

HARYANA ELECTRICITY REGULATORY COMMISSION  
BAYS No. 33-36, SECTOR-4, PANCHKULA- 134113, HARYANA

DATE OF ORDER : 31<sup>st</sup> March, 2011

**IN THE MATTER OF:**

Haryana Power Generation Corporation Limited, Urja Bhawan, C-7, Sector – 6, Panchkula seeking implementation of Hon'ble APTEL judgment dated 26<sup>th</sup> April, 2010 in respect of HPGCL appeal No. 72 and 141 and judgment dated 31<sup>st</sup> July 2009 in respect of HPGCL appeal No. 42 and 43 regarding revision of tariff for the FYs 2007-08, 2008-09 and 2009-10.

**ORDER**

**Brief background of the case leading to the appeal:**

The Commission issued generation tariff orders on the ARR filings of HPGCL for the FYs 2007-08, 2008-09 and 2009-10 on 8<sup>th</sup> May, 2007, 21<sup>st</sup> April, 2008 and 18<sup>th</sup> May, 2009 respectively. HPGCL filed review petition with the Commission against its generation tariff order and ARR order for Bulk Supply Business for 2007-08 both dated 8<sup>th</sup> May, 2007. After review the Commission vide its order dated 26<sup>th</sup> September, 2007 revised the generation tariff of Western Yamuna Canal and Kakroi Hydro power stations but did not accept the other contentions of the HPGCL. Aggrieved by the Commission's review order the HPGCL filed appeal No. 42 of 2008 against generation tariff order for 2007-08 and appeal No 43 of 2008 against ARR order on Bulk Supply Business for 2007-08 with the Hon'ble APTEL. Similarly the HPGCL filed review petition against the generation tariff orders of the Commission for FY 2008-09 which was dismissed by the Commission vide orders dated 19<sup>th</sup> November, 2008. HPGCL filed appeal No. 72 of 2009 against generation tariff of the Commission for FY 2008-09 and appeal No. 141 against generation tariff order of the Commission for FY 2009-10 with the Hon'ble APTEL

Hon'ble APTEL disposed off the appeals No. 42 & 43 filed by HPGCL against the generation tariff order and Bulk Supply Business order of the Commission for FY 2007-08 vide judgments dated 31<sup>st</sup> July, 2009 and appeals No. 72 and 141 against generation tariff orders of the Commission for FYs 2008-09 and 2009-10 vide judgment dated 26<sup>th</sup> April 2010. Hon'ble APTEL forwarded copy of its judgment dated 26<sup>th</sup> April, 2010 on the appeals No, 72 and 141 of 2009 vide letter dated 18<sup>th</sup> June, 2010 to the Commission.

On receipt of the judgment from Hon'ble APTEL the Commission directed the HPGCL to quantify the financial impact in the light of relief granted by the Hon'ble APTEL and to submit revised tariff applications for FY 2008-09 and 2009-10 vide letter No. HERC / Tariff (E) / HPGCL / APTEL / 08-09 & 09-10 / 1094 dated 9<sup>th</sup> July, 2010 and No. HERC / Tariff (E) / HPGCL / APTEL / 08-09 & 09-10 / 1580 dated 23<sup>rd</sup> August, 2010. In response HPGCL vide letter No. 1263 / HPGCL / FIN / REG – 329 dated 6<sup>th</sup> September, 2010 submitted revised tariff sheets for the FYs 2008-09 and 2009-10. HPGCL vide letter No. HPGC / FIN / Reg.- 329 / 1404 dated 16<sup>th</sup> September, 2010 submitted revised tariff sheet for FY 2007-08.

For the purpose of implementation of the above referred Hon'ble APTEL judgments on the generation tariff of HPGCL for the FYs 207-08, 2008-09 and 2009-10 the Commission examined the revised tariff sheets submitted by HPGCL vis-à-vis the judgments of the Hon'ble APTEL. Commission observed that Hon'ble APTEL, while upholding most of the decisions of the Commission in its generation tariff order under consideration, allowed some of the points raised by HPGCL subject to fulfillment of certain conditions. However, HPGCL instead of complying with the judgments of the Hon'ble APTEL by submitting the reports on fulfillment of the laid down conditions, submitted only the revised tariff sheets. These revised tariff sheets contain revised rates of various items without assigning the reasons leading to revision of rates. As per the revised tariff sheets submitted by HPGCL the following has been claimed:

HPGCL claim as per revised tariff sheets (₹ in Crores):

Particulars	2007-08		2008-09		2009-10	
	HERC order dated 08.05.07	HPGCL Revised tariff sheets	HERC order dated 21.04.08	HPGCL Revised tariff sheets	HERC order dated 18.05.09	HPGCL Revised tariff sheets
Total generation cost	2811.17	2934.23	3773.15	4132.47	3984.17	4173.88
Total cost ₹ / kWh)	2.80	2.92	2.85	3.13	3.02	3.17

The Commission has summarised the issues raised by HPGCL in its appeals before the Hon'ble APTEL, the judgment of the Hon'ble APTEL against each issue as under:

**A - HPGCL appeal No. 42 &43 against Commission generation tariff for FY 2007-08**

HPGCL appeal	Hon'ble APTEL judgment
--------------	------------------------

HPGCL had requested that Station Heat Rated (SHR) in respect of SHR PTPS 1-4 may be allowed at 3450 Kcal / kWh, PTPS 5-6 at 2700 Kcal / kWh and for FTPS at 4200 Kcal / kWh.	Station wise study be got conducted in a time bound manner to determine SHR of power plants and if the study indicates substantial variations (more than 2-3%) than the norms adopted by the Commission, revised rates should be allowed after adjustment for reasonable deterioration due to lapse of time.
HPGCL had requested to allow transit loss @ 3.02% for PTPS and @ 3.54% for YTPS	Hon'ble APTEL did not allow the requested transit loss
3. Allowing moisture loss of coal 3%	Hon'ble APTEL ordered that the Commission to consider the issue on merit
HPGCL had requested to allow interest rate on working capital @ 12.75%	Hon'ble APTEL has ordered that applicable normative interest rate may be allowed
HPGCL had requested to allow interest on loans ₹ 24.52 crores.	Hon'ble APTEL has ordered to allow actual interest.
HPGCL had requested to allow quantum of power purchase of 3000 MUs @ ₹ 5 / kWh	Hon'ble APTEL has ordered that the request of HPGCL may be reconsider through FCA
HPGCL had requested to allow transmission loss @ 5%	Hon'ble APTEL has directed the HPGCL to approach the Commission with actual loss figures for consequential adjustment.
HPGCL had requested that BBMB purchase @ ₹ 0.23 and IP purchase @ ₹ 3.87 may be allowed.	Hon'ble APTEL has ordered that information was received late and if the Commission has not taken any decision in the matter, it should ensure early consideration of the matter.
HPGCL had requested that rates of net bulk supply of power may be allowed upto 4 decimal points i.e. ₹ 2.4048/ kWh	Hon'ble APTEL has not allowed the request of HPGCL and ordered that for future the Commission should clearly lay down its approach for rounding off numbers to avoid litigation.

**B - HPGCL appeal No. 72 & 141 against Commission generation tariff for FY 2008-09 and 2009-10**

HPGCL appeal	Hon'ble APTEL judgment
HPGCL had requested for lower PLF of PTPS 1-4 and FTPS 1-3	Hon'ble APTEL has not allowed the request of HPGCL
HPGCL had requested for higher	Hon'ble APTEL has allowed

auxiliary consumption for PTPS 1-6 and FTPS	auxiliary consumption in respect of FTPS as requested by HPGCL
Specific Oil Consumption PTPS 1-4 and FTPS	Hon'ble APTEL has allowed specific oil consumption in respect of FTPS as requested by HPGCL
HPGCL had requested for revised SHR for all the generating stations	Hon'ble APTEL has ordered to examine the issues as per study in accordance with the directions given in appeal No. 42 & 43.
HPGCL had requested for higher transit loss of coal	Hon'ble APTEL did not allow the request of the HPGCL
HPGCL had requested to allow normative interest on working capital	Hon'ble APTEL allowed the request of the HPGCL
HPGCL had requested for higher O&M expenses	Hon'ble APTEL did not allow the request of the HPGCL
HPGCL had requested for higher depreciation	Hon'ble APTEL allowed findings of the Commission.
HPGCL had requested to allow ROE @ 14%	Hon'ble APTEL allowed the request of the HPGCL
HPGCL had raised the issue regarding FSA periodicity and holding cost on the FSA	ATPEL has directed the HPGCL to approach Commission and Commission to decide in accordance with the material placed before it.

After taking into account the judgments of the Hon'ble APTEL and the documents submitted by HPGCL the Commission orders as under:

**1. Station heat rate:**

As per Hon'ble APTEL judgment station wise study was to be got conducted in a time bound manner to determine SHR of power plants and if the study indicates substantial variations (more than 2-3%) than the norms adopted by the Commission, revised rates should be allowed after adjustment for reasonable deterioration due to lapse of time.

The HPGCL got the requisite study of its generating stations conducted in the month of June 2010 and submitted the reports in July 2010. On the basis of these studies the HPGCL submitted its revised claim in September, 2010. From the scrutiny of the study reports it was revealed that study was conducted on FTPS unit -3 only because units 1 & 2 had already been phased out. Similarly study was not got conducted in respect of PTPS-1 due to the reason that the unit - 1 was reportedly under R&M.

The comparative statement showing the original claim of HPGCL, approval given by HERC in the generation tariff orders, SHR as per study reports

and the revised claim of HPGCL for the FYs 2007-08, 2008-09 and 2009-10 is given below:

2007-08					
Gen. Unit	HPGCL petition	HERC approval	Energy audit report	%age variation	Revised claim of HPGCL
1	2	3	4	5	6
PTP -1	3450	3200	NA*	NA*	3450
PTP-2	3450	3200	3309	3.29	3450
PTP-3	3450	3200	3274	2.26	3450
PTP-4	3450	3200	3287	2.65	3450
PTP-5	2700	2600	2807	7.37	2700
PTP-6	2700	2600	2826	8.00	2700
FTPS	3970	4000	4724	15.33	4801

2008-09					
Gen. Unit	HPGCL petition	HERC approval	Energy audit report	%age variation	Revised claim of HPGCL
1	2	3	4	5	6
PTP -1	3450	3200	NA*	NA*	3425
PTP-2	3450	3200	3309	3.28	3425
PTP-3	3450	3200	3274	2.26	3425
PTP-4	3450	3200	3287	2.65	3425
PTP-5	2700	2600	2807	7.37	2720
PTP-6	2700	2600	2826	7.98	2715
FTPS	3970	4000	4724	15.32	4518

2009-10					
Gen. Unit	HPGCL petition	HERC approval	Energy audit report	%age variation	Revised claim of HPGCL
1	2	3	4	5	6
PTP -1	3450	3200	NA*	NA*	3225
PTP-2	3450	3200	3309	3.28	3225
PTP-3	3450	3200	3274	2.26	3225
PTP-4	3450	3200	3287	2.65	3225
PTP-5	2700	2600	2807	7.37	2600
PTP-6	2700	2600	2826	7.98	2600
FTPS	3970	4000	4724	15.32	4604

It is a well established fact that energy audit or the study for finding out SHR is got conducted under customized and ideal conditions, therefore,

the results of the study conducted for a few days cannot be made basis for determination of SHR for the whole year. Design heat rate, annual performance of the unit and R&M expenses allowed for improvement of SHR are most important factors for determination of SHR from year after year. Further, it may also not be appropriate to determine SHR of FTSP -1 and 2 on the basis of study conducted in respect of FTSP-3. The HPGCL has also not submitted study report in respect of PTPS-1.

Since sufficient and authentic data has not been made available to the Commission by HPGCL and also in view of the facts mentioned in the previous para, the Commission has, for the purpose of implementation of Hon'ble APTEL judgment, taken into account the station heat rates as per revised claim submitted by HPGCL for the FY 2009-10. The SHR for FY 2008-09 and 2007-08 has been worked out by doing reverse calculations after allowing 1.5% adjustment for reasonable deterioration due to lapse of time on the revised SHR claimed by HPGCL for FY 2009-10. The calculation of revised SHR has been shown in the table below:

Adjustment for reasonable deterioration				
Adjustment factor	1.50%	1.50%	1.50%	1.50%
Financial year	PTP 1-4	PTP- 5	PTP-6	FTPS 1-3
2009-10 (Revised claim of HPGCL)	3225	2600	2600	4604
2008-09 (adjusted)	3177	2561	2561	4535
2007-08 (adjusted)	3129	2523	2523	4467

The Commission allows SHR for the FYs 2007-08, 2008-09 and 2009-10 as per above table.

## **2. Moisture loss of coal:**

The Hon'ble APTEL has ordered to consider the issue on merits and since HPGCL has not claimed higher moisture loss of coal in its revised tariff sheets the Commission has not changed the rates of moisture loss of coal.

## **3. Interest on working capital:**

In view of the Hon'ble APTEL judgment the Commission allows interest on working capital for the FTYs 2007-08, 2008-09 and 2009-10 @ 12.75%.

## **4. Interest on loans:**

Hon'ble APTEL has ordered to allow the interest on loans on actual basis, since HPGCL has, in its revised tariff sheets, not claimed higher interest and finance charges the Commission has kept the same as per its generation tariff orders for the respective financial years under consideration.

## **5. Power purchase rates:**

The Hon'ble APTEL has ordered to reconsider the request of HPGCL through FCA, which has been taken care of by the Commission separately while deciding FCA claims of HPGCL.

**6. Transmission loss:**

The Hon'ble APTEL has directed HPGCL to approach the Commission with actual loss figures for consequential adjustment but the HPGCL has not file actual loss figures in absence of which the Commission has not changed the rates of transmission loss already approved by it.

**7. Rates of BBMB and IP power purchase:**

The Hon'ble APTEL has ordered that the Commission should ensure early consideration of the matter. Since the Commission has already settled the issue in a separate order no review is required in this order.

**8. Rate of net bulk power supply upto 4 decimal points:**

The Hon'ble APTEL has not allowed the request of the HPGCL but has ordered that for future the Commission should clearly lay down its approach for rounding off numbers to avoid litigation. Since the request for FYs 2007-08, 2008-09 and 2009-10 has not been allowed by the Hon'ble APTEL, the Commission has not changed the approved rates for the respective year.

**9. Auxiliary consumption:**

The Hon'ble APTEL has ordered that auxiliary consumption in respect of FTPS may be allowed as per HPGCL filings. The Commission has examined the issue and observed that HPGCL has in its original ARR filings for FY2008-09 and 2009-10 requested for lower rates of auxiliary consumption but the rates have been revised upwards in the revised tariff sheets. The details of auxiliary consumption rates claimed by HPGCL and approval given by the Commission are given in the table below:

HPGCL original ARR filings	HERC approval	HPGCL claim as per revised tariff sheets after Hon'ble APTEL order
2008-09		
14.5	12.5	16.32
2009-10		
14.29(revised filing)	12.5	16.07

In view of Hon'ble APTEL order the Commission allows auxiliary consumption for the FY 2008-09 @ 14.5% and for FY 2009-10 @ 14.29% as submitted by HPGCL in its original ARR filings for the respective financial years.

**10. Specific oil consumption:**

The Hon'ble APTEL has allowed the appeal of the HPGCL for as per the claims of HPGCL. As in case of auxiliary consumption the HPGCL has filed lower rates of specific oil consumption in its original ARR filings but has revised the same upwards in its revised tariff sheets. The details are given in the table below:

HPGCL original ARR filings	HERC approval	HPGCL claim as per revised tariff sheets after Hon'ble APTEL order
2008-09		
9	4	9.62
2009-10		
7.8	4	6.01

In view of Hon'ble APTEL order the Commission allows specific oil consumption for the FY 2008-09 @ 9% and for FY 2009-10 @ 7.8% as submitted by HPGCL in its original ARR filings for the respective financial years.

**11. Return on equity:**

The Hon'ble APTEL has ordered that return on equity @ 14% is justified and has ordered accordingly. In view of Hon'ble APTEL judgment the Commission allows return on equity @ 14% for the FYs 2008-09 and 2009-10.

**12. FSA periodicity and holding costs:**

The Hon'ble APTEL has ordered the HPGCL to approach the Commission and that the Commission shall decide in accordance with the material placed before it. The Commission shall take decision on case to case basis as and when approached by HPGCL.

For the purpose of working out per unit cost of power at which HPGCL shall sell the power generated from its own units to the distribution licensees, the total cost of power generation is determined by the Commission on the basis of normative generation. However, the payment is made by the distribution licensees only on the basis of actual energy inputs by HPGCL in their systems. Therefore, for the purpose of working out the actual financial impact due to revision of rates of various items, in view of the orders of the Hon'ble APTEL, the Commission has taken into account the actual power generation of HPGCL for the FYs 2007-08, 2008-09 and 2009-10.

The Commission has worked out revised power purchase cost as well as revised per unit rates on the basis of revised norms which are shown in the table below:

Particulars	2007-08		
	HERC order dated 08.05.07	HPGCL Revised tariff sheets	Revised approval of the Commission in view of Hon'ble APTEL judgment
Total generation cost	2811.17	2934.23	2833.50
Total cost ₹ / kWh)	2.80	2.92	2.82
2008-09			
Total generation cost	3773.15	4132.47	3841.90
Total cost ₹ / kWh)	2.85	3.13	2.89
2009-10			
Total generation cost	3984.17	4173.88	4112.40
Total cost ₹ / kWh)	3.02	3.17	3.12

As stated in the previous paragraph, the Commission has taken into account the actual power generation for the purpose of calculating the net financial impact. The data relating to actual power generation has been taken from the annual accounts of the HPGCL. The net financial impact on the revised rates has been shown in the table below:

Revised calculations (₹ in millions)								
Year	HPGCL claim			Revised calculation for approval by HERC				
	Actual Gen. as per HPGCL annual accounts (MU)	Rate as per HPGCL revised tariff sheets (₹ / kWh)	Revenue as per HPGCL rates in the revised tariff sheets (2x3)	HERC approved rate in generation tariff orders (₹ / kWh )	Revenue as per HERC approved rate (2x5)	Revised rates as per this order (₹ / kWh)	Revenue at revised rate as per this order (7x2)	Final amount to be given to HPGCL (8-6)
1	2	3	4	5	6	7	8	9
2007-08	9881	2.92	28832	2.80	27623	2.82	27835	212
2008-09	12225	3.13	38308	2.85	34806	2.89	35386	580
2009-10	13649	3.16	43199	3.02	41248	3.12	42543	1296
Total	35755		110340		103677		105764	2088

The Commission approves ₹ 2088 millions as per details given in the above table and allows the recovery of the amount from the distribution

licensees in the ratio of units billed to each of them during the financial years 2007-08, 2008-09 and 2009-10. The additional amount so billed by HPGCL to the distribution licensees shall be allowed as pass through in ARR and tariff orders of the distribution licensees for FY 2011-12.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 31<sup>st</sup> March, 2011.

Date: - 31.03.2011

Place:- Panchkula

**(Ram Pal)**  
**Member**

**(Rohtash Dahiya)**  
**Member**

**(Bhaskar Chatterjee)**  
**Chairman**