

## ***Interactive comment on “Ancillary services from wind turbines: AGC from a single Type 4 turbine” by Eldrich Rebello et al.***

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Received and published: 31 July 2019

The paper evaluates mainly the use of Type 4 wind turbine to provide AGC by de-rated operation. This application has been discussed from time to time. In the reviewer’s opinion, it is really not a good idea to ask the wind turbine to provide continuous AGC unless there is no other alternatives, which indicates a poor system design from the very beginning. First of all, it is important to investigate what the generation and storage fleets that are available in the system. Second, under what operational conditions, is it really necessary to use wind turbine to provide AGC by de-rating its operation? Why cannot hydro, biomass-based thermal or some forms of energy storage provide AGC instead? When can the wind turbine provide AGC and when can it not? What is the look-ahead time and how to deal with the forecast error? The reviewer believes these

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are the critical questions to answer first. The technique of de-rating the wind turbine to provide AGC during wind conditions, may still need some improvement, is much clearer.

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Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2019-26>, 2019.

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