

**From:** claire.weiller  
**Sent:** tirsdag 31. august 2021 10.59  
**To:** Statnett Firmapost  
**Cc:** Kari Dalen; Dace Kebzere; Mogens Lokke  
**Subject:** [SENDER UNVERIFIED]Ref 21/00574 - Consultation input

To whom it may concern,

Please find below a comment for input in response to the consultation 21/00574.

**Comment -- Public**

In this consultation response, we represent the perspective of a flexible load and storage asset operator with an interest in entering as a participant in the Norwegian markets for FFR, FCR and/or aFRR. Our comment concerns the technical requirement on time steps, minimum bid size and bid increments.

For our type of assets, i.e. vehicles with flexibility in charging demand, and stationary storage batteries, bid windows of 1 hour are highly preferable to a market where the same capacity must be held for longer, such as 4-hours, 24-hours, weekly, or longer. Over a day, the available power capacity from buses changes according to their operational schedules. Having to hold the same bid capacity for e.g. a whole FFR season or even a 24-hour period would oblige us to bid the minimum capacity ever available, which undervalues our participation potential significantly. In projects with stationary storage, this issue can be managed due to the battery capacity, but not all fleet depots deploy storage. Hourly bids are already implemented in other FCR markets such as Denmark DK2. We would like to see this in the Norwegian market as well.

As for minimum bid size, the lower the minimum bid, the lower the barrier to entry for new participants (such as flexible fleet operators). In our case, load under management grows at the same pace as public transport and heavy-duty fleet operations convert to electric. A 1MW minimum bid size is preferable to allow the early bus depots, which are often only partially electrified, to start participating in grid stability services. This is primarily an issue for new entrants and innovators who are locked out of the market.

Finally, reducing the bid increments (e.g. 1.0, 1.1, 1.2MW instead of 1.0, 2.0, 3.0 MW) would significantly improve the investment case for flexibility and storage asset operators. Large bid increments lead to significant loss of revenues.

■ End

Thanks for your consideration,

Heliox Energy  
Claire Weiller

Heliox Group  
Energy Storage Market Director

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