



GOVERNMENT OF INDIA
MINISTRY OF POWER
CENTRAL ELECTRICITY AUTHORITY
SEWA BHAWAN, R.K.PURAM
NEW DELHI-110066
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(Regulatory Affairs Division)

No. CEA/RA/CERC-2015

Dated 08.5.2015

To
The Secretary,
Central Electricity Regulatory Commission,
3rd Floor, Chanderlok Building,
36, Janpath,
New Delhi- 110 001.

Subject: Proposed Framework on “forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State level”.

Dear Madam,

Reference is invited to public notice of the CERC issued by No.1/14/2015-Reg.Aff.(FSDS)/CERC dated 31.3.2015 on the above mentioned subject. In this connection, the substantive comments of CEA are attached at Annexure. This issues with the approval of Chairperson, CEA.

(PankajBatra)
Chief Engineer (RA)

Substantive Comments of CEA on the Proposed Framework on “forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State level”

1. In view of the large scale solar generating capacity(1,00,000 MW by 2019) planned to be integrated into the Indian Grid, the mandating of forecasting for solar power is a welcome step.
2. The proposed framework is for ***inter-state wind and solar generators only***, of which presently there are none. It is also not sure to what extent wind generators would like to sell power outside the state. It is also preferable that power from intermittent sources of energy get consumed within the state form optimum utilization of the intra-state and inter-state transmission system. The other states which do not have renewable sources of energy should purchase renewable energy certificates to fulfil their renewable purchase obligations.

Therefore, the problems raised by the states of handling the intermittency of intra-State wind and solar generators which form the majority, technically as well as their financial implications, has been left unaddressed. In the previous dispensation of the Commission, intra-state generators were also covered since they had a large impact on the grid as a whole and affected other states as well as the grid at large. The wind-rich state alone did not have to bear the financial implication due to erstwhile unscheduled interchange charges and presently called deviation settlement charges, these being socialized to all States of the country in the ratio of their peak demand for the previous month.

3. The deviation band for wind generators has been reduced from +/- 30% to +/- 12%. The same band has also been proposed for solar energy generators. For wind-rich states, this proposition is going to become very onerous since the deviation allowed for the state as a whole, in the net schedule, is +/- 12% or 150MW, whichever is lesser. Taking a realistic example, the range of wind scheduled for ***intra-State*** generators in Tamil Nadu during the high wind season is of the range of 3000 MW. If the State also imposes a similar +/- 12% band on intra-state wind generators, 12% deviation of 3000 MW for wind generators comes to 360 MW, whereas the deviation allowed for the state as a whole is only 150 MW. The state would therefore have to bear the deviation of 360-150 = 210 MW. This would dis-incentivize the state from allowing any more wind generator to be put up in the state, which would be a retrograde step and against government policy. The States may reduce this band for intra-State wind and solar generators further to say +/- 5%. It is felt that the older mechanism of socializing the deviation charges to a certain extent would be more acceptable.

4. As already stated in the proposed framework, the charges for deviation from schedule for wind/solar energy have been de-linked from the frequency. The reason given is that these sources are must run and hence should not be linked to frequency. We find this to be in order.
5. The wind and solar inter-state generating stations would still be embedded in the state Transmission/distribution system. Therefore the variation of wind/solar generation from the schedule would have to be adjusted against the net drawl/injection schedule of the state for each 15 minute block.
6. Solar generation is fairly accurately predictable on a clear day. However, the accuracy of forecasting of solar power is not so mature as at present. It is hoped that the commission would have taken into account while prescribing the forecasting accuracy of +/- 12% for solar power during cloudy days.