



Trading Appendix 2.a

Day Ahead Market Regulations

CROATIAN POWER EXCHANGE Ltd.

DAY AHEAD MARKET REGULATIONS

1. INTRODUCTION

- 1.1.** These Day Ahead Market Regulations contain detailed provisions on Orders and Day Ahead Market Price Calculation in the Day Ahead Market and are part of the Trading Rules and each Membership Agreement which in Annex 1 stipulates that the Member participates on Day Ahead Market.
- 1.2.** The Day Ahead Market provides the possibility of Trading by means of day ahead Trading based on all Orders received from Members prior to Gate Closure.
- 1.3.** Following Gate Closure, all volume and Orders received are stacked and market equilibrium is calculated. Based on the price and volume market equilibrium, each Member's rights and obligations regarding the sale and purchase of electricity for the relevant Delivery Hours are determined as further set out herein.
- 1.4.** Transactions resulting from Orders being matched in the ETS are automatically and mandatory registered for Clearing.

2. REGISTRATION OF ORDERS

2.1. Order Form

- 2.1.1.** Orders in the Day Ahead Market shall be submitted using CROPEX's standard Order form and shall be transmitted to CROPEX per electronic communications as specified by CROPEX or manually entered in the ETS.
- 2.1.2.** CROPEX may, in situations where specified communication according to Section 2.1.1. above is not working, decide that an alternative order form as specified by CROPEX, e.g. as a file in e-mail or copy of Order from a previous day, may be used. CROPEX may in such situations restrict the number of Price Steps in the Hourly Orders and the number of Block Orders and may restrict the time until CROPEX will receive such Orders. An Order submitted through such alternative order form is only considered registered when CROPEX confirms the registration of the Order in the ETS to the Member through the TTS or otherwise in writing. After receiving such confirmation, the concerned Member's Trading Responsible or Trader appointed for Day Ahead Market must confirm the Order as it is contained in CROPEX's confirmation of registration to CROPEX through TTS or otherwise in writing. If the Member does not confirm the Order in such way until ten (10) minutes before the Gate Closure, CROPEX has the discretionary right to delete the Order from the ETS, and shall in such case notify the Member. If the Member expressly dis-confirms the Order in such way until ten (10) minutes before the Gate Closure, CROPEX will delete the Order from the ETS and notify the Member. Any Member's late confirmations or dis-confirmations can be taken into consideration depending on sole discretion of CROPEX. The Order becomes binding on the Member from the time of registration regardless of the time of CROPEX's or Member's confirmation. The Member shall be responsible for the correctness of all Orders submitted through such alternative order forms, and Parties exclude liability of CROPEX for registration of Orders. A Member cannot invoke mistake in registration of Orders entered by CROPEX if such mistake was evident from confirmation on registration of Order and the Member did not expressly dis-confirm such registration of Order to CROPEX until ten (10) minutes before the Gate Closure.
- 2.1.3.** The Order form must be properly completed in order to be taken into consideration at the Auction. In case that the Order form is not properly completed it will not be taken into the consideration and the Price Report received by the Member from CROPEX will declare that no Transaction is concluded.
- 2.1.4.** The Members are responsible to check that the Orders submitted are properly completed, correct and valid, without delay. This includes also situations where manual handling of the Orders by CROPEX has been found necessary. A Member cannot invoke mistake in

registration of Orders if they did not warn CROPEX of such mistake as soon as possible, or if they did not expressly dis-confirm the registration of Order to CROPEX until ten (10) minutes before the Gate Closure in situations envisaged in Section 6.3. of the Trading Rules – General Terms and in Section 2.1.2. above when the mistake was evident from CROPEX's confirmation on registration of Order. It shall be considered that it was possible to check the correctness and validity of the registration of an Order as soon as details of registration of an Order became available to the Member concerned.

2.2. Quoting

- 2.2.1. All Orders are binding, subject only to this Section 2. and to Section 6. of the Trading Rules – General Terms. All Orders which are in accordance with conditions set in these Day Ahead Market Regulations, Trading Rules and Membership Agreement are available for acceptance.
- 2.2.2. Orders shall be quoted using the Order types as further specified in Section 3. below. Each Order must specify whether it is a Bid or an Offer, where Bids are denoted by positive Energy Volume numbers and Offers as negative Energy Volume numbers.
- 2.2.3. Order Price Limits must be within the Price Range specified by CROPEX at all times.
- 2.2.4. Member is allowed to quote Orders so that the sum of all Orders quoted on all CROPEX Markets on which the Member participates does not exceed the amount (value) of the Collaterals posted to CROPEX for that Member, in accordance with the Clearing and Settlement Rules, Membership Agreement and the Trading Rules. Any quoting of Orders above the posted Collaterals shall be considered as a Non-Compliance Event envisaged by the General Terms and will not be accepted by CROPEX and will be deleted from the ETS and/or TTS.
- 2.2.5. Each Order to each Auction represents an individual and independent Order for the Delivery Period(s) to which it relates. Except as specifically mandated by the Order Type used, specifically the Linked Block Orders, each Order shall represent an individual offer to buy or sell independent of any other Orders submitted by, or on behalf of, each Member to the same Auction during that Delivery Period(s).
- 2.2.6. Each Auction always relates to the following day starting from 00:00 CET. Orders can be registered from the time they are made available for Trading and until Gate Closure.
- 2.2.7. CROPEX may in its sole discretion, but shall have no obligation to, contact Members by telephone or e-mail and offer that the Member may submit and/or correct an Order should CROPEX have reason to believe that an Order submitted by the Member is erroneous, or that the Member erroneously has failed to submit an Order. CROPEX shall under no circumstances be liable for errors made by Members in submission of Orders, regardless of whether CROPEX decided to or had a chance to react as provided in this Section 2.2.7.

2.3. Price Range

- 2.3.1. CROPEX shall for Auction set a Price Range within which all Order Prices in the Day Ahead Market must be for that Auction.
- 2.3.2. CROPEX may change the Price Range set by giving at least four (4) days' notice. In case of a change of the Price Range for any Auction following the opening of Orders for that Auction, all Orders submitted prior to such change will automatically be deleted. CROPEX is not liable for any costs or expenses directly or indirectly incurred by Members because of the change in Price Range.
- 2.3.3. Prices for Orders are to be quoted in EUR. The maximum number of decimals that can be quoted is determined by CROPEX.

2.4. Gate Closure

- 2.4.1. By no later than Gate Closure each day the Member shall submit its Orders relating to the next day starting from 00:00 CET.
- 2.4.2. Orders received following Gate Closure will be considered null and void regardless of cause. For the avoidance of doubt, this also applies to Orders received after Gate Closure by reason of Force Majeure or communication failure and irrespective of whether or not the Member is in any default.
- 2.4.3. Members experiencing technical difficulties when submitting Orders to CROPEX must inform CROPEX about this immediately.

2.5. Order Amendments

- 2.5.1. Hourly Orders which have been submitted are canceled if the Member submits a new Hourly Order covering the same Delivery Hour. In case of several Hourly Orders submitted by the same Member for the same Delivery Hour, the Hourly Order last received by CROPEX will consequently always be the only Hourly Order which is deemed valid.
- 2.5.2. The Members are responsible to check that the Orders (and any amendments thereto) submitted and received by CROPEX are correct and valid and are correctly entered into the ETS.

3. ORDER TYPES

3.1. Hourly Orders

- 3.1.1. Hourly Orders are the Member's statement of its willingness to purchase or sell a specified Energy Volume in a Day Ahead Market Area at a specified price in a given Delivery Hour of the applicable Delivery Day.
- 3.1.2. In each Hourly Order, the Member shall submit a set of Order Price and Energy Volume specifications for the applicable Delivery Hour, starting with the Energy Volume at the lower Order Price Limit and ending with the Energy Volume at the upper Order Price Limit. Additional Price Steps may be specified as set out in the Products Specifications.
- 3.1.3. The Energy Volume given in an Hourly Order for sale (Offer) must be constant or increasing with increasing Order Prices. The Energy Volume given in an Hourly Order for purchase (Bid) must be constant or decreasing with increasing Order Prices.
- 3.1.4. To create an Order curve, CROPEX will upon reception of an Hourly Order interpolate the values between each Price Step in the Hourly Order by means of linear interpolation, and the Hourly Order will be deemed to apply to each interpolated value on the resulting Order curve.

3.2. Block Orders

- 3.2.1. Each Block Order must include details of such Block's Order Price Limit, the hourly Energy Volume, and the start and stop time. The Energy Volume may be different in each Delivery Period of the Block.
- 3.2.2. Each Linked Block Order must specify the order of priority between the Block Orders comprised in such linked Block. CROPEX may, in its absolute discretion, specify the maximum number of permitted priority levels that may be notified with respect to any Linked Block Order and the maximum number of permitted Block Orders at each priority level. The maximum number of permissible priority levels and Block Orders may be changed by CROPEX at any time prior to closure of the Auction on not less than one (1) day's written notice.

4. MATCHING

4.1. Information on Matching Process

- 4.1.1. The calculation process in which Orders are matched is described in the Public description of the PCR Market Coupling algorithm Euphemia available on CROPEX website.

4.2. Matching of Hourly Orders and Calculation of Day Ahead Market Price and Auction Volume

- 4.2.1. All Orders submitted for each Delivery Hour will be regarded as a point on an Order curve for Offers and Bids respectively, where each Order curve is created by interpolating straight lines between the Orders on the curve. The point of intersection between the aggregated Offer and Bid curves establishes the Day Ahead Market Price and Energy Volume for Day Ahead Market Area for that Delivery Hour.
- 4.2.2. Any imbalance between total Offers and total Bids caused by the rounding off of volumes for each Member when calculating the Day Ahead Market Area Price will be shared between Members whose Orders are accepted in respect of the relevant Delivery Hour.
- 4.2.3. All Transactions in the Day Ahead Market relating to one Delivery Hour will be carried out at the Day Ahead Market Area Price applicable for that Delivery Hour.
- 4.2.4. All Prices are indicated and matched in EUR.

4.3. Matching of Block Orders

- 4.3.1. Block Orders are activated if they meet the criteria below:

A Block Order for sale is matched only if the average Day-ahead Price for the Delivery Periods comprised in the Block Order is equal to or higher than Order Price specified in the Block Order. A Block Order for purchase is matched if the average Day-ahead Price for the Delivery Periods comprised by the Block Order is equal to or lower than the Order Price specified in the Block Order. Euphemia algorithm is choosing a combination of block orders that maximizes social welfare. However, sometimes the block bidder can experience a loss relative to the resulting spot prices, i.e. block orders that have the accepted price level are not accepted (paradoxically rejected block). If the Energy Volume in each hour of the Block Order differs, the volume weighted average price of the Block Order shall determine whether the Block Order is matched or not.

- 4.3.2. In respect of Linked Block Orders, the normal rules for matching of Block Orders in Section 4.3.1. shall apply, provided that:

- a. Any Block Order which does not have the highest priority within its linked Block will only be matched if all the Block Orders with higher priority within the relevant linked Block have already been matched;
- b. A Block Order that is not otherwise matched according to Section 4.3.2 may still be matched as part of a Linked Block Order if the matching of such Block Order, together with such other Block Orders at lower priority levels of the Linked Block Order, does not result in an overall loss for the Participant who submitted such Linked Block Order;

4.4. Procedure in Case of Non-Matching

- 4.4.1. In case of non-matching between the supply and demand curves in the Day Ahead Market the trading system will curtail either the supply curve or the demand curve, depending on if there is an oversupply or under supply in the area. The total curtailment is divided among all Members whose Orders were taken into consideration in creating supply and demand curves pro rata based on their wish for sale or purchase at minimum or maximum price.

5. REOPENING IN CASE OF UNFORESEEN DECOUPLING

- 5.1. In the event of unforeseen Decoupling inside MRC related to the formation of Day Ahead Market Price, and due to the usage of Euphemia matching algorithm, CROPEX will announce Reopening of the order book. During the Reopening, any Member may enter or re-enter Orders for Day Ahead Market.
- 5.2. The Reopening period and new Gate Closure will be announced by CROPEX, but it is expected to reopen order book for additional ten (10) minutes.

6. REPORTS

6.1. Price Report

- 6.1.1. When the Auction has been completed a publication will be made of Day Ahead Market Area Prices and corresponding Energy Volumes within Day Ahead Market Area.
- 6.1.2. CROPEX shall inform each Member of its confirmed purchase/sale position in a Price Report.
- 6.1.3. The Price Report specifies the Day Ahead Market Area Price and Energy Volume for each Delivery Hour in which Order(s) have been matched.
- 6.1.4. The Price Reports will normally be made available to Members on ETS immediately following the final confirmation of the Auction results. If the Price Report is delayed, CROPEX shall give the Members notice of such delay as soon as possible. Price reports will in addition be sent to each Member by communication specified by CROPEX.

6.2. Nominations

- 6.2.1. Members are obliged to include all purchase and sale volumes on Day Ahead Market inside their daily physical nominations according to the applicable Croatian energy legislation.
- 6.2.2. CROPEX is not liable for any costs or expenses connected with Member's physical nominations, and Members will do anything in their power to exculpate CROPEX of any responsibility if any of the claims arising from obligations regarding physical nominations regarding the Transaction entered into by the respective Members are directed against CROPEX, and will reimburse CROPEX for any and all expenses which may arise for CROPEX regarding physical nominations.

7. HANDLING OF ERRORS

- 7.1. Notwithstanding situations envisaged in Section 6.3. of the Trading Rules – General Terms and in Section 2.1.2. above, if the Member becomes aware of errors in Order(s), the Member shall notify CROPEX immediately of such errors.
- 7.2. Following receipt of a notice pursuant to above Section 7.1., CROPEX shall consider in its sole discretion whether any measures can be taken to avoid or mitigate any potential losses of the Member without conflicting with the Auction Price and the interests of the market, other Members, or any obligations of CROPEX.

8. AUCTION DELAY OR FAILURE

- 8.1.** If CROPEX is delayed in performing an Auction, CROPEX shall inform Members with regular intervals starting no later than 13:00 CET, until such time as the Auction is successfully completed.
- 8.2.** If market results are not available by 13:50 CET, and full Decoupling is declared in MRC, CROPEX will announce Reopening. During the Reopening, any Member may enter or re-enter Orders on ETS. The Reopening will resume for a period announced by CROPEX.
- 8.3.** If market results are not available by 15:00 CET, in case of full Decoupling, CROPEX will cancel the Auction for the Delivery Day.
- 8.4.** If market results are not available by 13:50 CET due to the technical difficulties CROPEX will cancel the Auction for the Delivery Day.
- 8.5.** In case of cancelation of the Auction all Orders entered in the ETS will be deleted.

Zagreb, 22.4.2020

President of the Management Board
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