# Before the Appellate Tribunal for Electricity (Appellate Jurisdiction)

#### Appeal No. 79 of 2007

#### Dated: December 11, 2007.

Present: - Hon'ble Shri H.L. Bajaj, Technical Member Hon'ble Mrs. Justice Manju Goel, Judicial Member

Punjab State Electricity Board 220 K.V. Sub Station, Ablowal Patiala Punjab-147001 Versus

- Central Electricity Regulatory Commission Through its Secretary, Core-3, SCOPE Complex, Lodhi Road New Delhi
- 2. National Thermal Power Corporation Ltd.
  Through its Senior Manager (Commercial)
  NTPC Bhawan, Core-7, SCOPE Complex
  New Delhi
- National Regional Load Dispatch Centre Through its Executive Director 18A, Katwaria Sarai New Delhi
- Northern Regional Power Committee
   Through its Member Secretary
   18A, Katwaria Sarai
   New Delhi

Counsel for the appellant: Mr. Pradeep Misra, Advocate

along with Mr. Padamjit Singh,

Advisor

Mr.V.K. Gupta, Consultant and Mr. T.P.S. Bawa, OSD/Comml. Mr. Daleep Dhayani, Advocate Mr. Manoj Kumar Sharma,

Advocate

Counsel for the respondent: Mr. M.G.Ramachandran,

Advocate alongwith Mr. Anand

Ganesan and Ms Swapna Seshadri, Advocates, NTPC

#### **Judgment**

# Per Hon'ble Mr. H.L. Bajaj, Technical Member

This appeal is preferred by the appellant, Punjab State Electricity Board (PSEB in short) against the order of the Central Electricity Regulatory Commission (CERC or the Commission in short) dated February 6,2007 in petition No. 148 of 2005.

- 2. The brief facts leading to this appeal are as below:
- 3. The appellant purchases power from Dadri Gas Power Station, Auraiya Gas Power Station and Anta Gas Power Station which have a dual fuel firing facility. Power can be generated

from these stations by combustion of either Gas or liquid fuel (Naptha/HSD) or both in certain ratio. It is much economical to deploy gas as a fuel than liquid fuel but due to shortage of gas supply the generator has to resort to liquid fuel firing also.

4. Availability Based Tariff (ABT) was introduced in the ABT has three components namely: (i) Northern Region. energy capacity charge, (2) charge and (iii) unscheduled interchange charge. The generator is required to declare its capability for the following day and the beneficiaries of the respective stations are required to requisition scheduled generation corresponding to their requirement and share in the declared capability. As these Gas Based Stations are capable of generating both on gas and liquid, capacities have to be declared for both liquid firing and gas firing by NTPC. generator gets its fixed charges recovered if it can ensure a declared capacity corresponding to 80% availability. Payment of charges is based on the Scheduled Generation. energy Deviation from the scheduled and actual generation is accounted for with the third element of tariff i.e. Unscheduled

Interchange(UI) charge. UI rates are fixed at various frequencies at which this deviation from the schedule has taken place. These UI rates have no relation to the type of fuel burnt and are totally independent.

- 5. On a petition filed by the appellant the CERC issued the following directions relevant to us on June 02, 2006.
  - "5, Upon hearing, we directed as under:
  - (a) The existing schedule, the metering and UI accounting procedure notified in terms of the Commission's notification dated March 26, 2004 shall continue to be followed strictly.
  - (b) To allay the apprehension of the petitioner regarding under declaration of gas based capacity, the first respondent shall advise the gas availability of the next day based on information available with it, which is taken for declaring the plant capacity available with gas firing. The actual gas consumed on the previous day along with gas meter readings shall also be furnished to the Northern Regional Load Dispatch Centre, on day by day basis for being duly recorded.

- 6. The above exercise shall be carried for a period upto August 31, 2006 for Dadri GPS, Anta GPS and Auraiya GPS in the Northern Region"
- 6. In the meantime report No. 8 of Comptroller and Auditor General of India was placed before the Parliament in May 2006 and subsequently it was made public. Chapter 8 of this report covers the operational performance of all the seven gas based power stations of NTPC including the three power stations from which the appellant has been getting power during the period from 1999-2000 to 2003-04.
- 7. Para 8.10.3 and para 8.10.4 extracted from the report No. 8 of 2006 of the Comptroller and Auditor General of India and are given below:
  - "8.10.3 Loss of generation due to grid restriction.
  - 8.10.3 The plant-wise comparative cost of generation using gas and alternate fuel are placed at Annexure-23. While the variable cost per unit of power generated on gas in various stations during the period from 1999-2000 to 2003-04 was within a range of 72.43 paise/unit (Gandhar, 1999-2000)

and 117 paise/unit (Faridabad, 1999-2000), the variable cost through alternate fuel was in the range of 228.93 paise (Kayamkulam, 1999-2000) and 410 paise (Dadri, 2003-04. Thus, the variable cost of generation of power on alternate fuel (Naphtha/HSD) was two to four times the cost of generation of power on gas.

8.10.3.2 As the generation of power on alternate fuel was costlier than generation of power on gas, the beneficiaries had least preference for costlier power generated on alternate fuel as per the least cost merit order, according to which the beneficiaries had the option of choosing the cheaper power and gave first preference to hydro stations and the last preference to liquid fuel generation (naptha, high speed diesel, etc). Non acceptance of the costlier power by the beneficiaries resulted in operating the plant at a PLF lower than the machine availability/declared capacity (Annexure-24). During the period from 1999-2000 to 2003-04, such loss of generation was 13586.85 MUs. Analysis of this loss showed that this trend was increasing in each gas

plant with the total loss increasing from 1521.18 MUs in 1999-2000 to 5056.73 MUs in 2003-04.

8.10.3.3 The Management stated (August 2005) that low generation from gas stations was on account of low schedules given by the beneficiaries due to their demand/supply position. They added that cost of power from these stations was much lower than the rates at which power was available from other sources such as unscheduled interchange (UI) route and purchase through trading company.

8.10.3.4 The reply is not acceptable, as beneficiaries offered their schedule keeping in view the least cost merit order for power. This is apparent from the data for year 2003-04 given in Annexure-25 which indicates that the beneficiaries preferred to place their schedule for generation capacity declared by plants on cheaper fuel i.e. gas and never placed schedule for whole of the capacity declared by the Company on alternate fuel. Further, the beneficiaries would not normally purchase costlier power through UI route

and trading option by giving up their allocation in generation of power stations.

- 8.10.4 Recovery of fixed charges without attaining normative plant load factor.
- 8.10.4.1 The tariff as fixed by CERC for sale of electricity comprised of annual fixed charges and variable charges. The fixed charges consist of interest on loan capital, depreciation, return on equity, operation and maintenance expenses and interest on working capital. The variable charges cover fuel cost.
- 8.10.4.2 In 2002-03, CERC introduced the Availability Based Tariff (ABT) system covering all the generating stations (except Faridabad and Kayamkulam). Under ABT system, the recovery of full fixed charges depended upon declaration of availability equal to 80 per cent or above by a generating station. While each generating station was required to declare its generating capacity to the Regional Load Dispatch Centre in advance, the beneficiaries placed schedule on the generating station for purchase of power by applying the least cost merit order preference.
- 8.10.4.3 Analysis of performance of the gas stations (Annexure-25), where ABT was implemented, for the year 2003-04 revealed that all the gas-based stations (except

Faridabad and Kayamkulam) recovered full fixed charges on the basis of their declared capacity, though actual generation ranged from 62.5-75 per cent. The actual PLF attained by these stations was lower than the normative PLF of 80 per cent mainly because the beneficiaries did not buy power generated on costlier fuel due to non-availability of gas.

- 8.10.4.4 Thus, the tariff fixation policy of CERC allowed the generating company to recover full fixed charges based on declared capacity, even though actual generated units were below the declared capacity. As a result, the beneficiaries had to bear an excessive charge of fixed cost to the tune of Rs.123.45 crore during the year 2003-04. This issue needs to be revisited by the GOI.
- 8. Contents of the Annexure-25 which has been referred in the above paras of the Comptroller and Auditor General of India report are also given below:

## Annexure-25

(Referred to in paras 8.10.3.4 and 8.10.4.3)

Achievement of lower PLF in 2003-04 as compared to the declared capacity for recovery of fixed charges.

Station	Installe d Capacit y (MW)	Mode of Operation	Declare d Capacit y (DC) in MUs	Per cent of DC w.r.t.instd .capacity	Fixed Charges (Rs.in crores) recover d on the basis of DC	Actual Generat ion (AG) in MUs	Per cen t Of AG w.r. t. Ins t.ca pac ity	Fixed Cost PU on the basis of DC	Fixed Cost PU on the basis of PLF	Incre ase in Fixed cost PU in Paise due to lower PLF than DC		Total higher cost borne by beneficiar ies on lower generatio n than DC (Rs. In crore)
										Paise	<u>%</u>	
		Gas	2272	62		2348	64					
		AF	826	22		424	12					
Anta	419.33	Total	3098	84	79.49	2772	75	25.66	28.68	3.02	11.76	8.36
		Gas	3250	56		3383	58					
		AF	1788	31		866	15					
Auraiya	663.36	Total	5038	86	145.11	4249	73	28.80	34.15	5.35	18.57	22.73
		Gas	4021	55		4064	56					
		AF	2175	30		996	14					
Dadri	829.78	Total	6196	85	210.96	5060	69	34.05	41.69	7.64	22.45	38.68
		Gas	3228	56		3220	56					
		AF	0	0		0	0					
Gandha r	657.39	Total	3228	56	478.93	3220	56	148.37	148.74	0.37	0.25	1.19
		Gas	1153	20		1127	20					
		AF	3752	65		2762	48					
Kawas	656.2	Total	4905	85	253.41	3889	67	51.66	65.16	13.50	26.12	52.49
			Grand	Total							1	123.45

AF stand for alternate fuel

9. The said report, it is alleged by the appellant, revealed that during the financial year 2003-04 when ABT was applicable, gaming has been done and in case of Auraiya 174.5 million units in excess of schedule were generated on gas firing and 145 million units were generated less than the schedule on liquid

firing. Similar was the position in case of Dadri GPS also. On July 17, 2006 appellant placed on record Chapter 8 of CAG report No. 8 before CERC and also calculated the difference due to gaming during the period 2003-04 showing that Auriya GPS has earned a profit of Rs. 38.81 crores due to substitution of liquid fuel by gas and in addition earned Rs. 23.93 crores through UI charges, making total gain of Rs. 62.74 crores. GPS has earned Rs. 11.50 Similarly, Dadri crores by substitution of fuel and Rs. 22.05 crores through UI charges and the total gain is of Rs. 33.55 crores. The relevant para 17 of the impugned order is extracted below:

" 17. The petitioner has further stated that C&AG report 8 of 2006 has audited the gas-based generating stations owned by the respondent for period 1999-2000 to 2003-04 the report has given figures of ACTUAL gas fired and ACTUAL liquid fired generation vis-a-vis schedule. The 'schedule' generation figures of C&AG have been cross-checked with REA and have been found to be matching. C&AG report has established that during 2003-04 Auraiya Gas generated 174.5 MUs in excess of the schedule on gas and 145 MUs less than schedule on liquid. As per this assessment, in effect, at Auraiya GPS 145 MU of liquid fuel schedule was actually achieved through gas firing. Thus, the beneficiaries were billed on liquid rate for generation done through gas. This assessment, if correct, is a serious matter, let the respondent verify this from the available records, and submit

the factual report to the Commission within one month of this order'.

10. The impugned order containing the above mentioned para 17 has led the appellant to file this appeal. The learned counsel for the appellant contended that CERC failed to give any direction to NTPC regarding supply of actual data of generation and fuel consumption along with its Gross Calorific Value (GCV) Moreover, on one hand it has directed the NTPC to submit data as directed in para 17 of the order within one month considering the seriousness of the order but on the other hand it disposed of the petition without giving an opportunity to the appellant to examine the data submitted by NTPC. He contended that NTPC is not adhering to the schedule of generation and it is not willing to supply the details of actual generation which can be worked out so that the power generated by two types of fuels can be booked to the beneficiaries on different rates. He alleged that in this gaming the NTPC is booking the power to the beneficiaries, the power generated by liquid fuel though actually generated by gas and thus in this gaming beneficiaries are overcharged.

- 11. Learned counsel for the appellant contended that it is an obligation on the regulator to take steps to stop gaming and that CERC is not helpless in procuring the data for protection of beneficiaries and ultimate consumer as extensive powers have been conferred on it by the statute and that the CERC was not justified in disposing of the petition when the data sought by it from NTPC was not furnished.
- 12. Learned counsel for the appellant emphasized that the respondent NTPC should have maintained separate data for actual generation by gas and by liquid fuel in a transparent manner. He alleged that the conclusion of CERC that ascertaining generation on gas or liquid fuel is neither possible nor necessary is wrong in the light of the C&AG report which has given details of actual and scheduled generation of gas and liquid based power separately.
- 13. Per contra, Mr. M.G. Ramachandran, learned counsel for the respondent NTPC contends that the appellant has wrongly alleged that NTPC had indulged in gaming or otherwise has recovered more than the due share of variable charges from the

appellant and that NTPC has charged due variable cost and tariff to the appellant strictly in accordance with the Regulations of the Central Electricity Regulatory Commission and also the Power Purchase Agreement/Bulk Supply Agreement entered into with PSEB for the PSEB's share of power in the gas power generating stations of NTPC including Auraiya and, therefore, there has been no breach or failure or otherwise violation of the Regulations or the Power Purchase Agreement (PPA) on the part of NTPC.

- 14. He submitted that NTPC had acted consistent with;
  - a) the quantum of power allocated to PSEB from each of the gas power stations of NTPC;
  - b) the availability of the station on gas and liquid fuel declared by NTPC and
  - c) the drawal schedule given by PSEB to NTPC for generation on such gas and liquid fuel.
- 15. He contended that the reliance made by PSEB on the observations contained in the report of Comptroller and Auditor General of India(C&AG) is totally out of context as the

Commission had duly considered the C&AG report, the submissions of NTPC on the said report and had observed in the impugned order, at para 22, as under:

- 22. As per northern Regional Power Committee (NRPC), there appears to be no fool-proof mechanism to bifurcate the actual generation into gas and liquid generation separately. C&AG report is not offering any assistance to us in resolving the issue in regard to gaming by under declaring capacity based on gas firing and thus making undue financial gains. Further, net generation may vary based on actual auxiliary consumption. On the electrical side, only the total generation of the generating units/stations can be authentically metered, and it is not possible to actually meter what energy has come from gas firing and what from liquid firing, particularly in case of mixed firing. This practical aspect has to be kept in view."
- 16. Mr. Ramachandran submitted that the affidavit filed by NTPC before the Commission dated April 9, 2007 pursuant to the directions contained in the order dated February 6, 2007 passed in petition No. 148 of 2005 (a copy of which was duly served on the appellant and others), NTPC had given full details

of the generation of electricity at Auraiya Gas Power Station using gas and liquid fuel, the declaration of capacity made by NTPC on gas and liquid fuel respectively during the relevant tariff period 2003-04, the scheduled generation on gas and liquid fuel respectively and the unrequisitioned quantum on gas during the above period. The relevant extract from the said affidavit is as under:

- 2.1 The data indicated in the CAG report regarding actual generation on gas and liquid fuels w.r.t. scheduled generation at Auraiya GPS are only estimated figures. At Auraiya, gas turbines are operated on mixed fuels i.e. gas & liquid fuel in a combined cycle mode put together in varying ratios depending on schedules. Therefore, it is not technically possible to measure generation due to gas & liquid fuel separately. Data in the CAG report are only values of generation which were estimated/apportioned by the power station.
- 2.2 The station has operated under the ABT regime based on the basis of frequency profile. The frequency profile during the year 2003-04 was as tabulated below:

Month	Avg. frequency	% duration of	%
	(In HZ) *	frequency	duration
		49.5 HZ*	of

			frequency 50 Hz*
April, 2003	50.00	13	30
May, 2003	49.96	11	28
June, 2003	49.95	14	25
July, 2003	50.05	12	35
August, 2003	48.89	20	22
September,2003	50.06	7	30
October,2003	49.93	10	18
November,2003	49.67	35	9
Deember,2003	49.71	35	15
January,2004	49.71	35	15
February,2004	49.48	55	5
March,2004	49.40	62	4

(\*as per NRLDC reports)

# 2.3 <u>Excess generation on gas during 2003-04 at Auraiya</u> GPS

- (i) DC (Declared Capacity) on gas = 3250 MUs
- (ii) SG (Scheduled Generation) on gas = 3107 MUs
- (iii) Unrequisitioned DC on gas = 143 MUs

Thus, Auraiya GPS was not scheduled fully on gas and there was a URC (Unrequisitioned Capacity) of 143 MU on gas. This unused gas was used to supplement generation under low frequency conditions. It is also seen that out of total excess generation of 174.5 MU on

gas beyond SG, estimated excess generation beyond DC on gas was only 31.5 MU which was only 0.97% of the total 3250 MUs DC on gas. This explicitly shows that NTPC had faithfully declared DC on gas and difference of 0.97% was mainly due to uncertainly in GT (Gas Turbine) loading and GCV of gas received on day-to-day basis.

### 2.4 Lower generation on liquid fuel:

- (i) DC on liquid fuel = 1788 MUs
- (ii) SG on liquid fuel = 985 MUs

The estimated generation on liquid fuel with reference to scheduled generation on liquid fuel was lower because of backing down during low demand period. It is in line with the merit order operation principles of ABT"

17. He submitted that as per the Regulations of the Commission, PSEB as well as other beneficiaries were required to give drawal schedule corresponding to capacity made available to them on gas and liquid fuel separately. NTPC's obligation under the PPA/Bulk Supply Agreement read with the Regulations of the Commission was to make available electricity to the extent of the scheduled quantum in million units by

PSEB, on gas and liquid fuel. NTPC duly made available the said capacity.

- 18. He submitted that as per the Regulations of the Commission, NTPC was required to and NTPC duly raised invoices on PSEB for the generation and supply of electricity as per the scheduled generation on gas and liquid fuel respectively given by PSEB and as stated in Regional Energy Account (REA) issued by Northern Regional Power Committed (NRPC).
- 19. In this regard, Mr. Ramachandran cited Regulation 22 of the Tariff Regulations, 2004, which provides as under:
  - " 22 Energy Charges:
  - (i) Generating stations covered under ABT

    Energy (variable) charges shall cover fuel costs and shall be worked out on the basis of ex-bus energy scheduled to be sent out from the generating station as per the following formula:

Energy Charges (Rs) = Rate of Energy Charges in Rs./kWh XScheduled Energy (ex-bus) for the month in kWhcorresponding to scheduled generation".

- 20. He asserted that in terms of the above, the bills have to be raised for energy (variable) charges for the scheduled energy corresponding to the scheduled generation. It was, therefore, appropriate, legal, valid and consistent with the Regulations for NTPC to have raised invoices for energy/variable charges based on scheduled generation on gas and scheduled generation on liquid fuel (as per REA issued by NRPC).
- 21. Mr. Ramachandran contended that there was no gaming on the part of NTPC. NTPC had duly given, the unrequisitioned declared capacity on gas in addition to the declared capacity and scheduled generation during the tariff year on gas. The excess generation during the relevant period on gas vis-à-vis the declared capacity on gas was less than 0.97% which was due to uncertainty in gas turbine loading and gross calorific value of gas received on day to day basis. The said 0.97% was well within the reasonable limit of variation and cannot be construed by any stretch of imagination as gaming.
- 22. Mr. Ramachandran submitted that the Tariff Regulations 2004, makes detailed provisions for the billing and payment of

capacity charges in Regulation 30. Note 2 to Regulation 30 dealt with the changes in the scheduled generation that could be made. Note 2 inter alia reads as under.

"Note 2.

The beneficiaries may propose surrendering part of their allocated share to other states within/outside the region. In such cases, depending upon the technical feasibility of power transfer and specific agreements reached by the generating company with other states within/outside the region for such transfers, the shares of the beneficiaries may be re-allocated by the Central Government for a specific period. When such re-allocations are made, the beneficiaries who surrender the share shall not be liable to pay capacity charges for the surrendered share. The capacity charges for the capacity surrendered and reallocated as above shall be paid by the state(s) to whom the surrendered capacity is allocated. Except for the period of reallocation of capacity as above, the beneficiaries of the generating station shall continue to pay the full fixed charges as per allocated capacity shares. Any such reallocation shall be notified by the Member Secretary, Regional Electricity Board/Regional Power Committee in advance, at least 3 days prior to such reallocation taking effect.

- (ii) The beneficiaries shall have full freedom for negotiating any transaction for utilization of their capacity shares. In such cases, the beneficiary having allocation in the capacity of the generating station shall be liable for full payment of capacity charges and energy charges (including that for sale of power under the transaction negotiated by him) corresponding to his total allocation and schedule respectively.
- (iii) If any capacity remains un-requisitionesd during dayto-day operation, the Regional Load Despatch Centre
  shall advise all beneficiaries in the region and the other
  Regional Load Despatch Centres so that such capacity
  may be requisitioned through bilateral arrangements
  either with the concerned generating company or with
  the concerned beneficiary(ies) under intimation to the
  Regional Load Despatch Centre.

The information regarding un-requsitioned capacity shall also be made available by the Regional Load Despatch Centres through their respective Websites".

23. He further submitted that the unrequisitioned capacity on gas equivalent to 143 MUs was because some of the beneficiaries did not requisition full schedule on gas and that

these beneficiaries had full freedom for negotiating and dealing with such unrequisitioned capacity as provided in note 2 quoted above. Further as envisaged in Note 2, the information concerning the unrequisitioned capacity on gas was available from the RLDC to all the beneficiaries in the region and it was open to the beneficiaries such as Punjab to enter into a bilateral arrangement with the beneficiaries whose capacity on gas was not fully requisitioned. PSEB did not follow the above process provided in the Regulations.

24. He asserted that, in the circumstances mentioned above, NTPC had no obligation under the Regulations or under the PPA to invoice PSEB for the scheduled generation of PSEB in the manner suggested by PSEB and the invoices raised by NTPC based on the quantum scheduled by PSEB on gas and liquid fuel respectively was correct and the appropriate way as provided in the applicable Regulations and that the challenge of PSEB to the action of NTPC is without any merit whatsoever. He submitted that the Commission had duly appreciated the difficulty of the bifurcation of the actual generation into gas and liquid fuel while

considering the C&AG report and observing that in this context the C&AG report does not offer any assistance. He submitted that PSEB is making unwarranted allegations on NTPC allegedly based on observation contained in the C&AG report. The matter has been appropriately examined by the Commission

25. The Commission, in its written submission, has confirmed that it had directed the second respondent to verify from the available records as to whether the beneficiaries were billed on liquid rate of generation done through the Gas. This was to satisfy the Commission through a factual report based on the available records so that the beneficiaries were not billed liquid rate for the generation done through gas. This direction was issued in the interest of the beneficiaries and the ultimate consumers and in no way it compromises the requirement to in the discharge of observe transparency Commission's statutory functions. It has been stated by the Commission that even the disposal of the petition in the Impugned order does not prohibit the Commission to take suo moto cognizance of gaming or any lapse, based on the factual report and issued necessary directions to the second respondent. The factual report was submitted by the second respondent, NTPC and a copy of the report was supplied to the appellant. The Commission, in its written submission has stated that the appellant has not pointed out any deficiency or errors in the factual report filed by the second respondent despite liberty granted to the appellant in the Commission's letter of June 7, 2007 and even in the proceedings before the Tribunal, the appellant could not fault with the correctness of the factual details furnished by the second respondent.

26. The Commission has contended that the appellant has not brought any material on record which would prove that the second respondent had resorted to gaming as alleged and that the only material relied upon by the appellant was the C&AG Report 8 of 2006 for the period 1999-2000 to 2003-04. As per the C&AG report, during 2003-04, Auraiya Gas Station generated 174.5 MUs in excess of schedule on gas and 145 MUs less than schedule on liquid. The Commission had taken cognizance of the assessment in C&AG report and issued

directions to the second respondent, to submit a factual report based on available records. The Commission has submitted that it also took note of the discussions of the NRPC Forum and came to the conclusion that actual generation on gas and liquid fuel could not be measured separately. Moreover, the Commission was aware that gaming could be proved only after comparing the schedule and actual generation in a time block of minutes in accordance with the scheduling procedure Indian Electricity Grid Code (IEGC). specified in The Commission had come to the conclusion that the report of the C&AG could not offer any assistance to take a view on the alleged gaming by the generator. The Commission in para 22 of its Impugned order had observed as under:-

"22 As per Northern Regional Power Committee (NRPC), there appears to be no fool-proof mechanism to bifurcate the actual generation into gas and liquid generation separately. C&AG report is not offering any assistance to us in resolving the issue in regard to gaming by under declaring capacity based on gas firing and thus making undue financial gains. Further net generation may vary based on actual auxiliary

consumption. On the electrical side, only the total generation of the generating units/stations can be authentically metered, and it is not possible to actually meter what energy has come from gas firing and what from liquid firing, particularly in case of mixed firing. This practical aspect has to be kept in view."

27. The Commission submitted that since the source of figures relied upon in the report of C&AG was not known, it directed the second respondent to verify the figures from its available records and submit a factual report to it. On scrutiny of the factual report submitted by the second respondent vide its affidavit dated April 9, 2007 the Commission noticed that the data indicated in the C&AG report regarding actual generation on gas and liquid fuel with reference to scheduled generation at Auraiya Gas Station was merely an estimation on yearly basis. The gas turbines at the generating station are operated on mixed fuel of gas and liquid fuel in varying ratio, depending on the schedule on respective fuels. It is, therefore, technically not possible to measure the actual generation on gas and liquid The Commission further noticed that even fuels separately.

though there was generation of 174.50 MU in excess of schedule on gas during 2003-04, the beneficiaries did not requisition a quantum of 143 MUs which is evident from the difference between the declared capacity (3250MU) and scheduled generation (3107MU) on gas during the year. The Commission submitted that this is not correct that the second respondent was declaring less capacity on gas than it was capable of generating based on the available gas. Since the generating company is allowed to supplement the generation up to the declared capacity under low frequency conditions, case of gaming against the second respondent based on the figure in the C&AG's report could not be made out.

28. The respondent Commission has contended that the appellant does not have a justifiable grievance and the appeal is liable to be dismissed.

### Analysis and decision.

29. Gravamen of the appellant is that the respondent No. 2, by under declaring the generation capacity on gas and declaring

over capacity on liquid, while actually generating more on gas and less on liquid, has recovered more than the due share of variable charges from the appellant.

- We observe that main thrust of C&AG report particularly 30. in the context of Annexure 25 is to record that per unit fixed cost has gone up due to reduced generation. For example in Auraiya station, though the declared capacity was 86%, generation is to the extent of 73% with respect to the installed Due to reduced generation, per unit fixed cost of capacity. electricity has gone up from 28.80 paise to 34.15 paise, thereby the beneficiaries had to bear additional burden of Rs. 22.73 crores. This does not point out to any gaming by the respondent This does suggest that sufficient gas needs to be generator. arranged so that beneficiaries requisition more electricity from Gas Turbine Stations which will improve capacity utilization and thereby reduce per unit fixed cost.
- 31. We observe that though the declared capacity by the second respondent for Auraiya Gas based power station was 3250 MUs, there remained an unrequisitioned capacity on gas to the extent of 143 MUs. It was well open to the beneficiaries to

exhaust the available generation capacity on gas before opting for the liquid fuel generation capacity. The records produced by the respondent show that low frequency conditions prevailed varying from 7% to 62% of the time during the year 2003-04 as per NRLDC report. It is during the low frequency conditions that the generators are expected to generate to their maximum capacity in order to help the system approach 50 Hz. Frequency. The total excess generation by the respondent has been 174.5 MUs on gas beyond the scheduled generation of 3107 MU which means that the estimated excess generation beyond the declared capacity of 3250 MU on gas was only 31. 5 MUs which is less than 1% of the total 3250 MUs declared capacity on gas. We are satisfied that this extent of deviation is well within the practical limits as this difference could be ascribed to the varying Gross Calorific Value (GCV) of gas received on day to day basis. The consumption of gas is also dependent upon the loading of the gas turbine and the prevailing system frequency which varies the out put of the gas turbine per se.

32. The Commission is not powerless to conduct surprise checks to ensure that the generator does not resort to gaming.

We are satisfied that the Commission has duly taken care and

ensured that there is no suspicion of gaming in this case.

33. In view of the various contentions advanced by the

respondents and the aforesaid discussions we do not find any

justification in the contentions of the appellant and, therefore,

do not allow the appeal.

(Mrs. Manju Goel)
Judicial Member

(Mr. H.L. Bajaj) Technical Member