# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 206/2009

# Coram

- 1. Dr. Pramod Deo, Chairperson
- 2. Shri S.Jayaraman, Member
- 3. Shri V.S.Verma, Member

DATE OF HEARING: 22.7.2010 DATE OF ORDER: 3 .9.2010

# IN THE MATTER OF

Determination of impact of annual fixed charges on account of additional capital expenditure incurred during the financial years 2006-07, 2007-08 and 2008-09 in respect of Chamera Hydroelectric Project, Stage-I.

#### And in the matter of

NHPC Ltd. ...Petitioner

Vs

- 1. Punjab State Electricity Board, Patiala
- 2. Haryana Power Generation Corporation Ltd., Panchkula
- 3. BSES-Rajdhani Power Ltd., New Delhi
- 4. Uttar Pradesh Power Corporation Ltd, Lucknow
- 5. BSES-Yamuna Power Ltd., Delhi
- 6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
- 7. North Delhi Power Ltd., NewDelhi
- 8. Uttaranchal Power Corporation of Ltd., Dehradun
- 9. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
- 10. Himachal Pradesh State Electricity Board, Shimla
- 11. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
- 12. Engineering Deptt. UT Secretariat, Chandigarh
- 13. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
- 14. Power Development Deptt. Govt of J&K, Jammu ....Respondents

# The following were present

- 1. Shri. Prashant Kaul, NHPC
- 2. Shri Ansuman Ray, NHPC
- 3. Shri Surendra Meena, NHPC
- 4. Shri V.N.Tripathi, NHPC
- 5. Shri B.C.Choudhuri, NHPC

#### ORDER

This petition has been filed by the petitioner, NHPC Ltd, for revision of annual fixed charges for the period from 1.4.2004 to 31.3.2009 after considering the impact of additional capital expenditure for the years 2006-07 to 2008-09, in respect of Chamera Hydroelectric Project, Stage-I (hereinafter referred to as "the generating station") based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as "the 2004 regulations"). The petitioner has made the following specific prayer:

- (i) Approve the revised annual fixed charges in respect of Chamera-I power station, after considering the impact of net additional capitalization done during the years 2006-07, 2007-08, and 2008-09 as per the details given in Annexure-I.
- (ii) Allow the servicing of the expenditure from the year the same is incurred.
- (iii) Allow the reimbursement of filing fee of this petition by the respondents.
- (iv) Pass any other order in this regard as the Hon'ble Commission may find appropriate in the circumstances pleaded above".
- 2. The generating station was commissioned in May, 1994. The tariff for the generating station for the period from 1.4.2004 to 31.3.2009 was approved by the Commission vide its order dated 9.5.2006 in Petition No.39/2005 and was revised by order dated 5.2.2007 in Review Petition No.64/2006 in Petition No. 39/2005. The Commission vide its order dated 21.12.2009 in Petition No.97/2009, revised the annual fixed charges for the generating station after considering the additional capitalization incurred during the years 2004-05 to 2005-06, based on the capital cost of Rs.202757.18 lakh, as on 31.3.2006, as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	4920.64	3610.79	3621.00	3621.00	3621.00
Interest on Loan	2.22	0.00	0.00	0.00	0.00

Return on Equity	8592.81	8608.47	8619.56	8619.56	8619.56
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	736.64	741.11	769.99	800.09	831.85
O & M Expenses	5934.00	6171.00	6418.00	6675.00	6942.00
TOTAL	20186.32	19131.37	19428.55	19715.65	20014.41

3. None of the respondents have filed reply.

# **Additional Capitalization**

- 4. Regulation 34 of the 2004 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 debtequity 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."

5. The additional capital expenditure for the years 2006-07, 2007-08 and 2008-09 claimed by the petitioner, after reconciliation with the books of accounts, is as under:

SI.		2006-07	2007-08	2008-09
No				
(1)	Additional capitalization as per Book of	299.96	648.58	757.28
	Accounts			
(2)	Exclusions			
(a)	Addition			
(i)	Minor assets -Regulation 34(3)	83.88	62.77	31.68
(ii)	Capital spares as per AS-2	0.03	315.69	943.17
(iii)	Assets not in use (NRV or WDV)(Obsolete /	6.57	3.13	109.91
	Unserviceable assets)			
	Sub-total- 2 (a)	90.49	381.59	1084.76
(b)	Deletions			
(i)	Minor assets	9.88	1.95	10.72

(ii)	Obsolete asset deleted from the	0.00	5.80	21.35
	books(Gross value already deleted when			
	declared surplus/obsolete)			
(iii)	Deletion against capital spares capitalized	0.00	296.25	211.68
	during 2004-05, 2005-06, 2006-07, 2007-08			
	due to consumption			
(i∨)	Deletion against capital spares already	79.53	0.40	55.79
	deducted by Commission during 2001-04			
(v)	Assets purchased in the previous years on	7.32	0.38	0.00
	replacement basis and cost of old asset			
	already deducted , but cost of old assets			
	deleted now from the books of accounts			
(vi)	Assets (Gross value) transferred from natural	65.68	1.23	45.74
	head to obsolete assets falling under minor			
	assets (Category 'C')			
	Sub-total 2 (b)	162.42	306.01	345.27
	Net Exclusions (2(a)-2(b))	(-) 71.93	75.59	739.49
(3)	Net Additional capitalization claimed [(1)-	371.89	573.00	17.79
	(2)]			

6. The difference in the amount of additional capital expenditure as per books of accounts and the claim as above is on account of exclusion of certain positive and negative entries in the books of accounts.

#### **Exclusions**

- 7. In the first instance, we consider the exclusions under different heads in the claim.
  - (a) Minor assets: Since clause (3) of Regulation 34 do not permit the capitalization of minor assets, the petitioner has excluded amounts of Rs.83.88 lakh, Rs.62.77 lakh and Rs.31.68 lakh for the years 2006-07, 2007-08 and 2008-09 respectively against minor assets like furniture and fixture, computers, printers, telephone and telex machine, equipment and fitting for guest house, air conditioners, refrigerators/ air-water coolers, other office equipments, washing machines, mobile sets, stabilizer, cooking range, water purifier, DVD, grass cutting machines, club equipments, calculator and other electronic devices and other assets. The exclusions are in order and allowed.

- (b) Capital spares as per AS-2: Since capitalization of spares over and above initial spares procured after the cut-off date are not allowed for the purpose of tariff, the petitioner has excluded amounts of Rs.0.03 lakh, Rs.315.69 lakhs and Rs.943.17 lakh for the years 2006-07, 2007-08 and 2008-09 respectively. The claim includes assets like governor systems, transformers, screw compressor, generator spares from Alsthom, capital spares reinstated as per circular dated 20.2.2009, capital spares purchased and other assets. The exclusions are in order and allowed.
- (c) Assets not in use (WDV): The petitioner has excluded amounts of Rs.6.57 lakh, Rs.3.13 lakh and Rs.109.91 lakh for the years 2006-07, 2007-08 and 2008-09 respectively under this head. The claim includes assets like generator panel, single grinder EOT crane, electrical panel, centrifugal dewatering pumps, electric type pumps, 75 HP motor with accessories, welding set with batteries, welding sets, lab testing machine, hydraulic flat jack, DC system, dewatering pumps, transformers, electric motors, weighing bridge 30 tons, ACs, xerox machine, battery banks 115 nos, digital multi meter, vehicle, service container, stop leg elements, LT air circuit breakers, compressor, seismograph, tunnel forms, 11 kv 400 amp 250 mva board, 330 kv 630 amp 12.5 ka rated MOCV complete, sewage treatment and water treatment plant, ventilation equipments and other assets. The exclusion is in order and allowed.
- (d) Deletion of minor assets: The petitioner has excluded amounts of Rs.9.88 lakh Rs.1.95 lakh and Rs.10.72 lakh for the years 2006-07, 2007-08 and 2008-09 respectively appearing in books corresponding to de-capitalization of minor

assets. We are of the view that assets which are no longer in service, but not replaced are to be de-capitalized for the purpose of tariff. Accordingly, the exclusion of negative entries under this head has not been allowed for the purpose of tariff.

- (e) Obsolete assets deleted from the books (Gross value already deleted when declared surplus/obsolete): The petitioner has excluded amounts of Rs.5.80 lakh and Rs.21.35 lakh during the years 2007-08 and 2008-09 respectively, corresponding to obsolete assets deleted from the books and whose gross value had already deducted when declared surplus. Hence, the exclusion is in order and allowed.
- (f) Deletion against capital spares capitalized during the period 2004-05 to 2007-08 due to consumption: The petitioner has excluded amounts of Rs.296.25 lakh and Rs.211.68 lakh during the years 2007-08 and 2008-09 respectively, corresponding to capital spares capitalized during the period 2004-05 to 2007-08 on account of consumption. The exclusion is in order and allowed.
- **(g)** Deletion against capital spares deducted by Commission during the period 2001-04: The petitioner has excluded amounts of Rs.79.53 lakh, Rs.0.40 lakh and Rs.55.79 lakh during the years 2006-07, 2007-08 and 2008-09 respectively. In respect of the additional capitalization for the year 2001-04, the Commission by its order dated 27.4.2006 in Petition No. 86/2005, had disallowed the capitalization of spares amounting to Rs.854.73 lakh (Rs.852.58 lakh in 2002-03 and Rs.2.15 lakh in 2003-04) appearing in the books of account. However, these assets continued to remain in the gross block of the

generating station and have been deducted during the years 2006-07, 2007-08 and 2008-09, from the books of accounts. In order to avoid double deduction, the petitioner has excluded the same for the purpose of tariff purpose. In view of this, the deletion of exclusion is allowed.

- (h) Assets purchased in the previous years on replacement basis and cost of old asset already deducted, but cost of old assets now deleted from the books of accounts: The petitioner has excluded amounts of Rs.7.32 lakh and Rs.0.38 lakh during the years 2006-07 and 2007-08 respectively under this head. Although the gross value of the old assets which were replaced earlier had already been deducted by the Commission, these assets continued to remain in the gross block of the generating station and have been deducted during the years 2006-07 and 2007-08 from the books of account. In order to avoid double deduction, the petitioner has excluded the same for the purpose of tariff. In view of this, the deletion of exclusion is allowed.
- (i) Assets (gross value) transferred from natural head to obsolete assets falling under minor assets (Category 'C'): The petitioner has excluded amounts of Rs.65.68 lakh, Rs.1.23 lakh and Rs.45.74 lakh for the years 2006-07, 2007-08 and 2008-09 respectively, appearing in books corresponding to decapitalization of minor assets transferred from natural head to obsolete assets. As decided at para 7 (d) above, the assets which are no longer in service are to be de-capitalized for the purpose of tariff. Accordingly, the deletion of exclusion of minor assets has not been allowed for the purpose of tariff.

- 8. The Commission by its letter dated 3.11.2009 directed the petitioner to furnish certain additional information in respect of the additional capital expenditure and the petitioner by affidavit dated 13.11.2009 has submitted the relevant information. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner are as under:
- 9. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner is as under:

(Rs. in lakh)

SI.	Additional Capitalization	2006-07	2007-08	2008-09
No.				
(i)	Liabilities to meet award of arbitration	1.80	0.00	0.00
	or in compliance of order or decree of			
	the court- Regulation 34 (2)(ii)			
(ii)	Additional works/services which have	523.73	621.59	355.54
	become necessary for efficient and			
	successful operation of station.			
	(Regulation 34 (2) (iv))			
(iii)	Expenditure on replacement of old	47.41	8.65	43.44
	assets (Regulation 34 Note 2)			
	Sub-total 1 (a)	572.94	630.24	398.98
1(b)	Deletions			
(i)	Assets deducted on replacement of	138.09	0.67	4.38
	old assets covered under Category 'D'			
	(Regulation 34(2) read with Note 2)			
(ii)	Deduction of assets without	34.22	46.16	74.59
, ,	replacement			
(iii)	Assets (Gross value) transferred from	28.74	10.41	302.22
	natural head to obsolete assets			
	excluding assets falling under			
	Category 'C' (Minor assets)			
	Sub-total 1 (b)	201.05	57.24	381.19
	Net Additional capitalization(1(a)-1(b))	371.89	573.00	17.79

10. After examining the asset-wise details and justification for additional capitalization/de-capitalization claimed by the petitioner, under various categories and by applying prudence check, the admissibility of additional capitalization is discussed in the subsequent paragraphs.

# Liabilities to meet award of arbitration or in compliance of order or decree of the court-(Regulation 34 (2) (ii))

11. The petitioner has claimed an amount of Rs.1.80 lakh during 2006-07 under this head. The expenditure pertains to the payment of compensation as per the order of DC Chamba, LAO, to the affected four families whose houses had been damaged due to coming within the submergence area of the project reservoir. In view of this, the capitalization of the amount is allowed. In addition, the claim of the petitioner for an amount of Rs. 0.20 lakh for payments towards land, less grant, as per order of the DC, Chamba, under Regulation 34(2)(iv) has been considered and allowed under this head, as the liability has been incurred in terms of the order of the statutory authority.

# Additional works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))

12. The petitioner has claimed amounts of Rs.523.73 lakh, Rs.621.59 lakh and Rs.355.54 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head. The claim includes assets like buildings, EHV switchgear system, control metering and protection system, numeric protection relay, plastic fiber optical cable, electronic tri-vector, contract resistance meter, generators, gas analyzer, carbon dust preonter, hydraulic puller, templates, hydraulic cable cutter, pressure transmitters, hydraulic crimping tools, oil test sets, hydraulic bearing cooler and bearing pusher, internal distribution lines, augmentation of power supply in lower simbleu, augmentation of power supply in upper simbleu, meter board, LT distribution panel code, illumination of left bank of dam, microprocessor based electric draw out abc of 1600 amp rating with LCD display, diesel generating sets, welding sets, trucks, servers, other EDP equipment, photocopy machine, hospital equipments, aluminum glass cable, stairs in existing permanent office building, sherpur guest house, canteen

building, monorail, pole coils 21B1109AC9001, installation of new pipe line, field data logger, accelerograph high dynamic range, hydraulic pin pusher, remote level monitoring system, generator neutral grounding cubicle, acoustic enclosure, HP Compaq intel laptop, augmentation of filtration plant, OFC for data transfer, Local area network for power house, v-sat terminals, Ethernet based automatic reader, public address system with accessories, multi action play system, screw compressor, inter facial tension meter, augmentation of kV line, supply and erection, water and sewage treatment plant, centralized air conditioning system and some other assets.

# 2006-07

- 13. The claim for this year includes assets, like residential building amounting to Rs.43.05 lakh, gas analyzer and freight amounting to Rs.22.57 lakh, air dryer amounting to Rs.2.04 lakh and micro processor based electric draw out abc of 1600 amp rating with LCD display amounting to Rs.5.01 lakh. As these assets are in the nature of replacement, the claim has not been considered under this head. However, these assets, totaling to Rs.72.67 lakh has been considered in terms of Note 2 under Regulation 34.
- 14. Some of the assets/works like the construction of permanent store in transformer gallery, wiring of permanent store in transformer gallery, permanent site office & stores civil / electrical maintenance, at L/simbleu-addition, nursery school at banikhet including wiring, numerical protection relay micom P-344 2 Nos etc, totaling to Rs.65.27 lakh, are in the nature of replacement and hence not allowed under this head. Also, since the gross value of the old assets have not furnished by the petitioner, these assets have not been considered under Note 2 to Regulation 34 (2).

- 15. The claim of the petitioner under this head for Rs.19.87 lakh including assets like generator lower segment is in the nature of spare and assets. Assets like bench grinder amounting to Rs.0.22 lakh, welding set amounting to Rs.2.13 lakh, digital millimeter amounting to Rs.0.11 lakh, concrete drill amounting to Rs.0.47 lakh, vernier calipers amounting to Rs. 0.37 lakh, inside micrometer amounting to Rs.0.99 lakh, torque wrench amounting to Rs.0.54 lakh, click type ¾" drive amounting to Rs.0.62 lakh, multiplier amounting to Rs. 0.39 lakh, aluminum ladder amounting to Rs.0.12 lakhs, different type of wrench and gas cutting torch amounting to Rs.0.58 lakh, are tools and tackles and are in the nature of minor assets. Similarly, assets like computer accessories amounting to Rs.2.81 lakh and photocopy machine amounting to Rs.1.00 lakh are in the nature of minor assets. Assets like meter board at residential quarters amounting to Rs.3.47 lakh, floor scrubbing machine amounting to Rs.1.97 lakh and industrial vacuum cleaner amounting Rs.0.40 lakh, do not relate to the efficiency of the generating station. In view of these, the expenditure on these assets is not allowed.
- 16. Based on the above discussions, an amount of Rs. 349.72 lakh has been allowed for the year 2006-07.

### 2007-08

17. The claim for this year which includes assets like field data loader amounting to Rs.7.80 lakh and temperature sensing device amounting to Rs.0.69 lakh, are in the nature of replacement, and hence not considered under this head. However, these assets, totaling to Rs.8.49 lakh, has been considered in terms of Note 2 under Regulation 34.

- 18. Some of the assets like microprocessor bases electrical draw out ACB of 1600 amp rating with LCD display 2 Nos. with retrofitting charges, induction motors, screw compressors etc amounting to Rs.12.20 kakh, are in the nature of replacement assets and hence not allowed under this head. Moreover, as the gross value of the old assets have not furnished by the petitioner, the capitalization of these assets have not been considered in terms of Note 2 under Regulation 34 also.
- 19. The claim of the petitioner in respect of assets like pole coils amounting to Rs.87.19 lakh, generator neutral grounding cubical amounting to Rs.12.72 lakh, are in the nature of spares. The claim in respect of assets like aluminum ladder amounting to Rs.0.07 lakh, industrial vacuum cleaner amounting to Rs.0.41 lakh, hot air gun amounting to Rs.0.12 lakh, drilling machine amounting to Rs.2.86 lakh, electronic weighing scale amounting to Rs.0.61 lakh, pan evapormeter amounting to Rs.0.11 lakh and electric motor amounting to Rs.0.05 lakh, are tools and tackles and are in the nature of minor assets. Assets like computer and accessories amounting to Rs.16.94 lakh, video camera amounting to Rs.0.64 lakh, digital camera amounting to Rs.0.23 lakh, VCD/DVD player amounting to Rs.0.13 lakh and full body safety harness kit amounting to Rs.0.31 lakh are also in the nature of minor assets. Assets like neon sign board amounting to Rs.1.90 lakh is in the nature of O&M expenses and multi action play system amounting to Rs.12.41 lakh do not contribute to the efficiency of the generating station. The claim for Rs.0.42 lakh towards the construction cost of Sherpur quest house which was handed over to Himachal Pradesh Government under the CRS CD scheme for local Himachal Pradesh Government School. In view of this, the expenditure on these assets is not allowed.

20. Based on the above discussions, an amount of Rs. 463.77 lakh has been allowed for the year 2007-08.

# 2008-09

- 21. The claim for Rs.5.61 lakh towards control metering and protection system is in the nature of replacement and hence not considered under this head. However, the said asset has been considered in terms of Note 2 under Regulation 34.
- 22. The claim of the petitioner for Rs.1.99 lakh in respect of assets like furniture and fixtures, computers amounting to Rs.4.36 lakh, air conditioner amounting to Rs.28.11 lakh and televisions amounting to Rs.4.29 lakh, are of the nature of minor assets and hence not allowed. Also, the expenditure of Rs.15.02 lakh for construction of building for development of sports is not related to the efficiency of the generating station and hence not considered. As stated in para 11 above, an expenditure of Rs.0.20 lakh on account of land less grant as per order of DC Chamba has been considered under Regulation 34 (2)(ii). Based on the above discussions, an amount of Rs. 295.96 lakh has been allowed for the year 2008-09
- 23. In view of the above, amounts of Rs.349.72 lakh, Rs.463.77 lakh and Rs. 295.96 lakh have been allowed for the years 2006-07, 2007-08 and 2008-09 respectively.

### Expenditure on replacement of old assets (Regulation 34 Note 2)

The petitioner has claimed amounts of Rs.47.41 lakh, Rs.8.65 lakh and Rs.43.44 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head. As stated earlier, the claim of the petitioner amounting to Rs. 72.67 lakh, Rs.8.49 and Rs.5.61 lakh for the year 2006-07, 2007-08 and 2008-09 respectively, under regulation 34(2)(iv) for assets in the nature of replacements has been considered under this

head. The gross value of the old replaced assets, amounting to Rs.21.59 lakh, Rs.4.49 lakh and Rs.2.83 lakh relating to the claim during the years 2006-07, 2007-08 and 2008-09 respectively, have been considered as assumed deletion for the respective year.

- 25. Based on prudence check, amounts of Rs.120.08 lakh, Rs.17.13 lakh and Rs.49.05 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, has been allowed under this head.
- 26. In addition to the capitalization under above categories, the petitioner has de-capitalized an amount of Rs.201.05 lakhs, Rs.57.24 lakhs and Rs.381.19 lakhs during the years 2006-07, 2007-08 and 2008-09 respectively, as under:
  - (a) Assets deducted on replacement of old assets in terms of Note 2 under Regulation 34 (2): The petitioner has de-capitalized amounts of Rs.138.09 lakh, Rs.0.67 lakh and Rs.4.38 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head in respect of assets like battery, battery chargers, UPS system, pumps, motor boats, photo state machine and sewage treatment plant. The de-capitalization claimed above, on account of 'replacement of old assets' is in order and allowed.
  - **(b) Deletion of assets without any replacement:** The petitioner has decapitalized amounts of Rs.34.22 lakh, Rs.46.16 lakh and Rs.74.59 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head in respect of assets like 33kv relay and control panel, diesel generating set, feeder panel, portable mono charge dewatering pump, CP-10 sump pump and other pumps, jacks hammer, transfer to 41-07-11 gps time synchronization

equipments, vehicles, lab equipments, loader, air compressor, motor boat, v-SAT terminal, transformers, mobile service unit with accessories, screw compressor and some other assets. The claim for the year 2007-08 includes de-capitalization of amounting to Rs.0.42 lakh against a structure of sherpur guest house constructed and handed over to the State Government of Himachal Pradesh under the CSR-CD scheme for local HP Government school. As the claim for capitalization for the said asset has not been allowed as stated in para, 19 above, the claim for de-capitalization in respect of the asset has not been allowed. The de-capitalization of Rs 45.74 lakh for the year 2007-08 has been allowed based on prudence check.

As such, based on prudence check, amounts of Rs.34.22 lakh, Rs.45.74 lakh and Rs.74.59 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head, is allowed.

(c) Assets (Gross value) transferred from natural head to obsolete assets excluding assets falling under Regulation 34(3): The petitioner has decapitalized amounts of Rs.28.74 lakh, Rs.10.41 lakh and Rs.302.22 lakh during the years 2006-07, 2007-08 and 2008-09 respectively, under this head in respect of assets like electric panels, pumps, welding sets, controller card, EPBAX system, lab equipments and lab testing machine, transformers, battery banks, stop log elements, LT air circuit breaker, 11 kb amp 250 mva board, tunnels, ventilation equipments, lab equipments, seismograph and some other assets. The de-capitalization claimed under this head is in order and allowed.

# **Replaced Minor assets**

- 27. 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.
- 28. Based on the above discussion, the additional capital expenditure allowed (before excluding un-discharged liabilities) is as under:

(Rs in lakh)

1	ADDITIONAL CAPITALISATION	2006-07	2007-08	2008-09
(a)	Addition			
(i)	Liabilities to meet award of arbitration or in compliance of	1.80	0.00	0.20
	order or decree of the court- Regulation 34 (2)(ii)			
(ii)	Additional works/services which have become necessary for efficient and successful operation of station. (Regulation 34 (2) (iv))	349.72	463.77	295.96
(iii)	Expenditure on replacement of old assets (Regulation 34 Note 2)	120.08	17.13	49.05
	Sub-total 1 (a)	471.60	480.90	345.21
(b)	Deletions			
(i)	Assets deducted on replacement of old assets covered under Category 'D' (Regulation 34(2) read with Note 2)	138.09	0.67	4.38
(ii)	Deduction of assets without replacement	34.22	45.74	74.59
(iii)	Assets (Gross value) transferred from natural head to obsolete assets excluding assets falling under Category 'C'. (Minor assets)	28.74	10.41	302.22

(iv)	Assumed deletion	21.59	4.49	2.83
	Sub-total 1 (b)	222.64	61.32	384.02
	Additional capitalization allowed	248.96	419.58	-38.81
	(1 (a) – 1 (b))			
2	Exclusion			
(a)	Addition			
(i)	Minor assets -Regulation 34(3)	83.88	62.77	31.68
(ii)	Capital spares as per AS-2	0.03	315.69	943.17
(iii)	Assets not in use (NRV or WDV)(Obsolete / Unserviceable assets)	6.57	3.13	109.91
	Sub-total (i to iii)	90.49	381.59	1084.76
b)	Deletion			
(i)	Minor assets	0.00	0.00	0.00
(ii)	Obsolete asset deleted from the books(Gross value already deleted when declared surplus/obsolete)	0.00	5.80	21.35
(iii)	Deletion against capital spares capitalized during 2004-05, 2005-06, 2006-07, 2007-08 due to consumption	0.00	296.25	211.68
(iv)	Deletion against capital spares already deducted by Commission during 2001-04	79.53	0.40	55.79
(v)	Assets purchased in the previous years on replacement basis and cost of old asset already deducted, but cost of old assets deleted now from the books of accounts	7.32	0.38	0.00
vi)	Assets (Gross value) transferred from natural head to obsolete assets falling under minor assets (Category 'C')	0.00	0.00	0.00
	Sub-total (i to vi)	86.85	302.83	288.81
	Net Exclusions (2 (a) - 2 (b))	3.64	78.77	795.95
3	Exclusion disallowed	(-) 75.56	(-) 3.18	(-) 56.46
4	Additional capitalization allowed after adjustment of exclusions disallowed	173.40	416.40	(-) 95.27

# **Un-discharged liabilities**

29. **Un-discharged liabilities as on 31.3.2006**: Out of un-discharged liabilities of Rs.49.57 lakh as on 31.3.2006, the petitioner had discharged amounts of Rs.44.86 lakh and Rs.3.60 lakh during the years 2006-07 and 2007-08 respectively. The balance undischarged liability as on 31.3.2009 is Rs.1.11 lakh.

30. Un-discharged liabilities in respect of additional capital expenditure during the period 2006-09: The petitioner vide its affidavit dated 15.9.2009 has submitted the details of un-discharged liabilities in its claim for additional capital expenditure as under:

(Rs.in lakh)

Reference No.	Un-discharged Liabilities					
	Claimed				Discharged	
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Appendix-I to	44.55	0.00	0.00	0.00	43.38	1.15
Annexure-II, Page 18.						
Appendix-I to	0.00	50.83	0.00	0.00	0.00	46.06
Annexure-II, Page 18.						
Appendix-I to	0.00	0.00	23.34	0.00	0.00	0.00
Annexure-II, Page 18.						
TOTAL	44.55	50.83	23.34	0.00	43.38	47.21

- 31. Accordingly, the above amounts have been deducted during the year in which the liabilities have been charged and adjusted during the year in which the liabilities have been discharged.
- 32. In view of the above, the additional capital expenditure allowed for the purpose of tariff, after considering the un-discharged liabilities and liabilities discharged, is as under:

(Rs.in lakh)

Particulars	2006-07	2007-08	2008-09
Additional capitalization allowed (before	173.40	416.40	(-) 95.27
adjustment on account of un-discharged			
liabilities)			
Un-discharged liabilities during the period	44.55	50.83	23.34
2006-09			
Liabilities as on 31.3.2006 discharged during	44.86	3.60	0.00
the period 2006-09			
Liabilities discharged during the period 2006-	0.00	43.38	47.21
09			
Additional Capitalization allowed for the	173.71	412.55	(-) 71.40
purpose of tariff (v)=[(i)-(ii)+(iii)+(iv)]			

# Capital cost

- 33. As stated above, the Commission in its order dated 21.12.2009 in Petition No. 97/2009 has considered a capital cost of Rs. 202757.18 lakh as on 31.3.2006, for the purpose of tariff. This has been considered for determination of capital cost as on 1.4.2006.
- 34. Taking into consideration the capital cost of the generating station as on 1.4.2006 and the additional capital expenditure approved as per para 32 above, the capital cost is worked out as under:

(Rs in lakh)

Year	2006-07	2007-08	2008-09
Opening capital cost as on 1st April of the	202757.18	202930.89	203343.44
financial year			
Additional capitalization allowed	173.71	412.55	(-) 71.40
Capital cost as on 31st March of the financial	202930.89	203343.44	203272.04
year			

# **Debt-Equity Ratio**

- 35. Regulation 36 of the 2004 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 capitalization 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,-

- (a) 30% of the additional capital expenditure admitted by the Commission, or
- (b) equity approved by the competent authority in the financial package, for additional capitalization,
- (c) 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."
- 36. The petitioner has stated that the additional capital expenditure has been financed through internal resources. Debt-equity ratio of 70:30 has been considered for additional capitalization in terms of Regulation 36 of the 2004 regulations. Accordingly, additional notional equity for the generating station on account of capitalization approved, works out as under:

 (Rs. in lakh)

 2006-07
 2007-08
 2008-09

 Additional Notional equity
 52.11
 123.77
 (-) 21.42

# **Return on Equity**

37. Return on equity is allowed @ 14% on the average normative equity, as under:

			(Rs in lakh)
Return on Equity	2006-07	2007-08	2008-09
Equity	61568.31	61620.43	61744.19
Addition due to additional capitalization	52.11	123.77	-21.42
Closing Equity	61620.43	61744.19	61722.77
Average Equity	61594.37	61682.31	61733.48
Return on Equity	8623.21	8635.52	8642.69

# Interest on Loan

38. The petitioner has not considered any fresh loan for additional capitalization for the years 2006-07, 2007-08 and 2008-09. Hence the actual weighted average rate of interest worked out in order dated 21.12.2009 in Petition No. 97/2009, has been considered. Based on the same the Interest on loan has been computed as under:

(Rs in lakh)	)
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Interest on Loan	2006-07	2007-08	2008-09
Gross Normative loan	141188.86	141310.46	141599.24
Cumulative repayment up to previous year	141188.86	141310.46	141599.24
Net loan-opening	0.00	0.00	0.00
Addition due to additional capitalization	121.60	288.79	(-) 49.98
Repayment during the year	121.60	288.79	0.00
Net loan-closing	0.00	0.00	0.00
Average loan	0.00	0.00	0.00
Weighted Average rate of Interest on loan	9.5500%	0.0000%	0.0000%
Interest on loan	0.00	0.00	0.00

### Depreciation

- 39. For calculating depreciation, the cumulative depreciation of Rs. 88451.79 lakh and the weighted average rate of depreciation of 2.43457% as per order dated 21.12.2009 in Petition No. 97/2009 has been considered.
- 40. The Commission has approved de-capitalization of assets worth Rs.298.20 lakh, Rs.64.49 lakh and Rs. 440.48 lakh during the years 2006-07, 2007-08 and 2008-09

respectively from the capital cost. The amount of cumulative depreciation allowed in tariff against those de-capitalized assets has been calculated on pro-rata basis and the same has been adjusted from the cumulative depreciation in the year of de-capitalization.

41. As the loans in respect of generating station have been fully repaid during 2004-05, the balance depreciation has been spread over the balance useful of the generating station. Accordingly, depreciation has been worked out as under:

			(Rs in lakh)
Depreciation	2006-07	2007-08	2008-09
Gross Block as on 31.3.2006	202757.18	202930.89	203343.44
Additional capital expenditure	173.71	412.55	(-) 71.40
Closing gross block	202930.89	203343.44	203272.04
Average gross block	202844.03	203137.16	203307.74
Rate of Depreciation	2.4345%	2.4345%	2.4345%
Depreciable value	179054.91	179318.73	179472.25
Balance useful life of the asset	25	24	23
Remaining depreciable value	90603.12	87377.92	83921.00
Depreciation	3624.12	3640.75	3648.74

# Advance against Depreciation

42. Advance against Depreciation has been calculated after considering the additional capital expenditure which has been worked out as per details given hereunder:

			(Rs in lakh)
Advance against Depreciation	2006-07	2007-08	2008-09
1/10th of Gross loan(s)	14118.89	14131.05	14159.92
Repayment of the loan	121.60	288.79	0.00
Minimum of the above	121.60	288.79	0.00
Depreciation during the year	3624.12	3640.75	3648.74
(A) Difference	(-) 3502.53	(-) 3351.96	(-) 3648.74
Cumulative repayment of loan	141310.46	141599.24	141599.24
Cumulative Depreciation/ Advance	92075.91	95581.56	99199.99
against Depreciation			
(B) Difference	49234.54	46017.69	42399.25
Advance against Depreciation	0.00	0.00	0.00

# **O&M Expenses**

43. O&M expenses as allowed in the order dated 21.12.2009 in Petition No. 97/2009, have been considered.

# **Interest on Working Capital**

- 44. For the purpose of calculation of working capital, the operating parameters as considered in the order dated 21.12.2009 in Petition No. 97/2009 have been kept unchanged. The "receivables" component of the working capital in the order dated 21.12.2009 in Petition No. 97/2009 have been revised for the reason of revision of return on equity, interest on loan, etc.
- 45. The SBI PLR of 10.25% as on 1.4.2004 has been considered as the rate of interest on working capital during the tariff period as considered in order dated 21.12.2009 in Petition No. 97/2009. The necessary details in support of calculation of interest on working capital are as under:

(Rs in lakh)

Particulars	2006-07	2007-08	2008-09
Maintenance Spares	3739.19	3963.54	4201.36
O & M expenses	534.83	556.25	578.50
Receivables	3239.24	3292.00	3344.36
Total	7513.27	7811.79	8124.22
Interest	770.11	800.71	832.73

#### **Annual Fixed Charges**

46. The revised annual fixed charges for the period from 1.4.2006 to 31.3.2009 is summarized as under:

(Rs in lakh)

Particulars	2006-07	2007-08	2008-09
Depreciation	3624.12	3640.75	3648.74
Interest on Loan	0.00	0.00	0.00
Return on Equity	8623.21	8635.52	8642.69
Advance Against Depreciation	0.00	0.00	0.00
Interest on Working Capital	770.11	800.71	832.73
O & M Expenses	6418.00	6675.00	6942.00
TOTAL	19435.45	19751.98	20066.16

- 47. The petitioner's prayer for reimbursement of the filing fee has not been allowed in view of the Commission's general order dated 11.9.2008 in Petition No.129/2005 wherein it was directed that filing fee during the period 2004-09 would not be reimbursed, as the same has been factored in the normalized O&M expenses under the 2004 regulations.
- 48. The difference between the fixed charges approved vide order dated 21.12.2009 in Petition No. 97/2009 and those approved now, shall be recovered by the petitioner from the beneficiaries in three equal monthly installments.
- 49. Petition No.206/2009 stands disposed of in terms of the above.

Sd/- Sd/- Sd/- (V.S.VERMA) (S. JAYARAMAN) (DR.PRAMOD DEO)
MEMBER MEMBER CHAIRPERSON