

MARI- Manually Activated Reserves Initiative

Facts

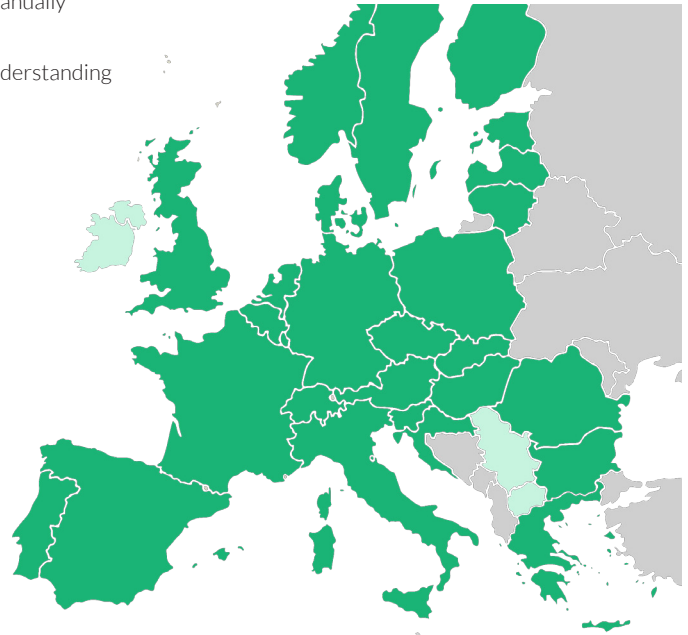
- Objective: European platform for exchange of balancing energy from manually activated frequency restoration reserves (mFRR).
- Project launched in April 2017 by 19 TSO signing a memorandum of understanding (MoU).
- Replaced by second MoU in 2018 with 28 TSOs.
- Planned Go-Live: Q1 - 2022 (as of 24.04.2021).

Implementation Framework

Standard Product Characteristics

Harmonization through standard products as defined mFRR Implementation Framework, pursuant to Article 20(1) of the EB regulation.

Mode of activation	Manual
Full activation time (FAT) Time between the activation request by the connecting TSO and full delivery of power of the concerned balancing energy bid.	12.5 min
Validity Period Activation requests from the TSO to the BSP is only possible within the validity period.	15 min
Minimum duration of delivery period The period during which BSP delivers full requested change of power in-feed to or withdrawal from connected TSO system.	5 min



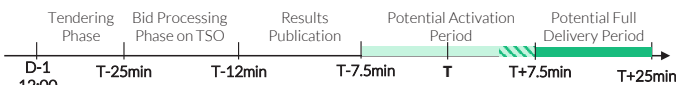
● MARI member ● MARI observer

Bid Types & Bidding Period

Harmonization through standard bids and bidding periods (gate opening & closing times).

Bid Types	(Fully) divisible bid A balancing energy bid that consists of a single quantity and a single price. All bids are fully divisible.					
	Indivisible bid A balancing energy bid that consists of a single quantity and a single price.					
	Complex bids- linked, multi-part or exclusive Must correspond to different single time steps. Bids can have different volumes, prices, directions.					
	<table border="1"> <tr> <th>Scheduled activatable bid</th> <th>Directly activatable bid</th> </tr> <tr> <td>Bid that can only be activated at specific point in time, i.e. 7.5 min before quarter hour bid period.</td> <td>Bid that can be activated at any point in time from point of scheduled activation until next point of scheduled activation.</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Scheduled activatable bid	Directly activatable bid	Bid that can only be activated at specific point in time, i.e. 7.5 min before quarter hour bid period.	Bid that can be activated at any point in time from point of scheduled activation until next point of scheduled activation.	
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Timeline

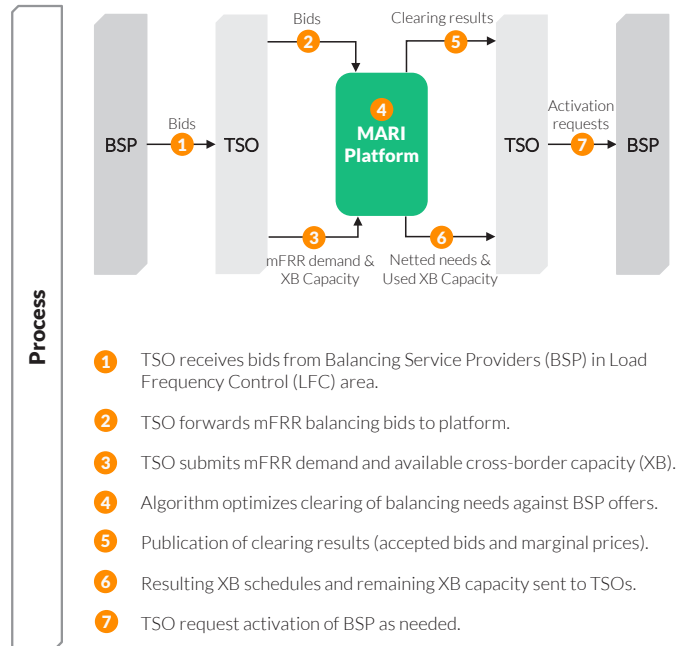


Pricing & Settlement

Harmonization through standard pricing & settlement

- Marginal Pricing (Pay-as-cleared)
- Price of last bid of standard product which has been activated

MARI Process



Impact: BSPs need to adapt to MARI in case they want to offer their production as mFRR. Strategies have to be developed for successful execution, considering the great variety of bid types and the increased liquidity.

Roadmap, as of 24.04.21

