

Q&A

mFRR Energy Activation Market stakeholder webinar May 25 2020

Q: Who monitors the pricing discussion? Seems like the market participants are fully in the hands of a monopsonist buyer.

A: *The TSOs are the only buyers in this market. When there is available capacity between the areas there is however "competition" between the TSOs.*

The terms and conditions of the market shall be approved by the national regulators, and the TSOs must comply with European regulations. The market behavior of the TSOs shall be transparent and a lot of information about the market shall be published on the European transparency platform. The price setting will with an AOF be based on clear, transparent rules with less room for manual interpretation than today. If any BSP has concerns about the market design we encourage to take part in the consultation process on European, Nordic and national level.

Q: Why aren't prices published in real time already?

A: *Today prices are defined decided in a post-real-time process, so therefore it is not possible to publish them in real time. European regulation mandates that prices shall be ready for publishing within 30 minutes after the end of a market time unit. Publishing real-time prices may encourage "self-regulation" and this can in certain cases be counterproductive. Please refer to the TSO paper on the use of production plans for further detail. <http://nordicbalancingmodel.net/paper-on-the-use-of-production-plans-related-to-single-price-single-position/>*

Q: Does this mean there is no real time balancing (LFC like) today in Nordic area? We allow frequency deviation in a given half hour?

A: *We have a limited volume of aFRR in the Nordic system today. 300-400 MW in total for a limited time. We currently have aFRR in 84 of 168 hours each week. In addition, we have the FCR-N reserve which is 600MW of "normal operation frequency reserves".*

aFRR will have an increased role in the Nordic system in the future. We will have aFRR in all hours before the start of "parallel operation", and in the future we will have an energy activation market based on the

PICASSO-platform. We have indicated connection to the PICASSO platform before 2024.

Q: Does AOF include nodal grid model? Is it then similar to a nodal market that runs after zonal markets (day-ahead and intraday)?

A: *No. The AOF does not include a nodal model. The AOF uses a zonal model like in Day-ahead and Intra-day. This is the reason for the need of the "bid filtering" feature to avoid internal bottlenecks.*

Q: When onboarding MARI, will bilateral agreements e.g. between Energinet and Tennet still be present? E.g. mFRR congestion balancing between DE and DK1.

A: *No decision is made on the future of these agreements. All balancing exchange will happen on the MARI platform, but for congestion and cross-zonal capacity management there could be other arrangements.*

Q: How will internal congestions from non-Nordic TSOs be handled e.g. special regulation due to support for other European systems (X32/X42)? Are there any plans to share X32/X42-activations across Nordic TSOs?

A: *No decision is made on the future of these agreements. All balancing exchange will happen on the MARI platform, but for congestion and cross-zonal capacity management there could be other arrangements that could include more countries.*

Q: What are the differences of Nordic AOF and European AOF (if any), why is Nordic AOF / mFRR EAM needed?

A: *The functionality of the Nordic and European AOF is very similar, and this will make it possible to switch from the Nordic AOF to the European AOF without changing the surrounding process.*

The Nordic step is a necessary steppingstone between today's operation and MARI, as the MARI/NBM model is fundamentally different from today's operation in the Nordic system. The NBM program is (in addition to other things) an implementation project for the MARI model.

Nordic TSO's cannot go to 15 min ISP, before they have an AOF to support the mFRR bid selection, but Nordic cannot join the MARI platform before the 15 min ISP has been implemented. Nordic AOF can be used first in a 60 min ISP, and then later in a 15 min ISP.

Q: But the risk of temporary solutions is obvious when flow based is not considered in this project?

A: *Neither the Nordic, nor the European AOF will be based on flow-based model in the start, and the transition to flow-based for the balancing timeframe will happen after flow-based for the day-ahead and the intra-day markets.*

The Nordic TSOs expect that we will be connected to the European AOF before the European AOF change to the flow-based model.

Q: With the discussion in Norway on ACER in mind, will this be any problem regarding the association to MARI&PICASSO?

A: *Norway is not an EU member, which implies that not all EU regulation is integrated into Norwegian laws. Norway is, though, a part of a closely connected Nordic power market and has interconnectors to other European countries and will therefore benefit from a common set of rules and regulations. Thus, we do not expect that the country not being an EU member will block the connection to the European platforms.*

Q: Does the new NBM model consider disincentivizing the use of balancing mechanisms? as the push in my opinion should be more towards reducing balancing activities.

A: *Please refer to the Discussion paper on single pricing we published in November 2019. <http://nordicbalancingmodel.net/wp-content/uploads/2019/11/Discussion-paper-on-imbalance-pricing.pdf>*

Q: Hi, could you please provide an update on the PICASSO design and implementation? When is it expected to be ready?

A: *The Nordic TSOs have indicated that we will join the PICASSO platform in Q3 2023- Q2 2024. In the NBM Roadmap we have indicated that we will present a strategy for this in Q3 2021.*

For PICASSO design we refer for now to the PICASSO website. For example, the aFRR implementation framework https://www.entsoe.eu/network_codes/eb/picasso/

We will return to this topic in later stakeholder communication within NMB program.

Q: It would be very nice if you could include MARI interoperability and integration testing in the TSO Milestone plan. Most TSOs expect this to take 12 months and hence it should start in 2022.

A: *Thank you for the recommendation. We expect to connect to MARI between Q3 2023 and Q2 2024. The Nordic TSOs are all actively participating in the MARI project and we do not expect further delays in the connection to the platforms.*

It is the TSOs that connect to MARI, not the BSPs, so there should be no need for MARI-specific testing towards the BSPs.

Q: You should make a timeline for introduction of 1MW bid size and GCT - 25.

A: *This will be implemented after the introduction of 15 min ISP, but before we join MARI.*

We will come back with more precise plan as soon as possible. Currently the focus is on planning and preparing the parallel operation phase.

Q: Will the bid filtering be coordinated between mFRR and aFRR activations?

A: *We have not concluded on these details yet, but aFRR and mFRR can cause similar congestion problems and cannot be treated individually.*

aFRR has the benefit of very short market time units, so we can update the availability of aFRR bids based on the result of the mFRR market, or other changes in the grid.

Q: Will TSOs really need 33 minutes to tinker with the bids (45-12)? And, if so, how can you manage with 13 minutes after joining MARI?

A: *We expect to be able to do this within the 13 minutes available between the final BSP GCT of T-25 and the TSO GCT of T-12. However, this requires a fully automated process, and we will use the parallel operation phase to gain confidence with the new automated processes. This means that we can make the change to GCT T-25 after we have implemented 15 minutes ISP.*

Q: In all this new information that we have to provide with our bids, are there also room for 2 prices - 1 for pay-as-bid activation and 1 for marginal-price activation

A: *This is not part of the foreseen market design at this point. Several prices are not part of the European standard product definition for mFRR bids.*

Q: Will portfolio-based bidding be allowed (for instance in Denmark) or will it have to be unit based due to bid filtering?

A: *The requirements on locational information, and the allowed geographical distribution of portfolios is a part of the national terms and conditions. We do not expect this to be fully harmonized in the Nordic.*

All TSOs will aim to allow for aggregators and new market players to participate in the market and will come back to this in the local stakeholder involvement and consultation of the National terms and conditions.

Q: You need the location of the bid - is that more specific than the price-zone?

A: *To be able to avoid internal congestions detailed locational information is necessary, but the requirements for this information will vary between the countries.*

The bid selection in the AOF will not use detailed location information, so this is only used for local TSO processes related to bid filtering and congestion management.

The TSOs collect geographical information also today - either with geographically constrained station groups or by providing information in the resource object field of the bid document.

Q: The implementation of e.g. resting time as a bid attribute, is that compatible with MARI?

A: *Some bid attributes must be managed by the TSO before sending to MARI (or the Nordic AOF). Resting time is one of these attributes. If a bid is "resting" the TSO will mark this bid as unavailable before sending it to the AOF.*

Q: Why not run more AOF cycles in future to allow use of start-up costs, min run time, e.g. backup function?

A: *To calculate the activation need and bid selection for more periods into the future is an interesting idea, but it is not foreseen at this time. It is not planned as a function in MARI, and, since Nordic AOF is preparation for connecting to MARI, we do not intend to implement specific functionality in the Nordic solution. Moreover, with the future GCT for bids of T-25 we do not have bids for the upcoming 15-minute period, so we do not have all the input data for the upcoming 15-minute periods.*

Some other processes like the imbalance prognosis and the determination of mFRR activation need can be done with a longer horizon and can be used as fallback. If, for example, the Imbalance prognosis stops, we can use the last valid prognosis for that time period as a fallback option.

Q: What backup system/process will there be if system for AOF suddenly is down?

A: *This is an important question, and we are currently working on the necessary solutions for fall back in this scenario as well as other possible scenarios.*

We need to ensure safe operation of the Nordic power system even if the AOF or any other automatic process goes down.