

Nordic Energy Regulators

Att.: Eveliina Ishii, eveliina.ishii@energiavirasto.fi
Tobias Lusth, tobias.lusth@ei.se
Bjørn Denninger, bjde@forsyningstilsynet.dk
Copy to: post@forsyningstilsynet.dk

Fjernvarmens Hus
Merkurvej 7
DK-6000 Kolding
Tlf. +45 7630 8000
mail@danskfjernvarme.dk
www.danskfjernvarme.dk
cvr dk 55 83 10 17

Danish District Heating Association's consultation response on a trilateral mFRR capacity market

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The Danish District Heating Association is hereby answering the consultation from NordREG on methodologies for a trilateral mFRR capacity market among Denmark, Finland and Sweden. The members of The Danish District Heating Association are today delivering the majority of the procured mFRR capacity in Denmark. We would like to thank you for this opportunity to be heard, and overall we agree that the consulted methodologies will result in a well-functioning market, which delivers value to the market participants and the countries involved.

We have however three concerns:

- It is unclear to which extent the Nordic TSOs will use the trilateral market compared to procurement in other ways, and whether this is causing an unlevelled playing field for market participants between the three countries.
- If ramping constraints are to be included in the reserved cross-zonal capacities, the methodologies seem to not take into account the value in the day-ahead market of the ramping in the hours before and after the reservation.
- The bid selection for the Trilateral market can lead to paradoxically rejected bids

TSO procurement volumes

It is unclear to which extent the Nordic TSOs will use the trilateral market compared to procurement of mFRR capacity in other ways. The volume procured by each TSO is also not transparent. If one or more TSOs chose to procure mFRR capacity in their own country outside of this market, this can lead to an unlevelled playing field for market participants between the different countries. It is the decision and calculation of each TSO how and how much capacity they procure, however it will now have an affect on market participants in all three countries.

According to the information from TSOs published on their own transparency platform NUCS, Energinet is currently procuring 548 MW up per hour in the daily auction and Svenska Kraftnät is procuring 250-500 MW up per hour in the daily auction. There is no information available about Fingrid.

Svenska Kraftnät has traditionally procured mFRR capacity on long contracts, and it is still stated on their website that "*Tillräcklig mFRR-kapacitet säkerställs idag i Sverige genom ingångna långa avtal om gasturbiner samt genom årlig upphandling.*" It is difficult to find information on if and when Svenska Kraftnät will stop procuring mFRR capacity on long contracts in order to procure the volume in the new Trilateral market.

The Danish District Heating association urges the Nordic Regulators to ensure transparency in the methodology about the procurement volumes for the Trilateral mFRR capacity market and any volume deviances from the rules for dimensioning (from SO GL).

This could be done by adding an extra paragraph to article 10 of the "Methodology on the common and harmonised rules and processes for the exchange and procurement of mFRR balancing capacity for the bidding zones of Denmark, Finland and Sweden."

The paragraph could include that the TSOs have to publish:

- how much capacity is procured,
- how the TSOs calculated the volume procured, e.g. how expected voluntary bids for mFRR energy are taken into account
- if and why there are any deviances from the volume necessary for fulfilling the dimensioning rules
- How much (if any) volume is or has been procured through other means than the Trilateral market

Ramping constraints

If ramping constraints are to be included in the reserved cross-zonal capacities, the methodologies seem to not take into account the value in the day-ahead market of the ramping in the hours before and after the reservation.

It is stated in Article 2 of the methodology that "*any reference to cross-zonal capacities shall include also the reference to allocation constraints as applied in the respective capacity calculation methodology ...*"

At the same time it is stated in the explanatory document that allocation constraints such as ramping constraints on HVDC-interconnectors are not to be applied for mFRR energy in the beginning. The TSOs will though continuously monitor whether it will be necessary to apply them.

The Danish District Heating association is uncertain on what will happen, if TSOs one day come to the conclusion that the market cannot function without ramping constraints. Will the Trilateral market revert to national markets until a solution is found or will ramping constraints be implemented by the TSOs from one day to another?

If ramping constraints are to be included in the cross-zonal capacity reserved (as stated in Article 2 of the Methodology), then this has to be taken into account in the methodology for the market-based allocation developed according to article 41 of the EB GL. If capacity is reserved for exchange of balancing capacity, and an equivalent part of the ramping

constraint is also reserved, then there can be a possible unaccounted welfare loss. This argument is illustrated with the example below.

Example 1 – no reservation of ramping constraint

Hour	Price difference DK1 and SE3 in Day-ahead	Flow DK1-SE3 in Day-ahead	Reservation of transmission capacity for mFRR from SE3 to DK1	Congestion income in Day-ahead
1	-50	-715	0	35.750
2	0	-115	71,5	0
3	40	485	71,5	19.400
4	40	715	71,5	28.600

There is no price difference in the day-ahead market for hour 2, and this makes the reservation of capacity for the mFRR capacity market “free” in this hour. If this reservation in hour 2 also reserves a part of the ramping constraints, it will however cause an unaccounted loss in the day-ahead market in hour 3, as can be seen in Example 2.

Example 2 – reservation of ramping constraint

Hour	Price difference DK1 and SE3 in Day-ahead	Flow DK1-SE3 in Day-ahead	Reservation of transmission capacity and ramping constraint for mFRR from SE3 to DK1	Congestion income in Day-ahead
1	-50	-715	0	35.750
2	0	-186,5	71,5	0
3	40	342	71,5	13.680
4	40	715	71,5	28.600

Apart from the loss in congestion income, there is a further welfare loss, as the decreased flow between DK1 and SE3 in hour 3 also implies a larger price difference between the two bidding zones compared to no reservation of ramping. In the examples above, the price difference is for simplicity not affected.

The Danish District Heating association urges NordREG to take into account the value in the day-ahead market of the ramping in the hours before and after the reservation. This is relevant if ramping constraints for the day-ahead market are to be restricted by the Trilateral market.

Paradoxically rejected bids

In the Danish mFRR capacity market there are often paradoxically rejected bids. This means that bids, which have a lower price than the clearing price, are not accepted. This is bad for the integrity and price formation of the market, and can also send wrong investment signals to market participants. The Trilateral market uses the same optimization function and bid selection process as the Danish mFRR capacity market, and therefore this issue will expectedly also be present in the Trilateral market.

Danish District Heating Association would welcome a solution, which could decrease the amount of paradoxically rejected bids or compensate market participants who have placed in-the-money bids, that are paradoxically rejected.

Conclusion

Danish District Heating Association agree that the consulted methodologies will result in a well-functioning market, which delivers value to the market participants and the countries involved.

Danish District Heating Association propose more transparency on the TSO calculation of the volume procured in the Trilateral market and possible volumes procured outside the market.

Danish District Heating Association urge NordREG to take possible welfare loss into account, if ramping has to be reserved for the Trilateral market in the future.

Danish District Heating Association urges NordREG to help find a solution to the presence of paradoxically rejected bids.

Danish District Heating Association thank you for the opportunity to be consulted on this new market, which we expect to be important for our members.

Best regards

Søren Lorenz Søndergaard Chief Consultant
Danish District Heating Association
sls@danskfjernvarme.dk
Tlf: +45 23 64 40 85