6/3/2020

VENA ENERGY

Date: 4th March 2020

To,
The Secretary
Andhra Pradesh Electricity Regulatory Commission

Sub: Comments on O.P. No. 2 of 2020 in the matter of Amendment to Regulation No. 4 of 2017

The reference matter is under sub-judice in Hon'ble High Court of Andhra Pradesh and without prejudice to that, we are hereby submitting our comments below:

Provision	Content	Comments
Chapter 5 amendment-1	Amendment proposed: Substitute the term 'Absolute error' with 'forecast error'. Substitute the term 'Available Capacity' with 'Scheduled Generation' for calculating Forecast error as per following formula. Forecast Error(%)= 100 X (Schedule Generation – actual Injection)/ Scheduled Generation.	VRE as Renewable energy is predictable to some extent, however, its forecasting and scheduling accuracies cannot be treated at par with conventional energy generators. Hence change in formula for error would be against the interest of justice and would create serious prejudice against VRE. As an example, during low wind period when scheduled energy for wind speed before 3.5M/sec is low and when fluctuating wind hits turbine the error from 0MW to 2MW becomes 100% error and also this incremental MW addition grid of size +7000MW doesn't impact stability and this was the reason why CERC took nameplate capacity as denominator than forecasted energy.
Chapter 5 amendment-2	Amendment proposed: The definition of phrase 'Allowable forecast error' in percentage should be considered for inclusion. 'Allowable forecast error' = 100 x (diversity factor 0.7 in control area In the beginning of financial year) x (quantum of deviation limit permitted under CERC's DSM Regulation amended from time to time) / (quantum of VRE Installed capacity) 5%.	1. Instead of restricting additional RE integration in the grid, state must focus on creating fully functional primary and secondary control reserve market to ensure provision of ancillary and balancing service such as: a. Creating additional capacity of pumped storage hydro plants b. Setup of new flexible merchant and gas power plants c. Spinning reserve at state level. 2. It is difficult to accommodate higher RE integration in the system only through better Forecasting and Scheduling. The system balancing should also be through: a. Improvement in demand side management b. Consumers would be incentivized to forecast loads and provide demand response products 3. Furthermore, due to infirm nature of RE sources, CERC has exempted it from UI deviation charges as applicable for other generating stations.

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469
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Chapter 5 amendment-3	Amendment proposed: It is proposed to remove the option of rescheduling of forecast on one and half hourly basis during the day of operation and strictly adhere to ahead basis	1. Weather data plays an important role for VRE Generators as plants generation is directly related to weather condition. Renewable energy forecasting and scheduling and deviation settlement mechanism regulations were put into place in order to ensure grid safety and stability. Weather conditions changes varies from time to time in a particular given day and therefore real time data as provided by IMD or other service providers needs to be taken into consideration and is to be incorporated by revising schedules in order to ensure grid safety and stability. in case provision for revising schedules is taken away in that case entire purpose of the regulation i.e. grid safety and stability would be defeated. 2. Wind turbines/ wind farms are spread across large land parcel and is combination of electrical, mechanical and power electronics components which are prone to breakdown. It is next to impossible for predicting such breakdown and account the impact while submitting day ahead schedules and current plant design doesn't have any hot stand by reserve to full fill the these transient impacts, Overhead transmission lines are exposed to environmental events which many times lead to breakdown of lines resulting outages which can't be accounted in day ahead schedules hence intraday schedule is required to make the scheduling exercise more realistic and useful for making right generation mix at state level.
Chapter 5 amendment-4	Sl .No Forecast Error the in 15 min. time block Pool in Deviation charges payable to State pool Account 1. <Allowable Forecast Error None 2. Above allowable forecast error at Rs.2.00 per unit for the shortfall or excess injection	Justification provided for the proposed amendment is very narrow to the extent as its already assumed that in case of deviation DISCOMs are purchasing power at high cost, however, same is not correct in every case. There can be instances that DISCOMs procuring power from exchange at a rate cheaper than its average pooled variable cost and thereby deviations on account of VRE Generator benefitting DISCOMs. Rs. 2 per unit for energy deviated would be so onerous for VRE Generator that running plant would become very difficult for them owing to penalties payable on account of deviations as average PPA rate of VRE Generator comes out to be Rs. 3 KwH and such penalties may amount to more than 50% of the total revenue of the VRE Generator and thereby posing negative impact upon the plant sustainability.

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Chapter 5 amendment-5	<u>Amendment proposed:</u> The definition phrase of. virtual pooling may be deleted from definition 2.1 (aa) and also be deleted at clause 6.9 of Regulation 4 of 2017.	It is requested that Hon'ble Commission may kindly reconsider its decision of removing aggregation at state level.

For,

K S (RUDRESHA K S)

04/03/2020

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