

Balancing Platforms Stakeholder Workshop

11.12.2024

Webinar

General Q&A Document

Questions and Answers

Question: Will the webinar be recorded? Will the slides be shared?

Answer: Yes, the webinar was recorded. The video can be accessed [here](#). The slides were published prior the workshop and can be found [here](#).

Question: Is it possible to receive a list of explanations of the abbreviations used?

Answer: There is a list of explanations of the abbreviations in the back-up section of the PICASSO/IGCC slides ([here](#)) and MARI slides ([here](#)).

Question: What is the role of the CSP?

Answer: The common service provider (CSP) operates the activation optimization function and the TSO-TSO settlement function of a balancing platform on behalf of all project TSOs. TransnetBW serves as CSP for PICASSO and IGCC. Amprion serves as CSP for MARI. The CSP for the Capacity Management Function is ČEPS. All CSPs are designated in accordance with the relevant articles about the Designation of Entities of the Implementation Frameworks.

Question: Are the platforms fully automatic?

Answer: Platforms are running automatically. Automatic Frequency Restoration Reserve (aFRR) is also activated automatically by the load frequency controller of the participating TSOs. Manual Frequency Restoration Reserve (mFRR) is activated based on the decision of each individual participating TSO.

Question: Where can I follow the price/volumes changes on such platforms as PICASSO or MARI in terms of products (aFRR/mFRR capacity upward/downward)?

Answer: <https://transparency.entsoe.eu/> or <https://newtransparency.entsoe.eu/>

Question: Balancing Platforms are striving to establish a harmonized balancing price. Is there a project that strives to harmonize the imbalance price across EU?

Answer: Main features of the imbalance settlements are harmonized according to Guideline Electricity Balancing article 52.2, establishing the [Methodology for the harmonization of the main features of imbalance settlement](#). Note that this is not facilitated by European platforms as imbalance settlement is subject to national regulation.

Question: Do the local TSOs decide the products mFRR and aFRR can be offered symmetrically or asymmetrically?

Answer: mFRR and aFRR balancing energy standard products have been defined as asymmetrical products. Under special conditions TSOs may define additional specific products with deviating characteristics.

Question: What are the interfacing requirements for these platforms and are they the same with all country participants? Including time constraints?

Answer: There are no interfacing requirements for balancing service providers (BSPs) to connect to the balancing platforms. The European balancing platforms are established following the TSO-TSO model, which means a model for the exchange of balancing services where the balancing service provider provides balancing services to its connecting TSO, which then provides these balancing services to the requesting TSO (TSOs connect to/participate to the platform forwarding their demands and bids to the platform and bids are collected locally from the balancing service provider). Thus, national interfacing requirements continue to apply.

Question: Would TSOs see a benefit to transition to a flow-based allocation in balancing? If yes what would be technical challenges to solve?

Answer: Benefit resulting from moving to flow-based allocation is the higher modeling accuracy. As a drawback, traceability of market results is more challenging for BSPs, and detailed modelling is computationally challenging in close to real-time processes.

Question: What challenges do you foresee for the balancing platforms with the ID CROSA and IDAs?

Answer: No specific interactions with intraday auctions (IDAs) are expected as gate closure time of balancing platforms is 25 minutes before start of the delivery period. In regard to the Intraday Cross Regional Operational Security Analysis (ID CROSA) and IDAs, Balancing Platforms (MARI, PICASSO and IGCC) do not foresee any specific issues. Should you require further clarification or wish to provide additional details, please do not hesitate to contact the relevant balancing platforms or ENTSO-E.

Question: Will there be a day-ahead market view as well for quick response?

Answer: European balancing platforms operate close to real-time and represent, consequently, real-time markets. Balancing platforms do not engage with the day-ahead market for scheduled energy.

Question: Which then ties to that emergency load response markets?

Answer: Please note that there are no ties between European electricity balancing platforms and local emergency load response markets. Should you require further clarification or wish to provide additional details, please do not hesitate to contact the relevant balancing platforms or ENTSO-E.

Question: How much did the implementation of IGCC/PICASSO/MARI platforms cost?

Answer: Costs related to establishing and operating the balancing platforms are available in the Electricity Balancing Cost Report, e.g. [Electricity Balancing Cost Report 2024](#).

Question: How are ATCs calculated?

Answer: According to the implementation frameworks, the initial cross-zonal capacities shall be either the cross-zonal capacities remaining after the single intraday coupling or cross-zonal capacities calculated in accordance with the methodologies pursuant to Article 37(3) of the EB Regulation.

Question: Are there deliberately ATC left free for MARI after usage of these capacities for PICASSO or IGCC?

Answer: No, only leftover cross-zonal capacities are used. Based on the different full activation times, leftover cross-zonal capacity is first used for RR, then for mFRR and finally for aFRR/IN.

Question: Regarding ATCs, if they have same starting point (leftover ID), how are they shared between PICASSO and MARI?

Answer: The principle, *first come, first serve*, is applied. As the standard product for mFRR balancing energy has a longer full activation time than the standard product for aFRR balancing energy (i.e. for the same delivery period, mFRR has to be activated earlier), activations via MARI have implicitly an earlier access to the remaining cross-zonal capacity.

Question: Once a TSO is Operational Member of PICASSO (or MARI) are they then obliged to set aside some capacity on borders for these services?

Answer: No, only leftover cross-zonal capacities are used.

Question: Can one unit provide its capacities at the same time for MARI and for PICASSO?

Answer: If technical limitations of a unit (or a portfolio, if portfolio-based bidding is applied) are met, aFRR and mFRR can be provided at the same time.

Question: All of the bids made to the TSO are submitted in the PICASSO/MARI platforms? If the TSO is a platform operational member?

Answer: All bids for FRR standard products for balancing energy have to be forwarded to the respective platform. If a specific product for FRR balancing energy is used the TSO may alternatively convert the bids into standard product bids (and forward the bids to the respective platform) or activate them locally without exchanging them. Note that there is no linking between aFRR bids to mFRR bids and vice versa.

Question: Does ENTSO-E have any forecasts about changing prices for the reserves in the future? Taking into account expected transformation of the generation mix

Answer: Expectation is that bids reflect marginal costs (either fuel cost or opportunity cost). Market integration should lead to increased competition and thus to decreasing prices. Reflecting market price and technical developments units with mostly opportunity costs determining the bid process (e.g., batteries) may be the majority active in balancing. Therefore, more volatile market prices (see the high price events in December 2024) may also influence balancing energy prices.

PICASSO Q&A Document

Questions and Answers

Question: Slide 10: is it only offered bids that are shared on PICASSO, or only procured bids, or both procured and non-procured ones?

Answer: All Bids that are standard bids (no differentiation of procured or "free" bids) have to be submitted to the Balancing Platform. All bids for FRR standard products for balancing energy have to be forwarded to the respective platform. If a specific product for FRR balancing energy is used the TSO may alternatively convert the bids into standard product bids (and forward the bids to the respective platform), or activate them locally without exchanging them. Note that there is no linking between aFRR bids to mFRR bids and vice versa.

Question: Where are the cross-border marginal prices for TSO-TSO settlement published?

Answer: They are published on the ENTSO-E Transparency platform ([Data view](#)).

Question: When will the Italian TSO Terna re-join the PICASSO platform?

Answer: As the PICASSO-project can only transfer information that is shared from the local TSO with the project, we are not able to answer this question. The process for rejoining is a local responsibility of the TSO and the NRA.

Question: Are the savings mentioned in slide 28 a net saving, so also considering the costs for implementation and operation of the IGCC platform?

Answer: The savings shown are gross savings, so the costs for implementation and operation are not included.

Question: Will there be any insights on newly joined TSOs' trends?

Answer: No, there is no explicit publication on this foreseen.

Question: Will there be a dedicated report on the effects of the new accessions?

Answer: No, there is no explicit publication on this foreseen.

Question: Is information about available ATC (used for PICASSO AOF) published?

Answer: There is a publication on ENTSO-E Transparency of the capacities used in the previous market time frames, this forms the basis of the ATC used in PICASSO. In case a TSO changes this ATC (due to operational security reasons), the adapted ATCs are published here [Data view](#).

Specific technical questions:

Question: Is there an option of also doing LMP in the future?

Answer: No, Local Marginal Price is not foreseen but only Cross Border MP. The only case LMP is foreseen when a TSO forms individually an uncongested area, with no ATC available, or no neighbor TSO participating thus the CBMP=LMP.

Question: Slide 12: How often and how fast does this process take place?

Answer: The optimization is done every 4s and takes below 1s of computation time.

Question: TSO's keep part of the interconnector capacities as margin for technical safety reasons. Is this margin used for IGCC/PICASSO balancing?

Answer: No, based on the Implementation framework, only the capacities that are left over after the previous markets or calculated by the BTCC have to be used.

Question: Why would BSP bid negative prices? What profit do they see from that?

Answer: TSOs are not able to provide a firm explanation on this as they would not like to speculate on the motivation of BSPs bidding strategies. This is rather a question to BSPs.

Question: What happens with the unsatisfied demand, if there is any, when applying elastic demand for aFRR?

Answer: The unsatisfied demand that might occur when applying elastic demand is not satisfied and remains as ACE in the respective LFC-area. In consequence, the unsatisfied demand has an influence on the frequency and results in activated FCR.

Question: How often does the PICASSO algorithm run?

Answer: Every 4 seconds.

Question: It would be interesting to see a comparison between the new and old calculation method of the CBMP. Did it lead to lower prices?

Answer: Yes, it did lead to lower prices on all different levels. The maximum prices were reduced but also the CBMP close to the beginning of the merit order lists were reduced.

Question: What is the full netting price used for if there are no activations?

Answer: It is required by the IF to have a CBMP at all points in time. Also among - other reasons -, local activation can differ from platform selection so CBMP still can be needed, it can also affect the imbalance price. In case there is no balancing energy activated for this connecting TSO, then the value of avoided activation of balancing energy calculated in accordance with ISHM Article 10, shall be the lower bound for the imbalance price.

Question: For e. g., In Germany with its balancing capacity markets. the capacity tenders are related with the energy bids submitted to PICASSO?

Answer: The bids procured in the capacity tenders are standard bids, they are submitted together with the free bids awarded during the intraday energy market to PICASSO. Based on Art. 16.4 EB GL: Each balancing service provider with a contract for balancing capacity shall submit to its connecting TSO the balancing energy bids or integrated scheduling process bids corresponding to the volume, products, and other requirements set out in the balancing capacity contract.

Question: aFRR Slide21: diff corrected demand -> LFC output is effect of local LFC controllers (PID tuning)? diff LFC output -> aFRR activation is BSPs not responding? Why there is a difference between the corrected demand and the LFC output?

Answer: The differences of the corrected demand and the LFC output is the effect of the local LFC controller, these controllers operate as a PID controller and therefore add an additional delay. The difference between the LFC output and the aFRR activation reflects the dynamic behavior of the BSP itself adding an additional delay.



MARI Q&A Document

Questions and Answers

Question: What date do we expect Spain and Portugal to start actually sharing mFRR energy bids with Germany/Austria/etc.?

Answer: Cross-zonal capacity available for the exchange of mFRR balancing energy will increase gradually. The first exchanges with Austria/Czechia/Germany are foreseen to possibly take place on 17/12/2024. To clarify, it is not sharing of balancing energy bids; it is allowing to ask for activation of the bids for other TSO/TSOs.

Question: What can we expect from the recent addition of Portugal and Spain TSOs to MARI platform?

Answer: The accession of the Portuguese and Spanish TSOs will increase both, the offers and demands available on the MARI platform (subject to available cross-zonal capacity). As RE and REN are so-called proactive TSOs, activation of mFRR balancing energy is likely to occur more often than currently.

Question: What roles do non-operational members like Italy have in the MARI project currently?

Answer: MARI is the European target model establishing a domestic market for mFRR balancing energy. Non-operational members (i.e., TSOs, not countries) prepare their accession to the balancing platform.

Question: Are the qualification/prequalification criteria to participate to MARI platform the same across countries participating to MARI?

Answer: The European balancing platforms are established as so-called TSO-TSO model, i. e., TSOs connect to/participate to the platform forwarding their demands and bids to the platform. Bids are collected locally from the balancing service providers (BSP). Consequently, the mFRR platform does not aim at the harmonization of (pre-)qualification requirements. However, potential harmonization in this field is discussed under the Framework for harmonization of terms and conditions as defined in the mFRR IF and in the Network Code Demand Response.

Question: Is it possible to have a comparison of the criteria of prequalification/qualification of the assets that can participate to MARI depending on the country?

Answer: See previous question. A potential harmonization of (pre-)qualification criteria is discussed under a different framework.

Specific technical questions:

Question: Has more detailed data been published about unsatisfied mFRR demand than on [slide 10](#), for example on the ENTSO-E transparency platform?

Answer: The following data points are available on ENTSO-E Transparency Platform:

- Balancing energy bids [GL EB 12.3.B&C]
- Changes to Bid Availability [IF mFRR 9.9]
- Aggregated balancing energy bids (Available and activated bid volumes) [GL EB 12.3.E]

- Elastic Demands [IF mFRR 3.4]
- Balancing Border Capacity Limitations [IF 4.3&4.4]
- Prices of Activated Balancing Energy [TR 17.1.F]
- Netted and Exchanged Volumes per Border [IF mFRR 3.17]
- Fall-backs (Disconnection of TSOS and Unavailability) [IF mFRR 3.11]

Question: (Slide 10): What is the difference between the two blue columns? Why is there such a big difference between satisfied demand and activated bids?

Answer: In the respective graph, there are two columns per country and mFRR direction (upwards and downwards). The left column represents the demand a TSO/country has submitted to MARI. This demand can consist of scheduled activation demand, satisfied direct activation demand, unsatisfied direct activations (i.e., activation demand), unsatisfied scheduled activations being price inelastic and unsatisfied scheduled activations being price elastic. The right column represents the mFRR bids in a country activated using MARI. These bids are either bids selected within the scheduled activation process or bids selected within the direct activation process. If the left column is higher than the right column, the respective country has been a net importer of mFRR balancing energy. If the right column is higher than the left column, the country has been a net exporter of mFRR balancing energy. If not, all demands have been covered (i.e., there are unsatisfied demands), TSOs usually use other means to cover its imbalance.

Question: Are there price limits to the bids?

Answer: According to ACER's decision No 09/2024 of July 2024 on the second amendment to the methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting the maximum/minimum technical price limit is currently 15,000 €/MWh and -15,000 €/MWh.

Question: In countries with mFRR capacity markets, how do TSOs submit energy bids? Must BSPs submit energy bids if they win capacity tenders?

Answer: BSPs awarded in the balancing capacity markets have to submit (at least) the volume of the awarded balancing capacity in the balancing energy market.

Question: Can you clarify the difference between the direct (DA) and scheduled activations (SA) and give an example? Why does the share differ per TSO?

Answer: Direct activations can take place at any point in time (i.e., every minute), while scheduled activations are issued at the beginning of a quarter hour. For example, a direct activation can be requested at 14:33, while a scheduled activation can only occur at 14:45. TSOs apply different strategies to balance the system. TSOs procuring more aFRR tend to use more scheduled activated mFRR, while TSOs with limited aFRR available rely more on direct activated mFRR.

Question: What is the time window for TSOs to submit their demand for SA to be activated for the following quarter hour interval?

Answer: According to the explanatory document to the mFRR implementation framework article 3.1.1 the submission of TSO mFRR demands to the mFRR Platform happens 10 minutes before the beginning of the following quarter hour at the latest.

TERRE Q&A Document

Questions and Answers

Question: Can you explain in detail why TERRE TSOs disconnect from it?

Answer: The reasons for disconnecting were explained in detail during the presentation, but mainly it is due to the new intraday gate closure time, which will be anticipated to T-30.

Question: What are the alternative solutions to RR considering the transitioning phase to MARI?

Answer: Alternative solutions may vary from one country to another and are under national responsibility. On the balancing standard products, a transition to MARI is expected for most countries.

Question: Do you have any ideas about what will be there instead of TERRE?

Answer: Alternative solutions may vary from one country to another and are under national responsibility. On the balancing standard products, a transition to MARI is expected for most countries.

Question: The MARI/TERRE products are drastically different, and prequalification/qualification rules for assets to participate in the two platforms are also different. Despite this, do you think there will be a transfer of liquidity from TERRE to MARI?

Answer: There are also some similarities between MARI and TERRE, e. g. both platforms facilitating products for scheduled activation. Consequently, some of the RR liquidity is likely to be transferred to MARI for scheduled energy or the European intraday markets.