QUESTIONS FROM MARKET PARTICIPANTS ON THE INTRODUCTION OF 15-MINUTE PRODUCTS ON DAY-AHEAD ELECTRICITY MARKET IN CZ (updated on March 11, 2025)

- A) Implementation
- B) Trading
- C) Prices
- D) Other
- E) Questions from OTE webinar held on March 5, 2025

A) Implementation

A1) 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.

A2) 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 13:02 (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 also possible in intraday auctions (IDA) and, together with 60-minute products, also on the intraday continuous market.

B) Trading

B1) Do you plan to continue to support 60-minute orders and possibly introduce 30-minute orders on the day-ahead market after the introduction of 15-minute orders?

Within the CZ bidding zone, both 15-min. and 60-min. orders will be supported. 30-minute orders will not be supported within the CZ bidding zone.

B2) 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?

Yes, if you submit (and successfully trade) a 60-min. order for 10 MW for a given hour, then the traded energy will be 10 MWh in that hour, which is recorded as 2.5 MWh for each quarter-hour of the given hour for the purpose of imbalance settlement that is executed in 15-min. interval (i.e. for the individual quarter-hours the following is recorded: 2.5 MWh / 2.5 MWh / 2.5 MWh / 2.5 MWh).

Example: in the statistical hourly reports, the hourly traded quantity for the given hour will be 10 MWh (as the sum of 2.5 MWh + 2.5 MWh + 2.5 MWh + 2.5 MWh of the individual quarter-hours).

B3) 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?

If you submit (and successfully trade) a 15-min. order for 10 MW in one quarter-hour out of four (e.g. for the second quarter-hour), then the traded energy will be 2.5 MWh in that (second) quarter-hour and in the remaining quarter-hours the traded energy will be 0 MWh. For the purpose of imbalance settlement that is executed in 15-min. interval the following will be recorded: 0 MWh / 2.5 MWh / 0 MWh / 0 MWh).

Example: In the statistical hourly reports, the hourly traded quantity for the given hour will be 2.5 MWh (as the sum of 0 MWh + 2.5 MWh + 0 MWh + 0 MWh of the individual quarter-hours).

B4) 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.

B5) With regard to the availability of 60-minute orders, will it still be possible to submit a 60-minute standard order as today, i.e. there will be no need to convert such order to 15-minute block orders?

Yes, it will be possible to submit a 60-minute standard order in the same way as today, there is no need to convert to 15-minute block orders – see question **Error! Reference source not found.**

B6) Can a 60-minute order be partially matched on a quarter-hour basis?

No, orders are always matched in the resolution in which they were entered, i.e. a 60-minute order can only be matched on an hourly basis.

A 60-minute order can still be partially matched, but this means that the order is partially matched within the entire 60-minute interval, i.e. the same amount is cleared for each 15-minute settlement interval – see question B2).

Example: If you submit a 60-minute order for 10 MW, but successfully trade only 8 MW for that hour, the traded energy will be 2 MWh in each quarter-hour of that hour. The traded energy for the whole hour will be 8 MWh. In the hourly statistical reports, the hourly traded quantity for the given hour will be 8 MWh (as the sum of 2 MWh + 2 MWh + 2 MWh + 2 MWh of the individual quarter-hours).

B7) Is it true that the beginning and end of a 15-minute block order can be defined from any quarterhour to any quarter-hour, i.e. there is no need to stick to whole hours?

Yes, block orders can be defined from any quarter-hour to any quarter-hour, i.e. a 15-minute block order can be defined e.g. from 00:45 to 2:30.

B8) Is it possible to enter orders 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.

B9) 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 15minute 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 <u>Short-Term Markets</u> <u>Parameters</u> page and are also listed in the DAM User Manual available in CS OTE.

B10) Do you expect market participants to trade more 15-minute products or stick with 60-minute products? What about market liquidity?

It is not possible to predict the behavior of market participants when using the respective products nor the impact on market liquidity.

While the algorithm is able to work with both 60-min and 15-min products. In the case where the traded quantity is mainly included in 60-minute products, the probability of paradoxical rejection of standard 60-minute offers and higher price fluctuations between quarter-hours increases.

C) Prices

C1) 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 (regardless of the product traded).

The 60-minute price will continue to be calculated by the algorithm – see question C2), but only as a reference price for a possible follow-up use (e.g. for use in the calculation of the hourly green bonus and feed-in tariff according to Act No. 165/2012 Coll., on Supported Energy Sources, until the transition to quarter-hour interval).

C2) 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 (regardless of the product traded).

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 → Rounding to two decimals gives the 60-min. price: -75.00 EUR/MWh

D) Other

D1) How will the quarters differ on the day of the transition 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).

D2) 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.

D3) 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 scenarios 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 on April 7, 2025 and will last for 6 weeks – detailed plan was provided on the Market Coupling Consultative Group ('MCCG') workshop on February 14, 2025, the presentation from the workshop summarizing all the details of the schedule and individual testing scenarios can be downloaded <u>here</u>.

Documentation describing the relevant IT interfaces, presentations and other information is available on <u>a dedicated page for 15min on the OTE website</u> (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 <u>here</u>.

D4) 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.

E) Questions from OTE webinar held on March 5, 2025

E1) What is the reason for setting a price limit of 4000 EUR/MWh for the calculation of paradoxically rejected orders, as stated in the example from the presentation of the webinar on March 5, 2025, on slide 13?

This price is based on the maximum price on the Day-ahead electricity market, which is currently set at 4000 EUR/MWh. This price is determined (and potentially can be modified) according to the relevant methodology, the Harmonised Maximum and Minimum Clearing Price Methodology for the Single Day-ahead Coupling (HMMCP SDAC), available <u>here</u>.

E2) Will OTE publish preliminary results similarly to some other nominated market operators?

We are currently not considering this change.

E3) Is the cancellation of 60-minute products planned for a later stage?

The cancellation of 60-minute products is currently not being considered.

E4) Will the calculated average price for 60-minute products be accessible through public web services (PublicDataService)? When will it be possible to test this service?

Yes, both 15-minute and 60-minute product prices will be available through public web services.

The updated version of the *User manual for external users of OTE public web – web services* including the changes related to the introduction of 15-min. on DAM will be available <u>here</u> by the beginning April 2025.

The expected start date for testing changes related to PubWeb and public web services is around the first half of May – the exact date will be specified in due course.

E5) Please confirm whether all changes in automatic communication (XML formats, related profiles, etc.) are currently described on the OTE website?

Yes, these changes are described in the documentation available on <u>OTE website</u>, which is <u>dedicated to the transition to 15-minute intervals</u> (specifically the following document <u>D1.4.4 CS</u> <u>OTE External Interface - Message formats for DM, IDA, Sol, FS, CDS, RRD</u>). Changes on the Dayahead market related to the introduction of 15-minute products were already included in the specifications published in 2024 (in connection with the introduction of the 15-minute settlement period in the Czech Republic and intraday auctions). The current templates are functional for 15-minute orders as well; the change only concerns the distinction of the period (PT60 and PT15).

E6) Do you plan to complete the transition of the OTE portal to the new design with the introduction of 15-minute products on the day-ahead market? If not, when is this planned?

The transition of the individual modules of the CS OTE portal to the new design will take place gradually throughout 2025 until the final deployment, which is now planned for Q1/2026. The following will be gradually transferred to the new design:

- PRODIS April 2025
- The remaining parts of CDS Electricity May to December 2025
- Section POZE December 2025
- Section CDS Gas Q1/2026