

HELLENIC ENERGY EXCHANGE S.A.

HEnEx SPOT TRADING RULEBOOK

**Day-Ahead & Intra-Day Markets
Trading Rulebook**

**Version 1.2
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Disclaimer

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The original Greek Rulebook is the governing version.

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Chapter 1. General Provisions

1.1 Scope of Application

1. This Day-Ahead and Intra-Day Market Trading Rulebook of the Hellenic Energy Exchange S.A. (HEnEx), hereinafter referred to as "the Rulebook", as applying, in accordance with the Decision of the Regulatory Authority for Energy (RAE) for the approval and any eventual amendment hereof, subject to article 10 paragraph 8, as well as article 18 of the Law 4425/2016, shall be binding on HEnEx, the Participants in HEnEx Markets, the Clearing Members, the entities linked to the systems and Markets regulated by it and, in general, the persons to whom this Rulebook applies in accordance with its individual provisions regarding its force.
2. Upon submission of a "Participant Membership Application", it shall be presumed that the applicant accepts all the provisions of the Rulebook and undertakes the obligations deriving therefrom. Wherever in the present Rulebook there are provisions on obligations borne by persons that are not Participants, but who are linked with Participants (such as including, but not limited to, with the capacity of the member of the Board of Directors), the Participants should duly ensure in an appropriate manner and in accordance with any instructions from HEnEx, the commitment of such persons regarding the Rulebook provisions and their obligations arising from the Rulebook.
3. Adequate knowledge and compliance with the provisions of this Rulebook is a self-standing obligation of the persons referred to above and under no circumstances will this release them from other obligations that arise from legislation or are imposed by the competent, as the case may be, supervisory authority.
4. Participants are required to act in good faith, honestly, transparently, professionally and responsibly, in accordance with good business practices. Each Participant also undertakes, at any time, to preserve the smooth operation and integrity of the Day-Ahead Market and the Intra-Day Market as described in the Rulebook. Participants must apply the rules to support HEnEx in the operation of a fair and well-functioning market. The provisions of the Rulebook are intended to strengthen the market and public confidence in the Greek wholesale electricity market, its pricing mechanisms and reference prices for the benefit of end consumers.
5. The provisions hereof are governed and construed in accordance with the Greek law. The courts of Athens shall have exclusive jurisdiction to resolve any dispute that may arise from the provisions of the Rulebook, and consequently any action, act or procedure (collectively referred to as court proceedings) arising from or related to the Rulebook shall be exercised only in these courts.
6. For the avoidance of doubt, nothing in these provisions should be construed as allowing a Party to bring legal proceedings if the Rulebook otherwise provides that disputes should be referred, or are referred by agreement of the parties, to other dispute resolution procedures.
7. Obligations under the Rulebook shall mean and the obligations arising from decisions issued on the basis of its enabling clauses.
8. The terms of this Rulebook have the same meaning as the one given in the provisions of Law 4001/2011 and Law 4425/2016, as applying. For the interpretation of the Rulebook, it is clarified that all terms in capital letters have the meaning ascribed to them in the Rulebook or in its Annexes (Definitions and Procedure Timelines) and in the relevant European regulatory framework, unless explicitly stated otherwise.

1.2 Amendments to the Rulebook

1. This Rulebook shall be amended following a proposal of HEnEx's Board of Directors, which shall be approved by RAE, after public consultation conducted by the Authority, and published in the Government Gazette in accordance with Law 4425/2016. The procedure for amending the Rulebook may also be initiated at the initiative of RAE.
2. The new text of the Rulebook, as amended each time, shall be published in a codified form on HEnEx website. The above-mentioned codified amendments, their conditions of validity and any other information facilitating the information to the public shall be highlighted in the codified text. The codification referred to above shall be informal and in no case will it prevail over the above-mentioned texts published by RAE in the Government Gazette.

1.3 Technical Decisions of HEnEx

1. In order to effectively implement the provisions of the Rulebook, HEnEx may issue Technical Decisions regulating purely technical issues of a non-regulatory nature for the Participants. The competent body for issuing a Decision, including its amendments, shall be HEnEx's Board of Directors or any other body delegated by the Board of Directors.
2. Technical Decisions are made public on HEnEx website and are entered into force from their publication. If it is deemed appropriate for the smooth application of the arrangement, a later entry into force may be set or additional transition conditions may apply which affect the validity of the Decision. In this case, a special reference is made in the Decision.
3. Drafts of the above Technical Decisions are submitted to RAE prior to their publication by HEnEx on its website. Submission is done in writing or via e-mail at the address indicated by RAE.
4. In the event of conflict between the Technical Decisions of HEnEx and the provisions of the Rulebook, the provisions of the Rulebook shall prevail.
5. HEnEx may also issue guidelines, technical procedures and manuals in accordance with paragraph 2 of this section.

Chapter 2. Key arrangements in HEnEx Markets

2.1 The Electricity Markets

2.1.1 Types of Markets

1. The Electricity Markets operated by HEnEx include the Day-Ahead Market, operating in accordance with Chapter 4, and the Intra-Day Market, operating in accordance with the specific provisions of Chapter 5 of the Rulebook.
2. Trades in Electricity Markets are conducted electronically and anonymously. Trades are conducted through the Energy Trading Spot System (ETSS) in accordance with the specific provisions of Section 2.3. When trading in the Electricity Markets, the identity of the Participants is not known in any way. Trading is carried out anonymously as described above, not only when placing and registering Orders to ETSS, but also when Trades result from them. Anonymity may be lifted in cases where this is required by law or an implementing act issued by a competent authority or body.

2.1.2 Responsibilities of the Hellenic Energy Exchange (HEnEx)

1. HEnEx exercises all kinds of responsibilities regarding its operation as an Energy Exchange under Law 4425/2016 and the generally applicable provisions, in particular with respect to the matters referred to in the following paragraphs and as specified in the Rulebook.
2. HEnEx acts as a Nominated Electricity Market Operator (NEMO) in accordance with the provisions of Article 8 of Law 4425/2016 and Regulation (EU) 2015/1222 and of the decisions that have been issued by their authorization. For its operational needs as a NEMO, HEnEx concludes, as appropriate, the necessary agreements with other energy exchanges operating as NEMOs in accordance with Regulation (EU) 2015/1222, as well as with other competent bodies. HEnEx concludes cooperation agreements with the relevant competent bodies in accordance with Section 2.2.
3. HEnEx is responsible for the management and daily operation of its Markets. Trades on HEnEx Markets are conducted through the ETSS. HEnEx is responsible for the operation and management of the ETSS as well as for dealing with problems in case of malfunctions in accordance with Chapters 4 and 5 of the Rulebook.
4. HEnEx provides to Participants and publishes information regarding the operation of its Markets, timely and in accordance with its procedures, by any appropriate means, for their participation needs.
5. HEnEx monitors the execution of trades by Market Participants in order to safeguard the integrity of the energy system in accordance with the Regulation and the provisions of the law. In this context, it has mechanisms and procedures to facilitate the monitoring of the relevant trades. In the event of indications or suspicion of market abuse or other manipulations, HEnEx shall report to RAE accordingly based on its procedures.
6. HEnEx monitors Participants' compliance with the operational rules of its Markets. In the event of violations, the appropriate measures shall be taken on a case-by-case basis in accordance with the provisions of Chapter 3 (Section 3.7) of the Rulebook.
7. HEnEx facilitates the execution of physical delivery of the energy quantities resulting from the trades carried out within HEnEx's Energy Derivatives Market or from Over-the-Counter Energy Financial Instruments, as well as for trades pertaining to other wholesale energy products of the

Regulation (EU) 1227/2011 with the obligation of physical delivery, which have been registered and nominated for Physical Settlement in the ETSS by submitting appropriate Priority Price-Taking Buy and Sell Orders to the Day-Ahead Market.

8. HEnEx collects the applicable fees in accordance with Chapter 3 (Section 3.12) of the Rulebook.

2.1.3 Participants

1. HEnEx Markets can be accessed by Participants in order to transmit Orders and conduct trades through the ETSS on the Products specified in Section 2.5. Participants' access also includes entries made in connection with their trades in Energy Financial Instruments for their Physical Settlement in accordance with the terms of Chapter 6 of the Rulebook.
2. In order to acquire the capacity of Participant it is necessary to follow the procedure of Chapter 3. Participants must constantly comply with their obligations arising from such capacity. Where infringements are detected, HEnEx shall impose appropriate measures on a case-by-case basis in accordance with the provisions of Chapter 3 (Section 3.7) of the Rulebook.
3. HEnEx keeps a Participants Registry in accordance with Chapter 3 (subsection 3.4.4).

2.1.4 Clearing and Settlement

1. Clearing and settlement of the financial part of trades on the Day-Ahead and Intra-Day Markets is conducted by the Clearing House in accordance with the Clearing Rulebook. The Clearing House may also act as a Shipping Agent in the meaning of Regulation (EU) 2015/1222 for the transferring of Net Positions of the coupled Day-Ahead and Intra-Day Markets. The Clearing House also provides related services to coupled markets, as regards the clearing and settlement of the financial part of the trades arising from the Net Positions of the coupled Day-Ahead and Intra-Day Markets.
2. Clearing and settlement of the Physical Deliveries resulting from the trades, including Physical Settlement in relation to the trades in Energy Financial Instruments registered in the ETSS, shall be performed by the HTSO in accordance with its Rulebook.
3. For the purpose of clearing and settlement of the financial part of trades by the Clearing House, HEnEx shall inform the Clearing House in relation to trades on the Day-Ahead and Intra-Day Markets at regular time periods per day and based on the ETSS prescribed technical procedures. In such regular time periods per day, HEnEx shall inform the HTSO of the trades of the Day-Ahead and Intra-Day Markets as well as of the trades in Energy Financial Instruments registered by the Central Counter Party to the ETSS for the clearing and settlement of Physical Deliveries resulting from them.
4. The Clearing House and the HTSO perform the respective clearing and settlement operations, as described above, based on the trading records transmitted to them each time by HEnEx. In the event of incorrect transfer or other changes to the contents of the records, HEnEx shall correct the relevant data according to the prescribed technical procedures by informing the Clearing House and the HTSO on a case-by-case basis.

2.1.5 Currency

Trades in Wholesale Energy Products in the Day-Ahead and the Intra-Day Markets are conducted in Euro. Accordingly, the financial settlement of the above trades as well as trades in Energy Financial Instruments registered on the ETSS for Physical Settlement purposes are also effected in Euro.

2.2 HEnEx and cooperating bodies

2.2.1 Generally

1. HEnEx cooperates with the HTSO, the Clearing House, the Central Counter Party, the RES & GO Operator and any other entity for the needs of the orderly and efficient operation of the Day-Ahead and Intraday Markets in accordance with the regulatory arrangements of coupled markets.
2. For the needs of cooperation on a case-by-case basis, HEnEx concludes the necessary bilateral or multilateral contractual arrangements on a national, regional or EU basis.

2.2.2 Hellenic Transmission System Operator

1. The HTSO, as part of the operation of the Day-Ahead and Intra-Day Markets, transmits the necessary information to HEnEx for the proper functioning of the relevant Markets in accordance with Chapter 4 and 5 of the Rulebook.
2. With respect to the Day-Ahead, the HTSO submits to the ETSS Priority Price-Taking Orders and publishes, as appropriate, the energy schedules covered by the relevant Orders in accordance with Chapter 4 of the Rulebook.
3. With respect to the Intra Day Markets, the HTSO submits to the ETSS Buy and Sell Orders and publishes, as appropriate, the energy schedules covered by the relevant Orders in accordance with Chapter 5 of the Rulebook
4. As part of the market coupling operation and for the implementation of Regulation (EU) 2015/1222, the HTSO confirms the Market Coupling Results in accordance with the procedures provided for in the Market Coupling Operator (MCO) plan.

2.2.3 RES & GO Operator

1. The RES & GO Operator, as part of the operation of the Day-Ahead and Intra-Day Markets, transmits the necessary information to HEnEx for their proper operation in accordance with Chapter 4 and 5 of the Rulebook.
2. With respect to the Day-Ahead, the RES & GO Operator submits to the ETSS Priority Price-Taking Orders and publishes, as appropriate, the energy schedules covered by the relevant Orders in accordance with Chapter 4 of the Rulebook
3. With respect to the Intra-Day Markets, the RES & GO Operator submits to the ETSS Buy and Sell Orders and publishes, as appropriate, the energy schedules covered by the relevant Orders in accordance with Chapter 5 of the Rulebook.

2.2.4 Last Resort RES Aggregator

1. The Last Resort RES Aggregator as part of the operation of the Day-Ahead and Intra-Day Markets, transmits the necessary information to HEnEx for their proper functioning in accordance with Chapter 4 and 5 of the Rulebook.
2. With respect to the Day-Ahead Market, the Last Resort RES Aggregator submits to the ETSS Priority Price-Taking Orders and publishes, as appropriate, the energy schedules referred to in these Orders in accordance with Chapter 4 of the Rulebook
3. With respect to the Intra-Day Markets, the Last Resort RES Aggregator submits to the ETSS Buy and Sell Orders and publishes, as appropriate, the energy schedules referred to in these Orders in accordance with Chapter 5 of the Rulebook.

2.3 Energy Trading Spot System (ETSS)

1. HEnEx has the mechanisms and procedures for the seamless, smooth and safe operation of the ETSS in accordance with the specifications laid down by the applicable provisions and good market practices.
2. ETS has a stand-by system, which is an independent electronic system and which will be activated in case of malfunction of the ETSS system as the main system.
3. Participants have the right to access information on the ETSS databases directly concerning them.
4. The ETSS supports particularly the following operations:
 - 1) the registration and management of Participants' data;
 - 2) the registration of Products and accepted types of Orders;
 - 3) the processing and registration of Orders;
 - 4) the processing and registration of Credit Limits in accordance with the provisions of the Clearing Rulebook;
 - 5) the registration and nomination of trades in Energy Financial Instruments with Physical Settlement and the transmission of Physical Delivery Nominations and Physical Offtake Nominations;
 - 6) its interface with the system managed by the Clearing House in accordance with the Clearing Rulebook;
 - 7) the interface with the market management system of the HTSO;
 - 8) its interface with the platform used in the Price Coupling of the Regions for matching Day-Ahead Market Orders;
 - 9) the solution of Local Intra-Day Auctions (LIDAs);
 - 10) its interface with the platform used in the Price Coupling of the Regions for Complementary Regional Intra-Day Auctions (CRIDAs);
 - 11) its interface with the electronic platform used as part of the operation of the Pan-European Continuous Intra-Day Trading (XBID).
5. For the purpose of conducting trades through the ETSS, the Participants transmit the relevant Orders to the ETSS electronically from their workstations.
6. The ETSS is used for the registration of energy quantities resulting from the trades carried out within HEnEx's Energy Derivatives Market or from Over-the-Counter Energy Financial Instruments concluded bilaterally, as well as for trades pertaining to other wholesale energy products of the Regulation (EU) 1227/2011, with a physical delivery obligation and for the submission of Physical Delivery/Offtake Nominations by Participants.
7. Through the ETSS, the Day-Ahead Market Orders are received, validated and stored, and are transmitted, as anonymous Orders, to the MCO, within the meaning of Regulation (EU) 2015/1222, having overall responsibility for matching Orders for Day-Ahead Market Coupling, receiving anonymous results of the market coupling, decrypting the results in relation to the Participants and the Entities to which they relate, and notifying Participants of the market results.
8. The ETSS is also used in the event of implementation of the Fallback Procedures in accordance with the provisions of the Rulebook.
9. In addition, regarding the Intra-Day Market, the ETSS shall be used as follows:
 - 1) in LIDAs, the ETSS shall be used for receiving, validating and storing Orders, for matching Orders and notifying market results to Participants;
 - 2) in CRIDAs, the ETSS shall be used for receiving, validating and storing Orders anonymizing and sending the Orders to the CRIDA Operator that is responsible for matching the Orders

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- in CRIDAs, receiving the anonymized market matching results, decrypting the results with respect to Participants and Entities concerned, and notifying market results to Participants;
- 3) In Continuous Trading, for receiving, validating and storing Orders, anonymizing and sending the Orders to the electronic system that is responsible for the matching them, receiving the anonymized market matching results, decrypting the results with respect to Participants and Entities concerned and notifying market results to Participants.
10. Following the notification of Results of the Day-Ahead and Intra-Day Markets, the ETSS informs the Clearing House of the trades and updates the Physical Delivery Schedules and the Physical Offtake Schedules.
11. Access to the ETSS is provided by HEnEx to the authorized users of Participants and the HTSO, in accordance with the relevant provisions of the Rulebook.

2.3.1 Technical Problems

1. In the event of a total or partial shutdown or other malfunction of the ETSS, HEnEx shall make every effort to restore normal operation of the ETSS. In the event of such a malfunction, HEnEx shall inform the Participants without undue delay by any appropriate means in accordance with subsection 3.4.5 of the Rulebook, indicating the procedure to be followed to restore its operation. Relevant information is also provided to Participants by HEnEx electronically as soon as the operation of the ETSS is restored.
2. The above means of communication of HEnEx with Participants shall be used by HEnEx solely in case of malfunction, and in no case shall they replace the ETSS as an official means of communication between them as part of its normal operation.

2.3.2 Trading on Behalf

1. Participants are required to keep their ETSS connection equipment in good condition and have procedures and backup connection systems for their participation in the Day-Ahead and Intra-Day Markets. Participants are also required to keep their Certified Traders available when conducting their trades.
2. In the event of causes not due to a technical malfunction of HEnEx, such as due to a malfunction in the Participant's internal network, HEnEx provides the Participants with a trading support process through its authorized entities.
3. HEnEx's entities that have been authorized for this purpose are entitled, at the request of the Certified Trader of the Participant, to receive and transfer to the ETSS the orders of the Participant, to amend or annul registered orders of the Participant and in general to proceed to any action of participation in HEnEx's Markets, based on the provisions of the Rulebook, at the request of the Participant.
4. Participants' authorized persons to use the Trading on Behalf service submit a request for the Trading on Behalf service to HEnEx only electronically within the Trading Hours of the Market that their Orders concern and in each case fifteen (15) minutes before the relevant Gate Closure Time at the latest. Orders are submitted together with the electronic request in a format defined by HEnEx.
5. The use of the Trading on Behalf service is charged by HEnEx with the applicable charge in accordance with sub-section 3.12.5 of the Rulebook.
6. HEnEx shall not be liable whatsoever for non-timely submission of Orders during the use of the Trading on Behalf service. If more requests are transmitted, HEnEx attends to their being met based on the principle of time priority, unless there are grounds for maintaining the proper operation of the market or protection of the investors' interests or preventing risks on the

clearing of transactions justifying a derogation from the aforementioned principle.

7. HEnEx may determine any technical matter and necessary detail related to the Trading on Behalf by a Technical Decision.

2.3.3 Common access points

1. HEnEx may provide Participants with common access points to access the ETSS and participate in the Day-Ahead and Intra-Day Market.
2. Access to common access points available at HEnEx facilities is provided exclusively to the Certified Traders of Participants.
3. The properly arranged area of a common access point accommodates the Certified Traders per Participant.
4. The use of common access points service is charged by HEnEx based on the applicable charge in accordance with Chapter 3 (subsection 3.12.6) of the Rulebook.
5. HEnEx may, by its Technical Decision, determine any technical matter and necessary detail related to the common access points.

2.4 Trading Methods

2.4.1 General provision

The trading methods referred to in the following Articles apply to HEnEx Markets.

2.4.2 Auction

1. During the Auction, all Orders submitted from the Gate Opening Time until the Gate Closure Time are accepted for execution by the ETSS. All Orders accepted under the applicable validation rules, as the case may be, are entered in the Order Book.
2. Upon the lapse of the Auction Gate Closure Time, all accepted Buy and Sell Orders are collected from the Order Book and then the algorithm calculates the market balance, the accepted quantities of the Buy and Sell Orders and the balance price in each Auction are calculated.

2.4.3 Continuous Trading

1. During Continuous Trading, all orders that are admitted from the Gate Opening Time until the Gate Closure Time are accepted for execution by the ETSS. Upon their submission to the ETSS, the Orders accepted under the Continuous Trading method, are registered in the Order Book after receiving timestamp and getting validated.
2. The Local Order Book includes Buy and Sell Orders which are registered according to their ranking criteria.
3. Orders which, at the time of their entry into the ETSS, do not fulfil the matching criteria for automatically executed trades, unless otherwise stipulated by the type of order, are registered in the Order Book. Orders are ranked by type of Order, Buy or Sell.
4. Each Order is ranked, by type, on the basis of the following criteria:
 - a) Best price. Buy Orders are ranked in order of priority on the basis of the highest price, whilst Sell Orders are ranked on the basis of the lowest price.
 - b) Time. Orders with the same price are ranked according to their priority on the basis of their time of entry into the ETSS.
5. On the basis of the ranking criteria, trades are executed as follows:

At the time of its entry in the ETSS, the price limit of a Buy Order, must be equal to or higher than the best price among the registered Sell Orders and, in case of a Sell Order, its price limit

must be equal to or below the best price among the registered Buy Orders.

2.4.4 Trading Calendar and Timeline Procedures

1. The trading hours of HEnEx Markets are announced in the Trading Calendar by HEnEx on its website. The Trading Calendar is announced two (2) months before the end of each year for the following year and is updated, if required, by Decision of HEnEx.
2. With respect to HEnEX Decision, HEnEX publishes analytical Timeline Procedure for the Day-Ahead and Intra Day-Markets, where at minimum the following are described:
 - a. the procedures and the relevant time limits for Physical Settlement of the Energy Financial Instruments.
 - b. the procedures and the relevant time limits for the Physical Delivery Nominations or Physical Offtake Nominations.
 - c. the procedures and the relevant time limits for the Day-Ahead Market.
 - d. the procedures and the relevant time limits for the Intra-Day Market.

2.5 Admission, suspension, and deletion of Products and Order types

2.5.1 Admission and deletion of Products and Order types

2.5.1.1 Procedure for admission and deletion

The Wholesale Energy Products (hereafter "Products") - Order types of the Day-Ahead and Intra-Day Markets are defined by HEnEx Rulebook, in accordance with the provisions of paragraph 2 point (a) of Law 4425/2016, RAE Decisions 93/2018 and ACER 4/2020 and No. 5/2020, pursuant to Articles 40, 37 and 53, respectively, of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing guidelines for capacity allocation and congestion management, as in force, as well as any other decision by authorisation of these provisions.

2.5.1.2 Information

HEnEx informs Participants of the admission of new Products or Order types or their deletion in accordance with subsection 2.5.1.1 and makes public by any appropriate means of its choice:

- a) the admission or deletion of Products or Order types;
- b) the date of commencement of trading of Products - Order types, and
- c) any other matter and necessary detail about the above.

2.5.2 Tracking of the liquidity of Products and Order types

2.5.2.1 Suspension

1. HEnEx monitors the liquidity of each individual Product - Order type and prepares a quarterly report with the results of their operation. The above report shall be communicated to RAE and shall be made public through HEnEx website.
2. In case of limited liquidity or irregular operation of a certain Product - Order type, which may disrupt the operation of the relevant Market or render its operation inefficient, HEnEx shall submit a recommendation to RAE to suspend its operation for a certain period of time. The above recommendation requires and should indicate all necessary actions and co-ordination of HEnEx with the NEMOs, as the case may be, and the Transmission System Operators involved as part of the MCO plan, in accordance with Regulation (EU) 1222/2015.
3. RAE, by its decision, in accordance with Article 18(4) of Law 4425/2016, may suspend the

operation of the Product or Order type and determine the period of suspension. The decision shall be taken within twenty (20) working days of receipt of the relevant recommendation and is notified to HEnEx without delay.

4. A corresponding procedure is also followed to waive the suspension of operation of Products - Order types.

2.5.2.2 Information

HEnEx publishes the decisions of RAE, as described in subsection 2.5.2.1, on its website, and informs Participants via the ETSS. The relevant disclosure and update includes at least the following:

1. RAE decision to suspend Product or Order type
2. The last trading day of the Product or the Order type
3. The specific reason for the suspension, and
4. Any other matter and necessary detail.

2.6 Maximum and Minimum Orders Price

The Minimum Orders Price and the Maximum Orders Price for the Day-Ahead Market and for the Intra-Day Market, which coincide with the Harmonized Minimum Clearing Price and the Harmonized Maximum Clearing Price of each Market respectively, as applying, are specified by HEnEx's Technical Decision based on the regulatory framework specified in article 10 of the Regulation (EU) 2019/943 of the European Parliament and Council, dated as of 5th of June 2019, as regards the internal energy market. The same Technical Decision specifies the time the aforementioned Order Prices start applying.

2.7 Credit Limits

1. The Participant shall fulfil its obligations towards the Clearing House as a Direct Clearing Member. If it does not act as a Direct Clearing Member, it must monitor and assist, where appropriate, in the fulfilment of the relevant obligations of the General Clearing Members acting on its behalf under the contractual arrangements between them.
2. The Participant is required to have adequate Credit Limit for participation in each Market, as provided for in the Clearing Rulebook and the Clearing House's procedures. The Credit Limit is allocated to the Participant as a Clearing Member or, if it does not act as a Clearing Member, through the Clearing Member acting on its behalf in accordance with the Clearing Rulebook of the Clearing House. Each Participant's Credit Limit is monitored by the ETSS in accordance with the specific provisions of the following paragraphs:
 - a) Prior to the Validation Gate Opening Time of each Market, the Participants' Credit Limits, as calculated by the Clearing House, in accordance with the provisions of the Clearing Rulebook and the Clearing House's procedures, are registered in the ETSS, under the responsibility of the Clearing House.
 - b) In addition, continuously and up to the Gate Closure Time of each Market, any changes to the already registered Credit Limits are entered in the ETSS, as such changes may arise for each Participant in accordance with the Clearing Rulebook and the Clearing House procedures.
3. The Participant is required to monitor the relevant updates to its Credit Limits through the ETSS, as this is calculated in accordance with the provisions under points (1) and (2). The Participant is required to refrain from the admission of Orders to the ETSS if their admission would result in

exceeding its Credit Limit and in any case to take the actions required by the Clearing Rulebook to ensure that the submitted Orders are covered by it. In the event that the submission of an Order by a Participant results in exceeding its Credit Limit as determined by the Clearing House, the Order is automatically rejected by the ETSS. In this case, the Participant is notified by the ETSS via e-mail.

2.8 Market Protection Measures

2.8.1 Cancellation of Orders

1. All Orders registered in the Local Order Book of the Day-Ahead and Intra-Day Markets are binding.
2. HEnEx's Board of Directors or any other body authorized to do so may cancel Orders registered in the ETSS in the following cases:
 - a) when the right to participate in the trading of the Participant who entered the Order is suspended;
 - b) when the order violates the Rulebook, the applicable law or contractual commitments undertaken by HEnEx as part of its role as NEMO;
 - c) when requested by a Participant, as described in subsection 2.3.2.
3. HEnEx may, by Technical Decision, determine any issue and necessary detail relevant to the cancellation of orders.
4. In the event of Orders being cancelled, HEnEx shall inform the Participant and RAE of the cancelled Orders and of the reasons for their cancellation.

2.8.2 Cancellation of trades

1. All trades resulting from the Day-Ahead Market Results and the results of LIDAs or CRIDAs are final and irrevocable.
2. In the case of Continuous Intra-Day Trading, HEnEx may decide to cancel a trade, if cancellation is technically and functionally feasible, under the following conditions:
 - a) the trade is a result of a manifest error;
 - b) the trade violates the Clearing Rulebook;
 - c) the trade violates the Rulebook.
3. HEnEx shall make every effort to cancel a trade in case an order has been registered in the ETSS by fault of HEnEx.
4. HEnEx may, by its Technical Decision, determine any technical matter and necessary detail related to the cancellation of Trades.
5. In the event of a cancellation of Trades, HEnEx shall inform Participants, RAE and the Clearing House of the cancelled Trades and the reasons for their cancellation.

Chapter 3. Access to the Day-Ahead & Intra-Day Markets

3.1 General

1. Access to the Day-Ahead & Intra-Day Electricity Markets for the purpose of executing trades is provided to HEnEx Participants in accordance with the provisions of the Rulebook. Wherever reference is made in this Rulebook to the term “trades”, this shall mean trades concluded by Participants in those Markets in accordance with this Rulebook, unless otherwise explicitly stated.
2. All Participants in HEnEx are required to comply with the provisions of the Rulebook.

3.2 Persons eligible to become Participants

HEnEx accepts the following persons as Participants:

1. Legal entities or natural persons operating where applicable under a License or a relevant exemption from the obligation to obtain a license, who are defined as Eligible Persons for the purposes of the Rulebook and are the following:
 - a) Producers, holders of a Production License or an exemption from obtaining a production licensing;
 - b) Suppliers, holders of a Supply License;
 - c) Traders, holders of a Trading License;
 - d) RES & High Efficiency CHP Producers, holders of RES and CHP Units;
 - e) RES Aggregators, holders of RES Aggregator License, and
 - f) Self-Supplying Consumers.

In order for an Eligible Person to be approved by HEnEx as a Participant, the requirements of this Chapter (Sections 3.3 and 3.4).

2. The HTSO and the RES & GO Operator. The aforementioned persons as well as the persons acting as Last Resort Supplier, Universal Service Supplier and Last Resort RES Aggregator are registered as Participants under the procedure of sections 3.3 and 3.4 and the specific terms and the derogations from that procedure set out by a Technical Decision of HEnEx.

3.3 Conditions for acquiring and maintaining the capacity of Participant

1. In order to qualify as a Participant, the interested party shall submit to HEnEx a “Participant Membership Application” in accordance with the provisions of Chapter 3 (Section 3.4) of the Rulebook.
2. Completing the process for acquiring the capacity of Participant and being activated in the ETSS is subject to the following additional requirements:
 - a) approval by the Clearing House that the person concerned will act as a Direct Clearing Member or submitting a certificate of cooperation with a General Clearing Member of the Clearing House in respect of the Clearing of its trades, and

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- b) a Balance Responsible Party Contract with the HTSO.
 3. The conditions of paragraph 2 must be fulfilled at any time, in order to maintain the capacity of Participant and remain active in the ETSS .
 4. The Participant capacity is not transferred or assigned to a third party.
 5. The specific procedure and any technical terms and necessary detail that the Participants should comply with in case of corporate transformations is specified by a Technical Decision of HEnEx.

3.4 Acquiring the capacity of Participant

3.4.1 Submission of a “Participant Membership Application”

1. The Participant capacity is acquired per Market and granted to the persons of section 3.2. after the approval of HEnEx’s competent entity, in accordance with the terms of the Rulebook.
2. HEnEx by Technical Decision shall define the type and required documents for the “Participant Membership Application”.
3. To qualify as a Participant, Eligible Persons shall submit in writing the relevant folder to HEnEx attaching a copy of the “Participant Membership Application” in the standardized format of HEnEx. The application must be signed by the legal representative of the applicant and be accompanied by the necessary supporting documents. It also serves as a solemn declaration by the applicant that it meets the requirements for acquiring the capacity of Participant requested in the application.
4. When submitting a “Participant Membership Application”, the applicant shall also submit the relevant proof of payment of the applicable Administrative Fee in accordance with the provisions of Chapter 3 (Section 3.12) of the Rulebook.
5. Submission of an application will be considered as acceptance by the applicant of all the provisions of this Rulebook as well as of the relevant obligations relating to the requested capacity.
6. At the time of submission of the “Participant Membership Application”, the applicant must disclose any other capacities it may have, such as a membership in exchanges or regulated market operators or clearing and settlement legal entities, and provide HEnEx with all necessary data and information relating to these capacities. HEnEx may request data and information from such entities and the competent authorities of the applicant as part of gathering and verifying critical information for considering the application.

3.4.2 Organizational requirements and professional competence to acquire the capacity of a Participant

1. The applicant must have and maintain as Participant appropriate organizational, operational and techno-economic infrastructure as well as adequate and suitable control and security mechanisms for the electronic processing of data and internal control procedures with respect to its participation in HEnEx Markets, and in particular for:
 - a) the effective management of the risks it undertakes by participating in HEnEx Markets and the fulfillment of its respective obligations;
 - b) the monitoring of the smooth clearing of its trades and the fulfillment of the obligations it undertakes, related to the clearing of its trades, where applicable;
 - c) reducing the risk of being involved in any abusive and market-damaging behavior;
 - d) the effective monitoring, management and fulfillment, as applicable, of its obligations towards the competent authorities, HEnEx, the Clearing House and all kinds of systems and authorities related to HEnEx Markets.

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2. The applicant must respond to the control procedures of HEnEx with respect to the due diligence assessment shown by HEnEx when examining the applications to acquire the capacity of Participant.
 3. In order to participate in HEnEx Markets, the applicant shall be obliged to have appointed at least one (1) Certified Trader. In addition, it must have an adequate number of Certified Traders, taking into consideration the volume of trades it will be performing and its obligations to comply with the rules of professional conduct in accordance with the provisions in force.
 4. When participating in HEnEx Markets, a Participant must ensure the presence of a Certified Trader during trading hours, as well as the way in which such trader is replaced whenever the latter is absent or unavailable. A Certified Trader can only be replaced by a person having the aforesaid capacity.
 5. In order to perform the duties of Certified Trader, the prospective person must meet the professional competence requirements laid down by Technical Decision of HEnEx. Professional competence consists in the existence of the necessary evidence that the Certified Trader has adequate knowledge of the applicable rules and technical procedures that govern the operation of HEnEx and its Markets. The capacity of the Certified Trader is acquired in accordance with the process defined by Technical Decision of HEnEx.
 6. The Participant shall be obliged to declare the data of Certified Traders, as well as any changes to these data. The Certified Traders of a Participant must, upon request, provide HEnEx and the competent authorities with any information or details relating to the trades they execute.
 7. The Participant shall declare to HEnEx the authorized persons for operational communication in accordance with the applicable requirements of the Rulebook and the Clearing Rulebook.
 8. The “Participant Membership Application” shall be accompanied by a know-your-client form clearly setting out the organizational procedures under which it intends to operate as a Participant. HEnEx may provide applicants with a specimen to serve as a guideline for the content of the know-your-client form.

3.4.3 Assessment of the “Participant Membership Application”

1. HEnEx has the right to publish the application submission and make public the identity of the candidate Participant.
2. HEnEx evaluates the completeness of the application folder within ten (10) working days of its receipt.
3. In the course of checking the data submitted by the candidate, HEnEx has the right to request – in addition to the aforementioned supporting documents – any other additional or supplementary document or information which deems necessary for the purpose of examining the application or verifying the submitted data, as well as the appearance in person of one or more officers and employees of the applicant before it, especially of those who have been engaged to carry out the duties of Certified Trader.
4. For the purpose of establishing the capability and preparedness of the candidate, HEnEx may request its participation in mock trading or other simulations of actual trading.
5. HEnEx rejects the application of the candidate Participant by a justified decision, in particular in the following cases:
 - a) when the applicant has not submitted a duly completed and signed “Participant Membership Application” and the documents related thereto in the application folder;
 - b) when HEnEx has in the past deleted the candidate from Participant as a result of a breach of regulations and agreements with it in accordance with the provisions of Section 3.7, unless the circumstances that led to the deletion have ceased to exist or HEnEx is reasonably convinced that the breach will not be repeated;
 - c) if acceptance of the “Participant Membership Application” would cause HEnEx to violate

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- any provision of any mandatory legal or regulatory obligation;
 - d) where any of the candidate's statements are inaccurate or false; or
 - e) where it has overdue payment obligations towards HEnEx.
 6. HEnEx may defer issuance of a decision on an application if the details provided by the candidate are inadequate or not sufficiently documented for the purpose of assessing the application. The application will be considered as rejected if the applicant fails to submit the relevant details requested by HEnEx within the period of deferment. The decision of HEnEx is communicated to the candidate without undue delay. Decisions of HEnEx rejecting "Participant Membership Application" may be reviewed by the Board of Directors of HEnEx at the request of the candidate. In such case, the provisions of Chapter 3 (subsection 3.7.3.1) of the Rulebook apply.
 7. HEnEx shall notify RAE, the HTSO, the RES & GO Operator and the Clearing House, where relevant, of the rejection of a "Participant Membership Application".
 8. Upon approval of the "Participant Membership Application", HEnEx shall issue the relevant "Participant Registration Approval" and send it to the applicant notifying at the same time RAE, the HTSO, the RES & GO Operator and the Clearing House, where relevant, without undue delay.
 9. Upon the issuance of the "Participant Registration Approval" and the fulfillment of Participant activation terms, as specified in the relevant Technical Decision of HEnEx, the Participant may participate in HEnEx Markets. Each term regarding a Participant's activation and its general function as such is specified by the Technical Decision of HEnEx and by the specific terms contained in the application, to which the Participant adheres from and through its submission to HEnEx.
 10. By acquiring the capacity of Participant and in order to activate it, the Participant shall be obliged to pay the applicable fees and the Annual Subscription to HEnEx within five (5) working days in accordance with the provisions of Chapter 3 (Section 3.12) of the Rulebook.

3.4.4 Participants Registry

1. HEnEx maintains a Participants Registry, in which it keeps all Participants related data, as requested by HEnEx, such as the details of the relevant license issued by RAE, the corporate name, registered office, shareholders' equity, share capital, details of legal representatives, details of Certified Traders that the Participant has designated to HEnEx as appointed traders to HEnEx, the date of commencement and termination of the capacity of Participant, as well as any change the Participant has made to those details. Each Participant shall be obliged to inform HEnEx of any changes to the above details.
2. HEnEx keeps a separate registry with Certified Traders.
3. HEnEx publishes on its website a list of its Participants for the purpose of keeping the market informed.
4. HEnEx assumes no responsibility for the completeness, correctness or truth of the above data provided by Participants. Participants are solely responsible for this.

3.4.5 Communication with Participants

1. Communication between HEnEx and its Participants shall be carried out in writing (by post, telegraph, telex, fax or by electronic means) and in accordance with the provisions set forth in this Rulebook.
2. The Participant's address for communicating with HEnEx is the one that the Participant has specified in the "Participant Membership Application". Any change of address of the Participant shall be notified in writing to HEnEx.
3. HEnEx may specify the procedures and means by which Participants communicate with it, setting specific criteria according to the capacity of the Participant or candidates seeking

acquisition of the respective capacities, the responsibilities of the Participant's contact persons and the issues they handle in connection with the Participant's capacity, as well as any other matter and relevant technical detail relating to these procedures. Participant's communication with HEnEx is considered binding and its legal effects are produced only if it is conducted by the Participant's contact person, as determined on a case-by-case basis depending on the duties exercised by the Participant.

4. Participants shall inform HEnEx of any change to the information submitted by the Participant in accordance with the provisions of the Rulebook before such changes take effect and where this is not possible without delay as soon as the Participant becomes aware of the change.
5. HEnEx reserves the right to periodically update the information of its Participants.
6. When communicating with HEnEx, Participants must address themselves to those bodies of HEnEx which are responsible for the specific matter, as these are specified by Technical Decision of HEnEx and announced from time to time on its website.

3.4.6 Records of telephone conversations

1. HEnEx may install, in accordance with the existing legal and regulatory provisions on personal data protection, a special monitoring and recording system for telephone conversations in order to facilitate its functions as an Energy Exchange.
2. The monitoring records kept by HEnEx shall have full force of proof between HEnEx and the aforementioned persons, counter proof being allowed.
3. HEnEx may by Technical Decision specify any technical issue and necessary detail concerning the implementation of the above provisions.

3.5 Acquiring the capacity of Certified Trader

1. The natural persons who have been certified by HEnEx to perform trading on behalf of a Participant in HEnEx Markets are called Certified Traders.
2. For the purposes of recognizing the professional competence of the Participants' employees and officers, HEnEx shall issue an Energy Trading Certificate relating to its eligibility to perform the duties a Certified Trader in HEnEx Markets.
3. Additional information and technical details regarding the terms and conditions of the Energy Trading Certificate may be specified by Technical Decision of HEnEx, which is published on its website.

3.6 Obligations of Participants and HEnEx

3.6.1 General Obligations of the Participant

The Participant is obliged for the entire duration of its membership until its final expiration:

- 1) To meet the requirements set each time for becoming a Participant of HEnEx in accordance with this Rulebook and operate only in the Markets for which it has been approved by HEnEx.
- 2) To pay all types of registration fees, expenses and amounts due to HEnEx in accordance with the terms of this Rulebook and the relevant Technical Decisions issued by it.
- 3) To comply promptly and fully with the provisions of this Rulebook, the Clearing Rulebook, the Technical Decisions of HEnEx, and with any decision or instruction of a relevant body of HEnEx.

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- 4) To adhere to the technical specifications of HEnEx IT systems and the technical specifications and terms contained in decisions or ICT (Information and Communication Technologies) service contracts provided by HEnEx, and to provide HEnEx with all information requested and deemed necessary by HEnEx for the purpose of establishing information systems' adequacy.
 - 5) To keep records and data of all its trading activity with on HEnEx, the content of which may be further specified by HEnEx by Technical Decision. All such data shall immediately be made available to HEnEx for monitoring purposes, if so requested, and in the event that the said data is not kept in readable or paper form, the Participant must be able to reproduce them in such form.
 - 6) To keep the books and issue the documents requested by legislation in force.
 - 7) If it acts as a Direct Clearing Member, it must comply with the respective financial requirements set by the Clearing House and provide the required margins under the provisions of the Clearing Rulebook and the Rulebook as a precondition for its eligibility to trade.
 - 8) To have adequate internal audit systems in place with respect to its trading activity in HEnEx and for the purpose of verifying the Participant's compliance with this Rulebook.
 - 9) To employ an adequate number of personnel with the appropriate knowledge, experience and skills to ensure Participant's compliance with this Rulebook.
 - 10) To ensure that its employees fulfill all the obligations emanating from this Rulebook.
 - 11) In relation to its trading activity in HEnEx, to exercise proper care in adhering to the rules of professional conduct and the rules relating to organizational requirements in accordance with the provisions of the Rulebook and the applicable law.
 - 12) To clearly state on its website, if any, that it is a Participant of HEnEx and to specify HEnEx Markets in which it participates.

3.6.2 Liability of Participant and HEnEx

1. The Participants are liable towards HEnEx for the fulfillment of any obligations arising from this Rulebook. This responsibility includes any act or omission of the bodies that represent them, their vicarious agents, their servants, in particular the persons used to access, or to whom they allow access to HEnEx Market systems in order to execute trades.
2. HEnEx shall not be liable towards Participants except for wilful misconduct or gross negligence. HEnEx shall take the appropriate measures to prevent operating problems in the systems administered by it and arrange for the earliest possible restoration of faults or malfunctions. HEnEx shall not be liable:
 - a) for any losses which may be incurred by Participants or any third parties as a result of events due to force majeure, including but not limited to war, strikes, riots, insurrections, civil disturbances, epidemics, electrical power failures of a general extent in terms of place and/or time, shortages of fuel or raw materials, the failure, malfunction or crash of communications systems and electronic systems in general, requisitions, fires, floods, transport problems or other causes beyond the reasonable control of HEnEx;
 - b) to compensate any loss incurred by a Participant or any third party which is caused by the failure of the ETSS, as a result of the above force majeure events, even temporarily, or due to the loss of data contained in the ETSS or to any fraudulent use of the ETSS or its data by third parties.
3. The trades are concluded in HEnEx Markets with the participation of the counterparties Participants therein, pursuant to the provisions of this Rulebook. Each Participant shall indicate the Clearing Member representing it for clearing purposes towards the Clearing House with the Buy or Sell Order submitted to the Market for trade or with the corrections to the Order, if any. Upon conclusion of the buy or sell trade, the designated Clearing Member shall automatically

substitute the Participant that concluded it, as a counterparty buyer or seller. The Clearing Member shall be liable towards the Clearing House for the clearing and settlement of the financial part of the trade being cleared. In the event of non-fulfillment by a counterparty Clearing Member of its obligations towards the Clearing House, the relevant provisions of the Clearing Rulebook and Section 3.7 of the Rulebook shall apply. With respect to the liability of a Participant in relation to the part of the Physical Delivery of its trades, the provisions of the HTSO Regulation shall apply.

4. Failure to meet the Participant's obligations in relation to its trades in HEnEx as a result of the enforcement of measures against the Participant by judicial or administrative authorities or irregular performance of HEnEx Market operations due to the implementation of such measures shall constitute strict liability on objective basis for a Participant. In order to address the above conditions, the relevant measures are taken against the Participant, pursuant to the provisions in the Rulebook and the Clearing Rulebook.

3.6.3 Confidentiality

1. The "Participant Membership Application" and any other information exchanged as part of acquiring the capacity of Participant, as well as the Participant information included in the records kept by HEnEx are considered confidential subject to the more specific provisions of Section 3.10.
2. HEnEx and each Participant receiving confidential information in relation to the Rulebook shall preserve the confidentiality of such information and shall not disclose, report, publish, communicate, transfer or use, directly or indirectly, any part of the confidential information for purposes other than the purposes for which such information was disclosed to them.
3. Subject to paragraph 2, HEnEx or a Participant may disclose confidential information of a party making the disclosure to a third party without the prior and explicit consent of the other party and provided that the receiving party has assured that the third party is bound by equivalent confidentiality obligations as defined in the Rulebook.
4. Subject to paragraph 2, HEnEx or a Participant may disclose confidential information of a disclosing party:
 - a) to the extent expressly permitted or provided for by the Rulebook and the applicable law;
 - b) to the extent necessary to comply with the applicable national or EU legislation, such as Regulation (EU) 1227/2011 and Regulation (EU) 543/2013;
 - c) to the extent required by a court, arbitrator or administrative court or expert in proceedings before it to which the recipient is a party;
 - d) if required by their respective Transmission System Operators for the proper performance of their mission and their obligations under applicable law and the Rulebook, either by themselves or through agents or advisors, or
 - e) where necessary to obtain authorizations or approvals by the competent authorities.
5. In addition, the obligations arising under this sub-section do not apply:
 - a) if the party receiving the information can demonstrate that at the time of the disclosure this information was already available to the public;
 - b) if the receiving party provides evidence that, from the time of disclosure, that information has been legally received by a third party or made available to the public;
 - c) to confidential information disclosed in accordance with the legal and regulatory arrangements, in an embedded form, from which no information concerning a particular Participant can be inferred;
 - d) to information the publication of which is expressly provided for by the Rulebook and

the applicable law.

6. The acquisition of Participant's capacity and the exchange of confidential information shall not give rise to any right to patents, know-how, knowledge or any other form of intellectual property with respect to information or tools made available or sent by one contracting party to another under the Rulebook.

3.6.4 Compliance with market integrity obligations

Participants shall be obliged to act in good faith, honestly, transparently, professionally and responsibly, in accordance with good business practices. Each Participant also undertakes to preserve at all times the orderly operation and integrity of the Market as described in the Rulebook and Regulation (EU) 1227/2011 on the integrity and transparency of the wholesale energy market.

3.7 Measures against Participants

3.7.1 Cases of measures' enforcement

HEnEx may impose measures against a Participant in the following cases:

1. If the Participant violates the provisions of the Rulebook and the Decisions issued by authorization of the Rulebook, in particular:
 - a) When a Participant fails to meet or inadequately meets the requirements laid down for acquiring and maintaining the capacity of Participant, including but not limited to:
 - i. Termination or cancellation or revocation, as the case may be, of the license or non-fulfillment of the conditions for exemption from the licensing obligation in accordance with the provisions of Section 3.2.
 - ii. Lack of a valid Balance Responsible Party Contract, in accordance with the provisions of Section 3.3.
 - iii. Lack of a valid approval by the Clearing House that the Participant is a Direct Clearing Member or non-existence of a certificate of cooperation with a General Clearing Member under the provisions of Section 3.3.
 - iv. Lack of the organizational and operational adequacy required by the Participant, in accordance with subsection 3.4.2.
 - v. Failure on the part of the Certified Traders of a Participant to satisfy the professional competence criteria stipulated in this Rulebook.
 - vi. Non-payment or default with respect to the payment of the required subscriptions, charges and fees of the Participant to HEnEx.
 - b) If a Participant fails to comply with the technical instructions of HEnEx or with the technical specifications set by HEnEx for the use and operation of the systems used by a Participant for its participation in HEnEx trading sessions.
 - c) In the event of unlawful or unauthorized use or operation of the systems used by a Member to participate in HEnEx trading sessions.
 - d) If a Participant fails to comply with the rules of professional conduct as specified in Chapter 3 (subsection 3.6.4) of this Rulebook.
2. If a Participant fails to comply with the procedures adopted by HEnEx for the execution of trades. Instances of such failure include but are not limited to the following:
 - a) Carrying out trading contrary to the terms, methods and conditions stipulated for such trading by the Rulebook.

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- b) Exceeding the position limits set for a Participant.
 - c) The execution of trades by a Participant in a manner, which disrupts the smooth operation of the market.
3. If a Participant submits false or misleading information to HEnEx, including but not limited to the following cases:
 - a) when submitting its application to acquire the capacity of Participant or Certified Trader;
 - b) when a Participant opens or uses codes and accounts of any type as part of its activities on HEnEx Markets;
 - c) when a Participant submits requests for the cancellation or rectification of its trades in general;
 - d) when a Participant provides data, supporting documents or information requested at any time by HEnEx.
 4. If the Participant fails to fulfill or inadequately fulfils any obligations undertaken in accordance with the relevant provisions of the Clearing Rulebook towards the Clearing House, in relation to the trades' clearing or settlement, or towards the General Clearing Members contracted with the Participant, including but not limited to:
 - a) the payment of the required guarantees and other collateral in force;
 - b) the compliance with the limits set to Participants;
 - c) the fulfillment of the obligations arising from the clearing and settlement of trades.
 5. If a Participant fails to comply with the instructions of HEnEx, the Clearing House and of the clearing and/or settlement entities of HEnEx Markets collaborates for the proper management, processing and prompt resolution of outstanding matters that arise in clearing, or the Participant becomes unable to fulfil its obligations or is deemed to be in a state of insolvency under the applicable provisions.
 6. If a Participant fails to comply with the announcements, decisions or instructions of HEnEx or of the aforementioned clearing entities.
 7. If a Participant fails to fulfill or inadequately fulfils its obligations arising from the Rulebook.
 8. If a Participant conducts acts or omissions that prejudice the reputation and standing of HEnEx.
 9. In the case of occurrence of events which affect the operation of a Participant, such as the winding-up of a Participant's company, the initiation of insolvency proceedings, including bankruptcy, forced liquidation or restructuring of the company or if the competent authorities of the Participant notify HEnEx of the imposition of measures against a Participant, including but not limited to the suspension of its license which relates to the acquired capacity of Participant or the suspension or revocation of the Participant's operating license.
 10. If sanctions are imposed on a Participant by the competent authorities.
 11. If the Participant commits serious misconduct in relation to its compliance with the provisions of the law related to the application of the Rulebook.

3.7.2 Categories of measures against Participants

1. HEnEx is entitled to take the following measures against Participants:
 - a) Written reprimand.
 - b) Imposition of conditions or restrictions on the Participant's participation in one or more HEnEx Markets.
 - c) Prohibition on the participation of the Participation in HEnEx Markets.
 - d) Enforcement of penalty clauses amounting from three hundred (300) to one hundred fifty thousand (150,000) euros. Enforcement of the aforesaid penalty clauses does not prejudice

any claim for damages by HEnEx for the purpose of recovering any loss caused to it by the Participant. Such penalties are explicitly agreed as a sanction imposed particularly in view of the special importance of the duly and timely fulfillment of the obligations by the Participants, in accordance with the provisions of the Rulebook for the proper operation of the Market and, as a consequence, the assurance of the legal interests of the Members and HEnEx.

- e) Suspension of the capacity of Participant for a period of time stipulated by HEnEx on a case by-case basis. The suspension may be imposed solely with respect to the capacity Certified Trader or may relate to the capacity of the Participant in general. A consequence of the suspension is the revocation of the Participant's right to participate in HEnEx trading sessions throughout the duration of the suspension. The imposition of the suspension measure does not discharge the Participant from its obligations towards HEnEx to pay any amount due, including but not limited to its obligations to pay the Annual Subscription Fees, commissions and other amounts charged to Participants by HEnEx in accordance with this Rulebook, even if these obligations originate during the suspension period.
 - f) Termination of Participant's Membership. The termination of a Participant's membership is specified in subsection 3.7.2.1.
- 2. The imposition of measures against a Participant under no circumstances discharges that Participant from its liability for acts or omissions towards HEnEx or third parties.
 - 3. The above measures are imposed on the basis of methodology, which is specified by a Decision of RAE, upon HEnEx's recommendation.

3.7.2.1 Termination of Participant's Membership

- 1. The Participant's membership is automatically terminated in the following cases:
 - a) Termination or cancellation or revocation, as the case may be, of the license or non-fulfillment of the conditions for exemption from the licensing obligation in accordance with the provisions of Section 3.2.
 - b) Lack of a valid Balance Responsible Party Contract, in accordance with the provisions of Section 3.3.
 - c) Lack of a valid approval by the Clearing House that the Participant is a Direct Clearing Member or non-existence of a certificate of cooperation with a General Clearing Member under the provisions of Section 3.3.
- 2. Imposition of the measure of membership termination renders immediately due and payable any and all obligations of the Participant to HEnEx and the Clearing House, and the Participant is obliged to fulfill promptly, fully and duly its obligations under their instructions. Upon membership termination, HEnEx shall take the following steps:
 - a) If the Participant is a Supplier, HEnEx shall inform the HTSO, the RES & GO Operator, the Network Operators and the Last Resort Supplier of the membership termination and the Supplier's Customers that has been deleted are transferred to the Last Resort Supplier. The Last Resort Supplier acts as the Load Representative of those customers from the date of Physical Delivery that follows the date of the Supplier's membership termination and for a maximum period of three (3) months, distinct from its capacity as a Load Representative for the other customers which it may represent as a Supplier. Exclusively for the Delivery Day following the termination, HEnEx submits on behalf of the Last Resort Supplier and based on the history of the previous seven (7) Delivery Days, Priority Price-Taking Orders as set forth in subsection 4.1.4. HEnEx provides the Last Resort Supplier, on the same day,

historic data of Buy Orders of one (1) week per Market Time Unit and per meter category to enable the submission of Buy Orders by the Last Resort Supplier. In the event that prior to the Gate Closure Time of the Day-Ahead Market and the Intra-Day Market, for Physical Delivery Dates that follow the announcement of the termination of participant's membership, the said Supplier has already submitted orders, these will not be taken into consideration.

- b) In the event that the Participant is a RES Aggregator, HEnEx shall notify the RES & GO Operator, the HTSO, the Network Operators and the Last Resort RES Aggregator and the representation of the owners of those Units is transferred to the Last Resort RES Aggregator from the Physical Delivery Date that follows the announcement of the termination of participant's membership. Exclusively for the Delivery Day following the membership termination of the Aggregator, HEnEx shall submit on behalf of the Last Resort RES Aggregator and on the basis of the history of the preceding Delivery Day, an Sell Order per Market Time Unit for RES and High Efficiency CHP Units represented by the Aggregator whose membership has been terminated. Auxiliary Loads of RES Units included in the Portfolio of Dispatchable and Non-Dispatchable RES Units of the Aggregator, whose membership has been terminated, shall be transferred to the Last Resort Supplier, in accordance with the provisions of subsection 3.7.2.1 paragraph 2 (a). In the event that prior to the Gate Closure Time of the Day-Ahead Market and the Intra-Day Market, for Delivery Days that follow the announcement of the termination of participant's membership, the said RES Aggregator has already submitted orders, these will not be taken into consideration.
- c) In the event that the Participant is holder of RES & CHP units, HEnEx shall notify the HTSO, the RES & GO Operator, the Network Operators and the Last Resort RES Aggregator and the representation of the holders of those Units may be transferred to the Last Resort RES Aggregator from the Delivery Day that follows the announcement of the termination of participant's membership by HEnEx. In the event that the Last Resort RES Aggregator undertakes the representation of the aforementioned units on the date of the termination of participant's membership of the RES & CHP units holder by HEnEx, then exclusively for the Delivery Day that follows the termination of participant's membership, HEnEx, on behalf of the Last Resort RES Aggregator and based on the history of the previous Physical Delivery Date, submits a Sell Order per Market Time Unit RES & CHP units of the participant whose membership has been terminated. Auxiliary Loads of RES Units included in the Portfolio of Dispatchable and Non-Dispatchable RES Units of the RES & CHP unit holder, whose membership has been terminated, shall be transferred to the Last Resort Supplier, in accordance with the provisions of subsection 3.7.2.1 paragraph 2 (a). In the event that prior to the Gate Closure Time of the Day-Ahead Market and the Intra-Day Market, for Delivery Days that follow the announcement of the termination of participant's membership, the said RES & CHP unit holder has already submitted orders, these will not be taken into consideration.

3.7.3 Competent bodies & procedure for imposing measures

1. Competent body for imposing measures against Participants is the Board of Directors of HEnEx or another body authorized to do so, which is staffed by the personnel of the Energy Exchange Group and is subject to the publicity procedures of the representatives of the public limited companies for their legal operation. Before imposing a measure, HEnEx shall invite the Participant to an oral or written hearing before it at a time to be set after notifying the Participant. The hearing process may be omitted in the cases of a Participant's automatic

membership termination in accordance with the provisions of the subsection 3.7.2.1, as well as whenever it is deemed necessary to immediately impose measures for the purpose of protecting the Market or to avert a threat to the smooth clearing of trades.

2. HEnEx's Board of Directors, as part of the enforcement procedure, shall be entitled:
 - a) To request from the Participant any data or information deemed necessary for the purpose of investigating the respective case, including details of the telephone conversations of the Participant or data records kept by the Participant.
 - b) To request the personal appearance before it of one or more employees, officers, representatives and members of the management of the Participant.
 - c) To demand the immediate cessation of practices or procedures being implemented by the Participant in the course of its activities in the market which may endanger its smooth operation.
3. HEnEx may impose measures against a Member either cumulatively or alternatively, depending on the case in question, on each occasion taking into consideration all the relevant circumstances.
4. The decision imposing measures against a Participant is communicated to it and a copy thereof is stored in the Participant's file, which is kept by the relevant departments of HEnEx.

3.7.3.1 Re-Examination of decisions

1. A decision of HEnEx's Board of Directors or of other specifically authorized bodies of HEnEx relating to the imposition of measures against a Participant is subject to re-examination by HEnEx's Board of Directors, at the request of the Participant which must be submitted within a strict time limit of five (5) working days from notification of the decision to the Participant.
2. Decisions on the above requests for review of some matter are communicated to the Participant and a copy thereof is stored in the Participant's file which is kept by the relevant departments of HEnEx.

3.7.3.2 Enforcement of decisions

1. Once a decision imposing measures against a Participant becomes final and irrevocable, in accordance with paragraph 2 hereof, it shall be enforced by the appropriate bodies of HEnEx. In the case of forfeiture of a penalty clause, the Participant must pay the relevant amount due within a time limit of thirty (30) days from the time at which the decision confirming the forfeiture of the penalty clause and stipulating the size of the penalty became final and unappealable.
2. A decision imposing measures shall become final and irrevocable:
 - a) On expiry of the five-day deadline for the submission by the Participant of a request for the re-examination of the matter.
 - b) Upon notification to the Participant of the Decision of HEnEx on the Participant's request for a re-examination of the matter.
3. A decision to take an immediate measure shall immediately become final and unappealable and shall be executed immediately as defined in subsection 3.7.3 paragraph 2 (a).

3.7.3.3 Notification of decisions

The call to attend a hearing or the notification of HEnEx decisions to a Participant shall be effected by any appropriate means at the discretion of HEnEx, in accordance with the provisions set forth in subsection 3.4.5 par. 1.

3.7.3.4 Reporting

1. HEnEx shall at all times report to RAE:
 - a) the imposition of a measure against a Participant, providing it with all necessary details and information with respect to the relevant breaches or the reasons for the imposition of the measure;
 - b) the removal of the measure, provided the reasons for its implementation no longer apply.
2. HEnEx shall publish on its website the imposition of a measure against a Participant, as well as the removal of the measure.

3.7.3.5 Dispute resolution and arbitration

1. Without prejudice to paragraphs 5 and 6 of this subsection, if there is a dispute, HEnEx and the Participant must first seek an amicable solution by mutual consultation in accordance with paragraph 2 of this subsection. To this end, the party raising the dispute shall send notice to the other party, stating:
 - a) the reason for the dispute, and
 - b) a proposal for a future meeting in order to resolve the dispute in an amicable way.
2. The parties meet within twenty (20) working days of the request for meeting and dispute resolution. If no agreement is reached or if there is no response within thirty (30) working days from the date of the above notice for a meeting, either party may refer the matter to the senior management of the parties to resolve the dispute in accordance with paragraph 3 of this subsection.
3. The senior representative of both HEnEx and the Participant with power to settle the dispute shall meet within twenty (20) working days of the request to meet and attempt to resolve the dispute.
4. In the event that the dispute is not settled by the amicable negotiation procedure of paragraph 3 within twenty (20) working days of the meeting or within any other longer period that may be agreed, the parties may refer the dispute to RAE either through the complaint procedure under Article 34 of Law 4001/2011, or to resolve it by arbitration, in accordance with the provisions of article 37 of Law 4001/2011 and RAE Arbitration Regulation, or to another arbitration body selected by the parties or to the competent courts. In order to resolve any dispute concerning the interpretation or application of the Rulebook, Greek law shall apply.
5. The use of amicable settlement or arbitration under this Section shall not imply the suspension of enforcement of the respective obligations of HEnEx and the Participant in accordance with the Rulebook and the applicable law.
6. This section also applies after losing the capacity of Participant for disputes relating to the period of time during which the Participant had such capacity.

3.8 Resignation of a Participant

3.8.1 Resignation

Resignation of a Participant may take place at any time subject to the conditions in the sub-section below. Resignation results in the loss of Participant's capacity

3.8.2 Conditions of resignation

1. The resignation must be notified in writing to HEnEx and constitutes termination of any agreement entered into by the Participant in such capacity with HEnEx. The resignation and termination shall take effect on the date on which HEnEx accepts the resignation within thirty (30) days after the lapse of the said notice, subject to the particular provisions of the following paragraphs.
2. The resignation shall be accepted by HEnEx provided that the Participant has settled, within the above time limit, any pending matters as to the trades being cleared, or debt towards HEnEx and the Clearing House. HEnEx may extend the deadline referred to in the previous paragraph, depending on the outstanding liabilities of the Participant and/or the need to protect the ETSS from emerging risks. Where the time limit is modified, the results of the resignation and termination of the relevant agreements referred to in the previous paragraph, shall take effect on the date on which HEnEx accepts the resignation, which takes place at the latest until the expiry date of the new time limit.
3. Upon fulfillment of the conditions of the preceding paragraphs, HEnEx shall accept the resignation and inform the Participant, the Clearing House and RAE, accordingly. Where the resignation is not accepted, HEnEx shall provide a reasoned answer.
4. In the event that the resignation concerns a Supplier or a RES Aggregator and in relation to the representation of customers within Greece of the Supplier or the owners of the RES and High Efficiency CHP Units represented by the said Supplier / RES Aggregator and any actions of HEnEx following the resignation, the provisions of paragraph 2 of subsection 3.7.2.1 shall apply.
5. The resignation from the Participant capacity does not prevent the reacquisition thereof, provided that the conditions governing it are met at the time of acquisition.
6. The resignation procedure may be specified by a Technical Decision of HEnEx.

3.9 Access to the Energy Trading Spot System (ETSS)

3.9.1 Provision of the ETSS by HEnEx

1. For Participants' access to the ETSS, HEnEx shall contribute to provide its Participants with appropriate, reliable applications as well as to possess the technical specifications for the development of its own systems.
2. HEnEx may allow Participants to use third-party software provided that it is compatible with HEnEx technical specifications.
3. In relation to the use of the connection services provided by HEnEx, the Participant has the following obligations:
 - a) To obtain at its own expense the necessary technological and other equipment and to ensure adequate facilities for its installation, based on the technical specifications set by HEnEx.
 - b) To provide a technician who will be responsible for the communication with HEnEx and the follow-up of issues related to the Participant's connection.
 - c) To ensure that, at the time specified by HEnEx, the security technician will be on call at the Participant's premises.
 - d) To take appropriate measures to prevent or detect activities that constitute a prohibited use in accordance with the technical specifications of HEnEx.
 - e) To keep the technical equipment and software provided by HEnEx in good condition, not to interfere with it without the prior permission of HEnEx and to respect HEnEx's rights to

them.

4. HEnEx is entitled to discontinue the Participant's connection in case of exceptional circumstances of technical malfunction of the ETSS or the Participant does not comply with the technical specifications and instructions of HEnEx or where HEnEx detects unauthorized use of the Participant's connection or there is another reason for imposing measures.
5. HEnEx keeps records on the Participants' access to the ETSS.

3.9.2 Authorized users

1. Use of the ETSS to submit orders in HEnEx Markets to execute trades is permitted only to Certified Traders authorized by Participants.
2. Participants shall report to HEnEx their user information and any other information relevant to accessing the ETSS, as well as any change to such information.

3.9.3 User control

1. Participants are obliged to establish special internal audit procedures for monitoring the tasks performed by users of the ETSS.
2. HEnEx may, at its discretion, prohibit user access to the ETSS, if there are cases of imposition of measures under the provisions of subsection 3.7.1.

3.9.4 User passwords

1. ETS allows access only to authorized users of the Participants.
2. To gain access, each user must receive from HEnEx a special password that is unique per user.
3. All Orders submitted to HEnEx by Participants and transmitted to the ETSS for the purpose of executing trades, are binding for Participants. In any case, the Participant shall be liable for the use of a password by unauthorized persons.
4. Participants have the obligation to immediately inform HEnEx of any change involving users or any revocation of the capacity of user for any reason whatsoever, so that HEnEx can permanently or temporarily deactivate that user's password.

3.9.5 Participants Technological Infrastructure

1. As technological services it is understood the provided services pertaining to applications and IT technology systems provided by HEnEx to Participants therein, as well as to any other entity-person who acquires the right to use them. This includes, among other things, the provision of equipment and software, the necessary initial installation, management and operation services, as well as providing technical assistance and support to users.
2. Users of technological services include Participants, independent software Vendors of a Participant (ISVs), and any other entity-person that acquires the right to use the technological services provided by HEnEx.
3. Solution for user access to technological services means the selection, installation and configuration of the technical means (equipment, software, network interfaces, etc.) available or specified by HEnEx and required for the efficient, reliable and secure access of users to the technological services of HEnEx.

3.10 Use of Data

3.10.1 HEnEx data categories

As part of the operation of the Day-Ahead and Intra-Day Markets, HEnEx processes the following categories of data (hereinafter “Data”):

1. Participation Data, which relate to the following data categories:
 - a) required information to acquire and maintain the Participant capacity;
 - b) authorized users' passwords for access to the ETSS;
 - c) list of Certified Traders.
2. Trading Data, which relate to the following data categories:
 - a) Orders submitted to the ETSS;
 - b) Order Books / Aggregate Buy and Sell Curves;
 - c) Market Clearing Prices per Market Time Unit of Delivery Day and per Bidding Zone, accepted energy quantities of Aggregate Hourly Hybrid Orders, list of acceptance of Block Orders and Net Position for each Bidding Zone and Market Time Unit;
 - d) Information about matched Orders, in terms of the matching quantity and the trading price;
 - e) any other data published on HEnEx website and provided for by the applicable law, and
 - f) clearing and settlement data of trades executed on HEnEx.

3.10.2 HEnEx rights in data

1. HEnEx owns the data of subsection 3.10.1, with the exception of the Participation Data (paragraph 1 of subsection 3.10.1) and the Orders submitted to the ETSS (paragraph 2a of subsection 3.10.1), whose ownership belongs to Participants.
2. HEnEx reserves the right to use: a) the participation data and b) the Orders submitted to the ETSS, anonymously, for the purposes of the Rulebook, in compliance with the provisions of the applicable law. HEnEx shall take all necessary organizational and procedural measures and internally develop appropriate audit mechanisms to ensure the correct use of the above data.
3. HEnEx service providers reserve the right to use the Trading Data for any purpose directly or indirectly related to the operation of the Markets managed by HEnEx under the Rulebook.
4. The use of the above Data by HEnEx and its service providers on a case-by-case basis is subject to business confidentiality.

3.10.3 Terms of Use of Trading Data by Participants

1. HEnEx Participants may not extract and use any Trading Data without the prior consent of HEnEx. Participants are not allowed to commercialize, resell or give access to the Trading Data to third parties without having concluded an agreement with HEnEx.
2. Participants may extract and use limited non-critical data provided that such use remains accurate, non-repetitive and non-systematic and has been preceded by relevant notification to HEnEx.

3.10.4 Submission of data to the competent authorities

1. HEnEx shall report Data of subsection 3.10.1 to the competent authorities, as specified in the Rulebook, either:
 - a) in accordance with applicable national laws or regulations, and/or
 - b) at the request of the competent supervisory authorities.

3.11 Publication of information

1. HEnEx provides timely information on the Day-Ahead and Intra-Day Markets as per sections 4.7 and 5.15 respectively in a transparent manner, recognizing that Participants may use this information to participate in the Markets.
2. However, no liability arises when the required information is incomplete or inaccurate, provided that HEnEx has made reasonable efforts to provide timely and non-discriminatory provision of accurate information.
3. The primary source of published market information is HEnEx website. All market information on HEnEx website is publicly available in a readily accessible and editable format.
4. Additional information and technical details regarding the data provided by HEnEx may be specified by a Decision of HEnEx which is published on its website.

3.11.1 Transparency

1. HEnEx observes the principle of transparency and publishes the statistics it collects on the trades under the ETSS.
2. HEnEx provides information to the public, and in particular to Participants, upon request, in accordance with the provisions of the Rulebook. HEnEx shall ensure that disclosure of the details and information it holds does not give unfair commercial or competitive advantages to third parties and in particular to Participants.
3. The obligation to provide information is subject to observance of the principle of commercial secrecy. HEnEx staff also has an obligation to observe the principle of confidentiality.
4. It is the responsibility of HEnEx to keep updated market information as transparent as possible.
5. However, no liability arises when the required information is incomplete or inaccurate, provided that HEnEx has made reasonable efforts to provide timely and non-discriminatory information.
6. The primary source of published market information shall be HEnEx website.
7. All market information on HEnEx website is publicly available in a readily accessible and editable format.
8. Additional information and technical details regarding the data provided by HEnEx may be specified by Decision of HEnEx which is published on its website.

3.12 Fees and Charges

1. The operating costs of the Day-Ahead and Intra-Day Markets are recovered through fees and charges paid by the Participants in HEnEx.
2. HEnEx maintains separate accounts for the operation of the Day-Ahead Market and the operation of the Intra-Day Market.
3. The above applicable fees and charges are determined by RAE Decision, based on a methodology for calculating fees and charges, upon HEnEx's recommendation. The relevant administrative fees and charges apply after the lapse of a time period specified by the aforementioned RAE Decision, which cannot be less than thirty (30) days from the date on which the relevant decision was published.
4. HEnEx shall submit to RAE for approval a proposal for the above methodology no later than three (3) months before the date of entry into force of RAE decision on the determination of fees and charges.
5. The applicable fees and charges of HEnEx are published by HEnEx on its website and include, but are not limited to:

3.12.1 Administrative Fee

1. For the appraisal of a "Participant Membership Application", the applicant shall pay an administrative fee for HEnEx as determined by RAE Decision upon HEnEx's recommendation.
2. The administrative fee shall be paid upon submitting the "Participant Membership Application".

3.12.2 Administrative Fee for the Initial Registration of Participant

1. Each Participant shall pay for HEnEx an Administrative Fee for Initial Registration determined by RAE Decision upon HEnEx's recommendation. The Administrative Fee for Initial Registration is paid separately for the participation in the Day-Ahead Market, for the participation in the Intra-Day Auctions of the Intra-Day Market and for the participation in the Continuous Trading of Intra-Day Market.
2. The Participant's Administrative Fee for the Initial Registration is a precondition for Participant's activation in the Markets.

3.12.3 Annual Subscription

1. The Annual Subscription is paid by the Participants separately for the participation in the Day-Ahead Market, in the Intra-Day Auctions of the Intra-Day Market and in the Continuous Trading of Intra-Day Market upon HEnEx's recommendation.
2. Participant's Annual Subscription fee is a precondition for Participant's activation in the Markets. Participants are required to pay the Annual Subscription fee for each subsequent year of the year of their activation, five (5) Working Days prior to the start of the reference year.
3. No Annual Subscription amounts will be reimbursed by HEnEx to Participants, if their participation expires during the year.

3.12.4 Trading Fee

1. The Trading Fee, as specified by a RAE Decision, following a HEnEx proposal, burdens the Participants on the executed trading volume in Megawatts (MWh).
2. The Trading Fee is collected on a daily basis through the Clearing House, according to its timings and its procedures, as these are described in the Clearing Regulation and the issued Technical and/or Executive Decisions that are based on the same.

3.12.5 Commission on Behalf Of Trading (OBOT)

1. The use by a Participant of the Trading on Behalf (OBOT) service and related trading support procedures is charged with a special commission defined by RAE Decision, following a HEnEx proposal.
2. The commission is calculated per Participant's Order forwarded to be executed by the competent departments of HEnEx or, in the case of a registered Order thereof, modified or cancelled by these departments at the request of the Participant.

3.12.6 Commission to use a common access point

1. The use of a common access point in HEnEx facilities by a Participant in subsection 2.3.3 is charged with a special commission defined by RAE Decision, following a HEnEx proposal.
2. The commission is calculated per hour of use of the common access point.

3.12.7 Pricing and collection of fees and charges

1. HEnEx may assign to the Clearing House the collection of such fees and charges. The above fees and charges shall become payable upon the issuance of the relevant voucher per Participant or third party.

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2. The procedures for calculating, invoicing and settling the administrative fees and the charges of this subsection, for imposed penalties and penal clauses as well as for the Non-Compliance Charges are specified in the relevant Technical Decision of the HEnEx.

3.12.8 Non-Compliance Charges

The amounts of Non-Compliance Charges, which are paid by the Participants constitute an income in a distinct special reserve account. The allocation of the amounts accumulated in the special reserve account is determined by a RAE Decision, following a HEnEx proposal.

Chapter 4. Day-Ahead Market

4.1 General Provisions

4.1.1 Trading Timelines

The Day-Ahead Market refers to buy and sell trades of electricity with an obligation of physical delivery, which are concluded by submitting respective orders at each calendar day D-1 for the physical delivery for each Market Time Unit of Delivery Day D.

4.1.2 Trading hours

1. Day-Ahead Market operates every calendar day D-1 for Delivery Day D.
2. Buy Orders and Sell Orders for Delivery Day D are submitted by Participants in the ETSS for the Day-Ahead Market from the Day-Ahead Market Gate Opening Time until the Day-Ahead Market Gate Closure Time. The ETSS shall validate Orders after the Day-Ahead Market Validation Gate Opening Time.
3. HEnEx may extend the Day-Ahead Market Gate Closure Time to the extent required to maintain orderly trading conditions. The Day-Ahead Market Gate Closure Time may be extended for reasons related to the availability of the ETSS, the Local Order Book, as well as for reasons associated with Full or Partial Decoupling. In such case, HEnEx shall inform Participants concerning the reasons of the extension and the associated actions required from its side and the Participants side.
4. The exact timeline of all related procedures applied to the Day-Ahead Market is set out in Annex B of the Rulebook.

4.1.3 Products – Order Types

1. Products admitted for trading on the Day-Ahead Market, in accordance with Chapter 2 (Section 2.5), for each Market Time Unit of Delivery Day are types of commercial contracts of electricity with physical delivery (injection or Offtake) within the Bidding Zones of the HTSO. The eligible Products, which are supported by the Price Coupling Algorithm, are defined in accordance with the provisions of Article 40 of Regulation (EU) 2015/1222 by a joint proposal of NEMOs and are negotiated with the available types of Buy and Sell Orders.
2. The ETSS automatically generates the description of the Day-Ahead Market Products and makes them available for trading one hour before the Gate Opening Time for the Delivery Day.
3. The Market Time Unit of the Day-Ahead Market is equal to one (1) hour.
4. The Delivery Day comprises of twenty-four (24) Market Time Units.
5. On the short-clock change day in March (beginning of summer saving time), there will be twenty-three (23) Market Time Units.
6. On the long-clock change day in October (end of summer saving time), there will be twenty-five (25) Market Time Units.

4.1.3.1 Orders

1. The types of Orders that result from Day-Ahead Market Products and can be submitted by Participants in the Day-Ahead Market are as follows:

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- a) Hourly Hybrid Orders: Hourly Hybrid Orders are composed of step segments and/or linear interpolation segments, separately for each Market Time Unit of Delivery Day D. The specified curve is increasing for Sell Orders and decreasing for Buy Orders. The price of the first point of the first segment of the Sell Order curve is equal to the Minimum Orders Price of the Day-Ahead Market, while the price of the second point of the last segment of the Sell Orders curve is equal to the Maximum Orders Price of the Day-Ahead Market. Accordingly, the price of the first point of the first segment of the Buy Order curve is equal to the Maximum Orders Price of the Day-Ahead Market and the price of the second point of the last segment of the Sell Order curve is equal to the Minimum Orders Price of the Day-Ahead Market.
 - b) Block Orders: A Block Order consists of the following: a fixed price limit (minimum price for Sell Block Orders and maximum price for Buy Block Orders), a Minimum Acceptance Ratio and an energy quantity for a number of Market Time Units within the Delivery Day. The energy quantity may vary in different Market Time Units. Block Orders cannot be accepted for a volume less than their Minimum Acceptance Ratio. The Minimum Acceptance Ratio is the same for all Market Time Units belonging to the Block Order.
 - c) Linked Block Orders: A Linked Block Order consists of individual Block Orders, with the attributes referred to in the Block Order, which are linked to each other by a parent-child relationship. A child Block Order can only be accepted when the parent Block Order, with which it is linked, is executed. Block Orders without linked child Block Orders are called leaf Block Orders.
 - d) Exclusive Group of Block Orders: An Exclusive Group consists of a set of Block Orders, for which the sum of the accepted ratios cannot exceed the unit (1). In the specific case where the individual Block Orders have a Minimum Acceptance Ratio of 1, then at most one of the Block Orders can be accepted.
2. The admission of new types of Orders and the suspension/deletion of existing types of Orders is subject to the procedure described in Section 2.5 of the Rulebook.
 3. The access of the Participants to specific Order Types, the parameters for submitting them as well as the technical details as regards their content can be specified by a RAE Decision, following a HEnEx proposal.

4.1.3.2 Priority Price-Taking Orders

1. Priority Price-Taking Sell Orders are Hybrid Hourly Orders priced at the minimum accepted price in the Day-Ahead Market, i.e. at the Minimum Orders Price of Day-Ahead Market.
2. Priority Price-Taking Buy Orders are Hybrid Hourly Orders priced at the maximum acceptance price in the Day-Ahead Market, i.e. at the Maximum Orders Price of Day-Ahead Market.
3. The HTSO shall submit Priority Price-Taking Orders to the ETSS of HEnEx for the Day-Ahead Market and for each Market Time Unit of Physical Delivery Day D for the following:
 - a) Priority Price-Taking Sell Orders for the scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation;
 - b) Priority Price-Taking Sell Orders for Mandatory Hydro Injection, and
 - c) Priority Price-Taking Buy Orders for the forecasted energy quantities corresponding to Transmission System Losses;up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time.
4. The HTSO shall publish for each Market Time Unit of Delivery Day D regarding the Day-Ahead Market the energy quantities of the Priority Price-Taking Orders per Entity, as described in paragraph 3 above, up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time.

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5. The Last Resort RES Aggregator shall submit to the ETSS of HEnEx Priority Price-Taking Sell Orders for the Day-Ahead Market and for each Market Time Unit of the Delivery Day D, for the forecasted production of each represented Dispatchable and Non-Dispatchable RES Portfolio, up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time.
 6. The Last Resort RES Aggregator shall publish for each Market Time Unit of the Delivery Day of the Day-Ahead Market the energy quantities of the Priority Price-Taking Orders per represented Dispatchable and Non-Dispatchable RES Portfolio as described in paragraph 5 above, up to one (1) hour prior to Day-Ahead Market Validation Gate Opening Time.
 7. The RES & GO Operator shall submit Priority Price-Taking Sell Orders to the ETSS of HEnEx for the Day-Ahead Market and for each Market Time Unit of the Physical Delivery Day D for the following:
 - 1) the forecasted production of the RES FiT Portfolio, as well as the forecasted production of Roof Photovoltaic Systems, and
 - 2) the Priority Declarations of the Dispatchable high efficiency CHP Units.up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time.
 8. The RES & GO Operator shall publish for each Market Time Unit of Delivery Day of the Day-Ahead Market the energy quantities of the Priority Price-Taking Sell Orders for each Dispatchable High Efficiency CHP Unit and for each represented RES Portfolio, as described in paragraph 7 above, up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time.
 9. HEnEx shall submit to the ETSS, on behalf of Participants, Priority Price-Taking Orders, for the Day-Ahead Market and each Market Time Unit of Physical Delivery Day D, as follows:
 - a) Priority Price-Taking Sell Orders for the energy quantities that have been committed through trades executed within the Energy Derivatives Market and which have been nominated for Physical Settlement in the ETSS through validated Physical Delivery Nomination;
 - b) Priority Price-Taking Buy Orders for the energy quantities that have been committed through trades executed within the Energy Derivatives Market and which have been nominated for Physical Settlement in the ETSS through validated Physical Offtake Nomination;
 - c) Priority Price-Taking Sell Orders for the energy quantities that have been committed through trades on Energy Financial Instruments concluded bilaterally outside the Energy Derivatives Market, as well as for the trades regarding other wholesale energy products of Regulation (EU) 1227/2011 with the obligation of physical delivery, and which have been nominated for Physical Settlement in the ETSS through validated Physical Delivery Nomination;
 - d) Priority Price-Taking Buy Orders for the energy quantities that have been committed through trades on Energy Financial Instruments concluded bilaterally outside the Energy Derivatives Market, as well as for the trades regarding other wholesale energy products of Regulation (EU) 1227/2011 with the obligation of physical delivery, and which have been nominated for Physical Settlement in the ETSS through validated Physical Offtake Nomination;
 - e) Priority Price-Taking Sell Orders for energy quantities corresponding to Imports using confirmed nominated Long-Term Physical Transmission Rights in coupled and non-coupled Interconnections that have not been nominated through the relevant Physical Delivery Nomination, and
 - f) Priority Price-Taking Buy Orders for the energy quantities corresponding to Exports using confirmed nominated Long-Term Physical Transmission Rights in coupled and non-coupled Interconnections that have not been nominated through the relevant Physical Offtake Nomination;up to one (1) hour prior to the Day-Ahead Market Validation Gate Opening Time. Priority Price-
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Taking Order Submission Sequence to ETSS is defined with a RAE Decision, following a HEnEx proposal.

10. In case that the Market Clearing Price in a Bidding Zone for a given Market Time Unit of Delivery Day D is equal to the Minimum Orders Price for the Day-Ahead Market and at the same time no Hourly Hybrid Sell Order has been accepted by the algorithm solution at a price equal to the Minimum Orders Price of the Day-Ahead Market and without Priority, then curtailment of Priority Price-Taking Sell Orders shall take place.
11. In case that the Market Clearing Price in a Bidding Zone for a given Market Time Unit of Delivery Day D is equal to the Maximum Orders Price for the Day-Ahead Market and at the same time no Hourly Hybrid Buy Order has been accepted by the algorithm solution at a price equal to the Maximum Orders Price of the Day-Ahead Market and without Priority, then curtailment of Priority Price-Taking Buy Orders shall take place.
12. The procedure for the curtailment of Buy/Sell Orders in the cases of paragraphs (10) and (11) is executed according to a methodology defined by RAE decision upon recommendation of HEnEx.

4.1.3.3 Content of Orders

1. The minimum content of an Order submitted by the Participant to the ETSS is as follows:
 - a) Participant EIC Code;
 - b) Participant ACER Participant Code;
 - c) EIC Entity Code, or other unique identification, for which the Order is submitted;
 - d) EIC Bidding Zone Code;
 - e) Order Type;
 - f) Buy Order or Sell Order;
 - g) Energy quantity and price for each Hourly Hybrid Order segment or for each Block Order;
 - h) Market Time Unit(s) for which it is submitted, and
 - i) Any additional information, where required, as defined by the ETSS functionality requirements.
2. For Buy Orders submitted by Load Representatives for each Load Portfolio, the relevant Voltage Level is indicated.
3. Order prices are submitted in EUR/MWh with two (2) decimal places. Order quantities are submitted in MWh with three (3) decimal places.
4. Each Hourly Hybrid Order may include up to (50) segments for each Market Time Unit.

4.1.4 Participation in the Day-Ahead Market

1. Participation in the Day-Ahead Market is optional for all Participants except for the Producers registered in the Participants Registry. The Day-Ahead Market constitutes a compulsory market for Producers, which are obligated to submit Day-Ahead Market Sell Orders for the Available Capacity of the Generating Units they represent, which has not been already allocated via Physical Delivery Nominations and/or Mandatory Hydro Injections.
2. Participation in the Day-Ahead Market shall mean in particular:
 - a) the submission of Sell Orders by Producers for each Generating Unit registered in their Participant Account for energy injection up to the Generating Unit's Available Capacity which has not been allocated via Physical Delivery Nominations;
 - b) the submission of Buy Orders by Producers for each Generating Unit registered in their Participant Account for Physical Delivery Position Correction and/or energy withdrawal for the Auxiliary Loads of the Generating Units registered in their Participant Account;
 - c) the submission of Sell Orders by RES Producers for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for energy injection up to the sum of the

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- Available Capacities of the RES Units included in the RES Portfolio, which has not been allocated via Physical Delivery Nominations;
- d) the submission of Buy Orders by RES Producers for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for Physical Delivery Position Correction and/or energy withdrawal for the Auxiliary Loads of the RES Units included in the Dispatchable and Non-Dispatchable RES Portfolio;
 - e) the submission of Sell Orders by RES Aggregators for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for energy injection up to the sum of the Registered Capacities of the RES Units included in the RES Portfolio, which has not been allocated via Physical Delivery Nominations;
 - f) the submission of Buy Orders by RES Aggregators for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for Physical Delivery Position Correction and/or energy withdrawal for the Auxiliary Loads of the RES Units included in the RES Portfolio;
 - g) the submission of Buy Orders by Suppliers and Self-Supplying Consumers, the Last Resort Supplier and the Universal Service Supplier, acting as Load Representatives for each Load Portfolio, as well as by Producers for each Pumping Unit in pumping operation, registered in their Participant Account, for energy withdrawal which has not been allocated via Physical Offtake Nominations;
 - h) the submission of Sell Orders by Suppliers and Self-Supplying Consumers, the Last Resort Supplier and the Universal Service Supplier, for each Load Portfolio, as well as by Producers for each Pumping Unit in pumping operation, registered in their Participant Account, for Physical Offtake Position Correction;
 - i) the submission of Sell Orders by Traders, Suppliers and Self-Supplying Consumers which have acquired Short-Term Physical Transmission Rights in non-coupled Interconnections for energy injection from Imports;
 - j) the submission of Buy Orders by Traders, Suppliers, Producers, RES Producers and RES Aggregators which have acquired Short-Term Physical Transmission Rights in non-coupled Interconnections, for energy withdrawal for Exports;
 - k) the submission of Priority Price-Taking Sell Orders by the HTSO for the scheduled production of each Generating Unit in Commissioning or Testing Operation and for the Mandatory Hydro Injections for each Hydro Unit;
 - l) the submission of Priority Price-Taking Buy Orders by the HTSO for the forecasted Transmission System Losses;
 - m) the submission of Priority Price-Taking Sell Orders by the Last Resort RES Aggregator for the forecasted production of each Dispatchable and Non-Dispatchable RES Portfolio;
 - n) the submission of Priority Price-Taking Sell Orders by the RES & GO Operator for the forecasted production of each RES FiT Portfolio up to the sum of the Registered Capacities of the RES Units included in the respective Portfolio and for the forecasted production of rooftop Photovoltaics and for Priority Declarations of each Dispatchable High Efficiency CHP Unit;
 - o) the submission of Priority Price-Taking Buy / Sell Orders by HEnEx for the energy quantities corresponding to trades that have been executed within the Energy Derivatives Market and have been nominated to the ETSS through validated Physical Delivery Program Nomination or Physical Offtake Nominations;
 - p) the submission of Priority Price-Taking Buy / Sell Orders by HEnEx for the energy quantities corresponding to trades on Energy Financial Instruments that have been concluded bilaterally outside the Energy Derivatives Market, as well as to trades associated with other wholesale energy products of Regulation (UE) 1227/2011 with the obligation of physical

delivery, and have been nominated to ETSS through validated Physical Delivery Nominations or Physical Offtake Nominations;

- q) the submission of Priority Price-Taking Sell Orders by HEnEx on behalf of Traders, Suppliers and Self-Supplying Consumers for the energy quantities corresponding to Imports using confirmed nominated Long-Term Physical Transmission Rights in coupled and non-coupled Interconnections that have not been committed through the relevant Physical Delivery Nominations;
- r) the submission of Priority Price-Taking Buy Orders by HEnEx on behalf of Traders, Suppliers, RES Producers and RES Aggregators, for the energy quantities corresponding to Exports using confirmed nominated Long-Term Physical Transmission Rights in coupled and non-coupled Interconnections that have not been committed through the relevant Physical Offtake Nominations;
- s) the submission of Priority Price-Taking Buy Orders by HEnEx on behalf of the Last Resort Supplier for each Load Portfolio, in accordance with the provisions of subsection 3.7.2.1,
- t) the submission of Priority Price-Taking Sell Orders by HEnEx on behalf of the Last Resort RES Aggregator for the forecasted production of Dispatchable and Non-Dispatchable RES Portfolio, in accordance with the provisions of subsection 3.7.2.1.

4.1.5 Reference point of Buy Orders and Sell Orders

- 1. The energy quantities included in Sell Orders and correspond to an injection, are submitted at the Metering Point or the Interconnection node for import into the Transmission System.
- 2. The energy quantities included in Buy Orders and correspond to a withdrawal, are submitted open at the Transmission System – Distribution Network Boundary or the Interconnection node for export from the Transmission System. The Participants convert the energy quantities to the Transmission System - Distribution Network Limit, in accordance with the applicable network loss factors, which are determined on an annual basis by RAE decision.

4.2 Market Pre-coupling Operations

4.2.1 Physical Settlement of trades on Energy Financial Instruments

The Physical Delivery/Offtake Registration and Nomination corresponding to trades on Energy Financial Instruments concluded either within the Energy Derivatives Market or bilaterally outside the Energy Derivatives Market and which are subject to a Physical Settlement in the Day-Ahead Market are described in Chapter 6 of the Rulebook.

4.2.2 Information transfer

4.2.2.1 Information transfer from the Hellenic Transmission System Operator to HEnEx

- 1. The HTSO provides the following information to HEnEx with respect to the operation of the Day-Ahead Market for the Delivery Day D:
 - a) the changes to the information entered in the Balancing Market Registry for each Participant and for each Delivery Day D, no later than thirty (30) minutes before the Day-Ahead Market Validation Gate Opening Time;
 - b) the changes to the information entered into each Participant Account defining the Participant Portfolio including information from the Generating Unit Registry for each

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- Generating Unit, for Delivery Day D, no later than thirty (30) minutes before the Day-Ahead Market Validation Gate Opening Time;
- c) the confirmed nominated Long-Term Physical Transmission Rights (LT-PTRs) of the Participants per Interconnection and per direction for each Market Time Unit of the Delivery Day D, no later than thirty (30) minutes after the LT-PTRs Nomination Gate Closure Time;
 - d) the results of the daily auction for the allocation of Physical Transmission Rights at the non-coupled interconnections, no later than fifteen (15) minutes after the publication of the daily auction results to the Participants, and
 - e) the changes to the Available Capacity of each Generating Unit and each Dispatchable RES Portfolio, as submitted under the Balancing Market Code, for each Market Time Unit of the Delivery Day D, and taking into account the acceptance of the Total or Partial Non-Availability Declaration of the Participant for these Units.
2. In the event that the above information (c) up to (e) are provided to HEnEx at a time period other than the Market Time Unit of the Day-Ahead Market , HEnEx converts it at the level of Market Time Unit of the Day-Ahead Market, in accordance with the relevant Technical Decision.

4.2.2.2 Information transfer by the RES & GO Operator to HEnEx

The RES & GO Operator provides to HEnEx and the HTSO with respect to the operation of the Day-Ahead Market for the Delivery Day D the information from the RES and High Efficiency CHP Units Registry for each RES Unit and High Efficiency CHP Unit and the Table of RES and CHP Units and Market Participants no later than one (1) hour before the Day-Ahead Market Gate Opening Time.

4.2.2.3 Information transfer by the Clearing House to HEnEx

1. The Clearing House provides the following information to HEnEx for Credit Limits in accordance with Section 2.7, with respect to the operation of the Day-Ahead Market for Delivery Day D:
 - a) on a continuous basis the Credit Limits for each Participant, and
 - b) the Reference Values in order to estimate the credit risk calculated by the Clearing House for Priority Price-Taking Buy Orders and Sell Orders, per Market Time Unit, Bidding Zone and type of day (working or holiday) no later than five (5) minutes before the Day-Ahead Market Validation Gate Opening Time.
2. In the event of failure to obtain the above information, the latest updated data submitted by the Clearing House in accordance with paragraph 1 shall be taken into account by HEnEx.

4.2.2.4 Information transfer from the Coordinated Capacity Calculator (CCC) to HEnEx

1. The CCC shall send to HEnEx the Allocation Constraints no later than one hour before the Day-Ahead Market Gate Closure Time, in accordance with Article 46(1) of Regulation (EU) 2015/1222.
2. In case the relevant Coordinated Capacity Calculator is unable to provide the Cross Zonal Capacity and Allocation Constraints one hour prior to the Day-Ahead Market Gate Closure Time, the Coordinated Capacity Calculator shall notify HEnEx, in accordance with Article 46(2) of Regulation 2015/1222. HEnEx shall immediately publish a notification for the Participants. In such cases, Cross Zonal Capacity and Allocation Constraints shall be provided by the Coordinated Capacity Calculator no later than thirty (30) minutes before the Day-Ahead Market Gate Closure Time.

4.2.2.5 Submission of information from EXE to the MCO

Immediately after receiving the Allocation Constraints from the relevant Coordinated Capacity

Calculator, HEnEx shall submit the received information to the Market Coupling Operator.

4.2.3 Order Limits

4.2.3.1 Available Capacity of Generating Units and RES Units

1. The HTSO shall submit to ETSS, upon each change in the Available Capacity of the Generating Units and the Dispatchable RES Portfolios, particularly after acceptance of a Partial or Total Non-Availability Declaration, the Available Capacity of Generating Units and Dispatchable RES Portfolios for the Delivery Day D.
2. The latest Available Capacity of Generating Units and Dispatchable RES Portfolios updated by the HTSO is used by HEnEx for the validation process of the Day-Ahead Market Sell Orders, in accordance with paragraph 4.2.5 of the Rulebook.
3. Receipt of updated Available Capacity data from the HTSO as well as the Submission of a Total or Partial Non-Availability Declaration, after the Day-Ahead Market Gate Closure Time for Delivery Day D does not entitle the Producer or RES Producer to submit updated Day-Ahead Market Orders.

4.2.3.2 Calculation of Order energy quantities

1. Following the submission by the HTSO to HEnEx of the results of the daily auction for the allocation of Physical Transmission Rights to non-coupled Interconnections, as per subsection 4.2.2.1 of the Rulebook, HEnEx shall calculate the maximum energy quantities for which Day-Ahead Market Order can be submitted for imports and exports in all Interconnections, as follows:

$$\text{Margin}_{p,i,h} = \text{DailyPTRs}_{p,i,h} , \forall p, j, h$$

where:

- p : index of Participant
 j : index of non-coupled Interconnection
 h : index of Market Time Unit
 $\text{DailyPTRs}_{p,j,h}$: Daily PTRs acquired by Participant p for Interconnection j for Market Time Unit h , in MW.

2. Thirty (30) minutes after the Physical Delivery Nomination Gate Closure Time, HEnEx shall calculate the maximum energy quantities for which Day-Ahead Market Orders can be submitted for each Generating Unit and Pumping Unit in pumping operation, as follows:

$$\text{Margin}_{i,h} = \text{AvailCap}_{i,h} - \text{PDN}_{i,h} , \forall i, h$$

$$\text{Margin}_{i,h} = \text{AvailCap}_{i,h} - \text{PON}_{i,h} , \forall j, h$$

where:

- i : index of Generating Unit
 j : index of Pumping Unit in pumping operation
 h : index of Market Time Unit
 $\text{AvailCap}_{i,h}$: Available Capacity of the Generating Unit i for the Market Time Unit h in MW
 $\text{AvailCap}_{j,h}$: Available Capacity of the Pumping Unit j for the Market Time Unit h in MW
 $\text{PDN}_{i,h}$: Validated Physical Delivery Nomination for Generating Unit i for Market

$PON_{j,h}$: Time Unit h in MWh
Validated Physical Offtake Nomination for the Pumping Unit j for Market
Time Unit h in MWh.

3. The margins calculated by HEnEx in accordance with this paragraph shall be used for the validation of the energy quantities of the Orders of the relevant Participants.

4.2.4 Orders Submission and Management

1. Participants shall submit their Orders and may cancel or modify these Orders from the Day-Ahead Market Gate Opening Time until the Day-Ahead Market Gate Closure Time.
2. Participants without Credit Limit, as per the information provided by the Clearing House to HEnEx, may not submit Day-Ahead Market Buy Orders or Sell Orders, where applicable.
3. The finally validated Orders that have been submitted lawfully, subject to the provisions of this Chapter, shall be considered for inclusion in the Day-Ahead Market Local Order Book.

4.2.5 Validation of Orders

1. The ETSS shall automatically reject an Order submitted by a Participant based on the time of receipt by HEnEx when it has been received before the Day-Ahead Market Gate Opening Time or after the Day-Ahead Gate Closure Time set for Delivery Day D.
2. The ETSS shall automatically reject an Order submitted by a Participant based on the Order price when the Order price is outside the range defined by the Administratively Defined Minimum Orders Price in the Day-Ahead Market and the Maximum Orders Price in the Day-Ahead Market. In case of an automatic rejection of an Order, the ETSS shall automatically send to the respective Participant a rejection notice, including a justification for such rejection.
3. The ETSS shall automatically reject any submitted Buy / Sell Order by a Participant when the valuation of the Buy / Sell Order is higher than the respective Credit Limit set for the Participant by the Clearing House, as provided for in the Clearing Rulebook.
4. The ETSS shall automatically reject any submitted Buy / Sell Order by a Participant when the Order violates access restrictions on specific Types of Orders or Order submission parameters, as these are specified by a RAE Decision, following a HEnEx proposal, in accordance with the provisions of the subsection 4.1.3.1 of the Rulebook.
5. The ETSS shall automatically reject each submitted Order by a Participant, with respect to the Order quantity as follows:
 - a) when the Sell Order quantity corresponding to energy injection for imports on a non-coupled Interconnection is higher than the respective margin, computed as described in paragraph 1 of subsection 4.2.3.2 of the Rulebook;
 - b) when the Buy Order quantity corresponding to energy offtake for exports on a non-coupled Interconnection is higher than the respective margin, computed as described in paragraph 1 of subsection 4.2.3.2 of the Rulebook;
 - c) when the Sell Order quantity corresponding to energy injection for imports on an Interconnection, submitted by a Self-Supplying Consumer, is higher than the sum of the Priority Price-Taking Buy Orders submitted on behalf of the Self-Supplying Consumer by HEnEx, as per Chapter (subsection 4.1.4), and the sum of the Buy Order quantities submitted by the Self-Supplying Consumer acting as Load Representative of its own Load Portfolios;
 - d) when the Sell Order quantity corresponding to energy injection of a Generating Unit or

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- Dispatchable and Non-Dispatchable RES Portfolio violates the imposed respective margin of the Entity, as per paragraph 2 of subsection 4.2.3.2 of the Rulebook;
- e) when the Buy Order quantity corresponding to energy offtake of a Pumping Unit in pumping operation is higher than the respective margin, computed as described in paragraph 2 of subsection 4.2.3.2 of the Rulebook;
 - f) when the Sell Order quantity corresponding to energy injection of a Dispatchable and Non-Dispatchable RES Portfolio violates the Registered Capacity of the Dispatchable and Non-Dispatchable RES Portfolio minus the Priority Price-Taking Sell Order, submitted on behalf of the RES Producer or RES Aggregator by HEnEx as per subsection 4.1.4 of the Rulebook;
 - g) when the Sell Order quantity corresponding to Physical Offtake Position Correction for a Load Portfolio, submitted by a Supplier or a Producer for the Auxiliary Load of a Generating Unit registered in the respective Participant Account or for a Pumping Unit in pumping operation, is higher than the Priority Price-Taking Buy Orders submitted on behalf of the Supplier or the Producer by HEnEx as subsection 4.1.4 of the Rulebook;
 - h) when the Buy Order quantity corresponding to Physical Delivery Position Correction for a Generating Unit, RES Unit, Dispatchable or Non-Dispatchable RES Portfolio, submitted by the respective Participant, is higher than the Priority Price-Taking Sell Orders submitted on behalf of the Participant by HEnEx as per subsection 4.1.4 of the Rulebook.
- 6. In case the Sell Order quantity corresponding to a Generating Unit plus the quantity of the Priority Price-Taking Sell Order, submitted on behalf of the Producer by HEnEx, is less than the Available Capacity of the Generating Unit, then HEnEx shall impose Non-Compliance Charges to the respective Producer, as described in subsection 4.4.2.1 of the Rulebook.
 - 7. In case of a Buy Order corresponding to a Generating Unit, if the quantity of the Priority Price-Taking Sell Order, submitted on behalf of the Producer by HEnEx, minus the Buy Order quantity, is less than the Available Capacity of the Generating Unit, then HEnEx shall impose Non-Compliance Charges to the respective Producer, as described in subsection 4.4.2.1 of the Rulebook.

4.3 Market Coupling Operations

4.3.1 Order Book

- 1. After the Day-Ahead Market Gate Closure Time, HEnEx processes and anonymizes the Valid Orders in the Local Order Book in order to submit them to the Shared Order Book of the MCO.
- 2. The Valid Orders included in the Day-Ahead Market Local Order Book are economically binding, meaning that in case of acceptance by the Price Coupling Algorithm they shall be subject to clearing and financial settlement in accordance with the provisions of the Clearing Rulebook.

4.3.2 Auction Price - Price Coupling Algorithm

- 1. The Market Coupling Operator is responsible for the performance of the Market Coupling Operation Function. The Day-Ahead Market Coupling is based on a decentralized solution with a rotating operator being responsible for the coordination of the Day-Ahead MCO Function procedures. Additionally, a rotating backup Operator is appointed, which shall be able to take over the Operator role in any process of the Market Coupling session. Details of the procedures performed by the Operator and Backup Operator are included in the published MCO Plan.
- 2. The objective of the Day-Ahead Market Coupling mechanism is the maximization of the social welfare of the coupled European Day-Ahead Markets, namely the maximization of the sum of surpluses of Sell and Buy Orders included in the Shared Order Book plus the congestion rent. The

surplus of the accepted Sell Orders equals the product of the difference of the Marginal Clearing Price minus their Order price by the accepted energy quantity. The surplus of the accepted Buy Orders equals the product of the difference of the Order price minus the Marginal Clearing Price by the accepted energy quantity.

3. The Day-Ahead Market problem constraints include the fulfillment of the energy balance equation (i.e. the sum of accepted Sell Orders quantities is equal to the sum of accepted Buy Orders quantities) for each Market Time Unit of the Delivery Day, along with the acceptance rules of the validated Orders as described in subsection 4.3.3 of the Rulebook, and any Cross Zonal Capacity and Allocation Constraints.
4. The Day-Ahead Market Coupling Algorithm handles the Paradoxically Accepted Sell and Buy Block Orders through an iterative process, at each iteration of which the intermediate solutions resulting in Paradoxically Accepted Sell and Buy Block Orders are effectively excluded from the binary tree defining the solution space. In the final solution, there are no Paradoxically Accepted Sell and Buy Orders.

4.3.3 Acceptance rules of Orders by the Day-Ahead Market Price Coupling Algorithm

1. The following acceptance rules of Orders are used by the Day-Ahead Market Price Coupling Algorithm for the non-coupling operation, for the coupling operation and for the operation in Total or Partial Decoupling.
2. The acceptance rules of an Hourly Hybrid Sell Order submitted at a Bidding Zone are the following:
 - a) A segment of the above Sell Order shall be totally accepted if its price at the right end of the segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - b) A segment of the above Sell Order shall be partially accepted if its price at the left end of the segment is lower than the Market Clearing Price and its price at the right end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - c) A segment of the above Sell Order shall be partially accepted if its price at the left end of the segment is equal to its price at the right end of its segment and equal to the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - d) A segment of the above Sell Order shall not be accepted if its price at the left end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
3. The acceptance rules of an Hourly Hybrid Buy Order submitted at a Bidding Zone are the following:
 - a) A segment of the above Buy Order shall be totally accepted if its price at the right end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - b) A segment of the above Buy Order shall be partially accepted if its price at the left end of the segment is higher than the Market Clearing Price and its price at the right end of the segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - c) A segment of the above Buy Order shall be partially accepted if its price at the left end of the segment is equal to its price at the right end of its segment and equal to the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - d) A segment of the above Buy Order shall not be accepted if its price at the left end of the buy segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market

Time Unit of the Delivery Day D.

4. The acceptance rules of a Sell Block Order are the following:
- a) A Sell Block Order shall be totally accepted (Acceptance Ratio equal to 1) if the following conditions (i) and (ii) are simultaneously valid:
 - i. its offer price is lower than the weighted average Market Clearing Price for the Market Time Units of the Delivery Day included in the Block Order (i.e. between the respective Starting Period and Ending Period), weighted by the respective accepted energy quantities of the Sell Block Order, and
 - ii. during the matching process, this Block Order has not been identified as a Paradoxically Accepted Block Order.
 - b) A Sell Block Order shall be partially accepted (Acceptance Ratio between its Minimum Acceptance Ratio and 1), if its offer price is exactly equal to the weighted average Market Clearing Price for the Market Time Units of the Delivery Day D included in the Sell Block Order weighted by the accepted quantities of the Block Order. The accepted Acceptance Ratio takes such value so that the weighted average Market Clearing Price between the Starting Period and Ending Period is equal to the Sell Block Order price.
 - c) A Sell Block Order shall not be accepted (Acceptance Ratio equal to 0) if one of the following two cases applies:
 - i. if its price is higher than the weighted average Market Clearing Price for the Market Time Units of the Delivery Day included in the Sell Block Order, or
 - ii. if its price is lower than the weighted average Market Clearing Price for the Market Time Units of the Delivery Day included in the Sell Block Order, but during the matching process this Sell Block Order has been identified as a Paradoxically Rejected Block.

In all cases, the accepted energy quantity of a Sell Block Order for each Market Time Unit of the Delivery Day included in the Sell Block Order shall be equal to the product of the Acceptance Ratio and the offered energy quantity of the Sell Block Order.

5. The acceptance rules of a Buy Block Order are similar to the respective acceptance rules of a Sell Block Order, with the difference that the Buy Block Order is cleared when its price is higher than the weighted average Market Clearing Price for the Market Time Units of the Delivery Day involved in the Buy Block Order, weighted by the respective accepted energy quantities of the Buy Block Order.
6. The acceptance rules of a Linked Block Order are the following:
- a) The Acceptance Ratio of a parent-type Block Order is greater than or equal to the highest Acceptance Ratio of its "child" Block Orders.
 - b) Acceptance of child Block Orders may allow acceptance of the "parent" Block Order under the following conditions:
 - i. the surplus of the acceptable combination of "parent" and "child" Block Orders is non-negative;
 - ii. the "leaf" Block Orders do not generate welfare loss.
 - c) A "parent" Block Order, which is not acceptable under the rules of the Block Order acceptance described above (it is out-of-the-money), can be accepted if its accepted Linked "child" Block Orders produce welfare surplus sufficient to compensate the loss of the "parent" Block Order.
 - d) A "child" Block Order, which is which is not acceptable under the rules of the Block Order

acceptance described above (it is out-of-the-money), can not be accepted, even if the “parent” Linked Block Order provides sufficient surplus to compensate for the loss of the “child” Block Order. In the case that the “child” Block Order is a “parent” Linked Block Order for another Block Order, the validation rule described in the acceptance rule (c) applies.

e) In the case of two Linked Block Orders, the validation rules are as follows:

- i. The “parent” Block Order can be accepted alone, but acceptance of the “child” Block Order requires the acceptance of the “parent” Block Order.
 - ii. Accepting a “child” Block Order will result in the acceptance of the “parent” Block Order as described in the acceptance rule (c).
7. The acceptance rules of Block Orders belonging to the Exclusive Block Orders Group are the same as the Block Orders acceptance rules as described in paragraphs 3 and 4 with the additional limitation that the sum of the Acceptance Ratio of the Block Orders belonging to the same Exclusive Block Orders Group can not exceed 1. Selecting the Block Order from the Exclusive Group is done by the solution algorithm to maximize welfare surplus.
 8. In the event that more than one Sell and Buy Block Orders have been submitted for the same Market Time Units and at a price equal to the weighted average Market Clearing Price that has been weighted with the corresponding accepted energy quantities of the Sell and Buy Block Order for the said Market Time Units of the Physical Delivery Day D (Block Orders with same prices), the acceptance of Sell and Buy Block Orders is done by the solution algorithm of the day ahead market based on the time these were entered in the ETSS.
 9. In the event that for a Market Time Unit more than one part of Hourly Hybrid Sell Order have a value at the left end, lower than or equal to the Market Clearing Price and at the right end, higher than or equal to the Market Clearing Price, the acceptance of Orders is applied according to the methodology specified by a relevant RAE Decision, following a HEnEx proposal.
 10. In the event that for a Market Time Unit more than one part of Hourly Hybrid Buy Order have a value at the left end, higher than or equal to the Market Clearing Price and at the right end, lower than or equal to the Market Clearing Price, the acceptance of Orders is applied according to the methodology specified by a relevant RAE Decision, following a HEnEx proposal.
 11. When applying acceptance rules for the Hybrid Sell and Buy Orders, the Market Clearing Prices are used with decimal accuracy, as results from the Day-Ahead Market Matching Algorithm for the non-coupled operation of the Day-Ahead Market and the Price Matching Algorithm for the coupled operation of the Day-Ahead Market.

4.3.4 Results

1. The Day-Ahead Market Coupling Results consist of the Market Clearing Prices per Market Time Unit of the Physical Delivery Day D and Bidding Zone, the Net Delivery Position of each Bidding Zone, and the acceptance status and ratio of Block Orders.
2. The Day-Ahead Market Results consist of the Market Clearing Prices per Market Time Unit of Delivery Day D and per Bidding Zone, the accepted energy quantities of the Hourly Hybrid Orders and the acceptance status and ratio of Block Orders.
3. In the Day-Ahead Market Results, the Market Clearing Prices are given with the accuracy of three (3) decimal places and the accepted quantities of the Buy and Sell Orders with the accuracy of three (3) decimal places for each Market Time Unit of the Physical Delivery Day D.
4. Pursuant to Article 48(1) of Regulation (EU) 1222/2015, after completing the process of executing the Price Coupling Algorithm, the MCO shall deliver the Preliminary Day-Ahead Market Coupling Results to HEnEx.
5. HEnEx shall confirm that the Preliminary Day-Ahead Market Coupling Results have been

calculated in accordance with the submitted Orders and send the related positive Preliminary results Confirmation to the MCO. Thereafter, HEnEx shall send the Preliminary Day-Ahead Market Coupling Results to the HTSO for validation and publishes them on its website.

6. The HTSO confirms that the Preliminary Day-Ahead Market Coupling Results of the Price Coupling Algorithm have been calculated in accordance with the validated Cross Zonal Capacity and Allocation Constraints and sends the relevant information to HEnEx. If the confirmation is positive, then HEnEx sends a confirmation to the MCO.
7. The Clearing House may validate the Preliminary Day-Ahead Market Coupling Results of the Price Coupling Algorithm.
8. In case no NEMO of the coupled Markets or Transmission System Operator rejects the Preliminary Day-Ahead Market Coupling Results or triggers a Second Auction, the MCO shall send the Global Results Confirmation to HEnEx.
9. HEnEx shall publish the Day-Ahead Market Coupling Results on its website and inform Participants concerning the execution status of their Orders.
10. In emergency situations related to delays in performing the above tasks Fallback Procedures commence, as described in Section 4.6 of the Rulebook.
11. The procedure timeline applied under this paragraph on the Day-Ahead Market is detailed in Annex B of the Rulebook.

4.4 Post-Coupling Operations

4.4.1 Interface of the Day-Ahead Market with the Intra-Day Market

1. The information that should be transferred from the Day-Ahead Market to the Intra-Day Market through ETSS for each Market Time Unit of each Delivery Day D is the following:
 - a) The scheduled imports and exports (including the Scheduled Energy Exchanges of the Day-Ahead Market Coupling for the coupled borders) on each Interconnection to the HTSO, in order to compute the Cross Zonal Capacity after the Day-Ahead Market solution. This Cross Zonal Capacity will be available for use in the Intra-Day Market trading processes.
 - b) The Market Schedules (i.e. namely the energy schedule resulting from the Day-Ahead Market solution taking into account the accepted Orders and the accepted Priority Price-Taking Orders) of each one of the following Entities for each Market Time Unit of the Delivery Day:
 - i. Generating Units and Generating Units in Commissioning or Testing Operation;
 - ii. Dispatchable and Non-Dispatchable RES Portfolios;
 - iii. Load Portfolios;
 - iv. Pumping Units in pumping operation, and
 - v. RES FiT Portfolios, as well as rooftop Photovoltaics.
2. The ETSS shall report the quantities of the accepted Sell and Buy Orders as Physical Delivery Nominations and Physical Offtake Nominations of the respective Entities and Portfolios excluding the energy quantities submitted to the Day-Ahead Market by HEnEx as Priority Price-Taking Sell and/or Buy Orders according to the provisions of subsection 4.1.3.2, Chapter 4 of the Rulebook.

4.4.2 Calculation of Non-Compliance Charges

4.4.2.1 Non-Compliance Charge for unlawful submission of Sell Orders concerning Available Capacity

1. In the event of unlawful submission of Sell Orders for Delivery Day D for a Generating Unit u registered in the Participant Account of a Participant p for which the Participant is obliged to submit an appropriate Sell Order to cover the Available Capacity of that Unit, after the publication of the Day-Ahead Market results, HEnEx shall calculate for that Participant and for that Delivery Day D the amount of $NCEO_{p,D}$ as follows:

$$NCEO_{p,D} = UNCEO \cdot (1 + A_{EO}) \cdot (NEO_p)^x \cdot \sum NCAP_u$$

where:

$UNCEO$: the unit charge for Non-Compliance Charges to Participants for failing to submit valid Sell Orders for their generating units by the Day-Ahead Market Gate Closure Time, in €/MWh

A_{EO} : the charge increase factor for Non-Compliance Charges to Participants for failing to submit valid Sell Orders for their generating units by the Day-Ahead Market Gate Closure Time;

NEO_p : a running counter of the Delivery Days in the current calendar year when a Participant p failed to submit valid Sell Orders for its generating units by the Day-Ahead Market Gate Closure Time;

x : an exponent factor between 0 and 1, and

$NCAP_u$: the Registered Capacity of a generating unit u (in accordance with its Registered Operating Characteristics) for which Participant p has not lawfully submitted Sell Orders for Delivery Day D, in MW. In case of lawful submission of Sell Orders for a Generating Unit u for Delivery Day D, the $NCAP_u$ in this equation equals zero.

2. The numerical values of the unit charge $UNCEO$, the exponent factor x and the charge increase factor A_{EO} as well as any other parameter and technical detail, including HEnEx's periodical report data to RAE, shall be established for each calendar year by a RAE Decision, following a proposal of HEnEx. Such decision shall be taken at least two (2) months prior to the end of a calendar year, it shall be in force for the next calendar year and it cannot be modified within such year.
3. The $NCEO_{p,D}$ charges shall be notified to the Clearing House at a time and with a procedure that are to be defined by a relevant Technical Decision of HEnEx.

4.4.2.2 Non-Compliance Charge for breaching the restriction of the Maximum Percentage of Physically Delivered Energy Financial Instruments

1. For each Supplier with a retail market share exceeding a X% threshold and for each Market Time Unit, the percentage of energy quantities included in the validated Physical Offtake Nominations that correspond to energy quantities of trades on Energy Financial Instruments executed within the Energy Derivatives Market or concluded bilaterally, on the total amount of energy quantities purchased under accepted Day-Ahead Market Buy Orders, may not exceed an A% threshold. The X% and A% values are set annually by a RAE Decision, following a proposal of HEnEx.
2. In the event of a violation of the limit on Maximum Percentage of Energy Financial Instruments with Physical Delivery by a Supplier p for a Market Time Unit t of Delivery Day d, with the publication of the Day-Ahead Market results, HEnEx calculates for that Supplier and for that

Delivery Day non-compliance charges $NCC_{p,t}$, as follows:

$$NCC_{p,t} = \max\left(\left|\sum PON_{z,p,t} - A\% \cdot \sum (PON_{z,p,t} + Y_{z,p,t})\right| \cdot CAP, 0\right)$$

where:

$PON_{z,p,t}$: the Physical Offtake Nomination submitted in the Bidding Zone z by the Supplier p for a Market Time Unit t of Delivery Day D ,

$Y_{z,p,t}$: the Supplier's p acceptable Day-Ahead Market energy quantities for a Market Time Unit t of Delivery Day D ,

$A\%$: the current maximum limit of the above restriction;

CAP : the Maximum Orders Price in the Day-Ahead Market.

3. The charge is cumulative for all Market Time Units of a Delivery Day and is notified by HEnEx to the Clearing House at a time and with a procedure that are to be defined by a relevant Technical Decision of HEnEx.

4.4.3 Trade Clearing

1. The Day-Ahead Market Clearing shall be performed by the Clearing House in accordance with the Clearing Rulebook. By notifying the Day-Ahead Market Results to Participants, HEnEx shall forward the Day-Ahead Market Results to the Clearing House via the ETSS to calculate the Credits and Debits of Participants resulting from their participation in the Day-Ahead Market. The information to be forwarded is as follows:
 - a) The Market Clearing Price per Bidding Zone and per Market Time Unit;
 - b) The accepted energy quantity of the Sell Order of each Participant in each Market Time Unit, and
 - c) The accepted energy quantity of the Buy Order of each Participant in each Market Time Unit.
2. The Sell and Buy Orders of the preceding paragraph include the Priority Price-Taking Orders submitted by HEnEx on behalf of each Participant, which have been accepted.

4.5 Second Auction Procedure

1. The Second Auction procedure is provided in cases where the Market Clearing Price, as derived from the Day-Ahead Market Coupling Algorithm solution, is equal to or exceeds a predetermined Maximum or Minimum Price Threshold for one or more Market Time Units for one or more Bidding Zones. The Second Auction procedure allows HEnEx to open the Local Order Book for a short period of time, which it announces by any appropriate means. Participants have the option to modify their bids to improve the outcome of the Day-Ahead Market Matching Algorithm solution.
2. The procedure of the Second Auction may be activated also in the non-coupled operation of the Day-Ahead Market.

4.5.1 Second Auction Procedure in the non-coupled operation of the Day-Ahead Market

1. HEnEx completes the control of the Market Clearing Price directly after the settlement of the Day-Ahead Market and the receipt of the Results. In case HEnEx finds an equality or exceeding a predetermined Maximum or Minimum Price Threshold, for one or more Market Time Units, for one or more Bidding Zones, HEnEx rejects the Day-Ahead Market Results.

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2. HEnEx sets the Local Order Book available to the Participants.
 3. HEnEx notifies the Participants of the Local Order Book opening time and provides the Participants with any other information deems necessary for their right participation in the Order re-submission procedure.
 4. HEnEx performs all necessary actions for the successful completion of the Second Auction.
 5. No further Auction is held in case following the Second Auction the Market Clearing Price equals to or is higher than a certain predefined Maximum or Minimum Price Threshold for one or more Market Time Units.
 6. The predefined Maximum or Minimum Price Thresholds of the Clearing Price for the non-coupled operation of the Day-Ahead Market for which HEnEx examines the possibility of conducting a Second Auction, are defined on a yearly basis by a RAE Decision, upon HEnEx's recommendation.

4.5.2 Second Auction Procedure in the coupled operation of the Day-Ahead Market

1. HEnEx checks the Market Clearing Price during the process of Preliminary Market Coupling Results evaluation. In the event that the Market Clearing Price is equal to or exceeds a predetermined Maximum or Minimum Price Threshold for one or more Market Time Units in one or more Bidding Zones, it shall immediately notify the MCO and reject the Preliminary Market Coupling Results.
2. If, as part of the MCO function, a Second Auction is decided to be executed, HEnEx has the right to open the Local Order Book to Participants. No Second Auction can be executed if the Market Clearing Price is equal to or exceeds a predetermined Maximum or Minimum Price Threshold for one or more Market Time Units for one or more Bidding Zones, if partial Decoupling has preceded.
3. If HEnEx decides to open the Local Order Book, it shall inform Participants of the opening of the Local Order Book and provide them with any other information it deems necessary for their proper participation in the resubmission of Orders.
4. If HEnEx decides to open the Local Order Book, it shall send to the MCO the amended Local Order Book and perform all necessary actions for the successful execution of the Second Auction in coordination with other NEMOs as part of the MCO Plan.
5. No further Auction is held in case following the Second Auction the Market Clearing Price equals to or is higher than a certain predefined Maximum or Minimum Price Threshold for one or more Market Time Units.
6. In the event that the MCO has not completed the Global Confirmation of the Second Auction Results by the prescribed Full Decoupling period, HEnEx shall operate the Day-Ahead Market in Full Decoupling mode.
7. The pre-defined Maximum or Minimum Clearing Price Market Thresholds in coupling operation, for which HEnEx examines the possibility of conducting a Second Auction are defined annually by A RAE Decision, upon HEnEx's recommendation.

4.6 Day-Ahead Market Fallback Operation

1. For reasons related to operational interruptions and malfunction of the ETSS, omission of data exchanges that cannot be performed through the standard processes by the applicable deadlines, bad data, delays on the Day-Ahead Market, erroneous or susceptible for market abuse Day-Ahead Market Results and situations constituting Force Majeure the Market Operator may set the Day-Ahead Market in Fallback Operation.

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2. HEnEx announces the Declaration of Day-Ahead Market in Fallback Operation via any available means including electronic communication to the Participants and publication at its website. The Declaration of Day-Ahead Market in Fallback Operation specifies the activation reason and the forecasted time for its solution. HEnEx informs immediately RAE, the HTSO, the Clearing House and other relevant legal entities having specific obligations with regard to the European Day-Ahead Markets.
 3. During the Day-Ahead Market Fallback Operation, depending on the severity of the triggering event, HEnEx may notify the Participants about the suspension of several provisions of this Rulebook and its Annex and indicatively:
 - a) extend the Day-Ahead Market Gate Closure Time;
 - b) re-open the Local Order Book for the submission of Orders and define the relative Day-Ahead Market Gate Closure Time;
 - c) run a Second Auction;
 - d) initiate, in cooperation with the HTSO, Shadow Auctions for the explicit allocation of Physical Transmission Rights, and
 - e) operate the Day-Ahead Market in partial or full Decoupling.
 4. Participants shall follow the relevant instructions and actions of HEnEx notwithstanding any specific objections raised by them for and during the Day-Ahead Market Fallback Operation.
 5. HEnEx shall not be held liable for any damage or loss caused to a Participant due to the Day-Ahead Market Fallback Operation which cannot be attributed to its wilful misconduct or gross negligence.
 6. Immediately after dealing with the event triggering the Day-Ahead Market Fallback Operation, HEnEx shall publish a Declaration of Day-Ahead Market Operational Restoration.
 7. HEnEx shall publish the Declaration of Day-Ahead Market Operational Restoration by any appropriate means, including electronic communication with the Participants and publication on its website. The Declaration of Day-Ahead Market Operational Restoration shall clarify the exact date and time of expiration of the Day-Ahead Market Fallback Mode and the timeline for action for HEnEx, Market Participants, the HTSO and other relevant legal entities with specific obligations regarding the operation of the European Day-Ahead Markets.
 8. HEnEx shall prepare a report, after conducting relevant investigations concerning the reasons triggering the Day-Ahead Market Fallback Mode, describing all relevant information and detailing the appropriateness of its actions and applied measures during the Day-Ahead Market Fallback Operation and for the operational restoration of the Day-Ahead Market. The report shall be sent by HEnEx to RAE.

4.7 Reporting Requirements

1. The reporting requirements referred to in this Section are complimentary to other reporting requirements set out elsewhere in the Rulebook and in the European regulatory framework and in particular the requirement of HEnEx to make information available on its website.
2. HEnEx shall publish at least the following market information per Market Time Unit of each Delivery Day before the Day-Ahead Market Gate Opening Time, subject to appropriate confidentiality issues, and shall maintain an archive of this information for five (5) years, accessible to all Participants and other interested parties:
 - a) the energy quantities of trades on Energy Financial Instruments executed within the Energy Derivatives Market and the energy quantities of trades on bilateral Energy Financial Instruments as well as for trades associated with other wholesale energy

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- products of the Regulation (UE) 1227/2011 with the obligation of physical delivery, that have been nominated in the ETSS through validated Physical Delivery Nomination and Physical Offtake Nominations, until the Physical Delivery/Offtake Nomination Gate Closure Time , as described in detail in Chapter 6 of the Rulebook, per Unit technology Portfolio, per Interconnection and direction for energy injections and per Bidding Zone for energy withdrawals;
- b) the List of the suspended Participants, and
 - c) any other information that may be designated a RAE Decision upon HEnEx's recommendation.
3. HEnEx shall publish shall publish at least the following market information per Market Time Unit of each Delivery Day fifteen (15) minutes after the Day-Ahead Market Results Publication Time, subject to appropriate confidentiality issues, and shall maintain an archive of this information for five (5) years, accessible to all Participants and other interested parties:
- a) the aggregated and anonymized Sell and Buy Curves included in the Local Order Book;
 - b) statistics on the total number of submitted and accepted Block Orders, along with the sum of offered and accepted energy quantities in Block Orders;
 - c) the Market Clearing Prices per Bidding Zone, and
 - d) the aggregated Market Schedules of Entities per technology portfolio, per Interconnection and direction for energy injections, per Bidding Zone for energy withdrawals for each Market Time Unit, and
 - e) any other information that may be designated a RAE Decision upon HEnEx's recommendation.
4. This information shall be provided at least in Greek and shall be made available in editable format.
5. HEnEx shall prepare and publish on its website monthly reports with at least the above figures aggregated on a monthly basis.
6. The above information shall be transmitted to RAE in a named manner under the authorizations of Law 4001/2011 upon request.
7. Additional information and technical details regarding the data provided by HEnEx may be specified by Decision of HEnEx which is published on its website.

Chapter 5. Intra-Day Market (IDM)

5.1 Intra-Day Market Operation

Intra-Day Market includes the following:

- 1) Local Intra-Day Auctions (LIDAs) in non-coupling mode, consistent with the number and timing of the corresponding Complementary Regional Intra-Day Auctions (CRIDAs).
- 2) Continuous Intra-Day Trading in coupling mode.
- 3) Complementary Regional Intra-Day Auctions (CRIDAs).

In application of the Pan-European Intra-Day Auctions, the CRIDAs, according to the provisions of Decisions ACER 1/2019, 4/2020 and 5/2020, and any other decision issued in virtue of articles 55, 37 and 53 respectively, of the Regulation (EU) 2015/1222 of the Commission dated as of 24 of July 2015 regarding the specification of guidelines for the distribution of capacity and managing congestions.

5.2 General Provisions

5.2.1 Trading Timelines

IDM refers to buy and sell trades of electricity with an obligation of physical delivery by submitting respective orders at each calendar day D-1 and/or each calendar day D, for LIDAs or CRIDAs, or traded in the Continuous IDM for each Market Time Unit of Delivery Day D.

5.2.2 Trading hours

5.2.2.1 Local Intra-Day Auction (LIDA)

1. In the IDM, Participants may submit to the ETSS Buy Orders and Sell Orders for Market Time Units of Delivery Day D.
2. In LIDAs, Participants may submit Buy Orders and Sell Orders as follows:
 - a) From the First LIDA Gate Opening Time until the First LIDA Gate Closure Time, Buy Orders and Sell Orders may be submitted for any Market Time Unit of Delivery Day D.
 - b) From the Second LIDA Gate Opening Time until the Second LIDA Gate Closure Time, Buy Orders and Sell Orders may be submitted for any Market Time Unit of Delivery Day D.
 - c) From the Third LIDA Gate Opening Time until the Third LIDA Gate Closure Time Buy Orders and Sell Orders may be submitted for any of the Market Time Unit of the second half of Delivery Day D.
3. The ETSS shall validate the Buy and Sell Orders submitted thereto for each LIDA from the respective LIDA Gate Opening Time until the respective LIDA Gate Closure Time.
4. HEnEx may extend any LIDA Gate Opening Time and the corresponding LIDA Gate Closure Time on any day, to the extent necessary in order to maintain orderly trading conditions or for reasons associated to the ETSS.
5. The exact timeline of Order submission, Matching and all related processes applied to each LIDA is set out in Annex B of the Rulebook.

5.2.2.2 Complementary Regional Intra-Day Auction (CRIDA)

1. In CRIDAs, Participants may submit Buy or Sell Orders as follows:
 - a) From the First CRIDA Gate Opening Time until the First CRIDA Gate Closure Time, Buy or Sell Orders may be submitted for any Market Time Unit of Delivery Day D.
 - b) From the Second CRIDA Gate Opening Time until the Second CRIDA Gate Closure Time, Buy or Sell Orders may be submitted for any Market Time Unit of Delivery Day D.
 - c) From the Third CRIDA Gate Opening Time until the Third CRIDA Gate Closure Time Buy or Sell Orders may be submitted for any of the Market Time Units of the second half of Delivery Day D.
2. The ETSS shall validate the Buy and Sell Orders submitted for each CRIDA from the respective CRIDA Gate Opening Time until the respective CRIDA Gate Closure Time.
3. The CRIDA Operator may, in the context of regional intraday coupling, extend any CRIDA Gate Opening Time and the corresponding CRIDA Gate Closure Time on any day, to the extent necessary in order to maintain orderly trading conditions, or for reasons associated to the trading systems.
4. The exact timeline of Order submission, Matching and all related procedures applied to each CRIDA is set out in Annex B of the Rulebook.

5.2.2.3 Continuous Intra-Day Trading

1. In the Continuous Intra-Day Trading, Participants may submit to ETSS Buy and Sell Orders for Market Time Units of Delivery Day D.
2. The Continuous Intra-Day Trading Gate Closure Time shall be sixty (60) minutes before each Market Time Unit.
3. The ETSS validates the Buy and Sell Orders submitted thereto after the respective Continuous Intra-Day Trading Gate Opening Time and up to the respective Continuous Intra-Day Trading Gate Closure Time.
4. During the execution of the CRIDA algorithm solution and until the publication of the results, the Continuous Intra-Day Trading ceases.
5. The exact timeline of the trading, Matching and all the related processes applied to the Continuous Intra-Day Trading are set out in Annex B of the Rulebook.

5.2.3 Participation in the Intra-Day Market

1. Participation in the Intra-Day Market is optional for all Participants.
2. Participation in the Intra-Day Market means in particular:
 - a) the submission of Sell Orders by Producers for each Generating Unit registered in their Participant Account for energy injection up to the Generating Unit's Available Capacity, which is not allocated via accepted Sell Orders or Priority Price-Taking Sell Orders in the Day-Ahead Market, the Intra-Day Market and the Balancing Market;
 - b) the submission of Buy Orders by Producers for each Generating Unit registered in their Participant Account for Day-Ahead Market Delivery Position Correction;
 - c) the submission of Sell Orders by RES Producers for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for energy injection up to the sum of the Available Capacities of the RES Units included in the Dispatchable and Non-Dispatchable RES Portfolio, which is not allocated via accepted Sell Orders or Priority Price-Taking Sell Orders in the Day-Ahead Market, the Intra-Day Market and the Balancing Market;
 - d) the submission of Buy Orders by RES Producers for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for Physical Delivery Position Correction

and/or energy withdrawal for the Auxiliary Loads of the RES Units included in the Dispatchable and Non-Dispatchable RES Portfolio;

- e) the submission of Sell Orders by RES Aggregators for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for energy injection up to the sum of the Registered Capacities of the RES Units included in the Dispatchable and Non-Dispatchable RES Portfolio, which is not allocated via accepted Sell Orders or Priority Price-Taking Sell Orders in the Day-Ahead Market, the Intra-Day Market and the Balancing Market;
- f) the submission of Buy Orders by RES Aggregators for each Dispatchable and Non-Dispatchable RES Portfolio registered in their Participant Account for Physical Delivery Position Correction of the Dispatchable and Non-Dispatchable RES Portfolio and/or energy withdrawal for the Auxiliary Loads of the RES Units included in the Dispatchable and Non-Dispatchable RES Portfolio;
- g) the submission of Buy Orders by Suppliers and Self-Supplying Consumers, acting as Load Representatives for each Load Portfolio as well as Producers for each Pumping Unit in pumping operation, registered in their Participant Account, for energy withdrawal which is not allocated via accepted Buy Orders or Priority Price-Taking Buy Orders in the Day-Ahead Market, the Intra-Day Market and the Balancing Market;
- h) the submission of Sell Orders by Suppliers and Self-Supplying Consumers, acting as Load Representatives for each Load Portfolio as well as Producers for each Pumping Unit in pumping operation, registered in their Participant Account, for Physical Offtake Position Correction;
- i) the submission of Sell Orders by Traders, Suppliers and Self-Supplying Consumers which have acquired Intra-Day Physical Transmission Rights in non-coupled Interconnections for energy injection from Imports;
- j) the submission of Buy Orders by Traders, Producers, Suppliers, RES Producers and RES Aggregators which have acquired Intra-Day Physical Transmission Rights in non-coupled Interconnections for energy withdrawal for Exports;
- k) the submission of Sell or Buy Orders by the HTSO for the deviations in the forecasted Transmission System Losses;
- l) the submission of Sell or Buy Orders by the Last Resort RES Aggregator for the deviations in the forecasted production of each Dispatchable and Non-Dispatchable RES Portfolio;
- m) the submission of Sell or Buy Orders by the RES & GO Operator, for the deviations in the forecasted production of each RES FIT Portfolio, for the rooftop Photovoltaics.

5.2.4 Reference point of Buy Orders and Sell Orders

1. The energy quantities included in Sell Orders and correspond to an injection, are submitted at the Metering Point or the Interconnection node for import into the Transmission System.
2. The energy quantities included in Buy Orders and correspond to a withdrawal, are submitted open at the Transmission System – Distribution Network Boundary or the Interconnection node for export from the Transmission System. The Participants convert the energy quantities to the Transmission System - Distribution Network Limit, in accordance with the applicable network loss factors, which are determined on an annual basis by RAE decision.

5.3 Products

1. Products that may be admitted to trading in the Intra-Day Market, in accordance with Chapter 2 (Section 2.5), for each Market Time Unit of Delivery Day D are types of commercial contracts of

electricity with Physical Delivery (injection or offtake) within the Bidding Zones of the HTSO. Intra-Day Market Physical Delivery obligation is fulfilled by updating the Physical Delivery/Offtake Nomination with the executed trades in the HTSO.

2. The LIDA and CRIDA Market Time Unit is equal to one (1) hour.
3. The Continuous Intra-Day Trading Market Time Unit is equal to thirty (30) minutes.
4. The Delivery Day D comprises twenty-four (24) Market Time Units in LIDAs and CRIDAs and forty-eight (48) Market Time Units in Continuous Intra-Day Trading.
5. The Delivery Day D comprises twenty-four (23) Market Time Units in LIDAs and CRIDAs and forty-six (46) Market Time Units in Continuous Intra-Day Trading.
6. On the long-clock change day in October (end of summer saving time), there will be twenty-five (25) Market Time Units in LIDAs and CRIDAs and fifty (50) Market Time Units in the Continuous Intra-Day Trading.
7. The Local Intra-Day Auctions support the following Wholesale Energy Product:
Hourly Product: An IDM Wholesale Energy Product that supports Trades for which the duration of the Market Time Unit of Delivery Day D is set at one (1) hour, distinct for each Market Time Unit of Delivery Day D.
8. The Price Coupling Algorithm in CRIDAs supports the following products:
 - a) Hourly Product: An IDM Wholesale Energy Product that supports Trades for which the duration of the Market Time Unit of Delivery Day D is set at one (1) hour, distinct for each Market Time Unit of Delivery Day D.
 - b) Block: An IDM Wholesale Energy Product that supports Trades on multiple Market Time Units. They can be distinguished in:
 - i. Predefined Blocks: The ETSS automatically generates the relevant electricity contracts with Physical Delivery and makes them available for trading one day before the Delivery Day D;
 - ii. User Defined Blocks: The ETSS, one day before the Delivery Day, activates the Participants' ability to choose the Market Time Units on which the trade will be set, then establishing the relevant electricity contract with Physical Delivery.
9. The Continuous Trading Matching Algorithm supports the following products or a combination thereof:
 - a) Half-hourly: IDM Wholesale Energy Product that supports Trades for which the duration of the Market Time Unit of Delivery Day D is set at thirty (30) minutes, distinct for each Market Time Unit of Delivery Day. The ETSS automatically generates the relevant electricity contracts with Physical Delivery and makes them available for trading one day before the Delivery Day D.
 - b) Hourly Product: IDM Wholesale Energy Product that supports Trades on hourly electricity contracts with Physical Delivery. The ETSS automatically generates the relevant electricity contracts with Physical Delivery and makes them available for trading one day before the Delivery Day D.
 - c) User-defined Blocks: IDM Wholesale Energy Products that supports Trades on hourly or half-hourly electricity contracts with Physical Delivery. It refers to a combination of Market Time Units specified by the Participant, which must be consecutive and at least two.

5.4 Order Types in Intra-Day Auctions

5.4.1 Types of Orders in Local Intra-Day Auctions (LIDAs)

1. The types of Orders that may be submitted by Participants in LIDAs are as follows:

Hourly Hybrid Orders: Hourly Hybrid Orders are composed of step segments and/or linear

interpolation segments, separately for each Market Time Unit of Delivery Day. The curve is increasing for Hourly Hybrid Sell Orders and decreasing for Hourly Hybrid Buy Orders. The price of the first point of the first segment of the Hourly Hybrid Sell Order curve is equal to the Minimum Orders Price of the Intra-Day Auction, while the price of the second point of the last segment of the Hourly Hybrid Sell Orders curve is equal to the Maximum Orders Price of the Intra-Day Auction. Accordingly, the price of the first point of the first segment of the Hourly Hybrid Buy Order curve is equal to the Maximum Orders Price of the Intra-Day Auction, while the price of the second point of the last segment of the Hourly Hybrid Buy Orders curve is equal to the Minimum Orders Price of the Intra-Day Auction.

2. The admission of new types of Orders in LIDAs and the suspension/deletion of existing types of Orders is subject to the procedure described in Section 2.5 of the Rulebook.

5.4.2 Types of Orders in Complementary Regional Intra-Day Auctions (CRIDAs)

1. The types of Orders that may be submitted by Participants in CRIDAs are as follows:
 - a) Hourly Hybrid Orders: As defined in the preceding section and for the respectively defined Maximum and Minimum Prices of CRIDAs.
 - b) Block Orders: A Block Order consists of the following: of a fixed price limit (minimum price for Sell Block Orders and maximum price for Buy Block Orders), a Minimum Acceptance Ratio and an energy quantity for a number of Market Time Units within the Delivery Day. The energy quantity may vary in different Market Time Units. Block Orders cannot be accepted for a volume less than their Minimum Acceptance Ratio. The Minimum Acceptance Ratio is the same for all Market Time Units belonging to the Block Order.
2. The admission of new types of Orders in CRIDAs and the suspension/deletion of existing types of Orders is subject to the procedure described in Section 2.5 of the Rulebook.

5.5 Types of Orders in the Continuous Intra-Day Trading

1. The Continuous Trading Matching Algorithm supports the following types of orders:
 - a) Regular Orders: Buy or Sell Orders with a specified quantity and price, where Buy Orders can be executed at the specified price or lower and Sell Orders can be executed at specified price or higher. Regular Orders may be executed partially (partial quantity) or fully (full quantity). Regular Orders for the predefined market can be submitted with the execution restrictions None (NON), Fill-or-Kill (FOK) or Immediate-or-Cancel (IOC), as referred in paragraph 2 of this Section. Regular Orders for user-defined contracts always have the “All or Nothing” (AON) execution specification. All Regular Orders can be submitted with the validity restrictions “Good for Session” (GFS) and “Good Till Date” (GTD).
 - b) Linked Orders: In case a Linked Order is submitted, either all Orders may be fully executed or no Orders will be executed. A group of Orders can only be submitted with this submission restriction if it contains Orders only with the execution restriction Fill or Kill (FOK) and if all Orders are submitted for the same Energy Exchange or Market Operator.
 - c) Iceberg Orders: They are Regular Orders which are only visible with part of their total quantity in the market, while their full quantity is exposed to the market for matching. Part of the hidden quantity shall be disclosed for trading as soon as the part that had already been disclosed has been executed.

Iceberg Orders include an executable volume of the product that is only partially visible to the market, leaving a quantity divided into smaller parts hidden. The total volume of the Order is divided into smaller parts, with only one part being displayed in the Order Book. Both the displayed (visible) and non-displayed (hidden) parts of the Order are available for potential execution against incoming Orders. The displayed part is automatically refreshed from a non-displayed part, once the displayed part is fully executed. Refreshing the displayed part is regarded as a new Order in terms of “time priority”.

The Iceberg Order prices of the hidden part can differ from the respective price of the visible part. Iceberg Orders can be entered with a peak price delta. Each new slice will then be entered with a new limit price which is reduced by the peak price delta for Buy Orders and increased by the peak price delta for Sell Orders.

2. The Continuous Trading Matching Algorithm supports the following execution specifications:
 - a) None - NON: An Order submitted with the execution restriction NON is either executed immediately or, if the Order can not be matched right away, is entered into the Order Book. Partial Order executions are allowed and NON Orders can be executed against multiple other Orders and create multiple trades.
 - b) Fill-Or-Kill - FOK: The Order is either fully traded at one point immediately after the Order is submitted with its full quantity or deleted without entry in the Order Book. FOK Orders can be matched against multiple existing Orders in the Order Book. FOK Orders cannot have a validity restriction.
 - c) Immediate-Or-Cancel - IOC: The Order is either traded (in any amount) at one point immediately after the Order is submitted or, if the Order can't be matched, deleted without entry in the Order Book. Partial executions are allowed and IOC Orders can be executed against multiple other Orders and create multiple trades. An Order with execution restriction IOC cannot have a validity restriction.
 - d) All-Or-None - AON: An Order submitted with the execution restriction AON is either executed against exactly one other Order with its full quantity or entered into the Order Book. Partial executions are not allowed. The execution restriction AON is only allowed for Orders in the user-defined market.
3. The Continuous Trading Matching Algorithm supports the following order validity restrictions:
 - a) Good for session - GFS: The time validity of the Order is determined by the validity of the corresponding trading session of the Order. The Order is pulled out of the trading automatically the defined time validity of the corresponding trading session passes.
 - b) Good till date - GTD: The time validity of the Order is defined by date and time. The Order is pulled out of the trading automatically the defined time validity passes.

5.6 Content of Orders

5.6.1 Order Content in Local Intra-Day Auctions and Complementary Regional Intra-Day Auctions

1. The minimum content of an Order submitted by the Participant to the ETSS is as follows:
 - a) Participant EIC Code;
 - b) Participant ACER Participant Code;
 - c) EIC Entity Code, or other unique identification, for which the Order is submitted;
 - d) EIC Bidding Zone Code;
 - e) Order Type;
 - f) Buy Order or Sell Order;

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- g) Energy quantity and price for each Hourly Hybrid Order segment or for each Block Order;
 - h) Market Time Unit(s) for which it is submitted, and
 - i) Any additional information, where required, as defined by the ETSS functionality requirements.
2. For Buy Orders submitted by Load Representatives for each Load Portfolio and for Exports, the relevant Voltage Level is indicated.
 3. Order prices are submitted in EUR/MWh with two (2) decimal places. Order quantities are submitted in MWh with three (3) decimal places.
 4. Each Hourly Hybrid Order may include up to (50) segments for each Market Time Unit.

5.6.2 Order Content in the Continuous Intra-Day Trading

1. The minimum contents of an Order submitted to the ETSS by a Participant for the Continuous Intra-Day Trading is the following:
 - a) Participant EIC Code;
 - b) Participant ACER Participant Code;
 - c) EIC Entity Code, or other unique feature, for which the Order is submitted;
 - d) EIC Bidding Zone Code;
 - e) Applicable contract code, which determines the specific tradable contract within the Delivery Day D: Hourly Product, Half-hourly Product or Block;
 - f) Order Type;
 - g) Sell Order or Buy Order;
 - h) Quantity and price of energy;
 - i) Market Time Unit(s) for which it is submitted;
 - j) Order's execution specification;
 - k) Order's validity specification, and
 - l) Any additional information, where required, as defined by the ETSS functionality requirements.
2. For Buy Orders submitted by Load Representatives for each Load Portfolio and for Exports, the relevant Voltage Level is indicated.
3. Order prices are submitted in EUR/MWh with two (2) decimal places. Order quantities are submitted in MWh with two (3) decimal places.

5.7 Market Pre-coupling Operations

5.7.1 Interface of the Day-Ahead Market with the Intra-Day Market

The information that should be transferred from the Day-Ahead Market to the Intra-Day Market through the ETSS are set forth in Chapter 4 of the Rulebook.

5.7.2 Information transfer

5.7.2.1 Information Transfer from the Hellenic Transmission System Operator to HEnEx

1. The HTSO provides the following information to HEnEx for the Intra-Day Market for Delivery Day D:
 - a) the changes to the information entered into the Balancing Market Registry for each Participant and for each Delivery Day D, no later than thirty (30) minutes before the First LIDA or the First CRIDA Validation Gate Opening Time on Day D-1;

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- b) the changes to the information entered into each Participant Account defining the Participant Portfolio including information from the Generating Unit Registry for each Generating Unit, for Delivery Day D, no later than thirty (30) minutes before the first LIDA or the First CRIDA Validation Gate Opening Time on Day D-1;
 - c) the results of the Intra-Day Auction for the allocation of Physical Transmission Rights per Interconnection and direction at the non-coupled Interconnections for each Market Time Unit of Delivery Day D, until fifteen (15) minutes after the publication to the Participants;
 - d) the changes to the Available Capacity of each Generating Unit and each Dispatchable RES Portfolio, as submitted under the Balancing Market Code, for each Market Time Unit of the Delivery Day D, and taking into account the acceptance of the Total or Partial Non-Availability Declaration of the Participant for these Units;
 - e) the Technical Minimum, as well as the Technical Minimum and Technical Maximum under Automatic Generation Control of the Balancing Service Providers, taking into account the availability of the Generating Units;
 - f) the awarded upward and downward Balancing Power for Frequency Containment Reserve, automatic Frequency Restoration Reserve and manual Frequency Restoration Reserve of each Balancing Service Provider at each execution of the Integrated Scheduling Process (ISP), until the notification of the ISP results to the Participants for each Market Time Unit of Delivery Day D, and
 - g) the binding schedule of the Balancing Services Entities at each ISP execution, until notification of the ISP results to Participants.
2. In the event that the above information (c) up to (g) are provided to HEnEx at a time period other than the Market Time Unit of the Intra-Day Market, HEnEx converts it at the level of Market Time Unit of the respective Intra-Day Market, in accordance with the relevant Technical Decision.

5.7.2.2 Information transfer from the RES & GO Operator to HEnEx

The RES & GO Operator provides to HEnEx, with respect to the operation of the Intra-Day Market for the Delivery Day D the information from the RES and High Efficiency CHP Units Registry for each RES Unit and High Efficiency CHP Unit and the Table of Matching RES and CHP Units and Market Participants no later than thirty (30) minutes before the First LIDA or the First CRIDA Validation Gate Opening Time on Day D-1. The information is provided only in case of change compared to the corresponding information in the Day-Ahead Market.

5.7.2.3 Information transfer by the Clearing House to HEnEx

1. The Clearing House provides to HEnEx, with respect to the operation of the Intra-Day Market, on a continuous basis the Credit Limits for each Participant.
2. In the event of failure to obtain the above information, the latest updated data submitted by the Clearing House in accordance with paragraph 1 shall be taken into account by HEnEx.

5.7.2.4 Information transfer from the Coordinated Capacity Calculator (CCC) to HEnEx

1. The relevant Coordinated Capacity Calculator sends to HEnEx the Allocation Constraints no later than:
 - a) fifteen (15) minutes before each CRIDA Gate Closure Time, or
 - b) fifteen (15) minutes before each Continuous Intra-Day Trading Gate Opening Time, in accordance with Article 58(1) of Regulation (EU) 2015/1222.
2. In case the relevant Coordinated Capacity Calculator is unable to provide the Cross Zonal Capacity and Allocation Constraints before the time limits of paragraph 1 of this subsection, the

Coordinated Capacity Calculator notifies HEnEx, in accordance with Article 58(3) of Regulation (EU) 2015/1222. HEnEx immediately publishes a notice for the Participants.

5.7.2.5 Submission of information from EXE to the MCO

1. Immediately after receiving the Allocation Constraints from the relevant Coordinated Capacity Calculator, HEnEx submits the received information to the CRIDA Operator.
2. During the Continuous Intra-Day Trading, immediately after receiving the Allocation Constraints from the relevant Coordinated Capacity Calculator, HEnEx submits the received information to the MCO.

5.7.3 Publications

5.7.3.1 Publications from HTSO

1. The HTSO publishes, for each Market Time Unit of Delivery Day D, in respect of the Intra-Day Market, the energy quantities of the Buy and Sell Orders per Entity, as described in the paragraph 5.2.3, at least one (1) hour before the relevant LIDA or CRIDA Gate Closure Time.

5.7.3.2 Publications from RES & GO Operator

1. The RES & GO Operator publishes, for each Market Time Unit of Delivery Day, for the Intra-Day Market, the energy quantities of the Buy and Sell Orders for each Dispatchable High Efficiency CHP Unit and for each represented RES Portfolio, as described in the paragraph 5.2.3, at least one (1) hour before the relevant LIDA or CRIDA Gate Closure Time.

5.7.3.3 Publications from RES & GO Operator

1. The Last Resort RES Aggregator submits to the ETSS of HEnEx for each Market Time Unit of Delivery Day, for the Intra-Day Market, the energy quantities of the Buy and Sell Orders for each represented RES Portfolio, as described in the paragraph 5.2.3, at least one (1) hour before the relevant LIDA or CRIDA Gate Closure Time.

5.8 Order Limits

5.8.1 Available Capacity of Generating Units and RES Units

1. The HTSO shall submit to ETSS, upon each change in the Available Capacity of the Generating Units and the Dispatchable RES Portfolios, particularly after acceptance of a Partial or Total Non-Availability Declaration, the Available Capacity of Generating Units and Dispatchable RES Portfolios for the respective Market Time Units.
2. The latest Available Capacity of Generating Units and Dispatchable RES Portfolios updated by the HTSO is used by HEnEx for the validation process of the Intra-Day Market Sell Orders, in accordance with the stipulations of Chapter (subsection 5.9.3) of the Rulebook.
3. Receipt of updated Available Capacity data from the HTSO as well as Submission of a Total or Partial Non-Availability Declaration, after the LIDA Gate Closure Time or the CRIDA Gate Closure Time for Delivery Day D, does not entitle the Producer or RES Producer to submit updated Intra-Day Market Orders.

5.8.2 Calculation of margins for imports and exports

1. In case of Intra-Day Auctions for the allocation of Physical Transmission Rights at the non-coupled Interconnections, the respective auction results are sent by the HTSO to HEnEx no later than five (5) minutes before each LIDA Gate Closure Time, CRIDA Gate Closure Time or Continuous Intra-Day Trading Gate Closure Time. HEnEx calculates the margins, namely the maximum energy quantities to be offered for imports and exports in the non-coupled Interconnections, as follows:

$$\text{Margin}_{p,i,h} = \text{IntraDayPTRs}_{p,i,h}, \forall p,j,h$$

where:

p : index of Participant

j : index of the non-coupled interconnections

h : index of Market Time Unit

$\text{IntraDayPTRs}_{p,j,h}$: Intra-Day PTRs allocated through auctions to Participant with explicit capacity allocation for the Interconnection i for Market Time Unit h , in MW. The value of this parameter is equal to zero for all coupled Interconnections.

2. The margins calculated by HEnEx, according to paragraph 1 of this subsection, are used for the validation of the energy quantities of the Buy/Sell Orders submitted by Participants for imports/exports in the non-coupled Interconnections.

5.9 Validation of Orders

1. Validation procedures performed by the ETSS of HEnEx in accordance with the Articles in this Section are used to validate the energy quantities of the Orders submitted by Participants for Generating Units and for Dispatchable and Non-Dispatchable RES Units Portfolio
2. Upon submission of an Order in the Intra-Day Market for a Generating Unit or a Dispatchable and Non-Dispatchable RES Units Portfolio, the following validation checks of subsections 5.9.1 and 5.9.2. are performed by the ETSS:

5.9.1 Validation of Orders against Available Capacity

1. The following validation checks are performed in each Intra-Day session on the energy quantity of the submitted Order, against Available Capacity:
 - a) Sell Orders in LIDA: Upon submission of Intra-Day Market Orders to the ETSS for each LIDA, and during the validation process of a Sell Order corresponding to a Generating Unit or a Dispatchable and Non-Dispatchable RES Units Portfolio: in case that, for a certain Market Time Unit, the net energy quantity sold in the Day-Ahead Market plus the net energy quantity (if any) already traded in a previous LIDA plus the Intra-Day Market Sell Order quantity is higher than the Available Capacity of the said Generating Unit or the Dispatchable and Non-Dispatchable RES Units Portfolio, then the Sell Order is not accepted in the Local Order Book.
 - b) Buy Orders in LIDA: Upon submission of Intra-Day Market Orders to the ETSS for each LIDA, and during the validation process of a Buy Order corresponding to a Generating Unit or a Dispatchable RES Units Portfolio: in case that, for a certain Market Time Unit, the net energy quantity sold in the Day-Ahead Market plus the net energy quantity (if any) already

traded in a previous LIDA minus the Buy Order quantity is lower than zero, then the said Buy Order is not accepted in the Local Order Book.

- c) Sell Orders in CRIDA: Upon submission of Intra-Day Market Orders to the ETSS for each CRIDA, and during the validation process of a Sell Order corresponding to a Generating Unit or a Dispatchable RES Unit Portfolio, in case that, for a certain Market Time Unit the sum of:

- i. the net energy quantity sold in the Day-Ahead Market;
- ii. plus the net energy quantity (if any) already traded in a previous LIDA or CRIDA;
- iii. plus the said Intra-Day Market Sell Order quantity

is higher than the Available Capacity of the said Generating Unit or Dispatchable RES Unit Portfolio, then the Sell Order is not accepted in the Local Order Book.

- d) Buy Orders in CRIDA: Upon submission of Intra-Day Market Orders to the ETSS for each CRIDA, and during the validation process of a Buy Order corresponding to a Generating Unit or a Dispatchable RES Unit Portfolio, in case that, for a certain Market Time Unit the sum of:

- i. the net energy quantity sold in the Day-Ahead Market;
- ii. plus the net energy quantity (if any) already traded in a previous LIDA or CRIDA;
- iii. minus the said Intra-Day Market Buy Order quantity

is lower than zero, then the Buy Order is not accepted in the Local Order Book.

- e) Continuous Trading: Upon submission of an Order to the ETSS in the Continuous Trading, HEnEx validates the Orders corresponding to a Generating Unit or a Dispatchable RES Unit Portfolio, according to the methodology explained in cases (c) and (d) above in this paragraph taking additionally into account the quantity already traded in the same Continuous Trading session.

2. In all cases described in this paragraph, the respective Producer or RES Producer shall not be subject to a Non-Compliance Charge, since participation in the Intra-Day Market is voluntary.

5.9.2 Validation of Orders against technical constraints

1. Upon submission of an Order, the energy quantity is also validated by the ETSS against the technical constraints of the respective Generating Unit or Dispatchable RES Unit Portfolio, and the reserve already awarded and is bound by the provisions of the Balancing Market Rulebook in former Integrated Scheduling Process (ISP), if any. Specifically, the following validation checks are performed:

- a) For the quantity of the submitted Sell Order and for each Market Time Unit of the same, the sum resulting from:

- i) the net energy quantity sold in the Day-Ahead Market;
- ii) plus the already awarded upward Frequency Containment Reserve, the automatic Frequency Restoration Reserve and the manual Frequency Restoration Reserve;
- iii) plus any previous accepted Sell Order in the Intra-Day Market during the Continuous Intra-Day Trading and the previous LIDA or CRIDA;
- iv) minus any previous accepted Buy Order in the Intra-Day Market during the Continuous Intra-Day Trading and the previous LIDA or CRIDA;
- v) plus the Intra-Day Market Sell Order quantity

should be lower than or equal to the Available Capacity of the said Generating Unit or the Dispatchable RES Unit Portfolio or the Technical Maximum under Automatic Generation

Control, in the event that the Generating Unit or the Dispatchable RES Unit Portfolio has been awarded with Balancing Capacity for automatic Frequency Restoration Reserve.

b) For the quantity of the submitted Buy Order and for each Market Time Unit of the same, the sum resulting from:

- i) the net energy quantity sold in the Day-Ahead Market;
- ii) minus the already awarded downward Frequency Containment Reserve, the automatic Frequency Restoration Reserve and the manual Frequency Restoration Reserve;
- iii) plus any previous accepted Sell Order in the Intra-Day Market during the Continuous Intra-Day Trading and the previous LIDA or CRIDA;
- iv) minus any previous accepted Buy Order in the Intra-Day Market during the Continuous Intra-Day Trading and the previous LIDA or CRIDA;
- v) minus the Intra-Day Market Buy Order quantity

should be higher than or equal to the Technical Minimum of the said Generating Unit or the Dispatchable RES Unit Portfolio or the Technical Minimum under Automatic Generation Control, in the event that the Generating Unit or the Dispatchable RES Unit Portfolio has been awarded with binding Balancing Capacity for automatic Frequency Restoration Reserve, and has been selected by the program of integration of the Balance Service Entities according to the Integrated Scheduling Process.

2. In case the Order does not violate the above constraints, the Order is included in the Local Order Book. Otherwise, in case the above validation process fails, the Order is not accepted in the Local Order Book and the Producer is not subject to any sanction, given that the participation in the Intra-Day Market is optional.

5.9.3 Order Validation Procedure

1. Participants submit their Orders and cancel or modify these Orders from each Intra-Day Market Gate Opening Time until each respective Intra-Day Market Gate Closure Time, as defined in this Chapter (subsection 5.2.2). The finally validated Orders that have been duly submitted, subject to the provisions of this subsection, are considered for matching.
2. The ETSS rejects an Order submitted by a Participant when the price of the Order is outside the range defined by the Minimum IDM Order Price and the Maximum IDM Order Price.
3. The ETSS rejects an Order submitted by a Participant when the valuation of the Order is higher than the respective Credit Limit set for the Participant by the Clearing House, in accordance with the provisions of the Clearing Rulebook.
4. The ETSS rejects the Order submitted by a Participant in the following cases:
 - a) when the Sell Order quantity corresponding to energy injection for imports from a non-coupled Interconnection is higher than the respective margin, computed in accordance with paragraph 1 of subsection 5.8.2;
 - b) when the Buy Order quantity corresponding to energy offtake for exports to a non-coupled Interconnection is higher than the respective margin, computed in accordance with paragraph 1 of subsection 5.8.2;
 - c) when the Sell Order quantity corresponding to energy injection for imports on an Interconnection, submitted by a Self-Supplying Consumer, is higher than the respective Day-Ahead Market accepted Buy Orders quantity of its Load Portfolios;
 - d) when the Sell Order quantity corresponding to energy injection of a Dispatchable or Non-Dispatchable RES Portfolio violates the Registered Capacity of the Dispatchable or Non-Dispatchable RES Portfolio minus the respective Day-Ahead Market and Intra-Day Market accepted Sell Orders quantity;

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- e) when the Buy and Sell Orders submitted to a LIDA or CRIDA corresponding to an energy injection of a RES FiT Portfolio violate the Registered Capacity of the RES FiT Portfolio minus the quantity of the respective Orders that have already been accepted in the Day-Ahead Market and the Intra-Day Market;
 - f) when the Sell Order quantity corresponding to DAM Physical Offtake Position Correction for a Load Portfolio or a Pumping Unit in pumping operation, submitted by a Supplier or a Producer for the Auxiliary Load of a Generating Unit registered in the respective Participant Account, is higher than the respective Buy Market quantity that has been accepted in the Day-Ahead and the Intra-Day Market;
 - g) when the Buy Order quantity corresponding to DAM Physical Delivery Position Correction for a Generating Unit, RES Unit, Dispatchable or Non-Dispatchable RES Portfolio, submitted by the respective Participant, is greater than the respective DAM and IDM accepted Sell Orders quantity.
5. In case of an rejection of an Order, the ETSS shall send to the respective Participant a rejection notice, including a justification for such rejection.

5.10 Market Coupling Operations

5.10.1 Order Book

1. After the CRIDA Gate Closure Time, HEnEx processes and anonymizes the validated Orders in the Local Order Book, in order to submit them to the CRIDA Operator.
2. In Continuous Intra-Day Trading, HEnEx processes and anonymizes on a continuous basis the validated Orders in the Local Order Book, in order to submit them to the Shared Order Book of the Market Coupling Operator.

5.10.2 Auction Price – Algorithm

5.10.2.1 Local Intra-Day Auctions (LIDAs)

1. The matching process in LIDAs constitutes an optimization problem with the following structure:
 - a) The objective function is the maximization of the total social welfare, namely the maximization of the sum of the surpluses of all Participants (submitting Sell and Buy Orders in the Bidding Zones within Greece) plus the congestion rent.
 - i. The surplus of a Participant with an accepted Sell Order equals the difference of the LIDA Clearing Price of the respective Bidding Zone minus the Sell Order price, multiplied by the accepted energy quantity of the said Order.
 - ii. The surplus of a Participant with an accepted Buy Order equals the difference of the Buy Order price minus the LIDA Clearing Price of the respective Bidding Zone, multiplied by the energy quantity of the said Order.
 - iii. The congestion rent equals the LIDA Clearing Price difference between two neighbouring Bidding Zones connected through an Interconnection or a cross zonal corridor, multiplied by the exchanged energy quantity transferred from the Bidding Zone with the lower LIDA Clearing Price to the Bidding Zone with the higher LIDA Clearing Price.
 - b) The problem constraints include the energy balance equation for each Market Time Unit of Delivery Day D in each Bidding Zone within Greece (the sum of accepted Sell Order quantities equals the sum of accepted Buy Order quantities), along with the acceptance conditions of the Orders and any Cross Zonal Capacity Constraints among the Bidding

Zones within Greece, if any.

2. The LIDA problem constitutes a mixed-integer quadratic programming model, namely a model with continuous and binary variables, quadratic terms in the objective function and linear constraints.

5.10.2.2 Complementary Regional Intra-Day Auctions (CRIDAs)

1. The matching and coupling process in CRIDAs constitutes an optimization problem with the following structure:
 - a) The objective function is the maximization of the total social welfare of all markets included in the regional coupling, namely the maximization of the sum of the surpluses of all Participants (submitting Sell and Buy Orders) in the regional coupling plus the congestion rent.
 - i. The surplus of a Participant with an accepted Sell Order equals the difference of the CRIDA Clearing Price of the respective Bidding Zone minus the Sell Order price, multiplied by the accepted energy quantity of the said accepted Order.
 - ii. The surplus of a Participant with an accepted Buy Order equals the difference of the Buy Order price minus the CRIDA Clearing Price of the respective Bidding Zone, multiplied by the accepted energy quantity of the said accepted Order.
 - iii. The congestion rent equals the CRIDA Clearing Price difference between two neighbouring Bidding Zones connected through an Interconnection or a cross zonal corridor, multiplied by the exchanged energy quantity transferred from the Bidding Zone with the lower CRIDA Clearing Price to the Bidding Zone with the higher CRIDA Clearing Price.
 - b) The problem constraints include the energy balance equation for each Market Time Unit of Delivery Day in each Bidding Zone in the coupling region (the sum of accepted Sell Order quantities equals the sum of accepted Buy Order quantities), along with the acceptance conditions of the Orders and any Allocation Constraints among the Bidding Zones in the coupling region.
2. Since Block Orders are tradable in the CRIDAs, binary variables are included in the problem formulation for the handling of the Fill-or-Kill feature of Block Orders.
3. The CRIDAs Price Coupling Algorithm handles the Paradoxically Accepted Block Orders through an iterative process, at each iteration of which the intermediate solutions resulting in Paradoxically Accepted Block Orders are effectively excluded from the binary tree defining the solution space. In the final solution, there are no Paradoxically Accepted Block Orders.

5.10.3 Order acceptance rules in LIDAs and CRIDAs

1. The acceptance rules of an Hourly Hybrid Sell Order submitted at a Bidding Zone are the following:
 - a) A segment of the Sell Order shall be totally accepted if its price at the right end of the segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - b) A segment of the Sell Order shall be partially accepted if its price at the left end of the segment is lower than the Market Clearing Price and its price at the right end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - c) A segment of the Sell Order shall be partially accepted if its price at the left end of the segment is equal to its price at the right end of its segment and equal to the Market

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- Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
- d) A segment of the Sell Order shall not be accepted if its price at the left end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
2. The acceptance rules of an Hourly Hybrid Buy Order submitted at a Bidding Zone are the following:
- a) A segment of the Buy Order shall be totally accepted if its price at the right end of the segment is higher than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - b) A segment of the Buy Order shall be partially accepted if its price at the left end of the segment is higher than the Market Clearing Price and its price at the right end of the segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - c) A segment of the Buy Order shall be partially accepted if its price at the left end of the segment is equal to its price at the right end of its segment and equal to the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
 - d) A segment of the Buy Order shall not be accepted if its price at the left end of the buy segment is lower than the Market Clearing Price of the Bidding Zone for the specific Market Time Unit of the Delivery Day D.
3. The acceptance rules of a Sell Block Order in a CRIDA are the following:
- a) A Sell Block Order is be accepted in its entirety (Acceptance Ratio equal to 1) if the following conditions below are simultaneously valid:
 - i. its offer price is lower than the weighted average CRIDA Clearing Price for Market Time Units of the Delivery Day D included in the Sell Block Order (i.e. between the respective Starting Period and Ending Period), weighted by the respective accepted energy quantities of the Sell Block Order, and
 - ii. during the matching process, this Sell Block Order has not been identified as a Paradoxically Accepted Block Order.
 - b) A Sell Block Order is be partially accepted in part (Acceptance Ratio between its Minimum Acceptance Ratio and 1), if its offer price is exactly equal to the weighted average CRIDA Clearing Price for the Market Time Units of the Delivery Day D included in the Sell Block Order. The accepted Acceptance Ratio takes such value so that the weighted average CRIDA Clearing Price between the Starting Period and Ending Period is equal to the Sell Block Order price. In case it is partially accepted, a uniform loading factor is applied for the energy sold in all Market Time Units of Delivery Day D included in the Sell Block Order.
 - c) A Sell Block Order shall not be accepted (Acceptance Ratio equal to 0) if one of the following two cases applies:
 - i. if its offer price is lower than the weighted average CRIDA Clearing Price for the Market Time Units of Delivery Day D included in the Sell Block Order; or
 - ii. if its offer price is lower than the weighted average CRIDA Clearing Price for the Market Time Units of Delivery Day D included in the Sell Block Order, but during the matching process this Sell Block Order has been identified as a Paradoxically Rejected Block.

In all cases, the accepted energy quantity of a Sell Block Order for each Market Time Unit of Delivery Day D included in the Sell Block Order is be equal to the Acceptance Ratio multiplies by the offered energy quantity of the Sell Block Order.

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4. The acceptance rules of a Buy Block Order are similar to the respective acceptance rules of a Sell Block Order, with the difference that the Buy Block Order is cleared when its bid price is higher than the weighted average CRIDA Clearing Price for the Market Time Units of Delivery Day D included in the Buy Block Order, weighted by the respective accepted energy quantities of the Buy Block Order.
 5. In the event that more than one Sell and Buy Block Orders have been submitted for the same Market Time Units and at a price equal to the weighted average Market Clearing Price that has been weighted with the corresponding accepted energy quantities of the Sell and Buy Block Order for the said Market Time Units of the Physical Delivery Day D (Block Orders with same prices), the acceptance of Sell and Buy Block Orders is done by the Intra-Day Market solution algorithm based on the time these were entered in the ETSS.
 6. In the event that for a Market Time Unit more than one part of Hourly Hybrid Sell Order have a value at the left end, lower than or equal to the Market Clearing Price and at the right end, higher than or equal to the Market Clearing Price, the acceptance of Orders is applied according to the methodology specified by a relevant RAE Decision, following a HEnEx proposal.
 7. In the event that for a Market Time Unit more than one part of Hourly Hybrid Buy Order have a value at the left end, higher than or equal to the Market Clearing Price and at the right end, lower than or equal to the Market Clearing Price, the acceptance of Orders is applied according to the methodology specified by a relevant RAE Decision, following a HEnEx proposal.
 8. When applying acceptance rules for the Hybrid Sell and Buy Orders, the Market Clearing Prices are used with decimal accuracy, as results from the Intra-Day Market Matching Algorithm of LIDAs for the Local Intra-Day Auctions and the Matching Algorithm of the CRIDAs for the Complementary Regional Intra-Day Auctions.

5.10.4 Order Matching in Intra-Day Continuous Trading

1. The Intra-Day Market Coupling Operator Functions (Intra-Day MCO Functions) comprise developing and maintaining the algorithms, systems and procedures for single Intra-Day coupling, processing input data on Allocation Constraints provided by Coordinated Capacity Calculators, operating the Price Coupling and Continuous Trading Algorithms and validating and notifying the single Intra-Day coupling results to the NEMOs. The Intra-Day MCO Functions are executed on European level and are based on the already agreed Intra-Day Solution.
2. The single Intra-Day coupling is based on a continuous matching process of Sell Orders and Buy Orders. The Orders with the highest buying price and the lowest selling price get served first, assuming that the Cross Zonal Capacity constraints apply in case the Orders are submitted in separate Bidding Zones. In addition, the price limit of the Sell Order must be equal to or less than that of the Buy Order, i.e. there is an intersection of the two Order execution ranges.
3. The already agreed Intra-Day Solution includes a Shared Order Book Module and a Capacity Management Module. The Shared Order Book module manages Order entry, Order management and Order matching. The Capacity Management Module manages the transmission capacity allocation and management process.
4. The Orders are entered by the Participants in the ETSS of HEnEx. All validated Orders entered timely in the ETSS are automatically entered into the SOB of the already agreed Intra-Day Solution. Participants are not entitled of direct access to the Single Order Book.
5. An Order is generally valid from the time of its registration in the ETSS until it is matched, cancelled, modified, or has expired pursuant to its individual execution specifications.
6. Matching of contracts is performed in the SOB Module. The SOB Module maintains one consolidated Order Book for all contracts based on Allocation Constraints between Bidding

Zones. All input data regarding Sell/Buy Orders coming from the ETSS of HEnEx are published in the SOB in a fully anonymized manner to ensure both that:

- a) competing NEMOs do not know which Participants connected to another NEMO's Local Trading System are placing the individual Orders, and
 - b) in general, the confidentiality of individual Participants' Orders is protected.
7. The Capacity Management Module collects the Cross Zonal Capacity which is available at any instant for intra-day trading with implicit capacity allocation, and ensures that the concluded intra-day trades respect such capacities, by providing each time the current capacity availability information to the SOB. When cross-border trades are performed, the required cross border capacity is implicitly allocated to the Capacity Management Module. Cross Zonal Capacities and Order Books are simultaneously updated in the Capacity Management Module and the Shared Order Book, respectively, on a continuous basis based on latest matching of Orders and submission, modification and deletion of Orders, as well as updated capacity data by the Transmission System Operator or the Coordinated Capacity Calculators.
8. The SOB applies deterministic matching procedures. Contracts are executed in the SOB on the price-time-priority principle:
- a) Price: The Orders are executed at the best price. The best Buy Order is executed against the best Sell Order first. The best price for Buy Orders is the highest price, for Sell Orders it is the lowest price.
 - b) Time: When an Order is entered into the SOB, it receives a timestamp. This timestamp is used to prioritize Orders with the same price. Orders with earlier timestamp at the same price are executed with a higher priority than Orders with a later timestamp.
9. Where a cross zonal trade is identified in the SOB, a request for the associated Cross Zonal Capacity is made to the Capacity Management Module. Requests for implicit capacity are queued and treated in time sequence, taking into account the Allocation Constraints. If the necessary Cross Zonal Capacity is not available, the cross zonal trade is not matched.
10. The Continuous Trading Matching Algorithm supports two different matching processes: Regular Matching and Batch Matching. Regular Matching is triggered by the entry of an Order with a new timestamp. Batch Matching is triggered by the increase in the cross-border capacity.
11. Regular Matching is triggered by the entry of an Order with a new timestamp. An Order with a new timestamp may be a new Order, a modified Order, a (re)activated Order that was inactive before, or a new slice of an Iceberg Order. The following rules apply in Regular Matching:
- a) Price determination: When two Orders are matched in a Regular Matching, one of these Orders must be an Order with a new timestamp and the other one must be an Order already present in the Shared Order Book. The price at which two Orders are matched becomes the price of the trade that is concluded. Two Orders are matched at the limit price of the Order that was already in the Shared Order Book. If a Buy Order with a new timestamp is matched against an existing Sell Order, the limit price of the Sell Order becomes the trade execution price. If a Sell Order with a new timestamp is matched against an existing Buy Order, the limit price of the Buy Order becomes the trade execution price.
 - b) Iceberg Orders in Regular Matching:: In a matching process where a single Order with a new timestamp is matched against more than one slice of an Iceberg Order already in the Shared Order Book, the price is always determined by the Iceberg Order already in the Shared Order Book and never by the Order with the new timestamp, even if the timestamp of the Iceberg Order is renewed during the matching process.
 - c) Matching against multiple Orders: If an Order with a new timestamp can be executed, it is

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- not necessarily executed at a single price (except from Orders with the execution restriction AON), but may sequentially generate multiple transactions at different prices against multiple different Orders that already existed in the Shared Order Book. As soon as the Order has been executed against all Orders at a certain price limit, the next best price level becomes best and the Order continues to be matched against Orders entered at this level price. This process continues as long as the incoming Order remains executable and has a positive Order quantity. Subsequently, the Order is deleted if the Order quantity has reached zero or if it has the IOC execution restriction. In all other cases, the Order is entered into the Shared Order Book with its remaining quantity.
- d) Unmatchable orders: If an Order with a new timestamp cannot be executed against any existing Order, it is entered into the Shared Order Book, unless it has the execution restriction IOC or FOK. If it has the execution restriction IOC or FOK, it is deleted.
12. Batch Matching is triggered by an increase of the cross-border capacity. An increase of cross-border capacity can lead to a crossed Order Book. This means that sets of Orders that were not matchable before due to insufficient cross-border capacity become matchable. For User-Defined Block Orders, which cannot be partially matched (because they have the AON execution restriction), this condition can happen by any capacity increase. For Orders that do allow for partial matching, this condition can only occur if an original zero value is increased (any non-zero value would already have been used up by partial matching.) In such cases, the Batch Matching is used. The Regular Matching of Orders is suspended for the duration of the Batch Matching. The following rules apply in Batch Matching:
- a) Price determination: All pairs that were matched in the same Batch Matching round get the same trade price. This trade price is the arithmetic mean of the price limits of the last pair matched in that round.
- b) Iceberg Orders in Batch Matching: In Batch Matching, Iceberg Orders with a peak price delta of zero participate with their total remaining quantity. Iceberg Orders with a non-zero peak price delta participate with each slice individually. After the first slice is executed completely the next slice with a new price limit and timestamp will participate until either all slices are fully executed or no further execution is possible anymore.
- c) Contract sequence in Batch Matching: A capacity increase may enable the immediate matching of Orders for multiple contracts and for different Market Time Units. All Orders in the affected Order Books will participate in the Batch Matching. The Batch Matching is performed per contract, as long as capacity is available.
13. Orders are executed in full or partially, in one or more steps according to their execution specifications.
14. When an Order is matched in a trade, its quantity is reduced by the trade quantity. Orders with the execution restriction FOK or AON can only be matched with their full quantity. Orders with the execution restriction NON or IOC can also be matched partially.
15. Amendments to registered Orders which affect the Order price or which increase the Order quantity, are considered as a new Order (the original Order is cancelled), with the consequence that the new Order will be given a new chronological rank in the Shared Order Book.
16. Amendments to a registered Order with respect to a decrease in quantity are considered as adjustment of the registered Order and do not affect ranking.
17. Opposite Orders of the same Participant for the same entity are be matched.
18. There shall be no discrimination between the matching of single-time-unit Orders and the matching of multiple-time-unit (i.e. Block) Orders. These requests are all treated on a first-come-first served basis.
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5.11 Results

5.11.1 Local Intra-Day Auctions (LIDAs)

1. The results of a LIDA comprise:
 - a) the acceptance status of each Order;
 - b) a single Net Position for each Bidding Zone and Market Time Unit, and
 - c) the Local Intra-Day Auction Clearing Price per Bidding Zone and per Market Time Unit.
2. In the LIDA Results, the Market Clearing Prices are given with the accuracy of three (3) decimal places and the accepted quantities of the Buy and Sell Orders with the accuracy of three (3) decimal places for each Market Time Unit of the Physical Delivery Day D.

5.11.2 Complementary Regional Intra-Day Auctions (CRIDAs)

1. The results of a CRIDA comprise:
 - a) the acceptance status of each Order;
 - b) a single Net Position for each Bidding Zone and Market Time Unit, and
 - c) the Complementary Regional Intra-Day Auction Clearing Price per Bidding Zone and per Market Time Unit.
2. In the CRIDA Results, the Market Clearing Prices are given with the accuracy of three (3) decimal places and the accepted quantities of the Buy and Sell Orders with the accuracy of three (3) decimal places for each Market Time Unit of the Physical Delivery Day D.

5.11.3 Continuous Intra-Day Trading

The already agreed Intra-Day Solution immediately returns to the ETSS of HEnEx the information on the matched Orders, as to the matching quantity and the trading price.

5.12 Post-Coupling Operations

5.12.1 Actions of HEnEx concerning Intra Day Market Results

5.12.1.1 Local Intra-Day Auctions and Complementary Local Intra-Day Auctions

1. HEnEx sends to Participants the results of the LIDA no later than thirty (30) minutes after LIDA Gate Closure Time and publishes these results on its website in accordance with the cases 2 and 3 of the subsection 5.11.1 of the Rulebook.
2. The CRIDA Operator delivers the IDM Coupling Results to HEnEx and the HTSO no later than fifteen (15) minutes after the CRIDA Gate Closure Time, in accordance with the provisions of the Rulebook. The time limit depends on the contractual arrangement with the neighbouring markets.
3. No later than thirty (30) minutes after the CRIDA Gate Closure Time, HEnEx sends to the Participants the results of the CRIDA and publishes these results on its website.
4. No later than fifteen (15) minutes after the publication of the results of an Intra-Day Auction, HEnEx sends the results of the Auction to the Clearing House.

5.12.1.2 Continuous Intra-Day Trading

No later than five (5) minutes after the Continuous Intra-Day Trading Gate Closure Time, HEnEx sends the matched Orders to the Clearing House.

5.12.2 Interface of the Intra-Day Market with the Balancing Market

1. The information that should be transferred from the Intra-Day Market to the Balancing Market through ETSS for each Market Time Unit of each Delivery Day D is the following:
 - a) The scheduled imports and exports (including the Scheduled Energy Exchanges of the Intra-Day Market Coupling for the coupled borders) on each Interconnection to the Transmission System Operators, in order to calculate any Cross Zonal Capacity after the Intra-Day Market solution. This Cross-Zonal Capacity may be used for cross-border balancing processes, according to the provisions of the Balancing Market Code.
 - b) The final Market Schedules of each one of the following entities for each Market Time Unit of the Delivery Day:
 - i. Generating Units and Generating Units in Commissioning or Testing Operation;
 - ii. Dispatchable and Non-Dispatchable RES Portfolios;
 - iii. Load Portfolios;
 - iv. Pumping Units in pumping operation, and
 - v. RES FiT Portfolios, as well as rooftop Photovoltaics.

These Market Schedules include the algebraic sum of the Day-Ahead Market and Intra-Day Market accepted Order quantities for each Entity.

2. The ETSS shall pass the quantities of the accepted Sell and Buy Orders as Physical Delivery Nominations and Physical Offtake Nominations of the respective Entities and Portfolios.

5.13 Clearing of Trades

1. The Intra -Day Market clearing is performed by the Clearing House in accordance with the Clearing Rulebook. After notifying the Intra-Day Market Results to Participants, HEnEx sends the Intra-Day Market Results via the ETSS to the Clearing House in order the latter to calculate the Credits and Debits of Participants resulting from their participation in the Intra-Day Market.
 - a) For the Intra-Day Auctions, the information submitted is as follows:
 - i. The Market Clearing Price per Bidding Zone and per Market Time Unit;
 - ii. The accepted energy quantity of the Sell Order of each Participant in each Market Time Unit, and
 - iii. The accepted energy quantity of the Buy Order of each Participant in each Market Time Unit, and
 - b) For the Continuous Intra-Day Trading the information transmitted for each trade is as follows:
 - i. the Price of the Trade, and
 - ii. the Quantity of the Trade.

5.14 Intra-Day Market Fallback Procedure

1. In the event that a LIDA or a CRIDA is delayed, and where such delay does not significantly affect the Balancing Market procedures executed after the LIDA or CRIDA for the specific Market Time Units covered by such auction, the LIDA or the CRIDA shall be normally carried out with a short

delay. In this case, HEnEx informs in due time the Participants of the delay and justify the reasons thereof.

2. In the event that a LIDA or a CRIDA is delayed for a long period of time and for any reason, in a way affecting the Balancing Market procedures executed after the LIDA or the CRIDA for the Market Time Units concerned by such auction, the LIDA or the CRIDA is cancelled.
3. In case a LIDA cannot be executed for given Market Time Units, the corresponding intra-day Cross-Zonal Capacity will be allocated in the next LIDA or CRIDA or the Continuous Intra-Day Trading.
4. In case a CRIDA cannot be executed for given Market Time Units, the corresponding intra-day Cross-Zonal Capacity will be allocated in the Continuous Intra-Day Trading.
5. If the Continuous Intra-Day Trading cannot be executed for given Market Time Units, the Continuous Intra-Day Trading is cancelled. No fallback procedure is defined for Continuous Intra-Day Trading.
6. It should be noted that in case of a general suspension of trading, all Orders submitted in the ETSS shall be automatically inactivated. When returning to normal operations, Participants shall have to re-activate all Orders from their inactive state.

5.15 Reporting Requirements

1. The reporting requirements referred to in this Section are complimentary to other reporting requirements set out elsewhere in the Rulebook and the European regulatory framework, in particular HEnEx's obligation to make information available on its website.
2. HEnEx publishes at least the following market information per Market Time Unit or each Delivery Day D until each LIDA Validation Gate Opening Time or CRIDA Validation Gate Opening Time, subject to appropriate confidentiality issues, and maintains an archive of this information for five (5) years, accessible to all Participants and other interested parties:
 - a) the Market Schedules per Market Time Unit of each previous LIDA or CRIDA per Unit technology Portfolio and per Interconnection and direction for energy injections, and per Bidding Zone for energy withdrawal;
 - b) the List of the suspended Participants, and
 - c) any other information that may be designated a RAE Decision upon HEnEx's recommendation.
3. HEnEx publishes by 14:00 CET (15:00 EET) of day D+1 at least the following information per Market Time Unit of each Delivery Day D, subject to appropriate confidentiality issues, and maintains an archive of this information for five (5) years, accessible to all Participants and other interested parties:
 - a) the aggregated and anonymized Sell and Buy Curves included in the Order Book for LIDAs or CRIDAs;
 - b) statistics on the total number of submitted and accepted Block Orders in CRIDAs, along with the sum of offered and accepted energy quantities in Block Orders in CRIDAs;
 - c) the LIDA Clearing Prices and the CRIDA Clearing Prices per Bidding Zone;
 - d) statistics on the total number of submitted and accepted Orders per Order type in the Continuous Trading process, along with the sum of offered and accepted energy quantities of Orders per Order type;
 - e) the final Market Schedules of all Entities per technology portfolio, per Interconnection and direction for energy injections, per Bidding Zone for energy withdrawals for each Market Time Unit, and

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- f) any other information that may be designated a RAE Decision upon HEnEx's recommendation.
4. This information is made available at least in Greek and in editable format.
 5. HEnEx prepares and publishes on its website monthly reports with at least the above figures aggregated on a monthly basis.
 6. The above information shall be transmitted to RAE in a named manner under the authorizations of Law 4001/2011 upon request.
 7. Additional information and technical details regarding the data provided by HEnEx may be specified by a Decision of HEnEx which is published on its website.

Chapter 6. Physical Settlement of Energy Financial Instruments and other wholesale energy products with the obligation of physical delivery

6.1 General arrangement

HEnEx shall submit Buy and Sell Orders on behalf of the Participants in the Day-Ahead Market for the Physical Delivery and Physical Offtake Nominations that correspond to trades on Energy Financial Instruments executed within the Energy Derivatives Market or bilaterally outside the Energy Derivatives Market, as well as for trades associated with other wholesale energy products of the Regulation (EU) 1227/2011, and for which there is a Physical Delivery potentiality or obligation. Based on the above submitted Orders, the Physical Settlement of energy quantities is performed in accordance with the procedures described in this Chapter.

6.2 Information transfer from the Hellenic Transmission System Operator to HEnEx

In order to determine the Available Capacity of the Generating Units or RES Units and the Long-Term Physical Transmission Rights of Participants, used during the Order Validation and the Physical Delivery and Offtake Nomination of the energy quantities on Delivery Day D, the HTSO submits to HEnEx the information under point 6.2.1, 6.2.2 and 6.2.3.

6.2.1 Available Capacity of Generating Units and RES Units

1. The HTSO shall submit to the ETSS of HEnEx, upon each change in the available capacity, after receiving, validating and accepting a Partial or Total Non-Availability Declaration, the Available Capacity of Generating Units or Dispatchable RES Units Portfolio for the Delivery Day D and the Market Time Units to which it relates, in accordance with subsection 4.2.3.1.
2. is used by the ETSS of HEnEx during the validation process of the Physical Delivery Nominations submitted to the ETSS in accordance with the provisions of this Chapter (section 6.5) of the Rulebook.

6.2.2 Long-Term Physical Transmission Rights (LT PTRs)

The HTSO shall submit to the ETSS of HEnEx the confirmed nominated Long-Term Physical Transmission Rights (LT-PTRs) of the Participants per Interconnection and per direction for each Market Time Unit of Delivery Day D, according to the timeline of Annex B.

6.2.3 Participant Account Details

The HTSO shall submit to the ETSS of HEnEx, provided there are amendments, up to thirty (30) minutes prior to the Gate Closure Time for the Registration of the Energy Quantities Financial Instruments for Physical Settlement:

- 1) information from Balancing Market Registries for each Participant and for each Delivery Day D;
- 2) the Entities registered in each Participant Account defining the Participant Portfolio, including

information from the Generating Unit Registry for each Generating Unit for the Delivery Day D.

6.3 Registration of Energy Financial Instruments and other wholesale energy products with the obligation of physical delivery intended for Physical Settlement

1. The Central Counter Party of Energy Derivatives Market for HEnEx, shall register to the ETSS of HEnEx the quantities corresponding to trades on Energy Financial Instruments concluded within the Energy Derivatives Market, for which the Physical Settlement option has been selected by the Participant in the Day-Ahead Market, for all Market Time Units of each Delivery Day D. The selection procedure of Physical Settlement by the Participant, is given in detail in the Clearing Regulation of the Central Counter Party of Energy Derivatives Market for HEnEx.
2. The counter parties for trades conducted bilaterally outside the Energy Derivatives Market, register for Physical Settlement to the ETSS of HEnEx the relevant quantities, for all Market Time Units of each Delivery Day D. The aforementioned registration process is given in detail in a HEnEx Technical Decision.
3. The quantities of paragraphs 1 and 2 are entered in the ETSS until the Gate Closure Time for the registration of Energy Financial Instruments and other wholesale energy products with the obligation of physical delivery for Physical Settlement. The price of related Energy Financial Instruments is not entered in the ETSS.

6.4 Calculation of Net Delivery Positions

1. For each Market Time Unit of the Delivery Day D, the Net Delivery Position (NDP_x) for each Participant shall be calculated as the sum of sales minus the sum of purchases of the Energy Financial Instruments concluded by the Participant within the Energy Derivatives Market and include the said Market Time Unit of the Delivery Day D.
2. For each Market Time Unit of the Delivery Day D, OTC Net Delivery Position (NDP_{BOTC}) for each Participant shall be calculated as the sum of sales minus the sum of purchases of the Energy Financial Instruments bilaterally concluded by the Participant outside the Energy Derivatives Market, as well as for trades pertaining to other wholesale energy products of the Regulation (EU) 1227/2011 with the obligation of physical delivery, and they include the said Market Time Unit of Delivery Day D. The Energy Financial Instruments or other wholesale energy products of the Regulation (EU) 1227/2011 pertaining to markets or sells concluded by a Participant unilaterally, are exempted by the above procedure.
3. NDP_x or NDP_{BOTC} with a positive sign means that the Energy Financial Instruments sold for the Market Time Unit of the Delivery Day D are more than the Energy Financial Instruments purchased for the same Market Time Unit of Delivery Day D.
4. NDP_x or NDP_{BOTC} with a negative sign means that the Energy Financial Instruments bought for the Market Time Unit of the Delivery Day D are more than the Energy Financial Instruments sold for the same Market Time Unit of Delivery Day D.
5. The ETSS calculates the sum of the positive NDP_x or NDP_{BOTC} for each Participant and for each Market Time Unit of Delivery Day D as follows:
$$NDP_{pos} = \max(0, NDP_x) + \max(0, NDP_{BOTC}).$$
6. The ETSS calculates the sum of the negative NDP_x or NDP_{BOTC} for each Participant and for each Market Time Unit of Delivery Day D as follows:

$$NDP_{neg} = \min (NDP_x, 0) + \min (NDP_{BOTC}, 0).$$

6.5 Physical Delivery Nomination

1. The following Participants:

- a) Producers;
- b) RES Producers;
- c) RES Aggregators;
- d) Participants performing imports utilizing their LT-PTRs;

must allocate the energy quantities included in the Energy Financial Instrument Quantity Registrations to their production resources or to imports per Interconnection, for the physical settlement of electricity underlying the Exchange Based Net Delivery Position (NDP_x) and the Bilateral OTC Net Delivery Position (NDP_{BOTC}). Participants having multiple roles may include in their Physical Delivery Nominations any possible set of Generating Units, RES Units and Dispatchable and Non-Dispatchable RES Portfolios and imports. The sum of the nominated energy quantities included in the Physical Delivery Nominations must be exactly equal to the positive Net Delivery Position (NDP_{pos}) of the Participant for each Market Time Unit of Delivery Day D.

2. The Physical Delivery Nominations shall be allocated as follows:

- a) per Generating Unit by the Producers;
- b) per Dispatchable and Non-Dispatchable RES Portfolio registered in the Participant Account of a RES Producer;
- c) per Dispatchable and Non-Dispatchable RES Portfolio represented by a RES Aggregator, and
- d) per Interconnection, by Participants who make use of LT-PTRs

no later than the Physical Delivery Nomination Gate Closure time on Day D-1 for Delivery Day D.

3. The Physical Delivery Nominations include at least the following information:

- a) EIC Bidding Zone Code;
- b) Generating Unit EIC Code, or RES Portfolio EIC Code, or Interconnection EIC Code or any other unique identification of the Entity;
- c) the Delivery Day and Market Time Unit, and
- d) the energy quantity to be delivered, in MWh with up to 3 decimal places.

4. Physical Delivery Nomination may be submitted several times by each Participant. The most updated Physical Delivery Nomination satisfying the relevant validation rules is considered as the Physical Delivery Nomination of the Entities concerned.

6.6 Physical Offtake Nomination

1. The following Participants:

- a) Suppliers;
- b) Self-Supplying Consumers;
- c) Producers;
- d) RES Producers;
- e) Hellenic Transmission System Operator;
- f) RES Aggregators;
- g) Participants performing exports utilizing their LT-PTRs

must allocate the energy quantities included in the Energy Financial Instrument Registrations to their Load Portfolios, Pumping Units in pumping operation, to exports per Interconnection or Losses of the Transmission System as applicable, for the physical settlement of the electricity underlying the Exchange Based Net Delivery Position (NDP_x) and/or the Bilateral OTC Net Delivery Position (NDP_{BOTC}). Participants having multiple roles may include in their Physical Offtake Nominations any possible set of Auxiliary Loads of their Generating Units, Auxiliary Loads of their Dispatchable or Non-Dispatchable RES Portfolios, Load Portfolios and Pumping Units in pumping operation acting as Load Representatives and exports. The sum of the nominated energy quantities included in the Physical Offtake Nominations must be exactly equal to their NDP_{neg} of the Participant for each Market Time Unit of Delivery Day D.

2. The Physical Offtake Nominations shall be allocated as follows:
 - a) per Load Portfolio by Suppliers and Self-Supplying Consumers;
 - b) per Generating Unit or per Dispatchable and Non-Dispatchable RES Portfolios for the Auxiliary Loads by Producers, RES Producers and RES Aggregators, respectively;
 - c) per Pumping Unit in pumping operation;
 - d) per Interconnection, by Participants who make use of LT-PTRs, or
 - e) Transmission System Losses by the HTSO;no later than the Physical Offtake Nomination Gate Closure time on Day D-1 for Delivery Day D.
3. The Physical Offtake Nominations include at least the following information:
 - a) Participant EIC Code;
 - b) EIC Bidding Zone Code;
 - c) Load Portfolio EIC Code, or Generating Unit Offset EIC Code, or RES Portfolio Offtake EIC Code, or Interconnection EIC Code or other unique identification of the Entity;
 - d) the Delivery Day and Market Time Unit, and
 - e) the energy quantity intended for consuming or exporting, in MWh with up to 3 decimal places.
4. Physical Offtake Nomination may be submitted several times by each Participant. The most updated Offtake Delivery Nomination satisfying the relevant validation rules is considered as the Physical Offtake Nomination of the Entities concerned.

6.7 Validation Checks by HEnEx

1. Following each successful submission of Physical Delivery Nominations and Physical Offtake Nominations in accordance with the relevant validation rules, the ETSS recalculates for each Market Time Unit of Delivery Day D the remaining quantity $NDP_{pos-rem}$ and $NDP_{neg-rem}$ respectively. The Participant's quantity $NDP_{pos-rem}$ is equal to the Participant's quantity NDP_{pos} , as calculated by the ETSS at the Gate Closure Time for the Registration of Energy Financial Instruments with Physical Settlement, minus the total quantity of Physical Offtake Nomination submitted per Market Time Unit of Physical Delivery Day D. The Participant's quantity $NDP_{neg-rem}$ is equal to the Participant's quantity NDP_{neg} as calculated by the ETSS at the Gate Closure Time for the Registration of Energy Financial Instruments with Physical Settlement, plus the total quantity of Physical Offtake Nomination submitted per Market Time Unit of Physical Delivery Day D.
2. Following the submission of Physical Delivery Nominations and Physical Offtake Nominations the ETSS of HEnEx performs the following five (5) validation checks:
 - 1) 1st validation check: In case the Physical Delivery/Offtake Nomination is received by the

ETSS after the respective Physical Delivery/Offtake Nomination gate closure time for the Market Time Units of Delivery Day D concerned, then the Physical Delivery/Offtake Nomination is considered invalid by ETSS.

- 2) 2nd validation check: If the energy quantity included in a Physical Delivery Nomination exceeds the remaining quantity $NDP_{pos-rem}$ for one or more Market Time Units of Delivery Day D, the Physical Delivery Nomination is considered as non-valid by ETSS.
- 3) 3rd validation check: If the energy quantity included in a Physical Offtake Nomination exceeds the remaining quantity $NDP_{neg-rem}$ for one or more Market Time Units of Delivery Day D, the Physical Offtake Nomination is considered as non-valid by ETSS.
- 4) 4th validation check: If the energy quantity allocated to a Generating Unit by a Producer, to a Dispatchable and Non-Dispatchable RES Portfolio by a RES Producer, to a Dispatchable and Non-Dispatchable RES Portfolio by a RES Aggregator exceeds the Available Capacity of that Generating Unit or Dispatchable RES Portfolio as well as the registered capacity of Non-Dispatchable RES Portfolio, for one or more Market Time Units of Delivery Day D the Physical Delivery Nomination for that Unit or Portfolio is considered as non-valid by ETSS.
- 5) 5th validation check: In the event that the amount of energy dispatched to a Pumping Unit in pumping operation by a Producer, exceeds the Available Capacity of the Pumping Unit in pumping operation for one or more Market Time Units of Delivery Day D the Physical Delivery Nomination for that Pumping Unit is considered as non-valid by ETSS.
- 6) 6th validation check: In the event that the amount of energy dispatched to an Interconnection for import or export exceeds the quantities of the confirmed nominated LT-PTRs of the Participant in the same Interconnection for one or more Market Time Units of Delivery Days D, the Physical Delivery Nomination and/or the Physical Offtake Nomination for the corresponding Interconnection is considered invalid by the ETSS.

6.8 Actions of HEnEx after the Physical Delivery/Offtake Nomination gate closure time

1. After the validation checks are performed and after the Physical Delivery/Offtake Nomination gate closure time, the ETSS of HEnEx shall issue:
 - a) Either a confirmation that the submitted Physical Delivery/Offtake Nomination(s) fully cover the quantity $NDP_{pos-rem}$ and $NDP_{neg-rem}$ respectively.
 - b) Or a notification that the submitted Physical Delivery Nominations and/or Physical Offtake Nominations do not fully cover the $NDP_{pos-rem}$ and $NDP_{neg-rem}$ respectively, stating the quantity $NDP_{pos-rem}$ and quantity $NDP_{neg-rem}$ per Market Time Unit of Delivery Day. In this case, the Participant is required to submit additional Physical Delivery Nominations and/or Physical Offtake Nominations no later than thirty (30) minutes after the Physical Delivery/Offtake Nomination gate closure time.

In case:

- i. the Participant does not submit additional Physical Delivery Nomination(s) or the submitted additional Physical Delivery Nominations do not fully cover the $NDP_{pos-rem}$ quantity, then the ETSS of HEnEx calculates for each Participant p and for each Market Time Unit h of Delivery Day D the Participant Positive Forward Market Mismatch Quantity, $PPFMMQ_{p,h,D}$, as follows:

$$PPFMMQ_{p,h,D} = NDP_{pos} - \text{Sum}_{(a=1, N)} (PDN_{a,h})$$

where:

p :	index of Participant
α :	index referring to Generating Units, Dispatchable and Non-Dispatchable RES Portfolio, RES FIT Portfolios, as well as rooftop Photovoltaics and/or Interconnections with the remaining confirmed LT-PTRs
h :	index of Market Time Unit
D :	index of Delivery Day
$PDN_{\alpha,h}$:	Validated Physical Offset Nomination for Entity α for Market Time Unit h in MWh

and calculates the $Q_{p,h,D}$ quantity, as the minimum price between the $PPFMMQ_{p,h,D}$ quantity and the sum of the remaining capacity of Generating Units and Dispatchable and Non-Dispatchable RES Portfolio and the remaining of confirmed LT-PTRs:

$$Q_{p,h,D} = \min\{PPFMMQ_{p,h,D}, \sum_k (AvailCap_{i,h,D} + AvailRESCap_{j,h,D} + LTPTRs_{k,h,D})\}$$

where:

i :	index of Generating Unit;
j :	index of the Dispatchable and Non-Dispatchable RES Units
k :	Interconnection index
$AvailCap_{i,h,D}$:	Available Capacity of the Generating Unit i for Market Time Unit h of Delivery Day D
$AvailRESCap_{j,h,D}$:	Available Capacity of the Dispatchable and Non-Dispatchable RES Portfolio for Market Time Unit h of Delivery Day D
$LTPTRs_{k,h,D}$:	remaining confirmed LT-PTRs for imports acquired by Participant p for Interconnection k for Market Time Unit h .

HEnEx calculates a non-compliance charge equal to the product of the quantity $Q_{p,h,D}$, and the Administratively Defined Position Nomination Penalty Price.

- ii. the Participant does not submit additional Physical Offtake Nomination(s) or the submitted additional Physical Offtake Nominations do not fully cover the $NDP_{neg-rem}$, then the ETSS of HEnEx calculates for each Participant p and for each Market Time Unit h of Delivery Day D the Participant Negative Forward Market Mismatch Quantity, $PNFMMQ_{p,t,D}$, as follows:

$$PNFMMQ_{p,h,D} = NDP_{neg} + \text{Sum}_{(i=1, N)} (PON_i)$$

where:

$PON_{i,h}$:	Validated Physical Delivery Nomination for Entity i at the Market Time Unit h in MWh
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and imposes a Non-Compliance Charge calculated equal to the product of the absolute value of the Participant Negative Energy Financial Instrument Mismatch Quantity, $PNFMMQ_{p,h,D}$, and an Administratively Defined Position Nomination Penalty Price. In the case of a Participant, who holds no Load Portfolio, nor any Pumping Unit, the above Non-Compliance Charge is imposed at the minimum, between the quantity $PNFMMQ_{p,h,D}$ and the quantity of the remaining confirmed LT-PTRs for exports.

2. The value of the Administratively Defined Position Nomination Penalty Price, as well as any other parameters and technical details of application, including periodic reference data of HEnEx to RAE, is determined by decision of RAE, following a recommendation of HEnEx. Such decision shall take effect at least two (2) months after the approval date of the new value of the

Administratively Defined Position Nomination Penalty Price, unless otherwise set out in the relevant RAE decision.

3. Non-compliance charges for Position Nomination of Energy Financial Instruments shall be notified to the Clearing House at a time and with a procedure that are to be defined by a relevant Technical Decision of HEnEx.

6.9 Emergency Situation related to the Physical Delivery/Offtake Nomination process

1. In case of the following Emergency Situations, where the ETSS procedures can not be executed by the competent parties through the backup systems, the Fallback Procedures of this section shall be applied as appropriate.
2. If an Emergency Situation is due to unavailability of the ETSS due to technical problems, the following apply:
 - a) As a first action, the Central Counter Party of the Energy Derivatives Market and HEnEx shall extend the gate closure time for the Registration of Energy Financial Instruments with Physical Delivery for as long as it is required to address the technical problems and up to two (2) hours before the Physical Delivery/Offtake Nomination gate closure time the latest.
 - b) In the event that the Emergency Situation takes more than two (2) hours before the Physical Delivery/Offtake Nomination gate closure time, the following Fallback Procedures will become effective:
 - i. The HTSO provides HEnEx with all necessary data as described in Chapter 4 (subsection 4.2.2.1) of the Rulebook, via e-mail or by using alternative methods of communication (fax), up to one (1) hour before the Physical Delivery/Offtake Nomination gate closure time.
 - ii. The Central Counter Party of the Energy Financial Instruments provides HEnEx with the NDP_x of Participants, via e-mail or by using alternative methods of communication (fax), up to one (1) hour before the Physical Delivery/Offtake gate closure time.
 - iii. Participants that have bilaterally concluded Energy Financial Instruments outside the Energy Derivatives Market, as well as for trades associated with other wholesale energy products of the Regulation (EU) 1227/2011 with the obligation of physical delivery, provide HEnEx with the relevant Energy Financial Instruments nominations, via email or by using alternative methods of communication (fax) up to one (1) hour before the Physical Delivery/Offtake gate closure time.
 - iv. Upon receipt of the above data, HEnEx shall notify the Participants of the NDP_x and/or NDP_{BOTC} quantities, the LT-PTRs and the Available Capacity of each Generating Unit and each Dispatchable and Non-Dispatchable RES Portfolio, via e-mail or by using alternative methods of communication (fax) up to the Physical Delivery/Offtake Nomination gate closure time.
 - v. Participants submit to HEnEx Physical Delivery Nominations and/or Physical Offtake Nominations via e-mail or by using alternative methods of communication (fax) up to one (1) hour after the Physical Delivery/Offtake Nomination gate closure time.
 - vi. Upon receipt of the Physical Delivery Nominations and/or Physical Offtake Nominations, HEnEx, after the relevant validation checks, shall generate the relevant Priority Price-Taking Buy/Sell Orders required for the Physical Settlement of the relevant Energy Financial Instruments and submit them on behalf of Participants to the Day-Ahead Market Local Order Book until the Day-Ahead Market gate closure

time, as set forth in the Rulebook.

3. In case of Emergency Situation due to technical problems of the HTSO and/or the Central Counter Party of the Energy Financial Instruments Market and/or the Participants, the following apply:
- a) In case the HTSO is unable to submit to the ETSS the data contained in Chapters 4 (subsection 4.2.2.1) of the Rulebook, due to technical problems concerning its own systems and platforms, it shall provide HEnEx with all necessary data via e-mail or by using alternative methods of communication (fax), up to two (2) hours before the Physical Delivery/Offtake Nomination gate closure time. Upon receipt of the above data, HEnEx submits this data to the ETSS on behalf of the ETSS.
 - b) In case the Central Counter Party of the Energy Financial Instruments is unable to submit the NDP_x for each Participant to the ETSS, due to technical problems concerning its own systems and platforms, it shall provide HEnEx with such data via e-mail or by using alternative methods of communication (fax) up to the gate closure time of the Energy Financial Instruments Registration with Physical Delivery/Offtake. After receipt of the above data, HEnEx submits the NDP_x quantities to the ETSS, on behalf of the Central Counter Party of the Energy Financial Instruments.
 - c) In case a Participant is unable to connect to the ETSS due to technical problems concerning its own systems and platforms, it shall use the alternative methods of participation, according to the provisions in Chapter 2 (subsections 2.3.2 and 2.3.3), up to the gate closure time of the Energy Financial Instruments Registration with Physical Delivery/Offtake. HEnEx submits the Energy Financial Instruments nominations to the ETSS on behalf of the Participant. Thereafter, HEnEx shall notify the quantities NDP_x and/or NDP_{BOTC} by e-mail or by using alternative methods of communication (fax), up to two (2) hours before the Physical Delivery/Offtake Nomination gate closure time. Upon receipt of the above data, the Participant submits to HEnEx the Physical Delivery/Offtake Nominations by using alternative methods of participation, according to the provisions in Chapter 2 (subsections 2.3.2 and 2.3.3), up to one (1) hour before the Physical Delivery/Offtake Nomination gate closure time. Upon receipt of the Physical Delivery/Offtake Nominations, HEnEx submits such data to the ETSS on behalf of the Participant. The relevant validation results of the Physical Delivery/Offtake Nominations as well as the $NDP_{pos-rem}$ and $NDP_{neg-rem}$, are sent to the Participant from the ETSS by e-mail or by using alternative methods of communication (fax) up to the Physical Delivery/Offtake Nomination gate closure time.

Chapter 7. Entry into force and transitional provisions

7.1 Entry into force

This Rulebook together with the Annexes thereto, as well as any amendment thereof, shall be submitted to RAE for approval in accordance with the provisions of Law 4425/2016 and take effect as of the date the GG is issued unless if otherwise stated, it is set forth in the relevant RAE decision.

7.1.1 Day-Ahead Market

1. For the implementation of the provisions of the Rulebook and Annexes thereto concerning the Day-Ahead Market, the following are defined:
 - a) The day of commencement of Day-Ahead Market decoupled operation is determined by the decision approving this Rulebook.
 - b) The day of commencement of the Day-Ahead Market coupled operation is defined by RAE decision, following recommendation by HEnEx and the HTSO.
2. The implementation of all provisions of the Rulebook and Annexes thereto on the Day-Ahead Market shall take place at the start of the coupled operation of the Day-Ahead Market, unless otherwise specified in this Rulebook.
3. During the period between the commencement of the decoupled Day-Ahead Market until the commencement of the coupled Day-Ahead Market, all provisions of the Rulebook and Annexes thereto on the Day-Ahead Market shall apply, except for the following provisions:
 - a) paragraph 3 of subsection 2.2.2;
 - b) point (H) of paragraph 4 of Section 2.3;
 - c) subsection 4.2.2.4;
 - d) subsection 4.2.2.5;
 - e) paragraph 1 of subsection 4.3.1;
 - f) the Price Coupling Algorithm, the Order acceptance rules, and the Day-Ahead Market Coupling Results described in subsections 4.3.2, 4.3.3 and Section 1 respectively shall apply to Bidding Zones in Greece by HEnEx, and
 - g) subsection 4.5.2.
4. With RAE decision, issued pursuant to the applicable law, the details concerning Physical Settlement and the Day-Ahead Market Settlement for energy quantities related to trades concluded under Law 4389/2016 and the Forward Electricity Products Auction System of the Forward Electricity Products Auction Code.
5. All references in the Day-Ahead Market Procedure Timeline concerning the suspended sections of the Rulebook which are listed in paragraph 3, shall be suspended accordingly.

7.1.2 Intra-Day Market (IDM)

1. For the implementation of the provisions of the Rulebook and Annexes thereto concerning the Intra-Day Market, the following are defined:
 - a) The day of commencement of decoupled operation of the Intra-Day Market is defined by RAE decision, taking into account the provisions of the Ministerial Decision ΥΠΕΝ/ΔΗΕ/7083/112 (GG B' 172/30.01.2020).

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- b) The days of commencement of the Intra-Day Market coupled operation are defined by RAE decision, following recommendation by HEnEx and the HTSO. The above decision shall activate the relevant provisions of the Rulebook and Annexes thereto on the Continuous Intra-Day Trading, the Pan-European Intra-Day Auctions and the Complementary Regional Intra-Day Auctions.
2. During the period between the commencement of the decoupled Intra-Day Market until the commencement of the coupled Intra-Day Market, the provisions of the Rulebook and Annex thereto applicable only to LIDAs shall apply.
 3. The implementation of all provisions of the Rulebook and Annexes thereto on the Intra-Day Market shall take place at the start of the coupled operation of the Intra-Day Market, unless otherwise specified by explicit reference in the Rulebook or the relevant RAE decisions.
 4. During the period between the decoupled Intra-Day Market and the start of the coupled Intra-Day Market, the following provisions of the Rulebook do not apply:
 - a) paragraph 3 of subsection 2.2.2;
 - b) points (j) and (ja) of paragraph 4 of Section 2.3;
 - c) paragraphs 2 and 3 of Section 5.1;
 - d) subsection 5.2.2.2;
 - e) subsection 5.2.2.3;
 - f) paragraphs 3, 8 and 9 of Section 5.3;
 - g) subsection 5.4.2;
 - h) Section 5.5;
 - i) subsection 5.6.2;
 - j) subsection 0;
 - k) subsection 0;
 - l) points (c), (d) and (e) of paragraph 1 of subsection 5.9.1;
 - m) subsection 5.10.1,
 - n) subsection 5.10.2.2,
 - o) the provisions of subsection 5.10.3 concerning Complementary Intra-Day Auctions;
 - p) subsection 5.10.4;
 - q) subsection 5.11.2;
 - r) subsection 5.11.3;
 - s) paragraphs 2 and 3 of subsection 5.12.1.1;
 - t) subsection 5.12.1.2;
 - u) point (b) of paragraph 1 of Section 5.13, and
 - v) paragraphs 4 and 5 of Section 5.14.
 5. All references in the Intra-Day Market Procedure Timeline concerning the suspended sections of the Rulebook which are listed in the preceding paragraph shall be suspended accordingly.
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Annex A. Definitions

In addition to the definitions laid down in the current legislation, and especially in Law 4001/2011 and in Law 4425/2016, as well as in the Union legislation, in the context of this Rulebook, the following terms shall have the following meaning, and may be indicated in singular or plural form, unless otherwise specified.

Term	Definition
Market	It has the meaning defined in Article 5 (g) and (h) of Law 4425/2016 that HEnEx is managing, as NEMO and separately includes the Day-Ahead Market, the Intra-Day Market with participation in the Intra-Day Auctions and the Intra-Day Market with participation in the Continuous Bidding.
Balancing Market	It has the meaning defined in Article 5 (i) of Law 4425/2016.
Day-Ahead Market	It has the meaning defined in Article 5 (g) of Law 4425/2016.
Market Time Unit	It has the meaning defined in Article 2(19) of Regulation (EU)534/2013: The period for which the market price is established or the shortest possible common time period for two bidding zones, if their market time units are different.
Electricity Markets	The Day-Ahead and Intra-Day Markets, as appropriate, that act as Wholesale Energy Products markets within the meaning of Regulation (EU) 1227/2011 whose trades are cleared by the Clearing House in accordance with Law

Term	Definition
	4425/2016, Law 4001/2011 and the provisions of this Rulebook.
Trading License	The license granted for electricity trading activity.
Production License	The license granted for electricity generation activity.
Supply License	The license granted for electricity supply activity.
RES Aggregator License	The license granted for the activity of representing RES electricity producers in accordance with Article 13 of Law 4001/2011.
Day-Ahead Market Matching Algorithm	The algorithm used for the simultaneous matching of the Orders in a non-coupled operation of the Day-Ahead Market.
Continuous Trading Matching Algorithm	It has the meaning defined in Article 2(29) of Regulation (EU)2015/1222: the algorithm used in Single Intra-Day Coupling for matching orders and allocating Cross-Zonal Capacities continuously.
Price Coupling Algorithm	It has the meaning defined in Article 2(28) of Regulation (EU)2015/1222: the algorithm used in single day-ahead coupling for simultaneously matching Orders and allocating Cross-Zonal Capacities
Direct Clearing Member	A Clearing Member of the Clearing House, which is entitled to clear the electricity trades that the same carries out as a Participant in the Electricity Markets.

Term	Definition
Matching	It has the meaning defined in Article 2(20) of Regulation (EU)2015/1222: The trading mode through which Sell Orders are assigned to appropriate Buy Orders to ensure the maximization of economic surplus for Single Day-Ahead or Intra-Day Coupling.
Maximum Order Price	The maximum allowed price for submitting Orders in the respective Electricity Market for which the Order is submitted, which is imposed for technical reasons.
Offtake	It is the taking of Energy from the Transmission System Operator (TSO) or from the Distribution Network Operator at a Consumer Meter or Metering System or the Offtake Meter of a Producer, RES Producer (to cover auxiliary loads not covered by own generation) or Auto-Producer (to supplement own generation).
Decoupling or Market Decoupling	A situation in which the Price Coupling process is interrupted and/or cancelled.
Market Coupling Results	The results calculated from the Algorithm containing Multiregional Price Coupling flows, Multiregional Price Coupling Net Positions, and the Multiregional Price Coupling Prices. The results of the Market Coupling are preliminary until validated by the TSOs and become final when the validation process is completed.
RAE Decision	The decisions issued by RAE pursuant to this Rulebook, according to Article 18 (4) of Law 4425/2016, as in force.

Term	Definition
Automatic Generation Control (AGC)	The automatic load - frequency control procedure, which aims to reduce the frequency restoration control error to zero in accordance with Regulation (EU) 2017/1485.
Self-Supplying Consumer	It has the meaning defined in the first subparagraph of Article 5 (xv) of Law 4425/2016.
Order Book	It is the on-line summary where Orders entered by the Participants into the Energy Trading System for trading in the Wholesale Market Energy Products are listed.
Auxiliary Load	The electric power provided by the power system to a Generating Unit to meet its own needs when the Generating Unit is out of operation.
General Clearing Member	The Clearing Member of the Clearing House which is entitled to clear the electricity trades carried out by the contracted Participants on the Electricity Markets in accordance with the Spot Clearing Rulebook.
Declaration of Day-Ahead Market Operational Restoration	A statement to inform the termination of an event triggering the Fallback Mode in the Day-Ahead Market.
DAM Fallback Procedure Declaration	Declaration of the HEnEx on the activation of the Fallback Procedure, for reasons given in the Rulebook.

Term	Definition
Non-Availability Declaration (Partial or Total)	Declarations submitted by the BSPs in accordance with the Balancing Market Code for each Dispatch Day, during which there is a reduced Available Capacity for a Balancing Service Entity
Physical Offtake Nomination	The allocation of electricity quantities included in the entries of Energy Financial Instruments into the ETS to load entities or to exports per Interconnection, for the Physical Settlement of the underlying quantities.
Physical Delivery Nomination	The allocation of electricity quantities included in the entries of Energy Financial Instruments entries into the ETS to production means or imports per Interconnection, for the Physical Settlement of underlying electricity.
Priority Declaration	A declaration by a Producer for a HECHP unit, including the must-run production of the HECHP unit, to be included as a Priority Price-Taking Sell Order at the Day-Ahead Market.
Auction	The method of negotiating the auction provided for in this Rulebook.
Integrated Scheduling Process (ISP)	It has the meaning defined in Article 2 (19) of Regulation (EU) 2017/2195: an iterative process that uses at least integrated scheduling process bids that contain commercial data, complex technical data of individual power generating facilities or demand facilities and explicitly includes the start-up characteristics, the latest control area adequacy analysis and the operational security limits as an input to the process.

Term	Definition
Cross Zonal Capacity (CZC)	The capacity of an interconnected system to meet the energy exchanges between different Bidding Zones.
Available Capacity	The capacity of the Balancing Services Entity resulting from the Techno-Economic Declaration, the declaration of Maximum Continuous Generation Capability of the Generating Units reduced by any non-available capacity, in accordance with the Balancing Market Code.
Availability	The capacity of a Generating Unit / RES Dispatchable Unit / RES Portfolio to provide Energy at the respective injection site and/or provide Ancillary Services to the system.
Physical Settlement	The settlement that results in the actual delivery or Offtake of the electricity that is the subject of an Energy Financial Instrument in the Transmission System. Energy Financial Instruments through Physical Settlement require the buyer / seller to deliver / receive the electricity to the Transmission System during the Delivery Period of the Energy Financial Instrument. It can also refer to the respective actual true delivery with regard to the Bilateral OTC Contracts, as well as to transactions pertaining to other wholesale energy products within the meaning of the Regulation (EU) 1227/2011 with the obligation of physical delivery.
RES & GO Operator	The société anonyme provided for in Article 118 of Law 4001/2011.
Hellenic Transmission System	It has the meaning defined in Article

Term	Definition
Operator	2(3)(k) of Law 4001/2011.
Market Coupling Operator (MCO)	It has the meaning defined in Article 2(30) of Regulation (EU)2015/1222: The entity that performs the task of matching Orders from the Day-Ahead and Intra-Day Markets for different Bidding Zones and simultaneously allocating Cross Zonal Capacities.
Complementary Regional Intra-Day Auction Operator (CRIDA Operator)	The entity that performs the Supplementary Regional Auctions.
Bilateral OTC Net Delivery Position	The Physical Delivery's Net Position arising from all Energy Financial Instruments that are concluded bilaterally outside the Energy Financial Market, as well as to transactions pertaining to other wholesale energy products within the meaning of the Regulation (EU) 1227/2011 with the obligation of physical delivery.
Trading on Behalf	Provide support to Participants regarding the process for their participation in the HEnEx Markets, in cases where the causes are not due to a technical malfunction of HEnEx.
Administratively Defined Position Nomination Penalty Price	A penalty used to calculate the non-compliance charge imposed to a Participant experiencing a Participant Positive/Negative Mismatch of Energy Financial Instruments with Physical Delivery.
Physical Offtake Position Correction	The entry of a Sell Order to correct the position of an Entity.
Physical Delivery Position Correction	The entry of a Buy Order to correct the position of an Entity.
Capacity Management Module (CMM)	System containing the updated information regarding the available cross zonal capacity, with the purpose

Term	Definition
	of distributing cross zonal capacity for Continuous Bidding.
Shared Order Book (SOB) Module	Module of the Continuous Bidding, collecting all Orders to be matched by the NEMOs participating in the Intra-Day Market single coupling.
Valid Order	The Order which has successfully passed the validation process and becomes anonymous in order to be submitted for matching
Mandatory Hydro Injection	The mandatory production schedule of a Hydroelectric Station.
Clearing Members	Undertakings participating in the Clearing House's System for clearing HEnEx's Electricity Market trades and are liable to the Clearing House for the fulfillment of the financial obligations arising from their participation in accordance with the provisions of Law 4425/2016 and those specifically provided for in the Clearing Rulebook.
Load Representative	The Balancing Responsible Parties representing entities that absorb energy from the Transmission System or the Distribution Network, except for the Demand Response Aggregators.
Fallback Procedure	An alternative process used to calculate Market Clearing Price in the event of a failure of the Euphemia algorithm.
Minimum Acceptance Ratio	It means the Minimum Acceptance Rate in any Block Order, in which the Block can be matched and expressed as less than 100%.
Hellenic Energy Exchange S.A.	The société anonyme under the

Term	Definition
or HEnEx.	corporate name “Hellenic Energy Exchange S.A.” trading as “ENERGY EXCHANGE” operating as an Energy Exchange in accordance with the provisions of Law 4425/2016, Law 4001/2011 and those specifically provided for in this Rulebook.
Harmonized Maximum Clearing Price	The maximum clearing price of the Day-Ahead Market or the Intra-Day Market.
Harmonized Minimum Clearing Price	The minimum clearing price of the Day-Ahead Market or the Intra-Day Market.
Intra-Day Market (IDM)	It has the meaning defined in Article 5 (h) of Law 4425/2016.
Energy Financial Instruments	The Energy Financial Instruments referred to in Law 4425/2016 through Physical Delivery that are traded on HEnEx’s Energy Derivatives Market in accordance with the provisions of Law 4425/2016, Law 4514/2018 and those specifically provided for in HEnEx’s Energy Derivatives Market Rulebook, as well as those conducted bilaterally, on which trades are recorded on the ETS in accordance with this Rulebook.

Term	Definition
Energy Derivatives Market	The Energy Derivatives Market managed by HEnEx, in accordance with the provisions of Law 4425/2016, Law 4514/2018 and HEnEx's Energy Derivatives Market Rulebook.
Wholesale Energy Product	The Wholesale Energy Product of Regulation (EU) 1227/2011 which is traded on the Electricity Markets in accordance with their specific definition and the provisions of this Rulebook.
Shared Order Book (SOB)	It has the meaning defined in Article 2 (24) of Regulation (EU) 2015/1222: A module in the Continuous Intra-Day Coupling System collecting all matchable Orders from the NEMOs participating in Single Intra-Day Coupling and performing continuous matching of those Orders.
Order	A declaration of purchase or sale intention entered by a Participant into the ETS for conducting trades in the Electricity Markets in accordance with the specific provisions of this Rulebook.
Priority Price-Taking (Buy/Sell) Order	Priority Price-Taking (Buy/Sell) Orders are step-wise Hourly (Buy/Sell) Hybrid Orders submitted at a price equal to (maximum/minimum) the accepted price in the Day-Ahead and Intra-Day Markets (Intra-Day Auctions), i.e. in the corresponding Administratively Defined (Upper/Lower) Orders Price applicable to each of those Markets.
Eligible Person	The legal or natural persons operating under a License granted by RAE may submit an "Participant Application"

Term	Definition
Working Day	A working day between Monday and Friday, except for holidays adopted by HEnEx and the Hellenic Transmission System Operator.
Annual Subscription	It represents the cost of trading services for the Participant's participation in each Market and is a fixed amount per year, separate for each market.
Yearly Membership Fee	The yearly fee paid by the Registered Participants for their participation in any HEnEx Market.
Frequency Restoration Reserve (FRR)	It has the meaning defined in Article 3 (7) of Regulation (EU) 2017/1485: "frequency restoration reserves" or "FRR": the active power reserves that are available in order to restore the system frequency at the nominal frequency and, for a synchronized area consisting of more than one Load Frequency Control (LFC) area, in order to restore the power balance to the scheduled value. They are distinguished in FRRs with automatic and FRRs with manual activation (automatic - aFRR and manual (non automatic) maFRR).
Frequency Containment Reserve (FCR)	It has the meaning defined in Article 3 (7) of Regulation (EU) 2017/1485: "frequency containment reserves" or "FCR": the active power reserves available to contain the system frequency following the occurrence of power imbalance.
Bidding Zone	It has the meaning defined in Article 2 (3) of Regulation (EU) 543/2013: The largest geographical area within which market participants are able to exchange energy without capacity allocation.

Term	Definition
Delivery Day	It has the meaning defined in Article 5 (f) of Law 4425/2016.
Trading Calendar	A calendar published two (2) months prior to the end of each year by HEnEx, to determine HEnEx's operating days.
Net Position	It has the meaning defined in Article 2 (5) of Regulation (EU) 2015/1222: The netted sum of electricity exports and imports for each Market Time Unit for a Bidding Zone.
Buy/Sell Curve	The curve, which is formed by the sum of the Buy/Sell Orders, which are submitted as part of the Day-Ahead and Intra-Day Markets.
Rulebook	This Rulebook for the operation of the Day-Ahead and Intra-Day Markets issued by HEnEx and approved by RAE in accordance with Law 4425/2016.
Clearing Rulebook	The Spot Clearing Rulebook issued by the Clearing House and approved by RAE in accordance with Law 4425/2016.
Emergency Situation	An Emergency Situation is the situation where (a) there is a market management system failure, which can not be restored by non-electronic communication, or (b) a serious malfunction of the Transmission System or the Distribution Network, or (c) where it is foreseen that there may be an inadequate Energy supply to Consumers. In this case, HEnEx (concerning the Day-Ahead Market operation in point (a)) or the Hellenic Transmission System Operator (in the cases concerning the Balancing Market operation, as well as in cases (b) and (c)) shall immediately issue a Statement of Emergency.

Term	Definition
Energy Financial Instruments Registration	The procedure for the Registration of the Energy Financial Instrument to ETS in accordance with the provisions of this Rulebook
Minimum Order Price	The minimum allowed price for submitting Orders in the respective Electricity Market for which the Order is submitted, which is imposed for technical reasons.
Central Counter Party (CCP)	<p>The central counter party referred to in Law 4425/2016 clearing trades in Energy Financial Instruments that are carried out on HEnEx's Energy Derivatives Market, in accordance with the provisions of the Energy Derivatives Clearing Rulebook.</p> <p>The Central Counter Party within the meaning of Regulation (EU) 648/2012, authorized by the Hellenic Capital Market Commission in accordance with Article 16 of Law 4425/2016, for clearing trades in Energy Financial Instruments conducted on HEnEx's Energy Derivatives Markets.</p>
EIC code (Energy Identification Code)	A unique code identifying the Participant in all its trades on the Energy Market.
Market Coupling Operator (MCO) Function	It has the meaning defined in Article 2 (30) of Regulation (EU) 2015/1222: The task of matching Orders from the Day-Ahead and Intra-Day Markets for different Bidding Zones and simultaneously allocating cross zonal capacities.
Participant Account	Production Account or Offtake Account or RES Account or BRP Account, as applicable.
Long-Term Physical Transmission Rights (LT PTRs)	Annual or monthly Physical Transmission Rights.

Term	Definition
Non-Clearing Member	A Participant that is not a Clearing Member and cooperates with at least one General Clearing Member for clearing the trades carried out on HEnEx Markets, in accordance with the terms of the Spot Clearing Rulebook.
Balancing Market Registries	It includes the BRP Registry and the BSP Registry kept by the HTSO, which include the Participants' information required to participate in the Balancing Market, in accordance with the specific provisions of the Balancing Market Code.
Generating Unit Registry	The Registry kept by the Hellenic Transmission System Operator in accordance with the Balancing Market Code.
Participants Registry	A registry kept by HEnEx, which includes the Participants' information required to participate in the Electricity Markets.
RES Unit	A RES generating unit. This category also includes High Performance Combined Heat and Power units with an installed capacity of less than 35MW.
Generating Unit	Conventional dispatchable unit (not a RES unit) with an installed capacity above 5 MW, which can perform dispatch Orders from the TSO. This category shall also include Dispatchable HECHP Units with an installed capacity above 35 MWe, as referred to in the Independent Transmission System Operation Code, and the Auto-Producer Conventional Units, i.e. the conventional

Term	Definition
	dispatchable Generating Units of Auto-Producers (or Self-Supplying Consumers).
Generating Unit/ RES Unit in Commissioning or Testing Operation	A Generating Unit / RES Unit, which has declared to the HETS Operator a specific energy production plan for the Day-Ahead, due to operation in testing mode and reception or Test Operation.
Batch Matching	The matching of Orders in the Continuous Intra-Day Trading, which takes place in an increase in cross border capacity.
Entity	The elementary scheduling unit (which has a Market Schedule). The totality of Entities includes all physical assets associated with the Transmission System or the Distribution Network.
Transmission System – Distribution Network Boundary	The boundary between the Transmission System and the Distribution Network, as defined in the Distribution Network Operation Code.
Market Coupling Results	Market Coupling Results arising from validation checks performed by the respective NEMOs and TSOs involved in the Day-Ahead and Intra-Day Markets Coupling.
Intra-Day Auctions (IDAs)	Intra-Day Auctions, which take place at European level for capacity pricing purposes as part of the Intra-Day Market, in accordance with the decision 01/2019 of ACER.
Producer	Producer, holder of a Production License or a relevant Exemption.
RES Producer	A Participant, who owns and represents one or more Dispatched or Non Dispatched RES Units in commissioning or testing operation.

Term	Definition
Paradoxically Accepted Block Order	A Block Order, which has been accepted in the clearance of the Day-Ahead Market, while being outside the financial equality (out-of-money).
Balancing Services Provider (BSP)	It has the meaning defined in Article 23 (8) of Regulation (EU) 2017/2195, i.e. the Participant with balancing units or portfolios that is capable of providing Balancing Services to the HTSO.
Allocation Constraints	It has the meaning defined in Article 2(6) of Regulation (EU)2015/1222: The constraints to be respected during capacity allocation to maintain the transmission system within operational security limits and have not been translated into Cross Zonal Capacity or that are needed to increase the efficiency of capacity allocation.
Table of RES and CHP Units and Market Participants	Table containing information regarding the mode of participation for the holders of RES & CHP units in the Day-Ahead Market and the Intra-Day Market, including any eventual representation through RES Aggregator or Last Resort RES Aggregator, and the maximum power of every Dispatchable and non Dispatchable RES Unit Portfolio of the Participants in the Day-Ahead Market and the Intra-Day Market.
Certified Trader	The natural person who has been certified by HEnEx for performing trades of Participants in HEnEx.
Credit Limits	The Credit limits as set out in the Clearing Rulebook.

Term	Definition
Acceptance Ratio	The accepted amount of energy from a Block Order, which is part of the offered energy. The Acceptance Ratio can be either zero or between the Minimum Acceptance Ratio (of the specific Block Order) and the unit (1). The Acceptance Ratio may also refer to a Linked Block Order.
Shipping Agent	It has the meaning defined in Article 2 (43) of Regulation (EU) 2015/1222: the Entity or Entities with the task of transferring Net Positions between different Central Counter Parties in accordance with the provisions of Regulation (EU) 2015/1222.
Market Schedule	The net energy schedule (Net Position) resulting from all of the Entity's trades in the wholesale market (i.e. Trades in the Energy Derivatives Market, the Day-Ahead or Intra-Day Markets), which is automatically (and continuously) transferred from HEnEx to the Energy Balancing System of the HTSO for the purpose of performing Balancing Market processes (clearing, settlement, etc.).
ISP Schedule	It refers to the scheduling of a Balancing Service Provider, resulting from the ISP solution.
Scheduled Exchange	The scheduled energy transfer between geographical areas, for each Market Time Unit and for specific direction.
Physical Delivery Schedule / Physical Offtake Schedule	The energy quantities, which have been committed through transactions carried out within the Energy Financial Market or through conducting transactions on Energy Financial Instruments that are concluded

Term	Definition
	bilaterally with the obligation of Physical Delivery, as well as for transactions pertaining to other wholesale energy products within the meaning of the Regulation (EU) 1227/2011 with the obligation of physical delivery.
Preliminary Market Coupling Results	The Market Coupling Results, which are sent by the Market Coupling Operator to NEMOs for validation purposes.
Supplier	The holder of the Supply License
	The Regulatory Authority for Energy, in accordance with the provisions of Law 4001/2011 and of Law 4425/2016.
Metering Point	The User Metering Point, as defined in the Independent Transmission System Operation Code.
	The Day-Ahead Market in which the Day-Ahead Coupling takes place, which is the Auction process where the Orders collected are matched and the Cross Zonal Capacity is allocated simultaneously for different Bidding Zones in the Day-Ahead Market.
	The IDM in which the Intra-Day Coupling takes place, which is the continuous process in which the orders collected are matched and the Cross Zonal Capacity is simultaneously allocated for different Bidding Zones in the IDM.
Market Coupling	A mechanism to integrate Electricity Markets of different physical areas as well as an implicit, market-based and non-discriminatory method for coordinated price formation and allocation of day-ahead and intra-day interconnection capacity.
Price Coupling of Regions	Price Coupling of Regions according to

Term	Definition
(PCR)	the provisions of Regulation (EU) 2015/1222.
Balancing Responsible Party- BRP	It has the meaning defined in Article 23 (7) of Regulation (EU) 2017/2195, i.e. the Participant or its selected representative responsible for its deviations.
Power Purchase Agreement (PPA)	The contract of sale in accordance with Article 12 of Law 3468/2006, as in force.
	The agreement concluded with the HTSO upon registration of the BRPs in the BRP Registry.
Participant in Electricity Markets/ Participant	Any natural or legal person entitled to trade on one or more Energy Markets, including Self-Supplying Consumers and Aggregators.
Complementary Regional Intra-Day Auctions (CRIDAs)	Intra-Day Auctions that take place in an area (which consists of multiple Bidding Zones) in addition to the Continuous Intra-Day Trading, in accordance with RAE decision 440/2019 (GG B' 1651/14.05.2019).
Trade	It has the meaning defined in Article 2(25) of Regulation (EU)2015/1222: One or more matched Orders.
Continuous Intra-Day Trading	The intra-day trading method provided for in this Rulebook.

Term	Definition
Registration & Nomination Platform	The Energy Financial Instruments may be physically settled by being recorded into a special Physical Delivery/Offtake Nomination Platform for the Electricity that is the subject of each Energy Financial Instrument. The Nomination Platform is used both for the Registration of the Energy Financial Instruments and the Physical Delivery Nominations and Physical Offtake Nominations by the Participants.
Energy Trading Spot System (ETSS)	The trading system, which manages all Electricity Markets processes, performs all necessary calculations and records of data and results of all markets and manages the interface between the aforementioned markets and the Balancing Market operated by the Hellenic Transmission System Operator.
Aggregated Hourly Order	The single curve resulting from all Buy (or Sell) Orders of all Participants in the same Bidding Zone for each Market Time Unit.
Initial Membership Fee	The lump sum payment by the newly registered Participants.
Technical Decisions	The decisions issued by HEnEx in compliance with this Rulebook and submitted to RAE, in accordance with this Rulebook.
Technical Minimum/Maximum under Automatic Generation Control	The minimum/maximum power of a Generating Unit, which operates under Automatic Generation Control.
Local Intra-Day Auctions (LIDAs)	Auctions that are made within a Bidding Zone in addition to the XBID

Term	Definition
	solution process.
Local Order Book	A Book of Orders operated by a separate NEMO.
Order Type	It has the meaning defined in RAE decision No. 93/2018 on Day-Ahead Market and in the ACER decision No. 5/2020 on Intra-Day Market.
Balancing Service	It has the meaning defined in Article 2 (3) of Regulation (EU) 2017/2195: balancing energy or balancing capacity, or both.
Clearing House	It has the meaning defined in Article 5 (f) of Law 4425/2016. As the Clearing House, the "Enex Clearing House S.A", bearing the distinctive title "EnExClear".
Coordinated Capacity Calculator(s) (CCC)	It has the meaning defined in Article 2 (11) of Regulation (EU) 2015/1222: the entity or entities with the task of calculating transmission capacity, at regional level or above.
Aggregator	A legal entity that collectively represents in the Electricity Markets one or more Producers or consumers or potential Participants for one or more connection points for either electricity production or demand and assumes the respective obligations and claims arising from their participation in those Markets. This includes the RES and HECHP Aggregator and the Last Resort RES and HECHP Aggregator.
RES Aggregator	It has the meaning defined in article 2 (22) , of Law 4414/2016.

Term	Definition
Last Resort RES Aggregator	It has the meaning defined in article 2 (23) , of Law 4414/2016.
PTRs	Physical Transmission Rights
Physical Delivery	The Physical Delivery of the amount of energy that is implemented under the HTSO procedures.
Intra-Day Physical Transmission Right (PTR)	A Physical Transmission Right acquired via Intra-Day capacity allocation.
Physical Settlement	The Physical Delivery settlement conducted in relation to trades in Energy Financial Instruments, which are entered based on the Registration & Nomination procedures, in accordance with the provisions of this Rulebook.
RES FiT Portfolio	Portfolio of RES units being compensated under a Power Purchase Agreement, in accordance with article 12 of Law 3468/2006 or an Operating Aid Contract with a Fixed Tariff, in accordance with article 10 of Law 4414/2016 or Power Selling and Purchase Agreement in accordance with Law 3468/2006, which are not required to participate in the electricity markets.
Dispatchable RES Portfolio	Portfolio of RES Units which includes one or more RES units, the Holders of which have signed a Sliding Premium Operating Aid Contract (FiP) with the RES & GO Operator or Contracts coming under the stipulations of paragraph 19 of article 3 and article 12a of Law 4414/2016, which, based on their technical capacity, can offer Balancing Services to the HTSO. Dispatchable RES Portfolios can be divided into: (a) Dispatchable RES FiP

Term	Definition
	Portfolios in testing operation mode, (b) Dispatchable RES FiP Portfolios in normal operation mode, (c) Dispatchable RES Portfolios with RES Units in testing operation mode coming under the stipulations of paragraph 19 of article 3 and article 12a of L.4414/2016, (d) Dispatchable RES Portfolios with RES Units in normal operation coming under the stipulation of paragraph 19 of article 3 and article 12a of L.4414/2016.
Non-Dispatchable Portfolio RES	Portfolio of RES Units which includes one or more RES units, the Holders of which have signed a Sliding Premium Operating Aid Contract (FiP) with the RES & GO Operator or Contracts coming under the stipulations of paragraph 19 of article 3 and article 12a of Law 4414/2016, which do not offer Balancing Services to the HTSO. Non-Dispatchable RES Portfolios can be divided into: (a) Non-Dispatchable RES FiP Portfolios in testing operation mode, (b) Non-Dispatchable RES FiP Portfolios in normal operation mode, (c) Non-Dispatchable RES Portfolios with RES Units in testing operation mode coming under the stipulations of paragraph 19 of article 3 and article 12a of L.4414/2016, (d) Non-Dispatchable RES Portfolios with RES Units in normal operation coming under the stipulations of paragraph 19 of article 3 and article 12a of L.4414/2016.
Load Portfolio	Load Portfolio that includes one or more Loads which are connected to a specific Bidding Zone.
Participant Portfolio	Portfolio containing all the registered information of the Participant, including information from Generating

Term	Definition
	Unit Registry.
Non-Compliance Charge	A fine imposed on a Participant for submitting invalid data in the various processes of the Market or for such behavior that may interfere with the normal operation of the Market and/or the System.
Net Delivery Position	The Physical Delivery Net Position corresponding to trades in Energy Financial Instruments entered into by each Participant within the Energy Derivatives Market.
Power Exchange	A société anonyme that manages one or more Energy Markets and/or Energy Derivatives Markets.
Validation Gate Opening Time	Time after which the ETS validates Orders.
Submission Gate Opening Time	Time from which Participants can submit Orders to ETSS.
Physical Delivery/Offtake Nomination Gate Closure Time	Time until which Participants can register Physical Delivery / Offtake Declarations to ETSS.
Physical Transmission Rights Nomination Gate Closure Time	Time until which the HETSO sends to HEnEx the confirmed declared Long-Term Physical Transmission Rights (LT-PTRs) of the Participants per Interconnection and per direction for each Market Time Unit of the Delivery Date.
Registration Gate Closure Time	Time until which the Central Counter Party of Energy Derivatives Market of HEnEx registers to ETSS the quantities conducted on Energy Financial Instruments within the Energy Derivatives Market, for which Physical Settlement has been selected by the

Term	Definition
	<p>Participant.</p> <p>Moreover, it is the time until which the Participants register to ETSS the quantities of the transactions for Physical Settlement, as these were conducted bilaterally outside the Energy Derivatives Market, as well as for transactions that pertain to the rest of wholesale energy products of the Regulation (EU) 1227/2011 with the obligation of physical delivery.</p>
Submission Gate Closing Time	Time until which Participants can submit Orders to ETSS.
EET	Eastern European Time (Greenwich Mean Time + 2 hours) except summer time in Eastern Europe (Middle East Greenwich + 3 hours).
Trading Timeline	Timeline during which Participants can submit Purchase and Sale Orders to the ETSS in both Day-Ahead and Intra-Day Market.