

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 144/MP/2017

Subject : Petition under Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fourth Amendment) Regulations 2016 and Central Electricity Regulatory Commission's DOP on Reserve Shutdown and Compensation Mechanism dated 5.5.2017 for seeking upward revision of the Technical Minimum fixed for schedule of operation of NLCIL lignite based Generating Stations (TPS I Expn, TPS II stage 1 & 2, TPS II Expn) and other related issues.

Date of hearing : 27.2.2018

Coram : Shri P.K. Pujari, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member

Petitioner : NLC India Limited (NLCIL)

Respondents : TANGEDCO and Others

Parties present : Ms. Anushree Bardhan, Advocate, NLCIL
Shri S. Gnana Prabhakaran, NLCIL
Shri S. Vallinayagam, Advocate, TANGEDCO
Shri G. Chakraborty, POSOCO
Shri Venkateshan M, SRLDC, POSOCO

Record of Proceedings

At the outset, the representative of the Petitioner submitted that after the notification of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2010 (Fourth Amendment to the Grid Code), the Petitioner's power plants are facing following difficulties in implementation of technical minimum up to 55% MCR:

(a) The provision of fuel oil support leads to mixed firing and this is injurious to the furnace in the long run, as slagging on the furnace gets accelerated and use of water lancing is also not possible during low load operation of the Unit. Further, as a result of lower utilization of lignite for power generation, utilization of linked mines capacity of the Petitioner is getting affected. Therefore, the Petitioner is facing huge revenue loss.

(b) To mitigate the effects of low load operation of Units, reserve shut down of the Units can be taken. However, this will affect the performance of the Units in the long run, as these Units are not designed for frequent shut down and start up. Further, the PF firing Units of TPS II and TPS I Expansion are basically of similar design.

(c) To handle the high moisture lignite (normally around 50%), beater wheel fan type mills are provided for pulverizing the lignite before being fed into the furnace and in order to remove the hygroscopic moisture in the lignite before the same is pulverized, hot flue gas is drawn into the Resuction duct (connecting the furnace and the mill) from the furnace due to self-ventilation action of the fan type mill.

(d) A provision of water lances on the furnace walls to desalt the furnace has been specifically recommended by the OEM so that furnace walls are kept clean to maximize the heat absorption in the water walls. However, during the operation of water walls, certain furnace fluctuations are being experienced and therefore, the same is resorted to when the Unit load is above 180 MW only.

(e) The Petitioner had made detailed comments with regard to technical difficulties before finalization of the Amendment to the Grid Code. However, the same was not considered by the Commission.

(f) The representative of the Petitioner requested the Commission to review the technical minimum of 55% of MCR loading or installed capacity of a generating unit and revise the same for the lignite fired stations of the Petitioner under the provisions of power to remove difficulties and power to relax to ensure reliable, safe and stable operation of the units on a sustained basis. The representative of the Petitioner further requested to fix the technical minimum at 70% MCR.

2. The representative of SRLDC submitted that in the context of expanding renewable generation capacity, it is important to have flexibility in the conventional generation in order to accommodate the renewable generation. The representative of SRLDC further submitted as under:

(a) The Commission after considering views of all the stakeholders had allowed to reduce the technical minimum to 55% of the installed capacity.

(b) On 18.9.2017, Tamil Nadu Wind and Solar generation was 3000 MW and under drawal of Tamil Nadu was -700 MW approximately despite the fact that the machine was running at 55%. Further, the accuracy of forecasting of Renewable and States is not to the expected level and the States are using the surrender up to 55% technical minimum to address variations to some extent.

(c) The Fourth Amendment to the Grid Code was very helpful to the system operator in managing the grid as well as managing the growth of Renewable energy, RE variation and unexpected demand variation.

(d) Presently, power sold in the market is also considered for fixing technical minimum which reduces the jacking up required on the constituents and reduce the constituents under drawal. Therefore, the proposal of the Petitioner to consider the URS power sold in market treated independently and allowed over and above the technical minimum schedule would not be in the right direction as it narrows down the margin to flex the sudden variation. Further, the generators may properly estimate the likely generation available and plan the sale in Power Exchange or bilateral for URS power so that some margin may be kept for Declared Capability variation in real time.

3. Learned counsel for TANGEDCO submitted that the present Petition is not maintainable. Learned counsel for TANGEDCO further submitted as under:

(a) If the Petitioner is aggrieved of non-consideration of its comments before the Commission at the time of finalizing the Fourth Amendment to the Grid Code, the Petitioner should challenge the same before the appropriate forum.

(b) The Petitioner is not aggrieved of the technical minimum schedule of 70% whereas he is aggrieved of the inclusion of quantum of URS power traded through Power Exchange by the RLDCs while notifying the technical minimum schedule.

4. The Commission directed the staff to refer the matter to CEA and obtain its expert opinion in the matter.

5. After hearing the learned counsels of the Petitioner, TANGEDCO and the representatives of the Petitioner and SRLDC/ POSOCO, the Commission reserved the order in the Petition.

By order of the Commission

**Sd/-
(T. Rout)
Chief (Law)**