30th June 2021

To,
Mr Sanoj Kumar Jha,
Secretary
Central Electricity Regulatory Commission
New Delhi

Sub: Wartsila's Comments on Draft Ancillary Services Market Regulation 2021

Dear Sir,

With regards to the draft Ancillary Services Regulation 2021 on which the Hon'ble Commission has invited comments, we wish to submit our comments/suggestion, as enclosed below.

We hope that the Hon'ble commission will consider our comments/suggestions favourably in the larger interest of the sector.

Best

Wartsila Team

Wartsila's Comments on Draft Ancillary Services Market Regulation 2021

At the outset, we appreciate the Hon'ble commission for sharing the regulatory framework for ancillary services in the interest of the reliability, safety and security of the grid. The deployment of Variable Renewable Energy (VRE) introduces variability and uncertainty in the power system operations. To address these issues, it is essential to have mechanisms in place that could be used to procure system services by the transmission or distribution system operator.

The proposed regulations underscore the intent of the Hon'ble commission to shift from an administered to a market-based mechanism for procuring ancillary services. At present, the draft regulations only encourage use of market-mechanisms for procurement of tertiary reserve ancillary services. Procurement of secondary reserve ancillary services continues to remain administered.

We recognize that it is important to understand the impact of moving towards a market-based mechanism on the overall sector and gradually expand this initiative to cover all segments of ancillary services. Eventual shift towards a market-based procurement and payment will bring discipline in market participants, increase competition in the sector and provide investment opportunities in highly flexible technologies. Enclosed are some of our comments on the draft regulation:

1. Secondary Reserve Ancillary Services (SRAS):

    a. <u>On the eligibility for an SRAS provider</u>: First, we believe that the duration between receiving an SRAS signal and response time by the service provider to fulfil its obligation should be shorter. The draft regulation offers ~15 min to a service provider for providing entire capacity obligation. Given that SRAS is usually a contingency response, the regulation should require the service provider to fulfil entire obligation within 5 min from receiving the signal.

    Second, the draft regulation proposes than an entity/generating station that can provide a minimum response of 1 MW will be eligible to provide such services. Keeping the barriers to entry as low as possible will allow more entities/generating stations to participate. However, at the same time it can also attract non-serious players with no meaningful contribution to the grid. Considering this, it is essential that the minimum response by an entity/generating station should be a function of the voltage at which it is connected to the grid and preferably at-least 10-15% of their capacity/capability.

    For example, a Tail End SRA connected at 33KV or 11 KV Distribution Sub Station can have a 5 to 10 MW instantaneous response (say energy storage solution for 30 to 60 min duration, based on the SS load and fluctuations observed by DISCOM) which stabilizes and simultaneously decongests the distribution grid, and also provides Emergency Power for Blackout support. Whereas any SRA or existing Generating Asset connected at TRANSCO voltages of 110 or 132 or 220KV can have at least 20 to 50 MW of instantaneous response followed by a minimum of 25% of the line load / transformer capacity / plant generation capacity for subsequent periods.

    b. Activation and Deployment of SARS: As per the grid code, the responsibility of balancing rests with the states. The responsibility of SLDCs in maintaining reserves and providing balancing energy is not clear. This is important because

(1) The ACE in a region is a reflection of what the states do because maintaining deviation within limits is the prime responsibility of the states, and (2) this will allow correct attribution of the responsibility of deviation.

c. Selection of SRAS Provider and Dispatch of SRAS: We believe that selecting SRAS service provider based on Custom Participation Factor will essentially give more weightage to technologies that can provide better ramping capability at competitive prices till such time specific service requirements are defined and procured by the transmission/distribution system operator e.g. ramping up and ramping down capacity, multi cycle operation, no of start stops etc. However, absence of capacity charges for committing the resources for providing such services will not incentivise investments in new technologies that are better suited for providing such services such as battery storage or gas engines. Because of this aspect, only existing technology will be able to participate in providing such services. Absence of flexible generation technologies may eventually become a bottleneck in integrating renewables.

d. Performance of SARS Provider and Incentive: Actual performance against commitment should be monitored, an aspect that the draft regulation has proposed. We second the proposal to measure the performance of the entity/generating station on a 5 min time interval. However, the incentive proposed by the draft regulation, in the absence of capacity payment, is not attractive to set-up dedicated plants to provide ancillary services.

e. Failure in performance of SRAS provider: The proposed regulation should also impose financial penalty on the service provider for not being able to fulfil its obligation in addition to disqualification for participation.

2. Tertiary Reserve Ancillary Services (TRAS):

a. Payment for TRAS: The draft regulation states that *'A generating station or energy storage resource or demand side resource connected to inter-State transmission system or intra-State transmission system shall be eligible for participation as TRAS Provider, if…'.* Recovery of fixed charges will be a key factor in determining whether a generating station/entity can commit to providing ancillary services, especially it the technology is battery storage. For the purpose of this draft regulation, the commitment charges have been capped at 20 paise/KWh. In our assessment this is not adequate to justify economics of a new plant, storage or otherwise. The Hon'ble commission may reconsider this aspect in the light of investment in new technologies/plants.