QUESTIONS FROM MARKET PARTICIPANTS ON THE INTRODUCTION OF 15-MINUTE PRODUCTS ON DAY-AHEAD ELECTRICITY MARKET

B1) What is the expected date for the introduction of 15-minute products on the day-ahead electricity market?

In accordance with the agreement of NEMOs and TSOs, the introduction of trading of 15-minute products in a coordinated manner across Europe is envisaged from June 11, 2025 (for the trading day of June 12, 2025). The date is conditional on successfully completed tests in the first half of 2025.

B2) Does the introduction of 15-minute products on day-ahead market means that there will be two auctions, one with 60-minute products and the other with 15-minute products?

No, only one auction will continue to be organized within the day-ahead market (DAM). On DAM, only 60-minute products will be supported until the trading day of June 10, 2025 (for the delivery day of June 11, 2025). Starting from trading day June 11, 2025 (for the delivery day of June 12, 2025), both 60-minute and 15-minute products will be supported on DAM during a single auction. The deadline for orders submission remains at 12:00, the publication of final results will be postponed from 12:57 to 13:01 (the final confirmation of the shift of this time will still be confirmed after central testing in spring 2025).

Trading with 15-minute products is possible from July 1,2024 in intraday auctions (IDA) and, together with 60-minute products, also on the intraday continuous market.

B3) How will the quarters differ on the day of the transtiotin to daylight saving time, when the intervals for the 2 hours are the same?

For the Day-Ahead Market (the same as for IDA), there will be 100 intervals instead of 96 (just as there were 25 intervals on DAM until now)

B4) Will day-ahead market prices for the period from July 1, 2024 until the introduction of 15-min. products on DAM still be available in 60 minutes (i.e. one value per hour)?

Yes, until the implementation of 15min products on DAM in June 2025, all day-ahead market prices will be available for hourly products only. After the introduction of 15-minute products, a 15-minute price will be used for day-ahead market settlement, while the 60-minute price will continue to be calculated by the algorithm as a reference price for a follow-up use. – see question B5).

B5) How will the 60-minute DAM price be determined after the introduction of 15-minute products?

The price for the 60-minute interval will be calculated by the algorithm as well as the price for the 15-minute interval. Both prices will be available to market participants with the accuracy of two decimal places. The 60-minute price will be calculated as the arithmetic average of the respective rounded 15-minute prices (the arithmetic average of the four 15-minute prices in a given hour rounded to two decimal places will give the 60-minute reference price, which will also be rounded to two decimal places — see the example below). The calculated 15-minute price will be used for the day-ahead market settlement.

Period	Price (EUR/MWh)
03:00 - 03:15	0.00
03:15 - 03:30	0.77
03:30 - 03:45	- 312.01
03:45 - 04:00	11.25
03 - 04	- 75.00

Aritmetic average of the 15min rounded prices: (0.00 + 0.77 - 312.01 + 11.25) / 4 = -74.9975 EUR/MWh \rightarrow Rounding to two decimals gives the 60-min. price: -75.00 EUR/MWh

B6) For a 60-min. order, it will remain the same that if I submit such order for 10 MW for a given hour and successfully trade it, the traded energy will be equal to 10 MWh in that hour. If I submit and successfully trade a 15-minute order for 10 MW in one quarter of an hour out of four quarters, then 2.5 MWh should be traded, but per hour?

From 1 July 2024, a 15-minute imbalance settlement interval has been introduced. This means that If you submit a 15-min. order for 10 MW in one quarter-hour out of four and successfully trade this order, then the traded energy will be 2.5 MWh in that quarter-hour and in the remaining quarter-hours the traded energy will be 0 MWh. In the statistical hourly reports, the hourly traded quantity for the given hour will be 2.5 MWh (as the sum of 2.5 MWh + 0 MWh + 0 MWh of the individual quarter-hours).

B7) Will it be possible to enter the power in MW on DAM with one decimal place accuracy for both 15-min. and 60-min. orders?

Yes, it will be possible to enter power in MW with one decimal place accuracy for orders with both 15-min. and 60-min. granularity.

B8) Is it possible to display zero values for the Day-Ahead Market results, so that the participant can generate a full 24 hours (vs. 96 intervals in 15-minute products)?

Yes, the results already show zero values of the amount of electricity.

B9) Is it possible to prepare for the planned changes now and participate in testing? Where can I find the relevant documentation to modify my systems?

The <u>Sandbox2</u> test environment is already available for market participants, where it is possible to test changes on DAM associated with the introduction of 15-minute products. Matching takes place irregularly depending on the various scenarious of the central NEMOs and TSOs testing, so the publication of results does not occur at a specific time.

Coordinated pan-european testing with all NEMOs, TSOs and market participants will be launched in April 2025 and will last for approximately 4-6 weeks — detailed plan will be provided in spring 2025. (Expected deadline for order submission is 14:00 (13:00 in case of partial or full market decoupling scenarios). Scenarios will be specified in due time (preliminar list of scenarios was presented at the MCCG meeting on November 8, 2024, here). It is expected that for testing purposes, NEMOs and TSOs will provide capacities for D-7 (trading day D)).

Documentation describing the relevant IT interfaces, presentations and other information is available on a dedicated page for 15min on the OTE website (changes to DAM related to the introduction of 15-minute products have already been included in the specifications published in 2024 (in connection with the introduction of the 15-minute billing period and intraday auctions)). Documentation for the Sandbox2 test environment is available here.

B10) Is it possible to enter offers with 60-min. and 15-min. granularity together in the Exclusive Group of Profile Block Orders?

Yes, it is possible to enter Profile Block Orders with 60-min. and 15-min. granularity together in the Exclusive Group of Profile Block Orders.

B11) Will the parameters of individual types of orders change with the introduction of 15-minute orders on DAM? (e.g. maximum number of segments of a standard order, maximum number of linked Profile Block Orders in one family and maximum number of families, maximum number of link levels of Profile Block Orders, maximum number of Profile Block Orders in one Exclusive Group and maximum number of Exclusive Groups, etc.)

All the mentioned parameters of orders remain unchanged even after the introduction of 15-minute orders on DAM, i.e. the same rules will apply to orders with 60-minute and 15-minute granularity. The parameters of individual orders are summarized on the Short-Term Markets Parameters page and are also listed in the DAM User Manual available in CS OTE.

B12) Will the principle of financial security of linked Profile Block Orders or Exclusive Groups of Profile Block Orders change with the introduction of 15-min. products on DAM?

The principle of financial security remains the same even after the introduction of 15-min. products on DAM.

In the case of using linked blocks on Day-ahead and IDA market, the blocked amount of money is calculated as the largest possible amount given by the accumulated number of blocks and individual positive limit prices plus VAT for buy orders and the accumulated number of blocks and individual limit negative prices increased by VAT for sell orders. In the case of an Exclusive Group of Profile Block Orders, the largest value out of all orders in the Exclusive group of multiplication of the price (in absolute values) plus VAT with the quantity of the order is secured.