

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**Petition No. 188/SM/2012
with I.A.Nos 48/2012 and 50/2012**

Coram:

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

Date of Hearing: 30.10.2012

Date of order: 17.12.2012

In the matter of

Calculation of Total Transfer Capacity, Available Transfer Capability
and Transmission Reliability Margin

**And
In the matter of**

National Load Despatch Centre, New Delhi

....Respondent

The following were present:

Shri V.V.Sharma, NLDC.
Shri V.K.Agarwal, NLDC.
Miss Joyti Prasad, NRLDC
Shri S.S.Barpanda, NRLDC
Shri Rajiv Porwal, NRLDC
Shri S.R.Narasimhan, NRLDC
Shri Vivkek Pandey, NLDC
Shri S.C.Sexena, NLDC
Shri Pardeep Reddy, NLDC
Shri Mohit Joshi, NLDC
Shri Sanjay Sen, Advocate, JPL
Miss Ranjitha Ramchandran, Advocate, JPL
Shri Amey Kulkarni, JPL
Shri Sanjay Kaul, JPL
Shri Hemant Singh, JPL
Shri Prashanto Sen, STL
Shri Amit Chopra, KISPL
Shri Pramod Choudhery, MPPMCL
Shri Dilip Singh, MPPMCL



ORDER

The Commission vide its order dated 31.8.2012 had directed as under:

"4. In view of the above, we direct NLDC to explain the reasons for changing methodology for calculation of TTC/ATC in deviation of the Regulations of the Commission. Pending such clarification and decision of the Commission thereon, the existing methodology for calculation of TTC/ATC should be continued, as per the CERC Regulations. It is however, made clear that NLDC has the liberty to approach Commission through appropriate application for relaxation / deviation from the methodology of calculation of TTC/ATC as specified in the Regulations, with justification."

2. The Commission vide Record of Proceedings dated 6.9.2012 directed POSOCO to submit the results of its exercise on safe line loading for each of the transmission lines after consultation with CEA and CTU by 5.10.2012. It was further directed that TTC/ATC would continue to be calculated as per the regulations of the Commission. The petition was listed for hearing on 27.9.2012 for reporting about the compliance of the interim directions issued by the Commission on 6.9.2012. During the hearing on 27.9.2012, the representative of POSOCO submitted that in compliance with the order dated 31.8.2012, TTC/ATC and Transmission Transfer Margin (TRM) are presently being calculated as per procedure issued under 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. As POSOCO was in the process of finalization of the limits of line loading in consultation with CEA, POSOCO was granted time till 18.10.2012 to submit



the report regarding the calculation of TTC/ATC and TRM. POSOCO has submitted the report vide affidavit dated .

3. During the hearing of the petition, the representative of POSOCO submitted that the report has been prepared in consultation with CEA and CTU. He submitted that the Procedure approved by the Commission under the Central Electricity Regulatory Commission (Measures to relieve congestion in real time operation) Regulations, 2009 provides that POSOCO shall work out the TTC/ATC limits based on the planning criteria of Central Electricity Authority. He further submitted that Procedure approved under the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access and Medium Term Open Access to inter-State Transmission and related matters) Regulations, 2009 does not take into account the planning criteria of Central Electricity Authority for the purpose of calculation of TTC/ATC. In reply to our query whether there is any conflict between the methodology adopted by POSOCO and the methodology adopted by CTU, the representative of POSOCO replied that there is no conflict between the two. He however explained that as per the CEA planning criteria, the operating limits are calculated on the basis of the minimum of the three conditions namely, thermal limits or stability limits or voltage limits and also considering Surge Impedance Loading (SIL) limits. However, CTU calculates the TTC/ATC without taking into account the SIL limit. The representative of POSOCO explained the distinction between the two methodologies by citing the example of Vijayawada-Nellore-Almathy line. In respect of the said line, POSOCO has specified the line loading as 507 MW considering the SIL

limits as per the CEA planning criteria whereas CTU has considered the limit of 795 MW which is more than the SIL limits.

4. Representative of POSOCO further explained that the problems associated with the zone 3 setting were detected during the grid disturbance which took place on 30.7.2012 and 31.7.2012. He explained that in planning criteria, zone 3 has not been explicitly considered. Based on experience, the planning organizations like CEA and CTU are considering to factor in zone 3 in their planning criteria. POSOCO will follow the recommendations of the planning organizations. The representative of POSOCO further submitted that a committee under Member (PS), CEA with Director(Operation), Powergrid and NLDC as members considered the settings of 770 lines and found that in about 98 lines, the loading is less than the SIL limits. The Committee in its minutes dated 26.9.2012 has recommended for removal of shunt reactors on lines shorter than 200 km and for considering the loadability of these lines upto the thermal limit (about 800 MW) for calculation of TTC/ATC. Further the Committee found about 100 lines which are long and LILoed and recommended for increasing their loadability. The representative of POSOCO further explained that the system operators are required to operate the grid based on the operating limits. If the Committee has recommended that these lines should be loaded upto the SIL only, it would be in the interest of the grid that such limits are honoured by all concerned.

5. In reply to our query whether ATC/TTC is revised in the event of tripping of a generating station, the representative of POSOCO explained that if a generating station of 500 MW or above trips, then the ATC/TTC is revised. He further explained that the information regarding revision of ATC/TTC is posted on its website for information of all concerned. In reply to our query as to the time required for implementation of the recommendations of the committee, the representative of the POSOCO submitted that CEA and CTU would be able to indicate a definite timeline for implementation of the recommendations.

6. We have considered the submission of the representative of POSOCO. We notice that the Committee comprising Member (PS), CEA, Director (Operation) PGCIL and NLDC after examining the transmission lines have recommended in the minutes dated 26.9.2012 for revision of ATC/TTC on the basis of SIL limits. It is not clear whether the recommendations of the committee have been approved by the CEA for implementation for calculations of TTC/ATC. Since the conclusion of the committee may result in possibility of underutilization of transmission capacity, we consider it necessary to hear the representatives of CEA and CTU on the issue of calculation of ATC/TTC. Accordingly, we direct that CEA and CTU should depute their authorized representatives on the next date of hearing to assist the Commission.

7. The petition shall be listed for further hearing on **20.12.2012**.



IA No. 48/2012

8. M/s Jindal Power Limited has filed IA No.48/2012 with the following prayers:

“(a) stay the change in the methodology sought to be effected by NLDC in regard to transfer of power under the Short Term Open Access allowed to it and permit it to transfer the power from its generating units located at Tanmar in the same manner as was allowed prior to 20.9.2012;

(b) Without prejudice to the above, permit the applicant to utilize the Long-Term Open Access granted for transfer of power under the short term contract;

(c) Set aside the inclusion of any regional entity of other region in W3;

(d) Direct NLDC to give preference to the entities having LTA over those who have sought only connectivity with the system.”

9. JPL has submitted that despite Commission's directions dated 20.9.2012, the Western Regional Load Despatch Centre has unilaterally and drastically reduced the ATC under short-term access for transfer of power from its generating stations, causing bottleneck of power. JPL has submitted that its generating station having capacity of 4x250 MW is connected to the ISTS system at Raipur and it has been granted long term open access for transfer of 500 MW in the Western Region. JPL has submitted that short term open access was granted to it for transfer of power up to 850 MW in terms of the provisions of the applicable regulations and the methodology for



assessment of TTC, TRM and ATC specified by the Commission. However, when it applied for short-term open access for sale through Power Exchange, the permission has not been granted. The petitioner has submitted that POSOCO has deviated from the methodology specified by the Commission for deciding the ATC, substantially reducing the same for it and other generating units in Western Region by calculating the transmission capacity by adopting operationalization of W-3 bid area and also by adopting some other methodology not specified. It has further, in deviation from the methodology, reduced the margin available for W-3 export zone for the short term open access to 1100 MW for the months of October, November and December 2012. The petitioner has requested to direct the NLDC to continue with the short-term open access to the applicant and others as was before 20.9.2012.

10. Notice was issued on the IA. POSOCO in its reply affidavit dated 16.10.2012 has submitted that there are large number of private players in the Chattisgarh Region which fall in the W3 bid area. In the present scenario, the generators participating in the Power exchange market provide price-quantity offers depending on their own considerations in order to sell power and in the process compete against other generators. Therefore, clearing of bids in the Power exchange is dependent on the combined effect of price/volume strategy of the market participant and availability of adequate margins. Carving out the bid area W3 has provided an equal opportunity for all and facilitated competition in the electricity market among the private IPPs who are now competing to sell power. Thus, creation of bid area W3 has

helped in the implementation of the provisions of the short-term open access regulations in a transparent and non-discriminatory manner by the NLDC/RLDCs.

11. Learned counsel for JPL submitted during the hearing that as per Regulation 3 of the Congestion Regulations, ATC/TTC/TRM have to be revised in accordance with the Procedure issued under the Connectivity Regulations of the Commission. Learned counsel submitted that it needs to be considered whether the events of grid disturbance can be the reason for POSOCO to revise the ATC/TTC/TRM in violation of the regulations of the Commission. Learned counsel submitted that the methodology decided by POSOCO is in deviation of the regulations and should be rejected.

IA 50/2012

12. M/s Sterlite Energy Limited has filed IA No.50/2012 sought withdrawal of the methodology adopted for calculation of ATC/TTC/TRM on the same grounds as JPL. During the hearing, representative of Sterlite Energy Limited submitted that SIL was not a loading limit but was a loading condition where voltages are same at both ends. He submitted that there was over voltage problem on lines and as such POSOCO should not consider the SIL limits for calculation of ATC/TTC. He submitted that POSOCO should take into consideration the load of Chhatisgarh and consider net export of power from the control area.

MPPMCL's Submission

13. The representative of Madya Pradesh Power Management Company Ltd.(MPPMCL) submitted that as ATC/TTC has been reduced substantially which has affected the interest of the State. He sought leave of the Commission to file submission on technical aspects of the problem.

14. We have considered the submissions of learned counsel of JPL and representatives of Sterlite Energy Limited and MPPMCL. It is clarified that the present petition has been initiated suo motu by the Commission to examine whether the change in the calculation of ATC/TTC/TRM by POSOCO is in accordance with the regulations of the Commission. The Commission may also consider, in the light of submission made by POSOCO, whether any change in the methodology in calculation of ATC/TTC/TRM is necessary, keeping in view the grid security while ensuring that transmission capacity does not remain unutilized. Since ATC/TTC/TRM are determined on technical considerations, the proceedings in this petition need to be confined to technical aspects only. JPL or Sterlite Energy Ltd or MPPMCL or any other stakeholder is free to give their views/suggestions on the technical aspects of calculation of ATC/TTC/TRM.

15. We however notice that in the IAs, both JPL and Sterlite Energy Limited have raised the grievance of denial of open access by WRLDC. JPL has also filed a separate petition seeking specific directions to WRLDC to grant open access. In our view, these grievances could be considered on the basis of appropriate applications filed in this regard. No relief can be granted



on the IAs filed by JPL and Sterlite Energy Ltd. Accordingly, the IAs are disposed of with liberty to the petitioners to pursue the remedy through appropriate separate proceedings, if so advised.

sd/-
(M. Deena Dayalan)
Member

sd/-
(V. S. Verma)
Member

sd/-
(S. Jayaraman)
Member

