

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 170/MP/2015

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A.K. Singhal, Member

Shri A.S.Bakshi, Member

Date of Order : 2.7.2015

In the matter of

Anticipated delay in the declaration of commercial operation date (COD) of Unit-I of the 2x250 MW NLC-Thermal Power Station-II Expansion.

And

In the matter of

Seeking Commission's permission to maintain status quo for injection of infirm power under UI mechanism till declaration of COD of Unit-I or 30.9.2015 whichever is earlier.

And

In the matter of

Neyveli Lignite Corporation Limited
Neyveli house, 135, EVR Periyar road,
Kilpauk, Chennai- 600010.

....Petitioner

Vs

1. The Member Secretary
Southern Regional Power Committee
29, Race Course Cross Road, Bangalore- 560009

2. Executive Director (SEF & CE)
Power Grid Corporation of India Limited,
'Saudamini', plot no. 2, sector- 29,
Near IFFCO Chowk, Gurgaon- 122001, Haryana

3. The General Manager (Commercial)
Power Grid Corporation of India Limited,
Southern Region Transmission System II,
Pragati Mahalakshmi, South Block (2nd and 3rd floor),



No. 62, 3rd Cross, NEI road, Industrial suburd,
Yeshwantpur, Bangalore- 560022

4. Executive Director
POSOCO, Southern Regional Load Despatch Centre,
29, Race Course Cross road, Bangalore-560009

5. The Chief Engineer (Planning)
Tamil Nadu Generation and Distribution Corporation Limited,
6th floor, eastern Wing, 144, Anna Salai, Chennai- 600002.

6. The Chief Engineer/Corporate Planning TRAC
Kerala State Electricity Board,
8th Floor, Vidyuthi Bhawanam,
Pattom, Thiruvananthpuram-695 004

7. Director (Commercial)
State Power Purchase Co ordination Committee
Power Company of Karnataka Ltd.
Kaveri Bhawan, Bangalore-560 009

8. The Superintending Engineer
Puducherry Electricity Department
137, NSC Bose Road, Puducherry-605001

9. Chief Engineer (Commercial)
A.P. Power Coordination Committee
Vidyut Soudh, Khairatabad
Hyderabad-500 082

10. Chief Engineer (Commercial)
Telangana State Power Coordination Committee
Vidyut Soudh, Khairatabad
Hyderabad-500 082

....Respondents

ORDER

This petition has been filed by the petitioner, Neyveli Lignite Corporation Limited, seeking permission of the Commission for injection of infirm power into the grid during testing, commissioning and commercial operation of NLC-TPS II (Expansion) (the



generating station) till declaration of COD of Unit-1 (unit) or 30.9.2015, whichever is earlier.

2. Neyveli Lignite Corporation Limited (NLC) is in the process of establishing NLC-TPS II Expansion (2x250 MW) CFBC boiler based power plant at Neyveli, Tamil Nadu. This is the first 250 MW unit size CFBC based power plant being installed in the country. Unit of the generating station was first synchronized with the grid on 18.5.2011 with oil firing and on 27.6.2011 with lignite firing. Due to technical problems, COD of the generating station got delayed resulting in prolonged injection of infirm power from unit-1 (as the unit was synchronized on 18.5.2011) into the grid. Unit-2 of the generating station was declared under commercial operation on 22.4.2014 within the stipulated six months from the date of its first synchronization on 23.11.2014.

3. The Commission by its order dated 1.4.2015 in Petition No. 97/MP/2015 had allowed injection of infirm power from the unit of the generating station for testing including full load testing till 30.6.2015.

4. The petitioner in the present petition, while praying for extension of time for testing and full load testing and consequent injection of infirm power, has mainly submitted as under:

(a) With the number of improvements, unit was able to sustain higher loads, crossed 200 MW on number of occasions and rated load of 250 MW was reached on 6.1.2015. Fine tuning of parameters and meticulous efforts by

Operation Engineers resulted in continuous running of unit for more period, latest by 22 days.

(b) Sustained operation over 200 MW was stalled by water wall tube punctures, failure of non-metallic expansion joints, overloading of ID fans due to high suction pressure and refractory failures. Stoppage of unit on each occasion was utilized to rectify the defects and further fine tuning of parameters.

(c) Unit is under shutdown from 13.3.2015 for attending start up burner seal box and Backpass Coil punctures, Refractory works in Fluidized Bed Heat Exchangers, Economizer Enclosure duct repair works, lignite feeding system rectification works and RAPH and ESP higher pressure drop leading to overloading of ID fans when the load is above 200 MW.

(d) BHEL has suggested some additional modifications in the ID fans suction routing to overcome the ID fan overloading issue which involves erection of 140 tonnes of ducting and structural materials. Considering quantum of modification works in progress, 72 hrs full load trial run and COD is expected to be shifted beyond 30.6.2015.

(f) NLC has been actively pursuing with M/s BHEL to resolve all the issues effectively in order to enable COD of the unit of the generating station for sustained operation. In view of the problems encountered in the early stages of testing, commissioning and commercial operation, NLC has been insisting on

M/s BHEL to ensure that all the parameters are properly dealt with and the performance of Boiler is satisfactorily established to avoid any issues while operating the plant.

(g) After modifications in the Fluidized Heat Exchangers, Seal Plot Refractory works, Non-metallic expansion joints, unit is now in a position to operate continuously. However, sustenance of load above 200 MW was not possible due to restriction on pressure drop across RAPH and ESP leading to overloading of ID fans. Duct works being undertaken is taking more time than the earlier anticipated due to the structural works in connection with the routing of ducts.

(h) The injection of infirm power into the grid by NLC for testing and commissioning is for reasons beyond its control and solely with the intention to achieve the COD.

5. The petitioner has submitted that in the facts and circumstances mentioned above and as per the revised commissioning schedule prepared jointly by NLC and BHEL, it may require time till 30.9.2015 to carry out the testing and commissioning including injection of infirm power into the grid for such operation.

6. The petitioner has requested that taking into account the difficulties encountered in declaring COD, NLC may be permitted to inject infirm power into the grid for testing including full load testing till 30.9.2015 or actual date of commercial operation, whichever is earlier.

Analysis and Decision:

7. We have considered the prayer of the petitioner. The fourth proviso to Regulation 8 (7) of the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 as amended from time to time provides as under:

"Provided that the Commission may in exceptional circumstances, allow extension of the period for inter-change of power beyond the period as prescribed in this clause, on an application made by the generating station at least two months in advance of completion of the prescribed period:

Provided further that the concerned Regional Load Despatch Centre while granting such permission shall keep the grid security in view."

8. The petitioner has submitted that some additional modifications in ID fans are required and suction routing duct works now being undertaken is taking more time than the earlier anticipated due to the structural works in connection with the routing of ducts.

9. Under the above circumstances, rectification of all the defects requires to be completed and tested properly so that the unit could sustain the operation of its rated capacity once the commercial operation is declared. The petitioner has submitted the revised schedule of the commissioning activities for unit of the generating station as on 10.6.2015 to be undertaken before declaration of COD as under:

S. No.	Description of activities	Target date
	Unit-I Shut down on 13.3.2015 to attend Backpass coil punctures and Start up Burner 3 & 4 refractory erosion and seal box damages	
1.	Duct Modification	
	Erection of Pre assemble ducts	By 2nd week of July, 2015

	Welding	By 3 rd week of July, 2015
	Testing	By 4 th week of July, 2015
	Erection of duct supports	By 1 st week of August, 2015
	Duct insulation and Sheeting	By 2 nd week of August, 2015
2	Preparatory works for unit light up like removal of debris, clearing the coarse bed material, filling with fresh bed material	By 2 nd week of August, 2015
3	Light up and raising the load	By 3 rd week of August, 2015
4	Initial operation	By end of August, 2015
5	Trial run completion and COD	
	Light up and raising load to 60% MCR and sustaining	By 2 nd week of September, 2015
	Light up and raising load to 80% MCR & sustaining	By 3 rd week of September, 2015
	Light up and raising load to 100% MCR & sustaining and completion of COD	By end of September 2015

10. Taking into consideration the submission of the petitioner, revised schedule jointly prepared by NLC and BHEL and keeping in view the difficulties being faced by the petitioner, we allow extension of time for injection of infirm power into the grid for the commissioning tests including full load test of unit for a further period up to 30.9.2015 or actual date of commercial operation, whichever is earlier. We expect the petitioner to make all efforts to ensure the commercial operation of unit by this date.

11. It is clarified that the extension of time as allowed in this order shall not automatically entitle the petitioner for IEDC/IDC for the delay in declaration of COD from the scheduled COD and the same shall be considered on merits at the time of determination of tariff of the unit/generating station.

12. With the above, the Petition No. 170/MP/2015 is disposed of.

Sd/-
(A.S.Bakshi)
Member

sd/-
(A. K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson

