

Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal No. 26 of 2008

Dated: 7th April, 2011

**Present: Hon'ble Mr. Justice M. Karpaga Vinayagam,
Chairperson
Hon'ble Mr. Rakesh Nath, Technical Member**

In the matter of

**Indraprastha Power Generation
Company Limited
Himadri
Rajghat Power House Complex
New Delhi-110002**

... Appellant(s)

Versus

**1. Delhi Electricity Regulatory
Commission (DERC)
Viniyamak Bhawan, C Block
Shivalik, Malviya Nagar
New Delhi**

**2. Delhi Transco Ltd.
Kotla Road,
New Delhi-110002**

**3. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Place
New Delhi**

**4. BSES Yamuna Power Ltd.
Shakti Kiran Vihar
Karkardooma
Delhi**

**5. North Delhi Power Limited
Sub Station Building, Hudson Lines
Kingsway Camp
Delhi-110009**

....Respondent(s)

Counsel for Appellant(s): M.G. Ramachandran
Mr. Anand K. Ganesan
Ms Swapna Seshadri

Counsel for Respondent(s): Mr. R.K. Mehta
Mr. Lakhi Singh for R-1
Ms Poonam Verma for NDPL
Mr. Antaryami Upadhyay
Ms Sakie Jakharia for R-4
Mr. Asthana for DERC
Mr. Anis Garg
Mr. Amit Kapur

JUDGMENT

**PER HON'BLE MR. JUSTICE M. KARPAGA VINAYAGAM,
CHAIRPERSON**

1. Indraprastha Power Generation Company Limited is the Appellant herein.

2. Aggrieved by the impugned Order passed by the Delhi Electricity Regulatory commission (State Commission) dated 14th December, 2007, deciding on various aspects on determination of the Annual Revenue Requirements and tariff applicable to generation and sale of Electricity by the Appellant, for Multi Year Tariff (MYT) period 2007-2008 to 2010-2011 and truing-up for the year 2006-07, the Appellant has filed this present Appeal. The facts are as follows:

(a) The Appellant is a generating Company owned and controlled by the Government of National Capital

Territory of Delhi. The Appellant generates the electricity and supplies to the distribution licensees in Delhi. The Generating Stations owned and operated by the Appellant are (1) Indraprastha Thermal Power Station; (2) Rajghat Power House; and (3) Indraprastha Gas Turbine Power Station.

(b) On 10.8.2007, the Appellant filed a Petition before the State Commission for determination of its Annual Revenue Requirements and Generation tariff for the Multi Year Tariff Period 2007-2008 to 2010-2011 and for truing-up for the period 2006-2007. After hearing the parties, the State Commission passed the impugned order dated 14.12.2007, disallowing some of the claims made by the Appellant.

In the meantime, the Appellant as against the earlier order passed by the State Commission, in

respect of 2006-07 had filed and an Appeal No.81 of 2007 before this Tribunal. When the present proceedings before the State Commission was inquired into, the said Appeal before the Tribunal was pending.

(c) Since some of the issues in both the proceedings before the State Commission in respect of MYT period as well as in Appeal No.81 of 2007 in respect of the earlier period, before this Tribunal were common, the State Commission while passing the impugned order dated 14.12.2007, observed that “this order shall be subject to the final outcome of Appeal No.81 of 2007 before the Appellate Tribunal for Electricity”.

(d) Ultimately, the Appeal No.81 of 2007 was disposed of by this Tribunal by the order dated 10.1.2008 deciding some of the issues raised in this Appeal in favour of the Appellant. Though the

Appellant has raised various issues in this Appeal at the time of filing the present Appeal, the Appellant had restricted this Appeal only to some of the specific issues relating to MYT tariff period 2007-08 to 2010-11. They are given below:

- (i) Availability/Plant Load Factor;
- (ii) Coal Transit Loss;
- (iii) Operation & Maintenance Expenditure;
- (iv) Station Heat Rate and Auxiliary Consumption

3. On these issues, the detailed arguments have been advanced by the Learned Counsel for both the parties.

4. Let us consider the issues one by one. First issue is relating to the Availability/Plant Load Factor. On this issue, the relevant question raised is as follows:

5. Whether the State Commission while determining the tariff of the Appellant has failed to consider the non achievability of Higher Plant Load Factor/Availability for Indraprastha Power Station and Gas Turbine Power Station due to reasons beyond the control of the Appellant?

6. According to the Appellant, the State Commission has fixed the Availability for the Gas Turbine Power Station and the Indraprastha Station of the Appellant higher than as prayed for by the Appellant as mentioned in the following table:

Generating Stations	Target Availability fixed by the State Commission	Target Availability as Prayed by the Appellant
Gas Turbine Power Station	70%	64.77%
Indraprastha Station	45%	43.82%

7. According to the Appellant the above determination of availability is on a higher level than that is possible to achieve by the Appellant on account of factors beyond the control of the Appellant. In reply to the above contention, the Learned Counsel for State Commission submits that the availability of parameters were fixed by the State Commission as per the MYT Regulations, 2007 and as such the parameters decided on the basis of Regulations cannot be challenged.

8. It is not disputed that the Indraprastha Station of the Appellant is more than 38 years old and the same has been under a proposal to be closed. It is stated that in view of the proposed closing down, no repair and maintenance work expenditure was undertaken during the year 2007-08, 2008- 09 and 2009-10. Looking on the cost benefit analysis, it is prudent to allow the Plant to run on whatever best possible Plant Load Factor instead

of wasting expenditure on extensive repair and maintenance etc.

9. In this context, the Learned Counsel for the Appellant brought to our notice of the judgment of this Tribunal decided in Appeal No.81 of 2007 directing the State Commission that the operating parameter of station heat rate has to be allowed on actual, taking into consideration of the imminent closing down of the Station. The relevant portion of the observation in that judgment is as follows:

“12) Heat Rate: The Petitioner could not submit the design heat rate for IP Station which was nearly 38 years old. The CEA norms, for station heat rate is based on the design heat rate. Therefore, the Commission could not employ the CEA norms for the station heat rate of the IPTPA station. Accordingly, the Commission retained the approved figure of 3235 Kcal/kWh which was agreed to by the petitioner inline with the draft PPA submitted by Transco along with ARR Petition for 2004-05. The petitioner submitted

before the Commission that in order to comply with the directions of Delhi Pollution Control Committee IPTPA Station was proposed to be closed down and therefore no R&M expenses could be taken for improvement or even for maintaining the same station heat rate. We are informed during arguments that the final decision to close down was taken after the end of 2006-07. The final closing will be in 2010. In view of this situation, it will only be fair for the Commission to bear with the station heat rate which the appellant has been able to achieve for this station during the period in question”

10. The Learned Counsel for the Appellant has also brought to our notice 2010 ELR (APTEL) 591 i.e. Haryana Power Generation Corporation Limited v. Haryana Electricity Regulatory Commission wherein this Tribunal dealt with the issues relating to Stations which were under imminent closure of Plant. The relevant portion is as follows:-

“11. We are inclined to agree with the plea of the Appellant that as the plant is slated to be decommissioned in 2011, it would not be possible

to spend considerable amount of money for improving norms and parameters. State Commission has specified improved norms on the expectation that the performance will improve due to refurbishment undertaken by the Appellant. But when no such action, in view of the impending retirement, has been taken, how the improved performance can be expected. In view of this, we allow the Appeal in respect of specific oil consumption for FTPS'

11. In the light of the above observations, the submission made by the Appellant requires consideration. It is stated by the Appellant that the Indraprastha Station was more than 38 years old and the Station has long outlived its life and has now been closed down in the month of December, 2009. In view of the above, only need based maintenance was being carried out to ensure that generating Plant did not come to a complete halt. Despite all efforts, the Indraprastha Station was able to achieve an availability factor of only 42.64% for the year 2008-2009 and 33.43% for the year 2009-2010. On that

basis, the Appellant prays for allowing the actual Plant availability.

12. The learned counsel for the State Commission has argued that the availability has been fixed in the Multi Year Tariff Regulations, 2007 and the Appellant having not challenged the Regulations, challenge to the parameters in the appeal against the MYT tariff order is not permissible. On the other hand, the learned counsel for the Appellant has argued that the State Commission has been vested with power to relax under its Regulations and looking into the circumstances of the case, the State Commission ought to have exercised its power to relax.

13. We will now examine if the circumstances of the case justify the invoking its power to relax by the State Commission. This Tribunal in its Judgment dated 25.3.2011 in Appeal No. 130 of 2009, Ratnagiri

Gas and Power Private Ltd. vs. CERC & Ors. has held the following regarding exercise of power to relax:

“10.7. The above Regulations and the decision give the judicial discretion to the Central Commission to relax norms based on the circumstances of the case. However, such a case has to be one of those exceptions to the general rule. There has to be sufficient reason to justify relaxation. It has to be exercised only in exceptional case and where non-exercise of the discretion would cause hardship and injustice to a party or would lead to unjust result. In the case of relaxation of the Regulations the reasons have to be recorded in writing. Further, it has to be established by the party that the circumstances are not created due to act of omission or commission attributable to the party claiming the relaxation”.

14. In the present case Indraprastha Station is more than 38 years old nearing closure. In fact the power plant has since been retired in the year 2009-10. In view of this there was no proposal to renovate and modernize the plant and only need based maintenance was being carried out to ensure that the plant did not come to complete halt before the scheduled date of retirement. In our opinion, the circumstances of the case justify relaxation of availability parameters for Indraprastha Station. Accordingly, the State Commission is directed to reconsider the issue by exercising its power to relax under the Regulations.

15. With regard to the Gas Turbine Station, the State Commission has determined the Target Availability of 70% as against 64.77% proposed by the Appellant. The Appellant had proposed lower Target Availability on account of severe shortages of gas prevalent and consequent non-availability of fuel to generate electricity

and frequent tripping of the transmission system and large number of backing down by the system. It is submitted by the Appellant that under the circumstances, the loss of generation on account of non availability of gas is reason beyond the control of the Appellant and as such the non availability of fuel is a force majeure event.

16. In respect of this issue, the Appellant has pointed out to this Tribunal's decision in Appeal No.81 of 2007, while dealing with the issue of shortage of gas. In this judgment this Tribunal directed the State Commission that shortage of gas which is beyond the control of the Appellant ought to have be taken into account while determining the revenue requirements and the tariff. The relevant portions of the observations are follows:

“15) The impugned order shows that the petitioner had sufficiently canvassed its case of shortage of gas caused by the cuts imposed by GAIL. The Commission has not analyzed in the

impugned order the affect of such cuts on the station heat rate of the IPGTPS Station. Even if the other factors mentioned in the 'Director's report' above are ignored the shortage of gas should have been taken into account by Commission because this is not within the control of the appellant. We, therefore, feel that the Commission needs to carry out this exercise afresh so far as the station heat rate of IPGTPS is concerned. The Commission will now refix the target heat rate for the IPGTPS from 2006-07 after taking into consideration the shortage of gas as well as the factor mentioned in the Directors report as indicated in Para 7 above. Consequent benefit be given to the appellant in the truing up and in the subsequent tariff order”.

17. The State Commission in its impugned order dated 14.12.2007 has recorded the following in regard to plant load factor for Gas Turbine Station:

“ 4.209 The Commission has directed the Petitioner to make proper arrangements for supply of gas by entering into suitable contracts for sourcing of gas and optimizing the gas already available for GTPS and PPCL.

4.210 *The Commission in the Tariff Order for PPCL issued on September 22, 2006 had given the following directions to the Petitioner to optimize use of the gas in the gas based power plants:*

- (a) The Commission directed the Petitioner “to make all out efforts to arrange for additional gas at competitive rates to optimally utilize the installed capacity”*
- (b) The Commission also directed that: “usage of gas between PPCL and IPGCL should be so coordinated so as to avail the full quantum of gas from the gas supplier viz. GAIL. If required, the contracts for supply of gas may be restructured or the restructuring of the generating companies may be considered, so as to include all generating assets based on gas to be combined under the company while*

coal based generation could be under another company”.

4.211 *The Commission is of the view that given the projected demand for energy from Delhi in the near future, it is imperative that all available generating capacity of Delhi be utilized optimally and demand met to the extent possible. It has therefore, approved the PLF of 70% for recovery of fixed cost and for calculation of gross generation, fuel quantity and variable cost to be approved for the Control Period.”*

18. Also the State Commission in its order dated 20.7.2009 against the petition of the Appellant for review of its order dated 14.12.2007 has recorded as under in regard to Plant Load Factor for IP Gas power station:

“The Commission has observed that in its earlier Order dated 22.09.2006 it had given unambiguous direction to the Petitioner to make all efforts to arrange for

additional gas at competitive rates and also to optimize the use of gas between GTPs and PPCL. The Petitioner has not submitted any details on the action taken by it in this regard. The Commission further noticed that due to the inability of the Petitioner to improve its functioning, the Steam Turbine Generator # 2(STG2) of GTPS has not been functioning since 14.12.2006, and has been recommissioned only very recently after a gap of nearly 22 months. The very purpose of adopting a normative PLF is to provide incentive to the utility to improve performance to earn the stipulated return/incentives and at the same time ensuring that recipients of power also pay an appropriate tariff.

Further, regarding the issue of frequent grid tripping, the Commission is of the considered view that the normative parameters of availability, Station Heat Rate etc. as prescribed in the Regulation/Order takes into account the conditions of operation in the grid and,

therefore, such normative parameters do not need any correction of routine tripping of the transmission lines. Grid disturbances, it has to be noted, is far and few after the introduction of ABT in November, 2002. In order to verify the claims presented by Petitioner, the Commission has analysed the monthly power data of Delhi SLDC for the month of January, 2008, which contains information for the period of 01.04.2007 to 31.01.2008. It has been noticed that there have been 304 instances in this period which caused outage of the various units of GTPS, resulting in a cumulative loss of 4146.08 hrs. of outage of different machines. Of the 304 instances of outages, only 17 instances accounting for 22.70 hrs. (0.55%) of outages were due to grid disturbances. Hence, the Commission is of the view that frequent grid tripping as cited by the Petitioner is not valid enough to consider relaxation in PLF for the GTPS.”

19. Thus the State Commission has analysed that there were only 17 instances of outages for reasons attributable to grid disturbances out of total 304 outages during the period 1.4.2007 to 31.1.2008 contributing to only 0.55% of the outage time. Further, Steam turbine No. 2 was under outage for nearly 22 months w.e.f. 14.12.2006. The Appellant had also been given directions in the year 2006 to optimize use of gas between IP Gas Station and Pragati Station of the Appellant and make arrangements for dual fuel fixing at IP Gas Turbines. According to the Appellant the use of liquid fuel could be possible at IP Gas station only in the year 2008-09 after necessary modifications to use liquid fuel by incurring capital expenditure duly approved by the State Commission were completed. With the provision of dual fixing at IP Gas Power Station the problem of non-availability due to shortage of fuel has been overcome.

20. In view of above we are of the opinion that the Appellant has not been able to establish its claim for consideration of relaxed availability norms for the IP gas station invoking the power to relax vested with the State Commission in terms of its Regulations.

21. The next issue is of Coal Transit Loss. The relevant question is as follows: *“Whether the Coal Transit Loss must be 0.8% as allowed by the State Commission following the Central Commission’s norms or should it be 3.8% as claimed by the Appellant?”*

22. According to the Appellant, the State Commission has allowed a normative coal transit loss of 0.8% by holding that the same is nationally accepted loss level as prescribed in the Tariff Regulations of the Central Commission. It is noticed that the State Commission has rejected the claim of the Appellant merely on the ground that NPTC had not challenged the coal transit loss for the

Dadri and Badarpur Stations which requires the same washing of coal. As pointed out by the Learned Counsel for the Appellant, the ground that the NTPC had been allowed only 0.8% coal transit loss and the same had not been challenged by the NTPC cannot be the valid ground to deny the claim of the Appellant. The important aspect that the State Commission has failed to consider is that the transit loss cannot be the same both for unwashed and washed coal. The weight of the coal at the time of loading is significantly increased due to higher moisture content which evaporates during transit and storage. We notice that the State Commission has not given a reasoned order regarding transit loss. Instead of examining the transit loss in case of the Appellant's power station the State Commission has noted that the use of washed coal is likely to improve the functioning of the plant. This matter, therefore, needs reexamination. Therefore, the State Commission is required to determine the actual coal transit loss in respect of the Appellant's Power Station

without comparing the coal transit loss with the NTPC.

This point is answered accordingly.

23. The next issue is Operation and Maintenance Expenditure Escalation. The relevant question is this: Whether the base operation and maintenance expenses should be the amount for the year 2006-2007 as per the normal practice or should it be the average of the figures of the year 2005-2006 and 2006-2007 as stated by the State Commission?

24. The State Commission has restricted the claim of the Appellant for operation maintenance expenditure based on the average on the normative operation and maintenance expenditure allowed for the year 2005-2006 and 2006-2007 with escalation of 4%.

25. According to the Appellant, in terms of the Tariff Regulations, the actual expenditure incurred in the

previous year and the projections for the multi year period have to be taken into account but the same has not been done by the State Commission. The relevant Regulation is as follows:

“6.30 Existing Generating Station: The Appellant shall submit details on O&M expenses as required by the Commission. The O&M expenses for the Base Year shall be determined based on the latest audited accounts/actual, estimates of the Generating Company for the relevant years and other factors considered relevant”.

26. It is submitted by the Appellant that the State Commission has not correctly applied this Regulation to determine the tariff maintenance expenditure for the multiyear tariff period 2007-2008 to 2010-2011. The State Commission has only taken the average of previous two years as against the operation maintenance expenses for the base year, determined on the basis of the audited/actual data. Further, the State Commission is also required to take into consideration, the estimates of

the generating Company for the future years. According to the Appellant, none of the facts as required to be considered in terms of those Regulations has been taken into consideration by the State Commission. In addition to this, the assessment report of the Central Electricity Authority recommended a transition period of three to five years to be allowed to the Appellant to reach the norms specified. In the absence of the transition period, the Appellant is not in a position to achieve the norms as determined.

27. That apart, the 6th Pay Commission's recommendations is said to have been implemented by the Appellant. Due to this, the employees' cost got increased. In the impugned order, the State Commission had accepted this claim and assured to allow the employees' cost subject to its implementation. It is now pointed out that the said recommendations have been actually implemented by the Appellant. Hence the State

Commission is directed to allow the said cost at the requisite level. We have noticed that the State Commission has already decided in its order dated 20.7.2009 that the appropriate escalation should be applied on the base year operation and maintenance expenses. Further, according to the learned counsel for the State Commission the increase as per 6th Pay Commission Report will be given effect on actual basis as early as possible. Accordingly, we direct to give effect to the appropriate escalation in the base year expenses based on actual/audited expenditure and increase due to 6th Pay Commission Report at the earliest.

28. The next issue is Station Heat Rate and auxiliary power consumption. The Appellant has contended that the State Commission has set the norms for heat rate and auxiliary consumption at much lower level than can be achieved. On the other hand the Respondent/State Commission's contention is that the norms have been as

per MYT Regulations, 2007 which have not been challenged.

29. Let us first take up the issue of heat rate and auxiliary consumption for Indraprastha Station. On this issue, this Tribunal has already held in Appeal No.81 of 2007 dated 10.1.2008 that the State Commission ought to have taken note of the Heat Rate of the Appellant in view of the relevant portion of the observations in the said decision which is as follows:

“12) Heat Rate: The Petitioner could not submit the design heat rate for IP Station which was nearly 38 years old. The CEA norms, for station heat rate is based on the design heat rate. Therefore, the Commission could not employ the CEA norms for the station heat rate of the IPTPA station. Accordingly, the Commission retained the approved figure of 3235 Kcal/kWh which was agreed to by the petitioner inline with the draft PPA submitted by Transco along with ARR Petition for 2004-05. The petitioner submitted before the Commission that in order to comply with the directions of Delhi Pollution Control

Committee IPTPA Station was proposed to be closed down and therefore no R&M expenses could be taken for improvement or even for maintaining the same station heat rate. We are informed during arguments that the final decision to close down was taken after the end of 2006-07. The final closing will be in 2010. In view of this situation, it will only be fair for the Commission to bear with the station heat rate which the appellant has been able to achieve for this station during the period in question”

30. It is submitted that the auxiliary consumption in the IP Station is relatively high due to the low Plant Load Factor achieved by the said Station. In the absence of any major repair and maintenance works and in the light of the decision to close down the Plant by the year 2010, a higher auxiliary consumption is beyond the control of the Appellant.

31. With regard to Gas Turbine Station, it is contended by the Appellant that the turbines are 23 years old and the designed heat rate in single cycle mode is 3188

kCal/kWh. Further, taking into account the correction factor of 5.70% on the guaranteed heat rate, as recommended by the Central Electricity Authority, the corrected mode works out to be 3370 kCal/kWh.

32. According to the Learned Counsel for the Respondent, instead of challenging the MYT Regulations which were framed in the year 2007, the Appellant has now challenged the parameters as if they are not achievable, which is not permissible under the law. We are unable to accept this contention as the State Commission has power to relax in Regulations. The above aspect has been dealt with in the judgment in the decision rendered by this Tribunal in 2007 APTEL 7, NTPC Limited v Madhya Pradesh State Electricity Board and Judgment dated 25.3.2011 in Appeal No. 130 of 2009, Ratnagiri Power Company Ltd. vs. CERC & Ors. However, we have to examine the circumstances justifying invoking of power to relax.

33. As regards station heat rate and auxiliary consumption for the IP Station, in view of decision to close down the station and our findings on relaxation of availability norms, we feel there is a case to relax norms by the State Commission in exercise of its power to relax under its Regulations. In case of Rajghat and Indraprastha Gas Station the Appellant has not been able to give sufficient reasons for relaxation in norms with respect to MYT Tariff Regulations. On the other hand the State Commission has given a reasoned order. The reasons recorded by the State Commission in the impugned order in respect of Auxiliary Consumption and Station Heat Rate for Rajghat Power Station are as under:

“ 4.105 The Commission had approved auxiliary consumption of RPH to be 11.28% for FY 06 and FY 07 considering the Petitioner’s commitment to achieve the same, which was committed to by the Petitioner during

the ARR and tariff determination process for FY 05, as detailed in the Tariff Order for IPGTCL for FY 05 issued on June 9, 2004.

4.106 In view of the above, as well as the previous commitment of the Petitioner, the Commission has approved the auxiliary consumption of RPH during the Control period as 11.28%.”

“4.111. The Commission notes that the Petitioner has not specified any reason for request of relaxation of heat rate of the RPH, as the ageing refers to IP Station and the gas supply constraints are valid for the GTPS.

4.1.1.4 The Commission has also approved the capital expenditure plan and approved sufficient R& M Expenses for Rajghat Power House. In addition, the Commission had specified the SHR in MYT Regulations, considering the existing condition of the

plant. Hence, the Petitioner's claim for further relaxation without any suitable justification does not merit consideration".

34. Similarly, the reasons recorded by the State Commission in the impugned order in respect of Station Heat Rate for Indraprastha Gas Station are as under:

"4.217 The Petitioner has specified no reason for the request in relaxation of SHR during the Control Period, as part of its MYT Petition. The Commission raised the issue during the public hearing process, asking for suitable justifications. Further, the Commission does not expect the plant to be operated in open cycle mode frequently, which should be resorted to only during emergencies. This makes it even more necessary to maintain the WHRU in proper condition.

4.218 *Since no cogent reason has been provided by the Petitioner, the Commission has retained the SHR values as specified in the MYT Regulations, which was also agreed to by the Petitioner in line with the PPA submitted by TRANSCO”.*

35. The data sheet submitted by the Appellant in I.A. No. 13 of 2009 indicates heat rate for 30 MW gas turbine with age more than 10 years in combined cycle mode, which is the normal operation, as 2200 kCal/kWh. Against this the State Commission has allowed a higher Station Heat Rate of 2450 kCal/kWh.

36. In view of above, we do not find any reason to interfere with the findings of the State Commission with respect to station heat rate for Indraprastha Gas Station and auxiliary consumption for Rajghat Power Station.

37. In view of the discussions made above, we allow the Appeal partly and set aside the order impugned on the issues as noted above and remand the matter to consider and decide the issues referred to above afresh in light of the above findings and also on the basis of the materials placed by the parties concerned. No order as to costs.

(Rakesh Nath)
Technical Member

(Justice M. Karpaga Vinayagam)
Chairperson

Dated: 7th April, 2011

REPORTABLE/NON-REPORTABLE
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