Before the Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal No.42 of 2007

Dated: May 12, 2008.

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

M.P. Power Trading Company Ltd.
(Erstwhile M.P. State Electricity Board)
Block No. 2, Ground Floor, Shakti Bhawan
Rampur
Jabalpur-842008 .....Appellant(s)

versus

1. Central Electricity Regulatory Commission
Through its Secretary
7th floor, Core-3, SCOPE Complex
Lodhi Road, New Delhi-110003

2. Narmada Hydroelectric Development
Corporation Ltd. (NHDC)
(A JV of NHPC & GOMP)
2nd Block, 5th floor Arera Hills
Bhopal-462011

3. Narmada Valley Development Corporation Ltd
(through Principal Secretary)
Government of Madhya Pradesh
Mantralaya Vallabh Bhawan
Bhopal-462004 .....Respondents

Counsel for Appellant(s): Mr. Pradeep Misra with
Mr. Daleep Dhayani, Advocates
Mr. A.K. Garg for Resp.MPPTC
Mr. D.D. Khandelwal, Advocate

Counsel for Respondent(s): Ms Suparna Srivastava,Advocate
for Resp. No. 2
Mr. S.C. Bera, Jt.Chief (Finance)
Mr. B. Sree Kumar Asstt.Chief(L)
for CERC
Ms Nidhi Minocha for Resp.2
Mr. S.K. Khiani,OIC,NVDD,GOMP
Mr. Harish Aggarwal, CE, NHDL
Mr. R.P. Pathak, CE, NHDC
for respondent No. 2
Mr. Devendra Saluja, AC(E)
Mr. A. Niraj Kumar, DC(F)
Mr. Rahul Srivastava, Advocate
Mr. T. Rout, Jt.Chief (Legal)

J U D G M E N T

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

Appellant has challenged the order dated February 06, 2007 of the Central Electricity Regulatory Commission (CERC or the Commission in short) in Petition No.119/2005, under which the tariff for the period January 14, 2004 to March 31, 2004 and April 01, 2004 to March 31, 2009 of Indira Sagar Hydro Electric Project (ISP in short) of Narmada Hydro Development Corporation, (NHDC in short) was determined.

2. CERC vide the impugned order had determined the tariff of the Indra Sagar HEP in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as the Tariff Regulations, 2004). Aggrieved by the said order, the appellant has raised the following issues in the appeal.

ISSUE 1: Date of commercial operation of various units of ISP

ISSUE 2: Debt-Equity-Ratio

ISSUE 3: Advance against depreciation

ISSUE 4: Infirm Power.

3. We now proceed to discuss and decide each of the above three issues.

ISSUE 1: DATE OF COMMERCIAL OPERATION OF VARIOUS UNITS OF ISP.

4. NHDC has claimed the following Dates for Commercial Operation(COD in short) of various units which have been approved by CERC and accordingly tariff was determined.

Machine No.	Actual COD	From 14.01.04 to 31.03.04 (MW)	From 27.07.04 to 31.03.05 (MW)	From 26.08.05 onwards (MW)
Machine 1	14.01.2004	82.81	106.82	125
Machine 2	18.01.2004	82.81	106.82	125
Machine 3	06.03.2004	82.81	106.82	125
Machine 4	29.03.2004	82.81	106.82	125
Machine 5	27.07.2004		106.82	125
Machine 6	07.01.2005		106.82	125
Machine 7	01.11.2004		106.82	125
Machine 8	30.03.2005		106.82	125

5. Appellant has contended that as per definition of COD in Regulations, 2001, the same will be within 15 days from the date of synchronization of a unit with the grid. Since units 1 to 4 were synchronized during the period 2001-2004, hence the appellant is not challenging the date of COD of these units.

6. Here it is relevant to set out the definition of COD. As per Regulation, 2004, the COD of a unit has been defined in Regulation 31(ix) as below:

> *"31(ix) 'Date of Commercial Operation' or 'COD' in relation to a unit means the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run, after notice to the beneficiaries, and in relation to the generating station the date of commercial operation means the date of*

commercial operation of the last unit of the generating station."

7. Learned counsel for the appellant contended that thus, the date on which the Maximum Continuous Rating (MCR) or Installed Capacity(IC) of a unit has been shown by the Generator, the said date will be date of COD of that unit and the COD of the last unit of the generating station would be the date of COD of the generating station.

8. He submitted that the Commission in the Impugned Order has held that date of COD of the generating station for the purpose of tariff determination would be August 25, 2005 which itself shows that the last unit of the I.S.P. has achieved the MCR or installed capacity on August 25, 2005. Otherwise also from the Tariff Petition itself all the eight machines have achieved the MCR or Installed Capacity only on August 25, 2005. Thus, the date of COD of machine No. 5 to 8 will be August 25, 2005 and not the dates on which these units started generation as per the definition of COD given in the Regulations.

9. Learned counsel for the appellant asserted that the energy sold by NHDC from Machine/Unit No. 5 to 8 between July 27, 2004 to August 24, 2005 would be infirm power and the payment received has to be deducted from the capital cost of the I.S.P.

10. Per contra CERC and NHDC have submitted that the issues raised by the appellant are misconceived and gave detailed explanations as under:

11. The appellant has alleged that the Central Commission instead of determining the date of commercial operation of the project as March 31, 2005 as per the provisions of regulation 31 (ix) of Tariff Regulations, 2004 (supra) has adopted August 25, 2005 as date of commercial operation when the maximum continuous rating of the generating station was achieved. As a result, the Central Commission has allowed more IDC to NHDC.

12. CERC decision to allow August 25, 2005 as the date of commercial operation of the project in place of March 31, 2005 needs to be considered in the context of the peculiar situation associated with the execution of the generating station. Indira Sagar Hydro Electric Project, executed by Narmada Hydro Electric Development Corporation Limited, the second respondent herein, is a multi purpose project to facilitate power generation and create facilities for irrigation. The project has three major parts. Part I comprises of dam and appurtenant works, Part II comprises of irrigation system, and Part III comprises of power station, associated water conductor system and switchyard. The power station has installed capacity of 1000 MW and has eight machines of 125 MW each. CERC submitted that as a matter of convention in case of Hydro generating stations, the dam is completed first and the generating units are commissioned thereafter. However, in case of Indira Sagar HE Project, while the dam was still under construction, the eight units of the generating stations were commissioned between January 14, 2004 to

March 30, 2005 on various dated as mentioned against each in the table given below:

Machine	Date of commercial operation
Machine I	14.1.2004
Machine II	18.1.2004
Machine III	6.3.2004
Machine IV	29.3.2004
Machine V	27.7.2004
Machine VI	1.11.2004
Machine VII	7.1.2005
Machine VIII	30.3.2005

13. Although all the units of the generating station were commissioned by March 30, 2005 as per the details given above; however, due to non-completion of dam up to its Full Reservoir Level (FRL) and being the lean inflow period, sufficient water was not available for the plant to declare the Maximum Continuous Rating (MCR), which, in the present case, means the maximum output the station can generate at rated head and rated discharge required for 8 generating units. The station at that stage (as on March 30, 2005) was able to generate maximum output of 854 MW against the required maximum output of 1000 MW for commercial commissioning of all the 8 units. The dam with radial gates

was completed by the end of April, 2005 and when sufficient water was available in the reservoir, Maximum Continuous (MCR) of 1000 MW of the station as a whole was declared by the generating company w.e.f. August 25, 2005.

14. Clause (ix) of regulation 31 of the tariff regulations, 2004 defines the "Date of Commercial Operation" as under:

> "*Date of Commercial Operation or 'COD' in relation to a unit means the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run, after notice to the beneficiaries, and in relation to the generating station the date of commercial operation means the date of commercial operation of the last unit of the generating station.*"

15. Further, Clause (xvi) of the regulations defines 'installed capacity' as the 'summation of the nameplate capabilities of the units in the generating station or the capacity of the generating station (reckoned at the generating terminals) as approved by the Commission from time to time."

16. As per the above provisions of the regulations, the date of commercial operation of a generating station is the date of

commercial operation of the last unit of the station and the date of commercial operation of a unit is the date on which the Maximum Continuous Rating is demonstrated by the generator after a successful trial run. To put it otherwise, the date of commercial operation of a generating station would imply the date on which the Maximum Continuous Rating of the last unit of the generating station is demonstrated by the generator.

17. CERC further clarified that the generating units of the station were commissioned one by one during January 2004 to March 2005 and have been declared under commercial operation, even when they were not in a position to generate their respective MCR or IC due to the non-availability of the required head as the dam was only partially constructed and filled. However, by operating the units of the generating station, NHDC had utilized the available water for power generation and helped the appellant by providing peak power though at a lower MW output. The Central Commission in deviation from the norms in the tariff regulation of 2004 has

accepted the commencement of commercial operation and has allowed the second respondent to charge the tariff at proportionally reduced rates, which takes care of the interests of the appellant.

18. CERC explained that the situation emerging in the light of the facts of the present case could not be foreseen/visualized while formulating the Tariff Regulation and, therefore, the Central Commission considered it necessary to adopt a via media, by invoking the provisions of Regulation 13 of the Tariff Regulation 2004 which empowers, the Commission to vary any of the provisions of the Regulations for reasons to be recorded in writing therefore. It was submitted that there was a need to deviate from the provisions Clause (ix) of regulation 31 of the Tariff Regulations 2004 in order to arrive at a just and fair dispensation in the matter of fixation of tariff.

19. It was explained that in practical sense, commercial operation of a generating station or a generating unit is

considered when it is operated according to the specified process of scheduling, starting with daily declaration of its capability to supply power/energy, followed by RLDC giving out its schedule (in consultation with the beneficiaries), and monitoring the output with reference to the given schedule. This process had already started for Generating Unit I with effect from January 14, 2004 and subsequently for other generating units. It follows that generating units of the generating station would have been entitled to receive capacity charge, energy charge as per the 2004 regulations from that date.

20. CERC has contended that if the appellant's view that under the present situation the generating unit cannot be taken to be under commercial operation was accepted, the implications would have been; (i) NHDC would not be bound to declare daily availability to RLDC and to operate the generating station according to any given schedule; (ii) the second respondent could operate the generating station at its will, without regard for the requirements of the appellant and

RLDC's advice; (iii) the appellant would get energy at a fairly low rate (e.g. 41.03 paise/kWh applicable for infirm power during 2003-04), but not necessarily when they needed it most (during the peak load hours), and it may also be unfair to force NHDC to sell power for a prolonged period at a price much lower than the rate at which the appellant get power from other sources.

21. CERC further submitted that even though the date of commercial operation of the station was accepted as August 25, 2005, NHDC had claimed the IDC of the project up to March 31, 2005 only and did not claim any additional IDC in the intervening period from March 31, 2005 to August 25, 2005. Accordingly, the Commission allowed IDC only up to March 31, 2005. CERC submitted that the contention of the appellant that the Commission has allowed more IDC by considering date of commercial operation as August 25, 2005 in place of March 30, 2005 is misconceived and factually incorrect.

ANALYSIS AND DECISION:

22. In view of the aforesaid explanation by the Commission and NHDC we agree with the decision of the Commission in regard to the date of commercial operation under the compelling circumstances in which NHDC could not have operated the units at MCR without availability of the required head and flow of water. The Regulations do permit the Commission to deviate from its provisions in order to reach a just and fair dispensation in the fixation of tariff. The Commission has allowed the NHDC to charge the tariff at proportionally reduced rates when MCR was not reached and generators were operating at part loads thereby taking care of the interest of the appellant.

23. We, therefore, are inclined to agree with the decision of the Commission. We order accordingly.

ISSUE 2: DEBT – EQUITY - RATIO

24. Appellant has stated that according to Regulation 36 of Regulations, 2004 the Debt-Equity-Ratio in case of generating

stations would be 70:30. However, the power has been conferred on CERC to consider the equity higher than 30% for the purpose of tariff where the generating company is able to establish to the satisfaction of Commission that deployment of equity more than 30% was in the interest of general public.

25. Learned counsel for the appellant contended that, before CERC, NHDC has given a ground for higher equity stating that Power Finance Corporation and SBI offered the loan at 9.5% supported with government guarantee. But instead of taking loan NHDC invested Rs. 200 crores and then could arrange loan on short term basis on interest within the range of 5.25% to 6.85%. The Commission in para 30 without giving any reasons in the following words has approved Debt-Equity-Ratio of 61.73 : 38.27 as given below:

> *"30. The Annual Fixed Charges are determined on the basis of debt-equity-ratio of 61.73 : 38.27 as approved by the Central Government."*

26. Learned counsel for the appellant submitted that NHDC has made calculations for a period of 5 years to show that

adoption of actual debt-equity-ratio is beneficial to general public. This is not correct. The overall impact of adopting debt-equity-ratio as 61.73 : 38.27 and rate of interest of 7.67% will amount to burdening the ultimate consumers by about Rs. 514 crores even when compared to debt-equity-ratio of 70 : 30 with rate of interest of 9.5% considered for whole life of the asset. Thus, the consumers have been over-burdened with this unfair amount on considering higher equity of 38.27%.

27. Per contra the Commission submitted that it has notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 under the powers vested in it under Section 178 read with Section 61 of the Act. The provisions of clause (2) of regulation 36 of Tariff Regulations, 2004 are extracted as under:

> *"36(2) In case of the generating stations for which investment approval was accorded prior to April 01, 2004 and which are likely to be declared under commercial operation during the period April 01, 2004 to March 31, 2009, debt and equity in the ratio of 70:30 shall be considered:*

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the interest of general public."

28. CERC submitted that in case of Indira Sagar Project, the total capital cost of power components of the project was Rs. 352754 lakh, which was funded in the follow manner:

(Rs. In crore)

Equity:	
Subscribed by NHPC (19.56%)	690.00
Subscribed by Govt. of Madhya Pradesh (18.71%)	660.00
Total equity (38.27%)	1350.00
Loan component (61.73%)	2177.54
TOTAL	**3527.54**

29. The debt-equity-ratio is of the order of 61.73 : 38.27. The Commission, on being satisfied with the explanation of respondent No. 2 that infusion of equity facilitated raising of loans from the market and ensuring completion of the project

in time, allowed the actual debt-equity-ration of 61.73 : 38.27 in exercise of the powers under second proviso to clause (2) of regulation 36 of the tariff regulations, 2004. CERC submitted its decision to allow debt-equity-ratio on actual basis is in conformity with the provisions of the Act, tariff regulations of 2004 and National Tariff Policy.

30. Learned counsel for NHDC explained to us that the implementation of ISP Project which started in 1984 by the Government of Madhya Pradesh has been languishing due to lack of funds. It was in the year 2000 that Government of Madhya Pradesh, NHPC and NHDC formed a joint venture to execute the Project. It was the infusion of Rs. 200 crores by the NHDC and the contribution of Rs. 460 crores by the Government of India for the Project which enable recommencement of the Project works with good progress. Had NHPC not infused Rs. 200 crores, Financial Institutions would not have advanced loans at cheaper rate of interest. It is the cheaper rate of interest which considerably reduced the interest during construction. Speedily commissioning of the

Project and financial closer at cheaper rates of interest brought down tariff rate substantially which is in the larger public interest. Learned counsel asserted that at the time of infusion of additional equity for the year 2000, no CERC Regulations existed which restricted the equity component to 30%.

ANALYSIS AND DECISION:

31. We find force in the arguments of the Commission and NHDC. In fact it is the infusion of Rs. 200 crores by NHPC which made the stagnating Project progress. The Commission's own Regulations do permit deployment of equity higher than 30% if it is in the interest of general public. We are of the view that it was rather necessary to infuse more equity into the Project to instill confidence in the Financial Institutions to extend loans for the Project. We, therefore, are inclined to dismiss the appeal in this view of the matter. We order accordingly.

ISSUE 3: ADVANCE AGAINST DEPRECIATION

32. Mr. Misra, learned counsel for the appellant submitted that the depreciation including Advance Against Depreciation (AAD) has been provided under Regulation 38(ii) of 2004.

33. He contended that whereas NHDC, in the tariff Petition has claimed no AAD during 2007-2008 and has claimed only Rs. 6.23 crores during the year 2008-2009, the Commission, in the impugned order has granted Rs. 15.53 crores as AAD during the period 2007-2008 and Rs. 79.51 crores during the year 2008-2009.

34. He contended that the Commission firstly erred in granting more amount towards AAD when the same was not claimed by NHDC and secondly it has failed to appreciate that Advance Against Depreciation is payable only if cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. Thus, advance against depreciation can be granted in case of any shortfall in liability

of cash repayment of loan installment. However, in the present case, there was no such a shortage of cash repayment as the actual repayment has to be taken into consideration against cumulative depreciation. Actual repayment of loan during 2007-2008 is Rs. 143.25 crores while accrued depreciation is Rs. 229.70 crores. Similar is the position in the year 2008-2009. NHDC has also considered the repayment amount while calculating AAD.

35. He contended that thus, Advance Against Depreciation is not required in both the years and further contended that the Commission has considered the accrued depreciation during the period of moratorium as repayment of loan including repayment installment due during the year and compared with cumulative depreciation and accordingly awarded Advance Against Depreciation as per proviso to Regulation 38(ii) (b) which is not correct. Hence, the AAD granted for the year 2007-2008 and 2008-2009 should be recalculated by the CERC.

36. Learned representative for CERC stated that the appellant has alleged that it had accepted the debt equity ratio in respect of the generating station on actual basis. However, the repayment of loan for the period 2004-2009 has been worked out on normative basis in terms of Regulation 38(i) (b) of the Tariff Regulations, 2004 and that when the debt equity ratio was computed on actual basis, the repayment of loan should also be calculated on actual basis and advance against depreciation should be allowed accordingly.

37. He submitted that the debt equity ratio of the generating station has been determined in accordance with second proviso to Regulation 20(2) of the Tariff Regulations, 2004 as amended and advance against depreciation has been calculated in accordance with Regulation 38(ii) (b) of the Tariff Regulations, 2004. CERC representative submitted that both debt equity ratio and advance against depreciation have been calculated in accordance with the provisions of the Regulations and the same cannot be varied to the advantage of

the appellant without corresponding amendment in the Regulations.

ANALYSIS AND DECISION:

38. We do not intend to interfere in the decision of the Commission since the same is as per the CERC Regulations. The appeal fails in this view of the matter also.

ISSUE 4: INFIRM POWER

39. The appellant has alleged that the Commission overlooked clauses (ix) and (xv) of regulation 31 in regard to infirm power and wrongly allowed annual fixed charges prior to date of commercial operation of the generating station. It has been further alleged that the Commission overlooked clause 35 of the regulation of 2004 as per which any revenue from the sale of infirm power shall be taken as reduction of capital cost.

40. CERC submitted that clause (xv) of regulation 31 of the Tariff Regulations, 2004 defines 'infirm power' as 'electricity generated prior to commercial operation of the unit of a

generating station'. Regulation 35 provides that any revenue earned by the generating company from sale of infirm power shall be taken as reduction in capital cost and shall not be treated as revenue. The rate of infirm power shall be in the same as the primary energy rate of the generating station, which falls outside the purview of the present application.

41. The Commission has further submitted that NHDC had furnished the unit-wise details of infirm power generated by all the 8 units of the generating stations commissioned during the period from January 14, 2004 to March 30, 2005. The revenue generated from sale of infirm power amounted to Rs.39.93 lakh and Rs. 0.96 lakh during the year 2003-04 and 2004-05 respectively. Since all units of the generating station were commissioned as on March 30, 2005 and only declaration of the MCR of the station was achieved with effect from August 25, 2005, the Commission in the impugned order, has already considered reduction of the capital cost to the extent of revenue from sale of infirm power during the year 2003-04 and 2004-05.

42. With the above confirmation by the Commission, this issue of infirm power stands settled.

43. In the result, the appeal fails on all issues.

44. The appeal is disposed of.

No costs.

(Mrs. Justice Manju Goel)
Judicial Member

(Mr. H.L. Bajaj)
Technical Member

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No. of corrections