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Sent: Thursday, September 1, 2022 4:16:34 AM
Subject: CERC Indian Electricity Grid Code update - Calling for suggestions

Dear Sir/Madam,

This is **GE Renewable** team involved in wind turbine design and manufacturing. We see you are calling for comments for *GERC (Indian Electricity Grid Code) 2022 draft* as attached, we would like to make some comments/queries.

Please see below queries that need clarification:

Point 1 :

Page 100/101 – Requires FRT testing to be done once every 5 years on installed turbines . If there are no changes on WTG w.rt to updates on hardware and software (do not impact FRT performance) , do FRT is still needed to be repeated ?

Do the FRT is needed once in 5 years on one turbine model or it is needed on every farm even though same turbine model used on other windfarms.. Please clarify

Point 2 :

Page 159 – Item # 3 could be construed as requiring wind turbines to provide full reactive power (corresponding to +/-0.95PF at rated power) at all times including when there is no wind. Please clarify here do windfarm need to support for 0.95pf requirements in case of no winds ?

Point 3 :

- a. Based on sections 10a and 10 b, Pg 66/67, it seems to imply primary frequency response is an ancillary service. Please confirm.
- b. Page 67/68 : BESS is been asked at turbine level or farm level for primary frequency response. Is it mandatory to be provided for each windfarm. Please provide more clarity here? Also it is not totally clear from the language if this is an optional ancillary service ?
- c. Language is not clear for frequency deviation in excess of 0.3hz whether it implies synthetic inertia , and time duration at power to be maintained at 10 % and it is an ancillary service.

Point 4:

The default UFR setting in Table 2 (Pg 61) states Stage 1 load shedding at 49.4 Hz. What is the deadband for the primary frequency response is it 0.03 hz or 0.5hz ?

It would be highly appreciated to get your feedback and take into consideration when finalizing the draft.

Thanks and Best Regards,

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