

L.No. 1/IWL/NewRRFDraft/Apr15

Date: 28th April, 2015

To

The Secretary,
Central Electricity Regulatory Commission
3rd & 4th Floor, Chanderlok Building,
36, Janpath, New Delhi- 110001

Subject: Suggestions on "Proposed Framework on "Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State Level."

Respected Madam,

This is with reference to the above mentioned subject & a public notice No. 1/14/2015-Reg. Aff. (FSDS)/CERC dated 31st March 2015 by Hon'ble CERC, wherein suggestions on the captioned subject from various stakeholders were invited.

We, INOX Wind Limited (IWL), have an installed/under execution capacity of more than 700 MW spread across the states of Maharashtra, Rajasthan, Gujarat & Tamilnadu and have plans to put up around 5000 MW capacity in different states over next few years.

As a stakeholder in the Renewable Energy Space, our suggestions are submitted hereunder for your kind consideration:

1. Suggestions of IWL on Clause 3. Proposed Methodology for Forecasting, Scheduling & Imbalance Handling for infirm RE Generators (Wind and Solar) at Inter-State Level :

We appreciate the timely initiative by the Hon'ble Central Commission introduction of the revised methodology. We submit that the since it is clearly mentioned that the proposed new framework would be applicable to Inter-State wind and solar projects; weather the proposed new mechanism would be applicable to the intra-state level projects as the state commission has not formulated any methodology for the same and some state have adopted the methodology proposed by the CERC. Also we want to submit that old RRF-framework should be kept on hold till the new one takes final shape.

2. Suggestions of IWL on Clause 3.1 & 3.2 : Forecasting & Scheduling

We endorse the point made in the proposed framework that the accuracy of forecasts can be increased *inter alia* by maximizing geographic diversity in wind energy generation as the errors in forecasts tend to offset each other, the larger the number of generators covered say (500 to 1000MW) cluster and broader the area included in the forecasts. So we humbly submit that the centralised forecasting, covering large number of solar/wind plants spread across large geographical area would be a more suitable arrangement acceptable to generators and system operators.

This centralised forecasting may be done at RLDCs (for Inter-State) / SLDC (for intra-state) level through Renewable Energy Management Centers being planned and proposed by the Central Electricity Authority through co-ordination with CTU/STU. There may be multiple forecasting models with multiple variables ensemble in single software and the system operators may choose forecast/s whichever it finds would give optimal system operation conditions. We propose that since the entire operation of forecasting would be undertaken by the system operators, the commercial implications may not be a suitable preposition at this stage to handle the deviations. The deviations could be handled by introduction of ancillary market with a surety to the generators that their reason revenue/returns with respect to feed-in-tariff (in case of wind) would not be affected as the intension of this mechanism is to institutionalize grid discipline without any harm to the generators.

The Hon'ble commission has proposed that the generators would be paid as per schedule and not on actuals. It can be stated that wherever there is differential treatment to the schedule and actuals for energy settlement for the intermittent sources of energy, there would always be probability for manipulation of schedule.

The primary concern of the system operators, which hinges upon the safe and secure grid operation at central and state level, would be adequately addressed if the forecasting as well scheduling is done by one central agency at state and central level without any loss to the developers. Only these central agencies would be in opposition to continuously monitor and/or control the real-time grid stability limits and then accordingly revise the schedules keeping in view the spinning reserves and/or availability of ancillary service (in infancy now). We humbly submit that the central level monitoring, control, revisions and imbalance handling would be a more practical solution to address the grid security issues rather than localized efforts with financial implications to the generators.

3. Suggestions of IWL on Clause 3.4 & 4 : Imbalance Handling & Fulfillment of RPO

We appreciate the proposed framework is delinked from the frequency based parameter. The Hon'ble Commission has proposed a deviation band of +/- 12% as applicable to that of conventional fuel based generating plants. It is humbly submitted that the industry is involved in the scheduling and forecasting activity for the past July 2014. As on date no forecaster is able to give a guarantee for their forecasts in the range of earlier proposed deviation band of 30%. The deviation band of 12% proposed by the Hon'ble

Commission is most likely to be exceeded by the generators who would be subjected to the forecasting and scheduling at generator level on time-block basis. Though the deviation band may not be exceeded if the centralised forecasting and scheduling is adopted for the state and region level which could be further narrowed down to different wind-zone levels on the annual basis with respect to the installed capacity of the plants. This centralised forecasting would help not only addressing the grid security issue but also off-set the forecasting error along with timely intervention by the system operator managing the centralised forecasting.


The temporary figures (Rs 5 & 7) mentioned the proposed new framework along with the variable REC-component seems workable for the CTU-connected projects. However they may not be workable at the individual state level having yearly changing tariff or fixed tariff for few years, changing RPO-trajectory, different project mix at one site and large band of deviation at generator level. The REC market being stagnant and crumbling under huge inventory of over 12 million. So attaching this variable component with the RPO through DSM may not be acceptable to the utilities. The imbalances would be more practically handled by attaching fixed incentive/penalties to scheduling done within the specified deviation-band by a central agency. This incentive/ penalties may be socialized over the large stakeholders or may be kept on hold until the ancillary service market achieves operational maturity or may be met through NCEF.

4. Suggestions of IWL on Clause 5 & 6: Data Telemetry and Communication Facilities & Compliance to Technical Standards

It is submitted that the data telemetry and communication facilities is important for a secure grid operation and should be installed by the system operators itself. The generators are ready to provide any technical inputs for the same. The necessary fund for the same may be availed from national clean energy fund.

We humbly request the Hon'ble Central Commission to consider our suggestions and accordingly review and/or revise the proposed amendments to IEGC Regulations 2010, DSM Regulation 2014 and REC Regulation 2010. We would be happy to submit any other information, if desired so.

Thanking you!
Yours Sincerely,



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