

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 152/MP/2012

Coram:

**Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member**

**Date of Hearing: 8.1.2013
Date of Order : 23.7.2013**

In the matter of

Petition to initiate proceedings related on blending of imported coal and other incidental issues to protect the interest of the beneficiaries.

And in the matter of

GRIDCO Ltd, Bhubaneswar

Petitioner

Vs

1. NTPC Ltd, New Delhi
2. Member Secretary, Eastern Regional Power Committee, Kolkata
3. West Bengal State Electricity Board, Kolkata
4. Damodar Valley Corporation, Kolkata
5. P.C.E. cum Secretary (Power) Govt. Of Sikkim, Gangtok
6. Chairman, Bihar State Electricity Board, Patna
7. Jharkhand State Electricity Board, Ranchi

Respondents

Parties Present:

Shri R.B.Sharma, Advocate, GRIDCO
Shri A.K.Bishoi, GRIDCO
Shri M.G.Ramchandran, Advocate, NSPCL
Miss Swapna Seshadri, Advocate, NTPC
Shri Rohit Chabra, NTPC
Shri Shyam Kumar, NTPC
Shri Shilendra Singh, NTPC
Shri G.Basu, NSPCL
Shri S.D.Jha, NSPCL



ORDER

The petitioner has made this application under Regulation 24 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 read with clause (a) of sub-section (1) of Section 79 of the Electricity Act, 2003 (hereinafter referred to as '2003 Act") and the provisions of Chapter 3 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) regulations, 2009 (hereafter "2009 Tariff Regulations") with the following prayers, namely:

- (i) To issue necessary guidelines on blending of the imported coal with the domestic coal by the Central Sector thermal generating company whose tariff is decided on the 'COST PLUS' approach to the extent requested in this petition.
- (ii) Direct the Respondent-NTPC to take prior permission from the beneficiaries to procure imported coal.
- (iii) The procurement of energy generated from the imported coal be left at the discretion/requirement of the beneficiaries.
- (iv) To Instruct Respondent-NTPC to explore the possibilities of using E-auction coal rather than the imported coal.
- (v) Disallow the maintaining the common coal stock to the Central Sector STPS as per para 11 (of the petition) above.
- (vi) To direct Respondent-NTPC to adjust the extra variable cost recovered from the petitioner towards blending of high cost imported coal for the FY 2011-12.
- (vii) To direct Respondent-NTPC the cost comparison of imported coal vis-a-vis other Central Government PSU/State PSU to ascertain the economy of the coal import.
- (viii) To issue necessary directions to the Staff of the Commission to initiate action for amendment of the provision related to the normative transit and handling losses as per para 12 above.
- (ix) Pass such other Order as the Hon'ble Commission deems fit and proper under the circumstances of the case and in the interest of justice."

2. The petitioner has been granted licence by the Odisha Electricity Regulatory Commission (hereafter "OERC") for bulk purchase and sale of electricity within the State of Odisha and accordingly undertakes the function of purchase of electricity from the



generating companies in the Central Sector and the State Sector for sale to the distribution companies within the State. The State of Odisha has been allocated power from the generating stations of the first respondent, NTPC, located in the Eastern Region. Purchase and sale of power from the generating stations of NTPC is coordinated by the petitioner in accordance with the terms of its licence.

3. This Commission has notified the 2009 Tariff Regulations, applicable for the period 1.4.2009 to 31.3.2014, in exercise of powers under Section 61 of the 2003 Act. Regulation 21 of the 2009 Tariff Regulations provides for the methodology for computation of capacity charge and energy charge. The provisions of Regulation 21, so far as they are relevant for the issues raised in the petition are extracted hereunder:

“21. Computation and Payment of Capacity Charge and Energy Charge for Thermal Generating Stations

(1) xxxx

(2) xxxx

(3) xxxx

(4) In case of fuel shortage in a thermal generating station, the generating company may propose to deliver a higher MW during peak-load hours by saving fuel during off-peak hours. The concerned Load Despatch Centre may then specify a pragmatic day-ahead schedule for the generating station to optimally utilize its MW and energy capability, in consultation with the beneficiaries. DCi in such an event shall be taken to be equal to the maximum peak-hour ex-power plant MW schedule specified by the concerned Load Despatch Centre for that day.

(5) The energy charge shall cover the primary fuel cost and limestone consumption cost (where applicable), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel and limestone price adjustment). Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in ₹/kWh) x {Scheduled energy (ex-bus) for the month in kWh.}

(6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(a) For coal based and lignite fired stations

$$ECR = \{ (GHR - SFC \times CVSF) \times LPPF / CVPF + LC \times LPL \} \times 100 / (100 - AUX)$$

(b) For gas and liquid fuel based stations

$$ECR = GHR \times LPPF \times 100 / \{CVPF \times (100 - AUX)\}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic metre, as applicable.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LC = Normative limestone consumption in kg per kWh.

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

SFC = Specific fuel oil consumption, in ml per kWh.

(7) The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail / road or any other means, and, for the purpose of computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month as given below :

Pithead generating stations: 0.2%

Non-pithead generating stations: 0.8%

(8) xxxx

(9) xxxx”

4. The petitioner's first and primary grievance is that NTPC has been billing huge amounts as Fuel Price Adjustment (FPA) in accordance with clause (4) of Regulation 21 on account of use of the imported coal for generation of electricity. It has been submitted that NTPC was earlier blending imported coal up to 5% of the total coal consumption which has now been enhanced to 40% without the consent of the beneficiaries. The petitioner has contended that this has resulted in steep hike in the Energy Charge Rate, which at times reaches the highly uneconomic level of ₹4.66/kWh. The petitioner has alleged that the respondent instead of taking recourse under clause (4) of Regulation 21 ibid has started importing coal and blending high proportion of imported coal with domestic coal for generation of electricity as the 2009 Tariff Regulations are silent on this particular aspect. This point was raised by the petitioner which was taken up as an agenda item at the 18th and 19th Commercial Sub-Committee Meetings of Eastern Regional Power Committee (EPRC) held during the months of September and December 2011. The petitioner is stated to have advocated in the said meeting that the extra generation arising out of the imported coal should be treated separately and scheduled to those beneficiaries who are prepared to pay for additional generation from imported coal. However, the suggestion was turned down by the representative of NTPC, terming it impracticable and non-feasible. The petitioner has brought out that OERC also took notice of use of high percentage (ranging from 10% to 40%) of imported coal for generation of electricity without proportionate increase in GCV of coal. Accordingly, OERC in its letter dated 15.2.2012 directed the petitioner and called upon other Eastern Region utilities to take up the matter with NTPC to limit blending of imported coal as per the optimum boiler design so as to maximize GCV so

that the energy charge is not unreasonably hiked. The petitioner has alleged that NTPC has not resorted to e-auction of coal to meet the shortfall in the coal supply from linked coal mines, and is instead resorting to use of the imported coal. The petitioner has pointed out that the energy charge component of tariff per unit is much higher than the capacity charge component, the average capacity charge component constituting only 23% of the total cost and the balance 77% of the total cost being attributed to the energy charge component of the tariff on account of unregulated use of imported coal. Accordingly, the petitioner has prayed for laying down the guidelines by framing regulations for use of imported coal by the respondent.

5. The petitioner in para 11 of the petition has further submitted that NTPC is maintaining common coal stock for Talcher STPS Stage-I and Stage II which is not justified as the beneficiaries of the two stages are different. The petitioner has further submitted that coal linkage from domestic coal mines for Talcher Stage-I and Talcher Stage-II is 95% and 80% respectively. According to the petitioner, maintaining the common coal stock by the respondents at Talcher STPS and using the same for either of the two stages especially when the beneficiaries in the two stages are different, amounts to cross subsidization of the energy charge among the beneficiaries of Stage-I and Stage-II, which is affecting the beneficiaries of the Eastern Region.

6. The petitioner has further submitted that Farakka STPS and Kahalgaon STPS though having different beneficiaries are getting their coal supplies from Lalmatia coal mines. The petitioner has alleged that the total coal for Lalmatia mine is not being distributed between the two stations based on their allocation and major chunk of coal

excavated at Lalmatia coal mines is being sent to Kahalgaon STPS causing coal shortage at Farakka STPS, and this shortage is met by NTPC through procurement of cooking grade coal from Raniganj coal mines and imported coal. According to the petitioner, the disproportionate distribution of cheaper coal from Lalmatia coal mines between Kahalgaon STPS and Farakka STPS results in cross-subsidization of the beneficiaries of Kahalgaon STPS by the beneficiaries of Farakka STPS. The petitioner has sought a direction to NTPC to either proportionately distribute the coal as per the Fuel Supply Agreement from Lalmatia or to pass on the burden of extra cost of Farakka STPS proportionately.

7. The petitioner has lastly contended that normative transit and handing losses as specified under clause (7) of Regulation 21 are 0.2% for pithead generating stations and 0.8% for non-pithead generating stations. The petitioner has stated that the transit and handing losses are now made good by the coal companies and is therefore, a source of profit to the generating companies. The petitioner has accordingly sought omission of clause (7) of Regulation 21 of 2009 Tariff Regulation.

8. NTPC in its reply has stated that it has been billing the beneficiaries of its generating stations strictly in accordance with the regulations notified by this Commission and the station specific tariff orders. While explaining the need for blending of imported coal with domestic coal, NTPC has stated that the blending has become necessary because of inadequate production of coal by CIL and inability of the Railways to transport coal from other mines due to network congestion constraints. NTPC has also highlighted the general shortage of coal in the country and has stated that the gap

has further increased on account of coal-based generation capacity addition at a CAGR of 8.72% against the domestic coal production increase at a CAGR of 5.10% during 2006-07 to 2011-12. By referring to the Report of “Working Group on Power for 12th Plan”, NTPC has submitted that in view of the prevailing coal shortages scenario in the country, the projected coal-import requirement for the year 2013-14 is fixed at 61 MMT which is likely to increase to 150 MMT for the year 2016-17. NTPC has pointed out that Ministry of Power fixed import target of coal at 16 MMT during the year 2012-13. It has been submitted that NTPC is sourcing/ procuring imported coal for its generating station in a transparent manner through the process of competitive bidding and the domestic coal is sourced from CIL/SCCL which are government undertakings. Therefore, NTPC has no control over the price of the coal. NTPC has submitted that at the 10th Commercial Committee Meeting of ERPC it was authorised by the beneficiaries to increase PLF by augmenting coal supply from different sources, including by import of coal. According to NTPC, the issue was again discussed in the 12th ERPC Meeting held on 4.12.2009 and it was decided that NTPC should consider optimizing blending of imported coal with domestic coal in a proper ratio in view of deteriorating quality of domestic coal being supplied through MCL. NTPC has explained that in order to generate electricity up to the Normative Annual Plant Availability Factor (hereafter “NAPAF”), it was blending imported coal not exceeding the specified percentage as per directions of the Central Government and allowable limits for reliable unit operation and safeguarding the equipments against forced shutdown, in keeping with the boiler design limits. NTPC has placed on record the date of NAPAF achieved by its generating station in Eastern Region to establish that it was unable to achieve NAPAF during the period

2009-10 to 2011-12 and suffered losses in recovery of capacity charge on account of its inability to achieve NAPAF, details of which too have been incorporated in its reply. Refuting the specific allegation of the petitioner that NTPC did not take recourse to clause (4) of Regulation 21 of the 2009 Tariff Regulations, NTPC has clarified that on certain occasions it invoked the said provision by declaring higher DC during peak hours. However, the beneficiaries indulged in gaming and scheduled lesser generation during peak hours.

9. NTPC has explained that declaration of availability (DC) based on domestic coal and imported coal separately is not technically possible because of boiler designs of its generating stations as the boilers are so designed that exclusive firing of imported coal is not possible. NTPC has further explained that after blending, distinction between the domestic and imported coal is not possible. NTPC has added that it had initially tried to arrange coal through e-auctioning of coal in respect of Eastern Region stations but had to discontinue it because of the Railways logistic constraints. NTPC has denied the petitioner's allegation that the coal supply for Talcher STPS Stage I is 95% of the total coal requirement and for Stage II, it is 80%. NTPC has explained that the Fuel Supply Agreement provides for common coal linkage for both Stages of Talcher STPS. NTPC has submitted that report of the Committee constituted by ERPC with the petitioner as the sole beneficiary on the Committee, for looking into operation strategy of Talcher STPS units has unanimously agreed to apportionment of coal between Stage I and Stage II of Talcher STPS in the ratio of 1:2 of the coal received. As regards the apportionment of coal between Farakka STPS and Kahalgaon STPS, NTPC has submitted that these generating stations are supplied coal from a common coal mine

and as such, the allegation of diversion of coal from Farakka STPS to Kahalgaon STPS is unfounded. NTPC has denied that the coal supply companies compensate the generating companies against transit and handling losses.

10. Bihar State Electricity Board (the sixth respondent) and Jharkhand State Electricity Board (the seventh respondent) in their identically worded replies have supported the case of the petitioner.

11. We have heard learned counsel for the petitioner and the representatives of the respondents.

12. Firstly we refer to the concern of OERC conveyed to the petitioner in its letter dated 15.2.2012 *ibid*. OERC has directed that the petitioner and other Eastern Region utilities should ask NTPC to give detailed month-wise breakup of quantity and price of coal procured through administrative price mechanism, e-auction and import along with transportation cost, so that the same could be analyzed by utilities in detail for regular interaction with the field manager of NTPC for effective cost control. In this connection, it is pertinent to mention that this Commission by its notification dated 31.12.2012 has already added the following provisos to clause (6) of Regulation 21:

“Provided that generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the form 15 of the Part-I of Appendix I to these regulations:

Provided further that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month:

Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG,

liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.”

13. By virtue of the above amendment, NTPC is mandated to furnish the details of coal which in our view would meet the concerns of OERC. On receipt of the details from NTPC, the petitioner as also the other beneficiaries of the generating stations owned by NTPC shall have opportunity to analyse the quantum of imported coal being used by NTPC for its generating stations and implications thereof on the energy charge and decide their future course of action based on the findings of the analysis.

14. Now we consider the specific prayers made by the petitioner.

Re: Prayer (i) Blending of Imported Coal

15. The petitioner and the beneficiary respondents are opposed to use of imported coal for generation of electricity as blending of imported coal raises cost of generation and accordingly have sought framing of guidelines on blending of imported coal with the domestic coal and other incidental issues to protect their interest. It is a fact that there exists acute shortage of coal in the country. The demand for coal far exceeds its supply from domestic sources. In view of the shortage of domestic coal, the generating company has no option but to go for use of import of coal to meet the shortfall. In case the imported coal is not blended with domestic coal for power generation, the plant is likely to remain under-utilised. It does not appear advisable to keep the available capacity untapped in the present day scenario of shortages in peak as well as off-peak periods. It is true that generation of electricity through the blending of imported coal

improves NPAF of the generating stations and enables NTPC to improve recovery of capacity charge but the fact that additional generation helps to overcome the shortages cannot be lost sight of. NTPC has in the reply stated that it is blending imported coal as per directions of the Central Government not exceeding the specified percentage and allowable limits for reliable unit operation and safeguarding the equipments against forced shutdown. The petitioner has alleged that NTPC is using imported coal to the extent of 40%, but without any evidence in support of the allegation. The source of data furnished by the GRIDCO in Annexure P-6 is not known. Though, NTPC has stated that it is blending imported coal in “the specified percentage” and within the “allowable limits”, but NTPC has not given the details. We are, however, conscious that there are technical limitations on quantum of blending of imported coal, in the existing coal-based generating stations and the blending is governed by the quality of the imported coal, quality of domestic coal and design parameters of boilers. In case of new coal-based generating stations, Ministry of Power/CEA have been advising to design the new power stations for blending of domestic coal and imported coal in the ratio of 70:30. The guidelines which the petitioner has prayed for shall have to take into account technical feasibility and financial feasibility. Because of the inadequacy of data on both counts, technical as well as financial, no guidelines on the question of blending of imported coal can be framed at this stage. The issue is, however, not closed for ever. The petitioner and other beneficiaries of NTPC’s generating stations are given liberty to file further data to enable this Commission to examine and take an appropriate view on the issue. At the same time, we advise NTPC to maximise use of domestic coal including sourcing through e-auction to the extent possible.

Re: Prayer (ii) – Prior Permission for Blending of Imported coal

16. The petitioner has sought direction to NTPC to take prior consent from the beneficiaries to blend imported coal for generation of power. NTPC has pointed out that issue of low PLF/NAPAF of its generating stations in Eastern region used to be discussed at the ERPC meetings and Commercial Committee meetings of ERPC. NTPC has placed on record the minutes of the meetings which show that it was decided that NTPC should use imported coal to improve PLF/NAPAF of the generating stations. In view of these decisions, no consent for blending of imported coal is considered necessary. Even otherwise, it may not be practicable to seek prior consent on every occasion for using the imported coal and awaiting decision of the beneficiaries. Therefore, no further directions on the prayer are considered necessary.

Re: Prayer (iii) – Discretionary Procurement

17. The petitioner has prayed for a decision of its proposal that procurement of energy generated from the imported coal be left at the discretion or requirement of the beneficiaries. The prayer is based on the premise that it is possible to generate electricity separately on domestic coal and imported coal. However, the proposal ignores the technical constraints of generating exclusively on imported coal. NTPC has explained that design of the boilers of its generating stations does not permit exclusive use of the imported coal in generation of electricity. We are satisfied the machines cannot be run only on the imported coal because of the technical limitations of the boiler designs. Therefore, no direction on the prayer is feasible.

Re: Prayer (iv) – E-Auction

18. The petitioner has alleged that NTPC has not taken recourse to e-auction of coal before using the imported coal and has sought direction to NTPC to explore the possibilities of using e-auction coal rather than using the imported coal in the first instance. NTPC in its reply has stated that in the past it participated in e-auction but had to abandon it because of logistic constraints. We are of the opinion that the logistic constraints being in the rail transportation network, which cannot be addressed by NTPC. We, however, direct NTPC to maximise use of domestic coal including sourcing through e-auction to the extent possible.

Re: Prayer (v) – Maintenance of Common Coal Stock

19. The petitioner has alleged that NTPC is maintaining common coal stock for Talcher STPS Stage-I and Stage II, though separate coal linkages have been allocated to them. The petitioner has sought direction to NTPC to maintain separate coal stock on the ground that the beneficiaries of Talcher STPS Stage-I and Talcher STPS Stage-II are from different regions. It appears that the question was raised at the ERPC forum. The ERPC had constituted a Committee with Director-level executive of the petitioner as one of the members of the Committee which decided that the coal stock at Talcher STPS should be distributed between Stage I and Stage II in the ratio of 1:2. The representative of the petitioner does not appear to have expressed any dissent or reservation as the decision of the Committee is unanimous as noticed from the minutes placed on record by NTPC. In view of the decision in ERPC forum, any direction for maintenance of separate coal stock for Talcher STPS Stage I and Stage II becomes irrelevant because the coal is to be used in the agreed proportion.

Re: Prayer (vi) – Adjustment of Variable Cost

20. The petitioner has sought a direction to NTPC to adjust the extra variable cost recovered from the petitioner towards blending of high cost imported coal for the year 2011-12. The petitioner has not placed on record any material to show that NTPC made excess recovery of energy charge. The averments of the petitioner are of general nature that NTPC had been blending imported coal to the extent of 40% at times. In view of our discussion in para 16 above, we have not arrived at any specific findings on the issue. Therefore, the prayer seeking the direction is not maintainable.

Re: Prayer (vii) – Cost Comparison

21. The petitioner has prayed for a direction to NTPC to place on record the cost comparison of imported coal vis-a-vis other Central Government PSUs/State PSUs to ascertain the economy of the coal import. In our considered view such a direction cannot be given. Through the complete details of quantum/cost of imported coal used for generation of electricity in its generating station are within the knowledge of NTPC, it is unlikely that NTPC would have access to similar details/information in respect of other Central and State Sector PSUs. Therefore, no direction can be given to NTPC to place on record the comparative cost analysis. The Commission in third amendment to the 2009 Tariff Regulations has made provisions under Regulation 21 (6) for declaration of information regarding fuel. Since all the generators whose tariff is regulated by this Commission are mandated to display the above information in their websites, the petitioner may utilize the information available for any purpose including for cost comparison.

Re: Prayer (viii) – Amendment of Transit and Handling Losses Provision

22. The petitioner has stated that the coal companies now compensate NTPC for transit and handling losses specified under clause (7) of Regulation 21. The petitioner has averred that the provision in the Regulation for normative recovery of transit and handling losses gives undue advantage to NTPC. Accordingly, NTPC has requested to disallow the normative transit and handling losses by amending Regulation 21 (7) of the 2009 Tariff Regulations. NTPC has denied that it is being reimbursed transit and handling losses by the coal companies. In our view, the petitioner has not produced any material to show that such losses are being reimbursed to NTPC by the coal companies. Therefore, the prayer does not merit any consideration and is hereby rejected.

23. The petition stands disposed of accordingly.

sd/-
(M Deen Dayalan)
Member

sd/-
(V.S.Verma)
Member