



COMMISSION'S ORDER

ON

AGGREGATE REVENUE REQUIREMENT OF HARYANA POWER GENERATION CORPORATION LIMITED FOR MYT CONTROL PERIOD FY 2014-15 to FY 2016-17, TRUE UP FOR FY 2012-13 & GENERATION TARIFF FOR FY 2014-15

CASE No: HERC / PRO- 39 OF 2013

Panchkula

29th May, 2014

HARYANA ELECTRICITY REGULATORY COMMISSION

BAY NO. 33-36, SECTOR - 4, PANCHKULA - 134 112

www.herc.gov.in

BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION
BAY NO. 33-36, SECTOR - 4, PANCHKULA - 134 112

CASE NO: HERC / PRO - 39 OF 2013

DATE OF HEARING: 18th March, 2014

DATE OF ORDER: 29th May, 2014

Quorum:

Shri R.N. Prasher
Shri Jagjeet Singh
Shri M.S. Puri

Chairman
Member
Member

INTHE MATTER OF

Multi Year Tariff Application for the Control Period FY 2014-15 to FY 2016-17 u/s 61 & 62 of the Electricity Act, 2003 read with the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

AND

IN THE MATTER OF

HPGCL, Panchkula

..... Petitioner

Parties Present:

1. Shri M.K.V Rama Rao, MD, HPGCL.
2. Shri J.P. Agarwal, Director/Tech, HPGCL.
3. Shri S.C. Jain, Director / Tech. HPGCL.
4. Shri B.B. Gupta, FA/Hqr. HPGCL.

5. Shri Sharad Bhatnagar, SE/Tech. HPGCL.
6. Shri Niraj Kumar, GM/RA, UHBVNL.

ORDER

1. The Haryana Electricity Regulatory Commission (hereinafter referred to as HERC or the Commission), in pursuance of the provisions in the National Tariff Policy and the Electricity Act, 2003, had notified on 5.12.2012 the Multi Year Tariff Regulations i.e. the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (hereinafter referred to as MYT Regulations, 2012).
2. As per the provisions of the regulation 75 of the MYT Regulations, 2012, the Generation Company i.e. HPGCL was required to file Capital Investment Plan by 1st August, 2012, Business Plan by 1st August, 2012, MYT proposal for the first control period i.e. FY 2014-15 to FY 2016-17 by 30th November, 2012 and mid-term performance review / true-up by 30th November each year of the control period.
3. Accordingly, HPGCL vide its Memo No. HPGC/FIN/Reg-417/622 dated 28.10.2013 had submitted a Petition for 'truing up' of employees cost for FY 2012-13 based on the audited accounts (**Case No. HERC/PRO-36 of 2013**).

Further, HPGCL vide memo no. HPGC/FIN-Reg-429/636 dated 29.11.2013 filed its Multi Year Generation tariff application for the 1st control period i.e. FY 2014-15 to FY 2016-17 for the consideration and order of the Commission. Thus for the MYT period FY 2014-15, FY 2015-16 and FY 2016-17, HPGCL had submitted its tariff proposal for the thermal power stations owned and operated by it i.e. PTPS (Unit 1-8), DCRTPS (Unit 1-2), RGTPS (Unit 1-2) and hydro power station(s) i.e. WYC & Kakroi (**Case No. HERC/PRO-39 of 2013**).

In addition to the above HPGCL, vide memo no. HPGC/FIN/Reg-417/685 dated 30.1.2014, had filed a petition for recovery of fixed charges of RGTPS for the period of shutdown of Unit 2 in FY 2013-14 and recovery of fixed charges on actual PLF for FY 2014-15 (**Case No. HERC / PRO – 13 of 2014**).

In view of the fact that all the aforementioned cases brought before the Commission relates to HPGCL and has bearing on the cost of generation to be recovered by HPGCL from the Discoms i.e. UHBVNL & DHBVNL, the Commission has considered it appropriate to dispose of all the cases mentioned above by a common order.

4. The MYT petition filed by HPGCL was made available on the website(s) of the Commission as well as that of the Petitioner Company for inviting objections / comments from the stakeholders. A Public Notice, including gist of the generation tariff proposal, was also published by the Petitioner Company i.e. HPGCL in the newspapers for inviting objections/suggestions from the stakeholders / General Public or

any interested person as per the procedure laid down in the MYT Regulations, 2012 read with the Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004.

5. The salient features of the MYT Petition are as under:

5.1 The Government of India (GOI) notified the Electricity Act, 2003 (hereinafter referred to as the Act) with effect from 10th June 2003 repealing the Indian Electricity Act-1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The guiding principles for the power sector have been formulated by GOI in the National Electricity Policy, 2005 and National Tariff Policy, 2006 in pursuance of the power granted to it under section 3 of the Act. As per the National Tariff Policy, the Central Commission would, in consultation with the Central Electricity Authority, notify operating norms from time to time for Generation and Transmission which would be adopted by the SERCs. Section 61 of the Act provides that the State Electricity Regulatory Commissions (SERC) are to be guided by principles and methodologies of Central Commission, National Electricity Policy, National Tariff Policy etc. while specifying the terms and conditions of determination of tariff.

In line with the above, the Commission had notified the Haryana Electricity Regulatory Commissions (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework)

Regulations, 2012 (hereinafter referred as “MYT Regulations 2012”) on 5th December, 2012.

5.2 HPGCL’s basis of Generation Tariff Proposal for MYT Control Period:

HPGCL had submitted that they have filed the present Petition in compliance with MYT Regulations, 2012. It was further submitted by them that they have sought a few relaxations with regard to certain performance parameters of the Generating Units, considering the past performance and achievability of the norms. While proposing the norms for MYT control period, guidelines laid out in National Tariff Policy, 2006 have also been considered by the Petitioner. The relevant guideline cited by the Petitioner is reproduced below:

“5.3 (f) the norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into consideration the latest technological advancements, fuel, vintage of equipments, nature of operations, level of service to be provided to consumers etc.”

5.3 HPGCL’s Proposed Technical Parameters:

HPGCL had submitted that regulation 28 of the MYT Regulations, 2012, lays down the operating norms for the Generating Stations. A summary of the technical norms specified in the MYT Regulations 2012 for the existing power plants are as under:

“28. NORMS OF OPERATION FOR THERMAL POWER STATIONS

(1) Normative Annual Plant Availability Factor (NAPAF)

(a) Existing Plants

Plant Name (Units)	2013-2014 (%)	MYT Period		
		2014-2015 (%)	2015-2016 (%)	2016-2017 (%)
<i>Panipat TPS (Units 1 to 4)</i>	68	68	68	68
<i>Panipat TPS (Units 5 & 6)</i>	85	85	82.5	82.5
<i>Panipat TPS (Units 7 & 8)</i>	85	85	85	85
<i>DCR TPS, Yamuna Nagar (Units 1&2)</i>	85	85	85	85
<i>Rajiv Gandhi TPS, Khedar (Hisar) (Units 1&2)</i>	85	85	85	85

(2) Auxiliary Energy Consumption

(a) Existing Plants

Plant Name (Units)	2013-2014 (%)	MYT Period		
		2014-2015 (%)	2015-2016 (%)	2016-2017 (%)
<i>Panipat TPS (Unit 1 to 4)</i>	11	11	11	11
<i>Panipat TPS (Units 5 & 6)</i>	9	9	9	9
<i>Panipat TPS (Units 7 & 8)</i>	8.50	8.50	8.50	8.50
<i>DCR TPS, Yamuna Nagar (Units 1&2)</i>	8.50	8.50	8.50	8.50
<i>Rajiv Gandhi TPS, Khedar (Hisar) (Unit 1&2)</i>	6	6	6	6

**For Coal-based generating stations with induced draft cooling towers, the norms shall be further increased by 0.5%.*

(3) Station Heat Rate

(a) Existing Plants

<i>Plant Name (Units)</i>	<i>2013-2014 (kCal/kWh)</i>	<i>MYT Period</i>		
		<i>2014-2015 (kCal/kWh)</i>	<i>2015-2016 (kCal/kWh)</i>	<i>2016-2017 (kCal/kWh)</i>
<i>Panipat TPS (Unit 1 to 4)</i>	<i>3150</i>	<i>3150</i>	<i>3150</i>	<i>3150</i>
<i>Panipat TPS (Units 5 & 6)</i>	<i>2550</i>	<i>2550</i>	<i>2550</i>	<i>2550</i>
<i>Panipat TPS(Units 7 & 8)</i>	<i>2500</i>	<i>2500</i>	<i>2500</i>	<i>2500</i>
<i>DCR TPS, Yamuna Nagar (Units 1&2)</i>	<i>2344</i>	<i>2344</i>	<i>2344</i>	<i>2344</i>
<i>Rajiv Gandhi TPS, Khedar (Hisar) (Unit 1&2)</i>	<i>2387</i>	<i>2387</i>	<i>2387</i>	<i>2387</i>

Note: Station heat rate norms for Deen Bandhu Chhottu Ram TPS (Unit 1 and 2) and Rajiv Gandhi TPS (Unit 1 and 2) have been determined considering their design heat rate as 2201 kCal/kWh and 2241 kCal/kWh respectively and multiplying the same with a factor of 1.065.

(4) Secondary Fuel Oil Consumption (SFC)

(a) Existing Plants

<i>Plant Name (Units)</i>	<i>2013- 2014 (ml/kWh)</i>	<i>MYT Period</i>		
		<i>2014-2015 (ml/kWh)</i>	<i>2015- 2016 (ml/kWh)</i>	<i>2016-2017 (ml/kWh)</i>
<i>Panipat TPS (Unit 1 to 4)</i>	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>
<i>Panipat TPS (Units 5 & 6)</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>
<i>Panipat TPS(Units 7 & 8)</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>
<i>DCR TPS, Yamuna Nagar</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>

<i>Plant Name (Units)</i>	<i>2013- 2014 (ml/kWh)</i>	<i>MYT Period</i>		
		<i>2014-2015 (ml/kWh)</i>	<i>2015- 2016 (ml/kWh)</i>	<i>2016-2017 (ml/kWh)</i>
<i>(Units 1&2)</i>				
<i>Rajiv Gandhi TPS, Khedar (Hisar) (Unit 1&2)</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>

5.4 As against the aforesaid operating norms notified by the Commission in the MYT Regulations, 2012, the Petitioner had provided the actual performance of the power stations for the past years including first six months of the FY 2013-14 and projections for the control period FY 2014-15 to FY 2016-17. The power station wise details and projections of various operating parameters as provided by HPGCL in its MYT Tariff petition, under consideration of the Commission, are as under:

5.4.1 Plant Load Factor (PLF %):

The Petitioner had submitted that the proposed Plant Load Factor (PLF) for its Generating Stations are as per the norms specified in the MYT Regulations 2012 along with considerations of the age of the plants and the necessary maintenance shutdown periods due to repair and refurbishment activities in case of PTPS Unit 3 & 4.

The table given below provides the actual PLF achieved by the Generating Stations of HPGCL since FY 2005-06 as provided by them.

Plant Load Factor (%)									
Station	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14 (upto December)
PTPS (1-4)	57.77	66.59	59.41	57.89	68.38	53.37	63.71	50.82	13.06
PTPS (5-8)	73.70	91.24	93.60	91.30	93.40	89.10	89.50	86.09	67.67
DCRTPS (1&2)	-	-	-	69.05	81.35	73.85	61.45	18.33	62.23
RGTPS (1&2)	-	-	-	-	-	-	52.73	47.50	47.74
HPGCL (Thermal)	67.0	78.78	78.94	75.01	82.93	76.28	66.60	53.65	52.64

On the above performance i.e. actual PLF achieved, HPGCL had submitted that in FY 2013-14, PTPS Unit 1 to 4 were boxed up for a significant period of time resulting in low PLF. However, after taking into account the deemed generation the PLF works out higher than the norms specified by the Commission. The other Units of PTPS, RGTPS and DCRTPS have also been backed down on the directions of the Discoms resulting in generation / PLF lower than the norms. It was further submitted by the Petitioner that DCRTPS Unit 2 was under shutdown due to problems of turbine vibrations and had remained under shutdown in July 2013 and August 2013 after surfacing of the turbine problem in the month of June 2013. The same was repaired in September 2013 only.

HPGCL, citing the above reasons, had submitted the following levels of PLF for its power plants in the control period FY 2014-15 to FY 2016-17 for consideration and approval of the Commission as these are also in line with their business plan and hence have prayed that the same may be considered for the purpose of tariff determination in the first control period of the MYT.

Power Station	HPGCL – Proposed PLF for the Control Period (%)		
	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (1 & 2)	68	68	68
PTPS (3-4)	60	48.75 #	63.5
PTPS (5-6)	85	82.5	82.5
PTPS (7&8)	85	85	85
DCRTPS (1&2)	85	85	85
RGTPS (1&2)	85	85	85
WYC & Kakroi	50	50	50

Low proposed PLF due to R&R in PTPS (3&4).

It was submitted by the Petitioner that PTPS Unit 1&2 are planned to be operated at the norms set in the MYT Regulations, 2012 for the control period. However, based on the technical report submitted by M/s Energo Engineering Pvt. Ltd, it was submitted that PTPS Unit 3&4 are expected to perform below the norms specified by the Commission as the three months planned shutdown period in 2015-16 is expected to reduce the PLF to about 49% for the year. The remaining power plants at PTPS,

RGTPS and DCRTPS are expected to perform at the normative levels set by the Commission. The Petitioner had reiterated that they are making all possible efforts to increase the efficiency of their power plants.

5.4.2 Station Heat Rate (SHR in Kcal/kWh):

The actual Station Heat Rate (SHR) attained by the thermal power generating stations, as submitted by the Petitioner, during the past years (since FY 2005-06) is as under:

Station Heat Rate (Kcal/kWh)									
Station	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14 (upto Dec)
PTPS (1-4)	3665	3341	3470	3425	3225	3349	3211	3126	3021
PTPS (5-8)	2703	2620		2574	2561	2679	2662	2538	2534
DCRTPS (1&2)	-	-	2571	2450	2387	2479	2414	2395	2393
RGTPS (1&2)	-	-	-	-	-	-	2638	2543	2371
HPGCL (Thermal)	3074	2894	1916	2762	2684	2728	2686	2608	2470

HPGCL had submitted that Station Heat Rate is a critical factor in determining the performance of the generating stations. It was submitted that they aim to improve the station heat rate with the intention of

complying with the norms during the control period. Additionally, it was submitted that in FY 2013-14, the performance of the RG TPS had improved; however, it is yet to stabilize after the prolonged shutdowns.

The Petitioner had further submitted that the station heat rate notified by the Commission in the MYT Regulations, 2012 for RGTPS is low because the design heat rate of 2,387 kcal/kWh is calculated at a boiler efficiency of 87.21% and a design turbine heat rate of 1,954. However, this boiler efficiency is applicable for coal with GCV of about 4,000 kcal/kg. For the poor quality of Coal with GCV of about 3,150 kcal/kg that they are getting, the boiler efficiency is about 85.57% resulting in higher station heat rate of about 2432 kcal/kWh.

In view of the above the Petitioner had submitted that the Commission considered 4,000 kcal as the GCV of coal while determining the SHR norm for RGTPS. However, the quality of coal received at RGTPS has been poor with average GCV of about 3,100 kcal/kg only. The Petitioner provided the following details regarding coal quality (post blending) at RGTPS .

Average GCV (Kcal/Kg) of Coal Utilized at RG TPS (1&2)		
from January 2013 to August 2013		
Month	RGTPS (Unit -1) Blended Coal	RGTPS (Unit -2) Blended Coal
Jan	3198	3267
Feb	3184	3152
March	Nil	Nil
April	Nil	3120
May	3223	3360
June	3130	3151
July	3017	2997
August	3030	3030

In support of the relaxation sought the Petitioner had submitted a copy of OEM operating manual regarding the prescribed boiler efficiency norms as referred to above, in respect of the Station heat rate for 2X600MW RGTPS, Hisar as part of Annexure 2 to their MYT petition. The average Station Heat Rate, as per HPGCL's submission, for the period from FY 2011-12 to Sept 2013, was about 2,548 kcal/kWh. Thus, the Petitioner sought relief in station heat rate in case of RGTPS and has prayed that the Commission may consider the SHR as proposed by them.

In the case of PTPS Units 5&6 and DCRTPS, the Petitioner had proposed Station Heat Rate for the first year of the MYT control period based on the average of the past four years with improvements in subsequent years. The Petitioner had submitted that the quality of coal received at DCRTPS is below the norms of the OEM for efficient operations. Thus the usage of such poor quality coal has led to an increase in the station heat rate in the past years. The Petitioner has requested the Commission to consider the poor quality of coal being received by HPGCL, while allowing the station heat rate for various generating stations and relax the norms accordingly. HPGCL's proposed SHR for different power stations are as under:

Power Station	HPGCL – Proposed SHR for the Control Period (Kcal/kWh)		
	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (1 & 2)	3150	3150	3150
PTPS (3-4)	3150	3150	3150

PTPS (5-6)	2600	2575	2550
PTPS (7&8)	2500	2500	2500
DCRTPS (1&2)	2450	2425	2400
RGTPS (1&2)	2387	2360	2344

HPGCL had submitted that they have not considered any deterioration in SHR during the MYT first control period as they are committed to improve its performance in spite of the challenges related to the quality of coal.

In view of the above, HPGCL has prayed that the Commission may approve the SHR for the various power plants/ Units as proposed by them considering the historical performance, operational issues and regulatory norms.

5.4.3 Auxiliary Energy Consumption (%):

On the above issue HPGCL had submitted that auxiliary energy consumption for a generating station depends on quality of coal it receives at the feeding point, number of frequent start-ups and shut downs it encompasses and the ageing of equipment. In addition, it was submitted, that the number of drives being used in the actual operation on account of the decline in the above mentioned factors and technological factors also leads to an increase in auxiliary energy consumption.

The following table provides the trend in the auxiliary energy consumption for HPGCL plants from FY 2005-06 onwards, as provided by them.

Auxiliary Energy Consumption (%)									
Station	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14 (upto Dec)
PTPS (1-4)	11.75	11.59	12.13	11.48	11.40	12.0	12.54	12.62	13.97
PTPS (5-8)	9.06	8.74	8.81	8.80	9.13	9.66	9.80	9.80	10.06
DCRTPS (1&2)	-	-	-	9.33	9.29	9.73	9.34	10.46	9.12
RGTPS (1&2)	-	-	-	-	-	-	6.37	5.93	5.80
HPGCL (Thermal)	10.08	9.93	9.93	9.66	9.77	10.06	9.06	8.96	8.57
WYC & Kakroi (Hydel)	0.87	0.77	0.82	0.75	0.81	0.78	0.68	0.69	0.70

HPGCL had submitted that the auxiliary energy consumption of PTPS Unit 1&2 is expected to be about 12.5% during the MYT control period. It was further submitted that the auxiliary energy consumption of PTPS Units 3&4 is expected to witness incremental increase after the requisite R&M as per the report from M/s Energo Engineering Pvt. Ltd. The Petitioner has envisaged improvement in the auxiliary energy consumption in PTPS Unit 5-8 and DCRTPS Unit 1&2 while auxiliary energy consumption for RGTPS, as per the submissions of the Petitioner,

is expected to be in line with the norms provided in the MYT Regulations 2012. The Petitioner has reiterated that PTPS Unit 1 to 4 has outlived their useful economic life and the performance over the past few years has been well below the norms.

It was further submitted that PTPS Unit - 5 is also nearing the end of its useful economic life due to which the auxiliary energy consumption remains high. Additionally it was submitted that DCRTPS had frequent shutdowns and hence the auxiliary energy consumption of the Units has been on the higher side. The Petitioner had submitted that steps are being taken to reduce the auxiliary energy consumption of the power plants during the control period and had proposed the following levels of auxiliary energy consumption after taking into consideration the historical performance of the power plants.

Power Station	HPGCL – Proposed Auxiliary Energy Consumption (%)		
	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (1 & 2)	12.50	12.50	12.50
PTPS (3-4)	12.60	12.80	13.0
PTPS (5-6)	10.40	10.30	10.25
PTPS (7&8)	9.25	9.0	9.0
DCRTPS (1&2)	9.75	9.5	9.25
RGTPS (1&2)	6.0	6.0	6.0
WYC & Kakroi (Hydro)	1.0	1.0	1.0

5.4.5 Specific Fuel Oil Consumption (ml/kWh):

The historical trend of Specific Oil Consumption in various power plants of HPGCL, as submitted by the Petitioner, is as under:

Specific Fuel Oil Consumption (ml/kWh)									
Station	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14 (upto Dec)
PTPS (1-4)	5.26	2.92	2.93	3.33	2.44	5.80	5.56	5.81	4.13
PTPS (5-8)	2.92	0.86	0.59	0.80	1.05	2.68	1.25	0.84	0.84
DCRTPS (1&2)	-	-	-	6.32	1.70	2.35	2.24	2.71	0.74
RGTPS (1&2)	-	-	-	-	-	-	2.80	1.29	0.61
HPGCL (Thermal)	3.74	1.85	1.66	2.87	1.61	3.08	2.47	1.78	0.95

The Petitioner had submitted that the specific fuel oil consumption of PTPS Unit 1-4 has been very high as compared to the norms. This was attributed by them to frequent start up and shutdown of these power plants on the directions of the Discoms. The Petitioner had further submitted that PTPS Units 1 -4 are of old vintage and the norms set in the MYT Regulations, 2012 are not achievable considering the historical performance of these Units. Further the Petitioner had submitted that PTPS Unit - 5 is also nearing completion of its useful life and hence its specific oil consumption is also higher than the norm. The Petitioner had proposed specific oil consumption for PTPS Unit – 5 & 6 at 1.50 ml/

kWh for the control period. The other Units of PTPS, RGTPS, and DCRTPS Units, as per submissions of the Petitioner, are expected to perform at the normative levels of specific fuel oil consumption. Therefore, the Petitioner has proposed the following levels of specific fuel oil consumption for the control period:

Power Station	HPGCL – Proposed Specific Fuel Oil Consumption (ml/kWh)		
	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (1 & 2)	3.53	3.53	3.53
PTPS (3-4)	6.80	6.0	6.0
PTPS (5-6)	1.50	1.5	1.5
PTPS (7&8)	1.00	1.0	1.0
DCRTPS (1&2)	1.00	1.0	1.0
RGTPS (1&2)	1.00	1.0	1.0

5.4.6 Calorific Value & Price of Fuel (Coal & Oil):

The Petitioner had submitted that the calorific value of Coal and Oil for PTPS, DCRTPS and RGTPS has been estimated by them based on the average of the calorific value of coal used for the first six months (April 2013 to Sept 2013) of FY 2013-14. The calorific value considered for computation of coal and oil requirement by the Petitioner is as under:

Proposed Gross Calorific Value in kcal. / Kg for Coal and Oil				
Particulars	PTPS 1-4	PTPS 5-8	DCRTPS	RGTPS
Gross Calorific Value of Coal (kcal/Kg)	3620	3628	3641	3202
Gross Calorific Value of Oil (kcal/Kg)	10107.33	10107.33	10090.69	10303.13

The Petitioner had submitted that the cost of coal proposed by them has been calculated based on the weighted average of the cost of coal utilized at the plant during the same period i.e. April 2013 to Sept 2013 and this cost includes the effect of blending imported coal as well. Similarly, the cost of oil for PTPS and RGTPS is calculated by taking weighted average of the cost of oil used for the first five months of the FY 2013-14. It was submitted that in the last few months the increase in railway freight has added to the landed cost of indigenous coal whereas the cost of imported coal are adversely impacted due to the depreciation of Rupee against US dollar. The cost of coal and oil for the current FY 2013-14, as provided by the Petitioner, is as under:

Average Landed Cost of Coal and Oil for FY 2013-14 (First 6 Months, up to September 2013)		
Plant	Coal Price (Rs./ MT)	Oil Price (Rs/ kl)
PTPS	4433	42772
DCRTPS	3959	43001
RGTPS	3934	45582

The Petitioner, in their MYT Tariff Petition, had proposed coal and oil prices based on the base value of coal and oil provided in the table above,

which has been escalated based on the escalation rate provided in CERC bi-monthly notifications for case I/II bidding at 6.62% per annum (to minimize the fuel price adjustment) for the MYT control period to account for yearly increase in the coal and oil prices. The Petitioner has prayed that the Commission may consider the above coal and oil prices along with the escalation rate as proposed above as the impact of increase in coal and oil prices on the working capital requirements is not considered under the fuel price adjustment mechanism. It was further submitted that the Petitioner is not able to recover the cost of increased requirement of working capital due to increase in coal and oil prices while raising the bills of fuel price adjustments to the beneficiaries hence coal cost escalation, in line with the CERC, may be considered.

The cost of coal proposed by HPGCL for the first control period of the MYT also includes the normative transit loss as per MYT Regulations 2012. The details of the proposed prices of coal and oil are as under:

Coal Prices Estimated by HPGCL for the Control Period (Rs. / MT)			
Plant	FY 2014-15	FY 2015-16	FY 2016-17
PTPS	4726	5039	5373
DCRTPS	4221	4501	4799
RGTPS	4194	4472	4768

Oil Prices Estimated by HPGCL for the Control Period (Rs. / MT)			
Plant	FY 2014-15	FY 2015-16	FY 2016-17
PTPS	45603	48622	51841
DCRTPS	45848	48883	52119
RGTPS	48599	51816	55247

5.4.7 HPGCL's Projection of Financial Parameters:

5.4.7.1 Return on Equity (ROE) & Income Tax thereto:

The Petitioner had submitted that they have proposed unconditional return on equity @ 14% so that they are at par with other Power Generating Utilities in the country. Accordingly ROE of Rs. 3009 million on an equity base of Rs. 21493 Millions has been proposed for FY 2014-15, Rs. 3037 on an equity base of Rs. 21695 Millions for FY 2015-16 and Rs. 3043 Millions on an equity base of Rs. 21726 Millions for FY 2016-17. Additionally, it was submitted by the Petitioner that Income Tax is a statutory levy and beyond their control, hence it should be considered as an uncontrollable element of fixed cost and should be allowed as a pass through at the time of true – up, based on actual tax paid.

5.4.7.2 Interest on Loan Capital & Finance Charges:

The Petitioner had submitted that they have considered the actual interest rate as applicable to existing loans for computation of interest charges as well as the finance charges constituting guarantee fees, other Bank charges etc. It was submitted that the projections of the interest and finance charges are based on the projected repayment of the loans and other payment terms. Accordingly, Rs. 5032 Millions has been proposed for FY 2014-15, Rs. 4449 Millions for FY 2015-16 and Rs. 3882 Millions for FY 2016-17, for HPGCL as a whole.

5.4.7.3 Depreciation:

As per the submissions in MYT Petition, HPGCL had calculated power plant wise depreciation based on the approach adopted by the Commission in previous Tariff Order(s) i.e. on the opening Gross Fixed Asset (GFA) at the rates specified in the MYT Regulations, 2012. For the purpose of this Petition, HPGCL has considered the opening Gross Fixed Assets for the control period based on the estimated addition/deletion/transfers as considered in the business plan. Accordingly, Rs. 4740 Millions depreciation has been claimed for FY 2014-15, Rs. 4584 Millions for FY 2015-16 and Rs. 4227 Millions for FY 2016-17, for HPGCL as a whole.

5.7.3.4 Interest on Working Capital:

The Petitioner had submitted that they have projected working capital requirement as per the regulation 22 of the MYT Regulations, 2012. The interest rate considered by HPGCL is 13% which as per their submission is in line with the Commission's previous Generation Tariff order. Thus on an estimated working capital requirement of Rs. 22815 Millions for FY 2014-15, the proposed interest cost has been worked out at Rs. 2966 Millions. Similarly, for estimated working capital requirement of Rs. 23783 Millions for FY 2015-16 the proposed interest cost has been worked out at Rs. 3092 Millions and on an estimated working capital requirement of Rs. 25402 Million for FY 2016-17 the proposed interest cost has been worked out at Rs. 3302 Millions.

5.7.3.5 Operation and Maintenance Expenses (O&M):

The Petitioner had submitted that the Commission has set norms in regulation 28(5) of the MYT Regulations, 2012 for Operation and Maintenance Expenses. The norms were set considering the Operation and Maintenance expenses of the base year 2011-12 as per the audited accounts with an escalation of 4% applied to the expenditure of FY 2011-12 to arrive at the normative expenses for the Control Period. The Petitioner had further submitted that the O&M expenses set by the Commission are very low for the proper functioning of the power plants as the above norms only consider one year of operation, which may not truly reflect the desired level of O&M and hence may not be appropriate for setting the benchmark O&M cost. Therefore, the Petitioner had proposed O&M cost for its Generating Units keeping in view FY 2012-13 as the base year of O&M expenses and appropriate escalation rate i.e. 7.8% reflecting the actual inflationary adjustments. Accordingly, HPGCL has proposed O&M expenditure of Rs. 6618 Millions for FY 2014-15, Rs. 7134 Millions for FY 2015-16 and Rs. 7691 Millions for FY 2016-17, for HPGCL as a whole. The Petitioner has submitted that they have kept a tight control on the employees cost by opting for outsourced and contractual employees wherever possible. Hence they have prayed that the Commission may allow O&M expenses as proposed by them.

6.0 HPGCL's Proposed Tariff for FY 2014-15, FY 2015-16, FY 2016-17:

In view of the proposed financial and technical norms, HPGCL has proposed the following tariff(s):

Power Station	HPGCL – Proposed Tariff (Rs/kWh)		
	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (1 & 4)	4.69	5.01	5.35
PTPS (5-6)	3.82	4.02	4.25
PTPS (7&8)	3.63	3.86	4.11
DCRTPS (1&2)	3.10	3.26	3.44
RGTPS (1&2)	3.45	3.64	3.84
WYC & Kakroi (Hydel)	0.94	0.99	1.05

7.0 In view of the above submissions the Petitioner i.e. HPGCL has prayed as under:

- a) Admit this Petition.
- b) Approve the tariff for various Stations of the Petitioner based on the proposals given in the current petition.
- c) Pass such orders as the Commission may deem fit and proper and necessary in the facts and circumstances of the case, to grant relief in the operational norms related to Plant Load factor, Station Heat Rate,

Auxiliary Consumption, Specific oil consumption and financial norms related to Return on Equity, and O&M expenses, as requested by the Petitioner.

d) Admit the additional capital investment, technically necessitated, as proposed and allow impact of such capital investment on components of fixed cost during the MYT control period.

e) Establish mechanism for recovery of variable charges for auxiliary consumption during the backing down by Discoms and direct the Discoms to ensure a minimum off-take of power.

f) Allow the recovery of statutory levies, fees, taxes and duties as pass through on actual basis.

8.0 Procedural Aspects, Analysis & Order of the Commission:

8.1 Procedural Aspects:

In compliance of regulation 71.4 of the MYT Regulations, 2012, HPGCL, vide memo no. HPGC/FIN/Reg-429/9779 dated 9.12.2013, informed the Commission that they have issued public notice in the Newspapers i.e. The Financial Times and Hindustan Times dated 6.12.2013 and Dainik Tribune (Hindi) dated 7.12.2013. A copy of the public notice that appeared in the Newspapers mentioned above was forwarded to the Commission. The stakeholders / public were informed, in an abridged form, the contents of HPGCL's MYT petition, availability of the documents for purchase / consultation. The last date of filing objections / suggestions was on or before 31.12.2013. The MYT petition, filed by HPGCL, was also hosted on their website i.e. www.hpgcl.gov.in

8.2 The Electricity Act, 2003, Tariff Policy and Regulations.

Section 61 of the Electricity Act, 2003 stipulates the guiding principles for determination of the tariff by the Commission and mandates that the tariff should 'progressively reflect cost of supply of electricity, reduce cross subsidy, safeguard consumers' interest and recover the cost of electricity in a reasonable manner. This section also stipulates that the Commission while determining the tariff shall be guided by the principles and methodologies specified by the Central Electricity Regulatory Commission for determination of the tariff applicable to generating companies and transmission licensees.

Section 62 of the Act stipulates the Commission shall determine the tariff for:

- Supply of electricity by a generating company to a Distribution Licensee; Transmission of electricity; Wheeling of electricity and Retail sale of electricity.

The Tariff Policy notified by GOI in January 2006, provides the framework to balance the conflicting objectives of attracting investments to ensure availability of quality power and protecting the interest of consumers by ensuring that the electricity tariffs are affordable.

The Commission has put in place the necessary regulatory framework within which tariff determination shall be done in an open and transparent manner. The Commission has notified the necessary Regulations i.e. HERC (Terms and Conditions for

Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, which prescribes the tariff setting principles and norms. The same has been reckoned with while determining HPGCL's Generation Tariff for the control period i.e. FY 2014-15 to FY 2016-17.

8.3 Public Proceedings:

The Generation Company i.e. HPGCL had filed their first petitions under Multi Year Tariff Regulations, 2012 notified by the Commission on 5.12.2012. The Commission issued Public Notice in the Hindustan Times & Dainik Jagran dated 16.01.2014 and 17.01.2014 respectively inviting objections / suggestions from the stakeholders and general public. In response to the public notice issued by the Petitioner (HPGCL) and subsequently by the Commission no objections / suggestions were received from any stakeholder including the Discoms who purchase power from HPGCL's power plants.

The Commission, in order to conduct a meaningful analysis of the tariff generation tariff petition of HPGCL, vide memo no. 4298/HERC/Tariff/MYT-def/2014 dated 20.01.2014 and memo no. 4378/HERC/Tariff / MYT – def/14 dated 23.01.2014, sought additional data / information which was provided by the Petitioner vide memo no. HPGC/FIN/REg-429 dated 29.01.2014. A brief summary of the additional information provided by HPGCL is as under:

- 1) Unit wise details of the performance parameters Upto December 2013 of PTPS, DCRTPS and RGTPS as per reference table-2 of the petition was attached as Annexure-1.
- 2) Copy of the invoices of the last three months of coal, freight and oil received at PTPS, DCRTPS and RGTPS and GCV statement thereof was attached as Annexure-(2a, 2b, 2c). It is further submitted that no oil is received at RGTPS during this period and at PTPS it is received in the month of Sept. 13 only during the requisite period.
- 3) Period of the existing Power Purchase Agreement approved by HERC is extended till 31st March, 2023 with mutual consent of HPGCL and Haryana Discoms. (Copy enclosed as annexure-3). Intimation regarding this was also sent to the Commission vide this office Memo No. 575/HPGC/FIN/Reg-7 dated 02.08.2013.
- 4) As per the Haryana Govt., Power Deptt. Notification dt. 11th April, 2008 and the PPA signed between the HPGCL and Haryana Discoms, HPGCL is under obligation to supply its power to Haryana Discoms only. Till 2012-13 there was no provision for protecting the interest of HPGCL in case of Backing down of the HPGCL unit on the instructions of distribution licensees however HERC has made a provision in the Generation tariff order 2013-14 that, *“in case HPGCL’s power stations are backed down on the instructions of the distribution licensees and at the same time the Discoms are drawing power at a lower rate from some other sources i.e. generators, traders etc. or resorting to draws under UI mechanism, the Discoms shall compensate HPGCL to the extent of fixed cost corresponding to loss of generation due to backing down. In such cases HPGCL shall have the right to sell power not scheduled by the Discoms to a third party.”*

From the above provision it is evident that right of HPGCL to sell power not schedule by the Discoms to a third party is subject to certain stipulations. Further Discoms are also not providing any Firm schedule to the HPGCL so that it could plan for signing some short term, medium term or long term contract with the

third parties. There are sudden intimations from the Discoms of the Backing down of HPGCL units.

During 2013-14 there were frequent backings down of HPGCL units. Station wise power not scheduled by distribution licensees was attached at **Annexure-4**.

It was submitted that the un-scheduled power of HPGCL could be sold to third parties despite best efforts. Further, HPGCL had issued NIT for sale of 300 MW power during June 2013 and August 2013 but nothing be materialized. Copy of the NIT enclosed as **Annexure-5**. Additionally, it was submitted that efforts are being made to sell the surplus power in the Southern Region and a team of senior officers headed by the Director-Technical of the HPGCL has visited Hyderabad and Kerala for the purpose. However, as of now nothing could materialize due to corridor constraints.

In view of the position explained above and considering the excessive backing down of the HPGCL Units, HPGCL has prayed that the Commission may make appropriate provision for ensuring minimum off - take by the distribution licensees from the state generating plants to avoid the coal constraints including loss of coal and deterioration of state generating plant in the idle conditions.

5) The plant/ station wise performance incentive paid by HPGCL to the coal companies during 2013-14 till date is as under:

1. In case of DCRTPP and RGTPS, no performance incentive has been paid so far.

2. In case of PTPS, Detail of Performance Incentive paid during 3013-14 is as under:

Coal Co.	Billed Qty(MT)	Amount Paid(Rs.)	Date of Payment	Period to which relates	Remarks
BCCL	1912973.1	4,11,76,781	18.04.2013	2011-12	Balance payment out of Rs. 821176781
BCCL	3805504.78	27,46,27,987	24.06.2013	2012-13	
WCL	852224.66	1,33,31,058	Adjusted against Advance	2012-13	

WCL	544643.8	10,18,78,009	06.12.2013	2010-11	Compensation under protest
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6) Copies of Fuel Supply Agreements signed between MCL and HPGCL dated 31.08.2013, ECL and HPGCL (RGTPS) dated 29.02.2013, WCL and HPGCL dated 15.10.2009, BCCL and HPGCL dated 14.07.2009 and with CCL under NCDP dated 31.03.2009 are enclosed as **Annexure-6A to 6E**.

7) HPGCL has placed a Purchase Order no. 12/HPGCL/CE/Fuel-94/Vol-VIII dated 02.09.2013 on MSTC on High Seas Sale (HSS) basis for purchase of imported coal and a Work Order no. 13/HPGCL/CE/fuel-94/Vol-VIII dated 02.09.2013 on Adani Enterprises Limited, Gurgaon (An Agency nominated by MSTC) for performing logistics and related activities. The purchase order has been placed on variable price basis in which the CIF price (USD/MT) varies in accordance with various indices and USD/INR exchange rate is paid as on date of bill of loading. There is 10% upper capping limit on quoted CIF price as well as quoted USD/INR exchange rate. The landed cost of imported coal as on cut-off date of bid-closing i.e. 25.03.2013 is Rs. 6436.49/MT, Rs. 6693.49/MT and Rs. 6436.49/MT for PTPS, DCRTPP and RGTPP respectively based on various indices and exchange rate applicable at that time. The copies of ibid purchase and work order are enclosed for terms and conditions, calculation of prices etc.

8) As per Clause No. 4 of FSA's, there are provisions to assess the quality of coal to be supplied to purchasers but generally coal companies do not take the cognizance of the testing results being carried out by the purchaser at unloading ends (TPS end). The payment to the coal companies are being made at the notified prices of the coal companies. Coal companies has also declared the GCV range of the coal of the particular collieries and accordingly billing the coal supplied from the specific collieries. In case of RGTPS and PTPS there is no any provision in FSA for adjustment in pricing of declining GCV and Ash content at the power station end.

9) HPGCL has appointed coal Agent w.e.f 10.09.2012 for minimizing of Transit Loss and there is improvement in minimization of Transit Loss. The

month wise and plant wise detail of the transit loss is attached as **Annexure-7**. Since, the firm had not submitted the payment bills, therefore, till date no payment has been made.

10) Detail of payments made by HPGCL in FY 2012-13 and FY 2013-14 (upto Dec'13) for idle freight charges (demurrage) and penalty for over loading of wagons are as under:

(Fig. in rupees)

Description	PTPS		RGTPS		DCRTPS	
	2012-13	2013-14 (Upto Dec'13)	2012-13	2013-14 (Upto Dec'13)	2012-13	2013-14 (Upto Dec'13)
Idle Freight Charges					94,97,434	92,90,165
Demurrage charges on coal wagons	1,58,97,395	56,34,254/-				
Penalty for over loading of wagons	4,97,45,529	2,23,54,135	9,90,29,196	2,96,36,348	96,68,119	1,19,19,090

11) The Petitioner submitted that if the plants run at normative levels set by commission, there would be shortage of coal as outlined in the table below:

Requirement of coal and shortfall in Allocation for HPGCL

Particulars	Units	PTPS, Panipat			DCRTPP, Yamuna Nagar			RGTPP, Hisar		
		2014-15	2015-16	2016-17	2014-15	2015-16	2016-17	2014-15	2015-16	2016-17
Gross Generation at target PLF	MU	8381	8,117	8,364	4,468	4,480	4,468	8,399	8,399	8,399
GCV of Coal	k.Cal/kg	3628	3628	3628	3641	3641	3641	3203	3203	3203
Total Coal Required	Lac MT	70.4	67.7	69.9	29.6	29.3	29.1	69.1	68.4	67.7
Approved Annual Linkage	Lac MT	66	66	66	28	28	28	47.88	47.88	47.88
Shortfall	Lac MT	4.4	1.7	3.4	1.6	1.3	1.1	21.2	20.5	19.8

However, during the FY2013-14, up to December 2013, the Discoms have actually procured only 10,025 MUs against proportionate volume of 14,927 MUs for the corresponding period. The extent loss due to backing down is estimated to be about 4,902 MUs. Due to unplanned backing down, the coal consumption

reduces significantly and leads to piling up of coal stock at the plants. The coal companies generally have erratic coal supply schedules, which are beyond the control of the Petitioner. The piling of coal stock/ non-movement of coal stock not only creates the operational issues for stacking of coal but also increases the risk of smouldering and loss in the gross calorific value of the coal stored.

12) HPGCL is trying its level best to get its receivables liquidated. Joint meetings are being held at the apex level in the companies and also at the level of State Govt. but the "Payment of dues by the Discoms" has not cleared so far on the pretext that they have not received the full proceeds of FRP. However Discoms has given the assurance to HPGCL that after implementation of FRP they will liquidate the entire dues of HPGCL. Due to non clearance of even the current dues the outstanding amount has been further increased. As on 31.12.2013 the outstanding amount is Rs. 3600.99 cr.

13) Copy of the sanction letters of the short term borrowings entered during 2013-14 are enclosed as **Annexure-8**.

14) As far as the availability of the internal accrual for the Capex. is concerned these are distinct from the equity. In fact HPGCL has proposed the Capex. as per the HERC norms of Debt : Equity of 70:30. The equity is to be provided by the State Govt. and for the Debt, there is understanding with the bankers and financial institutions at the agreed rates terms and conditions. Right now as the propose capex, has not started so no written approval of the lender is available.

15) As the technical and commercial parameter fixed by the Commission for the first control period of the MYT i.e. 2014-17 are not in consistent with the CERC norms, national tariff policy and Electricity Act, 2003. On the one side the commission has considered stringent technical norms for the control period considering the CERC norms but on the other hand commercial norms are not allowed at par. Accordingly, some of the technical and commercial parameter fixed by the Hon'ble HERC are not achievable, uncontrollable and beyond the control of the HPGCL due to which the financial viability of the utility is also in

danger accordingly the HPGCL had submitted the Multi-year tariff Petition for the control period 2014-17 with certain relaxations sought.

16) The Petitioner submits that the station heat rate allowed by the Hon'ble Commission in HERC MYT Regulations 2012 for RGTPP units 1&2 is low because the design heat rate of 2387 kcal/kWh is calculated at a boiler efficiency of 87.21% and a design turbine heat rate of 1954. But, this boiler efficiency is applicable for coal with GCV of about 4000 kcal/kg. For the poorest quality of Coal with GCV of about 3150 kcal/kg, the boiler efficiency is about 85.57% resulting in higher station heat rate of about 2432 kcal/kWh. A copy of OEM operating manual regarding the prescribed boiler efficiency norms as referred above, in respect of the Station heat rate for 2X600MW RGTPP, Hisar is attached as part of the Annexure 8 A.

$$\text{Design Heat Rate} = \frac{\text{Design Turbine Heat rate}}{\text{Boiler Efficiency}}$$

$$\text{Station Heat Rate} = 1.065 \times \text{Design Heat Rate}$$

Hence, for 4,000kcal/kg Coal

$$\text{SHR} = 1.065 \times \left(\frac{1954}{87.21} \right) = 2387 \text{ kcal/kWh}$$

Whereas for 3,150kcal/ kg Coal

$$\text{SHR} = 1.065 \times \left(\frac{1954}{85.87} \right) = 2432 \text{ kcal/kWh}$$

In this regard, the following table provides information regarding the coal quality (post blending) in the units. Evidently, the quality of coal received at the units of RGTPP has been poor with average GCV of nearly 3150 kcal/kg.

Average GCV of the Coal utilized (kcal/kg) at RGTPS Units

Month	Blended Coal Unit I	Blended Coal Unit II
Jan 13	3198	3267
Feb 13	3184	3152
Mar 13	Nil	Nil
Apr 13	Nil	3120
May 13	3223	3360
June 13	3130	3151
July 13	3017	2997
Aug 13	3030	3030

Month	Blended Coal Unit I	Blended Coal Unit II
Sep 13	3110	3021
Oct 13	3256	3167
Nov 13	3244	Nil
Dec 13	3500	Nil
Average	3189.2	3140.5

Therefore, the Petitioner is seeking relief in station heat rate in case of RGTPP and prays to the Commission to kindly consider the SHR as following:

Station Heat Rate Proposed for the Control Period for RGTPS

Power Station	2014-15	2015-16	2016-17
RGTPS 1&2 - Norms	2,387	2,387	2,387
RGTPS 1&2 - Proposed	2,450	2,425	2,400

It was submitted that the coal received at DCRTPS is below the norms of the OEM for efficient operations. The usage of poor quality of coal has led to an increase in the station heat rate as can be seen in the trend of the past years. The Petitioner has requested the Commission to consider the poor quality of coal being received by HPGCL while allowing the station heat rate for their various generating stations and relax the norms accordingly

Station Heat Rate Proposed for the Control Period for DCRTPS

Power Station	2014-15	2015-16	2016-17
DCRTPS 1&2 - Norms	2,387	2,360	2,344
DCRTPS 1&2 - Proposed	2,450	2,425	2,400

PLF

HPGCL had submitted that no relaxations have been sought for any of the Units in terms of PLF apart from PTPS Unit 3 & 4. PTPS 3&4 are expected to perform below the norms set by the commission and the 3 month shut down period in 2015-16 is expected to reduce the PLF to about 49% for the year. It is based on the technical report submitted by M/s Energo Engineering Pvt. Ltd which is attached as Annexure 8B.

Specific Oil Consumption

It was submitted that the Specific Oil Consumption of PTPS Units 1 - 4 has been very high compared to the norms, due to frequent start up and shut down of plants as there have been multiple cases of backing down of the plants by the Discoms .The Petitioner also submitted that PTPS (Units 1 – 4) is of old vintage and the norms set in the HERC MYT Regulations, 2012 are not achievable considering the historical performance of the units tabulated below.

Specific Oil Consumption (in ml/kWh) achieved from FY 2005-06

Power Station	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (up to Dec 13)
PTPS (Unit 1-4)	5.26	2.92	2.93	3.33	2.44	5.8	5.56	5.81	4.43

PTPS 5 is also about to complete its useful life and its oil consumption is higher than normative. The Petitioner has proposed the oil consumption for PTPS 5-6 at 1.50 ml/ kWh for the control period. The other units of PTPS, RGTPP, and DCRTPP units are expected to perform at the normative levels of specific oil consumption.

Auxiliary Consumption

It was submitted by HPGCL that Auxiliary Consumption for a generating station depends on quality of coal it receives at the feeding point, number of frequent start-ups and shut downs it encompasses and the ageing of equipment. In addition, the number of drives being used in the actual operation on account of the decline in the above mentioned factors and technological factors will also lead to an increase in auxiliary consumption. Therefore, auxiliary consumptions have been projected based on achievability of respective plants.

HPGCL submitted that in FY 2012-13 an amount of Rs. 58.08 crores was received by them as equity from the State Govt. In FY 2013-14 no equity has

been received by HPGCL. The proposal for equity support during the first control period is as per detail attached at **annexure-9**. Commitment for the same from the State Govt. has not been received so far. Further no amount of the equity, so received, has been utilized for the capital works which yet to be commissioned. The Capital Investments proposed in FY 2015-16 – FY 2016-17 are towards R&R of PTPS, extension of DCRTPS, Gas based power plant at Faridabad, raising of ash dyke (RGTPS) and generation control centre (ERP) at Panchkula (headquarter). Additional capital expenditure has been proposed for raising the height of ash dyke (PTPS Units 1 – 6), AFGC system (PTPS) and booster pumping station (PTPS Units 7 & 8).

8.4 Public Hearing:

In compliance of section 64 of the Electricity Act, 2003 and Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 the Commission scheduled a hearing on 1.02.2014 in order to afford an opportunity to the stakeholders to present their objections / suggestions on the generation tariff proposal of HPGCL. The hearing was adjourned and a public notice to this effect was inserted in the Newspapers as well as hosted on the website of the Commission. Subsequently, the Commission notified the fresh date of hearing and the parties were informed accordingly.

As per the fresh schedule of hearing published in the Newspaper i.e. Dainik Jagran dated 8.03.2014 and also hosted on the website of the Commission under the heading ‘Schedule of Hearings’, the Commission heard the oral submissions of the parties present in the hearing on 18.03.2014. In the hearing the Petitioner mostly reiterated

their written submissions and hence the same is not being reproduced here.

10.0 State Advisory Committee (SAC):

In order to take forward the consultation process, a meeting of the State Advisory Committee constituted under section 87 of the Act, was convened on 08.05.2014 to discuss the Multi Year Tariff Petition filed by HPGCL and seek suggestions / comments of the Committee.

The issue of fuel audit at the HPGCL power plants and poor quality of coal in terms of ash content and GCV vis-a-vis norms fixed by the Ministry of Environment and Forest, Govt. of India was discussed. The Committee was of the view that due to poor quality of coal the fuel / variable cost of power generated by HPGCL in terms of Rs / kWh increases by about 40 Paise per kWh for a difference of say 400 Kcal/Kg GCV of coal i.e. assuming the difference in the GCV of coal actually received of 3600 Kcal / kWh and the GCV of 4000 Kcal that they should have received as per MoEF norms. The Managing Director of HPGCL informed the SAC that they have appointed CPRI to conduct the fuel audit and are regularly taking up the matter of poor quality of coal supplied to them by the coal companies at the highest level.

11.0 Commission's Analysis and Order:-

The Commission has taken into account the petition filed by HPGCL dated 29.11.2013, additional information provided by them in response to the Commission's deficiency letters, oral submissions made in the public hearing held on 18.03.2014 as well as views of the SAC members in the meeting convened on 8.01.2014.

11.1 True up of Employees Cost for FY 2012-13 (Case No. HERC/PRO-36 of 2013):

HPGCL vide memo no. HPGC/FIN/Reg-417/622 dated 28th October, 2013 had filed a petition for trueing up of employees cost i.e. terminal benefit for FY 2012-13 amounting to Rs. 524.6 million based on the audited accounts for FY 2012-13.

The Petitioner had submitted that the Commission allows employees cost including terminal benefit as part of O&M expenses. Further, regulation 8.3 (b) of MYT Regulations, 2012 provides that the employees expenses related to 'terminal liabilities on account of changes in pay scales or dearness allowance due to inflation' are uncontrollable. The actual O&M expenses incurred by HPGCL as per the audited accounts for FY 2010-11 was Rs. 3602.85 million, escalating the same @ 4% as per MYT Regulations, 2012, the admissible O&M for FY 2011-12 works out to Rs. 3896.38 million. The Commission separately allowed Rs. 1659.38 million as O&M expenses for RGTPS as this power plant was commissioned towards

the end of FY 2011-12 for which the audited accounts were available. Consequently, total O&M expenses allowed by the Commission, as per the 'true up' petition for FY 2012-13 was Rs. 5556.223 million. It was further submitted by HPGCL that employees expenses, as per FY 2010-11 audited accounts is about 45.38% of the total O&M expenses. Accordingly for FY 2010-11 employees cost works out to Rs. 1635.05 millions and escalating the same @ 4% per annum the employees cost for FY 2012-13 works out to Rs. 1768.37 million. Similarly the employees cost for RGTPS for FY 2012-13 works out to Rs. 753.03 million. Consequently, the total employees cost including RGTPS has been estimated by HPGCL as Rs. 2521.40 million.

As against the above, the actual employees cost, including terminal benefit, as per the audited accounts for FY 2012-13 is Rs. 3046 million, hence the difference of Rs. 524.6 million has been now been worked out to be claimed from the beneficiaries along with the carrying cost.

The Commission has examined the audited accounts of FY 2010-11 and FY 2011-12 submitted by HPGCL. The employees cost for FY 2010-11 as per the audited accounts is Rs. 1635.051 million and Rs. 3046 million for FY 2012-13 which includes actual terminal liabilities of Rs. 906 million. HPGCL had further submitted that no new addition to the existing workforce was made in FY 2012-13. Thus the difference Rs. 524.6(Rs. 3046 million – Rs. 2521.4 million) can be attributed to changes on account of pay scale and dearness

allowance, which as per regulation 8.3 (b) of the MYT Regulations, 2012 is an uncontrollable item.

In view of the above discussions, the Commission allows Rs. 524.6 millions as 'true up' expenses on account of employees cost for FY 2012-13, however, no carrying cost shall be allowed. This amount shall form part of Rs. 1000 Crore bonds allowed by the Commission to be issues by HVPNL in order to meet with the additional liabilities of the Discoms towards HPGCL and HVPNL. Case No. HERC/PRO-36 of 2013 in the matter of truing up of employee cost of HPGCL for FY 2012-13 is disposed of accordingly.

11.2 Recovery of fixed charges of RGTPS for the period of shutdown of Unit 2 in FY 2013-14 and recovery of fixed charges on actual PLF for FY 2014-15 (Case No. HERC / PRO – 13 of 2014).

The Commission has examined the submissions of HPGCL regarding recovery of fixed charges of RGTPS in FY 2013-14 and observes that the Commission as prayed by HPGCL had allowed a relaxed PLF of 70% as against the norm of 85%. However, RGTPS failed to achieve even the relaxed PLF. The reason for the same, as submitted by HPGCL, was some technical problems in the turbine since its commissioning. The Commission observes that Plant Availability Factor / PLF is a controllable item under regulation 8.3 (b) of the MYT Regulations, 2012 and hence any relaxation in the same is not permissible. RGTPS Unit – 1 and Unit -2, as per MYT Petition of

HPGCL were commissioned on 24.08.2010 and 01.03.2011 respectively. Hence claiming any relief on the plea that the technical problems continued and their hope that such technical issues would be resolved in FY 2013-14 did not materialise, is untenable. Further, non – availability or below par performance of two new 600 MW machines will put the electricity consumers in double jeopardy i.e. lesser availability of cheaper power from RGTPS and then paying for comparatively expensive power purchased by the Discoms for onward supply to them. In case the present petition is allowed i.e. recovery of entire fixed cost despite the fact the machines were not at all available will put avoidable and unjustified financial burden on the electricity consumers of the state and further add to the financial distress of the Discoms in Haryana whose accumulated losses have eroded their networth. Hence the Commission is of the considered view that fixed cost in the case of a power plant, so far, is being estimated on the basis of normative PLF, hence non achievement of the norm ought to result in proportionate reduction in recovery of the same. Thus the reasons cited by the Petitioner for claiming relief i.e. vibration problems leading to boxing up of RGTPS Unit – 2, high vibration of turbine bearing no. 1 and high eccentricity of Unit – 2 and time required to rectify the faults, are not tenable for claiming fixed cost as the fact remains that RGTPS machines were not at all available for generation for quite sometimes and hence the stranded cost cannot be passed on to the electricity consumers of the State.

In view of the above discussions, the petition is disallowed and Case No. HERC/PRO-13 of 2014 disposed of accordingly.

12.0 MYT (1st Control Period FY 2014-15 to FY 2016-17):

12.1 Plant Load Factor

The Petitioner had proposed Plant Load Factor (PLF) for its Generating Stations as per the norms laid out in the MYT Regulations 2012 and also considered the age of the plants and the necessary maintenance shutdown periods required for the repair and refurbishment activities planned for Units 3 & 4 of PTPS. The Petitioner had submitted that the proposed PLF for its plants in the control period 2014-17 is in line with the business plan submitted to the Commission.

HPGCL has proposed to maintain PTPS Units 1&2 as per MYT Regulations, 2012 norms specified by the Commission for the first control period. However, for PTPS Units 3 & 4, HPGCL citing the technical report submitted by M/s Energo Engineering Pvt. Ltd, has submitted that these power plants are expected to perform below the norms set by the commission. Further three months shutdown period envisaged in 2015-16 is expected to reduce the PLF to about 49% for the year. The remaining plants at PTPS and the other stations are expected to perform at the normative levels specified in the MYT Regulations, 2012.

It was submitted that in 2013-14, PTPS (Unit 1 to 6) power stations were boxed up for a significant period resulting in the low PLF while the deemed generation has been above the norms specified. The other power stations of PTPS (Unit 7 & 8), RGTPS (Unit 1&2) and DCRTPS (Unit 1&2) were also backed down as per the

directions of the Discoms resulting in generation below the norms. HPGCL further submitted that DCRTPS Unit 2 was under shut down due to problems of turbine vibrations and has remained under shut down in July and August 2013 after experiencing the problem in June 2013. However, the system was repaired in September.

The Commission observes that MYT Regulations, 2012 was framed by the Commission after due deliberations and detail discussions with the stakeholders including size and vintage of the power plants. Further the performance of the generating units of the petitioner has also been kept in view while finalizing the norms for performance parameters of HPGCL generating units. Regulation 28(1) Normative Annual Plant Availability factor (NAPAF) provides the following norms for the PLF of HPGCL Power Plants during the control period FY 2014-17.

Plant Name (Units)	MYT Period		
	2014-2015	2015-2016	2016-2017
Panipat TPS (Units 1 to 4)	68	68	68
Panipat TPS (Units 5 & 6)	85	82.5	82.5
Panipat TPS (Units 7 & 8)	85	85	85
DCR TPS, Yanuma Nagar (Unit 1 & 2)	85	85	85
Rajiv Gandhi TPS, Khedar (Hisar) (Units 1 & 2)	85	85	85

The Commission observes that in FY 2012-13 PTPS Units 1-4 achieved 50.8% PLF against target of 70% and PTPS Units 5-8 achieved 86.09% PLF against the target of 85%. Similarly in FY 2012-13 PLF of DCRTPS Units 1 & 2 and RGTPS Units 1&2 remained under forced shutdown and hence could achieve a PLF of only about 18.33% and 47.5% respectively against the target of 85%.

PTPS Units 1 to 4, as submitted by HPGCL, was backed down for a considerable period during FY 2013-14 due to low demand. The deemed generation of the these power plants up to December, 2014 has been reported as 2296 MUs which shows that the deemed availability of these Units is above the norms. The PLF proposed by the petitioner for PTPS Unit 3 & 4 for the control period 2014-17 is quite low and it should be as per the norms provided in the regulation except for the year 2015-16 whereas in view of the technical report cited by HPGCL and the proposed shutdown for about three months for R & R activities.

The Commission is of the view that PTPS (1 to 4) which have outlived its useful life and any investment on Life Extension was not found feasible, are the least efficient power plant of HPGCL and hence plans of phasing out the same are under consideration. Further as submitted by the Petitioner during FY 2013-14 (upto September) the HPGCL power plants were backed down on the instructions of the Discoms to the extent of 3500 Million Units. The backing down situations continued in the reaming part of the financial year. The Commission observes that had PTPS (Units 1 – 4) operated at the normative PLF of 68% the gross generation during the financial year

would have been 2667 MUs which is lower than the extent of backing down due to low demand and availability of cheaper long term power. However, in FY 2014-15 to FY 2016-17 due to expected increase in demand as well as the possibilities of lower availability from hydro / gas based power plants in which Haryana has allocated shares there are possibilities of lesser backing down of HPGCL' power plants.

In view of above and as per the provisions of regulation 28 (1) of the MYT Regulations, 2012 the Commission approves PLF for PTPS (1 to 4) during the control period 2014-17 at 35% and that of PTPS Units - 5 to 6 at 85% in FY 2014-15 and 82.5% in the subsequent years of the control period. PLF in the case of PTPS Units 7&8, DCRTPS Unit-1 & 2, RGTPS Units-1 & 2 is allowed at 85% and WYC & Kakroi hydro Units at 50% as submitted by the Petitioner which is in line with the MYT Regulations, 2012.

12.2 Station Heat Rate (SHR):

The Petitioner has proposed the Station Heat rate for PTPS 1-4 and PTPS 7-8 as per the norms provided in the MYT Regulations, 2012. While in the case of PTPS (5&6) and RGTPS (Units 1&2) HPGCL has proposed a relaxed SHR. Further in the case of DCR TPS (Units 1&2) HPGCL has proposed a relaxed SHR for FY 2014-15 and 2015-16 and as per the norms in FY 2016-17.

The Petitioner has prayed that the Commission may approve the SHR for the various plants/ Units as proposed by them , considering the

historical performance, operational issues and regulatory norms as discussed above.

The actual Station Heat Rate (SHR) attained by the thermal generating stations of the Petitioner in the past years (since FY 2005-06) is indicated as below:

Actual Station Heat rate (in kcal/kWh) achieved since FY 2005-06

Station	Station Heat Rate (kcal/kwh)								
	2005-06	2006-07	2007-8	2008-09	2009-10	2010-11	1011-12	2012-13	2013-14 (upto Sept)
PTPS Unit-1 to 4)	3665	3341	3470	3425	3225	3349	3211	3126	3030
PTPS (Unit-5 to 8)	2703	2620	2571	2574	2561	2679	2662	2538	2543
DCRTPP(Unit-1&2)	-	-	-	2450	2387	2479	2414	2395	2388
RGTPP (Unit-1&2)	-	-	-	-	-	-	2638	2543	2371

The Petitioner has submitted that they aim to improve the station heat rate to align with the norms during the control period. In FY 2013-14, the performance of the RGTPS has improved though, it has not yet stabilized after the prolonged shutdowns. The, Petitioner further submitted that the station heat rate allowed by the Commission in the MYT Regulations 2012 for RGTPS Units 1&2 is low because the design heat rate of 2,387 kcal/kWh is calculated at a boiler efficiency of 87.21% and a design turbine heat rate of 1,954. However, this boiler efficiency is applicable for coal with GCV of about 4,000 kcal/kg. For the poor quality of Coal with GCV of about 3,150 kcal/kg, the boiler efficiency is about 85.57% resulting in higher station heat rate of about 2432 kcal/kWh.

It was further submitted that the Commission has considered 4,000 kcal/Kg. as the GCV of coal while determining the SHR norm for RGTPS. However, the quality of coal received at the units of RGTPS has been poor with average GCV of about 3,100 kcal/kg. The average GCV of coal utilized at RGTPS units (post blending) for the period Jan.-Aug. 2013 provided by HPGCL is in the range of 2997 Kcal/Kg to 3360 Kcal/Kg.

The average Station Heat Rate of these units for the period from 2011-12 to Sept 13 has been about 2,548 kcal/kWh. The Petitioner has requested for relief in station heat rate in the case of RGTPS and has prayed that the Commission may consider the SHR as proposed.

In case of PTPS 5&6 and DCRTPS, the Petitioner has proposed Station Heat Rate based on the average of the past four years with improvements in subsequent years. It was submitted that the coal received at DCRTPS is below the norms of the OEM for efficient operations. The usage of poor quality of coal has led to an increase in the station heat rate as can be seen in the trend of the past years. The Petitioner has requested the Commission to consider the poor quality of coal being received by HPGCL while allowing the station heat rate for various generating stations and relax the norms accordingly.

The Petitioner has requested for station heat rate for PTPS units 5 & 6 and DCRTPS Units 1 & 2 on the basis of average of last 4 years.

The Commission has considered the contention of the Petitioner on the SHR and observes that the same cannot be accepted as the DCRTPS Unit 1 & 2 has not performed well due to repeated major break downs. However, these units are now stabilized and must perform efficiently like similar power plants in other parts of the country. Similarly the past performance of RGTPS Units 1&2 has not been satisfactory reportedly due to teething problems leading to forced shutdowns. Hence seeking any relaxation is not justified. Further while determining SHR for RGTPS the Commission, as contended by HPGCL, has not correlated GCV and boiler efficiency but allowed certain margin on the design SHR of the power plant.

In view of above the Commission allows SHR for HPGCL power plants as per norms laid down in the MYT Regulations,2012 which were notified after taking into consideration objections / suggestions and issues raised by the stakeholders including quality of coal and vintage of the plants. The Commission believes that SHR is an important indicator of the efficiency of the power plants including O&M practices. Hence any relaxation as sought by the Petitioner will only add to the inefficiency including wasteful utilisation of fast depleting natural resources i.e. coal and put avoidable burden on the electricity consumers. Accordingly, the Commission allows SHR (kCal/kWh) for the purpose of generation tariff determination at 3150 (PTPS 1-4), 2550 (PTPS 5 & 6), 2500 (PTPS 7&8), 2344 (DCRTPS) and 2387 (RGTPS) in accordance with regulation 28 (3) of the MYT Regulations, 2012.

12.3 Auxiliary Energy Consumption:

The Petitioner had submitted that the auxiliary energy consumption for a generating station depends on quality of coal it receive at the feeding point, number of frequent start-ups and shut downs and the ageing of the plant and equipment. Additionally, the number of drives being used in the actual operation on account of the above mentioned factors also increases the auxiliary energy consumption.

In view of the above the Petitioner has prayed that the Commission may to approve the auxiliary energy consumption for its various plants/ units as proposed by them.

The Commission, from the submissions of the Petitioner, observes that the auxiliary energy consumption of PTPS (1&2) is expected to be about 12.5% during the control period. The auxiliary energy consumption of PTPS (3&4) is expected to increase incrementally after the requisite R&M as per the report from M/s Energo Engineering Pvt. Ltd. The Petitioner envisages that there will be improvement in the auxiliary energy consumption in PTPS 5-8 and DCRTPS 1&2 while auxiliary consumption for RGTPPS will remain in line with the norms stipulated in HERC MYT Regulations 2012. Further HPGCL has mentioned that PTPS Unit 1-4 has outlived its useful economic life and the performance over the past few years has been below the norms. It was also submitted that PTPS Unit 5 is nearing its useful economic life, due to which the auxiliary energy consumption remains high. While DCRTPS has had frequent shutdowns over the years consequently increasing the auxiliary energy consumption of the power plant. The Petitioner has submitted

that steps are being taken to reduce the auxiliary energy consumption of the plants over the control period.

The Commission observes that the auxiliary energy consumption of all the power plants except RGTPS Units 1 & 2 is quite high as compared to the norms during FY 2013-14 (ending Sept.), Further despite the fact that PTPS (Units 1-4) were backed down for considerable period there has also been large number of tripping of the Units during the period. The table below shows the number of tripping during FY 2012-13 and FY 2013-14.

No. of tripping on HPGCL Power Plants

PTPS	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
2012-13	47	28	43	42	35	19	26	17
2013-14 (end.Dec.13)	15	14	9	8	10	21	11	6

DCRTPS	Unit I	Unit II
2013-14	6 (July-Oct.)	5 (Sept. - Nov.)
RGTPS	Unit I	Unit II
2012-13	27	27
2013-14 (end. Dec.13)	15	13

It is observed from the above that the number of tripping on HPGCL Units are quite high which basically undermines the consistency of the generating units and adversely affects the performance parameters including auxiliary energy consumption of these generating Units.

The regulation 28 (2) HERC of the MYT Regulations, 2012 provides Auxiliary Energy Consumption for the thermal plants of HPGCL during the control period FY 2014-17 as under.

Auxiliary Energy Consumption

Plant Name (Units)	MYT Period		
	2014-2015 (%)	2015-2016 (%)	2016-2017 (%)
Panipat TPS (Unit 1 to 4)	11	11	11
Panipat TPS (Units 5 & 6)	9	9	9
Panipat TPS(Units 7 & 8)	8.50	8.50	8.50
DCR TPS, Yamuna Nagar (Units 1&2)	8.50	8.50	8.50
Rajiv Gandhi TPS, Khedar (Hisar) (Unit 1&2)	6	6	6

In view of the above the Commission allows Auxiliary Energy Consumption (%) for PTPS units 1 to 4 at 11% and that for PTPS Units 5 & 6 at 9% as per HERC norms which are already relaxed norms as compared to the national norms. HPGCL is advised to pay special attention for reduction in number of tripping, minimize start / stop operations and take all other remedial measures so as to reduce the Auxiliary Energy Consumption to the normative levels. The Auxiliary Energy Consumption (%) for PTPS units- 7 & 8 and DCRTPS Units-1 & 2 is allowed at 8.5 % and that for RGTPS units 1 & 2 at 6 % and WYC & Kakroi Hydel Plants as 1 % (inclusive of

transformation loss) as per the Regulation 28 (2) of the MYT Regulations, 2012. HPGCL should also ensure that the proper action is taken on the findings of tripping analysis committee to address the causes of tripping of the power plants to avoid recurrence of the same and submit a report to the Commission of the action taken in this regard.

12.4 Secondary Fuel Oil Consumption (SFC):

The Petitioner has submitted that the Commission may approve the specific fuel oil Consumption for the various Units as proposed by them in their MYT Petition.

The Commission observes that specific fuel oil consumption of PTPS (units 1-4) is quite high when compared to the norms, reportedly due to frequent start up and shutdown of the plants as well as backing down of the power plants on the instructions of the Discoms .The Petitioner has also submitted that PTPS (Units 1-4) are of old vintage and the norms set in the MYT Regulations, 2012 are not achievable considering the historical performance of these Units. Further PTPS Unit 5 is also about to complete its useful life and hence its specific fuel oil consumption is on the higher than as compared to the norms. The Petitioner has proposed the specific oil consumption for PTPS Units 5-6 at 1.50 ml/ kWh for the control period and submitted that other units of PTPS, RGTPS, and DCRTPS are expected to perform at the normative levels of specific oil consumption.

It is observed that the specific fuel oil consumption is on the higher side for most of the power plants of HPGCL when compared to the norms fixed by the Commission in the MYT Regulations, 2012. Further the norms are the minimum acceptable and not Industry best and hence the performance could have been even better by improving upon the efficiency parameters.

The regulation 28 (4) MYT Regulations, 2012 provides normative Secondary Fuel Oil Consumption as under:

Secondary Fuel Oil Consumption (SFC)

Plant Name (Units)	MYT Period		
	FY 2014-2015 (ml/kWh)	FY 2015-2016 (ml/kWh)	FT 2016-2017 (ml/kWh)
Panipat TPS (Unit 1 to 4)	2.00	2.00	2.00
Panipat TPS (Units 5 & 6)	1.00	1.00	1.00
Panipat TPS(Units 7 & 8)	1.00	1.00	1.00
DCR TPS, Yamuna Nagar (Units 1&2)	1.00	1.00	1.00
Rajiv Gandhi TPS, Khedar (Hisar) (Unit 1&2)	1.00	1.00	1.00

The Commission had laid down norms for secondary fuel oil consumption for the control period FY 2014-17 in the MYT Regulations, 2012 as 2 ml/kWh for PTPS units 1-4 and for PTPS units 5 to 8, DCRTPS Unit 1 & 2 & RGTPS Units 1 & 2 as 1 ml/kWh. The Petitioner has not made any study / data to establish a correlation between backing down of the power plants and resulting increase in SFC.

In view of above the Commission, for the first control period, allows secondary fuel oil consumption in line with the MYT Regulations, 2012 as mentioned above.

12.5 Transit Loss of Coal (%)

It was submitted by the Petitioner i.e. HPGCL that they have appointed coal Agent w.e.f. 10.09.2012 for minimizing the transit loss of coal which has yielded the desired results. However consistent efforts are required to bring down the transit loss of coal to the minimum possible level. HPGCL has projected coal transit loss as under.

HPGCL’s Projected Transit Loss of Coal (%)

Power Station	FY 2012-13 Actual	FY 2013-14 HERC Approved	FY 2014-15	FY 2015-16	FY 2016-17
HPGCL (as a whole)	3.26	1.5	1.85	1.70	1.50

The trend in transit Loss of Coal in respect of HPGCL plant since FY 2011-12 as provided by them, is as under:

Monthly overall average transit loss of coal

	2011-12	2012-13 (sept2012)	2012-13 (Oct. to March)	2013-14 (April to Nov.)
PTPS	6.43	5.15	2.80	1.39
DCRTPS	8.08	4.55	2.03	1.11
RGTPS	5.44	4.52	3.00	1.92

The Commission approved transit loss of coal in FY 2013-14 @ 1.5% of the coal received from indigenous coal mines and with the exception of RGTPS the actual achieved during April 2013 to November, 2013 was better than the norm.

The regulation 32 (i) of MYT Regulations, 2012 provides that for working out the landed cost of fuel for thermal power plants the normative transit / moisture and handling losses as percentage of the quantity of coal dispatched by the coal supply company shall be less than or equal to 1.5% (non – pithead generating plants). Thus during the first control period the Commission is not lowering the benchmark but retains the normative loss at 1.5%. The Commission, however, advises the Petitioner to rein in coal transit loss to the national benchmark of less than 1% for non pithead power plants.

Based on the above analysis / discussions and the MYT Regulations, 2012 the Commission, for the purpose of generation tariff determination during the first control period i.e. FY 2014-15 to FY 2016-17, allows as under:-

Units	PLF%	Auxiliary Energy Consumption %	Specific Fuel Oil Consumption ml/kWh	Station Heat rate kcal /kWh	Transit Loss of Coal%
PTPS-1 & 2	68	11	2	3150	1.5
PTPS – 3 & 4	68 49*	11	2	3150	
PTPS- 5 & 6	82.5**	9	1	2650	
PTPS – 7 & 8	85	8.5	1	2500	
DCRTPS -1	85	8.5	1	2344	
DCRTPS -2	85	8.5	1	2344	
RGTPS -1	85	6	1	2387	
RGTPS -2	85	6	1	2387	
WYC and Kakroi Hydel	50	1.0	-	-	

**49 % for PTPS units 3 & 4 during FY 2015-16 due to R & R activity.*

***82.5% for PTPS unit 5 & 6 during FY2015-16 & FY2016-17.*

HPGCL is directed to pay attention to the following;

To operate the two units of DCRTPS & RGTPS under special care/vigilance as these Units are reportedly under stabilization after repair of the turbines or as and when the Unit is brought back to the bar after repairs.

Proper blending of imported coal having high GCV & volatile matter with indigenous coal to avoid fire in the coal mills as experienced in RGTPP units & thereby loss of generation. This would also improve the performance of these units.

The work of development of coal block (Mara-II-Mahan Coal Block in M.P) allotted to HPGCL is also not satisfactory. The forest clearance of MOESF is pending since 2009 and applied afresh in May, 2012 though, YCCPL has been incorporated in 15.01.2009.

Further is the case for the development of coal block (Kalyan Pur Badal Para in Jharkhand) allocated jointly to HPGCL with UPRVUNL for meeting the partial coal requirement of new 660 MW super critical Unit to be installed at DCRTPS, the special purpose vehicle / Joint Venture Company needs to be formed at the earliest.

The coal linkage of 3.4 of MTPA filed with Ministry of Coal on 09.10.2009 and pending with standing linkage committee of MOC (GoI) needs to be pursued vigorously.

It may be ensured that HPGCL take timely action for procurement of services for the washing of raw coal for its plants & arrangement of required imported coal during the control period.

The services of coal agents may also be ensured effectively and timely to control the transit loss of coal, maximization of the coal linkage materialization and for keeping the check on quality of the supplied coal by proper sampling and analyzing at loading point and also to minimize payment of idle freight charges and over loading penalties of wagons.

The Commission observes that the reported GCV of the coal received at HPGCL's power plants including after blending with high GCV imported coal is about 3200 Kcal/Kg only. Whereas the notification of the Ministry of Environment and Forest dated 2.01.2014 (G.S.R. 02 (E) provides that the power plants located between 500 – 750, 750 – 1000 shall be supplied with and shall use raw or blended or beneficiated coal with ash content not exceeding 34% on quarterly average basis w.e.f 1.1.2016 & 2015 respectively while power plants located beyond 1000 KMs from pithead shall be supplied with raw or blended or beneficiated coal with ash content not exceeding 34% and calorific value not less than 4000 Kcal/Kg with immediate effect. Hence HPGCL is directed to take up the issue of low GCV / poor quality coal being supplied by Coal India Ltd. and its subsidiaries with the Coal Companies as well as MOEF and also explore legal remedies available to sort out the issue.

In view of the above dispensation the Commission determines energy charges / variable charges for the first control period i.e. FY 2014-15, 2015-16 & 2016-17 as per the details provided in the table(s) below:

Parameters	Unit	Derivation	PTPS	PTPS - ENERGY CHARGES / VARIABLE CHARGES FOR FY 2014-15							
				Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
Gross Generation	MU	A	361.17	337.3	337.26	337.26	1563.66	1563.66	1861.50	1861.50	
PLF (%)			35	35	35	35	85	85	85	85	
Auxiliary Energy Consumption	%		11%	11%	11%	11%	9.00%	9.00%	8.50%	8.50%	
Generation (Ex-bus)	MU	A1	321.45	300.16	300.16	300.16	1422.93	1422.93	1703.27	1703.27	
Station Heat Rate (SHR)	Kcal/kwh	B	3150	3150	3150	3150	2550	2550	2500	2500	
Specific Oil Consumption	ml/kwh	C	2	2	2	2	1	1	1	1	
Gross Calorific Value of Oil	Kcal/litre	D	10107	10107	10107	10107	10107	10107	10107	10107	
Gross Calorific Value of Coal	K.cal/Kg	E	3620	3620	3620	3620	3628	3628	3628	3628	
Overall Heat	G.cal	F=(A*B)	1137700.62	1062369.00	1062369.00	1062369.00	3987333.00	3987333.00	4653750.00	4653750.00	
Heat from Oil	G.cal	G=(A*C*D)/1000	7300.79	6817.37	6817.37	6817.37	15803.91	15803.91	18814.18	18814.18	
Heat from Coal	G.cal	H= (F-G)	1130399.83	1055551.63	1055551.63	1055551.63	3971529.09	3971529.09	4634935.82	4634935.82	
Oil Consumption	KL	I=G*1000/D=A*C	722.35	674.52	674.52	674.52	1563.66	1563.66	1861.50	1861.50	
Coal Consumption	MT	J=(H*1000/E)	312265.15	291588.85	291588.85	291588.85	1094688.28	1094688.28	1277545.71	1277545.71	
Cost of Oil prS/ KL	Rs/KL	K	42772	42772	42772	42772	42772	42772	42772	42772	
Cost of Coal	Rs/MT	L	4163	4163	4163	4163	4163	4163	4163	4163	
Total Cost of Oil #	Rs .Mln	M=(K*I)/10^6	30.896	28.851	28.851	28.851	66.881	66.881	79.620	79.620	
Total Cost of Coal	Rs.Mln	N=(J*L)/10^6	1299.96	1213.88	1213.88	1213.88	4557.19	4557.19	5318.42	5318.42	
Total Fuel Cost	Rs.Mln	O=M+N	1330.86	1242.73	1242.73	1242.73	4624.07	4624.07	5398.04	5398.04	
Fuel Cost/Kwh	Rs.	P=O/A1	4.04	4.04	4.04	4.04	3.20	3.20	3.12	3.12	

reduced from fuel / variable charges and recovered as part of fixed charges.

RGTPS / DCRTPS ENERGY CHARGES / VARIABLE CHARGES FOR FY 2014-15								
Parameters	Unit	Derivation	RGTPS 1	RGTPS 2	DCRTPS 1	DCRTPS 2	WYC & Kakroi	HPGCL (Total)
Gross Generation	MU	A	4467.60	4467.60	2233.80	2233.8	274.626	21900.70

PLF (%)			85	85	85	85	50	
Auxiliary Energy Consumption	%		6.00%	6.00%	8.50%	8.50%	1.00%	7.61%
Generation (Ex-bus)	MU	A1	4199.54	4199.54	2043.93	2043.93	271.88	20233.15
Station Heat Rate (SHR)	Kcal/kwh	B	2387	2387	2344	2344	NA	
Specific Oil Consumption	ml/kwh	C	1	1	1	1	NA	
Gross Calorific Value of Oil	Kcal/litre	D	10303	10303	10091	10091	NA	
Gross Calorific Value of Coal	K.cal/Kg	E	3202	3202	3641	3641	NA	
Overall Heat	G.cal	F=(A*B)	10664161.20	10664161.2	5236027.20	5236027.20	NA	
Heat from Oil	G.cal	G=(A*C*D)/1000	46029.68	46029.68	22541.28	22541.28	NA	
Heat from Coal	G.cal	H= (F-G)	10618131.52	10618132.52	5213485.92	5213485.92	NA	
Oil Consumption	KL	I=G*1000/D=A*C	4467.60	4467.60	2233.80	2233.80	NA	
Coal Consumption	MT	J=(H*1000/E)	3316093.54	3316093.54	1431882.98	1431882.98	NA	
Cost of Oil prS/ KL	Rs/KL	K	45582	45582	43001	43001	NA	
Cost of Coal	Rs/MT	L	3687	3687	3810	3810	NA	
Total Cost of Oil #	Rs .Mln	M=(K*I)/10^6	203.64	203.64	96.06	96.06	NA	1005.911
Total Cost of Coal	Rs.Mln	N=(J*L)/10^6	12226.44	12226.44	5455.47	5455.47	NA	60056.66
Total Fuel Cost	Rs.Mln	O=M+N	12430.08	12430.08	5551.53	5551.53	NA	61066.50
Fuel Cost/Kwh	Rs.	P=O/A1	2.91	2.91	2.67	2.67	NA	2.97

reduced from fuel / variable charges and recovered as part of fixed charges.

Parameters	Unit	Derivation	PTPS	PTPS - ENERGY CHARGES / VARIABLE CHARGES FOR FY 2015-16							
				Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
Gross Generation	MU	A	361.17	337.3	337.26	337.26	1517.67	1517.67	1861.50	1861.50	
PLF (%)			35	35	35	35	82.5	82.5	85	85	
Auxiliary Energy Consumption	%		11%	11%	11%	11%	9.00%	9.00%	8.50%	8.50%	
Generation (Ex-bus)	MU	A1	321.45	300.16	300.16	300.16	1381.08	1381.08	1703.27	1703.27	
Station Heat Rate (SHR)	Kcal/kwh	B	3150	3150	3150	3150	2550	2550	2500	2500	
Specific Oil Consumption	ml/kwh	C	2	2	2	2	1	1	1	1	
Gross Calorific Value of Oil	Kcal/litre	D	10107	10107	10107	10107	10107	10107	10107	10107	
Gross Calorific Value of Coal	K.cal/Kg	E	3620	3620	3620	3620	3628	3628	3628	3628	
Overall Heat	G.cal	F=(A*B)	1137700.62	1062369.00	1062369.00	1062369.00	3870058.50	3870058.50	4653750.00	4653750.00	
Heat from Oil	G.cal	G=(A*C*D)/1000	7300.79	6817.37	6817.37	6817.37	15339.09	15339.09	18814.18	18814.18	

Heat from Coal	G.cal	H= (F-G)	1130399.83	1055551.63	1055551.63	1055551.63	3854719.41	3854719.41	4634935.82	4634935.82
Oil Consumption	KL	I=G*1000/D=A*C	722.35	674.52	674.52	674.52	1517.67	1517.67	1861.50	1861.50
Coal Consumption	MT	J=(H*1000/E)	312265.15	291588.85	291588.85	291588.85	1062491.57	1062491.57	1277545.71	1277545.71
Cost of Oil per KL	Rs/KL	K	42772	42772	42772	42772	42772	42772	42772	42772
Cost of Coal #	Rs/MT	L	4329	4329	4329	4329	4329	4329	4329	4329
Total Cost of Oil	Rs .Mln	M=(K*I)/10^6	30.90	28.85	28.85	28.85	64.91	64.91	79.62	79.62
Total Cost of Coal	Rs.Mln	N=(J*L)/10^6	1351.80	1262.29	1262.29	1262.29	4599.53	4599.53	5530.50	5530.50
Total Fuel Cost	Rs.Mln	O=M+N	1382.69	1291.14	1291.14	1291.14	4664.44	4664.44	5610.12	5610.12
Fuel Cost/Kwh	Rs.	P=O/A1	4.21	4.21	4.21	4.21	3.33	3.33	3.25	3.25

to be reduced from fuel/variable charges and recovered as fixed charge.

RGTPS / DCRTPS ENERGY CHARGES / VARIABLE CHARGES FOR FY 2015-16								
Parameters	Unit	Derivation	RG TPS		DCR TPS		WYC	Total HPGCL
			Unit 1	Unit 2	Unit 1	Unit 2		
Gross Generation	MU	A	4467.60	4467.60	2233.80	2233.8	274.626	21808.721
PLF (%)			85	85	85	85	50	
Auxiliary Energy Consumption	%		6.00%	6.00%	8.50%	8.50%	1.00%	7.61%
Generation (Ex-bus)	MU	A1	4199.54	4199.54	2043.93	2043.93	271.88	20149.46
Station Heat Rate (SHR)	Kcal/kwh	B	2387	2387	2344	2344	NA	
Specific Oil Consumption	ml/kwh	C	1	1	1	1	NA	
Gross Calorific Value of Oil	Kcal/litre	D	10303	10303	10091	10091	NA	
Gross Calorific Value of Coal	K.cal/Kg	E	3202	3202	3641	3641	NA	
Overall Heat	G.cal	F=(A*B)	10664161.20	10664161.20	5236027.20	5236027.20	NA	
Heat from Oil	G.cal	G=(A*C*D)/1000	46029.68	46029.68	22541.28	22541.28	NA	
Heat from Coal	G.cal	H= (F-G)	10618131.52	10618131.52	5213485.92	5213485.92	NA	
Oil Consumption	KL	I=G*1000/D=A*C	4467.60	4467.60	2233.80	2233.80	NA	
Coal Consumption	MT	J=(H*1000/E)	3316093.54	3316093.54	1431882.98	1431882.98	NA	
Cost of Oil per KL	Rs/KL	K	45582	45582	43001	43001	NA	
Cost of Coal #	Rs/MT	L	3834	3834	3962	3962	NA	
Total Cost of Oil	Rs .Mln	M=(K*I)/10^6	203.64	203.64	96.06	96.06	NA	1005.911
Total Cost of Coal	Rs.Mln	N=(J*L)/10^6	12713.90	12713.90	5673.12	5673.12	NA	62172.75
Total Fuel Cost	Rs.Mln	O=M+N	12917.54	12917.54	5769.18	5769.18	NA	63178.66
Fuel Cost/Kwh	Rs.	P=O/A1	3.03	3.03	2.78	2.78	NA	3.09

PTPS - ENERGY CHARGES / VARIABLE CHARGES FOR FY 2016-17										
Parameters	Unit	Derivation	PTPS							
			Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
Gross Generation	MU	A	361.17	337.3	337.26	337.26	1517.67	1517.67	1861.50	1861.50

PLF (%)			35	35	35	35	82.5	82.5	85	85
Auxiliary Energy Consumption	%		11%	11%	11%	11%	9.00%	9.00%	8.50%	8.50%
Generation (Ex-bus)	MU	A1	321.45	300.16	300.16	300.16	1381.08	1381.08	1703.27	1703.27
Station Heat Rate (SHR)	Kcal/kwh	B	3150	3150	3150	3150	2550	2550	2500	2500
Specific Oil Consumption	ml/kwh	C	2	2	2	2	1	1	1	1
Gross Calorific Value of Oil	Kcal/litre	D	10107	10107	10107	10107	10107	10107	10107	10107
Gross Calorific Value of Coal	K.cal/Kg	E	3620	3620	3620	3620	3628	3628	3628	3628
Overall Heat	G.cal	F=(A*B)	1137700.62	1062369.00	1062369.00	1062369.00	3870058.50	3870058.50	4653750.00	4653750.00
Heat from Oil	G.cal	G=(A*C*D)/1000	7300.79	6817.37	6817.37	6817.37	15339.09	15339.09	18814.18	18814.18
Heat from Coal	G.cal	H= (F-G)	1130399.83	1055551.63	1055551.63	1055551.63	3854719.41	3854719.41	4634935.82	4634935.82
Oil Consumption	KL	I=G*1000/D=A*C	722.35	674.52	674.52	674.52	1517.67	1517.67	1861.50	1861.50
Coal Consumption	MT	J=(H*1000/E)	312265.15	291588.85	291588.85	291588.85	1062491.57	1062491.57	1277545.71	1277545.71
Cost of Oil per KL	Rs/KL	K	42772	42772	42772	42772	42772	42772	42772	42772
Cost of Coal #	Rs/MT	L	4502	4502	4502	4502	4502	4502	4502	4502
Total Cost of Oil	Rs .Mln	M=(K*I)/10^6	30.90	28.85	28.85	28.85	64.91	64.91	79.62	79.62
Total Cost of Coal	Rs.Mln	N=(J*L)/10^6	1405.82	1312.73	1312.73	1312.73	4783.34	4783.34	5751.51	5751.51
Total Fuel Cost	Rs.Mln	O=M+N	1436.71	1341.58	1341.58	1341.58	4848.25	4848.25	5831.13	5831.13
Fuel Cost/Kwh	Rs.	P=O/A1	4.37	4.37	4.37	4.37	3.46	3.46	3.38	3.38

RGTPS / DCRTPS ENERGY CHARGES / VARIABLE CHARGES FOR FY 2016-17

Parameters	Unit	Derivation	RG TPS		DCR TPS		WYC	Total HPGCL
			Unit 1	Unit 2	Unit 1	Unit 2		
Gross Generation	MU	A	4467.60	4467.60	2233.80	2233.8	274.626	21808.721
PLF (%)			85	85	85	85	50	
Auxiliary Energy Consumption	%		6.00%	6.00%	8.50%	8.50%	1.00%	7.61%
Generation (Ex-bus)	MU	A1	4199.54	4199.54	2043.93	2043.93	271.88	20149.46
Station Heat Rate (SHR)	Kcal/kwh	B	2387	2387	2344	2344	NA	
Specific Oil Consumption	ml/kwh	C	1	1	1	1	NA	
Gross Calorific Value of Oil	Kcal/litre	D	10303	10303	10091	10091	NA	
Gross Calorific Value of Coal	K.cal/Kg	E	3202	3202	3641	3641	NA	
Overall Heat	G.cal	F=(A*B)	10664161.20	10664161.2	5236027.20	5236027.20	NA	
Heat from Oil	G.cal	G=(A*C*D)/1000	46029.68	46029.68	22541.28	22541.28	NA	
Heat from Coal	G.cal	H= (F-G)	10618131.52	10618132	5213485.92	5213485.92	NA	
Oil Consumption	KL	I=G*1000/D=A*C	4467.60	4467.60	2233.80	2233.80	NA	
Coal Consumption	MT	J=(H*1000/E)	3316093.54	3316093.54	1431882.98	1431882.98	NA	

Cost of Oil per KL	Rs/KL	K	45582	45582	43001	43001	NA	
Cost of Coal #	Rs/MT	L	3988	3988	4121	4121	NA	
Total Cost of Oil	Rs .Mln	$M=(K*I)/10^6$	203.64	203.64	96.06	96.06	NA	1005.911
Total Cost of Coal	Rs.Mln	$N=(J*L)/10^6$	13224.58	13224.58	5900.79	5900.79	NA	64664.45
Total Fuel Cost	Rs.Mln	$O=M+N$	13428.22	13428.22	5996.85	5996.85	NA	65670.37
Fuel Cost/Kwh	Rs.	$P=O/A1$	3.15	3.15	2.89	2.89	NA	3.21

to be reduced from fuel/variable charges and recovered as fixed charge.

The Commission has determined the base year cost of coal i.e. FY 2014-15 as per the latest available invoices from coal companies and Railways including normative transit loss of coal i.e. 1.5%. The same has been escalated @ 4% for the subsequent years of the first control period. The Commission has taken note of the contention of HPGCL on the issue of coal price escalation to minimize the impact of FPA and further plea that while claiming FPA they do not get the benefits of working capital. Further, the Commission has noted the submissions of HPGCL that GCV of coal has been continuously declining, hence GCV of coal for the purpose of determining energy charges / variable charges have been considered as proposed by HPGCL. Additionally, due to the fact that the actual purchase of the Discoms (as submitted by HPGCL) has been far less than the ex – bus generation for HPGCL’s plants determined by the Commission leading to piling up of coal stock, hence the Commission has not taken into account cost of imported coal as the percentage of blending that may be required during the MYT control period is uncertain as well as the fact that due to blending the average GCV of coal considered by the Commission for working out fuel cost will also increase. Further, both price as well as GCV of imported coal is much higher than the domestic coal, hence the net impact on overall coal cost may be marginal. Thus for any deviations on actual basis HPGCL can claim FPA taking into account regulation 32 of MYT

Regulations, 2012 on a monthly basis i.e. landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel including freight and other charges as mentioned in the said regulation. Consequently, there ought not to be in piling up of FPA allowable under regulation 33 of the ibid Regulations without the need for going through the regulatory process.

13.0 Determination of Fixed Cost:

The fixed cost of HPGCL's power plants has been determined in accordance with the HERC Regulations NO. HERC/26/2012 dated 5th December, 2012 namely Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution and Retail Supply under Multi Year Tariff Framework) Regulations, 2012 as applicable to the Generation Company for the MYT control period FY 2014-15 to FY 2016-17.

As per regulation 15.3 the fixed cost of generating plant (thermal or hydro as the case may be) comprises of the following elements:-

- Return on Equity.
- Interest and Finance Charges on Loan Capital.
- Interest on allowed working capital.
- Depreciation.
- Operation and Maintenance Expenses.
- Cost of secondary fuel oil (only for thermal).
- Foreign Exchange Rate Variation, if any.
- All statutory levies and taxes, if any, excluding taxes on income.

The petitioner's submission and Commission's analysis / order on each of the fixed cost components during the first control period i.e. FY 2014-15 , FY 2015-16 and FY 2016-17 are dealt with in the paragraph that follows.

13.1 Operation & Maintenance (O&M) Expenses:

The O&M charges comprise of repair and maintenance charges (R&M), employees cost and administrative & general expenses. The Petitioner has claimed O&M expenses keeping in view FY 2012-13 as the base year and appropriate escalation rate i.e. 7.8% reflecting the actual inflationary adjustments. Accordingly, Rs. 6618 million has been proposed for FY 2014-15, Rs. 7134 million for FY 2015-16 and Rs. 7691 million for FY 2016-17 for all the power plants of HPGCL. The power plant wise break – up of the O&M expenses as well as the basis for arriving at the proposed escalation rate of 7.8% was also provided by the Petitioner.

The Commission observes that as per MYT Regulations, 2012, the provision for O&M is as under.

“(5)Operation and maintenance expenses: The O & M expenses (in Rs. Lac per MW) for the existing plants, except for Panipat TPS Unit 1-4, have been based on actual O & M expenses for FY 2011-12 as per audited accounts for the respective plants escalated @ 4% per annum. The Commission feels that Panipat TPS Unit 1-4 has a very large component of wages. The Commission realizes that though the wage rate may not be controllable but the number of employees is certainly controllable. Therefore, the Commission, for reasons of its social consequences, does not recommend any retrenchment, but feels that efforts should be made to bring down per MW wage cost through natural attrition and by not filling any vacant posts / creating new posts. Therefore, if any vacancies are filled / created, the Commission shall not allow the additional cost of such manpower unless adequately justified. So in the case of Panipat TPS Unit 1-4, the O&M expenses (in Rs. Lac per MW) are also based on audited expenses for FY 2011-12 but, whereas the A&G and R&M expenses have been

escalated @ 4% per annum, no escalation has been allowed in the case of employees expenses in view of the above.

For the new plants, Commissioned after 1st April, 2012, the normative O & M expenses have been kept at the same level as the normative O & M expenses for existing plants of the same/similar capacities.

The norms for O & M expenses (in Rs. Lac per MW) for the existing plants and the plants Commissioned on or after 1st April 2012 shall accordingly be as under:

(a) Existing Plants:

Plant (Unit)	MYT Period		
	2014-2015	2015-2016	2016-2017
Panipat TPS (Unit 1 to 4)	31.74	32.29	32.86
Panipat TPS (Unit 5 & 6)	21.07	21.91	22.78
Panipat TPS (Unit 7 & 8)	15.61	16.24	16.89
DCR TPS, Yamuna Nagar (Unit 1&2)	12.53	13.03	13.55
Rajiv Gandhi TPS (Unit 1&2)	6.29	6.54	6.80

* Keeping in view that actual O & M expenses for FY 2011-12 in case of DCR TPS and Rajiv Gandhi TPS, based on which above normative O & M expenses have been determined, are not representative because of the fact that during FY 2011-12 one or the other unit of these plants have remained under shut down, the O&M expenses of these two plants for FY 2013-14 would be trued-up based on actual expenses. The per MW expenses worked out based on actual expenses for FY 2013-14, escalated @ 4% per annum, shall be considered as the revised normative O & M expenses for subsequent years for these two plants and new plants of same/similar capacities.”

In view of the above O&M expenses considered by the Commission as applicable for FY 2014-15, FY 2015-16 and FY 2016-17 are given in the table below.

Approved O&M Expenses (Rs. Millions)

	Capacity MW	FY 2014-15	FY 2015-16	FY 2016-17
PTPS (Unit 1-4)	447.8	881	896	912
PTPS - 5	210	442.47	460.11	478.38
PTPS - 6	210	442.47	460.11	478.38
PTPS - 7	250	390.25	406.0	422.25
PTPS -8	250	390.25	406.0	422.25
DCR TPS 1	300	375.9	390.9	406.5
DCR TPS 2	300	375.9	390.9	406.5
RG TPS 1*	600	505.44	525.66	546.6
RG TPS 2 *	600	505.44	525.66	546.6
WYC & Kakroi Hydro	62.7	142.08	147.76	153.67
O&M TOTAL	3230.5	4451	4609.1	4773.13

* Rs. 8.1 Lakh / MW estimated for FY 2013-14 escalated @4% per annum.

In the case of PTPS (Units 1 to 4), the Commission expects that these Units may be dispatched only intermittently, hence besides employees cost and some A&G expenses HPGCL may not incur the full normative O&M expenses. Thus the Commission has considered full employees cost and 50% of A&G only for allowing O&M expenses. However, this is subject to true up at the end of the respective financial year in line with the actual dispatch. HPGCL is advised to shift some of the employees to other Units as well as plan outsourcing for PTPS (Units 1-4) accordingly. In all other cases the O&M expenses have been covered in accordance with the MYT Regulations, 2012.

13.2 Depreciation:

The Petitioner has calculated station wise depreciation on the 90% of the average gross block as per the deprecation rates notified by the Commission in MYT Regulations, 2012. The Commission had allowed Rs. 4853.04 Millions as deprecation charges for FY 2013-14. As against the depreciation allowed by the Commission for FY 2013-14 the said amount as per the present MYT Petition is Rs. 4685.62 Millions. Hence the excess depreciation of Rs. 167.42 Millions shall be trued up based on the audited accounts while considering true up of FY 2013-14. In the case of PTPS (Units 1 to 4) the Commission has not considered additional capital expenditure proposed by HPGCL as the same may not serve much purpose as these stations may be dispatched only intermittently and also expected to be phased out.

The depreciation allowed by the Commission in the first control period i.e. FY 2014-15 to FY 2016-17, subject to truing up, is as under:

Depreciation Schedule (FY 2014-15 to FY 2016-17) Rs. Millions					
PTPS	Depreciation Allowed for FY 2013-14	Depreciation for FY 2013-14 as per HPGCL MYT Petition.	Depreciation Allowed for FY 2014-15	Depreciation Allowed for FY 2015-16	Depreciation Allowed for FY 2016-17
Unit 1 - 4	317.65	289.10	289.10	289.10	289.10
Unit 5-6	635.98	631.93	635.51	446.51	78.41
Unit 7 - 8	902.72	908.48	918.51	928.63	928.63
DCR TPS Unit 1-2	1037.84	1036.64	1036.64	1036.64	1036.64
RG TPS Unit 1-2	1867.86	1780.62	1787.65	1787.65	1787.65
WYC & Kakroi	90.99	38.85	38.85	38.85	38.85
TOTAL	4853.04	4685.62	4706.26	4527.38	4197.88

* Increase in depreciation for PTPS (Units 5 – 8) is on account of additional capitalisation allowed for these Units.

13.3 Interest and Finance Charges on long Term Loan(s):

HPGCL has claimed Rs. 5032 Millions (FY 2014-15), Rs. 4449 Millions (FY 2015-16) and Rs. 3882 Millions (FY 2016-17) as interest and finance charges on long-term loans. The Commission examined the details of all the long-term loans including repayments and drawls schedules and respective interest rates for the generating plants. Based on the schedule of loans along with respective interest rates submitted by HPGCL the Commission allows Rs. 5020.04 Millions (FY 2014-15), Rs. 4421 Millions (FY 2015-16) and Rs. 3840.36 Millions (FY 2016-17) towards interest and finance charges on long term loans. The interest amount has been calculated on the average loan i.e. average of the opening and closing balance on loans at the weighted average interest rate as per the provisions of MYT Regulations, 2012. In view of the facts brought before the Commission in the public hearings as well as written submissions that PTPS (Units 1-4) are frequently backed down due to low demand and these power plants have already outlived their useful life the Commission has not considered the additional capital expenditure and interest thereto proposed for these power plants. The details are provided in the table that follows:

INTEREST & FINANCE CHARGES (FY 2014-15 TO FY 2016-17) – RS. MILLIONS						
	Loans as on 31.03.2015	Interest FY 2014-15	Loans as on 31.03.2016	Interest FY 2015- 16	Loans as on 31.03.2017	Interest FY 2016- 17
PTPS-1	84.48	7.06	83.97	7.57	83.46	7.53
PTPS-2	84.48	7.60	83.97	7.57	83.46	7.53
PTPS-3	84.48	7.60	83.97	7.57	83.46	7.53
PTPS-4	84.48	7.60	83.97	7.57	83.46	7.53
Total 1-4	337.92	28.2	335.88	30.28	333.84	30.12
PTPS 5	224.88	18.63	234.83	18.93	263.99	26.02
PTPS 6	828.21	80.17	596.83	59.96	384.66	46.54
PTPS 7	1623.59	180.64	1027.57	135.22	431.54	76.44
PTPS 8	1623.59	180.64	1027.57	135.22	431.54	76.44
DCR TPS1	5792.54	774.85	5139.29	692.69	4486.04	610.52
DCRTPS2	5792.54	774.85	5139.29	692.69	4486.04	610.52
RG TPS1 & 2	22771.38	2977.80	19956.91	2652.25	17873.11	2359.50
WYC & Kakroi	47.26	4.26	47.26	4.26	47.26	4.26
TOTAL	39041.91	5020.04	33505.43	4421.50	28738.02	3840.36

13.4 Interest on Working Capital:

HPGCL has claimed interest on working capital loans amounting to Rs. 2966 Millions (FY 2014-15), Rs. 3092 Millions (FY 2015-16) and Rs. 3302 (FY 2016-17). HPGCL has proposed working capital requirement in accordance with regulation 22 of the MYT Regulations, 2012 except for maintenance spares as part of the O&M expenses which has been proposed at 20% of the annual O&M expenses for its thermal power plants and @ 15% for hydro power plants taking into consideration make of the plants and the availability of spares.

The Commission has considered the above submissions of HPGCL and is of the view that the issue of maintenance spares was deliberated at length while

framing the MYT Regulations, 2012 and after due deliberations the provision was made in the Regulations. Hence it is not appropriate for the Petitioner to seek any relaxation at this stage. The Commission while framing / notifying the ibid Regulations had attempted to take a holistic view of the power sector in Haryana and attempted to strike a fine balance between the interest of all stakeholders including the electricity consumers who has to ultimately bear the cost of generation and any such relaxation would tantamount to putting additional financial burden on the Consumers.

The relevant regulation on working capital loan and interest thereto is reproduced below.

“ 22. INTEREST ON WORKING CAPITAL

22.1 Components of working capital:

For the purpose of computing working capital the components mentioned in the table below shall be considered:

Generating company
<p><u>I. Coal-based Thermal Generating Plants:</u></p> <ul style="list-style-type: none"> a) Cost of coal for 2 months corresponding to the normative availability; b) Cost of secondary fuel oil for 2 months corresponding to the normative availability; c) Normative O&M expenses for 1 (one) month; d) Maintenance spares @ 10% of the O&M expenses; e) Receivables equivalent to fixed and variables charges for 1 (one) month for sale of electricity calculated corresponding to normative availability. <p><u>II. Open-cycle / Combined Cycle Gas Turbine Thermal Generating Plants:</u></p> <ul style="list-style-type: none"> a) Fuel cost for 1 (one) month corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating plant on gas fuel and liquid fuel; b) Liquid fuel stock for ½ month corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel; c) Maintenance spares @ 15% of normative operation and maintenance expenses; d) Normative operation and maintenance expenses for one month. e) Receivables equivalent to capacity charges and energy charges for 1 (one) month for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating plant on gas fuel

and liquid fuel; and

III. Hydro power plants:

- a) Normative operation and maintenance expenses for 1 (one) month
- b) Maintenance spares @ 7.5% of normative operation and maintenance expenses;
- c) Receivables equivalent to fixed cost for 1 (one) month

22.2 Rate of Interest

Rate of interest on working capital shall be equal to the base rate of SBI as applicable on 1st April of the relevant financial year plus an appropriate margin that realistically reflects the rate at which the generating company/licensees can raise debt from the market.”

Accordingly the computation of normative working capital and interest thereto @ 13% as proposed by HPGCL in accordance with the norms. The computational details are as under.

Normative Working Capital FY 2014-15, FY 2015-16 & FY 2016-17 & Interest thereto (Rs. Millions)

FY 2014-15										
ITEMS	DERIVATION	PTPS					RGTPS	DCR	WYC	TOTAL
		Units 1to4 *	Units 5	Unit 6	Unit 7	Unit 8	Unit 1 & 2	(Unit 1 & 2)		
Coal Stock	2 months	411.50	759.53	759.53	886.40	886.40	4075.48	1818.49	0	9597.34
Oil Stock	2 months	9.79	11.15	11.15	13.27	13.27	67.881	32.02	0	158.52
O&M Expenses	1 months	73.42	36.86	36.856	32.52	32.52	84.24	62.65	11.84	370.90
Maint. Spares	10% of O&M	88.10	44.23	44.23	39.03	39.03	101.09	75.18	14.20	445.07
Receivables	2 months	540.11	976.44	996.01	1219.79	1219.79	5825.46	2752.01	34.61	13564.21
W/C Requirement		1122.91	1828.21	1847.77	2191.00	2191.00	10154.15	4740.34	60.64	24136.04
Int (@13%		145.98	237.67	240.21	284.83	284.83	1320.04	616.24	7.88	3137.69

FY 2015-16										
ITEMS	DERIVATION	PTPS					RGTPS	DCR TPS	WYC	TOTAL
		Units 1to4	Units 5	Unit 6	Unit 7	Unit 8	Unit 1 & 2	(Unit 1 & 2)		
Coal Stock	2 months	428.22	766.59	766.59	921.75	921.75	4237.97	1891.04	0	9933.91
Oil Stock	2 months	9.79	10.82	10.82	13.27	13.27	67.880	32.02	0	157.86
O&M Expenses	1 months	74.67	38.34	38.343	33.83	33.83	87.61	65.15	12.31	384.09
Maint. Spares	10% of O&M	89.60	46.01	46.01	40.60	40.60	105.13	78.18	14.78	460.91
Receivables	2 months	667.51	978.50	1032.07	1252.54	1252.54	5946.89	2803.33	35.60	13968.97
W/C Requirement		1269.79	1840.26	1893.83	2261.99	2261.99	10445.48	4869.72	62.69	24905.74
Int (@13%		165.07	239.23	246.20	294.06	294.06	1357.91	633.06	8.15	3237.75

FY 2016-17										
ITEMS	DERIVATION	PTPS					RGTPP	DCR TPP	WYC	TOTAL
		Units 1to4	Units 5	Unit 6	Unit 7	Unit 8	Unit 1 & 2	(Unit 1 & 2)		
Coal Stock	2 months	445.33	797.22	797.22	958.59	958.59	4408.19	1966.93	0	10332.07
Oil Stock	2 months	9.79	10.82	10.82	13.27	13.27	67.880	32.02	0	157.86
O&M Expenses	1 months	76.00	39.87	39.865	35.19	35.19	91.10	67.75	13.14	398.09
Maint. Spares	10% of O&M	91.20	47.84	47.84	42.23	42.23	109.32	81.30	15.77	477.71
Receivables	2 months	686.36	956.70	968.36	1201.45	1201.45	4573.92	2433.20	36.67	12058.11
W/C Requirement		1308.69	1852.44	1864.11	2250.72	2250.72	9250.42	4581.20	65.57	23423.86
Int (@13%		170.13	240.82	242.33	292.59	292.59	1202.55	595.56	8.52	3045.10

Due to lower PLF of 35% considered for PTPS (Units 1-4) as against the norm of 68% the working capital requirement for the control period FY 2014-15 to FY 2016-17 has accordingly been reduced to one month of coal stock, oil stock, O&M expenses and receivables on account of total variable cost and fuel cost. The Commission shall revisit the issue on the basis of actual performance of these Units at the end of the respective financial year).

13.5 Return on Equity (ROE):

The petitioner has submitted that they are an independent legal entity and ROE is an integral part of the tariff which ought to be allowed independent of performance. It was further submitted that other SERCs / CERC have

allowed ROE to the Generating Company without any pre – condition without linking the same with performance. Accordingly HPGCL has claimed ROE @ 14% on the average equity for the year amounting to Rs. 3009 Millions (FY 2014-15), Rs. 3037 Millions (FY 2015-16) and Rs. 3043 Millions (FY 2016-17). Additionally, HPGCL had submitted that they have not considered any income tax for the control period and shall consider the same, if any, during the true – up.

The Commission has examined the ROE claim of HPGCL in the light of the fact that ROE is in the nature of dividend payout to the shareholders (in this case the State Government) and no such payout is made unless a company has outperformed the industry benchmark leading to profit or has reserves and surplus created out of better performance of the company in the past. In the present case neither is applicable. To the contrary the Commission observes that HPGCL in most of the cases have failed to achieve even the minimum benchmark set by the Commission in the MYT Regulations, 2012 applicable for FY 2012-13 for which data is available.

The relevant regulation is reproduced below.

“ 20. RETURN ON EQUITY

- 20.1 *The rate of return on equity shall be decided by the Commission keeping in view the incentives and penalties and on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty .*
- 20.2 *Return on equity shall be allowed on equity employed in assets in use considering the following and subject to regulation 20.1 above:*
 - i. *Equity employed in accordance with regulation 19.1 and 19.2 on assets (in use) commissioned prior to the beginning of the year; plus*
 - ii. *50% of equity capital portion of the allowable capital cost for the assets put to use during the year.*

Provided that for the purpose of truing up, return on equity shall be allowed from the COD on pro-rata basis based on documentary evidence provided for the assets put to commercial operation during the year.

20.3 Return on equity invested in work in progress shall be allowed from the actual date of commercial operation of the assets.

20.4 There shall be no Return on Equity for the equity component above 30%”.

Thus the Commission has restricted ROE to 10% in accordance with the provisions of MYT Regulations, 2012. Income Tax / MAT, if any, shall be met by HPGCL from the ROE allowed. Further, as additional capital expenditure proposed by HPGCL has not been considered by the Commission, the average equity and ROE thereto in the case of PTPS (Unit 1-4) stands reduced to that extent.

In view of the above, the Commission allows ROE @ 10% amounting to Rs. 2110.64 Millions for each year of the first MYT control period. Plant wise break – up of the same is provided in the Fixed Cost table.

As there is no expense claimed by the petitioner on account of foreign exchange rate variation (FERV) for any of its generating stations the Commission has not considered the same.

Fixed Charges for FY 2014-15, FY 2015-16 & FY 2016-17 approved by the Commission are as under:

FIXED COST COMPUTATION (Rs Million)										
EXPENSES FY 2014-15	PTPS-1to4	PTPS-5	PTPS -6	PTPS -7	PTPS - 8	DCR TPS 1	DCR TPS 2	RGTPS 1 & 2	WYC & Kakroi	TOTAL
Operation & Maintenance (O&M)	881.00	442.27	442.27	390.25	390.25	375.90	375.90	1010.88	142.08	4451
Depreciation	289.10	123.90	511.60	459.26	459.26	518.32	518.32	1787.65	38.85	4706
Interest & Finance	28.20	18.63	80.17	180.64	180.64	774.85	774.85	2977.80	4.26	5020
W/C Interest	145.98	237.66	240.21	284.82	284.82	313.24	313.24	1319.87	7.87	3148
ROE	82	78	78	208	208	242	242	960	15	2110.64
Fixed Cost	1425.88	900.19	1351.98	1522.57	1522.57	2224.21	2224.21	8056.20	207.64	19435.43
Cost of Oil	117.448	66.881	66.881	79.620	79.620	96.056	96.056	407.28	0.000	1009.842
Total Fixed Cost	1543.33	967.07	1418.86	1602.19	1602.19	2320.26	2320.26	8463.48	207.64	20445.27
Generation (ex-bus) MU	1221.93	1422.93	1422.93	1703.27	1703.27	2043.93	2043.93	8399.08	271.88	20233
Fixed Cost (Rs/kWh)	1.26	0.68	1.00	0.94	0.94	1.14	1.14	1.01	0.76	1.01
EXPENSES FY 2015-16 (Rs. Millions)	PTPS-1to4	PTPS-5	PTPS -6	PTPS -7	PTPS - 8	DCR TPS 1	DCR TPS 2	RGTPS 1 & 2	WYC & Kakroi	TOTAL
Operation & Maintenance (O&M)	896.00	460.11	460.11	406.00	406.00	390.9	390.90	1051.32	147.76	4609
Depreciation	289.10	87.05	359.46	464.32	464.32	518.32	518.32	1787.65	38.85	4527
Interest & Finance	30.28	18.93	59.96	135.22	135.22	692.69	692.69	2652.25	4.26	4422
W/C Interest	165.07	238.28	246.19	294.05	294.05	316.57	316.57	1358.63	8.15	3238
ROE	82	78	78	208	208	242	242	960	15	2110.74
Fixed Cost	1462.05	882.10	1203.45	1507.19	1507.19	2160.43	2160.43	7809.85	213.60	18906.27
Cost of Oil	117.45	64.91	64.91	79.62	79.62	96.06	96.06	407.28	0.00	1005.91
Total Fixed Cost	1579.50	947.01	1268.36	1586.81	1586.81	2256.49	2256.49	8217.13	213.60	19912.18
Generation (ex-bus) MU	1221.93	1381.08	1381.08	1703.27	1703.27	2043.93	2043.93	8399.08	271.88	20149
Fixed Cost (Rs/kWh)	1.29	0.69	0.92	0.93	0.93	1.10	1.10	0.98	0.79	0.99
EXPENSES FY 2016-17 (Rs. Millions)	PTPS-1to4	PTPS-5	PTPS -6	PTPS -7	PTPS - 8	DCR TPS 1	DCR TPS 2	RGTPS 1 & 2	WYC & Kakroi	TOTAL
Operation & Maintenance (O&M)	912.00	478.38	478.38	422.25	422.25	406.50	406.50	1093.20	153.67	4773
Depreciation	289.10	15.29	63.12	464.32	464.32	518.32	518.32	1787.65	38.85	4159
Interest & Finance	30.12	26.02	46.54	76.44	76.44	610.52	610.52	2359.50	4.26	3840
W/C Interest	170.13	240.81	242.33	292.59	292.59	297.82	297.82	1202.47	8.52	3045
ROE	82	78	78	208	208	242	242	960	15	2110.74
Fixed Cost	1482.95	838.23	908.10	1463.20	1463.20	2075.11	2075.11	7402.82	219.88	17928.60
Cost of Oil	117.45	64.91	64.91	79.62	79.62	96.06	96.06	407.28	0.00	1005.91
Total Fixed Cost	1600.40	903.14	973.01	1542.82	1542.82	2171.17	2171.17	7810.10	219.88	18934.51
Generation (ex-bus) MU	1221.93	1381.08	1381.08	1703.27	1703.27	2043.93	2043.93	8399.08	271.88	20149
Fixed Cost (Rs/kWh)	1.31	0.65	0.70	0.91	0.91	1.06	1.06	0.93	0.81	0.94

Based on the parameters / expenses approved by the Commission, the tariff(s) for HPGCL's power plants for FY 2014-15 is as under:

Approved Tariff (FY 2014-15)

	PTPS (Unit 1-4)	PTPS (Unit 5)	PTPS (Unit 6)	PTPS (Unit 7 & 8)	DCR TPS (Unit 1&2)	RG TPS (Unit 1 &2)	WYC & Kakroi hydro	Total HPGCL
Fuel / Variable Energy Charges (Rs./kWh)	4.04	3.20	3.20	3.12	2.67	2.91	-	2.97
Fixed Charges * (Rs. Millions)	1543.33	967.071	1418.86	3204.38	4640.52	8463.48	207.64	20445.2

** including cost of secondary fuel oil.*

The recovery of fixed charges to the extent determined by the Commission for FY 2014-15 i.e. Rs. 20445.2 Millions shall be as per the provisions of MYT Regulations, 2012. The relevant regulation is reproduced below.

“30 RECOVERY OF ANNUAL FIXED CHARGES (CAPACITY) CHARGES FOR THERMAL POWER PROJECTS

- (a) *A generating plant shall recover full capacity charge at the normative annual plant availability factor specified for it by the Commission. Recovery of capacity charge below the level of target availability shall be on pro-rata basis. No capacity charge shall be payable at zero availability;*
- (b) *Payment of capacity charge by the beneficiaries shall be on monthly basis in proportion to allocated / contracted capacity. The total capacity charges payable for a generating plant shall be shared by its beneficiaries as per their respective percentage share / allocation in the capacity of the generating plant;*
- (c) *The capacity charge payable to a thermal generating plant (in Rs.) for a calendar month shall be calculated in accordance with the following formula:*
 - (i) *Generating plants in commercial operation for less than ten (10) years on 1st April of the financial year:*

$$AFC \times (NDM / NDY) \times (0.5 + 0.5 \times PAFM / NAPAF)$$

Provided that in case the plant availability factor achieved during a financial year (PAFY) is less than 70%, the total capacity charge for the year shall be restricted to

$$AFC \times (0.5 + 35 / NAPAF) \times (PAFY / 70)$$

(ii) For generating plants in commercial operation for ten (10) years or more on 1st April of the financial year:

$$AFC \times (NDM / NDY) \times (PAFM / NAPAF)$$

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Cumulative Normative annual plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percent:

PAFY = Plant availability factor achieved during the year, in percent

Note: Until Intra – State ABT is implemented, Plant Availability Factor (PAF), wherever mentioned, shall mean Plant Load Factor (PLF). For working out annual PLF for the purpose of recovery of annual fixed charges, deemed generation on account of backing down on the instructions of SLDC or on the request of Discoms shall be included.

(d) In case HPGCL's power stations are backed down on the instructions of the distribution licensees and at the same time the Discoms are drawing power at a lower rate from some other sources i.e. generators, traders etc. or resorting to draws under UI mechanism, the Discoms shall compensate HPGCL to the extent of fixed cost corresponding to loss of generation due to backing down. In such cases HPGCL shall have the right to sell power not scheduled by the Discoms to a third party provided any revenue earned on this account shall first be adjusted against the fixed cost to be recovered from the Discoms."

14.0 The Commission has considered the submission of HPGCL that they may be allowed to recover fixed charges

corresponding to the period of maintenance shutdown of RGTPS in FY 2012-13 and to allow similar relief in the subsequent years. After examining the issue at length, the Commission holds that normative PLF of 85% in the case of RG TPS has been determined after taking into account normal maintenance schedule and hence any prolonged shutdown or forced outages which may render the machines un-available cannot be reckoned with for recovery of proportionate fixed charges. Consequently in view of the above discussions and regulation 30 (a) of HERC Regulations, 2012 the Commission disallows the claim of HPGCL on this account.

15.0 Liquidation of HPGCL's dues:

In the Public Hearing on HPGCL's MYT Petition on 18.03.2014 it was pointed out by HPGCL that their receivable for sale of power to the Discoms is about Rs. 2000 Crore which is about 2.5 times the normative receivable considered by the Commission for estimating normative working capital requirement and interest thereto. The Commission has taken note of the same and observes that such non – payment of dues to HPGCL by the Discoms would severely impair the cash – flow of the generating company which would affect their operations despite the machines being available for generation. In view of the fact that this Commission has provided funding of entire short term loans under FRP including un recovered past Regulatory Assets and FSA (FY 2011-12) in addition to issuance of bonds valued at Rs. 1000 Crore by HVPNL on behalf of the Discoms. All these include payables to HPGCL as well as HVPNL. Consequently, the Discoms should liquidate the payables to HPGCL in cash on a monthly basis including the

current dues that may have become payable after adjusting the same for any subsidy directly received by HPGCL against sale of power to the Discoms.

16.0 Other Issues / directions:

Financial Transactions through Banks:

All type of financial transactions must be done through the nationalized banks. The financial transactions may also be allowed through E-payment. The cadre of cashiers may be considered as diminishing cadre and they may be deployed elsewhere as per requirement.

Online Tenders:

In order to bring in efficiency/transparency in the process of procurement E-procurement be implemented and the NIT with Short description be published in the Newspaper and detail should be given on web site to exercise economy. The officers/ officials concerned may also be trained for this purpose at the earliest.

Reporting of losses/Public Audit of Loss:

The HPGCL is required to place on its website, the project wise losses being suffered along with the name of the concerned officers working in the supervisory capacity and their designations. The above information should be updated periodically on quarterly basis.

The information in respect of total losses incurred in a year should also be made public at the time of filing ARR for information of the stake holders.

Rest House /Guest House maintained by the Nigam

All rest houses/guest houses of the HPGCL if located in private building be closed immediately due to financial constants and the regular staff in working in the rest houses should be adjusted against the vacant post elsewhere.

The rate of the guest house should be revised and a minimum of Rs. 100/- per day be charged from the officers/officials on their official tours and in case of non official journey Rs. 300/- per day be charged. In case of private person the charges posted should be Rs. 1500 /- per day.

Monitoring of Court Cases:

The HPGCL is required to ensure monitoring of the court cases regularly with proper care and caution on day to day basis. In case of any lapse/negligence committed on the part of any officer/official concerned in this regard, the responsibility of the erring officer / official be fixed and the financial loss be recovered.

Abolition of Vacant Posts:

The Commission, on several occasions, has expressed concern regarding high and ever increasing employees cost of the Nigam and suggested outsourcing of works wherever possible. Hence, all non-technical posts lying vacant for the last three years in the HPGCL needs to be abolished but it will not be applicable for the post where the contract/outsourced staff have been engaged.

Economic Measures:

The Commission directs the company to undertake effective economic measure in the utilities to contain the unproductive expenditure.

17.0 All other terms and conditions not explicitly dealt with in this order shall be as per the relevant provisions of the **Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.**

The generation tariff approved for FY 2014-15 shall be implemented w.e.f 1st April 2014.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 29th May, 2014.

Date: 29th May, 2014
Place: Panchkula

(M.S. Puri)
Member

(Jagjeet Singh)
Member

(R.N. Prasher)
Chairman