

**No.L-7/129/CERC-2013**  
**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**Coram:**

**Dr. Pramod Deo, Chairperson**

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

**Shri M. Deena Dayalan, Member**

**Date of Order: 7.6.2013**

**In the matter of**

Terms and conditions of tariff for the tariff period starting from 1.4.2014 - Seeking of information from Central Generating Companies, Joint Ventures Companies, Independent Power Producers and Central/Inter-State Transmission Companies whose tariff is being regulated by CERC.

**ORDER**

The Commission has started the process of finalizing the Terms and Conditions of Tariff Regulation for the tariff period commencing on 1.4.2014. In order to facilitate the process of finalization of terms and conditions of tariff, the generating companies, namely NTPC, NLC, NEEPCO, DVC, NHPC, THDC, NHDC, SJVNL, NTPC-SAIL, RGPPL, Aravali Power Company Private Limited (APCPL), Pragati Power Corporation Ltd.(PPCL), Torrent Power Ltd., LANCO and transmission licensees, namely POWERGRID, Powerlinks Transmission Ltd., Jaypee Powergrid Ltd., Torrent Powergrid Pvt. Ltd., Parbati Koldam Transmission Company Ltd., East North Inter-connection Company Ltd., Jindal Power Ltd. etc. (**as per the list of Transmission Licensees enclosed** herewith apart from POWERGRID) are directed to furnish the details of actual performance/operational data and O&M expenditure for the financial years 2008-09 to 2012-13 in respect of their thermal generating stations, hydro generating stations and transmission systems, as the case may be, along with any specific or special features of the generating station and the transmission system.

2. In that context, for thermal generating stations, the generating companies, namely, NTPC, NLC, NEEPCO, DVC, NTPC-SAIL, RGPPL, APCPL, PPCL, Torrent Power Ltd., LANCO are required to furnish the verified and duly certified actual data in respect of actual and scheduled generation, declared capacity, consumption of main, secondary or alternate fuel along with average price and GCV of fuels, Auxiliary energy consumption excluding colony consumption, details of fuel stock maintained at the station, maximum storage capacity of fuel stocks of the generating station, transit and handling losses of coal/lignite, data relating to planned and forced outages, etc., on annual basis for the years 2008-09 to 2012-13 in the prescribed formats for each of the coal/lignite based generating stations (**Annexure-I**) and gas/liquid fuel based generating stations (**Annexure-II**). If any of the generating station or Unit/Units of a station of the above generating companies are in commercial operation after 2008-09, then the data from the COD of the Unit (s)/ station to till date should be furnished on annual basis or part of the year, as the case may be.

3. The Information with regard to stations based on Super Critical Technology which are under operation and the projects for which, the contracts have been awarded, shall be furnished separately along with actual/design performance and operational parameters as the case may be. The requisite details of turbine heat rate, boiler efficiency, unit and station auxiliary energy consumption (excluding colony consumption), heat balance diagram of the generating stations, correction curves like variation in gross heat rate with variation in load, life cycle degradation factor, etc, as per design / actual shall be furnished to enable the Commission to take a view in this regard.

4. For hydro generating stations, the generating companies within the regulatory jurisdiction of the Commission, namely NHPC, NHDC, NEEPCO, DVC, THDC and SJVNL are

required to furnish the generation data relating to actual and scheduled generation, auxiliary energy consumption, average declared capacity and actual average peak hour MW during the year, weighted average duration of outages, etc on annual basis for the years 2008-09 to 2012-13 in the prescribed format **(Annexure-III)**. In case of storage type of schemes, the generating companies shall also furnish information relating to live storage capacity of reservoir, head at Full Reservoir Level (FRL) and at Minimum Draw Down Level (MDDL), MW capability at FRL and MDDL and month-wise details of the design energy on ten-day basis as approved by CEA, in the above format. Additional information with regard to actual availability of the hydro generating stations shall be furnished in the prescribed format **(Annexure – IV)**

5. For transmission systems, all the transmission licensees, namely Power Grid Corporation of India Ltd., Powerlinks Transmission Ltd. etc. (**as per the list of Transmission Licensees enclosed** with the order) are directed to furnish the operational data in the prescribed format **(Annexure-V)**.

6. All the utilities are also directed to furnish the annual operation and maintenance expenses for the financial years 2008-09 to 2012-13 for their thermal ( coal//lignite/gas) generating stations and transmission systems, and hydro generating stations in the prescribed format **(Annexures-VI and VII, respectively)**. The break-up of corporate expenses at the corporate levels shall be furnished separately along with actual allocation to various functional activities including functional activity of electricity generation or the transmission business, as the case may be, in format at **(Annexure-VIII)**. The methodology for allocation of Regional/ Corporate manpower and expenses to various functional activities and further allocation of corporate office expenses pertaining to power generation/ transmission business to each of the generating stations or the transmission systems, as the

case may be, shall also be furnished.

7. The transmission licensees including PowerGrid Corporation of India Limited are directed to furnish the required additional information in the prescribed format as given at **(Annexure-IX)**.

8. The transmission licensees including Power Grid Corporation of India Limited are directed to furnish the information of Standard lists of Capital Spares and O&M spares for ICT/Reactor/Bay Equipment/ FSC/ GIS/HVDC and ULDC each separately and transmission lines for different conductor configuration as per format given at **(Annexure-X)**.

9. The utilities may bring to the notice of the Commission any other relevant factor or additional information having bearing on the performance and operational parameters or the O&M expenses specifically. Any year to year variation of more than ( $\pm$ )10% in any head of O&M expenses shall be explained properly giving reasons for such variation.

10. All concerned are directed to **furnish the necessary details as per the formats annexed for the period from 2008-09 to 2012-13 by 30.6.2013.**

11. All concerned may also examine the enclosed pro-forma carefully, and in case any difficulty is foreseen in providing the requisite information, they may approach the Commission for necessary clarification within 15 days of issue of this order. All utilities are further directed to furnish the soft copy of all the data in excel work sheet.

**Sd/-**  
**(M. Deena Dayalan)**  
**Member**

**sd/-**  
**(V.S. Verma)**  
**Member**

**sd/-**  
**(Dr. Pramod Deo)**  
**Chairperson**

## **List of Transmission Licensee**

Sr. No.	Name of Transmission Licensee
1	Powerlinks Transmission Ltd.
2	Torrent Power Grid Private Limited
3	Jaypee Power grid Limited (JPPGL)
4	Essar Power Transmission Company Ltd.
5	Parbati Koldam Transmission Company Ltd.
6	Western Region Transmission (Maharashtra) Pvt. Ltd.
7	Western Region Transmission (Gujarat) Pvt. Ltd.
8	Teestavalley Power Transmission Ltd. New Delhi
9	North East Transmission Company Ltd, New Delhi
10	East-North Inter-connection Company Ltd
11	Talcher-II Transmission Company Ltd., New Delhi
12	Cross Border Power Transmission Company Limited, Gurgaon
13	North Karanpura Transmission Company Ltd, New Delhi
14	Jindal Power Limited, Chattisgarh
15	Raichur Sholapur Transmission Company Ltd
16	Jabalpur Transmission Company Ltd, New Delhi
17	Bhopal-Dhule Transmission Company Ltd., New Delhi

**Pro-forma for furnishing Actual annual performance/operational data for the coal/lignite based thermal generating stations for the 5-year period from 2008-09 to 2012-13**

	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13
1	Name of Company						
2	Name of Station						
3	Installed Capacity and Configuration	MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)						
5	Type of BFP		Electrical Driven or Steam driven				
6	Circulating water system		Closed Cycle or Open Cycle				
7	Any other Site specific feature						
8	<b>Fuels :</b>						
8.1	<b>Main Fuel :</b>		Coal/Lignite				
8.1.1	Annual Allocation or/and Requirement	MT					
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal						
8.1.2.	FSA	MT					
8.1.2.	Imported	MT					
8.1.2.	Spot Market/e-auction	MT					
8.1.3	Transportation Distance of the station from the sources of supply	km					
8.1.4	Mode of Transport		Rail/Road/Sea/Conveyor/MGR/Ropeway				
8.1.5	Maximum Station capability to stock main fuel	Days & MT					
8.2	<b>Secondary Fuel :</b>						
8.2.1	Annual Allocation/ Requirement	Klit.					
8.2.2	Sources of supply						
8.2.3	Transportation Distance of the station from the sources of supply	km					
8.2.4	Mode of Transport		Rail/Road/Pipeline				
8.2.5	Maximum Station capability to stock secondary fuels	Klit.					
9.	<b>Cost of Spares :</b>						
9.1	Cost of Spares capitalized in the books of accounts	(Rs. Lakh)					
9.2	Cost of spares included in capital cost for the purpose of tariff	(Rs. Lakh)					

	Period		2008-09	2009-10	2010-11	2011-12	2012-13
10	<b>Generation :</b>						
10.1	-Actual Gross Generation at generator terminals	MU					
10.2	-Actual Net Generation Ex-bus	MU					
10.3	-Scheduled Generation Ex-bus	MU					
11	Average Declared Capacity (DC)	MW					
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU					
13	Actual Energy supplied to Colony from the station	MU					
14	<b>Main Fuel :</b>						
14.1	Consumption :						
14.1.1	Domestic coal	From linked mines	MT				
		Non-linked mines	MT				
14.1.2	Imported coal*		MT				
14.1.3	Spot market/e-auction coal*		MT				
14.2	<b>Gross Calorific Value (GCV) :</b>						
14.2.1	<b>Domestic Coal</b>	<b>(As received)</b>	kCal/kg				
		<b>(As fired)</b>	kCal/kg				
14.2.2	<b>Imported Coal</b>	<b>(As received)</b>	kCal/kg				
14.2.3	<b>Spot market/e-auction coal</b>	<b>(As received)</b>	kCal/kg				
14.2.4	Weighted Average Gross Calorific value <b>(As received)</b>		(kCal /Kg)				
14.2.4	Weighted Average Gross Calorific value <b>(As fired)</b>		(kCal /Kg)				
14.3	<b>Price of coal :</b>						
14.3.1	Weighted Average price of Domestic coal		(Rs /MT)				
14.3.2	Weighted Average Price of Imported coal		(Rs /MT)				
14.3.3	Weighted Average Price of Spot market/e-auction coal		(Rs /MT)				
14.3.4	Weighted Average Price of all the Coals ( as received)		(Rs /MT)				
14.4	<b>Blending :</b>		% and MT				
			( of the total coal consumed )				
14.4.1	Blending ratio of imported coal with domestic coal		Equivalent to domestic coal				

14.4.2	Proportion of e-auction coal in the blending						
14.5	Actual Average stock maintained	Days and MT					
14.5	<b>Actual Transit &amp; Handling Losses for coal/Lignite</b>	(%)					
14.5.1	<b>Pit- Head Station</b>						
14.5.1.1	Transit loss from linked mines						
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.						
14.5.1.3	Transit loss of imported coal						
14.5.2	<b>Non-Pit Head station</b>						
14.5.2.1	Transit loss from linked mines						
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.						
14.5.2.3	Transit loss of imported coal						
15	<b>Secondary Fuel Oil :</b>						
15.1	Consumption	(MT/KL)					
15.2	Weighted Average Gross Calorific value <b>(As received)</b>	(kCal /Kg or Lit.)					
15.3	Weighted Average Price	(Rs per MT or KL)					
15.4	Actual Average stock maintained	(MT or KL)					
16	<b>Weighted average duration of outages ( unit-wise details) :</b>						
16.1	Scheduled Outages	(Days)					
16.2	Forced Outages	(Days)					
16.3	Number of trippings						
16.4	Number of start-ups :						
16.4.1	Cold Start-up						
16.4.2	Warm Start-up						
16.4.3	Hot start-up						
17	NOx , SOx ,and other particulate emission in :						
17.1	Design value of emission	ppm or mg/Nm <sup>3</sup>					

Note :- \* Not applicable to lignite based thermal power station.



17.2	Actual emission	ppm or mg/Nm <sup>3</sup>				
19	Detail of Ash utilization % of fly ash produced	Qty Produced				
19.1	Conversion of value added product	(%)				
19.2	For making roads & embarkment	(%)				
19.3	Land filling	(%)				
19.4	Used in plant site in one or other form or used in some other site	(%)				
19.5	Any other use , Please specify	Qty. and Usage				
20	Cost of spares actually consumed	( Rs. Lakh)				
21	Average stock of spares	(Rs. Lakhs)				
22	Number of employees deployed in O&M					
22.1	- Executives					
22.2	- Non Executives					
22.3	- Corporate office					
23	Man-MW ratio	Man/MW				

**Notes:**

1. List of beneficiaries/customers along with allocation by Gol including variable (allocation of unallocated share) / capacity as contracted shall also be furnished separately.
2. In case of two or more secondary fuels, information should be furnished for each of the secondary fuel.
3. In case of two or more stages or two or more unit sizes, information should be furnished separately to the extent possible.
4. A brief write-up on the methodology to arrive at the above performance & operation parameters should also be furnished.
5. Any relevant point or a specific fact having bearing on performance or operating parameters may also be highlighted or brought to the notice of the Commission.
6. A note on stock of primary fuel giving details of stacking etc. should be furnished.

**Pro-forma for furnishing Actual annual performance/operational data for the Gas/Liquid Fuel based thermal generating stations for the 5 year period from 2008-09 to 2012-13**

	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13
1	Name of Company						
2	Name of Station						
3	Installed Capacity and Configuration	MW					
4	Make of Turbine						
5	Rated Steam Parameters						
6	Average site ambient conditions						
7	Any other Site specific feature						
8	<b>Fuels :</b>						
8.1	Main/Primary Fuel		Natural Gas/RLNG/LNG/Naptha/NGL				
8.1.1	Annual Allocation/ Requirement	Million Cubic meter or MT					
8.1.2	Sources of supply						
8.1.3	Transportation Distance of the station from the Sources of supply	km					
8.1.4	Mode of Transport		Rail/Road/Pipeline/Sea				
8.1.5	Maximum Station capability to stock main/primary fuel	Million Cubic meter or MT o Kilo Litre					
8.2	<b>Alternate Fuel :</b>		Naptha/HSD/Any other				
8.2.1	Annual Allocation/ Requirement	Million Cubic meter or MT or Kilo Litre					
8.2.2	Sources of supply						
8.2.3	Transportation Distance of the station from the Sources of supply	km					
8.2.4	Mode of Transport		Rail/Road/Pipeline/Sea				
8.2.5	Maximum Station capability to stock secondary fuels	Million Cubic meter or MT or Kilo Litre					
9	<b>Cost of Spares :</b>						
9.1	Cost of Spares capitalized in the books	(Rs. Lakhs)					
9.2	Cost of spares included in capital cost for the purpose of tariff	(Rs. Lakhs)					

Period		Unit	2008-09	2009-10	2010-11	2011-12	2012-13
10	<b>Generation :</b>						
10.1	Actual Gross Generation at generator terminals	MU					
10.1.1	<b>Total</b>	MU					
10.1.2	On Gas	MU					
10.1.3	On Naphtha or any other liquid fuel	MU					
10.2	-Actual Net Generation Ex-bus	MU					
10.3	-Scheduled Generation Ex-bus	MU					
11	Average Declared Capacity (DC)	MW					
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU					
13	Actual Energy supplied to Colony from the station	MU					
14	<b>Main/Primary Fuel * :</b>						
14.1	<b>Consumption</b>	(MCM, MT or KL)					
14.1.1	Natural Gas	APM Gas Non-APM Gas					
14.1.2	RLNG						
14.1.3	Liquid Fuel						
14.2	<b>Weighted Gross Calorific Value ( GCV)</b>	(kCal /1000 SCM , Kg or Litre )					
14.2.1	Natural Gas (as fired)						
14.2.2	RLNG (as fired)						
14.2.3	Liquid fuel (as fired)						
14.3	<b>Weighted Average Price</b>	(Rs per MT or KL or 1000 SCM)					
14.3.1	APM Gas						
14.3.2	Non-APM Gas						
14.3.3	RLNG						
14.3.4	Liquid Fuel						
14.4	<b>Percentage of Declared Capacity</b>						
14.4.1	APM Gas						
14.4.2	Non-APM Gas						
14.4.3	RLNG						
14.4.4	Liquid Fuel						
14.4	Actual Average stock maintained	(MT or KL)					
15	<b>Alternate Fuel :</b>						
15.1	Consumption	(MT/KL)					
15.2	Weighted Average Gross Calorific value (As fired)	(kCal /Kg or Litre)					

15.3	Weighted Average Price	(Rs per MT or KL)					
15.4	Actual Average stock maintained	(MT or KL)					
16	<b>Weighted average duration of outages ( Unit-wise details)</b>						
16.1	Scheduled Outages	(Days)					
16.2	Forced Outages	(Days)					
16.3	Number of tripping						
16.4	<b>Number of start-ups :</b>						
16.4.1	Cold Start-up	Nos.					
16.4.2	Warm Start-up	Nos.					
16.4.3	Hot start-up	Nos.					
17	Cost of spares consumed	Rs. Lakhs					
18	Average stock of spares	Rs. Lakhs					
19.	NOx and other particulate emission :						
19.1	Design value	ppm or mg/Nm <sup>3</sup>					
19.2	Actual emission	ppm or mg/Nm <sup>3</sup>					
20	Number of employees deployed in O&M						
20.1	- Executive						
20.2	- Non Executive						
20.3	Corporate Office						
21	Man-MW ratio	Man/MW					

**Notes:**

1. List of beneficiaries/customers along with allocation by Gol including (allocation of unallocated share) / capacity as contracted shall also be furnished separately.
2. In case of two or more alternate fuels, information should be furnished for each of the alternate fuel. Gross generation on generator terminal for different fuel may be based on estimates.
3. In case of two or more stages or two or more unit sizes, information should be furnished separately to the extent possible.
4. A brief write-up on the methodology to arrive at the performance & operation parameters should also be furnished.
5. Any relevant point or a specific fact having bearing on above performance or operating parameters may also be highlighted or brought to the notice of the Commission.
6. If RLNG , Non APM gas or Liquid fuel is alternate fuel then details should be given under head Alternate fuel.

**Pro-forma for furnishing Actual annual performance/operational data for the Hydro Electric generating stations for the 5-year period from 2008-09 to 2012-13**

	<b>Particulars</b>	<b>Units</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
1	Name of Company						
2	Name of Station						
3	Installed Capacity and Configuration	(MW)					
4	Station Location		Under ground or Surface				
5	Type of Excitation System						
6	Live Storage Capacity	(Million Cubic Metres)					
7	Rated Head	Metres					
8	Head at Full Reservoir Level (FRL)	Metres					
9	Head at Minimum Draw down Level (MDDL)	Metres					
10	MW Capability at FRL	MW					
11	MW Capability at MDDL	MW					
12	<b>Cost of spares :</b>						
12.1	Cost of spares capitalized in books of accounts	(Rs. Lakh)					
12.2	Cost of spares included in the capital cost for the purpose of tariff	(Rs. Lakh)					
	<b>Period</b>						
13	<b>Generation :</b>						
13.1	Actual Gross Generation at Generator Terminals	(MU)					
13.2	Actual Net Generation Ex-bus including free power	(MU)					
13.3	Scheduled generation Ex-bus including free power	(MU)					
14	Actual Auxiliary Energy Consumption excluding colony consumption	(MU)					
15	Actual Energy supplied to Colony from the station	(MU)					
16	Average Declared Capacity (DC) during the year	(MW)					

**Annexure-III**  
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	Period	Units	2008-09	2009-10	2010-11	2011-12	2012-13
17	Weighted Average duration of outages ( <b>Unit-wise details</b> )						
17.1	Scheduled outages	(Days)					
17.2	Forced outages	(Days)					
18	Cost of spares actually consumed	(Rs. Lakh)					
19	Average stock of spares	(Rs. Lakh)					
20	Number of employees deployed in O&M						
20.1	- Executives						
20.2	- Non Executives						
20.3	-Corporate Office						
21	Man-MW ratio	Man/MW					

**Month wise Design Energy**

Month	Period	Design Energy as approved by CEA (MU)	Month	Period	Design Energy as approved by CEA (MU)
April	1-10		October	1-10	
	11-20			11-20	
	21-30			21-31	
May	1-10		November	1-10	
	11-20			11-20	
	21-31			21-30	
June	1-10		December	1-10	
	11-20			11-20	
	21-30			21-31	
July	1-10		January	1-10	
	11-20			11-20	
	21-31			21-31	
August	1-10		February	1-10	
	11-20			11-20	
	21-31			21-28	
September	1-10		March	1-10	
	11-20			11-20	
	21-30			21-31	
			Total		

**Annexure III**

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**Notes:**

1. List of beneficiaries/customers along with allocation by GoI including (allocation of unallocated share) / capacity as contracted should also be furnished separately.
2. Declared Capacity should be as per regulation 22(3) of CERC Tariff Regulations for the period 2009-14 including month wise information may be furnished.
3. A brief write-up on the methodology to work-out the performance & operation parameters should also be furnished.
4. Any relevant point or a specific fact having bearing on performance or operating parameters may also be highlighted or brought to the notice of the Commission.

**Annexure –IV**

PLANT AVAILABILITY ACHIEVED						
Generating company:						
Name of Hydro -electric station:						
Installed Capacity (MW) :						
Normative Annual Plant Availability Factor (%) approved by Commission :						
Plant Availability Factor Achieved (%)						
Month	2008-09	2009-10	2010-11	2011-12	2012-13	Reasons for shortfall in PAF achieved vis-a-vis NPAF may be specified
April						
May						
June						
July						
August						
September						
October						
November						
December						
January						
February						
March						
Annual						



**Pro-forma for furnishing Actual annual performance/operational data for the Transmission Systems for the 5-year period from 2008-09 to 2012-13**

<b>Table-1- Region wise information (average for the year, but otherwise total for the region) for AC system</b>							
Sl. No.	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13
1.	Average number of A.C.sub-station in operation	(No.)					
2.	Average ckt-km of A.C. lines in operation	(No.)					
3.	Total number of employees engaged in O&M of sub-station	(No.)					
4.	Total number of employees engaged in O&M of Transmission lines	(No.)					
5.	Auxiliary power consumption (excluding colony power)	(MU)					
6.	Colony power consumption	(MU)					
7.	Average outage duration for a) transmission lines b) transformers c) reactors	(hours/year)					
8.	Cost of Initial spares a) Capitalized b) In Stock	( Rs.in lakh)					
9.	<b>Cost of O&amp;M spares Consumed</b>	( Rs.in lakh)					

<b>Table-2- Station wise information (average for the year, but otherwise total for the station) for HVDC system</b>							
Sl. No.	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13
1	Total number of employees engaged in sub-station O&M	(No.)					
2	Total number of employees engaged in O&M of Transmission lines	(No)					
3.	Auxiliary power consumption n (excluding colony power)	(MU)					
4.	Colony power consumption	(MU)					
5.	Outage duration	Pole-days					
6.	Load curtailment	MW – days					
7.	Cost of initial spares a) Capitalized b) In Stock	(Rs. in lakh)					
8.	Cost of O&M spares consumed	(Rs. in lakh)					

**Pro-forma for furnishing Actual annual performance/operational data for the communication system for the 5-year period from 2008-09 to 2012-13**

<b>Table- 3 Region wise information (average for the year, but otherwise total for the region) for Communication system</b>							
Sl. No.	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13
1.	Number of Wideband Communication Nodes in operation	(No.)					
2.	Average length of OPGW links in operation	(in Kms.)					
3	Number of Remote Terminal Units(RTUs)	(No.)					
4	Number of PLCC links	(No.)					
5	Number of Auxiliary Power Supply(DC) Nodes	(No.)					
6.	Number of employees engaged in O&M of RTU and Communication System	(No.)					
7.	Average outage duration for a) Wideband Communication Links b) RTUs c) PLCC d) Auxiliary Power Supply System	(hours/year)					
8.	Cost of initial spares a) Capitalized b) In Stock	( Rs.in lakh)					
9.	Cost of O&M spares a) Consumed	( Rs.in lakh)					

<b>Annexure VI</b>						
<b>DETAILS OF OPERATION AND MAINTENANCE EXPENSES</b>						
(To be filled for each of the Thermal Generating Station or Transmission Region)				( For ULDC scheme to be filled up separately )		
Name of the Company:						
Name of the Power Station or Transmission Region						
				(Rs. in Lakh)		
Sl.No.	ITEM	2008-09	2009-10	2010-11	2011-12	2012-13
1	2	3	4	5	6	7
(A)	Breakup of O&M expenses :					
1	Consumption of Stores and Spares					
2	Repair and Maintenance					
3	Insurance					
4	Security					
5	Water Charges					
6	Administrative Expenses :					
6.1	- Rent					
6.2	- Electricity Charges					
6.3	- Traveling and conveyance					
6.4	- Communication expenses					
6.5	- Advertising					
6.6	- Foundation laying and inauguration					
6.7	- Donations					
6.8	- Entertainment					
6.9	-Filing Fees					
	Sub-Total (Administrative Expenses)					
7	Employee Cost					
7.1	-Salaries, wages and allowances					
7.2	-Staff welfare expenses					
7.3	-Productivity linked incentive					
7.4	- Expenditure on VRS					
7.5	-Ex-gratia					
7.6	-Performance related pay (PRP)					
	Sub-Total (Employee Cost)					
8	Loss of store					
9	Provisions					
10	Prior Period Adjustment , if any					
11	Corporate office expenses allocation					
12	- Others (Specify items)					
14	Total (1 to 12)					
14	Revenue/ Recoveries, if any					
15	Net Expenses					
16	Capital spares consumed <b>not included in (A) (1) above and not claimed /allowed by Commission</b> for capitalization " ix"					
Notes:						
I. The details of Corporate Expenses and the methodology of allocation of corporate expenses to various functional activities and allocation of Corporate expenses pertaining to power generation/transmission system to each operating stations/ transmission region/system and stations/transmission region/system under construction <b>should be clearly specified in ANNEXURE-VIII</b> as provided here separately.						
II. An annual increase in O&M expenses under a given head in excess of 10% percent should be explained.						
III. The data should be based on audited balance sheets.						
IV. Employee cost should be excluding arrears paid for pay hike/prior period adjustment /payment						
IV. Details of arrears, if any, pertaining to period prior to the year 2008-09 should be mentioned separately.						
V. No. of employees opting for VRS during each year should be indicated.						
VI. Details of abnormal expenses, if any, shall be furnished separately.						
VII Break-up of staff welfare expenses should be furnished						
VIII Details of Consumptive Water requirement with source , rate etc. should be furnished year-wise for Thermal Power Stations						
IX. Details of <b>capital spares consumed each year</b> should be furnished <b>giving item wise unit price and quantity consumed.</b>						

**Annexure-VII**

<b>DETAILS OF OPERATION &amp; MAINTENANCE EXPENSES for Hydro Stations</b>							
Name of Generating company:							<b>(Rs. in lakh)</b>
Name of the hydro-electric Station:							
ITEMS	Units	2008-09	2009-10	2010-11	2011-12	2012-13	
1		2	3	4	5	6	
(A)	<b>Break up of O&amp;M expenses</b>						
1.	Consumption of stores & spares						
2.	Repair and Maintenance						
2.1	For Dam , Intake, WCS, De-silting chamber						
2.2	For Power House and all other works						
	Sub-Total (Repair and Maintenance)						
3.	Insurance						
4.	Security						
5.	<b>Administrative expenses</b>						
5.1	Rent						
5.2	Electricity charges						
5.3	Traveling & conveyance						
5.4	Communication						
5.5	Advertising						
5.6	Donations						
5.7	Entertainment						
	Sub-total (Admn expenses)						
6	<b>Employee cost</b>						
6.1	Salaries,wages & allowances						
6.2	Staff welfare expenses						
6.3	Productivity linked incentive						
6.4	Expenditure on VRS						
6.5	Ex-gratia						
6.6	Performance related pay (PRP)						
	Sub-total (Employee cost)						
7.	Loss of stores						
8.	Provisions						
9.	Allocation of Corporate office expenses						
10.	Other expenses (Specify items)						
11.	Total (1 to 10)						
12.	Revenue/Recoveries, if any						
13.	Net expenses						
14.	Capital spares consumed <b>not included in (A) (1) above and not claimed /allowed by Commission for capitalisation</b>						

15.	Number of employees:						
15.1	Executives						
15.2	Non- Executives						

Notes:

1. The data should be based on audited balance sheets & certified by the Auditor.
2. Employee cost should be excluding arrears paid for pay hike. Details of arrears, paid for pay hike should be indicated separately for each year.
3. Details of abnormal expenses under the head Repair & Maintenance and Security may not be included here and information to be provided separately for each year.
4. An annual increase in O&M expenses under a given head in excess of 10% should be explained with justification.
5. Break up of Staff welfare expenses under various items to be furnished.
6. Numbers of employees opting for VRS during each year should be provided.

**Annexure-VIII**

<b>DETAILS OF RUNNING EXPENSES (At Corporate Level)</b>							
<b>Name of the Company:</b>							
				(Rs. in lakh)			
Sl.No.	ITEM	unit	2008-09	2009-10	2010-11	2011-	2012-13
1	2		3	4	5	6	7
(A)	Breakup of corporate expenses (Aggregate at Company level)						
1	- Employee expenses:						
1.1	-Salaries, wages and allowances						
1.2	-Staff welfare expenses						
1.3	-Productivity linked incentive						
1.4	- Expenditure on VRS						
1.5	-Ex-gratia						
1.6	-Performance related pay( PRP)						
2	Administrative Expenses:						
2.1	- Repair and maintenance						
2.2	- Training and Recruitment						
2.3	- Communication						
2.4	- Traveling & Conveyance						
2.5	- Rent						
2.6	- Others (Specify items)						
	Sub - Total (Administrative						
3	Security						
4	Donations						
5	Provisions						
6	Others (specify items)						
7	Total (1 to 6)						
8	Less recoveries (if any)						
9	Net Corporate Expenses						
(B)	Allocation of Corporate Expenses						
1	Power Generation/Transmission O&M						
2	Project management/Projects under Construction						
3	RLDC and ULDC						
4	Consultancy Business						
5	Telecommunication Business						
6	Any other						
	Note: Heads indicated above are illustrative. Generating						
(C)	Allocation of Corporate Expenses relating to functional activity of power Generation or						
1	Generating station 1 / Transmission Region 1						
2	Generating station 2 / Transmission Region 2 .....						

**Additional Region-wise Information required from Transmission Licensees**

1. Name of Transmission Company:
2. Name of Transmission Region:

<b>Table-1- Length (km) of Transmission Lines in Commercial Operation</b>					
	Status as on				
	1.4.2009	1.4.2010	1.4.2011	1.4.2012	1.4.2013
HVDC					
765 kV a) S/C b) D/C					
400 kV a) S/C b) D/C c) Multi					
220 kV a) S/C b) D/C					
Up to 132 kV a) S/C b) D/C					

<b>Table-2- Ckt km by Conductor Configuration</b>						
	Type of Conductor	Status as on				
		1.4.2009	1.4.2010	1.4.2011	1.4.2012	1.4.2013
Hexa	ACSR/ AAAC					
Quad						
Triple						
Twin						
Single						

<b>Table-3- Number of AC Substations in Commercial Operation</b>					
	Status as on				
	1.4.2009	1.4.2010	1.4.2011	1.4.2012	1.4.2013
765 kV					
400 kV					
220 kV					
Up to 132 kV					

<b>Table-4- Number of Sub-station bays in Commercial Operation</b>					
	Status as on				
	1.4.2009	1.4.2010	1.4.2011	1.4.2012	1.4.2013
HVDC					
765 kV					
400 kV					
220 kV					
Up to 132 kV					

<b>Table-5- Cost of Outsourcing of Services (Rs. in lakh)</b>					
	2008-09	2009-10	2010-11	2011-12	2012-13
Substation O&M					
Lines O&M					
Security					
Others					

<b>Table-6- Total O&amp;M Expenditure Including RHQ, but Excluding HVDC Stations (Rs in lakh)</b>					
	2008-09	2009-10	2010-11	2011-12	2012-13

<b>Table-7- Total O&amp;M Expenditure at HVDC Station (Rs. in lakh)</b>					
	2008-09	2009-10	2010-11	2011-12	2012-13
Rihand					
Dadri					
Talchar					
Kolar					
Vindhyachal					
Chandrapur					
Gazuwaka					
Sasaram					
Bhiwadi					
Balia					



**Additional Region-wise Information required from Transmission Licensees**

1. Name of Transmission Company:
2. Name of Transmission Region:

<b>Table-1- Details of Communication system in Commercial Operation</b>					
	Status as on				
	1.4.2009	1.4.2010	1.4.2011	1.4.2012	1.4.2013
OPGW Communication Links in operation(in Kms)					
Number of wideband Communication nodes in operation					
Number of RTUs in operation					
Number of PLCC links in operation					
Number of Auxiliary Power Supply Nodes in operation					

<b>Table-2- Cost of Outsourcing of Services</b>					
	2008-09	2009-1	2010-1	2011-1	2012-13
Communication system O&M					
PLCC O&M					
RTU O&M					
Auxiliary Power Supply O&M					
Hiring charges of Bandwidth					
Security					
Others					

Standard lists of Capital Spares for ICT/Reactor/Bay Equipment/ FSC/ GIS/HVDC station each separately and transmission lines for different conductor configuration needs to be submitted

	<b>ICT</b>		
S.No	Name of capital spares	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Reactor</b>		
S.No	Name of capital spares	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Bay equipments</b>		
S.No	Name of capital spares	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>FSC</b>		
S.No	Name of capital spares	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>GIS</b>		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)

**Annexure-X**  
**SH 2/5**

1.			
2---			
n			
	<b>HVDC station</b>		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Tras. lines 765 kv</b>		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Tras. lines 400 kv</b>		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Tras. lines 220kV and below</b>		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			

Standard lists of O&M Spares required every year for ICT/Reactor/Bay Equipment/ FSC/ GIS/HVDC station each separately and transmission lines for different conductor configuration needs to be submitted

	<b>ICT</b>		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Reactor</b>		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>Bay equipments</b>		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>FSC</b>		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			

<b><u>Annexure-X</u></b> <b><u>SH 4/5</u></b>			
	<b>GIS</b>		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2---			
n			
	<b>HVDC station</b>		
S.No	Name of O&M spare		
1.			
2---			
n			
	<b>Tras. lines 765kv</b>		
S.No	Name of O&M spare		
1.			
2---			
n			
	<b>Tras. lines 400 kV</b>		
S.No	Name of O&M spare		
1.			
2---			
n			
	<b>Tras. lines 220kV and below</b>		
S.No	Name of O&M spare		
1.			
2---			
n			

Remarks , if any :

Standard list of Capital Spare for Communication system needs to be submitted

	OPGW/SDH/MUX/PLCC /RTU cards/DC Modules		
S.No	Name of capital spare	Qty (Nos)	Indicative cost (Rs)
1.			
2			

Standard list of O&M Spare for OPGW/SDH/MUX/PLCC /RTU cards/DC Modules needs to be submitted

	OPGW/SDH/MUX/PLCC /RTU cards/DC Modules		
S.No	Name of O&M spare	Qty (Nos)	Indicative cost (Rs)
1.			
2			