



**COMMISSION'S ORDER
ON
GENERATION TARIFF FOR
HARYANA POWER GENERATION CORPORATION LIMITED
FOR FY 2010-11**

CASE No: HERC / PRO- 1 OF 2010

April 16, 2010

Panchkula

HARYANA ELECTRICITY REGULATORY COMMISSION

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

www.herc.nic.in

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DATE OF ORDER: April 16, 2010

In the matter of application filed by Haryana Power Generation Corporation Limited (HPGCL) for approval of generation tariff for FY 2010-11.

Present:

Shri Bhaskar Chatterjee Chairman

Shri Rohtash Dahiya Member

ORDER

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1 PROCEDURAL ASPECTS OF THE FILING

1.1 Background

Haryana Power Generation Corporation Ltd. (HPGCL) is a company registered under the Indian Companies Act, 1956 and is wholly owned by the Government of Haryana. HPGCL is engaged in the business of generation of power in the state through its medium and large thermal generating stations which are located at Faridabad, Panipat, Yamuna Nagar, Hisar and small hydro stations between Hathnikund Barrage & Dadupur and at village Kakroi on the Western Yamuna Canal (WYC). The electricity generated at these power stations is evacuated and transmitted through the transmission network of Haryana Vidyut Prasaran Nigam Ltd. (HVPNL) to the Distribution Companies i.e. Uttar Haryana Bijli Vitran Nigam (UHBVNL) and Dakshin Haryana Bijli Vitran Nigam (DHBNL) who are the distribution licensee(s) for the entire state of Haryana with geographical division amongst them. The generation tariff in the case of HPGCL, a generating company as defined under Section 2(28) of the Electricity Act, 2003 (EA 2003), is determined by the Haryana Electricity Regulatory Commission (the Commission) in view of sub section 1 (a) of section 86, sub section 1 (a) of section 62 of EA 2003., and all other enabling provisions.

1.2 Applicability of the Electricity Act 2003 in Haryana

The Government of Haryana, in exercise of the powers conferred by clause (d) of section 172 of the EA - 2003 , vide its notification no. 1/4/2003 -1 Power dated 8/09/2003 notified that all the provisions of the Act except section 121 which has not been enforced by the Central Government vide notification no. S.O 699 (E) dated 10/6/2003 shall not apply in the State of Haryana for a period of six months from the appointed date i.e. 10/6/2003. Resultantly, EA 2003 came into force in the State of Haryana w.e.f. 10/12/2003.

1.3 Tariff Filing:

HPGCL vide Memo No. HPGC/FIN/Reg-352/1748, dated 30/10/2009 filed a petition for determination of generation tariff for the years FY 2010-14. In their petition HPGCL relied on section 61&62 of the EA 2003, clause 5.3.2(h) of the National Tariff Policy as well as various judgments of the Hon'ble Appellate Tribunal for Electricity, New Delhi and submitted that the Commission in violation of the statutory provisions has determined tariff for the year 2009-10 only and that also not achievable in some cases. Consequently, HPGCL has filed an appeal against the generation tariff order dated 18/05/2009. Additionally, the petitioner submitted that the Central Electricity Regulatory Commission (CERC) is also prescribing performance parameters on MYT basis and the same is applicable for the years 2010-14. HPGCL's submissions are presented below:-

1. The performance parameters determined by the Commission for FY 2009-10 and other fixed costs be extended for the years 2010-14 with the modifications as prayed before the Hon'ble Appellate Tribunal for Electricity, with the provisions of truing up at the end of the tariff period or once during the tariff period.
2. The annual escalation to the fixed costs shall be at CERC prescribed rate subject to truing up at the end of control period.
3. The performance parameters for 2 x 600 MW RGTPP Hisar be finalized based on the application already filed.
4. The generation for 2X300 MW DCRTTP be considered as infirm power till the provisional taking over (PTO) dated 31st August 2009 to be sold at UI rate with the provision that any recovery of tariff over and above the cost of generation be credited to the project cost. Thereafter, the performance norms as determined by the Commission for the year 2009-10 and other fixed costs be extended for the years 2010-14 with the

modifications as prayed before the Hon'ble Appellate Tribunal for Electricity, with the provision of truing up at the end of the tariff period or once during the tariff period.

In addition to the above, the petitioner vide Memo No. HPGCL/FIN/Reg-352/2150-1 dated 7th January 2010 in continuation of their original filing dated 31/12/2009 submitted the details of loans, depreciation, advance against depreciation, O&M expenses, rate of coal and oil, details of working capital and interest thereon, details of Equity, loss of coal in transit and tariff sheet for FY 2010-11. Further vide Memo No. HPGCL/FIN/Reg-352/Spl-1, dated 11th February 2010 HPGCL submitted that they have planned to phase out the last operational unit (Unit No. 3) of the Faridabad Thermal Power Station (FTPS) w.e.f 1st April 2010 therefore no tariff for FTPS is required to be determined. In case FTPS Unit – 3 is operational beyond 1st April 2010, the UI rate would be charged from the Distribution companies. HPGCL vide Memo No. HPGCL/FIN/Reg-352/2359, dated 19th February 2010 also provided the Statement showing payback period of investment made on R&M of PTPS Unit No. 1, Audited Accounts of HPGCL for FY 2007-08, Provisional Account of HPGCL for FY 2008-09, Volume of power sold from 2X300 MW DCRTTP prior to PTO dated 31st August 2009. Additionally, a note on accounting treatment of power generated from 2X300 MW DCR TPP and sold by HPGCL at the provisional rate approved by the Commission.

The proposed tariff(s), as per the tariff calculation sheet for FY 2010-11 attached with the petitioner's memo dated 11th February 2010, is presented at Para No 2.3 of the instant order.

The Commission, subsequent to HPGCL's petition dated 30/10/2009, conducted a technical validation of the petition and vide memo No. HERC/Tariff9E)/ARR – 10-14 / 2730 dated 17/12/2009 conveyed to the petitioner point wise observations for taking further necessary action by 31st December 2009.

The observations of the Commission are reproduced here under.

1. *The generation company is required to pay fee at the prescribed rates for each year for which tariff is to be determined. Therefore, the request of HPGCL for waiver of fee on the grounds that the petition was for FYs 2010-14, cannot be considered.*
2. *The stakeholders have raised objections on the performance of the generating company on the HPGCL Tariff filing for FY 2009-10 and also on filings of the previous years, as such they are entitled to know whether the generating company has achieved the targets and improved the performance or not. Similarly the Commission has fixed targets to be achieved by the HPGCL in its tariff orders. Therefore, it would be appropriate to publish the petition for the knowledge of the stakeholders and to invite their objections / suggestions.*
3. *As per regulations 7 (12) of HERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2008 the Commission may implement MYT and shall notify the control period separately. The Commission is already working on the MYT issue and the MYT regulations are likely to be issued by the end of FY 2010-11. It is only after issuance of MYT regulations that the Commission will invite and entertain MYT petitions from the generation company.*
4. *The issue regarding true up shall also be specified in the MYT regulations.*
5. *The norms determined by the commission are generally based on CERC specified norms and in most cases where the same are not achievable, relaxed norms are fixed. In a regulated environment, expenditure on actual basis is related to performance parameters and is controllable. Therefore, the request of the generation company that the fixed costs, except interest on working capital, should be on actual basis, cannot be accepted*
6. *The allegation of the generating company that the Commission has violated the provisions of the Act and Policies is neither based on facts nor in good taste, specifically when the Commission has already given its view on MYT request of HPGCL in 2nd Para at P-13 of generation tariff order for FY*

2009-10. On the contrary the generation company had been violating the directives of the Commission and provisions of the regulations from time to time, which the Commission had been allowing taking a lenient view. HPGCL has not even bothered to respond to Commission directive given at P-12 of FY 2009-10 order regarding filing of recovery of fixed cost in accordance with regulation 23 (note iii) of the generation tariff regulations. However, since HPGCL has raised the issue, it may specifically mention those provisions according to which the Commission was bound to determine MYT that too in the absence of reliable station – wise base line data. However, while doing so the generating company should keep in mind that the Commission is governed by the Electricity Act, 2003 and the Policies framed there under and CERC generation tariff regulations are simply guiding factor which is given due consideration wherever relevant.

7. *The Hon'ble APTEL's decision is still awaited, which shall be implemented as and when received subject to the decision of the Commission whether / or not to exercise its right to prefer an appeal in the Hon'ble Supreme Court of India.*

- 8&9. *The Commission shall determine MYT on the basis of regulations to be notified by it after duly considering the views of stakeholders including HPGCL.*

10. (a) *The request of HPGCL for considering the same parameters for FY 2010-11, as determined by the Commission in the ARR / Tariff order of HPGCL for FY 2009-10 can be considered only if the petition is filed strictly in accordance with the provisions of generation tariff regulation of HERC. However, the request of HPGCL that the parameters of 2009-10 may be extended with the modification as prayed before the APTEL cannot be accepted. In case of any difficulty in implementation of any parameters determined by the Commission, the HPGCL is free to file review petition and may also prefer an appeal before APTEL. Regarding truing up and tariff period, the same may be considered to be made applicable only as per parameters which may be specified by the Commission in the MYT regulations.*

(b) The request cannot be accepted because the norms as per HERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2008 shall be applicable unless relaxed by the Commission. Moreover, MYT order may be considered to be

decided only after notification of MYT regulations of the Commission.

(c) The request of the generating company for Multi Year Tariff for 2 x 600 MW RGTPP, Hisar shall be considered only after notification of MYT regulations by the Commission. Till such time HPGCL is directed to file petitions strictly in accordance with the exiting generation tariff regulation including the data formats and provisions of Conduct of Business regulations of the Commission.

(d) In its generation tariff order for FY 2009-10, the Commission has already ordered at Para – 2 (page 20) that till the final takeover of the DCRTTP units, the tariff determined by the Commission will be provisional subject to final adjustment on completed cost basis. The decision already taken by the Commission is reiterated

In response to the above observations HPGCL vide memo no. HPGC/FIN/reg-352/2327 dated 15/12/2010 submitted further details vis – a – vis their calculation of generation tariff for FY 2010-11, Maintenance schedule for the year 2009-10 as submitted to the Commission and actual thereof along with reasons for deviation and proposed schedule for FY 2010-11. Additionally, HPGCL also submitted performance report from the years 1994-95 to FY 2009-10 (up to December 2010) in respect of Plant Load Factor (PLF), Auxiliary Power Consumption, Station Heat Rate (SHR) and Specific Oil Consumption.

The Commission has analyzed the submissions of the petitioner and recorded its views / order on the same at relevant paragraphs of the instant order.

1.4 Public Proceedings

Section 64(2) of EA 2003 provides, “Every applicant shall publish the application, in such abridged form and manner, as may be specified by the Appropriate Commission”. Accordingly HPGCL published its petition in abridged form providing salient features of their generation

tariff application in two newspapers having wide circulation in Haryana, one each in Hindi and English, to ensure public participation. HPGCL, by way of public notice, informed the stakeholders about the gross generation, net generation, fuel cost, O&M expenses, depreciation and advance against depreciation, interest and finance charges and return on equity estimates for FY 2010-11, sources of availability of the relevant documents and an invitation to the public / interested organizations to file their objections, if any, by 6/02/2010. The public notice issued by HPGCL appeared in the following newspapers:

Table 1.1 Public Notice by HPGCL

Name of Newspaper	Language	Date of Publication
Hindustan Times (Chandigarh Edition)	English	5/01/2010
Dainik Jagran	Hindi	5/01/2010

The Commission issued public notice on 28th January 2010 informing the public & interested persons / organizations that a public hearing is scheduled on 16th February 2010 at 11.30 A.M in its conference hall in respect of determination of generation tariff for FY 2010-11. The last date for filing objections was fixed at 5.00 P.M. on 1st February 2010 which was subsequently extended to 5th February 2010 vide public notice dated 2/02/2010 & 3/02/2010. The Commission also placed the public notice on its website www.herc.nic.in inviting objections / suggestions on the generation tariff petition filed by the petitioner. The public notice was issued in the newspapers mentioned in table 1.2.

Table 1.2 Public Notice by the Commission

Name of Newspaper	Language / Edition	Date of Publication
Times of India (Chandigarh Edition)	English	28/01/2010
Punjab Kesri (Ambala, Panipat Editions) and Delhi Edition	Hindi	26/01/2010 28/01/2010

In response to the public notice issued by HPGCL and subsequently by the Commission, objections / suggestions were received from two parties namely Sh. Sampat Singh, Chandigarh and Sh. B.K. Jain, Rico Casting Limited, Gurgaon.

1.5 Public Hearing:

In the public hearing held on 16/02/2010, HPGCL was invited to make their general presentation and was directed to reply to the specific issues raised by the objectors in their written submissions a copy of which was already forwarded to them. The Managing Director of HPGCL made a detailed presentation and also responded to queries and clarifications sought by the Commission. The Chief Engineer of HPGCL as well as FA/Hqr. too dealt with the technical and commercial aspects respectively. As no intervener who had filed their objections / suggestions were present to make oral submissions, the Commission decided to take on record the written submissions filed by them in response to the public notice issued by the Commission as well as response of HPGCL on the same at the time of public hearing.

1.6 Objections raised by the Interveners, HPGC's Reply & Commission's view:

The objections raised by the interveners, HPGCL's response to them at the time of public hearing held on 16th February 2010 as well as the views of the Commission, are presented at Para 2.4 of this order.

1.7 State Advisory Committee (SAC):

In its consultative process the Commission convened a meeting of the State Advisory Committee (SAC) constituted under Section 87 of EA 2003 on 22/03/2010 in order to have the benefit of their views on various issues in respect of generation tariff for FY 2010 - 11. The members were briefed on different aspects of HPGCL's generation tariff petition as well as their past performance. The members were unanimous in commending the achievements of HPGCL on new projects. However, they expressed concerns over non – achievement of the benchmarks set by the Commission especially by PTPS (Unit 1-6) and high transit loss of coal. The Commission has kept in mind the comments / suggestions and feedback of the members while reckoning with various parameters in determining HPGCL's generation tariff for FY 2010-11.

2 ANALYSIS OF THE TARIFF FILING & COMMISSION'S ORDER

The major items of expenditure and the operating parameters proposed by HPGCL as per their original petition as well as the additional information / data submitted to the Commission for determination of generation tariff and HERC approvals of the same are discussed in the paragraphs that follow. The Commission has also considered the written objections submitted by the interveners, reply of HPGCL at the time of public hearing as well as the suggestions of the SAC members while finalizing different technical and financial norms.

2.1 Installed Capacity:

The petitioner has submitted that they own and operate the following generating stations. The installed capacity of the generating stations along with their respective date of commissioning / synchronization/PTO as reported by them in their presentation during the public hearing held on 16th February 2010, is presented in table 2.1 below:

Table 2.1 Installed Capacity

Particulars	Installed Capacity as on 31.03.2010	Date of Syn/Commissioning/CoD/PTO
Faridabad Thermal Power Station	55 MW Unit No.3 (FTPS Unit 3 is being phased out w.e.f. 1 st April 2010)	01/04/1981
Panipat Thermal Power Station, Panipat	117.8MW Unit No 1 110 MW Unit No.2 110 MW Unit No.3 110 MW Unit No.4 210 MW Unit No.5 210 MW Unit No.6 250 MW Unit No .7 250 MW Unit No .8	01/11/1979 27/03/1980 01/11/1985 11/01/1987 28/03/1989 31/03/2001 29/12/2004 08/04/2005
Western Yamuna Canal Hydro Project (Yamuna Nagar)	Power House A 8 MW Unit No 1 8 MW Unit No 2 Power House B 8 MW Unit No 1 8 MW Unit No 2 Power House C 8 MW Unit No 1 8 MW Unit No 2	29/05/1986 13/06/1986 15/05/1987 01/06/1987 27/03/1989 18/04/1989

	Power House D 7.2 MW Unit No1 7.2 MW Unit No 2	16/04/2004 12/05/2004
Micro Hydro Power station, Kakroi	0.30 MW	
DCR TPP 1	300 MW	31/08/2009
DCR TPP 2	300 MW	31/08/2009
Total Installed Capacity	2085.5 MW	

In addition to the above the generation capacity enhancement schedule as submitted by HPGCL is presented as under:

Name of the Power Station	Capacity (MW)	Likely CoD
RGTPP Hisar Unit - 1	600	30/04/2010
RGTPP Hisar Unit - 2	600	30/06/2010

2.2 Performance of HPGCL Generating Stations

The performance of HPGCL over the years as presented by them during the public hearing held on 16th February 2010 is summarized in table – 2.2.

Table 2.2 Performance of HPGCL (1998-99 to 2009-10 up to December 2009)

Particulars	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Installed Capacity (MW)	863.3	863.3	863.3	1073.3	1073.3	1073.3	1337.7	1587.7	1587.7	2187.7	2085.5	2085.5
PLF (%)	49.24	53.24	49.73	60.8	66.44	74.91	69.46	67.00	78.78	78.94	75.01	83.87
Auxiliary Consumption (%)	12.04	11.70	11.80	11.11	10.56	10.47	11.04	10.08	9.80	9.93	9.66	9.79
Coal Consumption (Gms/kWh)	838	803	816	789	770	764	784	741	721	735	712	705
Oil Consumption (ml/kWh)	12.70	6.38	5.97	3.29	3.43	3.35	3.97	3.74	1.85	1.66	2.87	1.71
Gross Gen (MUs)	3784	4051	3792	5311	6212	6997	6915	9181	10780	10845	13519	11566
Station Heat Rate (Kcal/kWh)	3522	3772	3505	3432	3365	3318	3287	3074	2894	2916	2762	2686
Transit Loss of Coal (%)	-	-	-	6.58	6.48	4.19	4.23	4.79	3.06	6.0	2.31	2.54

The Commission is concerned about the fact that despite adequate capital and operating expenditures allowed by it including FPA (Fuel Price Adjustment) based on enhanced cost of coal & fuel oil and actual GCV (Gross Calorific Value) of coal, crucial parameters such as station heat rate, plant load factor, auxiliary power consumption and specific oil consumption did not show substantial improvement vis – a – vis the

benchmarks set by the Commission in its previous generation tariff order(s) with respect to powerhouses owned and operated by the petitioner.

The Commission notes with concern that the PLF of PTPS Units 1-4 is still around 74% (up to December 2009) as against the HERC norm of 80%. Auxiliary power consumption at all the powerhouses except the new Units i.e. PTPS Unit 7 & 8, are way above the national norms. In the case of PTPS Units 1-4 it is as high as 11.29% (up to Dec 2009). Specific Fuel Oil Consumption in the case of PTPS 1-4 is still around 3.72 ml/kWh as against the HERC norm of 2 ml/kWh. The Station Heat Rate (SHR) of PTPS Unit 1-4 at 3215 Kcal/kWh, PTPS Unit 5 & 6 at around 2675 & 2672 Kcal/kWh are way above the CERC norms and relaxed targets determined by the Commission (as per the performance of HPGCL reported to the Commission up to December 2009).

In the generation tariff order for FY 2006-07, HPGCL was directed to ensure continuous improvement in the SHR of the above mentioned powerhouses so that in subsequent years the cushion allowed during the transition phase can be rolled back. HPGCL was also directed to undertake detailed analysis including energy audit of PTPS Unit 5&6 and implement the recommendations to improve upon various technical parameters. However, the follow up action was delayed and opportunity of benefits to be derived from energy audit by way of corrective action and consequent improved performance was lost. Further, in line with the order of the Hon'ble Appellate Tribunal with respect to the appeal preferred by HPGCL against FY 2007-08 Generation tariff order, the Commission directed HPGCL vide memo no. 2021/HERC dated 5/11/2009 to get conducted study to determine Station Heat Rate (SHR) of HPGCL Power Plants. After about two months vide Memo No. 2283/HPGCL/FIN/SAO/REG-219 dated 03/02/2010 has sought further two months time. However, HPGCL has, so far, not informed the Commission about the status or the progress of

getting conducted energy audit. The Commission directs HPGCL to submit energy audit of all its generating stations in accordance with their proposal conveyed vide Memo No. 2283/HPGCL/FIN/SAO/REG-219 dated 3/02/2010. Accordingly, they are required to submit the energy audit report by the first week of April 2010 i.e. within two months from their letter dated 3/02/2010 vide which further two months time was sought for submission of the same.

2.3 HPGCL's proposed Generation tariff for FY 2010-11

The proposed cost of power generation for FY 2010-11 as per the tariff petition submitted for consideration of the Commission are presented in table 2.3.

Table 2.3 HPGCL Proposed Cost of Power Generation (FY 2010-11)

Parameters	PTPS Panipat	RGTPP 1&2	DCR TPP 1 &2	WYC & Kakroi	Total HPGCL
Variable Cost (Rs/kWh)	Unit 1-4: 2.69 Unit 5: 2.12 Unit 6: 2.12 Unit7&8: 2.12	1.49	1.90	-	1.91
Fixed Cost (Rs / kWh Millions)	Unit 1-4: 0.87 Unit 5: 0.65 Unit 6: 1.26 Unit7&8: 1.20	1.38	1.42	1.65	1.28
Total Cost (Rs/kWh)	Unit 1-4: 3.56 Unit 5: 2.78 Unit 6: 3.38 Unit7&8: 3.32	2.87	3.32	1.65	3.19

HPGCL proposed a single part tariff to be recovered from the beneficiaries on the basis of ex-bus energy generated and sold by them from various powerhouses owned and operated by them.

Capacity Charges (Fixed Cost):

The Commission, in pursuance of section 61 of the Electricity Act 2003, has notified the Terms and Conditions for Determination of Generation Tariff Regulations, 2008 (Regulation No. HERC/19/2008) on 19/12/2008. As per Regulation 23 (Note iii) the capacity charges shall

be paid by the beneficiary (ies) including those outside the region to the generating company every month in accordance with the following formula:

(a) Total Capacity charges payable to the generating company for the:

$$\begin{aligned} \text{1st month} &= (1 \times \text{ACC1}) / 12 \\ \text{2nd month} &= (2 \times \text{ACC2} - 1 \times \text{ACC1}) / 12 \\ \text{3rd month} &= (3 \times \text{ACC3} - 2 \times \text{ACC2}) / 12 \\ \text{4th month} &= (4 \times \text{ACC4} - 3 \times \text{ACC3}) / 12 \\ \text{5th month} &= (5 \times \text{ACC5} - 4 \times \text{ACC4}) / 12 \\ \text{6th month} &= (6 \times \text{ACC6} - 5 \times \text{ACC5}) / 12 \\ \text{7th month} &= (7 \times \text{ACC7} - 6 \times \text{ACC6}) / 12 \\ \text{8th month} &= (8 \times \text{ACC8} - 7 \times \text{ACC7}) / 12 \\ \text{9th month} &= (9 \times \text{ACC9} - 8 \times \text{ACC8}) / 12 \\ \text{10th month} &= (10 \times \text{ACC10} - 9 \times \text{ACC9}) / 12 \\ \text{11th month} &= (11 \times \text{ACC11} - 10 \times \text{ACC10}) / 12 \\ \text{12th month} &= (12 \times \text{ACC12} - 11 \times \text{ACC11}) / 12 \end{aligned}$$

ACC1, ACC2, ACC3, ACC4, ACC5, ACC6, ACC7, ACC8, ACC9, ACC10, ACC11 and ACC12 are the amount of Annual Capacity Charge corresponding to 'target availability' for the cumulative period up to the end of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

It is evident from the above that the fixed charges are to be recovered on a monthly basis and is independent of the quantum of energy generated. However, full recovery of the fixed charges determined by the Commission is subject to 'target availability' which in the instant case, as intra – state Availability Based Tariff has not been introduced in Haryana, is the station wise Plant Load Factor for thermal stations approved by the Commission. HPGCL has not proposed any mechanism for recovery of the fixed cost. The Commission in its FY 2009-10 generation tariff order directed the petitioner, "to file, from next generation tariff petition, recovery of fixed cost in accordance with regulation 23(Note iii) of the Terms and Conditions for Determination of Generation Tariff Regulations, 2008 notified on 19/12/2008". However, no such proposal was filed by the petitioner / generating company.

2.4 HPGCL's Submissions & Commission's views:

i) In their presentation during the public hearing held on 16th February 2010 HPGCL submitted that the Commission may determine generation tariff on Multi Year Tariff (MYT) principles for the period FY 2010-14. Additionally, they submitted that the norms as determined by the Commission for the year 2009-10 with adjustments as prayed before the Hon,ble Appellate Tribunal in Appeal No. 141 of 2009 may be allowed by the Commission. Further the truing up adjustment be allowed to be carried out at the end of the **control period i.e. 2014 or it could be visited once in between in line with CERC Regulations. Additionally HPGCL prayed for being allowed the sale rate of 2X300 MW DCR TPP at UI (Unscheduled Interchange) rate till provisional taking over of the unit i.e. 31st August 2009 with the proviso that any excess recovery over actual cost shall be credited to project cost. Similar order may also be passed in respect of 2X600 MW RGTPP Hisar till its CoD.**

The Commission has carefully considered the submissions of HPGCL on introduction of MYT. At the outset it was clarified that the Commission would like to move on to MYT as early as possible. However, it is of the view that there are certain pre – conditions as well as preparedness required for the introduction of MYT. Firstly an MYT order has to be backed by an elaborate MYT Regulations which lays down the principles of treatment of various parameters that are considered controllable and others that are considered un-controllable and may require truing up. In case of over / under achievements, the incentive / penalty mechanism also needs to be in place. In order to implement MYT, it is also essential that the Annual Accounts of the Generation Company are prepared in a manner such that all individual plants are treated as separate business units for computation of unit – wise tariff and scheduling purposes. Further the MYT framework has to be essentially based on Capital Expenditure Plan and Business Plan of the Generating company and approved by the Commission for a period

not less than the control period prior to the start of the control period including forecast of the various financial and technical parameters for each control period to be filed by the Generating company. **It is observed that the pre-conditions for introduction of MYT are currently not met with or only partially met. Consequently the Commission is constrained to continue with the annual determination of generation tariff in FY 2010-11. The Commission is in an advanced stage of finalizing the framework and guiding principles of MYT including the Regulations and after holding consultation with the stakeholders and obtaining feedback from the power utilities including the petitioner the same shall be notified. This would then form the basis of MYT order.**

II) HPGCL also raised the issue of treatment of infirm power i.e. power generated prior to CoD/PTO with respect to DCR TPP and RGTPP. The Commission has examined the submissions of HPGCL on this issue and is of the view that the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of generation Tariff) Regulations notified on 19th December, 2008 (Regulation No. HERC/19/2008) provides at Regulation No. 14 that the treatment of sale of Infirm Power i.e. *“Infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the State UI pool account at the applicable frequency linked UI rate as may be determined by the CERC from time to time. Any revenue earned by the generating company from sale of infirm power, shall be taken as reduction in capital cost and shall not be treated as revenue”*.

In the light of the above mentioned regulation the infirm power shall be treated accordingly.

III) The Commission has also considered the submission of HPGCL on truing up as well as their petition filed before the Hon'ble Appellate Tribunal and observes as under:

In order to implement the order of the Hon'ble Appellate Tribunal for Electricity with respect to HPGCL's generation tariff order for FY 2007-08 the Commission vide Memo No. 2021/HERC, dated 5/11/2009 directed HPGCL to get conducted Energy Audit for PTPS (Unit 1-6) and FTPS (1&3). HPGCL vide their Memo No. 2283/HPGCL/FIN/SAO/REG-219, dated 03/02/2010 i.e. after a lapse of about two months requested further two months for getting conducted Energy Audit. However, till date HPGCL has neither submitted the Energy Audit Report nor informed the Commission about the same. It needs to be noted that Energy Audit would have enabled the Commission in re-visiting the benchmark Station Heat Rate determined for the powerhouses of older vintage. However, it was not to be. Additionally, as far as the petitions with respect to FY 2008-09 and FY 2009-10 generation tariff is concerned the said petition(s) have not been disposed of by the Hon'ble Appellate Tribunal. Once the order(s) of the Tribunal is received the same shall be considered by the Commission for taking further action in the matter. **Consequently, at this stage the Commission does not agree with the contentions of HPGCL on truing up or retaining the parameters determined in FY 2009-10 generation tariff order.**

2.5 Objections raised by the Interveners, HPGCL's reply thereto & Commission's observations:

In response to the public notice inviting objections / comments on HPGCL's Generation tariff application for FY 2010-11 the Commission received two objections. However, no intervener was present to make oral submission at the public hearing held on 16th February 2010. A brief synopsis of the written submissions of the intervener(s) along with HPGCL's response to them during the public hearing is presented below.

1. The filing is not in conformity to the terms and conditions of generation tariff regulations, hence ought to be rejected. Further, no information as per the formats approved by the Commission

in the terms and conditions of generation tariff regulations notified by the Commission have been provided hence the petition is incomplete and hence ought not be considered.

To the above HPGCL during the public hearing replied that most of the forms attached with the regulations are applicable for new projects. Hence, the requisite information with respect to DCR TPP and RGTPP has been provided to the Commission. Further details of cost of coal, cost of oil, GCV of coal and oil, details of working of fuel cost and fixed costs as well as annual accounts of FY 2007-08 and FY 2008-09 have been provided to the Commission.

The Commission has considered the above reply and is of the view that though initially some data / information asymmetry existed, the same was subsequently addressed by HPGCL by way of additional filing in continuation of their original petition.

2. In order to assess the past performance, HPGCL should have provided audited accounts for FY 2007-08 and FY 2008-09. In its absence the entire filing especially with reference to Operation and Maintenance expenditure, repair and maintenance and capital expenditure as approved by the Commission and the actual is not known and hence cannot be commented upon.

The Commission has considered the above contention of the intervener and observes that HPGCL vide their Memo No. HPGCL/FIN/Reg-352/2359 dated 19th February 2010 has provided audited account of HPGCL for the year 2007-08 and provisional account of HPGCL for the year 2008-09. Consequently, the objection of the intervener has been sufficiently taken care of. **The Commission, however, notes that despite Commission's directive since the first**

generation tariff order to remove the backlog of getting accounts audited, HPGCL is the only power utility in Haryana wherein still a year's backlog is remaining. All other power utilities i.e. HVPNL, DHBVNL and UHBVNL have already removed the backlog and have submitted their respective audited accounts up to FY 2008-09.

3. No audited fixed assets register had been provided for FY 2008-09, hence it is not known what assets were created, when the same were transferred to the fixed assets register, hence no view can be taken on the amount of depreciation. The Commission should order investigation by a third party under section 128 of the Electricity Act 2003 as done by DERC and APERC to find out the facts. As year after year HPGCL has failed to achieve the benchmarks set by the Commission especially with respect to Station Heat Rate, Specific Fuel Oil Consumption, Auxiliary Consumption, Plant Load Factor and transit loss of coal for Panipat Units 1 – 6 and Faridabad Units 1 and 3 they need to explain their underperformance for such a long period of time.

In reply to the above HPGCL, at the time of public hearing, submitted that calculation of depreciation amount is not directly related to the audit of Fixed Assets Register (FAR) for FY 2008-09 as the same is based on the CERC notified depreciation rate adopted by the State Commission. The detail of assets and additions to the same on which the approved depreciation rate was applied to work out the eligible depreciation amount has been provided to the Commission.

The Commission has considered the submission of the intervener as well as HPGCL's reply thereto. **The Commission agrees with HPGCL that the Commission has sufficient data for taking a view on depreciation charges for the purpose of**

determining generation tariff for FY 2010-11. However, it would be in fitness of things that HPGCL should keep updating their FAR on an annual basis and once the annual account for that year is audited the FAR should also be got audited and submitted to the Commission.

4. HPGCL should file a status report with regard to maintenance schedule as filed with the HERC and the actual (station wise). In case of non – adherence they ought to be penalized.

HPGCL in their reply submitted that they have filed the maintenance schedule as approved by the Commission and the actual vide Memo No. HPGCL/FIN/Reg-352/2359 dated 19th February 2010.

The Commission has examined the details of actual R&M schedule submitted by HPGCL and observes that certain R&M works were re-scheduled due to forced outages, major problems in the equipments and power requirement in the state. **The Commission is of the view that R&M schedules including preventive maintenance as submitted to the Commission should be meticulously followed so that at all times the plant and machinery is in the best working order thereby minimizing the chances of forced outages.**

5. The Commission in order to implement Hon'ble Appellate Tribunal for Electricity order directed HPGCL to conduct Energy Audit in December 2009 in order to establish the achievable benchmarks for Station Heat Rate. HPGCL should provide the Energy Audit Report. If the directions have not been complied HERC may take appropriate action under section 142 and 146 of the Electricity Act 2003. The stakeholders have a right to know the measures that are being taken to ensure efficiency of the powerhouses owned and operated by HPGCL.

The Commission has noted that above submission of the intervener and observes that HPGCL has sought further two months time for getting conducted energy audit. **The energy audit also contains various recommendations to improve the efficiency of the powerhouses as well as plug any aberrations / leakages observed under test conditions. Once the energy audit report is received the Commission shall monitor the implementation of the recommendations and the resulting impact on technical parameters.**

6. The stakeholders have raised objections on the performance of the generating company on the HPGCL Tariff filing for FY 2009-10 and also on filings of the previous years. They would like to know whether the generating company has achieved the targets and improved the performance or not. Similarly the Commission has fixed targets to be achieved by the HPGCL in its tariff orders and what has been the actual performance and reasons for under performance should have been intimated.

On the above issue HPGCL replied that they have provided the plant wise details of HPGCL's performance and some of the benchmarks set by the Commission in FY 2008-09 and FY 2010-11, especially for the older powerhouse, are not achievable and hence HPGCL has preferred an appeal to the Appellate Tribunal seeking relaxed norms.

The Commission has considered the contention of the intervener as well reply of HPGCL and is of the view that though the Commission would like that the technical norms set by the Commission after a lot of deliberations are achieved by HPGCL, **however, in case the norms are not achieved, the resulting cost due to inefficiency is to be absorbed by HPGCL and is**

not passed on to the consumers as gains of overachievement of norms are retained by them.

7. The norms determined by the commission are generally based on CERC specified norms and in most cases where the same are not achievable, relaxed norms are fixed by the State Commission. In a regulated environment, expenditure on actual basis is related to performance parameters and is controllable and hence cannot be considered for determining generation tariff on a normative basis. Therefore, the request of the generation company that the fixed costs, except interest on working capital, should be on actual basis, defeats the very purpose of regulatory regime. Hence HPGCL's petition is un – acceptable and deserves to be rejected.

The Commission agrees with the observations of the intervener that actual costs cannot form the basis of regulations. **Generation tariff is determined on a normative basis and benefits of performing better than the norm is retained by the Generating Company while any additional costs due to under achievement are to be absorbed by them.**

8. The request of HPGCL for considering the same parameters for FY 2010-11 as determined by the Commission in the ARR / Tariff order of HPGCL for FY 2009-10 would have made some sense if the petition was filed strictly in accordance with the provisions of generation tariff regulation of HERC. However, the request of HPGCL that the parameters of 2009-10 may be extended with the modification as prayed before the Hon,ble Appellate Tribunal pending their judgment should not be accepted. The Commission ought to lay down improved norms in FY 2010-11 as per the regulations notified by them.

The Commission agrees with the submission of the intervener. **The norms determined for FY 2010-11 is largely based on HERC/CERC regulations for the relevant year and actual performance for the past few years. The judgment of the Hon'ble Appellate Tribunal is still awaited hence at this stage the Commission is not passing any comments on the same.**

2.6 Tariff Objective

While determining generation tariff for FY 2010-11, the Commission has taken into consideration the filing of proposed tariff (FPT) dated 31st October 2009, supplementary information / clarifications provided by HPGCL dated 15/02/2010, oral submission / presentation made by HPGCL at the time of public hearing on 16/02/2010, the objections raised by the interveners and HPGCL's reply thereto as well as the suggestions of SAC. The Commission has made efforts to balance the interest of the utility as well as the consumers while determining the generation tariff for FY 2010-11 in the overall framework of HERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2008 notified on 19/12/2008, CERC Regulations as well as the past performance of the generating stations owned and operated by HPGCL.

The Commission is aware of the fact that much needed augmentation of power generation in the state can only be sustained if the generation company is financially viable and operationally efficient. The generation business must conform to technical and commercial rigors for ensuring availability of power at a reasonable cost to the electricity consumers of Haryana.

2.7 Plant Load factor (PLF)

As per Review of Performance of Thermal Power Stations (2007-08) brought out by the Central Electricity Authority (CEA) the thermal generating units in all sectors i.e. Central, State and IPP have registered sustained improvement since FY 2005-06. The all India Plant Load Factor improved from about 73.71% in FY 2005-06 to about 78.75% in FY 2007-08. IPPs achieved a PLF of 90.77%, CPSUs 86.74% while the State owned generating units, on an average, achieved about 72.09% PLF.

In the above background the Commission, while reckoning with PLF of HPGCL's generating units, has considered the contention of the intervener and HPGCL's reply thereto and the Capital Expenditure as well as R&M expenses allowed by the Commission for various generating units of HPGCL so that the actual generation with respect to the installed capacity is maximized.

An analysis of the performance during FY 2009-10 (up to December/09) as reported by HPGCL reveals that PLF of PTPS Units 1-4 is 74.01% as against 57.89% during FY 2008-09 and last seven years best achieved of 72.45% (FY 2003-04). PTPS Unit-1 attained a marked improvement in PLF in FY 2009-10 i.e. 87.24% (up to December 2009) consequent to the comprehensive R&M & up gradation to 117.5 MW got carried out by BHEL. It is observed that in a few months i.e. April, June and November 2009 the PLF reported was as high as 95%. Thus there is no reason why this unit will not operate at a PLF of 80% and higher on a sustained basis. PTPS Unit – 2 operated at a PLF of 67.39% in FY 2007-08, 73.61% in FY 2008-09 and 72.04% in FY 2009-10 (up to December 2009). Despite incurring substantial capital cost on refurbishment partly by M/s ABB and partly by M/s BHEL the desired improvement in PLF

did not happen. The Commission expects that HPGCL must have analyzed the deficiencies in performance of Unit – 2 with respect to PLF and other parameters and should get fixed the problem so that loss of generation is minimized. The PLF of PTPS Unit 3 & 4 are much below the HERC norm of 80%. In FY 2008-09 these generating units operated at a PLF of 68.46% and 60.56% respectively as reported by HPGCL. The same in FY 2009-10 (up to December 2009) was 65.59% and 70.27% respectively. The month wise PLF figures submitted by HPGCL for FY 2009-10 reveals that the PLF of Unit – 3 in December 2009 was as low as 18.3%, in November 2009 it was at a low of 45.41% and 59.64% in September 2009. But for these aberrations Unit – 3 would have attained a PLF of about 75%. Similarly PTPS Unit – 4 operated at a PLF of 70.27% in FY 2009-10 (up to December 2009). This Unit too witnessed major dip in PLF in the months of October (39.57%) and September 2009 (56.57%) ,else it would have attained a PLF of about 77%.

Thus considering the fact that the refurbishment of PTPS Unit – 1 and 2 have been completed, PTPS Units 3 & 4 are operating satisfactorily but for the aberrations pointed out above, the Commission approves an average PLF of 75% for PTPS (Unit 1-4) as against 80% as per the HERC norms. The relaxed norm shall be limited to FY 2010-11. HPGCL is directed to ensure annual overhauling of the Units as per the schedule submitted to the Commission so that the machines are in perfect working order and operate without any forced outages.

PTPS (Unit 5-8) operated at a PLF of 94.27% (Unit – 5), 91.64% (Unit – 6), 85.35% (Unit – 7) and 94.41% (Unit – 8) in FY 2008-09. All the generating units have performed well in FY 2009-10 (up to December 2009) except PTPS Unit – 5 which witnessed a sharp decline from 94.27% in FY 2008-09 to 77.61% in FY 2009-10 (up to December) influenced largely by the poor performances in May and June 2009. Thus there is no reason

for this Unit not to attain over 90% PLF. The performance of PTPS Unit – 7 has shown improvement from 85.35% in FY 2008-09 to 98.11% in FY 2009-10 (up to December 2009). Both the Units of DCR TPP Unit 1&2 at Yamunanagar are performing satisfactorily at a PLF of about 82%. These generating units have started generating only a few months back and hence are expected to operate at a PLF of 85% and above on a sustained basis.

In the light of the above the Commission allows PLF of 80% for PTPS Unit 5 and Unit 6, 85% for Unit 7 and Unit 8. Further, the Commission has pegged the PLF of DCR TPP (Unit 1&2) as well as RG TPP (Unit 1&2) at 80% in order to allow some time for stabilization of these units, even though these power stations are capable of operating at a PLF of above 80%.

The Commission has noticed a lot of deviations in the actual maintenance schedule vis-a-vis the schedule placed before the Commission and reiterates that timely maintenance is a technical necessity rather than a function of demand and supply hence ought to be adhered to.

The Capacity Utilization Factor (CUF) for estimating generation target for FY 2010-11 in respect of 62.7 MW hydro electric power stations at Yamuna Nagar & Kakroi has been considered at 50% in line with the generation target of 275 MUs proposed by HPGCL for FY 2009-10.

Table 2.4 provides a summary of the highest level of PLF achieved in the last 9 years in the case of PTPS Unit 1 to 6. While in all other cases viz. PTPS Unit 7 to 8, DCR TPP (Unit 1&2) the reference points are their respective year of Commissioning. HPGCL's proposal for FY 2010-11 and HERC approval thereto are presented in the table below.

Table 2.4 Plant Load Factor (PLF %)

Stations	Best Achieved (up to FY 2008-09)	HPGCL's proposal (FY 2010-11)	HERC Norms for (FY 2010-11)	HERC's Approval for (FY 2010-11)
PTPS (Unit 1 to 4)	72.45	69.17	80	75
PTPS (Unit 5)	96.23	80	80	80
PTPS (Unit 6)	93.18	80	80	80
PTPS (Unit 7)	98.91	80	80	85
PTPS (Unit 8)	94.41	80	80	85
DCR TPP (Yamuna Nagar) Units I & II)	81.88 (up to 12/2009)	80	80	80
RG TPP (Khedar) Units I & II)	-	80	80	80
WYC & Kakroi (Hydel)	NA	50	50	50

2.8 Auxiliary Power Consumption

Auxiliary power consumption comprises the power consumption by all the unit auxiliaries as well as the common auxiliaries including station lighting, air conditioning etc. At national level the auxiliary power consumption as a percentage of gross generation by the thermal generations have shown a steady decline from 9.05% in FY 2003-04 to 8.17% in FY 2007-08. In FY 2007-08 (the latest available figure) the thermal stations of 500 MW capacities registered an auxiliary power consumption of 6.13%, 250 MW capacities reported an auxiliary consumption of 8.80%, 210 MW machines 8.77% and 100 - 150 MW machines 10.32%.

As compared to the above actual performance at national level HPGCL, as per their filing, and the presentation made during the public hearing with regard to auxiliary power consumption reveals a steady improvement from 11.80% in FY 2000-01 to 9.79% in FY 2010-11 (up to December 2009). However, the Commission is of the view that auxiliary power consumption in excess of 8.5% for 200 MW and above Units and in excess of 11% for less than 200 MW units with NDCTs is inappropriate management of auxiliaries and ought to be brought down in line with the HERC norms.

The Commission reviewed the performance of PTPS generating stations up to December 2009 and notes that the auxiliary power consumption in the case of PTPS 1 – 4 is stagnating at a little over 11 %, PTPS Units 5 & 6 at 9.5% while DCR TPP Unit 1 & 2 at 9.2% & 9.45% respectively are above the HERC norm of 8.5%. The Commission has allowed the target auxiliary power consumption more than HERC norms for PTPS units 6-8 and DCRTPS units 1&2 and as per HERC norm for RGTPS.

Table 2.5 provides a summary of the best achieved auxiliary power consumption during the last 9 years in the case of PTPS (unit 1 to 5) while in all other cases viz. PTPS unit 6 to 8 and DCR TPP (Unit 1&2) the reference point is their respective year of Commissioning. HPGCL's proposals for FY 2010-11 and HERC approvals of auxiliary power consumption thereto for various generating units are presented in the table that follows:-

Table 2.5 Auxiliary Power Consumption (%)

Stations	Best Achieved (up to FY 2008-09)	HPGCL's Proposal for (FY 2010-11)	HERC Norms (FY 2010-11)	HERC's Approval (FY 2010-11)
PTPS (Units 1 to 4)	11.05	11.27	11	11
PTPS (Unit 5)	8.83	9	8.5	9
PTPS (Unit 6)	8.94	9	8.5	9
PTPS (Unit 7)	8.36	9	8.5	9
PTPS (Unit 8)	7.60	9	8.5	9
DCR TPP (Unit 1 & 2)	9.33 (up to 12/2009)	9	8.5	9
RG TPP (Unit 1&2)	-	9	7.5	7.5
WYC & Kakroi	NA	0.5	0.5	0.5

2.9 Specific Fuel Oil Consumption (SFC)

A perusal of performance of HPGCL as a whole reveals that SFC has shown considerable improvement from 5.97 ml/kWh in FY 2000-01 to 1.71 (ml/kWh) in FY 2009-10 up to December 2009. However, in the case of PTPS Unit 1-4 SFC is still around 2.35 ml/kWh (up to 12/09)

which is still higher than HERC norm of 2 ml/kWh. SFC in the case of PTPS Unit 5 is still at 3.05 ml/kWh for FY 2009-10 (up to 12/2009) which is substantially above 2 ml/kWh benchmark set by the Commission. The Commission while reckoning with SFC for the purpose of tariff determination has considered the HERC / revised CERC norms.

Table 2.6 provides a summary of the best achieved specific fuel oil consumption in the last 9 years in the case of PTPS unit 1 to 5, while in all other cases viz. PTPS (unit 6, 7 & 8) and DCR TPP (Unit 1 & 2) the reference point is their respective year of Commissioning, HPGCL's proposals for specific fuel oil consumption and Commission's approvals thereto for various generating Units are presented in Table 2.6 below.

Table 2.6 Specific Oil Consumption (ml / kWh)

Stations	Best Achieved (up to FY 2008-09)	HPGCL's Proposal (FY 2010-11)	HERC Norms (FY 2010-11)	HERC's Approval (FY 2010-11)
PTPS (Units 1 to 4)	2.92	2.89	2	2
PTPS (Unit 5)	1.0	2	2	2
PTPS (Unit 6)	0.54	2	2	2
PTPS (Unit 7)	0.42	2	2	1
PTPS (Unit 8)	0.35	2	2	1
DCR TPP (1 & 2)	1.93 (up to 12/2009)	2	2	1
RG TPP (Unit 1&2)	NA	2		1

2.10 Station Heat Rate (SHR)

The Station Heat Rate of a thermal power plant reflects the efficiency of the plant in converting the chemical energy contained in coal into electrical energy. Thus SHR is an important parameter for assessing the efficiency of a thermal power station. All out efforts ought to be to operate the thermal stations as close to the design heat rate as possible. It is essential to rein in pollution from thermal powerhouses. The Central Electricity Authority (CEA) has observed in their Review of

Performance of the Thermal Power Stations (FY 2007-08) that “it is a well established fact that Improvements do not just happen as it requires concerted effort just to prevent deterioration with time, and even more effort to bring out improvements in the current status”. Thus HPGCL is advised to formulate a detailed station wise plan with special emphasis on the power plants of older vintage listing specific activities that are to be carried out to make improvements, and the plant must be reviewed periodically to ensure that the plan is actually implemented.

The operating heat rate of the existing generating stations of HPGCL excluding the PTPS unit 7 & 8 and recently commissioned DCR TPP Units 1 & 2 are much higher than the those allowed by HERC as well as the revised norms notified by CERC for determining fuel / variable cost of thermal generating stations including the powerhouses of older vintage.

An analysis of the SHR (up to December 2009) data submitted by HPGCL reveals that the desired levels of SHR have not been achieved in the case of PTPS Unit 1-6. The SHR at PTPS Unit 1-4 in FY 2009-10 (up to 12/2009) is of the order of 3215 Kcal/kWh which is an improvement over 3425 Kcal/Kwh reported for FY 2008-09. However, it is no way near the benchmark of 3100 Kcal/kWh set by the Commission since FY 2007-08 and 2750 Kcal/kWh as per HERC norms for FY 2010-11.

HPGCL vide its letter dated 4/02/2008 has submitted that refurbishment of PTPS unit 1 by BHEL provides for guaranteed Maximum Continuous Rating (MCR) of 117.8 MW, turbine heat rate of 2018 Kcal/kWh and boiler efficiency of 86%. Consequently, the expected SHR would be around 2346 Kcal/kWh. The Commission has also noted the fact that PTPS Unit 2 has already undergone refurbishment and some improvement in SHR can be made in PTPS Unit 3 & 4 by undertaking appropriate annual overhauling. Resultantly, the Commission has considered SHR of 3100 Kcal/kWh restricted to

FY 2010-11 only in respect of PTPS Unit 1-4 as against HERC norms of 2750 Kcal/kWh for working out the fuel / variable cost of generation in FY 2010-11.

In respect of PTPS Unit 5 & 6 the Commission has been allowing relaxed norms for quite a few years now. It is a matter of great concern that PTPS Unit 5 & 6 failed to achieve the SHR trajectory set by the Commission in FY 2005-06, FY 2006-07 and FY 2007-08 and FY 2008-09 and FY 2009-10 (up to 12/2009). The CEA vide memo no. CEA/TETD-TT/2003/N-6 dated 25th April 2005, after conducting energy audit tests of these units, recommended, "a gross unit heat rate of 2460 Kcal/kWh (80% PLF) for 210 MW KWU type units installed at Panipat. The only possible correction in heat rate shall be applied for part load operation @2.5 Kcal/kWh for every 1% variation in PLF up to the target PLF for these units". It is pertinent to note that in FY 2009-10 (up to December 2009) both PTPS Units 5 & 6 have been operating at a reasonable high PLF and hence the cushion for 'part load operation' is also not applicable. However, considering the fact that PTPS Unit 5 & 6 have been historically operating at about 2700 Kcal/kWh and in FY 2009-10 (up to 12/2009) they have reported SHR of 2675 & 2672 Kcal/kWh the Commission, restricted to FY 2010-11, has considered SHR of 2600 Kcal/kWh for PTPS Unit 5 and well as Unit 6, as both of these units have shown identical performance over the years.

The Commission has noted that the SHR of PTPS Unit 7 & 8 has been about 2425 Kcal/kWh in FY 2009-10 (up to 12/ 2009). These are new plants and ought to perform as close to the design value as possible. Thus in the light of the revised CERC norms the Commission has considered 2450 Kcal/kWh for working out fuel cost of PTPS Unit 7 & 8.

DCR TPP unit 1 & 2, as reported by HPGCL have been provisionally taken over by them on 31/08/2009 hence these are of very recent vintage. Considering the designed heat rate of the turbine of 1916

Kcal/kWh and boiler efficiency of 86.2% the Station Heat Rate ought to be 2223 Kcal/kWh. However, in line with the CERC regulations the Commission has considered a margin of 6.5%. Consequently, the Commission for the purpose of determining fuel cost in the case of DCR TPP Unit 1 & 2 has considered a SHR of 2368 Kcal/kWh. **While allowing this the Commission hastens to add that a margin of 6.5% in the first year of operation is a fairly relaxed benchmark, thus the Commission expects DCR TPP to perform as close to the designed heat rate as possible.**

Similarly HPGCL has submitted, at the time of public hearing held on 16/02/2010, that 2X600 MW RG TPP Thermal Power Project, Hisar shall be commissioned during FY 2010-11. The likely CoD, as submitted by HPGCL, for the first unit is 30/04/2010 and that of the second unit is 30/06/2010. The estimated cost of project has been reported as Rs. 4,512.16 Crore. As RGTPP power plants are yet to be commissioned the Commission is determining generation tariff on a provisional basis to be tried up as and when the power plant is declared commercially operational. Hence, as in the case of DCR TPP the Commission has considered the turbine heat rate (design value) of 1945.5 Kcal/kWh and boiler efficiency of 85.57% and hence the design SHR ought to be 2275 Kcal/kWh. After allowing 6.5% margin, the Commission arrived at allowable SHR of 2422 Kcal/kWh for the purpose of tariff determination. **However, it is reiterated that the Commission expects RG TPP to perform as close to the designed heat rate as possible.**

Table 2.7 provides summary of the best achieved SHR in the last 9 years in case of PTPS units 1 to 5 while in all other cases viz. PTPS units 6 to 8 the reference point is their respective year of commissioning, HPGCL's proposal for FY 2010-11 and HERC approval thereto for various generation Units are presented in Table 2.7 below:-

Table 2.7 Station Heat Rate (Kcal / kWh)

Station	Best Achieved (up to FY 2008-09)	HPGCL Proposal for FY 2010-11	HERC Norms	HERC Approval for FY 2010-11
PTPS (Unit 1-4)	3341	3116.76	2750	3100
PTPS (Unit 5)	2705	2600	2500	2600
PTPS (Unit 6)	2701	2600	2500	2600
PTPS (Unit 7)	2452	2500	2500	2450
PTPS (Unit 8)	2446	2500	2500	2450
DCR TPP (1&2)	2409 (up to 12/2009)	2500	2410	2368
RG TPP (Unit 1&2)	NA	2450	2450	2422

As the Commission has been allowing entire capital expenditure as proposed by HPGCL and justifiable operating expenditures, it expects sustained improvement in the operating parameters including the SHR.

2.11 Transit loss of coal:

As reported by HPGCL the status of coal transit loss is summarised in the table below:

Units	HERC Approval FY 2009-10	HPGCL Actual FY 2009-10 (up to Dec. 09)	HPGCL Proposal FY 2010-11	HERC / CERC Norms	HERC Allowed FY 2010-11
PTPS (%)	1.5	3.16	1.5	0.8	1
DCR TPP (%)	1.5	2.36	1.5	0.8	1
RGTPP (%)	-	-	-	0.8	1

HPGCL has sought coal transit loss of 1.5% for PTPS , DCR TPP and RG TPP. As per the presentation made by HPGCL coal transit loss declined from 6.58% in FY 2001-02 to 4.19% in FY 2003-04, thereafter for the next two financial year transit loss of coal crept up to 4.79 before declining to 3.06% in FY 2006-07. However, in FY 2007-08 it again shot up to 6% before witnessing a steep decline to 2.31%. In FY 2009-10 (up to Sept 2009) the transit loss of coal was reported at 2.54%. The year to year figures do not show any consistent trend. Thus the Commission, based on the fact that sufficient transition period beginning FY 2003-04 was allowed to HPGCL to take corrective measures, pegs coal transit loss at 1% for FY 2010-11 i.e. marginally above HERC norms of 0.8%.

The Gross Calorific Value (GCV) of coal and fuel oil is based on the average value of Gross Calorific Value reported by HPGCL. The basic price of coal and oil has been worked out after considering the weighted average rates submitted by HPGCL including a normative loss of 1%.

The allowed energy charge(s) is subject to fuel price adjustment, if any, due to changes(s) in the price of coal /oil during FY 2010-11 and their respective Gross Calorific Value(s) with reference to the approved fuel cost and GCV indicated in table 2.8 & 2.9. The fuel price adjustments shall be made on a half yearly basis by HPGCL on the basis of GCV of coal / oil received and burnt and their respective landed cost(s) as per the HERC FPA formula including coal transit loss allowed by the Commission. HPGCL shall not file any separate petition with the Commission for fuel price adjustment. In case of any dispute, an appropriate application in accordance with the HERC (Conduct of Business) Regulation 2004, as amended from time to time or any statutory re-enactment thereof, shall be made before the Commission.

2.12 Energy / Variable Charge

The Energy / variable charge has been calculated based on the parameters approved by the Commission for FY 2010-11. The details are presented in table 2.8 & 2.9.

Table 2.8 Energy / Variable Charges (FY 2010-11)

Parameters	Unit	Derivation	PTPS							
			Unit 1	Unit 2	Unit 3	Unit 4	Unit-5	Unit-6	Unit-7	Unit-8
Gross Generation	MU	A	774	723	723	723	1472	1472	1862	1862
Auxiliary Energy Consumption	%		11%	11%	11%	11%	9.00%	9.00%	9.00%	9.00%
Generation (Ex-bus)	MU	A1	689	643	643	643	1339	1339	1694	1694
Station Heat Rate (SHR)	Kcal/kwh	B	3100	3100	3100	3100	2600	2600	2450	2450
Specific Oil Consumption	ml/kwh	C	2	2	2	2	2	2	1	1
Gross Calorific Value of Oil	Kcal/litre	D	9991	9991	9991	9991	9991	9991	9991	9991

Gross Calorific Value of Coal	K.cal/Kg	E	3934	3934	3934	3934	3934	3934	3934	3934
Overall Heat	G.cal	$F=(A*B)$	2399400	2241300	2241300	2241300	3826368	3826368	4561900	4561900
Heat from Oil	G.cal	$G=(A*C*D)/1000$	15466	14447	14447	14447	29407	29407	18603	18603
Heat from Coal	G.cal	$H=(F-G)$	2383934	2226853	2226853	2226853	3796961	3796961	4543297	4543297
Oil Consumption	KL	$I=G*1000/D=A*C$	1548	1446	1446	1446	2943	2943	1862	1862
Coal Consumption *	MT	$J=(H*1000/E)/0.99$	612103	571771	571771	571771	974915	974915	1166545	1166545
Cost of Oil per KL	Rs/KL	K	26810	26810	26810	26810	26810	26810	26810	26810
Cost of Coal	Rs/MT	L	2903	2903	2903	2903	2903	2903	2903	2903
Total Cost of Oil	Rs. Mln	$M=(K*I)/10^6$	42	39	39	39	78.91	78.91	49.92	49.92
Total Cost of Coal	Rs.Mln	$N=(J*L)/10^6$	1777	1660	1660	1660	2830.18	2830.18	3386.48	3386.48
Total Fuel Cost	Rs.Mln	$O=M+N$	1818	1699	1699	1699	2909.09	2909.09	3436.40	3436.40
Fuel Cost Rs. /Kwh	Rs.	$P=O/A1$	2.64	2.64	2.64	2.64	2.17	2.17	2.03	2.03

Table 2.9 Energy / Variable Charges (FY 2010-11)

Parameters	Unit	Derivation	DCR TPP 1	DCR TPP 2	RGTPP 1	RGTPP 2	WYC
			2102	2102	3871	3168	275
Gross Generation	MU	A					
Auxiliary Energy Consumption	%		9.00%	9.00%	7.50%	7.50%	0.50%
Generation (Ex-bus)	MU	A1	1913	1913	3581	2930	274
Station Heat Rate (SHR)	Kcal/kwh	B	2368	2368	2422	2422	NA
Specific Oil Consumption	ml/kwh	C	1	1	1	1	NA
Gross Calorific Value of Oil	Kcal/litre	D	9991	9991	9991	9991	NA
Gross Calorific Value of Coal	K.cal/Kg	E	3934	3934	3700	3700	NA
Overall Heat	G.cal	$F=(A*B)$	4977536	4977536	9375562	7672896	NA
Heat from Oil	G.cal	$G=(A*C*D)/1000$	21001	21001	38675	31651	NA
Heat from Coal	G.cal	$H=(F-G)$	4956535	4956535	9336887	7641245	NA
Oil Consumption	KL	$I=G*1000/D=A*C$	2102.00	2102.00	3871	3168	NA
Coal Consumption *	MT	$J=(H*1000/E)/0.99$	1272649	1272649	2548973	2086062	NA
Cost of Oil per KL	Rs/KL	K	21045	21045	21045	21045	NA
Cost of Coal	Rs/MT	L	2662	2662	1995	1995	NA
Total Cost of Oil	Rs. Mln	$M=(K*I)/10^6$	44.24	44.24	81.47	66.67	NA
Total Cost of Coal	Rs.Mln	$N=(J*L)/10^6$	3387.79	3387.79	5085.20	4161.69	NA
Total Fuel Cost	Rs.Mln	$O=M+N$	3432.03	3432.03	5166.67	4228.36	NA
Fuel Cost Rs/Kwh	Rs.	$P=O/A1$	1.79	1.79	1.44	1.44	NA
* Transit loss 1%					CoD 30/04/2010	CoD 30/06/2010	

2.13 Fixed Cost

The fixed charge comprises of the following components:

- Operation and maintenance (O&M) charges
- Depreciation
- Interest and finance charges
- Interest on working capital
- Return on Equity.

The details of each of the items mentioned above are dealt with in the paragraphs that follow.

2.14 Operation & Maintenance (O&M) Expenses

The O&M charges comprise of Repair and Maintenance charges (R&M), Employees cost and Administrative expenses. Efficiencies are derived gradually over a long period of time; hence R&M efforts should start from day one after commissioning to address any shortfall in performance with reference to the design parameters.

The guiding factor for working out O&M expenses should have been the actual level of such expenses incurred during the preceding three years for the existing stations escalated by an appropriate factor to account for inflation. However, in the light of revised per MW CERC norms the Commission has considered Rs. 2.62 mln / MW for PTPS (1-4), Rs. 1.82 mln / MW for PTPS (5 to 8), Rs. 1.237 mln / MW for RG TPP (1&2), Rs. 1.692 mln / MW for DCR TPP (1&2) while the O&M expenses allowed by the Commission in the case of WYC & Kakroi is as proposed by HPGCL. Additionally the Commission has also considered HPGCL's petition filed vide Memo No. HPGCL/Flin/Reg-200/2235 dated 27/01/2010 seeking additional amount on account of salary arrears due to the implementation of the recommendations of the 6th pay revision committee report. While allowing O&M expenses as per norm revised by the CERC in FY 2009-10 the Commission allowed Rs. 4367.6 million as against Rs. 3142.4 millions as per the old O&M norms with the observation that any difference in employees cost

due to implementation of the recommendations of the sixth pay commission may be trued up in the next tariff review. Hence additional Rs. 1225.1 million was allowed as O&M expenses. Out of this amount Rs. 834.3 million was on account of employees cost. HPGCL has now claimed Rs. 1660 million on this account, thus the balance Rs. 825.7 million is being allowed as part of O&M expenses. This amount shall be trued up on the basis of audited annual accounts of the relevant years..

The O&M expenses claimed by HPGCL and allowed by the Commission are presented in table 2.10.

Table 2.10 O&M Expenses (FY 2010 -11)

	PTPS					DCR TPP	RG TPP	WYC & Kakori
	Unit 1-4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 1&2	Unit 1 &2	
HPGCL Proposal (Rs. mln)	1127.28	528.65	528.65	629.34	629.34	1015.2	1484.4	219.92
HERC Approval (Rs mln)	1536.61	477.51	477.51	568.47	568.47	1225.12	1484.4	219.92

2.15 Depreciation

Para 5.3 (C) of the Tariff policy issued by the Ministry of Power, GOI, on 6/01/2006 states that CERC may notify the rates of depreciation in respect of Generation and Transmission assets. The rate of depreciation so notified would be applicable for the purpose of tariff as well as accounting. The CERC regulations on depreciation as contained in the CERC (Terms and Conditions of Tariff) Regulations 2004 – No L-7 / 25 (5) / 2003 – CERC dated 26/03/2004 provides for Advance Against Depreciation (AAD), which has been considered by the Commission while allowing depreciation based on CERC notified rates adopted by HERC in its Terms and Conditions of determining generation tariff. The revised CERC regulations, however, do not provide for AAD. The Commission will review the revised CERC depreciation rates as well as provisions for AAD along with MYT regulations under finalization. The details are presented in Table 2.12.

HPGCL should ensure that the proposed repayments are made in time. In the event it does not make the proposed repayments during FY 2010-11, any excess amounts allowed during the current year shall be recovered in the subsequent ARR with interest. The depreciation and AAD allowed for repayment of Capex loans should not be diverted and HPGCL should provide documentary support of payment in the next ARR. The Commission, in line with the HERC regulations, has allowed AAD to be recovered as part of the fixed cost. HPGCL shall create an AAD reserve. In future, when depreciation amount exceeds loan repayment amount, the reserves shall be utilized to meet depreciation requirement, thereby reducing the cost passed on to the consumers.

2.16 Interest and Finance Charges on Loan

HPGCL has claimed Rs. 7127.97 millions as interest and finance charges on long-term loans for FY 2010-11. The Commission examined the details of all the long-term loans including repayments and draws and respective interest rates for the generating plants that would be operational in FY 2010-11. Based on the schedule of loans along with respective interest rates submitted by HPGCL the Commission allows Rs. 7100.04 millions as interest & finance charges on loans during FY 2010-11. The quantum jump on this account as compared to Rs.3844.44 millions allowed in FY 2009-10 is due to inclusion of 2X600 MW RG TPP thermal power plants that is expected to be commissioned during the year under consideration.

2.17 Interest on Working Capital

Interest on working capital is computed on normative basis. The Commission computed the working capital requirement on the basis of following elements.

- i) Cost of coal stock for 2 months
- ii) Cost of oil stock for 2 months
- iii) O&M expenses for 1 month
- iv) Maintenance spares at 1% of the historical cost escalated @ 6% per annum.

v) Receivable equivalent to 2 months of projected fixed and variable charges for FY 2009-10.

The Commission has considered interest on working capital related borrowings as per HERC regulations i.e. SBI PLR which as submitted by HPGCL is 12.25%. The Commission observes that HPGCL is able to raise short term resources at about 200 basis points below the PLR of the nationalized banks and hence the excess amount allowed on normative basis should serve as incentive to better manage working capital and hence restrict short term expensive borrowings to the barest minimum. Thus on a normative basis Rs.1550.06 millions is allowed as interest on normative working capital loans @ 12.25%. The computation of normative working capital and interest thereon is presented in table 2.11 below:

Table 2.11 Normative Working Capital FY 2010-11 (Rs. millions)

ITEMS	DERIVATION	PTPS					RGTPP	DCR TPP	WYC
		Units 1to4	Units 5	Unit 6	Unit 7	Unit 8	Unit 1 & 2	(Unit 1 & 2)	
Coal Stock	2 months	1126.17	484.85	484.85	564.41	564.41	1541.09	1129.26	0
Oil Stock	2 months	26.50	13.15	13.15	8.32	8.32	24.688	14.75	0
O&M Expenses	1 months	128.05	39.79	39.793	47.37	47.37	123.70	102.09	18.33
Spares	1% of historical cost*	38.12	31.15	131.20	106.33	106.33	455.48	160.19	15.63
Receivables	2 months	618.26	220.31	324.57	396.00	395.86	1950.06	1080.06	73.46
W/C Requirement		1937.10	789.25	993.57	1122.43	1122.29	4095.02	2486.35	107.41
Interest (@12.25%)		237.29	96.68	121.71	137.50	137.48	501.64	304.58	13.16

2.18 Return on Equity (ROE)

HPGCL has claimed Rs. 3851.64 million @ 17.481% as return on equity capital for FY 2010-11. Further, vide Memo No. 48/HPGCL/FIN/Reg-199-A dated 22/03/2010 HPGCL submitted that the Government of India has increased the rate of Minimum Alternate Tax (MAT) to 18% in addition to this a surcharge of 7.5% and Education Cess @ 3% are also applicable. Thus the ROE with MAT works out to 19.358% which may be considered as against 17.481% sought earlier. The Commission has examined the amount of equity existing as on 31/03/2010 and the proposed addition to the same during FY 2010-11. Based on the average of opening and closing

equity capital @ 10% ROE is allowed to HPGCL for FY 2010 - 11. The Commission has pegged ROE at 10% as it has allowed much relaxed norms in the case of PTPS (1-6) as well as transit loss of coal. The claims of any statutory payments made by HPGCL including taxes shall be considered by the Commission on availability of the audited accounts only as for the first time this claim has been raised along with ROE. The Commission expects that the ROE allowed should not be diverted to fund losses as in the past and all out efforts needs to be made to achieve the norms set by the Commission in this order.

2.19 Fixed Expenses for FY 2010-11

A summary of the fixed expenses approved by the Commission is presented in table 2.12.

Table 2.12 Fixed Expenses for FY 2010-11 (Rs. million)

EXPENSES	PTPS-1to4	PTPS-5	PTPS-6	PTPS-7	PTPS-8	DCR TPP 1	DCR TPP 2	RGTPP 1 & 2	WYC & Kakroi)
Operation & Maintenance (O&M)	1536.61	477.51	477.51	568.47	568.47	612.56	612.56	1484.40	219.92
Depreciation	271.67	117.36	508.47	445.75	445.28	529.680	529.680	2215.74	88.13
Interest & Finance	221.12	43.80	178.85	314.89	314.89	959.36	959.36	4059.21	48.56
W/C Interest* at 12.25%	237.29	96.68	121.71	137.50	137.48	152.29	152.29	501.64	13.16
ROE (@ 10%)	108.94	19.97	175.74	189.495	189.495	240.03	240.03	960	37.905
Fixed Cost	2375.63	755.32	1462.28	1656.1	1655.62	2493.92	2493.92	9220.99	407.68
Advance Against Depreciation	19.44	0.00	0.00	0.00	0.00	73.57	73.72	357.35	0.00
Total Fixed Cost	2395.07	755.32	1462.28	1656.11	1655.62	2567.49	2567.64	9578.34	407.68

3 CONCLUSION

It has been observed that PLFs of PTPS units 1 to 7 have declined in FY 2009-10 as compared to FY 2008-09. The main reasons for decline in PLFs are extended shutdowns of PTPS unit 1 for R&M & unit 4 for annual overhauling as compared to the planned durations. As already advised from time to time, HPGCL need to improve their planning and implementation of overhauling and R&M activities so as to ensure zero gaps in executing the plans.

The Commission welcomes the improvement achieved by HPGCL as compared to previous year in reducing the auxiliary consumption at PTPS units 1 to 4, 6 & 7 and the oil consumption in PTPS units 5 to 8. Similar efforts are expected to be made by HPGCL for reducing auxiliary and oil consumption at other units.

The excessive station heat rates prevailing at PTPS units 1 to 6 is a cause of concern. As advised from time to time, HPGCL need to focus on preventive maintenance, reduction in forced outages, energy audits and remedial measures accordingly. It appears HPGCL has not heeded the advice of HERC to create an energy audit group of trained engineers for carrying out energy audits of various units on regular basis.

The Commission has taken note of reduction in transit loss of coal at PTPS as compared to previous year but the transit loss at FTPS is still very high. A lot needs to be done by HPGCL to bring the transit loss to the national level of 0.8% by pursuing the matter with the Central Ministries of Coal and Railways at the highest level and by taking other measures suggested in the ARR order for FY 2008-09.

The Commission is concerned about the poor performance and frequent breakdowns of 2x300 MW DCRTPS, Yamunanagar units which were commissioned in FY 2007-08. These units, during FY 2008-09, have achieved very low PLFs of 68.66% & 69.53% respectively. The auxiliary consumption at 9.34% & 9.32% respectively is on the higher side and specific oil consumption at 6.81 & 5.74 ml/kWh respectively is alarmingly high. The CODs of DCRTPS units 1 & 2 have been given as 14.04.2008 and 24.06.2008 respectively on completion trial run operations, but there is abnormal delay in completion of PG tests of these units and these units have not been taken over by HPGCL so far. Detailed report on the reasons for poor performance of these units and for abnormal delay in taking over the units may be submitted and the Commission may be apprised of the steps being taken to bring the performance of these units at par with the contracted standards and the time frame thereof.

HPGCL has carried out refurbishment of PTPS unit 2 during FY 2002-03 through M/s ABB who terminated the contract without finishing the works. The balance of works were got completed through M/s BHEL. However, the desired improvements in performance have not been achieved. Subsequently, refurbishment of PTPS unit I has been carried out through M/s BHEL during FY 2007-08 & 2008-09. In this case also, the performance of the unit after refurbishment has not been up to the mark. The annual SHR of PTPS unit I was 3342 Kcal/kWh for FY 2006-07 before refurbishment and it was 3038 Kcal/kWh during FY 2009-10 (up to 12/09) against the contracted provision of around 2346 Kcal/kWh. Although the unit was commissioned in 11/08 after refurbishment, the PG Tests are yet to be completed. HPGCL should carry out cost-benefit study with reference to cost incurred on the refurbishment of both the units mentioned above and the benefits achieved in financial terms and submit a copy of the same to the Commission for information. The status of arbitration case going on for

resolving the disputed claims / counter claims arising out of termination of contract by M/s ABB may also be intimated.

HPGCL also needs to focus on Human Resources Development. Every year a number of trained technical officers & subordinates retire and many new generation projects are coming up. HPGCL must have a concrete plan to recruit requisite technical personnel on regular basis and get them trained at reputed training institutes and at manufacturer's works. HERC may be apprised of any plan prepared by HPGCL to meet with the current & future demand of trained manpower.

The Commission appreciates the overall improvement in performance of HPGCL since its inception. Particularly, the performance of PTPS units 7 & 8 is noteworthy. HPGCL is advised to look into certain deficiencies in individual units as pointed out above so that there is further improvement in the overall performance.

The Commission appreciates the efforts being made by HPGCL in the area of generation capacity addition to meet with the growing demand of power in the state and taken note of HPGCL's achieving the major milestones of boiler drum lifting and completing the hydraulic tests of 2 x 600 MW RGTPP, Khedar, Hisar much ahead of schedules. However, the Commission would like to remind HPGCL that these milestones were achieved ahead of schedules at 2 x 300 MW DCRTPP, Yamuna Nagar also, but later on the final commissioning, stabilization, trial run and takeover of the units have been delayed considerably. HPGCL is advised to take a lesson from their experience at DCRTPP and ensure that all the remaining milestones of RGTPP are satisfactorily completed well in time.

Based on the parameters approved by the Commission, the tariffs for FY 2010 - 11 are as under:

Table 3.1 Approved Tariffs (FY 2010 - 11)

	PTPS (Unit 1-4)	PTPS (Unit 5)	PTPS (Unit 6)	PTPS (Unit 7&8)	DCR TPP (Unit 1&2)	RG TPP (Unit 1 &2)	WYC & Kakroi	Total HPGCL
Energy Charges (Rs./kWh)	2.64	2.17	2.17	2.03	1.79	1.44	0	1.8600
Fixed Charges (Rs./kWh)	0.91	0.56	1.09	0.98	1.34	1.47	1.49	1.1944
Total Charges Rs / kWh	3.55	2.73	3.26	3.01	3.13	2.91	1.49	3.0544

The generation tariff(s) approved for FY 2010-11 shall be implemented w.e.f 1st April 2010.

HPGCL shall complete all procedural requirements to ensure implementation from the stipulated date. The order shall, unless amended or revoked by the Commission, continue to be in force.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 16th April 2010.

Date: 16/04/.2010

Place: Panchkula

Rohtash Dahiya
(Member)

Bhaskar Chatterjee
(Chairman)