

Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal No. 83 of 2011

Dated: 18th April, 2012

Present: HON'BLE MR. JUSTICE P S DATTA, JUDICIAL MEMBER
HON'BLE MR. V J TALWAR, TECHNICAL MEMBER,

Haryana Power generation Corporation.
Urja Bhawan, C-7 Sector 6
Panchkula -134112
Haryana

...Appellant

Versus

Haryana Electricity Regulatory Commission
Bays 33-36, Sector 4
Punchkula-134112
Haryana

...Respondent

Counsel for the Appellant : Mr Pradeep Dahiya

Counsel for the Respondent : Ms Shikha Ohri

JUDGMENT

PER V J TALWAR TECHNICAL MEMBER

- 1 Haryana Power Generation Company Limited is the Appellant. The Haryana Electricity Regulatory Commission (Commission) is the Respondent herein.

2 The Appellant, Haryana Power Generation Corporation Limited is a generating company fully owned by the Government of Haryana. The Commission has passed an order on 31.3.2011 in pursuance of directions issued to the Commission by this Tribunal in its judgment dated 31.7.2009 in Appeal No. 42 of 2008 and judgment dated 26.4.2010 in Appeal Nos. 72 & 141. Aggrieved by this order of the Commission, the Appellant has filed this Appeal.

3 Brief Facts of the case are as under:

- a. On 8.5.2007 the Commission had issued Tariff orders determining the generation tariff and for the bulk supply business of the Appellant for the FY 2007-08. Aggrieved by these orders of the Commission the Appellant filed review petition before the Commission. The Commission disposed off the review petition by an order dated 26.9.2007 accepting few of the contentions of the Appellant and rejecting the rest of the Contentions.
- b. Aggrieved by the order of the Commission dated 8.5.2007 and review order dated 26.9.2007 the Appellant filed Appeal No. 42 of 2008 against these orders before this Tribunal.
- c. While the Appeal No. 42 was pending before the Tribunal, the Commission issued Tariff order on 21.4.2008 fixing the generation tariff for FY 2008-09. The Appellant filed review petition against the order dated 21.4.2008, which was dismissed by the Commission vide its order dated 19.11.2008.

- d. Aggrieved by the order of the Commission dated 21.4.2008 and the review order dated 19.11.2008 the Appellant filed Appeal No. 72 of 2009 before this Tribunal.
- e. On 18.5.2009 the Commission passed tariff order fixing the generation tariff for the FY 2009-10. Aggrieved by this order of the Commission dated 18.5.2009, the Appellant filed Appeal No. 141 of 2009 before this Tribunal.
- f. The Tribunal decided the Appeal No 42 of 2008 on 31.7.2009 directing the Commission, inter alia, to carry out a station-wise study to determine the Station Heat Rate of the power plants of the Appellant and to re-determine the Station Heat Rate based on the results of such study.
- g. The Tribunal decided the Appeal nos 72 and 141 of 2009 vide judgment dated 26.4.2010 and in respect of the issue relating to Station Heat Rate it reiterated its directions given to the Commission in Appeal No. 42 dated 31.7.2009.
- h. In accordance with the directions of this Tribunal, the Appellant got conducted the Energy Audit of its Panipat TPS (all units except unit no. 1 which was under R&M) and Unit No. 3 Faridabad TPS from Evonik Energy Services India Pvt. Ltd in March – April 2010. The report of Energy Audit was submitted to the Commission in September 2010. The Energy Audit for Unit No. 1 & 2 Faridabad TPS could not be conducted as the said units had been phased out by that time.
- i. The Appellant submitted revised data for determination of Tariff for FY 2008-09 and 2009-10 to the Commission on 6.9.2010 for the implementation of directions given in Tribunal's Judgment

dated 26.4.2010 in respect of Appellant's Appeal Nos. 72 & 141 of 2009.

- j. On 16.9.2010 the Appellant submitted the revised tariff sheet for the FY 2007-08 on the basis of the Energy Audit Reports for the implementation of the Tribunal Judgment dated 31.7.2009 in respect of Appellant's Appeal Nos. 42 of 2008.
- k. The Commission passed a common order implementing the directions of this Tribunal given in Appeal No. 42 of 2008, Appeal No. 72 & 141 of 2009.
- l. Aggrieved by this implementation order of the Commission dated 31.3.2011, the Appellant has filed this Appeal.

4 Assailing the impugned order of the Commission, the Learned Counsel for the Appellant made the following submissions:

- a. The Commission has not only fixed lower Station Heat Rate than the appellant claimed based upon the Energy Audit Reports but even lowered the Station Heat Rate earlier allowed by the Commission in its earlier tariff orders.
- b. The Commission has erred in fixing the Station Heat Rate for the previous years i.e. for FY 2007-08 and 2008-09 on the basis of the claimed Station Heat Rate for the year 2009-10 by a novel method of reverse calculations after allowing 1.5% adjustment for reasonable deterioration due to lapse of time and that too without any basis as going by the same principle the Commission should have allowed Station Heat Rate @ 1.5% more than the claimed Station Heat Rate for the FY 2009-10 i.e. 1.5% more than that of 3225, which is not the case as

the Commission has allowed Station Heat Rate 3100 for the Units 1-4 and 2600 for the Units 5 & 6 of Panipat TPS .

- c. The Commission erred in fixing the Station Heat Rate for the previous years i.e. for FY 2007-08 and 2008-09 on the basis of the claimed Station Heat Rate for the year 2009-10 ignoring the fact that for the year FY 2009-10, the appellant had revised the claim for Station Heat Rate as Unit 1 of Panipat TPS had undergone R&M and therefore the figures of Station Heat Rate had been revised based upon the improved figures and that cannot be the basis of assuming lower Station Heat Rate, when the Units 1-4 were underperforming due to lack of R&M and thus for FY 2007-08 and 2008-09 the commission should have allowed the claimed Station Heat Rate as the same was actual, legitimate, realistic and not unreasonable.
- d. The impugned order dated 31.3.2011 passed by the Commission is not in consonance with the direction of this Tribunal as it was specifically held that if the study would indicate substantial variation (say more than 2-3%) then the benchmarks adopted by the State commission, after adjusting for reasonable deterioration due to lapse of time, may be re-determined by the State Commission. Despite this, the Commission has fixed lower Station Heat Rate than what the appellant had claimed on the basis of Audit Reports, which clearly showed that there was a deviation of 2.26% to 8% for the Units 1-6 of Panipat TPS and a deviation of 15.33% for the Unit No. 3 of FTPS Faridabad. The deviations were for the reason that power stations of the appellant have outlived their

normal useful life i.e. 25 years and therefore the Commission ought to have adopted a pragmatic approach and should have allowed the claimed Station Heat Rate on the actual basis.

- e. The submission of the learned counsel for the Respondent Commission to the effect that the Commission is allowing the Renovation and Modernization expenditure in the tariff is without any basis and contrary to the record as the Commission has not allowed any such expenditure and, in fact, the appellant has not claimed capital expenditure incurring towards Renovation and Modernisation and are only claiming depreciation, interest and Return on Equity on the expenditure so incurred as per the Regulations issued by the Commission in the year 2008.
 - f. As a matter of fact, the Commission had not allowed the expenditure to be incurred on Renovation and Modernization of its Units at Panipat and Faridabad as proposed in the Business Plan filed by the Appellant before the Commission on 08.04.2009.
- 5 Per contra, the learned Counsel for the Commission submitted that the Commission has complied with the directions passed by this Tribunal and has acted in accordance with and as circumscribed by the orders of this Tribunal and made following submissions:
- a. In compliance with the directions issued by this Tribunal in the appeals, the Commission directed the Appellant to submit revised tariff applications for FY 2008-09 and 2009-10. The Commission passed the impugned order on 31.03.2011,

deciding various issues in accordance with the judgments of this Tribunal and the documents submitted by the Appellant including the issue of Station Heat Rate which has now been challenged by the Appellant.

- b. This Tribunal while directing the Commission to arrange for a station-wise study, for determining Station Heat Rates of the Appellant's power plants, held that in case the study would indicate substantial variation, the Commission may re-determine the benchmarks after adjusting reasonable deterioration due to lapse of time. The Commission observed certain deficiencies in the study from the reports of Energy Audit report submitted by the Appellant. The Commission observed that the Energy Audit Report or the study for finding out Station Heat Rate has been conducted under customized and ideal conditions, the results of the study conducted for a few days may not be appropriate for determining the Station Heat Rate for the whole year. It further noted that no study report had been submitted for Panipat TPS Unit 1 and Faridabad TPS Unit 1 & 2. Therefore, in the absence of any study conducted on these units, it may not be appropriate to consider the results of other units to arrive at heat rate for these units.
- c. In view of the aforesaid deficiencies, the Commission proceeded to take into account the station heat rates as per revised claim submitted by the Appellant for the FY 2009-10 and worked out the Station Heat Rate for FY 2008-09 and 2007-08 by doing reverse calculations after allowing 1.5%

adjustment for reasonable deterioration due to lapse of time. The Commission has time and again observed that lack of R & M and prudent O & M practices over a prolonged period has hastened the deterioration in Station Heat Rate of PTPS (Unit 1-4) and PTPS (unit 5). The Commission in the tariff orders previous year has expressed concern over the fact that the powerhouses have consistently failed to achieve the targets set by it.

6 In view of rival contentions referred to above urged by the learned counsel for parties, the following questions would arise for our consideration:

- i. Whether the Commission had allowed any Capital Expenditure in respect of Unit 1 to 4 of Panipat TPS for Renovation and Modernisation to improve the performance of these units?
- ii. Whether the Commission has implemented the directions issued by this Tribunal in its judgements in Appeal No. 42 of 2008 and 72 & 141 of 2009.

7 We will now deal with the issues one by one. The first issue before us for consideration is as to whether the Commission had allowed any Capital Expenditure in respect of Unit 1 to 4 of Panipat TPS for Renovation and Modernisation to improve the performance of these units?

8 This important issue came up for discussions during course of hearing. The learned Counsel for the Commission stated that the Commission had approved capital expenditure for Renovation and

Modernisation (R&M) of unit no.1 to 4 at Panipat and the Appellant had already carried out refurbishment of Unit 1 & 2 at Panipat. Despite the refurbishment, there has not been desired improvement in the performance of these units. Per contra, the Learned Counsel for the Appellant made a categorical statement that the Commission did not approve of any capital expenditure for R&M of these units in its tariff orders. In support of his contention he had submitted copies of Commission's Tariff orders for FY 2007-08, 2008-09 and 2009-10. The issue being important concerning the performance of units in question and implementation of our directions, we decided to examine the question in detail.

- 9 Let us peruse the relevant portions of various orders of the Commission relied upon by both the parties. Relevant portion of Commission's order for FY 2007-08 read as under:

*"In respect of PTPS (Unit I-IV), the Commission approved PLF of 55% (as against 65% in terms of original filing) for FY 2006-07 in view of HPGCL's submission vide letter dated 6/03/2006 stating that PTPS units I & III will not be available for five months each on account of refurbishment & replacement of LP rotor. **The Commission notes with concern that shut down of PTPS unit I for refurbishment in FY 2006-07 was not availed and has now been scheduled w.e.f. 1/04/2007.** Despite the fact that no major R&M were undertaken during FY 2006-07 (except PTPS Unit II during FY 2005-06) the PLF upto January 2007 averaged 65.32%.*

....

Keeping in view the latest performance of PTPS (I to IV) upto January 2007 and the fact that duly refurbished PTPS I will be available for 7 months & PTPS II has already been refurbished, the Commission allows an overall PLF of 70% for the purpose

of determining generation target for FY 2007-08. The Commission directs that planned shut down schedule as intimated to the Commission with corresponding capital expenditure (both loan and equity) must be adhered to. These units, after intensive R&M and annual overhauling, must operate at a PLF of over 80%.”

- 10 Bare reading of the above findings of the Commission in its Tariff order for FY 2007-08 would make it clear that the Unit 2 at Panipat TPS was refurbished during FY 2005-06 and the Appellant had planned refurbishment of the Unit 1 during 2006-07 but postponed to the Year 2007-08. The Commission had directed that planned shut down as per schedule with corresponding capital expenditure must be adhered to. The Commission in its Tariff order for 2008-09 has again taken up the issue relating to refurbishment of units at Panipat and had observed as under:

*“The drop in PLF has largely been influenced by the performance of **PTPS Unit – 1**. HPGCL had planned refurbishment of this unit during FY 2006-07 which was re-scheduled to FY 2007-08 commencing from 1st of April 2007. The Unit was finally taken up for refurbishment w.e.f. 24th September 2007 i.e. a delay of about a year from the original schedule submitted to the Commission. This is despite the fact that the Commission in its FY 2007-08 order issued a clear cut directive i.e. “The Commission directs that planned shutdown schedule as intimated to the Commission with corresponding capital expenditure (both loan and equity) must be adhered to. These units, after intensive R&M and annual overhauling, must operate at a PLF of above 80%”. Notwithstanding the Commission’s directives and its own interest the refurbishment schedule was inordinately delayed.*

.....

Considering the fact that the refurbishment of PTPs Unit – 1 will be completed before the beginning of FY 2008-09 for which tariff application is under consideration,”

- 11 Perusal of the above would reveal that the Commission had been continuously pursuing the Appellant to take up the R&M of units at Panipat and it was only the Appellant who had been delaying it. The Commission had again considered the refurbishment of unit 1 & 2 at Panipat and have recorded that after refurbishment the performance of these units should have been improved. The findings of the Commission in its order for FY2009-10 read as under:

“The decline in PLF of PTPS (Unit 1-4) has largely been influenced by the performance of PTPS Unit – 1. HPGCL had planned refurbishment of this unit during FY 2006-07 which was re-scheduled to FY 2007-08 commencing from 1st of April 2007. The Unit was finally taken up for refurbishment w.e.f. 24th September 2007 i.e. a delay of about a year from the original schedule submitted to the Commission. PTPS Unit – 1, as per the presentation made by HPGCL on 24/2/2009 was re-commissioned on 4/11/2008 after renovation, modernization and up gradation by BHEL.

.....

Thus considering the fact that the refurbishment of PTPS Unit – 1 and 2 have been completed, PTPS Units 3 & 4 are operating satisfactorily, as stated above, the Commission approves an average PLF of 80% for PTPS (Unit 1-4) in accordance with the HERC Regulations on Terms and Conditions of determining generation tariff, for the purpose of determining generation tariff for FY 2009-10. HPGCL is directed to ensure annual overhauling of the Units as per the schedule submitted to the Commission.

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 2009-10 only) in respect of PTPS Unit 1-4 as against HERC norms of 2930 Kcal/kWh unit 1– 4 for working out the fuel / variable cost of generation in FY 2009-10.

*HPGCL had 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 and the desired improvements have not been achieved. Subsequently, refurbishment of PTPS unit 1 has been carried out through M/s BHEL during FY 2007-08. In this case also, the performance of the unit after refurbishment has not been up to the mark. **The SHR of PTPS unit 1 which was 3342 Kcal/kWh for FY 2006-07 before refurbishment has increased to 3480 Kcal/kWh for FY 2008-09 against the contracted provision of around 2346 Kcal/kWh. Although the unit was commissioned in 11/08, 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.***

- 12 From the above it is clear that the Commission has taken into cognizance the refurbishment of the unit 1 & 2 at Panipat TPS. Now, the issue arises as to whether the Commission had approved the capital expenditure for the refurbishment as stated by the Learned Counsel for the Commission or the claim of Appellant that no capital expenditure had been allowed by the Commission in its previous orders is true?

13 In order to get answer to this issue, we had to carry out in depth examination and analysis of the Commission's tariff orders for the relevant years. Though at the first rush of blood it would appear that the Commission had not approved of any specific capital expenditure for R&M as claimed by the Appellant, a detailed analysis of the tables indicating final approval of the Appellant's ARR for the relevant years spilled a different story. These tables from the Tariff orders are reproduced below:

"2.20 Fixed Expenses for FY 2007-08

A summary of the Commission's approval of fixed expenses is presented in table 2.12.

Table Error! No text of specified style in document..12 Fixed Expenses for FY 2007-08 (Rs. Million)

	PTPS					DCR	FTPS
	Units 1-4	Unit 5	Unit 6	Unit 7	Unit 8	I&I	Units 1-3
<i>O&M Expenses</i>	645.0	307.88	245.7	292.5	292.5	169.25	464.01
<i>Depreciation</i>	181.58	76.92	347.49	297.74	297.74	0.11	24.82
<i>Interest on Term Loan</i>	187.25	101.8	418.9	477.89	477.89	532.81	31.45
<i>Interest on Working Capital</i>	206.12	92.65	113.79	123.84	123.84	101.05	73.91
<i>Return on Equity @ 12%</i>	66.41	23.96	210.9	227.4	227.4	507.3	17.33
<i>Fixed Cost</i>	1286.36	603.18	1336.8	1419.38	1419.3 8	1310.52	611.53
<i>Advance Against Depreciation</i>	199.21	84.39	381.22	326.64	326.62	0.12	27.23
<i>Total Fixed Cost</i>	1485.57	687.57	1718.01	1746.02	1746.00	1310.64	638.76

2.18 Fixed Expenses for FY 2008-09

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

Table Error! No text of specified style in document..12 Fixed Expenses for FY 2008-09 (Rs. Million)

	PTPS					DCR		FTPS
	Unit 1-4	Unit 5	Unit 6	Unit 7	Unit 8	1	2	Units 1-3
O&M Expenses	670.8	320.19	255.57	304.25	304.25	365.1	365.1	482.57
Depreciation	181.05	83.77	358.96	384.68	384.68	410.995	410.995	24.92
Interest on Term Loan	201.47	93.91	385.179	431.89	431.89	1074.86	1074.86	28.98
Interest on Working Capital @ 10.5%	237.76	100.11	128.71	140.94	140.94	168.8	168.8	90.42
Return on Equity @ 14%	118	28	246	265	265	336	336	20
Fixed Cost	1409.08	625.98	1374.4	1526.8	1526.8	2355.76	2355.76	646.89
Advance Against Depreciation	243.38	93.21	421.07	360.0	360.8	0.13	0.13	29.06
Total Fixed Cost	1652.46	719.19	1795.47	1886.8	1887.6	2355.89	2355.89	675.95

2.19 Fixed Expenses for FY 2009-10

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

Table.12 Fixed Expenses for FY 2009-10 (Rs. Millions)

EXPENSES	Panipat					DCR		FTPS
	1to4	5	6	7	8	1	2	1& 3
Operation & Maintenance (O&M)	1173	382.2	382.2	455	455	480	480	360.25
Depreciation	181.77	83.77	358.96	384.68	384.68	420.98	420.98	26.24
Interest & Finance	149.99	98.18	403.76	422.11	422.11	1117.88	1117.88	32.30
W/C Interest* at 11%	301.1	119.5	147.8	161.4	161.4	172.9	172.9	71.35
ROE (@ 10%)	72.94	19.97	175.74	189.5	189.5	240.03	240.03	10.16
Fixed Cost	1878.8	703.62	1468.46	1612.69	1612.69	2431.79	2431.79	500.3
Advance Against Depreciation	98.3	45.3	194.12	208.04	208.04	227.67	227.67	14.19
Total Fixed Cost	1977.1	748.92	1662.58	1820.73	1820.73	2659.46	2659.46	514.49

14 A glance at above tables would indicate that the Commission has approved Interest on term loans and Return on Equity. Let us concentrate on Return on Equity component of total fixed costs approved by the Commission for each year and work out the capital expenditure approved by the Commission for each of the projects for

each year. This has been done and tabulated in the Table given below:

Description	Year	Panipat				DCR	FTPS
		1-4	5	6	7 & 8		
Return on Equity approved							
ROE (12%)	2007-08	66.41	23.96	210.9	227.4	507.3	17.33
RoE (14%)	2008-09	118	28	246	265	336	20
Equity Component of the Capital = RoE / Rate of RoE							
	2007-08	553.42	199.67	1757.50	1895.00	4227.50	144.42
	2008-09	842.86	200.00	1757.14	1892.86	2400.00	142.86
Capital = Equity/0.3							
	2007-08	1844.72	665.56	5858.33	6316.67	14091.67	481.39
	2008-09	2809.52	666.67	5857.14	6309.52	8000.00	476.19

- 15 Close look at the above table would reveal that while the approved Capital of Unit 5, Unit 6, Unit 7 and Unit 8 of Panipat TPS, Unit 1&2 Of DCR TPS and Unit 1 to 3 of Faridabad TPS remained more or less same in FY 2007-08 and 2008-09, the approved Capital of Units 1-4 of Panipat TPS had increased in FY 2008-09 by about Rs 1000 Million as compared to approved Capital for FY 2007-08. Obviously, the additional capital of about 1000 Million against Unit 1-4 of Panipat TPS could only relate to refurbishment of Unit 1 which was, according to the Appellant's own submissions, carried out in the Year 2008-09. Thus, it is established that the Commission had approved the capital expenditure incurred on the refurbishment of units at Panipat.
- 16 Thus the submissions made by the learned Counsel for the Appellant that the Commission did not approve any capital expenditure for renovation and modernisation of units 1 to 4 is not correct.

- 17 Next question for our consideration is as to whether the Commission has implemented the directions issued by this Tribunal in its judgements in Appeal No. 42 of 2008 and 72 & 141 of 2009?
- 18 In order to examine this issue as to whether the Commission has implemented the directions of this Tribunal or not it would be desirable to see the judgments of this Tribunal. Relevant portion of the judgment dated 31.7.2009 in Appeal No. 42 of 2008 is reproduced below:

“17. Therefore under the circumstances, it is essential for the State Commission to arrange for a station-wise study to determine the SHR of the power plants of the appellant. The study may be conducted in a time bound manner. If the study indicates substantial variation (say more than 2-3%) than the benchmarks adopted by the State Commission, after adjusting for reasonable deterioration due to elapse of time, may be re-determined by the State Commission.”

- 19 Relevant portion of Tribunal’s judgment dated 26.4.2010 in Appeal No. 72 & 141 of 2009 read as under:

*“12. The next issue relates to the Station Heat Rate (SHR). According to the Learned Counsel for the Appellant, the SHR determined by the State Commission is not appropriate since the same are unachievable and that the State Commission should not relate the SHR with the past performance. It cannot be disputed that the issue of SHR is the important parameter of the performance of the generating station. The parameter of SHR is one of the primary indicators of the efficiency or inefficiency of a generating station. The higher SHR indicates inefficient operation of the generating station. **The SHR was determined by the State Commission in a progressive manner based upon the Energy Audit tests conducted by the Central Electricity Authority (CEA). The State Commission, having taken into***

consideration that the improvements can be made over a period of time, had allowed the relaxed norms for the SHR from the time of the Energy Audit in the year 2005. The SHR has been gradually reduced over the years. In fact, the State Commission had allowed the full capital expenditure proposed by the Appellant for renovation and modernization to improve their performance. Despite the same, the Appellant has not been able to achieve the achievable levels as per Energy Audit report of the CEA. A similar issue was raised before this Tribunal by the Appellant in Appeals No. 42 and 43 of 2009 and the SHR has been decided in detail in its judgment dated 31.07.2009. According to the Tribunal the State Commission has to base its decision with regard to the SHR on the basis of the findings of the CEA. In pursuance of the findings given by this Tribunal, the State Commission has asked the Appellant to appoint either the CEA or NTPC to conduct station-wise study to determine the SHR of the generating stations of the Appellant. In accordance with the study conducted and the report to be made available to the State Commission, the State Commission will examine the issue of SHR in accordance with the directions of the Tribunal.” {emphasis added}

- 20 Perusal of the above directions of this Tribunal, following inferences can be made:
- a. The Commission had been determining the Station Heat Rate on basis of Energy Audit conducted by the Central Electricity Authority in 2005 and had been relaxing the norms for gradual improvement over the time.
 - b. The Commission had allowed full capital expenditure for Renovation and Modernisation. However, there has not been any improvement in the performance of the Appellant's plants and had not been able to achieve the achievable levels as per CEA's findings.

- c. The Commission has to base its decision with regard to the Station Heat Rate on the basis of the findings of the CEA.
- d. State Commission has asked the Appellant to appoint either the CEA or NTPC to conduct station-wise study to determine the Station Heat Rate of the generating stations of the Appellant.
- e. If the study indicates substantial variation than the benchmarks adopted by the State Commission, after adjusting for reasonable deterioration due to elapse of time, may be re-determined by the State Commission.

21 According to the Appellant, the Energy Audit Study was got conducted in April, 2010 by M/s Evonik Energy Services India Pvt. Ltd. The Commission has not taken into account the results of this study and has redetermined the Station Heat Rates of Panipat TPS and Faridabad TPS based on the revised claim of the Appellant himself for FY 2009-10 and Station Heat Rate for 2007-08 and 2008-09 were worked out backwards by using imaginary deterioration rate of 1.5% per annum.

22 The findings of the Commission on this issue are as under:

“....

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.

.....

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 FTPS -1 and 2 on the basis of study conducted in respect of FTPS-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."

- 23 The Commission in the impugned order has observed that the Energy Audit or the study for finding out Station Heat Rate has been 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 Station Heat Rate for the whole year. We fully concur with the views of the Commission in this regard. The purpose of Energy Audit studies is to gauge the performance of the plant and to make suitable recommendations for improvement in performance of the plant. These studies are always conducted for a shorter period and under certain predetermined operating conditions. There could

be wide variations (up to 15%) in the results of the Energy Audit Studies and actual annual heat rate of the plant. Station Heat Rate would depend on many operating conditions, most important being the load on the unit and moisture content in the fuel. Therefore, the results of the Energy Audit studies would not have any major reflection of the annual unit heat rate of the plant.

24 Further, the Commission has observed that the Energy Audit of unit 1 at Panipat could not be done since this unit was under R&M. However, the Appellant has submitted that the revised claim of Station Heat Rate for Panipat Unit 1 to 4 for FY 2009-10 was based on better performance of Unit 1 which had undergone R&M. The Commission in its Tariff order for FY 2009-10 had also observed that the unit was taken for refurbishment on 24th September 2007 *and* was re-commissioned on 4th November 2008 after renovation, modernization and up gradation by BHEL. If the unit 1 was refurbished in during 2007-09, why Energy Audit could not be done on this unit in April 2010 remained unexplained. The term in question is 'Station Heat Rate' and not the 'Unit Heat Rate'. Station Heat Rate is the weighted average of Unit Heat Rates of all the units installed at the concerned Thermal Power Station. In the absence of Unit Heat Rate for unit 1, Station Heat Rate of Panipat TPS Stage I could not have been determined. The same situation would apply to Faridabad TPS as the Energy Audit Studies were done on one unit only.

25 In the light of the above and in view of this Tribunal's specific observations made in judgment dated 26.4.2010 in Appeal No. 72 and 141 of 2009 to the effect that the Commission has to base its

decision on the findings of the CEA, we are of the opinion that the Commission has correctly ignored the results of the studies conducted by a third party.

- 26 Admittedly, the CEA had conducted Energy Audit Studies of all units at Panipat TPS and Faridabad TPS in the year 2005 and had made certain recommendations for improvement in the performance of these units. However, the actual performance of these units has not shown any improvement despite the R&M of unit 1 and 2 of Panipat TPS. Any amount of capital expenditure incurred by the Appellant is reflected in the tariff to be paid by the consumers. Therefore, it is incumbent upon the Appellant to show the improvement in its performance so that such expenditure is justified. In the absence of improvement in performance commensurate with capital expenditure incurred year after year, the Appellant can not claim for relaxation in norms on the basis of actual performance.
- 27 In December, 2008, the Commission has notified its Tariff Regulations for generation after prior publication under Section 181 (3) of the 2003 Act. These Regulations came in to effect from 19th December 2008. Thus, the Commission ought to have considered these Regulations while fixing Station Heat Rate for Panipat TPS and Faridabad TPS. Comparative statement showing Station Heat Rate as per Regulations and approved by the Commission for FY 2009-10 in the impugned order is given below:

Description	As per Regulations	Approved in impugned order
Panipat Unit 1 - 4	2750	3225
Panipat Unit 5	2500	2600
Panipat Unit 6	2500	2600
Faridabad	3970	4604

28 Prior to notification of its own Tariff Regulations, 2008, the Commission had been following the Tariff Regulations, 2004 framed by the Central Commission. Station Heat Rate as per Central Commission's Regulations 2004 viz-a-viz Station Heat Rate approved by the Commission for the year 2007-08 and 2008-09 are shown in table below:

Description	As per CERC Regulations 2004	Approved in impugned order	
		2007-08	2008-09
Panipat Unit 1 - 4	2850	3129	3377
Panipat Unit 5	2500	2523	2561
Panipat Unit 6	2500	2523	2561
Faridabad	NA	4467	4535

29 It can be seen from the above that the Commission has relaxed the norms as per its own Regulations, 2008 for FY 2009-10 and also as per CERC' Regulations, 2004 for FY 2007-08 and 2008-09 and has approved higher Station Heat Rates for these units. Keeping in view the past performance of the Appellant not showing any improvement despite incurring capital expenditure on R&M, we do not find any ground to relax it further.

- 30 In view of our findings above, we are of the view that the Commission has not erred while approving the Station Heat Rates in the impugned order.
- 31 The Appeal is accordingly dismissed being devoid of merits. However, there is no order as to costs.

(V J Talwar)
Technical Member

(Justice P S Datta)
Judicial Member

Dated: 18th April, 2012

REPORTABLE/~~NOT REPORTABLE~~