

HARYANA ELECTRICITY REGULATORY COMMISSION
SCO – 180, SECTOR – 5, PANCHKULA

CASE NO: HERC RA – 1 of 2006

Date of Hearing: 20/07/2006

Date of Order: 21 -08-2006

In the matter of

Petition filed by the Haryana Power Generation Company Limited (HPGCL) vide its Memo No. HPGC/FIN/Reg-205/789 dated 20/06/2006 seeking review and / or modification of the order dated May 23, 2006 passed by the Commission in respect of Determination of HPGCL's generation tariff for FY 2006-07

PRESENT:	Lt.Col.(retd.)Raghubir Singh, Chairman
	Er. T.R. Dhaka, Member
	Shri. T.S. Tewatia, Member
On behalf of HPGCL	Smt. Jyoti Arora, Managing Director
	Shri. J.C. Kinra, Director/ Generation
	Shri. G.K. Arora, FA & CAO / HQ
On behalf of HVPNL	Shri. P.K. Das, Managing Director

ORDER

Through the petition filed under section 10(i) (h) of Haryana Electricity Reforms Act, 1997, read with Regulation 78.1 of the Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, HPGCL has sought review and / or clarification of the Commission's order dated May 23, 2006.

The Commission vide its Memo No. 601 / HERC / SV – rev dated 11th July issued notice to HPGCL (the petitioner) communicating to them that a hearing on

its review petition has been scheduled for 20/07/2006 at 11.00 A.M. in the conference hall of the HERC. The hearing on the issues raised by HPGCL vide its review petition filed under Memo No. HPGC/FIN/Reg-205/789 dated 20/06/2006 was held as per schedule. The Commission heard the petitioner's contention on each issue at length and reserved its order. The said petition is now disposed of vide the instant order.

The factual background of the order under review and Commission's observations & order on the same is stated, hereunder.

HPGCL, a Power Generating company as defined in the Electricity Act 2003, filed on 5/12/2005, an application for determination of Generation tariff for FY 2006-07. The Commission sought additional / supplementary information required for a meaningful analysis of the filing; held public hearing and also sought the views of the State Advisory Committee (SAC). After considering the views of all the stake – holders including the interveners & SAC, the Commission passed an order on HPGCLs generation tariff for FY 2006-07, on 23/05/2006.

Pursuant to the above, HPGCL vide its Memo No. HPGC/FIN/Reg-205 / 789 dated 20/06/2006 filed an application seeking "review, reconsideration, modification, and/or clarification of the specific findings and observations made in the above mentioned order".

The issues on which HPGCL has sought review along with the grounds of review, in brief, and the Commission's order on the same are set out as under: -

1. Plant Load Factor for FTPS:

HPGCL has sought review for pegging down target PLF for FY 2006-07 determined by the Commission for FTPS (Units 1-3) from 62% to 53% i.e. 750 MUs.

The grounds of review submitted by the petitioner are that FTPS powerhouses are old with obsolete technology and size. These units operate under various constraints such as poor condenser vacuum due to receipt of poor quality raw – water which in turn affects heat transfer and restricts loading of the units to around 38-40 MW. The other constraints cited by HPGCL includes efficiency of the boilers due to low calorific value of the coal i.e. 4100 K.cal / Kg against designed value of 5500 Kcal/Kg. Further, no long term R&M works are being undertaken due to the decision of HPGCL to phase out FTPS Units in next 5 to 6 years. Resultantly, the failure rate of the equipments are increasing causing more forced outages resulting in loss of generation, increase in auxiliary consumption, increase in oil consumption and thus uneconomical running of the units.

Pursuant to the objections raised by the Commission’s staff during the public hearing held on 20/07/2006, HPGCL vide Memo No. HPGC/FIN/Reg-205/1000 dated 24/07/2006, submitted data on performance of the Units in the country with similar capacity & vintage as that of FTPS during the last four years. The details are presented in the table below:

	Capacity (MW)	Average PLF (%)			
		2001-02	2002-03	2003-04	2004-05
IP Station	3x 62.3 MW & 1 x 60 MW	37.89	28.44	35.37	42.52
Harduaganj	2 x 60 MW	40.76	41.69	38.62	26.34
Ennore	2 x 60 MW	47.89	25.76	18.79	28.66
National Average (including FTPS)		45.61	40.89	36.91	39.39

It is observed from the table that PLF of comparative machines (that are still operational) at IP Station (Delhi), Harduaganj (U.P.) and Ennore (Tamil Nadu) during the last four years ranges between 18.79% to 47.89%.

The FTPS (Unit – 1) remained under shutdown for 51 days while the same for FTPS (Unit 2 & 3) are likely to be around 45 days and 15 days respectively during FY 2006-07. Further, absence of any long – term R & M works as per the

decision of HPGCL to phase out FTPS Units in next 5 to 6 years makes the old & obsolete machines susceptible to un – anticipated breakdowns.

In the light of the above, and the fact that the shut down of FTPS Unit – 1 for about 30 days in April and 21 days in May/June FY 2006-07 due to annual overhauling, replacement and retro fitment have become 'fait accompli' at the time of filing / hearing of the review petition, the Commission decides to review its original order passed on this issue.

The Commission has left the PLF of FTPS (Units 1 to 3) determined at 62% vide its order under review un – changed. However, availability in terms of number of days of generation in respect of FTPS Unit – 1 (55 MW) has been reduced by 51 days. Resultantly, the generation target for FY 2006-07 in respect of FTPS (Unit 1) is now determined at 256.98 MUs, while the same in respect of FTPS (Units – 2 and 3) have been kept unchanged at 298.72 MUs each. Thus, for FTPS as a whole, the generation target now determined is 854.41 MUs as against 896 MUs approved in its order under review. The generation target approved as above corresponds to a PLF of marginally over 59% as against 53% proposed by HPGCL in its review petition under consideration.

Thus, the Commission accepts the review plea of HPGCL limited to the relaxation as mentioned above.

The corresponding revision in tariff in respect of FTPS (Units 1 to 3) is as per Annexure – I.

2. Transit Loss of Coal

The Commission, in its order under review, allowed normative transit loss of 2.5% for FY 2006-07 (with a directive to bring it down to 1% within a period of 3 years) as against the actual average of 4.79% reported by HPGCL. The instant review has been sought on the grounds that “dispatch and transportation of coal

is an inter – agency involvement, namely Railways and Coal Companies etc. on which the petitioner has not much control. Railways do not own responsibilities for loss of coal in transit”. Consequently, the Commission may review its order and allow transit loss of coal to minimum 3% as proposed in its tariff application.

The Commission allowed a relaxed norm of 3% to account for coal lost in transit in its previous order(s) beginning FY 2004 with a belief that such losses, which imposes avoidable burden on the electricity consumers, would be reined in. However, this was not to be. Consequently keeping in view the normative loss of 0.8% for non – pithead thermal powerhouses determined by the CERC, the Commission has set a trajectory beginning with 2.5% (down from 3%) in FY 2006-07 to gradually align it with the national norms. **Resultantly, the Commission finds no merit in HPGCL’s plea for review and rejects the same.**

3. Rate of Coal & Oil:

In its review petition, HPGCL has submitted that since its tariff application filed on 7/12/2005 the prices of coal and oil have gone up. HERC while approving the tariff rate has considered the price of coal / oil prevalent in the month of December 2005 as Rs. 2230.68/MT and Rs.19098.73/KL in case of PTPS and Rs.2522.99/MT and Rs.29,441.73 / KL in case of FTPS. The weighted average price of coal / oil in respect of PTPS and FTPS during March 2006 was as under:

Particulars	PTPS, Panipat	FTPS, Faridabad
Coal Price / MT	2294.25	2551.17
Oil Price / KL	21,306.49	28,896.95

In the light of the above, HPGCL has submitted that the latest price of fuel be considered for working out the tariff to curtail the impact of FPA (Fuel Price Adjustment) vis – a – vis cash flow.

As on date of public hearing (6th March 2006) on HPGCL's generation tariff for FY 2006-07 the latest invoices of coal / oil made available to the Commission was that of December 2005 (invoices from 1st January to 31st March 2006 were filed along with FPA application dated 16th May 2006). The allowed coal rate included coal cost, freight and 2% LADT, the allowed volume of coal was adjusted upwards to account for normative transit loss of 2.5%. The oil price was worked out as per the weighted average rate of LSHS & for PTPS and weighted average rate of HSD & LDP in respect of FTPS, HSD based on December 2005 invoices.

In the light of the above, and the fact that Para 3.9 (Page No. 43) of the Commission's order under review provides that the "allowed energy charge(s) is subject to fuel price adjustment, if any, due to changes in the price of coal / oil during FY 2006-07 with reference to the approved fuel cost indicated in table 3.8", **the Commission rejects the review plea of HPGCL and reiterates that any difference in fuel cost either due to a change in price including taxes and freight or due to change in 'mix' must be claimed by way of timely filing of FPA (Fuel Price Adjustment Petition) with proper documentary support.**

4. Interest on Working Capital:

In its review petition, HPGCL has submitted that interest on loans are hardening day – by – day, Further, as per CERC Tariff Regulations rate of interest on working capital shall be on a normative basis and shall be equal to the short – term Prime Lending Rate of the State Bank of India. Presently, the SBI – PLR is 10.75% the same should be allowed instead of 9%.

The Commission observes that HPGCL is able to raise short – term resources at sub – PLR rates i.e. about 200 to 250 basis points (1% is 100 basis points) below PLR i.e. at an average rate of 8.78% during the previous four months. As per the details provided by HPGCL vide its Memo No. HPGC/FIN/Reg-205/1000 dated

24/07/2006 the rates at which HPGCL has raised short – term resources is as under:

Bank	Date	Basis Points Below PLR	Effective Sub – PLR Interest Rate
Central Bank of India (PLR 11.0%)	6/03/2006	250	8.5%
State Bank of India (PLR 10.5%)	5/04/2006	200	8.5%
Bank of India (PLR 11.25%)	13/06/2006	255	8.7%
Bank of India (PLR 11.25%)	13/06/2006	225	9%
Central Bank of India (11.5%)	17/07/2006	230	9.2%

It is observed from the above table that the average rate at which HPGCL has borrowed short-term resources is about 8.78% i.e. lower than the allowed rate of 9%. However, as the sub – PLR rates are likely to be revised upwards due to tightening of the overall liquidity in the economy, the Commission, for working out interest cost considered interest rate @ 9%. **Thus, the Commission rejects the review sought by HPGCL for allowing SBI PLR for allowing interest on working capital.**

5. Under Recovery of Fixed Cost (PTPS Unit 3 & Unit 7):

HPGCL has sought review of the Commission's order wherein they were not allowed to recover fixed cost in respect of PTPS Unit – 3 and PTPS Unit - 7, because of the forced outage of these units in FY 2005-06. In support of the review on this issue HPGCL has submitted that Unit – 7 (250 MW) of PTPS, Panipat tripped on differential protection due to generator stator earth fault and inter turn fault on 29/07/2005. Since, the Unit was under guarantee period, BHEL

was requested to attend the fault at the earliest. The repair work was taken – up by BHEL on 6/8/2005 and the machine was repaired at BHEL, Haridwar. The Generator was received at Panipat on 19/01/2006 and is operating on its rated capacity since then. In view of the outage of Unit – 7 due to generator fault, the availability of the Unit – 7 during FY 2005-06 was reduced to 43% as against 80% approved by the Commission for recovery of capacity charges (fixed cost). Thus, the recovery of fixed cost shall be to the extent of 43%.

The Commission has carefully considered the review plea of HPGCL on this issue. In respect of PTPS Unit – 7 the Commission determined Rs.1736.84 million as fixed expenses to be recovered at a rate of Rs 1.09 per kWh of ex – bus generation of 1592 MUs. However, due to the reasons mentioned above, which the Commission believes was beyond the control of HPGCL, the generation was reduced to about 942 MUs (ex-bus 855.77 MUs) corresponding to a PLF of 43%. Resultantly, an amount of Rs. 804 million that was incurred by HPGCL on fixed cost namely O&M, depreciation, interest cost, ROE etc. remained un – recovered.

The Commission acknowledges the fact that non – recovery of cash – expenses would cause operating losses and hence financially cripple the utility which neither has any internal accrual nor sufficient ROE (as they have claimed 8% ROE as against CERC stipulated 14%) to re-coup its cash expenses in respect of un – recovered fixed cost. Considering the fact that HPGCL, a public owned power generation utility, which for long operated under ‘no profit no loss basis’ and have come under regulatory oversight fairly recently, the Commission as a one time measure allows an amount of Rs.419 million to be recovered on a monthly basis , over a period of 2 financial years viz FY 2007 & FY 2008. The Commission will, however, be constrained to limit the ROE to not more than 10% in respect of PTPS Unit - 7, as allowed in Commission's order dated May 23, 2006, as long as the above mentioned amount is being recovered. The computational details are provided in the table that follows:

Particulars (FY 2005-06)	PTPS Unit - 7
Un recovered Amount (Rs. Mln)	804
(-) Less Depreciation	297
(-) Less ROE	88
Balance (to be recovered)	419

It is evident from the table above that the Commission has disallowed proportionate depreciation (percentage depreciation & ROE in total fixed cost as per Commission's order dated May 23,2006) & ROE from the total un – recovered fixed expenses. Depreciation is disallowed as it is a 'non – cash expense' item i.e. no cash out – go from HPGCL is involved. Proportionate ROE has been disallowed as it is an element of profit and it is an established practice that 'profit' (in the instant case ROE) is appropriated to provide for any 'loss' carried over to the balance - sheet arising out of performance or non – performance of any corporate entity.

However, in the case of PTPS Unit – 3, the Commission believes that the LP rotor problem leading to forced outage of the Unit could have been avoided with better and rigorous maintenance schedule for these old machines. HPGCL should plan R&M activity on PTPS Unit 3 and implement the same in all earnestness to avoid any future loss of generation due to forced outages. **Consequently, the review petition on this issue to retrospectively peg down PLF due to reduction in availability of Unit – 3 from 65% to 23.41% during FY 2005-06 is therefore rejected.**

T.S. Tewatia
(Member)

Lt.Col (retd) Raghbir Singh
(Chairman)

In regard to Para 1 (Plant Load Factor of FTPS) and Para 5 (under recovery of fixed cost (PTPS Unit 7), I express difference of opinion as under:

1. Plant Load Factor of FTPS

The review petition seeking review of PLF of FTPS from 62% to 53% does not hold good on the grounds mentioned hereunder:

- (i) The data submitted by HPGCL vide Memo No. HPGC/FIN/Reg-205/1000 dated 24/07/2006 speaks for itself. The PLF achieved by FTPS (Units 1-3) was 67.32% (FY 2002-03); 54.88% (FY 2003 – 04) and 60.04% (FY 2004-05). Consequently, the 3 years' average works out to 60.75%. Hence, the Commission is fully justified in determining a slightly improved norm of 62%. The plea that a few other plants are performing at an average PLF of around 40% or so cannot be accepted for benchmarking purposes.
- (ii) The Central Electricity Authority (CEA), in consultation with the generator and after considering all the techno – economic constraints including coal linkage determines generation target. The generation target determined by the CEA for FY 2006-07 is 870 million units corresponding to a PLF of over 60.19%. Consequently, HPGCL's pleading for 53% defies all logic and technical rigors.
- (iii) From Regulatory perspective too, the review petition on this issue has no merit. The utilities are regulated on the basis of norms. In case the regulated utility betters the norms determined by the Regulator, it stands to gain. However, on the contrary, non – achievement of norms which in regulatory parlance is synonymous with inability to achieve the minimum required level of efficiency and consequently the resulting cost needs to be borne by the utility. The instant case falls in the latter

category. Thus, the financial losses, in all fairness, cannot be passed on to the electricity consumers of the State.

- (iv) The PLF is determined on the basis of planned shutdown. Hence forced outages is not taken into consideration for determining PLF or plant availability and never retrospectively.

2. Under recovery of fixed cost for PTPS Unit 7 (FY 2005-06):

The tariff determined by the Commission during FY 2005-06 was for recovery of fuel cost & fixed cost determined based on FY 2005-06 cost details and normative operating parameters. Thus, seeking a review for recovering an amount that remained un-recovered during FY 2005-06 in FY 2006-07 i.e. retrospectively defies all canons of regulatory principles. Resultantly, this is rejected on the following grounds:-

- (i) The generation tariff in the case of PTPS Unit – 7 is based on norms determined by the CERC. There is no provision to retrospectively revise the norms. This has an in-built incentive mechanism in case the station betters the norms and manages to reduce its cost, it stands to benefit and vice - versa.
- (ii) Further, the CERC norms, which as per the National Electricity Policy would be adopted by SERCs provide that at zero availability no fixed cost shall be recovered. As per the review petition, the unit-7 remained off the bars for 174 days during FY 2005-06 on account of generator earth fault and inter-turn fault, resultantly, fuel cost automatically gets adjusted, while only that portion of fixed cost is recovered that corresponds with the annualized PLF or in the instant case the energy available to the beneficiaries at the bus – bar. Thus, the financial loss due to non-performance of the unit, in all fairness, cannot be passed on to the electricity consumers of the State.

- (iii) The PLF is determined on the basis of planned shutdown. Hence forced outages is not taken into consideration for determining PLF or plant availability and never retrospectively.
- (iv) PTPS Unit – 7 is a new plant. It is ironical that it developed an operational snag during warranty period. Thus, HPGCL instead of seeking revenue for the period that the plant did not generate as per norms and consequently proposing to burden the consumers for the un-covered fixed cost, should explore the possibility of seeking liquidated damages from the plant & equipment suppliers / contractor and in future insists for such a clause, if it does not exist.

(T.R. Dhaka)
Member

ORDER

In terms of Section 92 (3 & 4) of the Electricity Act 2003 (Act 36 of 2003), the majority view of Lt. Col. (Retd.) Raghbir Singh, Chairman and Shri. T.S. Tewatia, Member, will be the order of the Commission.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 21st August, 2006.

Date: 21/08/2006

Place: Panchkula

T. S. Tewatia
(Member)

T. R. Dhaka
(Member)

Lt. Col. (Retd.) Raghbir Singh
(Chairman)

ANNEXURE – I

I. Revised Energy / Variable Charges for FY 2006-07 (FTPS Units 1 - 3):

Parameters	Unit	Derivation	FTPS Units 1-3
Gross generation	MU	A	854.41
Auxiliary Energy Cons.	%		12.50
Generation (Ex-bus)	MU	A1	747.60
Station Heat Rate	Kcal/kwh	B	3970
Specific Oil Consumption	ml/kwh	C	4.00
Gross Calorific Value (Oil)	Kcal/litre	D	10053
Gross Calorific Value (Coal)	K.cal/Kg	E	4225
Overall Heat	G.cal	$F=(A*B)$	3392007.7
Heat From Oil	G.cal	$G=(A*C*D)/1000$	34357.53
Heat From Coal	G.cal	$H=(F-G)$	3357650.17
Oil Consumption	KL	$I=G*1000/D=A*C$	3417.64
Coal Consumption	MT	$J=(H*1000/E)/0.975$	815087.28
Cost of Oil per KL	Rs/KL	K	29441.73
Cost of Coal (inc. LADT)	Rs/MT	L	2522.99
Total Cost of Oil	Rs .Mln	$M=(K*I)/10^6$	100.621
Total Cost of Coal	Rs.Mln	$N=(J*L)/10^6$	2056.46
Total Fuel Cost	Rs.Mln	$O=M+N$	2157.078
Fuel Cost / kWh.	Rs.	$P=O/A1$	2.8853

II. Revised Fixed Expenses for FY 2006-07 (FTPS Units 1 to 3):

EXPENSES	FTPS (Units 1 - 3)
Operation & Maintenance (O&M)	446.2
<i>repair and maintenance</i>	
<i>employees cost</i>	
<i>Administrative</i>	
Depreciation	53.73
Interest & Finance	42.5
W/C Interest*	80.0
ROE (@ 10%)	18
Total Fixed Cost (Rs. Million)	640.43
Fixed Cost (Rs/kWh)	0.8566

III. Revised Tariff for FY 2006-07 (FTPS Units 1 - 3):

Energy Charges (Rs/kWh.)	2.8853
Fixed Charges (Rs/kWh)	0.8566
Total Charges (Rs/kWh)	3.7419