

BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

Petition No.1217 / 2017

Quorum

Shri S. K. Agarwal, Chairman

In the matter of:

Amendments in the U.P. Grid Code, 2007 in line with the Indian Electricity Grid code (Fourth Amendment) Regulation 2016.

For specifying technical minimum schedule of all generating stations (i.e. State generating stations, IPPs, Co-gens etc.) in line with Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016.

Petitioner:

Director, UP State Load Dispatch Centre, SLDC Complex, Vibhuti Khand – II, Gombi Nagar, Lucknow – 226010.

Respondents:

1. Managing Director, UP Power Corporation Ltd., 7th Floor, Shakti Bhawan, 14, Ashok Marg, Lucknow - 226001.
2. Managing Director, Madhyanchal Vidyut Vitran Nigam Ltd., 4- A, Gokhale Marg, Lucknow – 226021.
3. Managing Director, Poorvanchal Vidyut Vitran Nigam Ltd., DLW Bhikharipur, Varanasi - 221004.
4. Managing Director, Paschimanchal Vidyut Vitran Nigam Ltd., Victoria Park, Meerut - 250001.
5. Managing Director, Dakshinanchal Vidyut Vitran Nigam Ltd., Urja Bhawan Agra – Delhi – Bypass, Sikandra, Agra – 282007.
6. Managing Director, Kanpur Electricity Supply Co. Ltd., 14/71, Civil Lines, KESA House, Kanpur- 208001.
7. Managing Director & CEO, Noida Power Company Ltd., Commercial Complex H-Block, Alpha Sector II, Greater Noida City-201308.
8. Managing Director, Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd., Shakti Bhawan Vistar, 14, Ashok Marg, Lucknow - 226001.
9. Managing Director, Uttar Pradesh Jal Vidyut Nigam Ltd., 12th Floor, Shakti Bhawan Ext., 14, Ashok Marg, Lucknow - 226001.
10. Director, Lanco Anpara Power Pvt. Ltd., Plot No. 397, Phase-III, Udyog Vihar, Gurgaon-122001.

11. Director, Rosa Power Supply Co. Ltd., Kasmanda Regent Apartment, 520, Block-F, 2 Park Road, Hazratganj, Lucknow – 226001.
12. Director, Prayagraj Power Generation Company Ltd., Sector-128, Noida – 201304.
13. Director, Lalitpur Power Generation Company Ltd., TC-13, Vibhuti Khand, Gomti Nagar, Lucknow -226010.
14. General Manager (Commercial) NTPC, Tc-33/V-1, Northern Region Arcade, Gomti Nagar, Lucknow (Vibhuti Khand, Near CRPF Central Command) – 226001.
15. Secretary, Uttar Pradesh Sugar Mills Co-gen Association, 4th Floor, Room No. 403, Chintels House Trade Centre, 16, Station Road, Lucknow- 226001.
16. Director, Bajaj Energy Pvt. Ltd., TC-13 Vibhuti Khand-II, Gomti Nagar, Lucknow – 226010.
17. General Manager, Jai Prakash Power Ventures Ltd., Sector-128, Noida – 201304.
18. Director, Alaknanda Hydro Power Company Ltd., Srinagar Hydro Electric Project, Koteshwar Colony, Srinagar, Garhwal – 246174 (Uttarakhand).

Present in the Hearing:

1. Shri S.P. Chaubey CE (T.O.), UPRVUNL
2. Shri Brijesh Kr. Singh EE (T.O.), UPRVUNL
3. Shri Rahul Srivastava, Advocate, UPSLDC
4. Shri Ajai Vikram Singh, Advocate
5. Shri A.K. Arora, Resident Manager, NPCL.
6. Shri Amrendra Tripathi, Sr. Manager, Bajaj Energy Ltd.
7. Shri Vaibhav Shukla, NTPC Lucknow
8. Shri Sumeet Notani, GM, Rosa Power
9. Shri Ambuj Shukla, Sr. Manger, Rosa Power
10. Sri Arun Tholia, GM (Commercial), LANCO
11. Shri Sandeep Agarwal, UP Sugar Mills Cogen Association.
12. Shri Saurabh Mishra, UP Sugar Mills Cogen Association.
13. Shri Rama Shankar Awasthi
14. Shri Avadhesh Kumar Verma, Chairman, UPRVUP

ORDER (Hearing 12.12.2017)

Brief History & Background

Central Electricity Regulatory Commission has notified the Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016 on April 6, 2016 and vide its Order dated May 5, 2017 approved the detailed procedure for taking unit(s) under Reserve Shut Down and Mechanism for Compensation for Degradation of Heat Rate, Aux Compensation and

Secondary Fuel Consumption, due to Part Load Operation and Multiple Start/Stop of Units.

In compliance to above Regulations, NLDC has revised technical minimum schedule of inter - state generating stations and Central generating stations as 55%.

Petitioner's Submission

UP State Load Dispatch Centre (UPSLDC) had submitted the following:

- 1) It is submitted that State generating stations, IPPs, Co-gens etc. and Central generating stations should follow the same technical minimum schedule to have a true economic merit order dispatch, otherwise there will be a clear discrimination between State generating stations, IPPs, Co-gens etc. and Central generating stations.
- 2) It is submitted that to ensure flexible grid operation and security of the Grid in the State, technical minimum schedule of all generating stations (i.e. State generating stations, IPPs, Co-gens etc.) shall be at 55% in line with Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016 notified by CERC on April 6, 2016 and in line with the detailed operating procedure prepared by NLDC and mechanism for compensation for Station heat rate, auxiliary energy consumption etc. submitted by RPCs and approved by CERC vide order dated May 5, 2017 (w.e.f. May 15, 2017).
- 3) It is submitted that necessary amendments in the UP Grid Code, 2007 shall be made in line with Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016 notified by CERC on April 6, 2016 and in line with the detailed operating procedure prepared by NLDC and mechanism for compensation for Station heat rate, auxiliary energy consumption etc. submitted by RPCs and approved by CERC vide order dated May 5, 2017 (w.e.f. May 15, 2017).

Respondent's Submission

UPPCL' Submission:-

Shri Deepak Raizada, SE (Planning), submitted that as per UP Electricity Grid Code, 2007 no additional compensation for Station heat rate, auxiliary energy consumption is admissible to any generator on reducing the load of the generating plant. He stressed that adoption of Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016 in its present form will cast additional financial burden on the state distribution companies that are already in a difficult financial position. He prayed that for Independent Power Producers supplying power to UP Discoms, no change should be made in the UP Electricity Grid Code, 2007.

It is further submitted that although UPPCL is in agreement with the contents of the petition, however, it has already implemented Ujwal Discom Assurance Yojana (UDAY) for financial turnaround and reduction in power procurement cost as a major initiative to

achieve the objectives of the scheme and 'Power for all' Yojana is also in process of implementation.

It is submitted that UPERC vide its order dated 4.9.2017 has also advised to take necessary steps to reduce the power procurement cost.

It is submitted that Commission may kindly consider exempting UPPCL, till financial turnaround in UDAY is achieved, from the operation of the provision contained in clause 6.3 B 3 proviso (i) (ii) and (iii) for the purpose of compensation to the generating units.

Shri Rama Shankar Awasthi's submissions:-

It is submitted that Regulation 6.3 (b) in sub – clause 3 (iii) mentioned the oil consumption for start- up (KL) only for unit size more than 200 MW. It is submitted that many plants in UP have less than 200 MW capacity and thereby in the absence of technical parameters for less than 200 MW units, practical problem may arise at the time of compensation calculation. Therefore, technical parameters for less than 200 MW units may be specified.

It is submitted that compensation may be allowed to State Generating Stations including IPPs and following restrictions may also be considered:

- 1) Each generator should submit design parameters before the Commission.
- 2) Each generator should submit every year actual technical parameters before the Commission.

Lalitpur Power Generation Limited & Rosa Power Supply Company Limited (RPSCL) Submission:-

It is submitted that it would not be prudent to adopt the technical minimum defined by Central Electricity Regulatory Commission (CERC) for NTPC generating stations without considering the viewpoint specific to the Generating Stations of the State. CERC has defined the technical minimum for NTPC generating station as 55% after undertaking due consultation and obtaining comments from generators and beneficiaries. It is submitted that this Commission may define technical minimum on case to case basis only after due consultation with State Gencos and IPPs.

It is submitted that defining technical minimum of generating station is a technical phenomenon which varies for each plant depending on the plant's design and operating conditions as specified by the OEM. It may be noted that operating machine at less than 70% load levels would definitely affect the reliability as well as efficiency and economy of operation.

Lalitpur Power Generation Limited further submitted that Regulation 6.3 B in sub clause 3 (iii) has tabulated norms for compensation towards start up fuel cost over and above seven starts / stops in a year. The table does not contain norms for unit size below 200 / 210 / 250 MW capacity generating stations and the State has units of smaller size below 50 MW, for which norms are not covered therein.

It is submitted that the Commission may reject UPPCL prayer on the pretext of financial distress situation.

Lanco Anpara Power Limited (LAPL) submitted that the amendment sought by the Petitioner may be adopted by the Commission by making appropriate amendment in the U.P. Electricity Grid Code, 2007 or by passing appropriate order without any deviation from the Indian Electricity Grid Code as adopted by the Central Electricity Regulatory Commission on 5.5.2017.

UP Sugar Mills Cogen Association submitted that at present the RE Co-Generators in UP are having “MUST RUN” status and are not within the regulatory ambit of necessary shut down.

Commission’s Observation & Analysis

The Commission has considered the views of all the parties and is of the view that the thermal power plants should be run at the maximum possible capacity and if due to load requirement some plants are asked to reduce their load, they must be compensated for the change in operating norms.

The Commission has examined the changes made in the Indian Electricity Grid Code, (Fourth Amendment) Regulations, 2016 and is of the view that the generators virtually do not have any adverse impact on Station Heat Rate, Auxiliary consumption and specific oil consumption till the plant run at 75% capacity but when the plant capacity goes below 75% they certainly incur financial loss in terms of additional Station Heat Rate, Auxiliary consumption and specific oil consumption. Therefore the Commission decides the compensation norms as under when the plants run at capacity below 75%.

(1) In case of coal / lignite based generating stations, following station heat rate degradation or actual heat rate, whichever is lower, shall be considered for the purpose of compensation:

SI. No	Unit Loading as % of Installed capacity of the Unit	Increase in SHR (for supercritical units) %	Increase in SHR (for sub- critical units) %
1	85-100	Nil	Nil
2	75-84.99	Nil	Nil
3	65- 74.99	2	4
4	55- 64.99	3	6

(2) In case of coal / lignite based generating stations, the following Auxiliary Energy Consumption (AEC) degradation or actual, whichever is lower, shall be considered for the purpose of compensation:

SI. No	Unit Loading (% of MCR)	% Degradation in AEC admissible
1	85- 100	Nil
2	75- 84.99	Nil
3	65- 74.99	0.65
4	55- 64.99	1.00

Compensation for the Station Heat Rate and Auxiliary Energy Consumption shall be worked out in terms of energy charges.

- (3) Where the scheduled generation falls below the technical minimum schedule, the concerned CGS or ISGS shall have the option to go for reserve shut down and in such cases, start-up fuel cost over and above seven (7) start / stop in a year shall be considered as additional compensation based on following norms or actual, whichever is lower:

Unit Size (MW)	Oil Consumption per start up (KL)		
	Hot	Warm	Cold
Unit Size \leq 300	20	30	50
Unit Size $>$ 300 and \leq 500	30	50	90
Unit Size $>$ 500	40	60	110

Further, the CERC while revising the parameters of Station Heat Rate, Auxiliary consumption and specific oil consumption has stipulated that the generator will be compensated on the bases of norms prescribed in the Grid Code or actual whichever is less.

The Commission directs not to allow any additional compensation up to 75% capacity but later on if the State Generator company and other thermal power plants on whom the State Grid Code is applicable are able to prove any loss in operation after one year of such operation, the Commission may reconsider for compensation for capacity below 85% up to 75%, for this the individual generators can approach the Commission with relevant data to substantiate their claim. For this concerned generating plants are advised to keep the relevant data which can clearly prove their argument.

A notification for giving effect to the above changes shall be issued separately.

The Petition No. 1217 / 2017 is disposed of accordingly.

(S.K. Agarwal)
Chairman

Dated: February 13, 2018