

31 August 2018

To, The Secretary, Central Electricity Regulatory Commission (CERC), 3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi – 110 001

Subject: Discussion Paper on "Re-Designing Real Time Electricity Market in India" dated 25th July 2018

Dear Sir,

This is with reference to the captioned Discussion Paper on "Re-Designing Real Time Electricity Market in India" issued by Hon'ble CERC vide notice No.RA-14026(11)/2/2018-CERC dated 25^{th} July 2018. Also, vide public notice in the matter, CERC has invited comments/suggestions from various stakeholders by 31^{st} August 2018.

Accordingly, we are hereby enclosing comments and suggestions on the captioned amendment as Annexure I. We request the Honourable Commission to kindly consider the same while finalizing the Draft Amendment to the Principle Regulation.

Lastly, should there be any requirement, it would be a privilege for us to support the Honourable Commission by providing information/data relevant to the matter.

Yours truly,

For ReNew Power Limited

Parag Sharma Chief Operating Officer ReNew Power Limited

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Annexure I: Comments and Suggestions on Discussion Paper on "Re-Designing Real Time Electricity Market in India"

Participation in the Real Time Electricity Market:

"The DSM is meant to handle the last mile system imbalances. The frequency linked deviation prices and the allowable permissible band of deviation render the DSM to be a decentralized mechanism of managing grid frequency. The discoms and the generators tended to use DSM as an avenue for real time energy procurement and sale."

The Hon'ble Commission has very clearly articulated the challenges faced by market operators in India today, i.e. several market participants are depending upon DSM market for managing their energy requirement on account of poor demand planning. Therefore, the issue critical to success of Real Time Electricity Market (RETM) in India is ensuring participants from discoms as well as generators (which we understand will be easier to do as it creates another market for their offering) in the proposed framework without which it'll remain as any other short term market product that remains under-utilised. The Commission should in this regard expedite the amendment in the Deviation Settlement Mechanism Regulations wherein the price of the frequency deviation vector is proposed to be linked to price discovered in the day ahead market.

However, even in this case it'll be a challenge to ensure participation of discoms due to lack of delegation of decision making at operator's level, therefore in order to address that we propose that there should be a mandate of participation of discoms in the RTEM. This mandate could be 5% of their overall energy mix on a fortnightly/ monthly basis which can then be increased in a graded manner so that we move to a market mechanism where the price of the electricity is discovered transparently and competitively.

Increasing the market depth:

As of today several generators as well as consumers of power are embedded in the STU network, the paper however proposes to limit participation to only ISTS entities, we'd therefore humbly submit to the Hon'ble Commission that the participation be extended to embedded entities as this will only increase the depth and the volume of the market and assist in meeting its overall objective.

Procedure of the proposed framework:

The overall success of the market depends on the ease of application procedure and timeliness of approvals to the market participants from the nodal agency. Therefore, we'd humbly request that the Hon'ble Commission before finalising the proposed framework the Commission may undertake stakeholder consultation on the procedure and timelines to be adopted under the framework.

The Hon'ble Commission should also undertake a trial of the proposed framework without any commercial implication with varying gate closure timings ranging from 30 minutes to 2 hours so that the impact of the framework can be understood from an operations standpoint.



Settlement in the proposed Real Time Electricity Market:

The proposed settlement in the RTEM has been illustrated with a few scenarios in the draft paper. In order to analyse effectiveness of the proposed framework, it is vital to keep in mind the envisaged objective behind its implementation. It is a known fact that the primary objective of the framework is to *facilitate better grid management in light of the fact that ratio of renewables (which is infirm in nature) is increasing in the Indian grid*. Accordingly, the framework has been designed with a goal to induce revelation of schedule of power generation and demand as close as possible to actual.

Further, in our mind one of the other key design principles of any market framework must be to include all the participants in the mechanism and minimize the financial impact on the participants. The Commission after several rounds of deliberations has finalised the Deviation Settlement Mechanism for the RE generators and several states are now adopting the same. It is a globally accepted truth that the wind and solar energy is of infirm nature and their generation pattern is subject to change depending on multiple factors of environment which are external to the generator and beyond their control. The Central Commission vide a public notice No. 1/14/2015-Reg. Aff. (FSDS)/CERC dated 31st March 2015 had a come out with a discussion paper inviting comments on a Proposed Framework on "Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State Level". The Commission in its paper had highlighted:

"However, difficulties have been experienced on implementation of these provisions. There is, therefore, a need for creating a framework for forecasting, scheduling and handling deviations from schedule for the infirm RE generation (like wind and solar) which also factors in the variable and intermittent nature of such generation."

In the scenarios illustrated by the Hon'ble Commission in the draft paper, in all possible instances RE generators are penalised on account of deviation from their schedule which impacts their overall project viability as it is a hit on the bottom-line. RE generators unlike conventional sources of power also have single part tariff and in current scenario of competitive bidding where the tariffs are in the range of INR 2.5 – INR 2.75 unit any loss of revenue will make the project unviable and create a situation where even debt serviceability shall be a concern. Procuring power from the real time market to make good the procurer in case of a deviation in schedule at a rate which is expected to be much higher than the PPA rate itself will be a big and constant drag on the project finances. We'd therefore like to propose the following –

There is an agreed philosophy for calculation of deviation for renewables in the deviations settlement mechanism regulations. Essentially the proposed penalty (outflow of RE generator in case of over/under generation) in the RTM market should be within $\pm 10\%$ of the outflow proposed under the DSM regulations. The balance cost can be apportioned in a manner similar to the F&S mechanism under the DSM regulations.

Development of new interventions:

This paper also presents an interesting opportunity before the Hon'ble Commission to develop market interventions by way of which RE generators invest in technologies and processes which makes them predictable and act as base load. The Commission can propose incentives for such actions by RE



generators. For instance, if by investing in storage the RE generator is able to demonstrate adherence to schedule (post RTM) in a manner wherein he remains within the band of 95%-105% of scheduled capacity for more than 90% time blocks in a month he may possibly be incentivised with an added tariff of ~10-15 paisa which can be provided for from the regional pool.