

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Docket No. 56/GT/2012

**Coram: Dr. Pramod Deo, Chairperson
Shri S.Jayaraman, Member
Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Order: 24.12.2012

In the matter of:

Approval of tariff of Vallur Thermal Power Project (3 x 500 MW) for the period from the anticipated date of commercial operation of Unit-I to 31.3.2014.

And

In the matter of:

Grant of provisional tariff for Vallur Thermal Power Project (3 x 500 MW) for the period from the anticipated date of commercial operation of Unit-I to 31.3.2014.

And

In the matter of:

NTPC Tamilnadu Energy Company Ltd, Chennai

...Petitioner

Vs

1. AP Transmission Corporation, Hyderabad
 2. AP Central Power Distribution Company Ltd, Hyderabad
 3. AP Eastern Power Distribution Company Ltd, Vishakapatnam
 4. AP Southern Power Distribution Company Ltd, Tirupathi
 5. AP Northern Power Distribution Company Ltd, Warangal
 6. Power Company of Karnataka Ltd, Bangalore
 7. Bangalore Electricity Supply Company Ltd, Bangalore
 8. Mangalore Electricity Supply Company Ltd, Mangalore
 9. Chamundeshwari Electricity Supply Company Ltd, Mysore
 10. Gulbarga Electricity Supply Company Ltd, Gulbarga
 11. Hubli Electricity Supply Company Ltd, Hubli
 12. Kerala State Electricity Board, Thiruvananthapuram
 13. Tamilnadu Generation & Distribution Corporation Ltd, Chennai
 14. Electricity Department, Government of Puducherry, Puducherry
-Respondents**

ORDER

The petitioner, NTPC Tamil Nadu Energy Company Ltd (hereinafter 'NTECL'), a joint venture company of NTPC Ltd. and Tamil Nadu Electricity Board, has filed this petition for approval of tariff of Vallur Thermal Power Project, (3x500 MW) ('the generating station') for the period from the anticipated date of commercial operation of Unit-I (31.8.2012) to 31.3.2014, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The investment approval of the project was accorded on 19.5.2009 by the board of the petitioner company for Stage-I, Phase-I comprising of two units of 500 MW each on 14.7.2007 at a cost of ₹5552.78 crore and for Phase-II comprising of one unit of 500 MW at a cost of ₹3086.78 crore. The petitioner has submitted that Unit-I of the generating station was synchronized on 9.3.2012 and its commercial operation was expected to be declared on 31.8.2012. Units-II and III of the generating station are expected to be put under commercial operation on 31.12.2012 and 30.9.2013 respectively. The petitioner has entered into Power Purchase Agreement (PPA) with the respondents herein on 6.3.2008 and the power generated from the generating station shall be supplied to the respondents in terms of the allocation made by the Ministry of Power, Government of India vide letter dated 28.9.2010.

3. The petitioner by its letter dated 27.10.2012 has submitted that Unit-I of the generating station would be declared under commercial operation shortly and has prayed for grant of provisional tariff in order to bill the respondents for the power

supplied from the generating station, subject to adjustment after determination of final tariff by the Commission. Subsequently, by letter dated 26.11.2012, the petitioner has submitted that Unit-I of the generating station is to be declared under commercial operation with effect from 29.11.2012.

4. The petition is being considered in the present order for grant of provisional tariff in respect of Unit-I of the generating station. Clauses (1) and (2) of Regulation 5 of the 2009 regulations provides as under:

“5. Application for determination of tariff(1) The generating company or the transmission licensee, as the case may be, may make an application for determination of tariff in accordance with Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as amended from time to time or any statutory re-enactment thereof, in respect of the units of the generating station or the transmission lines or sub-stations of the transmission system, completed or projected to be completed within six months from the date of application.

(2) The generating company or the transmission licensee, as the case may be, shall make an application as per **Appendix I** to these regulations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the tariff period of the generating station or the transmission system:

Provided that in case of an existing project, the application shall be based on admitted capital cost including any additional capitalization already admitted up to 31.3.2009 and estimated additional capital expenditure for the respective years of the tariff period 2009-14:

Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, where applicable.

5. Regulation 5 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2011 provides as under:

“(4) Where application for determination of tariff of an existing or a new project has been filed before the Commission in accordance with clauses (1) and (2) of this regulation, the Commission may consider in its discretion to grant provisional tariff upto 95% of the annual fixed cost of the project claimed in the application subject to adjustment as per proviso to clause (3) of this regulation after the final tariff order has been issued:

Provided that recovery of capacity charge and energy charge or transmission charge, as the case may be, in respect of the existing or new project for which provisional tariff has been granted shall be made in accordance with the relevant provisions of these regulations.”

6. The petitioner has filed this petition in compliance with Clauses (1) and (2) of Regulation 5 of the 2009 Tariff Regulations. The petitioner has also published notice in the newspapers as regards filing of tariff petition and has served copies of the petition on the respondent beneficiaries. Replies to the petition have been filed by the respondents KSEB and TNEB.

9. Since the petitioner has complied with the provisions of Clauses (1) and (2) of Regulation 5 of 2009 Tariff Regulations, we propose to grant provisional tariff from the date of commercial operation of Unit I of the generating station i.e. from 29.11.2012 till 31.3.2014, in exercise of the power under Clause (4) of Regulation 5 of the 2009 Tariff Regulations, as discussed in the subsequent paragraphs.

Time and Cost overrun

10. The time period for completion of different units of a green field project with unit size of 500 MW, as specified by the Commission is 42 months for the first unit and thereafter, at an interval of six months for subsequent units. It is observed that in the present case that there is time over run in respect of the units considered from the scheduled date of commercial operation as per investment approval of the petitioner's Board till the expected date of commercial operation as indicated by the petitioner. The petitioner in its petition has furnished detailed justification for the time overrun. The respondent, KSEB in its reply vide affidavit dated 29.6.2012 has submitted that the delay in commissioning of the project has resulted in increase in IDC and ultimately the

capital cost of the project. It has therefore prayed that IDC on account of the said delay in the commissioning the project be dis-allowed from the capital cost. The respondent, TANGEDCO in its reply vide affidavit dated 5.9.2012 has submitted that the IDC claimed by the petitioner may be restricted upto 42 months from the date of investment approval of the project. It has also submitted that the claim of the petitioner for 0.5% additional return on equity is not justifiable due to delay in the commissioning the project. The respondent has also submitted that capital cost of the project may be limited to the bench mark cost specified by the Commission.

11. The capital cost in respect of the generating station works out to ₹5.76 crore/MW which is higher than the average bench mark cost of ₹4.76 crore/MW (at December 2011 price level) as specified by the Commission for first three units of the green field projects. Some of the reasons submitted by the petitioner for higher capital cost are: (a) coastal plant-sea water cooling and additional piling; (b) gas insulated switchyard; (c) de-salination plant; (d) external CHP; and (e) bridge over creek etc. We are of the view that the submissions of the parties as regards delay in the commissioning of the project and its impact on time and cost overrun, including IDC, are required to be looked into in detail after hearing all the parties on merit, at the time of determination of final tariff. However, keeping in view the fact that only Unit-I of the generating station is being considered for grant of provisional tariff by this order, we have decided to consider only 85% of the capital cost claimed by the petitioner as on 31.8.2012 for the purpose of grant of provisional tariff.

Capital Cost

12. The investment approval of the project was accorded by NTECL Board on 14.7.2007 at a cost of ₹5552.778 crore and subsequently, the investment approval of the third unit was accorded on 19.5.2009 at a cost of ₹3086.779 crore. The petitioner has claimed the capital cost as on the expected date of commercial operation (COD) of Units-I to III in Form 5D of the petition as under:

<i>(₹ in lakh)</i>			
	Capital expenditure as on expected COD of Unit-I (31.8.2012)	Additional capital expenditure as on expected COD of Unit-II (31.12.2012)	Additional capital expenditure as on expected COD of Unit-III (30.9.2013)
Capital cost	335220	196878	259219
Add: IDC,FC,FERV & Hedging cost	42315	27820	49916
Total Capital cost	377535	196878	259219

13. The capital cost claimed by the petitioner as on expected date of commercial operation of Unit-I (31.8.2012) has been considered for the purpose of tariff as the actual expenditure as on the actual date of commercial operation (29.11.2012) is not available. Accordingly, in terms of our observations in para 9 above, we have considered 85% of the capital cost of ₹377535.00 lakh as on the actual date of commercial operation for the purpose of provisional tariff of Unit-I of the generating station. The capital cost considered for the purpose of provisional tariff is as under:

<i>(₹ in lakh)</i>	
	As on 29.11.2012
Capital Cost allowed @ 85% of Rs.377535.00 lakh including IDC and FC (A)	320904.75
Notional IDC included in capital cost (B)	1430.00
Capital Cost considered for the purpose of tariff (A-B)	319474.75

14. The projected additional capital expenditure of ₹34417.00 lakh claimed by the petitioner for 2013-14 has not been considered for provisional tariff. However, the same would be considered subject to prudence check at the time of determination of final tariff of the generating station.

15. Return on Equity has been considered as per the provisions of the 2009 Tariff Regulations. The interest rates on loans and working capital as claimed by the petitioner have been considered. All other components have been considered as per the provisions of the 2009 Tariff Regulations.

16. Based on the capital cost of ₹319474.75 lakh as on 29.11.2012, the provisional annual fixed charges of ₹80246.45 lakh is allowed for Unit-I of the generating station for the period 2012-13 (29.11.2012 to 31.3.2013).

17. The provisional annual fixed charges determined on annualized basis as above is applicable *pro rata* to the number of days the said unit has run during the period 2012-13 and till the date of commercial operation of Unit-II of the generating station.

18. The petitioner has claimed operational norms as per the provisions of the 2009 Tariff Regulations, except the claim for Auxiliary Power Consumption of 7.25% which includes consumption for additional systems like coal transportation from port to the generating station and additional electrical equipment installed for de-salination at sea water through RO system. In view of the fact that only provisional tariff is being granted for Unit-I by this order, the claim of the petitioner for Auxiliary Power Consumption at 7.25% has not been considered at this stage and the same will be examined at the time of determination of final tariff. In view of above, the operational norms for 500 MW units considered for determination of provisional tariff is as under:

Target Availability	85%
Heat Rate (kcal/kwh)	2420.682
Auxiliary power consumption	6.5%
Specific Oil Consumption (ml/kwh)	1.0

19. The cost of secondary fuel oil which works out to ₹2014.63 lakh for 2012-13 (31.8.2012 to 31.3.2013) has been allowed.

Fuel Component and Energy charges in working capital

20. The petitioner has claimed fuel component in working capital based on price and GCV of imported and domestic coal with 15% blending. The cost of coal with blending and cost of secondary fuel (based on cost of oil for preceding one month) is given below:-

	<i>(₹ in lakh)</i>
	2012-13 (31.8.2012 to 31.3.2013)
Cost of coal for 2 months	15204
Cost of Secondary Fuel oil for 2 months	336

21. Based on the norms specified by the Commission, the cost for fuel component in working capital based on average price of imported and domestic coal with 15% blending and weighted average GCV of coal with blending in the ratio of 85:15 and oil for preceding one month has been worked out and allowed as under:

	<i>(₹ in lakh)</i>
	2012-13 (31.8.2012 to 31.3.2013)
Cost of coal for 2 months	13331.36
Cost of Secondary fuel oil for 2 months	335.77

Energy Charge Rate

22. The petitioner has claimed the Energy Charge Rate (ECR) of **264.18** paisa/kwh based on average price of imported and domestic coal with 15% blending and weighted average GCV of coal with blending in the ratio of 85:15 and oil for preceding one month and operational norms based on the 2009 Tariff Regulations except auxiliary power consumption.

23. The ECR has been worked out based on average price of imported and domestic coal with 15% blending and weighted average GCV of coal with blending in the ratio of 85:15 and oil for preceding one month and the operational norms based on the 2009 Tariff Regulations is allowed as under :

Description	Unit	2012-13
Capacity	MW	1X500
Gross Station Heat Rate	Kcal/kWh	2420.682
Auxiliary Energy Consumption	%	6.50
Weighted average GCV of oil	Kcal/lit	9849
Weighted average GCV of coal	Kcal/kg	3325
Weighted average price of oil	Rs/Kl	54113
Weighted average price of coal	Rs/MT	3379
Rate of energy charge ex-bus	Paise/kWh	262.031

24. Energy Charge Rate on month to month basis shall be calculated in terms of Clauses 6 (a) of Regulation 21 of the 2009 Tariff Regulations.

25. The petitioner shall revise the figures in the petition taking into consideration the date of commercial operation of Unit-II of the generating station, in terms of the provisions of the 2009 Tariff Regulations, which will be considered in accordance with law.

26. The provisional annual fixed charges allowed above is subject to adjustment as per proviso to Clause (3) of Regulation 5 of the 2009 Tariff Regulations.

Sd/-
[M.Deena Dayalan]
Member

Sd/-
[V.S.Verma]
Member

Sd/-
[S.Jayaraman]
Member

Sd/-
[Dr.Pramod Deo]
Chairperson