of the order dated 22.8.2013 in Petition No. 1/RP/2013) based on the RCE approved by the Board of the Petitioner Company for ₹8575.28 crore. However, the Commission by a common order dated 15.3.2017 disposed of these Petitions as under:

“12.....we are inclined to dispose of this petition, with liberty to the Petitioner to approach the Commission with fresh tariff petition in respect of the generating station after approval of RCE-IV by the Central Government. We direct accordingly. We also direct that the annual fixed charges determined by order dated 20.6.2014 in Petition No.168/GT/2013 shall however continue to be in operation till the tariff of the generating station for the periods 2004-09, 2009-14 and 2014-19 are determined based on the approved RCE..”

9. Thereafter, the Commission by its order dated 18.5.2017 in Petition No. 261/GT/2014, suo motu modified the Commission's order dated 15.3.2017 limiting the claim for the respective years (i.e ₹1368.83 crore in 2017-18 and ₹1395.66 crore in



2018-19) subject to adjustment after determination of tariff based on the approved RCE-IV.

Present Petition

10. As stated, the Commission in the aforesaid orders had granted liberty to the Petitioner to approach the Commission with fresh tariff petition in respect of the generating station after approval of RCE-IV by the Central Government. In terms of the liberty granted, the Petitioner, after taking into consideration the Revised Cost Estimate (RCE-IV) approved by the Ministry of Power, GOI vide its letter dated 21.8.2018, has filed this Petition for revision of annual fixed charges of the generating station for the period 2004-09 in terms of the provisions of the 2004 Tariff Regulations. Based on this, the capital cost claimed by the Petitioner for the period 2004-09 is as under:

	1.4.2004 (4 units)	6.5.2004 (5 units)	18.5.2004 (station COD)	1.4.2005	1.4.2006	1.4.2007	1.4.2008	31.3.09
Capital cost as per books (a)	501786.89	621114.61	756242.63	797904.06	796969.90	815270.91	838496 (839000 less 504 for assets not to be included in capital cost)	854729 (855233 less 504 for assets not to be included in capital cost)
Less: FERV to be claimed separately		589.80	1263.80	2658.66	1092.52	3111.64	3111.64	4024.65
Less: un-discharged liability	8789.41	10752.72	11983.16	9856.58	11675.29	17239.37	32321.11	26989.96
Add: Interest/ OFC allowed in Petition No.20/2008		10255.64	10386.19	10386.19	10386.19	10386.19	10386.19	10386.19
Add. Advances on settled claims	9034.37	11631.60	15544.66	18096.78	18511.34	19649.51	19649.51	19655.18
Add: Advances	233.25	291.56	349.87	349.87	354.62	557.10	757.20	1357.20



paid under CAT plan claims charged to P&L								
Add: Advances on settled claims charged to P&L	104.49	130.62	156.74	156.74	156.74	156.74	156.74	156.74
Add: Expenditure on interest charged to revenue						1.42	23.76	4370.4
Add: Reversal of settled claims on capitalisation		(-) 14.14	(-) 14.14	(-) 8886.62	(-) 8983.74	(-)11825.42	(-) 14321.86	(-) 16710.97
Add: Advances on unsettled claims	2445.19	3056.48	3667.78	5423.31	5421.07	5411.23	5400.70	2556.70
Net block for the purpose of tariff	504814.78	635123.87	773086.78	810915.10	810049.31	819256.66	825114.83	845485.37

11. Accordingly, the annual fixed charges claimed by the Petitioner in the present Petition are as follows:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004 (4 Units)	6.5.2004 to 17.5.2004 (5 Units)	18.5.2004 to 31.3.2005 (all 6 Units)	2005-06	2006-07	2007-08	2008-09
Interest on Loan	2508.65	1062.52	30892.86	33002.46	28242.34	23471.76	19423.82
Interest on Working Capital	200.44	85.58	2738.29	3490.40	3476.50	3481.01	3502.06
Depreciation	1204.74	518.30	17291.11	20164.42	20166.03	20363.01	20671.61
Advance Against Depreciation	0.00	0.00	5555.13	20471.95	20383.76	20831.30	20932.77
Return on Equity	3825.82	1820.41	48245.94	56637.20	56830.55	57146.93	57697.73
O & M Expenses	726.10	313.21	10103.08	12650.28	13156.29	13682.54	14229.84
Total	8465.75	3800.02	114826.41	146416.71	142255.47	138976.55	136457.83



Maintainability

12. The Respondent, BRPL vide its affidavit dated 14.11.2018 has raised preliminary objection as to the maintainability of this Petition. The Respondent has submitted that the project was commissioned during the year 2004 and the Petitioner took fourteen years in getting the RCE-IV from the Govt. of India for which the Petitioner is only responsible. Pointing out to the liberty granted by the Commission to the Petitioner to approach the Commission for revision of tariff, the Respondent has submitted that such a judicial discretion cannot be allowed for an unlimited period of time for the claim of the Petitioner. The Respondent has further submitted that the question of retrospective revision of tariff especially when the tariff period of 2004-09 is over, may be considered in the light of the judgment dated 3.3.2009 of the Hon'ble Supreme Court in Civil Appeal No.1110/2007. Accordingly, it has submitted that the present Petition cannot be entertained by this Commission and the Respondents cannot absorb the additional cost arising out of such move by the Petitioner. In response, the Petitioner has submitted that the present petition has been filed in terms of the orders of the Commission granting liberty to the Petitioner to approach the Commission after RCE-IV is approved by the Central Government. Accordingly, it has stated that the petition is maintainable.

13. The submissions have been considered. The Respondent, BRPL has relied on the judgment of the Hon'ble Supreme Court in Uttar Pradesh Power Corporation Limited vs. NTPC & ors [(2009) 6 SCC 235] to argue that retrospective revision of tariff cannot be permitted in the present case. In our view, the present case is distinguishable from the case dealt with by the Hon'ble Supreme Court in the said judgment. In that case, the Hon'ble Supreme Court had held that NTPC had not approached the Commission for revision of tariff on account of the implementation of the wage revision even



though it was aware of the implementation of the pay revision on the date of filing the application and accordingly the said relief was denied to NTPC. This is not so in the present case of the Petitioner. In this case, the Petitioner had approached the Commission by filing regular tariff petitions for the periods 2004-09, 2009-14 and 2014-19 claiming the impact of the expenditure incurred. However, the Commission, taking note of the fact that the expenditure claimed was included in the RCE-IV proposal pending before the Central Government, disposed of the petitions, granting liberty to the Petitioner to file appropriate application for revision of tariff, after approval of RCE-IV by the Central Government. Based on this liberty, the present petition has been filed by the Petitioner. Accordingly, we hold that this petition is maintainable.

14. It is observed that during the proceedings in Petition No. 27/2011 filed by the Petitioner, the Respondent, BRPL referred to the above judgment of the Hon'ble Supreme Court and had objected to the retrospective revision of tariff of the generating station. The Commission however by order dated 16.1.2013, permitted the Petitioner to approach the Commission for revision of tariff, after approval of RCE-IV, thereby rejecting the submissions of the Respondent. We notice that the Respondent, BRPL was fully aware that the tariff of the generating station would be revised after approval of RCE-IV by the Central Government. This is evident from the submissions of the Respondent, BRPL in Review Petition No. 1/RP/2013 (in Petition No. 27/2011) and in Petition No.8/GT/2016 wherein it had contended that the Petitioner can approach the Commission in respect of its claims only after the approval of RCE-IV by the Central Government. The Respondent, BRPL cannot *approve and reprobate*, in order to deny the legitimate claims of the Petitioner.



15. It is evident from the Commission's orders referred above that all parties, including the Respondent, BRPL were aware that the Commission is seized with the issue and appropriate orders revising the tariff of this generating station would follow in due course of time, after approval of RCE-IV by the Central Government and filing of petition thereof by the Petitioner. In our view, tariff determination is a continuous process and legitimate expenditure cannot be denied on the ground that it will burden the new consumers with the past dues. The power of the Commission to revise, alter or amend the tariff can be traced to Regulation 92 of the CERC (Conduct of Business) Regulations, 1999 which provides that the Commission on its own on being satisfied that there is a need to review the tariff of the utility shall initiate the process of revision in accordance with the procedure as prescribed. In this regard, the Hon'ble Supreme Court in the aforesaid judgment in UPPCL vs NTPC case, while indicating that making of tariff is a continuous process, has observed that Regulation 92 does not restrict the power of the Central Commission to make additions or alterations in tariff. The relevant portion of the said judgment is extracted hereunder:

“36....Regulations 92 and 94, in our opinion, do not restrict the power of the Central Commission to make additions or alterations in the tariff. Making of a tariff is a continuous process. It can be amended or altered by the Central Commission, if any occasion arises therefor. The said power can be exercised not only on an application filed by the generating companies but by the Commission also on its own motion.”

Accordingly, we reject the contentions of the Respondent, BRPL and hold that the Petition filed by the Petitioner in terms of the liberty granted by this Commission, is maintainable.

16. Before proceeding, certain inadvertent errors noticed in the Commission's order dated 31.12.2008 in Petition No. 20/2008, which need correction through the instant order, are as follows:

- (a) The difference between the capital expenditure as on COD of the different units was treated as additional capital expenditure for the previous periods.



This is being rectified and the additional capital expenditure is permitted only after COD of the generating station.

- (b) Tariff on cost of assets in use, paid in cash, but not capitalised (advances paid to contractors) was inadvertently allowed. Since the provisions of the 2004 Tariff Regulations do not permit recovery of tariff before capitalisation of the expenditure, the advances paid to the contractors on settled / un-settled claims along with reversal of advances on capitalization are being disallowed.

Capital cost as on 1.4.2004 (for four units)

17. The Petitioner has claimed prorated additional expenditure of ₹104.50 lakh ($156.74 \times 4/6$), against the payment of ₹156.74 lakh made in cash to various government agencies for various studies during the construction period. The Petitioner has submitted that the said amount could not be capitalised for want of utilization certificate from these government agencies and accordingly booked to P&L as per accounting policy.

18. The Petitioner has also claimed expenditure paid in cash under the Catchment Area Treatment (CAT) Plan amounting to ₹1357.21 lakh, out of which amount of ₹349.87 lakh was paid before the COD of the generating station. Accordingly, the Petitioner has claimed an amount of ₹233.25 lakh ($349.87 \times 4/6$), on pro-rata basis as on 1.4.2004 and the balance amount has been claimed during the respective years of payment. The Petitioner has submitted that the said amount could not be capitalised in books of accounts and was charged to P&L as per accounting policy. Accordingly, the Petitioner has claimed the amount for the purpose of tariff, over and above the capitalized expenditure.

From the details furnished above, it is observed that the expenditure incurred was necessary for the commissioning of the project. Hence, these amounts of ₹104.50 lakh and ₹233.25 lakh charged to P&L have been allowed for the purpose of tariff as on 1.4.2004.



19. Further, the Petitioner has claimed tariff on advances amounting to ₹9034.37 lakh paid to contractors, in respect of claims for which settlement has been reached, but could not be capitalized till 31.3.2004. Similarly, the Petitioner has claimed tariff on advances amounting to ₹2445 lakh against un-settled claims, paid in cash, but not capitalized. Since the provisions of the 2004 Tariff Regulations permit the recovery of tariff only on capitalisation of the expenditure incurred, the advances paid to the contractors on settled/un-settled claims are disallowed along with reversal of advances on capitalization.

20. The Petitioner has submitted that un-discharged liability as on 1.4.2004 has been revised to the actual liability as on 31.3.2004 i.e from ₹12903.00 to ₹13184.11. The Petitioner has *pro-rated* the un-discharged liabilities for units commissioned till 31.3.2004 (four units out of six) and has reduced the un-discharged liabilities to ₹8789.41 lakh (13184.11 x 4/6). The pro-rata reduction of un-discharged liabilities is found reasonable considering the fact that other expenditures allowed are in ratio of the number of units put to use. Accordingly, un-discharged liabilities of ₹8789.41 have been deducted while working out the capital cost as on 1.4.2004. The Petitioner has submitted the party-wise details of liabilities as on each COD and 31st March of each year, duly certified by the Chartered Accountant. The amounts of liabilities have been verified and have been considered for the purpose of tariff.

Expenditure on Interest charged to revenue

21. It is observed that the Petitioner has claimed expenditure for ₹1.42 lakh, 23.76 lakh and ₹4370 lakh as on 31.3.2007, 31.3.2008 and 31.3.2009 towards interest charged to revenue. The Petitioner has stated that this amount represents the interest paid on various settled claims and has been charged to P&L account as per



accounting policy, but the same is being claimed as a part of capital cost for purpose of tariff.

22. We have considered the submissions. The Petitioner has furnished copy of the agreement and proof of payment of amounts towards Arbitral award in support of their claim. The Petitioner has also shown the treatment of the same expenditure in the books. In terms of Regulation 34 of the 2004 Tariff Regulations, the Liabilities to meet award of arbitration or in compliance of the order or decree of a court' is permitted for capitalization, before and after cut-off date. In terms of this, the amount which form part of the arbitral award, as claimed by the Petitioner, is allowed for the purpose of tariff.

FERV

23. In the instant petition, the Petitioner has revised FERVs to be adjusted from gross blocks at various relevant dates. The final position vis-a-vis earlier position submitted in petition no.20/2008, is as follows:

	6.5.2004	18.5.2004	31.3.2005	2005-06	2006-07	2007-08	2008-09
FERV proposed to be reduced from gross block considered in the instant petition	590	1264	2659	1092	3112	3112	4025
FERV proposed to be reduced from gross block already considered in Order dated 31.12.2008 in Petition No. 20/2008	435	1021	2415	3982	6002	6002	6002
Differential FERV claimed	155	243	243	(-) 2890	(-) 2890	(-) 2890	(-) 1977

(₹ in lakh)



24. The final FERV amounts as certified by the auditor in the "Reconciliation Statement for the Calculation of Gross block" have been considered for the purpose of tariff.

25. Based on the above, the capital cost allowed for the purpose of tariff as on 1.4.2004 is as under:

(₹ in lakh)	
Capital cost as on 31.3.2004 approved by Commission in Petition No.87/2005	501786.89
Add: Pro-rata advances on settled claims but not capitalized as on 31.3.2004	0.00
Add: Pro-rata advances on un-settled claims but not capitalized as on 31.3.2004	0.00
Add: Pro-rata advances on settled claims charged to P & L account	104.49 (156.74*4/6)
Add: Pro-rata advances paid under CAT plan but not capitalized in books and charged to P&L	233.25 (349.87*4/6)
Less: Un-discharged liability	8789.41
Capital cost for the purpose of tariff as on 1.4.2004	493335.23

Capital cost as on 6.5.2004 (for five units)

26. Similarly, the capital cost for the purpose of tariff as on 6.5.2004 (COD of 5th Unit) is worked out as under:

(₹ in lakh)	
Gross block as per books as on 6.5.2004	621114.61
Add: Pro-rata advances on settled claims, but not capitalized as on 5.5.2004	0.00
Add: Pro-rata advances on settled claims charged to P&L account	130.62 (156.74x5/6)
Add: Pro-rata advances paid under CAT plan but not capitalized in books and charged to P & L account	291.56 (349.87x5/6)
Less: Reversal of additional capitalisation for settled claims	0.00
Less: FERV	589.80
Add: Interest/OFC allowed by Commission in vide order dated 31.12.2008 in Petition No.20/2008	10255.64
Less: Un-discharged liability	10752.72
Capital cost for the purpose of tariff as on 6.5.2004	620449.91

Capital cost as on 18.5.2004 (for six units / station)

27. Accordingly, the capital cost for the purpose of tariff as on 18.5.2004 (COD of 6th unit/ station) is worked out as under:



	(₹ in lakh)
Gross block as per books as on 18.5.2004	756242.63
Add: Pro-rata Advances on settled claims but not capitalized as on 18.5.2004	0.00
Add: Pro-rata advances on settled claims charged to P&L	156.74 (156.74x6/6)
Add: Pro-rata advances paid under CAT plan but not capitalized in books and charged to P&L	349.87 (349.87x6/6)
Less: Reversal of additional capitalisation for settled claims	0.00
Less: FERV	1263.80
Add: Interest/OFC allowed in Commission Order dated 31.12.2008 in Petition No.20/2008	10386.19
Less: Un-discharged liability	11983.16
Capital cost as on 18.5.2004	753888.47

Additional Capital Expenditure

28. Regulation 34 of the 2004 Tariff Regulations provides for considering the additional capital expenditure for tariff purposes as under:

“(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut-off date may be admitted by the Commission subject to prudence check.

(i) Deferred liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares in the original scope of works subject to ceiling specified in regulation 33;

(iv) Liabilities to meet award of arbitration or in compliance of the order or decree of a court, and

(v) On account of change in law.

Provided that original scope of works along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of generating station.

(2) Subject to the provision of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after the cut-off date may be admitted by the Commission subject to prudence check:

(i) Deferred liabilities relating to works/services within the original scope of work;

(ii) Liabilities to meet award of arbitration or in compliance of the order or decree of a court;

(iii) On account of change in law; and

(iv) Any additional works/service which has become necessary for efficient and successful operation of plant but not included in the original capital cost.



(3) Any expenditure incurred on acquiring minor items/assets like tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, T.V, washing machine, heat-convectors, mattresses, carpets, etc brought after the cut-off date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.

Note

The list of items is illustrative and not exhaustive.

(4) Impact of additional capitalization in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut-off date.

Note 1

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 36.

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original capital cost, except such items as are listed in Clause (3) of this regulation.

Note 3

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 36.

Note 4

Any expenditure admitted on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 36 after writing off the original amount of the replaced assets from the original capital cost."

29. As decided at para 16 above, the advances paid to the contractors on settled/un-settled claims along with reversal of advances on capitalization are being disallowed for the purpose of tariff. The additional capital expenditure claimed by the Petitioner in the petition, advances included in the additional capital expenditure claimed and additional capital expenditure after adjustment of advances i.e. advances paid to the contractors on settled as well as un-settled claims along with the reversal of advances on capitalization, for the period from 18.5.2004 to 31.3.2005 and from 2005-06 to 2008-09 are as under:



	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Additional capital expenditure claimed (a)	37828.33	(-)865.79	9207.35	5858.16	20370.54
Advances included in the above (addition & reversal of capitalization)	(-)4564.82	315.20	(-) 1713.35	(-) 2506.98	(-) 5227.43
Additional capital expenditure after adjustment of above (d)=(a)-(b)	42393.15	(-) 1180.98	10920.72	8365.14	25597.97

Additional capital expenditure from 18.5.2004 to 31.3.2005

30. The additional capital expenditure claimed in terms of Regulation 34(1) of the 2004 Tariff Regulations is as under:

	Additional capital expenditure claimed in the petition	Advances included in the claim	Additional capital expenditure after adjustment of advances
Deferred liability	37694.18	(-)4442.08	42136.26
Works deferred for execution	118.69	0.00	118.69
Liabilities to meet award of Arbitration or in compliance with Order or decree of Court	15.46	(-)122.74	138.20
Total	37828.33	(-) 4564.82	42393.15

31. It is observed that the adjusted claim of the Petitioner for ₹42136.26 lakh after removing advances and reversal of advances on capitalization is in respect of assets which are in the nature of initial spares, D.G. sets, lifts, EOT cranes etc. which were in CWIP during the previous years and have been capitalized after the COD of the generating station, but before the cut-off date. Since these assets necessarily form part of the hydro power station, the expenditure claim has been allowed under Regulation 34(1)(i), except for an amount of ₹629.05 (626.98 +2.07) lakh for assets under the head "assets reported lost" as per Form-12, which has not been allowed, as these assets are not in use. Accordingly, amount allowed under this head is ₹41507.21 lakh (42136.26-629.05).



32. The Petitioner has claimed expenditure of ₹118.69 lakh for works deferred for execution under Regulation 34(i)(ii) of the 2004 Tariff Regulations. It is observed that assets claimed are in the nature of minor assets like furniture, TVs, field cameras, heaters, books etc. This expenditure is considered necessary for providing proper working environment to the employees. Since capitalisation of expenditure towards minor assets prior to the cut-off date is permissible, the expenditure of ₹118.69 lakh claimed, is allowed.

33. The adjusted claim of ₹138.20 lakh is towards liabilities to meet award of arbitration or in compliance of the order or decree of a court under Regulation 34(i)(iv) of the 2004 Tariff Regulations. Since the expenditure claimed is in compliance to Arbitration award relating to land for surge shaft area, township, road areas etc., the same is allowed.

Accordingly, the additional capital expenditure of ₹41764.10 lakh (41507.21+ 118.69 + 138.20) for the period from 18.5.2004 to 31.3.2005 is allowed for the purpose of tariff.

Additional capital expenditure for 2005-06

34. The additional capital expenditure claimed by the Petitioner till the cut-off date i.e 31.03.2006 in terms of Regulation 34(1) of the 2004 Tariff Regulations is as under:

	(₹ in lakh)		
	Additional capital expenditure Claimed in the petition	Advances included in the claim	Additional capital expenditure after removal of advances
Deferred liability	3072.33	304.37	2767.96
Works deferred for execution	1313.38	0.00	1313.38
Liabilities to meet award of arbitration or in compliance of the order or decree of a Court	10.83	10.83	0.00
Depreciation charged to IEDC deducted from gross block	(-)5262.34	0.00	(-) 5262.34
Total	(-)865.79	315.20	(-)1180.98



35. The adjusted claim of the Petitioner for ₹2767.96 lakh is towards Rehabilitation of displaced families, CAT plan and in respect of assets which are in the nature of initial spares, D.G. sets, lifts, EOT cranes etc. which were in CWIP during the previous years and have been capitalized after the COD of the generating station, but before the cut-off date. Since these assets necessarily form part of the hydro power station, the expenditure claimed has been allowed under Regulation 34(1)(i), except for an amount of ₹390.69 lakh in respect of the assets under the head "assets reported lost" as per Form-12 which has not been allowed, as these assets are not in use. Accordingly, amount allowed under this head is ₹2377.27 lakh (2767.96-390.69).

36. The Petitioner has claimed expenditure of ₹1313.38 lakh in terms of Regulation 34(i) (ii) of the 2004 Tariff Regulations. i.e works deferred for execution. Since the expenditure claimed is in the nature of assets like D.G. sets, roads, non-residential buildings, office buildings, etc., which necessarily forms part of the generating station, the expenditure claimed is allowed.

37. An amount of (-) ₹5262.34 lakh towards depreciation charged to IEDC deducted from the gross block, as claimed by Petitioner, is considered and allowed for the purpose of tariff.

Accordingly, the additional capital expenditure of (-) ₹1571.69 lakh (2377.27+ 1313.38 - 5262.34) for 2005-06 is allowed for the purpose of tariff.

Additional capital expenditure for 2006-07

38. The adjusted claim of ₹10920.72 lakh in terms of Regulation 34(2) & (3) of the 2004 Tariff Regulations is as under:



(₹ in lakh)

	Additional capital expenditure Claimed in the petition	Advances included in the claim	Additional capital expenditure after adjustment of advances
Deferred liability relating to works/services within the original scope of work	9106.89	363.35 (excluding amount of Rs. 1.42 lakh allowed for interest charged to P&L)	8743.54
Liabilities to meet award of arbitration or in compliance with the order or decree of Court	33.41	(-)2076.71	2110.12
Expenditure incurred on acquiring minor items	67.04	0.00	67.04
Total	9207.34	(-)1713.35	10920.72

39. The adjusted claim of ₹8743.56 lakh under Regulation 34(2)(i) i.e. deferred liability relating to works/services within the original scope of work is in respect of assets which are in the nature of initial spares, D.G. Sets, lifts, EOT Cranes etc., and capitalised after the cut-off date of the generating station. The above amount of ₹8743.56 lakh includes a negative entry of (-) ₹1019.74 lakh under the head “assets reported to loss” which includes assets not in use amounting to ₹629.05 lakh for 18.5.2004 to 31.3.2005 and ₹390.69 lakh for 2005-06. Since these assets were not considered for the purpose of tariff during the years 2004-05 & 2005-06, the deletion of (-) ₹1019.74 lakh in 2006-07 has been excluded for the purpose of tariff. Accordingly, the amount allowed under this head works out to ₹9763.30 lakh (8743.56 + 1019.74) is allowed under Regulation 34(2)(i) of the 2004 Tariff Regulations, as the assets necessarily form part of the hydro power plant.

40. The Petitioner has claimed expenditure for ₹2110.12 lakh in terms of Regulation 34(2)(ii) of the 2004 Tariff Regulations. It is noticed that the said expenditure is for residential building & land and has been incurred in compliance of the Order of the Arbitrator dated 4.11.2005. Since the expenditure incurred by the Petitioner is towards compliance of the award, the amount for ₹2110.12 lakh is allowed.



41. The Petitioner has claimed expenditure of ₹67.04 lakh under Regulation 34(3) of the 2004 Tariff Regulations towards acquisition of minor items. Since capitalisation of expenditure on minor items, after the cut-off date, is not permissible in terms of Regulation 34(3), the same is not allowed.

Accordingly, the additional capital expenditure of ₹11873.42 lakh (9763.30 +2110.12) for 2006-07 is allowed for the purpose of tariff.

Additional capital expenditure for 2007-08

42. The adjusted claim of ₹8365.14 lakh in terms of Regulation 34(2) & (3) of the 2004 Tariff Regulations is as under:

	(₹ in lakh)		
	Additional capital expenditure claimed in the petition	Advances included in the claim	Additional capital expenditure after adjustment of advances
Deferred liability relating to works/services within the original scope of work	4513.19	(-)2506.98 (excluding amount of Rs. 22.34 lakh allowed for interest charged to P&L)	7020.17 {5876.11+1144.06(claimed under efficient operation of the plant)}
Liabilities to meet award of Arbitration or in compliance of the order or decree of a court	1202.24	0.00	1202.24
On account of change in law	0.00	0.00	0.00
Expenditure incurred on acquiring minor items	142.73		142.73
Total	5858.16	(-) 2506.98	8365.14

43. The adjusted claim of ₹5876.11 lakh under Regulation 34(2)(i) are in respect of assets like fire protection and safety equipment, compressed air system, water supply system, EOT Cranes etc. which were in CWIP in the previous years and capitalized after the cut-off date. As these assets necessarily form part of the hydro power plant, the said expenditure is allowed, except for an amount of ₹56.92 lakhs under the head



"assets reported lost", which has not been allowed as the assets are not in use. Accordingly, amount allowed under this head is ₹5819.19 lakh (5876.11-56.92).

44. The Petitioner has claimed expenditure for ₹1144.06 lakh under Regulation 34(2)(iv) of the 2004 Tariff Regulations towards the procurement of additional plant and machinery parts like guide vanes, runners etc, based on the following justification:

"During the year 2007-08 and 2008-09, additional generating plant and machinery like Guide vane, Runner etc. were purchased for efficient and successful operation of plant under Regulations 34(2) (iv), which were inadvertently mentioned under Clause 34(2) (i) of CERC (Terms and Conditions of Tariff) Regulations, 2004 in the tariff petition no. 27/2011 (Details of GPM mentioned Additional Capitalization for FY 2007-08 and 2008-09 enclosed at Annexure -BB).

While in operation stage, NJHPS suffered heavy erosion of its underwater turbine components due to high silt in river Satluj during High Discharge season and thereafter the process of repairing the eroded underwater components was time consuming and some of the underwater parts were beyond repair. As per the design parameter, permissible limit of silt for the operation of plant is 4000 ppm, and during any increase in the prescribed limit of silt in the river Satluj, the plant is to stop till the silt levels reduce to the permissible limit. The heavy erosion of underwater components and closure of the plant during high discharge season due to silt problem was presented and discussed in various Northern Regional power committee meetings.

Therefore, to enhance the operational efficiency of the NJHPS and to reduce its maintenance days, additional generating plant and machinery were procured so that valuable peaking power can be injected in to grid in the larger interest of country as well as the beneficiaries by minimizing the maintenance days. Year wise improved operational efficiency by reducing the maintenance days after commissioning of NJHPS plant is shown as under:

Performance of NJHPS w.e.f. 2005-06 to 2011-12			
Sl. No.	Financial Year	Gross Generation (MU)	Total Average No. of maintenance days
1	2005-06	4104.422	72
2	2006-07	6014.481	54
3	2007-08	6448.977	33
4	2008-09	6608.691	14
5	2009-10	7018.810	11
6	2010-11	7140.205	8
7	2011-12	7610.257	7

It is, therefore, prayed that additional generating plant and machinery for the year 2007-08 and 2008-09 may please be permitted under Regulation 34 (2) (iv) of CERC Regulations, 2004."



45. It is an admitted fact that the generating station operates at very high silt levels and the same leads to higher wear and tear of underwater parts. The in-house procurement of additional spares and the in-house maintenance techniques developed by the Petitioner i.e. coating of underwater parts with wear resistant material etc. has resulted in higher availability of the generating station. We are of the considered view that the higher availability of the generating station due to pro-active efforts of the Petitioner as above has indeed benefitted the respondents by way of more energy and more peaking power, at marginal costs. However, before allowing the capitalisation of expenditure on additional plant and machinery parts, we examine the extent of initial spares and additional plant and machinery parts procured by the Petitioner till 31.3.2009, as under:

	18.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09	Total
Initial spares capitalized and de-capitalized	13172	157.13	(-) 108.81	90.86	0.00	(-) 5463.14	7848.04
Additional plant and machinery claimed, but not included in the original capital cost					1144.06	3920.19	5064.25
Total	13172	157.13	(-) 108.81	90.86	1144.06	(-) 1542.95	12912.29

46. It is observed that the de-capitalization of ₹5463.14 lakh in 2008-09 relates to the fact that the silt level under which the plant is operating is very high. Moreover, the cost of new spares put in service, in place of the de-capitalized initial spares, is allowed to be recovered through O&M expenses. In terms of Regulation 38(iv)(b) of the 2004 Tariff Regulations, O&M expenses are allowed at 1.5% of the original capital cost as on cut-off date and the same is applicable for all new plants without differentiating between the plants operating under heavy silt conditions and plants operating under normal conditions. Moreover, the cost of spares and the cost of



additional plant and machinery parts claimed by the Petitioner i.e ₹12912.29 lakh, after taking into account the de-capitalization of initial spares, till 31.3.2009, is marginally higher than the allowable initial spares of ₹11911.21 lakh . In our view, the gains accrued to the beneficiaries by way of reduction of maintenance days at this marginal difference are appreciable. In this background, the expenditure of ₹1144.06 lakh as claimed by the Petitioner for the year 2007-08 is allowed under Regulation 34(2)(iv) of the 2004 Tariff Regulations.

47. The Petitioner has claimed an amount of ₹1202.24 lakh under Regulation 34(2)(ii) of the 2004 Tariff Regulations. It is observed that the expenditure claimed is towards land related work and interest paid in compliance with the Arbitration award. Since the expenditure is towards compliance of the award, the expenditure of ₹1202.24 lakh is allowed for capitalisation.

48. The Petitioner has claimed expenditure of ₹142.73 lakh under Regulation 34(3) of the 2004 Tariff Regulations towards acquisition of minor items. Since capitalisation of expenditure on minor items, after the cut-off date, is not permissible in terms of Regulation 34(3), the same is not allowed.

Accordingly, the additional capital expenditure of ₹8165.49 lakh (5819.19+1144.06+1202.24) for 2007-08 is allowed for the purpose of tariff.

Additional capital expenditure for 2008-09

49. The additional capital expenditure of ₹25597.97 lakh claimed by the Petitioner in terms of Regulation 34(2) & (3) of the 2004 Tariff Regulations is as under:



(₹ in lakh)

	Additional capital expenditure claimed in the petition	Advances included in the claim	Additional capital expenditure after adjustment of advances
Deferred liability relating to works/services within the original scope of work	11493.04	(-) 5227.43 (excluding 4346.64 lakh allowed for interest charged to P&L)	16720.47 {(12800.28+3920.19 (claimed under efficient operation of the plant))}
Liabilities to meet award of Arbitration or in compliance of the order or decree of a court	14044.17	0.00	14044.17
On account of change in law	0.00	0.00	0.00
Expenditure incurred on acquiring minor items	296.47	0.00	296.47
Capital Spares-Written off	(-) 5463.14	0.00	(-) 5463.14
Total	20370.54	(-)5227.43	25597.97

50. The adjusted claim of ₹12800.28 lakh under Regulation 34(2)(i) i.e., deferred liability relating to works/services within the original scope of work is in respect of assets which are in the nature of fire protection and safety equipment, compressed air system, water supply system, EOT Cranes, de-capitalisation of initial capital spares, etc. and capitalised after the cut-off date of the generating station. As these assets necessarily form part of the hydro power plant, the said expenditure is allowed, except for an amount of ₹0.74 lakh towards minor assets, which is not permitted to be capitalised after the cut-off date. Accordingly the amount allowed under this head works out to ₹ 12799.54 lakh (12800.28-0.74)

51. The Petitioner has claimed expenditure for ₹3920.19 lakh under Regulation 34(2)(iv) of the 2004 Tariff Regulations towards the procurement of additional plant and machinery parts like guide vanes, runners etc. Based on our observations in paras 44 and 46 above, the expenditure incurred for 2008-09 under this head is allowed.

52. The Petitioner has claimed an amount of ₹14044.17 lakh under Regulation 34(2)(ii) of the 2004 Tariff Regulations. It is observed that the expenditure claimed is



towards land related work, in compliance with the Arbitration award. Since the expenditure is towards the compliance of the award, the expenditure claimed is allowed for capitalisation.

53. The Petitioner has claimed expenditure of ₹296.47 lakh under Regulation 34(3) of the 2004 Tariff Regulations towards acquisition of minor items. Since capitalisation of expenditure on minor items, after the cut-off date, is not permissible in terms of Regulation 34(3), the same is not allowed.

54. The Petitioner has written off capital spares amounting to ₹5463.14 lakh and has prayed as under:

"These spares have been written off as per accounting standards and the same has been reflected in the balance sheet, however the replacement has not been carried out. The capitalisation of replaced spares shall be claimed as and when these are procured"

In view of the above, the de-capitalisation has been considered for the purpose of tariff.

Accordingly, the total additional capital expenditure of ₹25300.76 lakh (12799.54 +3920.19 +14044.17-5463.14) for 2008-09 is allowed for the purpose of tariff.

55. Based on above discussions, the additional capital expenditure allowed for the purpose of tariff is as under:

	(₹ in lakh)				
	18.5.2004 to 31.3.2015	2005-06	2006-07	2007-08	2008-09
Deferred liability	41507.21	2377.27	0.00	0.00	0.00
Works deferred for execution	118.69	1313.38	0.00	0.00	0.00
Liabilities to meet award of Arbitration or in compliance of the order or decree of a Court	138.20	0.00	2110.12	1202.24	14044.17
Deferred liability relating to works/services within the original scope of work	0.00	0.00	9763.30	5819.19	12799.54
On account of change in law	0.00	0.00	0.00	0.00	0.00
Any additional works/service which has become necessary for efficient	0.00	0.00	-	1144.06	3920.19



and successful operation of plant but not included in the original capital cost					
Expenditure incurred on minor items	0.00	0.00	0.00	0.00	0.00
Depreciation charged to IEDC deducted from Gross Block	0.00	(-) 5262.34	0.00	0.00	0.00
Less: Capital Spares	0.00	0.00	0.00	0.00	(-) 5463.14
Less: Deletion	0.00	0.00	0.00	0.00	0.00
Net Additional Capital Expenditure allowed	41764.10	(-) 1571.69	11873.42	8165.49	25300.76

Capital Cost for 2004-09

56. Accordingly, the capital cost approved for 2004-09 is as under:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Opening Capital Cost	493335.22	620449.91	753888.47	795652.57	794080.88	805954.30	814119.79
Admitted Additional Capitalization	0.00	0.00	41764.10	-1571.69	11873.42	8165.49	25300.76
Closing Capital Cost	493335.22	620449.91	795652.57	794080.88	805954.30	814119.79	839420.55

Debt-Equity Ratio

57. Regulation 36 of the 2004 Tariff Regulations provides as under:

“(1) In case of the existing generating stations, debt-equity ratio considered by the Commission for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 1.4.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 34, equity in the additional capitalization to be considered shall be 30% of the additional capital expenditure admitted by the Commission, or equity approved by the competent authority in the financial package, for additional capitalization, or actual equity employed, whichever is the least:

Provided further that in case of additional capital expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the generating company is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public.

(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt and equity in the ratio of 70:30 shall be considered:



Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public.

(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2004, debt and equity in the ratio of 70:30 shall be considered for determination of tariff:

Provided that where equity actually employed is more than 30%, equity in excess of 30% shall be treated as notional loan;

Provided further that where deployment of equity is less than 30%, the actual debt and equity shall be considered for determination of tariff.

(4) The debt and equity amount arrived at in accordance with above clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.

58. In line with the decision in Commission's Order dated 21.3.2007 in Petition No. 87/2005 and Order dated 31.12.2008 in Petition No.20/2008, debt-equity ratio of 1:1 has been considered. However, for the additional capitalization for the period 2004-09, even though the Petitioner has stated that the total funding has been done from internal accruals, debt-equity ratio of 70:30 has been considered for the purpose of tariff, in accordance with Regulation 36 of the 2004 Regulations.

Return on Equity

59. As per clause (iii) of Regulation 38 of the 2004 Tariff Regulations, return on equity shall be computed on the equity base determined in accordance with Regulation 36 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

60. The Petitioner has claimed return on equity @ 14% and the same has been considered for calculation of Return on Equity as under:



	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Opening Equity	246667.61	310224.95	376944.24	389473.47	389001.96	392563.98	395013.63
Additions	0.00	0.00	12529.23	-471.51	3562.03	2449.65	7590.23
Closing Equity	246667.61	310224.95	389473.47	389001.96	392563.98	395013.63	402603.86
Average Equity	246667.61	310224.95	383208.85	389237.71	390782.97	393788.81	398808.75
Rate of Return on Equity	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
Return on Equity	3311.43	1427.88	46740.98	54493.28	54709.62	55130.43	55833.22

Interest on Loan

61. Clause (i) of Regulation 38 of the 2004 Tariff Regulations *inter alia* provides that:

“(a) Interest on loan capital shall be computed loan-wise on the loans arrived at in the manner indicated in regulation 36.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan as per regulation 36 minus cumulative repayment as admitted by the Commission for the period up to 31.3.2004. The repayment for the period 2004-09 shall be worked out accordingly on normative basis.

(c) The generating company shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.

(e) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(f) The generating company shall not make any profit on account of swapping of loan and interest on loan.”

62. The Petitioner has claimed rate of interest on loan as considered in Commission’s Order dated 31.12.2008 in Petition No.20/2008. However on the scrutiny of the actual loan portfolio furnished (in Petition No.309/GT/2018 for 2009-14 period), it is observed that the actual rate of interest are different from those claimed in this petition. Thus, the weighted average rate of interest on loan for the period of 2004-09 have been derived from the actual loan portfolio for the period of 2004-09 as shown below:



	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Weighted Average Rate of Interest allowed in Commission's order dated 31.12.2008 in Petition No.20-2008	9.184%	9.182%	9.231%	9.340%	9.489%	9.716%	10.011%
Rates as per actual loan portfolio	8.744%	8.944%	9.147%	8.514%	8.974%	8.405%	9.612%

63. On the basis of actual rate of interest on the yearly average loan, the weighted rate of interest on average loan has been worked out and the same has been applied on the normative average loan during the year to arrive at the interest on loan. Accordingly Interest on loan has been calculated as follows:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Gross Loan Opening	246667.61	310224.95	376944.24	406179.11	405078.92	413390.32	419106.16
Cumulative repayment of deemed loan upto previous year	0.00	174.91	174.91	24122.94	80193.63	141227.25	203405.79
Opening Balance	246667.61	310050.05	376769.33	382056.17	324885.29	272163.07	215700.37
Additions	0.00	0.00	29234.87	-1100.18	8311.39	5715.84	17710.53
Repayments	174.91	0.00	23948.03	56070.69	61033.61	62178.54	52213.56
Closing Balance	246492.70	310050.05	382056.17	324885.29	272163.07	215700.37	181197.34
Average Loan	246580.16	310050.05	379412.75	353470.73	298524.18	243931.72	198448.86
Weighted Average Rate of Interest	8.744%	8.944%	9.147%	8.514%	8.974%	8.405%	9.612%
Interest on Loan	2067.50	911.68	30235.13	30095.88	26790.58	20501.33	19075.39

Depreciation

64. Sub-clause (a) of clause (ii) of Regulation 38 of the Tariff Regulations, 2004 provides for computation of depreciation in the following manner, namely:

“(i) The value base for the purpose of depreciation shall be the historical cost of the asset.



(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalization on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government / Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

65. The weighted average rates of depreciation calculated as above, has been considered for the calculation of depreciation. Accordingly Depreciation has been calculated as follows:

	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Opening Capital Cost	493335.22	620449.91	753888.47	795652.57	794080.88	805954.30	814119.79
Increase/Decrease due to Additional Capitalisation	0.00	0.00	41764.10	-1571.69	11873.42	8165.49	25300.76
Closing Capital Cost	493335.22	620449.91	795652.57	794080.88	805954.30	814119.79	839420.55
Average Capital Cost	493335.22	620449.91	774770.52	794866.73	800017.59	810037.05	826770.17
Rate of Depreciation	2.489%	2.482%	2.492%	2.489%	2.462%	2.468%	2.445%
Depreciation	1177.35	506.32	16818.84	19786.46	19692.43	19990.82	20213.95

Advance against Depreciation

66. Sub-clause (b) of clause (ii) of Regulation 38 of the 2004 regulations, in addition to allowable depreciation, the generating company shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

“AAD = Loan repayment amount as per regulation 38 (i) subject to a ceiling of 1/10th of loan amount as per regulation 36 minus depreciation as per schedule

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;



Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.”

67. Accordingly, Advance Against Depreciation has been calculated as under:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
1/10th of Loan	24666.76	31022.50	37694.42	40617.91	40507.89	41339.03	41910.62
Scheduled Repayment of the loan	174.91	0.00	23948.03	56070.69	61033.61	62178.54	52213.56
Minimum of the above	174.91	0.00	23948.03	40617.91	40507.89	41339.03	41910.62
Depreciation during the year	1177.35	506.32	16818.84	19786.46	19692.43	19990.82	20213.95
(A) Difference	0.00	0.00	7129.19	20831.45	20815.46	21348.21	21696.66
Cumulative Repayment of the Loan	174.91	174.91	24122.94	80193.63	141227.25	203405.79	255619.35
Cumulative Depreciation/ Advance against Depreciation	2307.50	3484.85	3991.17	27939.20	68557.11	109065.00	150404.03
(B) Difference	0.00	0.00	20131.77	52254.44	72670.14	94340.79	105215.32
Advance Against Depreciation minimum of (A) and (B)	0.00	0.00	7129.19	20831.45	20815.46	21348.21	21696.66

O&M Expenses

68. Sub-clause (iv)(c) of Regulation 38 of the 2004 Tariff Regulations pertaining to O&M expenses of hydro stations are as under:

“In case of hydroelectric generating stations declared under commercial operation on or after 1.4.2004, the base operation and maintenance expenses shall be fixed at 1.5% of the actual capital cost as admitted by the Commission, in the year of commissioning and shall be subject to an annual escalation of 4% per annum for the subsequent years.”

69. O&M expenses allowed for calculation of tariff for the period 2004-09, after considering pro rata escalation during 2006-07 is as under:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
No. of days	35	12	318	365	365	366	365
Capital cost (Average)	493335.22	620449.91	774770.52	794866.73	800017.59	810037.05	826770.17



Annualized O&M (1.5% of above subsequently escalated by 4%)	7400.03	9306.75	11621.56	12086.42	12569.88	13072.67	13595.58
Pro-rata O&M expenses allowed	709.59	305.98	10125.08	12086.42	12569.88	13072.67	13595.58

Interest on Working Capital

(a) Maintenance Spares

70. Regulation 38(v) (a) (ii) of the 2004 Tariff Regulations provides for Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. Accordingly, maintenance spares are considered as under:

	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
As claimed	484.07	208.81	6735.38	8595.70	9111.44	9658.13	10237.62
As allowed	473.06	203.98	6568.12	7991.22	8470.69	8978.93	9517.67

(b) O & M Expenses

71. O & M expenses for working capital have been worked out for 1 month of O&M expenses considered in tariff. Receivables have been worked out on the basis 2 months' of Annual Fixed Charges.

(c) Rate of interest on Working Capital

72. Regulation 38(v) (b) of the 2004 regulations provides that the rate of interest on working capital shall be the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the generating unit/station is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.



73. The SBI PLR rate as on 1.4.2004 was 10.25% and the same has been considered for the purpose of tariff. The details of working capital and the interest on working capital allowed is summarised below:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	473.06	203.98	6568.12	7991.22	8470.69	8978.93	9517.67
O & M expenses	59.13	25.50	843.76	1007.20	1047.49	1089.39	1132.97
Receivables	1241.27	538.43	18958.70	23436.34	22984.92	22225.60	22298.69
Total Working Capital	1773.47	767.91	26370.58	32434.76	32503.10	32293.92	32949.32
Interest Rate	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	181.78	78.71	2702.98	3324.56	3331.57	3310.13	3377.31

Annual Fixed charges

74. Based on the above, the annual fixed charges approved for the generating station for the period 2004-09 is summarised as under:

	(₹ in lakh)						
	1.4.2004 to 5.5.2004	6.5.2004 to 17.5.2004	18.5.2004 to 31.3.2005	2005-06	2006-07	2007-08	2008-09
Interest on Loan	2067.50	911.68	30235.13	30095.88	26790.58	20501.33	19075.39
Interest on Working Capital	181.78	78.71	2702.98	3324.56	3331.57	3310.13	3377.31
Depreciation	1177.35	506.32	16818.84	19786.46	19692.43	19990.82	20213.95
Advance Against Depreciation	0.00	0.00	7129.19	20831.45	20815.46	21348.21	21696.66
Return on Equity	3311.43	1427.88	46740.98	54493.28	54709.62	55130.43	55833.22
O & M Expenses	709.59	305.98	10125.08	12086.42	12569.88	13072.67	13595.58
Total	7447.64	3230.58	113752.21	140618.06	137909.54	133353.60	133792.11

Design Energy

75. CEA vide its Letter No.3/88/2009/HP&I (1)/286 dated 7th July, 2009 has approved the annual Design Energy 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)	93
	ii(11th-20th)	114
	iii(21st-30th)	147
May	i(1st-10th)	266
	ii(11th-20th)	223
	iii(21st-31st)	376
June	i(1st-10th)	302
	ii(11th-20th)	342
	iii(21st-30th)	342
July	i(1st-10th)	342
	ii(11th-20th)	342
	iii(21st-31st)	376
August	i(1st-10th)	342
	ii (11th-20th)	342
	iii (21st-31st)	376
September	I (1st-10th)	282
	ii (11th-20th)	213
	iii (21st-30th)	191
October	i (1st-10th)	171
	ii (11th-20th)	147
	iii (21st-31st)	147
November	i(1st-10th)	129
	ii(11th-20th)	114
	iii(21st-30th)	102
December	i(1st-10th)	80
	ii(11th-20th)	68
	iii(21st-31st)	71
January	i(1st-10th)	67
	ii(11th-20th)	62
	iii(21st-31st)	67
February	i(1st-10th)	52
	ii(11th-20th)	54
	iii(21st-29th)	41
March	i(1st-10th)	61
	ii(11th-20th)	80
	iii(21st-31st)	90
Total		6612

76. In addition to the charges approved above, the Petitioner is entitled to recover other charges also like claim for reimbursement of income tax, other taxes, cess levied by statutory authority and other charges in accordance with the 2004 Tariff Regulations.



77. The Petitioner's claim for reimbursement of filing fees is not allowed in terms of the Commission's general order dated 11.9.2008 in Petition No. 129/2005.

78. There is reduction in tariff of the generating station for the period 2004-09 as determined above. The tariff recovered from the respondents in accordance with the earlier orders of this Commission shall be adjusted in light of the final tariff now approved by us.

79. This order disposes of Petition No. 310/GT/2018.

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

sd/-
(P.K. Pujari)
Chairperson

