

# **Appendix-I**

## **PART-II**

### **TARIFF FILING FORMS (HYDRO)**

**Appendix-I**  
**Checklist of Forms and other information/**  
**documents for tariff filing for Hydro Stations**

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
<b>File:</b>	Sheet:	
<b>0</b>	Details of type of hydro station, Capacity Index, Primary energy rate	
<b>0</b>	Salient Features of hydro electric project	
<b>0</b>	Sheet:	
<b>FORM-5</b>	Abstract of Admitted Capital Cost for the existing Projects	
<b>FORM-5A</b>	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	
<b>0</b>	Break up of capital Cost	
<b>0</b>	Break up of Project Cost for Plant and Equipment	
<b>FORM-5D</b>	Break-up of Construction/Supply/Service packages	
<b>0</b>	Sheet:	
<b>0</b>	Sheet:	
<b>0</b>	Sheet:	
<b>0</b>	Form9	
<b>0</b>	Sheet:	
<b>0</b>	Sheet:	
<b>0</b>	0	
<b>0</b>	Calculation of weighted average rate of interest on actual loan	
<b>FORM 13A</b>	Calcualtion of interest on loan	
<b>0</b>	Sheet:	
<b>0</b>	Sheet:	
<b>0</b>	0	
<b>FORM-17</b>	Calculation of Operation & Maintenance Expenses	
<b>FORM-18</b>	Details of Operation & Maintenance Expenses	
<b>Other Information/ Documents</b>		
<b>Sl. No.</b>	<b>Information/Document</b>	<b>Tick</b>
<b>1</b>	Certificate of incorporation, Certificate for Commencing Business, Memorandum of Association & Article of Association ( for new station set up by a company making tariff application for the first time to CERC)	
<b>2</b>	Stationwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the station and for the relevant years.	
<b>3</b>	Copies of relevant loan agreements	
<b>4</b>	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
<b>5</b>	Copies of the Equity participation agreements and necessary approval for the foreign equity	
<b>6</b>	Copies of the BPSA/PPA with the beneficiaries, if any	
<b>7</b>	Detailed note giving reasons of time and cost over run, if applicable.	
<b>8</b>	Any other relevant information (Please specify)	

**Note: Electronic copy in the form of CD/Floppy disc shall also be furnished.**

## Summary Sheet

Name of the Company \_\_\_\_\_

Name of the Power Station : \_\_\_\_\_

Region \_\_\_\_\_

State \_\_\_\_\_

District \_\_\_\_\_

(Rs. in lacs)

S.N o.	Particulars	Existing 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8
1	Depreciation	0					
2	Interest on Loan	0					
3	Return on Equity <sup>1</sup>						
4	Advance against Depreciation	0					
5	Interest on Working Capital	0					
6	O & M Expenses						
	<b>Total</b>						

<sup>1</sup> Details of calculations, considering equity as per regulation, to be furnished.

**FORM-2****Details of COD, Type of hydro station, Capacity Index, Primary energy rate****NAME OF COMPANY:****NAME OF POWER STATION :**

Sl. No.	Description		As per CERC norms for tariff period 2004-05 to 2008-09
1	Installed Capacity	MW	
2	Free power to home state	%	
3	Date of commercial operation		
	Unit-1		
	Unit-2		
	Unit-3		
4	Type of Station		
	a) Surface/underground		
	b) Purely ROR/ Pondage/Storage		
	c) Peaking/non-peaking		
	d) No. of hours of peaking		
	e) Overload capacity(MW) & period		
5	Type of excitation		
	a) Rotaing exciters on generator		
	b) Static excitation		
6	Design Energy (Annual) <sup>1</sup>	Gwh	
7	Auxiliary Consumption	%	
8	Transformation losses	%	
9	Saleable Primary Energy	Gwh	
10	Primary Energy Rate	paaise/Kwh	
11	Primary Energy Charge	Rs. in crore	
12	Capacity Index		
	Normative value		

<sup>1</sup> Monthwise Design energy figures to be given separately with the petition.

**Abstract of Admitted Capital Cost for the existing Projects**

**Name of the Company :** \_\_\_\_\_

**Name of the Power Station :** \_\_\_\_\_

**Capital cost as admitted by CERC****Capital cost admitted as on -----**

(Give reference of the relevant CERC Order with Petition No. & Date)	
Foreign Component, if any (In Million US \$ or the relevant Currency)	
Domestic Component (Rs. Cr.)	
Foreign Exchange rate considered for the admitted cost	
<b>Total Capital cost admitted (Rs. Cr)</b>	

PETITIONER

**Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects**

**Name of the Company :** \_\_\_\_\_

**Name of the Power Station :** \_\_\_\_\_

**New Projects**

**Capital Cost Estimates**

Board of Director/ Agency approving the project cost estimates:

Date of approval of the Capital cost estimates:

	<b>Present Day Cost</b>	<b>Completed Cost</b>
Price level of approved estimates	As of End of _____ Qtr. Of the year _____	As on Scheduled COD of the Station
Foreign Exchange rate considered for the capital cost estimates		
<b>Capital Cost excluding IDC &amp; FC</b>		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
<b>Capital cost excluding IDC &amp; FC (Rs. Cr)</b>		
<b>IDC &amp; FC</b>		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
<b>IDC &amp; FC (Rs.Cr.)</b>		
Rate of taxes & duties considered		

**Schedule of Commissioning**

COD of Unit-I

COD of Unit-II

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COD of last Unit

Note:

1. Copy of approval letter should be enclosed.
2. Details of capital cost are to be furnished as per FORM-5B or 5C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-16.

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**Break up of Capital cost for hydro power generating station**

**NAME OF COMPANY:**  
**NAME OF POWER STATION:**

(Rs. in crore)

Sl. No.	Head of works	Original cost as approved by Authority	Cost on COD	Variation	Reasons for variation	Admitted cost
1	2	3	4	5	6	7
1.0	<b>Infrastructure Works</b>					
1.1	Preliminary including Development					
1.2	Land					
1.3	Buildings					
1.4	Township					
1.5	Maintenance					
1.6	Tools & Plants					
1.7	Communication					
1.8	Environment & Ecology					
1.9	Losses on stock					
1.10	Receipt & Recoveries					
1.11	Total (Infrastructure works)					
2.0	<b>Major Civil Works</b>					
2.1	Dam, Intake & Desilting Chambers					
2.2	HRT, TRT, Surge Shaft & Pressure shafts					
2.3	Power Plant civil works					
2.4	Other civil works (to be specified)					
2.5	Total (Major Civil Works)					
3.0	<b>Hydro Mechanical equipments</b>					
4.0	<b>Plant &amp; Equipment</b>					
4.1	Initial spares of Plant & Equipment					
4.2	Total (Plant & Equipment)					
5.0	<b>Taxes and Duties</b>					
5.1	Custom Duty					
5.2	Other taxes & Duties					
5.3	Total Taxes & Duties					
6.0	<b>Construction &amp; Pre-commissioning expenses</b>					
6.1	Erection, testing & commissioning					
6.2	Construction Insurance					
6.3	Site supervision					
6.4	Total (Const. & Pre-commissioning)					
7.0	<b>Overheads</b>					
7.1	Establishment					
7.2	Design & Engineering					
7.3	Audit & Accounts					
7.4	Contingency					
7.5	Rehabilitation & Resettlement					
7.6	Total (Overheads)					
8.0	<b>Capital Cost without IDC &amp; FC</b>					
9.0	Financing charges (FC)					
10.0	Interest during construction (IDC)					
11.0	<b>Capital Cost with IDC &amp; FC</b>					

**Note:**

1. In case of time and cost over-run of the project, a detailed note giving reasons of such time and cost over run should be submitted, clearly bringing out the agency responsible and whether such time and cost over run was beyond the control of the generating company.

**Break up of Capital Cost for Plant & Equipment**

**NAME OF COMPANY:**

**NAME OF POWER STATION:**

(Rs. in crore)						
Sl. No.	Head of works	Original Cost as approved by Authority	Cost on COD	Variation	Reasons for variation	Admitted cost
1	2	3	4	5	6	7
1.0	<b>Generator, turbine &amp; Accessories</b>					
1.1	Generator package					
1.2	Turbine package					
1.3	Unit control Board					
1.4	C&I package					
1.5	Bus Duct of GT connection					
1.6	Total (Generator, turbine & Accessories)					
2.0	<b>Auxiliary Electrical Equipment</b>					
2.1	Step up transformer					
2.2	Unit Auxiliary Transformer					
2.3	Local supply transformer					
2.4	Station transformer					
2.5	SCADA					
2.6	Switchgear, Batteries, DC dist. Board					
2.7	Telecommunication equipment					
2.8	Illumination of Dam, PH and Switchyard					
2.9	Cables & cable facilities, grounding					
2.10	Diesel generating sets					
2.11	Total (Auxiliary Elect. Equipment)					
3.0	<b>Auxiliary equipment &amp; services for power station</b>					
3.1	EOT crane					
3.2	Other cranes					
3.3	Electric lifts & elevators					
3.4	Cooling water system					
3.5	Drainage & dewatering system					
3.6	Fire fighting equipment					
3.7	Air conditioning, ventilation and heating					
3.8	Water supply system					
3.9	Oil handling equipment					
3.10	Workshop machines & equipment					
3.11	Total (Auxiliary equipt. & services for PS)					
4.0	Switchyard package					
5.0	Initial spares for all above equipments					
6.0	<b>Total (Plant &amp; Equipment)</b>					





## Details of Project Specific Loans

Name of the Company \_\_\_\_\_

Name of the Power Station \_\_\_\_\_

(Amount in lacs)

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan <sup>1</sup>						
Currency <sup>2</sup>						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2004/COD <sup>3,4,5,13,15</sup>						
Interest Type <sup>6</sup>						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest <sup>7</sup>						
Margin, if Floating Interest <sup>8</sup>	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor <sup>9</sup>						
If above is yes,specify caps/floor						
Moratorium Period <sup>10</sup>						
Moratorium effective from						
Repayment Period <sup>11</sup>						
Repayment effective from						
Repayment Frequency <sup>12</sup>						
Repayment Instalment <sup>13,14</sup>						
Base Exchange Rate <sup>16</sup>						

<sup>1</sup> Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

<sup>2</sup> Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

<sup>3</sup> Details are to be submitted as on 31.03.2004 for existing assets and as on COD for the remaining assets.

<sup>4</sup> Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

<sup>5</sup> If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in the same form.

<sup>6</sup> Interest type means whether the interest is fixed or floating.

<sup>7</sup> Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

<sup>8</sup> Margin means the points over and above the floating rate.

<sup>9</sup> At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

<sup>10</sup> Moratorium period refers to the period during which loan servicing liability is not required.

<sup>11</sup> Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

<sup>12</sup> Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

<sup>13</sup> Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given separately

<sup>14</sup> If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished separately.

<sup>15</sup> In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.

<sup>16</sup> Base exchange rate means the exchange rate prevailing as on 31.03.2004 for existing assets and as on COD for the remaining assets.

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## Details of Allocation of corporate loans to various projects

Name of the Company \_\_\_\_\_

Name of the Power Station \_\_\_\_\_

(Amount in lacs)

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan <sup>1</sup>						
Currency <sup>2</sup>						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2004/COD <sup>3,4,5,13,15</sup>						
Interest Type <sup>6</sup>						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest <sup>7</sup>						
Margin, if Floating Interest <sup>8</sup>						
Are there any Caps/Floor <sup>9</sup>	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
If above is yes,specify caps/floor						
Moratorium Period <sup>10</sup>						
Moratorium effective from						
Repayment Period <sup>11</sup>						
Repayment effective from						
Repayment Frequency <sup>12</sup>						
Repayment Instalment <sup>13,14</sup>						
Base Exchange Rate <sup>16</sup>						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

<sup>1</sup> Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

<sup>2</sup> Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

<sup>3</sup> Details are to be submitted as on 31.03.2004 for existing assets and as on COD for the remaining assets.

<sup>4</sup> Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given seperately in the same form.

<sup>5</sup> If the Tariff in the petition is claimed seperately for various units, details in the Form is to be given seperately for all the units in the same form.

<sup>6</sup> Interest type means whether the interest is fixed or floating.

<sup>7</sup> Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

<sup>8</sup> Margin means the points over and above the floating rate.

<sup>9</sup> At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

<sup>10</sup> Moratorium period refers to the period during which loan servicing liability is not required.

<sup>11</sup> Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

<sup>12</sup> Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

<sup>13</sup> Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment and its allocation may also be given seperately

<sup>14</sup> If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

<sup>15</sup> In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.

<sup>16</sup> Base exchange rate means the exchange rate prevailing as on 31.03.2004 for existing assets and as on COD for the remaining assets.

Petitioner

### Calculation of Depreciation Rate

**Name of the Company**  
**Name of the Power Station**

(Amount in lacs)

Sl. no.	Name of the Assets <sup>1</sup>	Gross Block as on 31.03.2004 or as on COD, whichever is later	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount
1	2	3	4= Col.2 X Col.3	
1	Land			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
	<b>TOTAL</b>			
	<b>Weighted Average Depreciation Rate (%)</b>			

<sup>1</sup> Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

**Petitioner**

**FORM- 15****Calculation of Interest on Working Capital****Name of the Company** \_\_\_\_\_**Name of the Power Station** \_\_\_\_\_

(Amount in lacs)

<b>Sl. No.</b>	<b>Particulars</b>	<b>Existing 2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	O & M expenses						
2	Maintenance Spares						
3	Recievables						
	Total Working Capital						
	Rate of Interest						
	Interest on Working Capital						

**Petitioner**

**CALCULATION OF OPERATION AND MAINTENANCE EXPENSES**

**FORM-17**

**Name of the Company:**  
**Name of the Power station:**

(Rs lacks)

1	1998-99	1999-2000	2000-01	2001-02	2002-03	Average	Base	Tariff Period				
	2	3	4	5	6	1998-99 to 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
						7	9	10	11	12	13	14
CASE I: O&M data available for 1998-99 to 2002-03 (Base O&M on the basis of actual data)												
A) Total O&M Expenses												
B) Abnormal O&M expenses*												
- Additional security expenses												
- Siltation												
- Over staffing												
- Any Other (Specify)												
C) Calculation of Base O&M (A-B)												
						E	$X = E \times (1.04)^3$	$X \times (1.04)$	$X \times (1.04)^2$	$X \times (1.04)^3$	$X \times (1.04)^4$	$X \times (1.04)^5$
CASE II: Stations for which O&M data for 1998-99 to 2002-03 is not available												
Year of Commissioning												
Calculation of Base O&M**												
							Y	$Y \times (1.04)$	$X \times (1.04)^2$	$X \times (1.04)^3$	$X \times (1.04)^4$	$X \times (1.04)^5$

\* Abnormal O&M expenses such as:  
 - Security expenses on account of insurgency (other than normal security)  
 - Due to abnormal siltation  
 - There may be redeployment of staff from completed projects to those under construction. Yearwise details to be given.

\*\* Base O&M= (0.015 x Capital cost) escalated at the rate of 4 percent per annum to bring it to 2003-04 level  
 For example if the capital cost of the plant commissioned in 2000-01 is Rs 1000 cores then the base for 2003-04 is computed as follows:-  
 Base O&M for 2003-04= Rs. (0.015\*1000)\*(1.04)<sup>3</sup> crore

(PETITIONER)

**DETAILS OF OPERATION AND MAINTENANCE EXPENSE**

**FORM 18**

**Name of the Company :**

**Name of the Power Station :**

(Rs. In Lacs)

	ITEMS	1998-99	1999-00	2000-01	2001-02	2002-03
	1	2	3	4	5	6
(A)	Breakup of O&M expenses					
	1 Consumption of Stores and Spares					
	2 Repair and Maintenance					
	3 Insurance					
	4 Security					
	5 Administrative Expenses					
	- Rent					
	- Electricity Charges					
	- Travelling and conveyance					
	- Telephone, telex and postage					
	- Advertising					
	- Entertainment					
	- Others (Specify items)					
	Sub-Total (Administrative Expenses)					
	6 Employee Cost					
	a) Salaries, wages and allowances					
	b) Staff welfare expenses					
	c) Productivity linked incentive					
	7 Corporate office expenses allocation					
	8 Total (1 to 8)					
	LESS: Recovered , if any					
	Net Expenses					

**Notes:**

- I. The process of allocation of corporate expenses to generating stations should be specified
- II. An annual increase in O&M expenses under a given head in excess of 20 percent should be explained
- III. The data should be based on audited balance sheets

(B)	Breakup of corporate expenses (Aggregate)					
	- Employee expenses					
	- Repair and maintenance					
	- Training and Recruitment					
	- Communication					
	- Travelling					
	- Security					
	- Rent					
	- Others					
	Total					
(C)	Details of number of Employees					
	i) Executives					
	ii) Non-Executives					
	iii) Skilled					
	iv) Non-Skilled					
	Total					

(PETITIONER)