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DECISION OF RAE UNDER NO. 869/2020

Methodology on the application of acceptance rules for Sell and Buy Orders, with interconnected price in the Day-Ahead and Intra-Day Markets subject to the provisions of sub-sections 4.1.3.2, 4.3.3, 5.4.3 and 5.10.3 Day-Ahead and Intra-Day Markets Trading Rulebook and article 18 par. 4 of L. 4425/2016, as applying

The Regulatory Authority for Energy

During its ordinary meeting, at its headquarters, on the 20th of May 2020, which continued on the 21st, 22nd and 25th of May 2020, and

Taking into account:

- 1. The provisions of Chapter C' "Stipulations coming under the competency of the Ministry for the Environment and Energy" of L. 4425/2016 "Urgent regulations of the Ministries of Finance, Environment and Energy, Infrastructure, Transport and Networks and the Ministry of Labor, Social Security and Social Solidarity, on the application of the agreement on fiscal targets and structural reforms and other stipulations" (GG A'185/30.09.2016), as modified by Law 4512/2018 (GG A' 5/17.01.2018) and applying and in particular articles 7, 8, 9, 10, 11, 15 and article 18 par. 4 of this law.
- 2. The stipulations of L. 4001/2011 "On the operation of Energy Markets for Electricity and Natural Gas, for Research, Production and Hydrocarbon transfer networks and other regulations" (GG A' 179/22.08.2011), as applying.
- 3. The Day-Ahead and Intra-Day Markets Trading Rulebook, (decision of RAE under the No. 1116/2018, GG B' 5914/31.12.2018, as applying following its modification by the No. 820/2020 Decision of RAE, GG B' 1941/21.05.2020), and in particular the sub-sections 4.1.3.2, 4.3.3, 5.4.3 and 5.10.3
- 4. The Decision of the Deputy Minister of Environment and Energy "Setting a schedule for the date of commencement of the Day-Ahead, Intra-Day and Balancing Markets of L. 4425/2016 (A' 185), as applying" (ΥΠΕΝ/ΔΗΕ/7083/112, GG B' 172/30.01.2020).
- 5. The No. 1116/2018 Decision of RAE with the subject "Approval of the Day-Ahead and Intra-Day Markets Trading Rulebook, in accordance with articles 9, 10 and 18 of L. 4425/2016 (GG A' 185), as applying" (GG B' 5914/2018) as applying, following its modification, by the No. 820/2020 Decision of RAE (GG B' 1941/21.05.2020).
- 6. The No. 1124/5.12.2019 Decision of RAE "On defining the public limited company "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "HEnEx S.A." as "Nominated

- Electricity Market Operator/NEMO", in accordance with paragraph 2 of the article 8 of L. 4425/2016 (GG A' 185/30.09.2016), as applying".
- 7. The No. 36/2020 Decision of RAE with the subject "Approval, in accordance with par. 1 of article 9 of L. 4425/2016 and par. 1 of the article 117C of L. 4001/2011 as applying, of the operation of the public limited company operating under the name "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "HEnEx S.A." as Energy Exchange for the administration and operation of the Day-Ahead and Intra-Day Market" (GG B' 742/10.03.2020).
- 8. The under Reg. No. RAE I-255143/20.02.2019 proposal of HEnEx S.A. on "the methodology on the application of acceptance rules for sell/buy orders at the same price as provided for in paragraphs (10) and (11) of the sub-section 4.1.3.2 of the Day-Ahead and Intra-Day Markets Trading Rulebook".
- 9. The Public Consultation of RAE on the above mentioned proposal of HEnEx S.A, that took place on 25.02.2019 up until 15.03.2019¹ as well as the views submitted².
- 10. The under Reg. No. RAE I-264422/04.07.2019 letter of HEnEx S.A. with the subject "Indexing of the public consultation comments Regulation methodologies views".
- 11. The under Reg. No. O-79222/14.10.2019 letter of RAE with the subject: "Proposals of HEnEx S.A. on issuing decisions by RAE, based on the Day-Ahead and Intra-Day Markets Trading Rulebook".
- 12. The under Reg. No. RAE I-269698/17.10.2019 letter of HEnEx S.A. (No./DATE/HEnEx: 2394/16.10.2019) with the subject: "Proposal of HEnEx S.A. on the amendment of provisions of the Day-Ahead and Intra-Day Markets Trading Rulebook and the Proposals and Decisions issued subject thereto".
- 13. The under Reg. No. RAE I-271456/13.11.2019 letter of HEnEx S.A. (No./DATE/HEnEx: 2592/13.11.2019) with the subject: "Amendment of Provisions of the Day-Ahead and Intra-Day Markets (GG B' 5914/31.12.2018)".
- 14. The under Reg. No. RE I-275984/31.01.2020 letter of HEnEx S.A. (No./DATE/HEnEx: 203/31.01.2020) with the subject: "Submission of Proposals, Methodologies and Draft Technical Decisions based on the Day-Ahead and Intra-Day Markets Trading Rulebook of the Hellenic Energy Exchange S.A..".
- 15. The RAE Public Consultation on the aforementioned proposals of HEnEx S.A. (relevant document 14), that took place from 05.02.2020 up until 28.02.2020³ and about which the following remarks have been posted in its website ⁴:
 - (a) The under Reg. No. RAE I-277077/18.02.2020 letter of UNICEN.
 - (b) The under Reg. No. RAE I-277724/28.02.2020 letter of Public Power Corporation.
 - (c) The under Reg. No. RAE I-277805/28.02.2020 letter of Hellenic Association of Independent Power Producers.

¹ http://www.rae.gr/site/categories_new/about_rae/activity/global_consultation/history_new/2019/250219_1.csp

 $^{{}^2\ \}underline{\text{http://www.rae.gr/site/categories_new/about_rae/activity/global_consultation/history_new/2019/0504_lix_250219_1.csp}$

³http://www.rae.gr/site/categories_new/about_rae/activity/global_consultation/current/2020/0502_2.csp?viewMode=normal http://www.rae.gr/site/categories_new/about_rae/factsheets/2020/maj/2102_3.csp

http://www.rae.gr/categories_new/about_rae/activity/global_consultation/history_new/2020/0503_lix_0502_1.csp.

- (d) The under Reg. No. RAE I-277876/03.03.2020 letter of Natural Gas Hellenic Energy Company.
- (e) The under Reg. No. RAE I-277879/03.03.2020 letter of HERON.
- 16. The under Reg. No. O-81505/17.03.2020 letter of RAE with subject "Proposals of HEnEx S.A. on the amendment of Day-Ahead and Intra-Day Markets Trading Rulebook as well as the relevant Methodologies and Technical Decisions in the frame of its application".
- 17. The under Reg. No. RAE I-279139/24.03.2020 letter of HEnEx S.A. (No./DATE/HEnEx: 716/23.03.2020) with subject "Transfer of planned proposals of HEnEx S.A. on the amendment of Day-Ahead and Intra-Day Markets Trading Rulebook as well as the relevant Methodologies and Technical Decisions in the frame of its application".
- 18. The under Reg. No. RAE I-279630/01.04.2020 letter of HEnEx S.A. (No./DATE/HEnEx: 762 /31.03.2020) with the subject: "Transfer of proposals of HEnEx S.A. on the amendment of Day-Ahead and Intra-Day Markets Trading Rulebook as well as the relevant Methodologies and Technical Decisions in the frame of its application".
- 19. The fact that in accordance with the provisions of par. 1 of article 32 of L. 4001/2011, the regulatory acts issued by RAE are published in the Government Gazette.
- 20. The fact that the provisions hereof do not entail any charge on the State Budget.

Has come to the following conclusions:

I. Legal framework - duties

Because, in accordance with the provisions of article 7 of L. 4425/2016, as applying, "[...] The Participants in the Day-Ahead Market submit energy transaction orders with an obligation of physical delivery the day ahead (Delivery Day D). Energy quantities which have been nominated on Energy Financial Instruments and/or other wholesale energy products of the Rulebook (EU) No. 1227/2011 with the obligation of physical delivery are declared in the Day-Ahead Market. [...]" and furthermore "[...] The Participants in the Intra-Day Market may submit orders for physical delivery on the Delivery Day D, after the expiry for the submission of Orders in the Day-Ahead Market [...]".

Because, article 18 of the same aforementioned law provides, among other things, that "[...]2. Energy Exchange Rulebook [...] defines the terms and conditions for the operation of the Day-Ahead and Intra-Day Markets [..]. The Rulebooks include transparent and non-discriminatory rules, which are based on objective criteria regarding the access of the Participants to the Electricity Markets. The Participants and any other person to whom the Regulations relate must comply with their obligations arising from them. [...]" as well as that "[...] 4. Methodologies, parameters and other special approvals provided by the Market Codes, are decided by RAE, following a suggestion of the Market Operators and are published in the Government Gazette. [...]".

Because, in accordance with paragraphs 10, 11 and 12 of the sub-section 4.1.3.2 "Priority Price-Taking Orders" of the Day-Ahead and Intra-Day Markets Trading Rulebook

(hereinafter referred to as the "Rulebook", Decision of RAE 1116/2018, as modified by the decision of RAE 820/2020)

"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 Maimum 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 curtailement 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."

Because, in paragraphs 9 and 10 of the sub-section 4.3.3 "Acceptance rules of Orders by the Day-Ahead Market Price Coupling Algorithm" of the Rulebook, the following are provided for:

"9. In the event that for a Market Time Unit more than one part of Hourly Hybrid Sell Orders has 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 Orders has 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."

Because, in paragraphs 9, 10 and 11 of the sub-suction 5.4.3 "Priority Price-Taking Orders in Intra-Day Auctions" of the Rulebook, the following are provided for:

"9. 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 Intra-Day 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 Intra-Day Market and without Priority, then curtailment of Priority Price-Taking Sell Orders shall take place.

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 Maximum Orders Price for the Intra-Day 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 Intra-Day Market and without Priority, then curtailment of Priority Price-Taking Buy Orders shall take place.

11. The procedure for the curtailement of Buy/Sell Orders in the cases of paragraphs (9) and (10) is executed according to a methodology defined by RAE decision upon recommendation of HEnEx."

Because, in accordance with paragraphs 6 and 7 of the sub-section 5.10.3 "Order acceptance rules in LIDAs and CRIDAs" of the Rulebook:

"6. In the event that for a Market Time Unit more than one part of Hourly Hybrid Sell Orders has 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 Orders has 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."

Because, by the RAE Decision 36/2020 (rel. 7) the operation of the public limited company operating under the name "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "HEnEx S.A." as Energy Exchange for the administration and operation of the Day-Ahead and Intra-Day Markets, has been approved in accordance with par. 1 of article 9 of L. 4425/2016 and par. 1 of the article 117C of L. 4001/2011, as in force.

II. On the proposal of HEnEx S.A. regarding the Methodology on the application of acceptance rules for Sell and Buy Orders, with interconnected price in the Day-Ahead and Intra-Day Markets

Because, in the rel. 5 Decision of RAE, a schedule has been set for the submission on behalf of HEnEx S.A. of proposals to RAE to be approved, in accordance with paragraph 4 of article 18 L. 4425/2016, which included the Priority Price-Taking Sell/Buy Orders or otherwise the Methodology on the application of acceptance rules for Sell and Buy Orders, with interconnected price in the Day-Ahead and Intra-Day Markets.

Because, by the relevant 8 letter, HEnEx S.A. submitted to RAE, among other things, the proposal pertaining to the "methodology on the application of acceptance rules for sell/buy orders at the same price as provided for in paragraphs (10) and (11) of the sub-section 4.1.3.2 of the Day-Ahead and Intra-Day Markets Trading Rulebook". RAE has submitted the relevant proposal of HEnEx S.A. in public consultation from 25.02.2019 up until 15.03.2019, within the frame of which the remarks of the Hellenic Association of Independent Power Producers, PPC S.A., ADMIE S.A. and UNICEN have been submitted (rel. 9). HEnEx S.A., having regard to the remarks submitted to the above-mentioned public consultation, submitted an amended proposal (rel. 10) pertaining to the Methodology on the application of acceptance rules for sell/buy orders at the same price as provided for in paragraphs (10) and (11) of the sub-section 4.1.3.2 of the Day-Ahead and Intra-Day Markets Trading Rulebook".

Because, from the analysis of the proposals as a whole of HEnEx S.A., authorized by the Rulebook, as well as of the results of the relevant proposals, the need for further elaboration of the submitted methodologies and amendment of the Rulebook was identified (rel. 11-13).

Because, by the dated as of 23.01.2020 decision of the Deputy Minister of Environment and Energy (rel. 2) the schedule was set for the date of commencement of the Day-Ahead, Intra-Day and Balancing Markets of L. 4425/2016. In particular, according to point A:

"The expiry date for the submission of the proposals required subject to the stipulations of L. 4425/2016, as applying, on Regulations, Codes, Manuals, methodologies, as well as technical decisions to the Regulatory Authority for Energy, is the 31st of January, 2020,[...]".

Because, with the dated as of 31.01.2020 document (rel. 14), HEnEx S.A. timely submitted, among other things, its renewed proposal regarding the Methodology on the application of acceptance rules for sell/buy orders at the same price, as provided for in paragraphs (10) and (11) of sub-section 4.1.3.2 of the Day-Ahead and Intra-Day Markets Trading Rulebook, which is now titled as proposal on the Methodology on the application of acceptance rules for Sell/Buy orders at an interconnected price in the Day-Ahead and Intra-Day Markets, as provided for in sub-sections 4.1.3.2, 4.3.3, 5.4.3 and 5.10.3 of the Rulebook. RAE raised again the relevant proposal of HEnEx S.A. in public consultation (rel. 15), within the frame of which, a Participant suggested the curtailment of Sell/Buy Orders at an interconnected price in the Day-Ahead and Intra-Day Markets not to be conducted based only on the Timestamp of their submission in ETSS, but also according to the carbon footprint of the units they represent. On this proposal, HEnEx S.A. considers that "...the use of the timestamp of the Orders as the sole element in the implementation of the curtailment of Orders at an interconnected price is a transparent and universal approach to the Order curtailment process which follows the existing rules. Any use of the carbon footprint further complicates the process of curtailing the Orders as it requires relative specialization to isolate thermal unit orders and requires notification to the HEnEx S.A. of the details that regulatory are not within its competence..." (rel. 18).

Thereinafter, by the No. 14 relative document, HEnEx S.A. submitted drafts of the Technical Decisions to the Authority as defined in section 1.3 of the Rulebook, including the draft Technical Decision 4 with subject "Priority Price-Taking Order Submission Sequence". RAE, by its No. 16 relative document, after reviewing the content of the above Technical Decision considered that the proposed Technical Decision contains provisions of regulatory content and hence these settings should be incorporated in the proposal, which is approved by RAE, with subject "Methodology on the application of acceptance rules for Sell and Buy Orders, with interconnected price in the Day-Ahead and Intra-Day Markets". HEnEx S.A. with its dated as of 31.03.2020 document (rel. 18), submitted, among other things, its final proposal regarding the Methodology on the application of acceptance rules for Sell and Buy Orders with interconnected price in the Day-Ahead and Intra-Day Markets, subject to the provisions of sub-sections 4.1.3.2, 4.3.3, 5.4.3 and 5.10.3 of the Rulebook.

Because, within the frame of the existing structure of the wholesale electricity market, and in particular within the procedure for integrating Energy Offers and Load Declarations applied in the Day-Ahead Scheduling (DAS), in order to give priority to specific Energy Offers and Load Declarations, the technical capability is used to enter Non-Priced Energy Offers and Non-Priced Load Declarations.

Because, according to the proposal of HEnEx S.A. the order definition templates of the algorithm of the Single Price Coupling Region – PCR, do not allow the entry of Non-Priced Orders in the Shared Order Book. In particular, all Sell and Buy Orders of the Shared Order Book are submitted with a price. Therefore, as reflected in the Day-Ahead and Intra-Day Markets Trading Rulebook, to meet the required quantification priority in the Day-Ahead Market and the Local and Complementary Regional Intra-Day Market Auctions, the Buy and Sell Orders are inserted with Priority Price-Taking in accordance with the Non-Priced Offers / Load Statements of the DAS. In particular, the Priority Price-Taking Buy and Sell Orders will be introduced as Hourly Hybrid Orders of a step at a price equal to the Maximum and Minimum Orders Price respectively. All remaining Hybrid Orders are submitted with step or

linear segments and at prices between the Maximum and Minimum Order Price. In particular, Sell Orders have as a first point the one with the Minimum Order Price (-500€/MWh) and as the last point the one with the price that equals the Maximum Order Price (3000€/MWh). Correspondingly, Buy Orders have as the first point the one with the Maximum Order Price (3000€/MWh) and as the last point the one with the price that equals the Minimum Order Price (-500€/MWh).

Because, furthermore, according to the proposal of HEnEx S.A., after the settlement of the Day-Ahead and the Intra-Day Markets (for LIDAs or CRIDAs), HEnEx S.A. receives from the Solution Algorithm the Settlement Results of each market. The said Results, including Clearing Prices per Market Time Unit and per Bidding Zone, the Net Delivery Position of each Bidding Zone and the acceptance status and the acceptance ratio of Block Orders. For the modification of Settlement Results into Day-Ahead and Intra-Day Markets Results respectively, HEnEx S.A., should calculate the acceptable quantities of Hybrid Sell and Buy Orders. In this process, there is the possibility that the Clearing Price of the Market is competing with the same Price more than one Sell (or Buy) Order, called "price-tied Sell (or Buy) Orders". Specifically, the following cases can be distinguished:

- (a) The Clearing Price of the Market is between the Maximum Order Price of the Market and intersects a section of the aggregated Sell Curve that has been created by more than one Hourly Hybrid Sell Orders. Therefore, more than one Hourly Hybrid Sell Orders have a price on the left end less than or equal to the Clearing Price of the Market and on the right end a price greater than or equal to the Clearing Price of the Market.
- (b) The Clearing Price of the Market is between the Maximum Order Price of the Market and intersects a section of the aggregated Buy Curve that has been created by more than one Hourly Hybrid Buy Orders. Therefore, more than one Hourly Hybrid Buy Orders have a price on the left end greater than or equal to the Clearing Price of the Market and on the right end a price less than or equal to the Clearing Price of the Market.
- (c) The Clearing Price of the Market coincides with the Minimum (or Maximum) Buy Order Price of the Day-Ahead or Intra-Day Markets. In this case, the Priority Price-Taking Sell (or Buy) Orders compete, because they are submitted at the Maximum (in the case of Sell Orders) or Minimum (in the case of Buy Orders) Price and the Sell (or Buy) Orders must be partially accepted / curtailed.

Specifically, the appearance of clearing prices at the level of the Maximum or Minimum Order Price is indicative of the deficit or, respectively, the surplus of resources to satisfy the energy balance. In particular, in case there is a shortage of resources, then the Sell Orders are not sufficient to cover all Buy Orders, thus requiring the curtailment of Orders submitted at the Maximum Order Price for the Day-Ahead Market (or LIDAs or CRIDAs), meaning a curtailment of Priority Price-Taking Buy Orders. Respectively, in case the total load is very small or there is a resource surplus, then the Sell Orders exceed all Buy Orders thus requiring the curtailment of Orders submitted at the Minimum Order Price for the Day-Ahead Market (or LIDAs or CRIDAs), meaning a curtailment of Priority Price-Taking Sell Orders.

Because, the NEMO, in that case HEnEx S.A., has the possibility, in the said cases of resource shortage or surplus, to impose internally specific rules (series) on the curtailment of quantities that have been submitted Administratively Defined Minimum and the Maximum Order Price, applying the following: (a) Curtailment first of the quantities that have been

submitted at a price equal to the Minimum and the Maximum Order Price, which, however are not under the categories of Priority Price-Taking Orders, and, (b) in case further curtailment is required, curtailment of the quantities and the Priority Price-Taking Orders in a specific order. This process takes place after receiving the Market Results.

Because, every order entered in Energy Trading Spot System (ETSS) is accompanied by specific features, which differ depending on the Order type (e.g. Price, Quantity, Market Time Units and Minimum Acceptance Ratio for Block Orders, pairs of Price-Quantity points for the Hourly Hybrid Orders, etc.). Moreover, each Order is marked with a Timestamp. In the Orders submitted by the Participants, Timestamp contains the information of the time of entry in ETSS by the Participant. However, Priority Price-Taking Orders that correspond to the acceptable Physical Delivery and Offtake Schedule Reports are created by ETSS and are imported in bulk after the time 09:30 (CET), D-1. Hence, given that the time of the initiation of creation of the above Orders by ETSS coincides with 09:30 (CET), D-1, but regards to specific Physical Delivery or Offtake Schedules that have been submitted to ETSS by the Participants at a time prior to 09:30 (CET), D-1, the Order Timestamp of the Orders with Priority Price-Taking corresponding to Physical Delivery and Offtake Schedule Reports should take into account the time of submission of the respective accepted/final Physical Delivery or Offtake Schedule Report.

Because, according to the proposal of HEnEx S.A., the curtailment of Priority Price-Taking Sell Orders in the Day-Ahead Market, it is suggested to be applied per Market Time Unit, in the following sequence:

- 1. Sell Orders corresponding to the production of scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
- 2. Sell Orders corresponding to trades that have been conducted within the Energy Derivatives Market, and have been nominated to ETSS through validated Physical Delivery Nomination, and to trades that have been concluded on Energy Financial Instruments bilaterally outside the Energy Derivatives Market and have been nominated to ETSS through validated Physical Delivery Nomination, with the exemption of Sell Orders corresponding to Imports using confirmed nominated Long-Term Physical Transmission Rights and Sell Orders corresponding to deviations of the projected Losses of the Transmission System.
- 3. Sell Orders corresponding to Imports using confirmed noinated Long-Term Physical Transmission Rights.
- 4. Sell Orders corresponding to the projected offer from RES and CHP Units that are imported by the Last Resort RES Aggregator.
- 5. Sell Orders corresponding to the projected offer from RES Units that are imported by DAPEEP.
- 6. Sell Orders corresponding to the projected offer from CHP Units that are imported by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.

- 7. Sell Orders corresponding to Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.
- 8. Sell Orders submitted by the HTS Operator and which correspond to deviations of the Transmission System Losses in relation to the Sell Orders that have been created as a result of the participation of the HTSO Operator in the Energy Derivatives Market or bilaterally outside the Energy Derivatives Market.

Regarding the Priority Price-Taking Sell Orders that are curtailed subject to the above provisions, within the same category, the selection is suggested to be made according to the Timestamp at the moment they were entered into the ETSS.

Because, according to the proposal of HEnEx S.A., the curtailment of Priority Price-Taking Buy Orders in the Day-Ahead Market, it is suggested to be applied per Market Time Unit, in the following sequence:

- 1. Buy Orders corresponding to trades that have been conducted within the Energy Derivatives Market, and have been nominated to ETSS through validated Physical Offtake Nomination, and to trades that have been concluded on Energy Financial Instruments bilaterally outside the Energy Derivatives Market and have been nominated to ETSS through validated Physical Offtake Nomination, with the exemption of Buy Orders corresponding to Exports using confirmed nominated Long-Term Physical Transmission Rights and Buy Orders corresponding to Losses of the Transmission System.
- 2. Buy Orders corresponding to Exports using confirmed nominated Long-Term Physical Transmission Rights.
- 3. Sell Orders corresponding to deviations of the forecasted production from RES and CHP Units that are imported by the Last Resort RES Aggregator in association with the Sell Orders that have been created as a result of the participation of the Last Resort RES Aggregator in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market.
- 4. Sell Orders corresponding to deviations of the forecasted production from RES Units that are imported by DAPEEP in association with the Sell Orders that have been created as a result of the participation of DAPEEP in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market.
- 5. Sell Orders corresponding to deviations of the forecasted production from CHP Units that are imported by DAPEEP in association with the Sell Orders that have been created as a result of the participation of DAPEEP in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market.
- 6. Sell Orders submitted by HEnEx S.A. on behalf of the Last Resort Supplier and are associated with the Sell Orders for a Supplier that has been written off the Participant Register and exclusively for the Delivery Day D following its being written off by από το HEnEx S.A.
- 7. Sell Orders submitted by the HTSO corresponding to Transmission System Losses, including those that correspond to trades carried out within the Energy Derivatives Market, and have been declared to the ETSS through a validated Physical Offtake

Nomination, and trades that have been carried out on Energy Financial Instruments bilaterally, outside the Energy Derivatives Market and have been declared to the ETSS through a validated Physical Offtake Nomination.

Regarding the Priority Price-Taking Buy Orders that are curtailed subject to the above provisions, within the same category, the selection is suggested to be made according to the Timestamp at the moment they were entered into the ETSS.

Because, according to the proposal of HEnEx S.A., the curtailment of Priority Price-Taking Sell Orders in the LIDAs or CRIDAs, it is suggested to be applied per Market Time Unit, in the following sequence:

- 1. Sell Orders corresponding to the deviations of the scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
- 2. Sell Orders corresponding to the deviations of the forecasted production from RES and CHP Units that are imported by the Last Resort RES Aggregator.
- 3. Sell Orders corresponding to the deviations of the forecasted production from RES Units that are imported by DAPEEP.
- 4. Sell Orders corresponding to the deviations of the forecasted production from CHP Units that are imported by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.
- 5. Sell Orders corresponding to deviations of Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.
- 6. Sell Orders submitted by the HTS Operator and corresponding to deviations of Transmission System Losses.

Regarding the Priority Price-Taking Sell Orders that are curtailed subject to the above provisions, within the same category, the selection is suggested to be made according to the Timestamp at the moment they were entered into the ETSS.

Because, according to the proposal of HEnEx S.A., the curtailment of Priority Price-Taking Buy Orders in the LIDAs or CRIDAs, it is suggested to be applied per Market Time Unit, in the following sequence:

- 1. Buy Orders corresponding to the deviations of the scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
- 2. Buy Orders corresponding to the deviations of the forecasted production from RES and CHP Units that are imported by the Last Resort RES Aggregator.
- 3. Buy Orders corresponding to the deviations of the forecasted production from RES Units that are imported by DAPEEP.
- 4. Buy Orders corresponding to the deviations of the forecasted production from CHP Units that are imported by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.

- 5. Buy Orders corresponding to deviations of Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.
- 6. Buy Orders submitted by the HTS Operator and corresponding to deviations of Transmission System Losses.

Regarding the Priority Price-Taking Buy Orders that are curtailed subject to the above provisions, within the same category, the selection is suggested to be made according to the Timestamp at the moment they were entered into the ETSS.

Because, according to the proposal of HEnEx S.A., in case the Clearing Price of the Day-Ahead and/or Intra-Day Market is between the Minimum and the Maximum Order Price of the Day-Ahead and/or Intra-Day Market, it is suggested to curtail the Buy (or Sell) Orders based on the Timestamp at the moment they were entered into the ETSS.

Because, in accordance with the proposal of HEnEx S.A., all Buy and Sell Orders that are submitted within the frame of the Continuous Intra-Day Trading receive a Timestamp at the moment they are included in the Shared Order Book – SOB. In case there are more than one Buy Orders or Sell Orders at the same price, the priority is given to the Order that had been submitted earlier. Orders are matched between Orders in the opposite direction with the best values. Moreover, in the Continuous Trading no Priority Price-Taking Orders are submitted.

Because, RAE taking into account the above, made the legislative improvements it deemed necessary. In particular, the Authority considered it appropriate the curtailment the Priority Price-Taking Orders that correspond to Mandatory Hydro Injections of each Hydro Unit to take place last — in relation to the curtailment order shown in the rel. 18 submitted proposal of HEnEx S.A. — as the submission of these Orders is intended to meet the needs of water supply, irrigation and ecological supply and is not related to the commercial participation of each of the Hydroelectric Units in the Day-Ahead Market and the Intra-Day Market.

Decides:

Within the frame of its duties, subject to article 18, par. 4 of L. 4425/2016, and the sub-sections 4.1.3.2, 4.3.3, 5.4.3 and 5.10.3 of the Day-Ahead and Intra-Day Marks Trading Rulebook as applying, the definition of the here-below methodological rules:

- A. The curtailment of Priority Price-Taking Sell Orders in the Day-Ahead Market, it is applied per Market Time Unit, in the following sequence:
 - 1. Sell Orders corresponding to the production of scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
 - 2. Sell Orders corresponding to trades that have been conducted within the Energy Derivatives Market, and have been nominated to ETSS through validated Physical Delivery Nomination, and to trades that have been concluded on Energy Financial Instruments bilaterally outside the Energy Derivatives Market and have been nominated to ETSS through validated Physical Delivery Nomination, with the exemption of Sell Orders corresponding to Imports using confirmed nominated Long-Term Physical Transmission Rights and Sell Orders corresponding to deviations of the forecasted Losses of the Transmission System.
 - 3. Sell Orders corresponding to Imports using confirmed nominated Long-Term Physical Transmission Rights.

- 4. Sell Orders corresponding to the forecasted production of RES and CHP Units that are submitted by the Last Resort RES Aggregator.
- 5. Sell Orders corresponding to the forecasted production of RES Units that are submitted by DAPEEP.
- 6. Sell Orders corresponding to the scheduled production of CHP Units that are submitted by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.
- 7. Sell Orders submitted by the HTS Operator and which correspond to the correction of deviations of the Transmission System Losses in relation to the Sell Orders that have been created as a result of the participation of the HTS Operator in the Energy Derivatives Market or bilaterally outside the Energy Derivatives Market.
- 8. Sell Orders corresponding to Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.

As for the Priority Price-Taking Sell Orders that are curtailed subject to the above provisions, within the same category, the selection is made according to the Timestamp at the moment they were entered into the ETSS, meaning within the same category, while the first to be curtailed are the ones that have been the last to be entered in the ETSS. As for the Priority Price-Taking Orders that correspond to Orders that are created as a result of their participation in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market, the Timestamps are received according to the Technical Decision entitled "Priority Price-Taking Order Submission Sequence".

- B. The curtailment of Priority Price-Taking Buy Orders in the Day-Ahead Market, it is applied per Market Time Unit, in the following sequence:
 - Buy Orders corresponding to trades that have been conducted within the Energy
 Derivatives Market, and have been nominated to ETSS through validated Physical
 Offtake Nomination, and to trades that have been concluded on Energy Financial
 Instruments bilaterally outside the Energy Derivatives Market and have been nominated
 to ETSS through validated Physical Offtake Nomination, with the exemption of Buy
 Orders corresponding to Exports using confirmed nominated Long-Term Physical
 Transmission Rights and Buy Orders corresponding to Losses of the Transmission
 System.
 - 2. Buy Orders corresponding to Exports using confirmed nominated Long-Term Physical Transmission Rights.
 - 3. Sell Orders corresponding to deviations of the forecasted production of RES and CHP Units that are submitted by the Last Resort RES Aggregator in association with the Sell Orders that have been created as a result of the participation of the Last Resort RES Aggregator in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market.
 - 4. Sell Orders corresponding to deviations of the forecasted production of RES and CHP Units that are imported by DAPEEP in association with the Sell Orders that have been created as a result of the participation of DAPEEP in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market.
 - 5. Sell Orders submitted by HEnEx S.A. on behalf of the Last Resort Supplier and are associated with the Sell Orders for a Supplier that has been deleted from the Participant Register and exclusively for the Delivery Day D following its deletion by HEnEx S.A.

6. Sell Orders submitted by the HTSO corresponding to Transmission System Losses, including those that correspond to transactions carried out within the Energy Derivatives Market, and have been declared to the ETSS through a validated Physical Offtake Nomination, and transactions that have been carried out on Energy Financial Instruments bilaterally, outside the Energy Derivatives Market and have been declared to the ETSS through a validated Physical Offtake Nomination.

As for the Priority Price-Taking Buy Orders that are curtailed subject to the above provisions, within the same category, the selection is made made according to the Timestamp at the moment they were entered into the ETSS, meaning within the same category, while the first to be curtailed are the ones that have been the last to be entered in the ETSS. As for the Priority Price-Taking Orders that correspond to Orders that are created as a result of their participation in the Energy Derivatives Market or bilaterally, outside the Energy Derivatives Market, the Timestamps are received according to the Technical Decision entitled "Priority Price-Taking Order Submission Sequence".

- C. The curtailment of Priority Price-Taking Sell Orders in the LIDAs or CRIDAs, is applied, per Market Time Unit, in the following sequence:
 - Sell Orders corresponding to the deviations of the scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
 - 2. Sell Orders corresponding to the deviations of the forecasted production of RES and CHP Units that are submitted by the Last Resort RES Aggregator.
 - 3. Sell Orders corresponding to the deviations of the forecasted production of RES Units that are submitted by DAPEEP.
 - 4. Sell Orders corresponding to the deviations of the scheduled production of CHP Units that are imported by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.
 - 5. Sell Orders submitted by the HTS Operator and corresponding to deviations of Transmission System Losses.
 - 6. Sell Orders corresponding to deviations of Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.

As for the Priority Price-Taking Sell Orders that are curtailed subject to the above provisions, within the same category, the selection is made made according to the Timestamp at the moment they were entered into the ETSS, meaning within the same category, while the first to be curtailed are the ones that have been the last to be entered in the ETSS.

- D. The curtailment of Priority Price-Taking Buy Orders in the LIDAs or CRIDAs, is applied, per Market Time Unit, in the following sequence:
 - Buy Orders corresponding to the deviations of the scheduled production of Generating Units in Commissioning or Testing Operation and RES Units in Commissioning or Testing Operation.
 - 2. Buy Orders corresponding to the deviations of the forecasted production of RES and CHP Units that are submitted by the Last Resort RES Aggregator.

- 3. Buy Orders corresponding to the deviations of the forecasted production of RES Units that are submitted by DAPEEP.
- 4. Buy Orders corresponding to the deviations of the forecasted production of CHP Units that are submitted by DAPEEP for reasons related to the safety of the facilities that are supplied with thermal energy.
- 5. Buy Orders submitted by the HTS Operator and corresponding to deviations of Transmission System Losses.
- 6. Buy Orders corresponding to deviations of Mandatory Hydro Injections of each Hydro Unit for water supply, irrigation and ecological supply.

As for the Priority Price-Taking Buy Orders that are curtailed subject to the above provisions, within the same category, the selection is made made according to the Timestamp at the moment they were entered into the ETSS, meaning within the same category, while the first to be curtailed are the ones that have been the last to be entered in the ETSS.

- E. In case the Clearing Price of the Day-Ahead Market and/or Intra-Day Market is between the Minimum and the Maximum Order Price of the Day-Ahead Market and/or Intra-Day Market, the curtailment of the Buy (or Sell) Orders is made based on the Timestamp at the moment they were entered into the ETSS, meaning that the first to be curtailed are the ones that have been the last to be entered in the ETSS.
- F. The Timestamp of Priority Price-Taking Orders corresponding to Physical Delivery/Offtake Nominations, takes into account the time of submission of the respective accepted/final Physical Delivery or Offtake Schedule Report. In particular, upon completion of the submission process of the Physical Delivery and Offtake Schedules and the implementation of these validation checks, the Energy Trading Spot System (ETSS) of HEnEx creates the respective Sell/Buy Orders with Priority Price-Taking, taking into account the time sequence of the Timestamps regarding the submission of Physical Delivery/Offtake Nominations.
- G. The entry into force of this decision from the day of commencement of operation of the Day-Ahead and Intra-Day Markets.

This Decision is notified to the company "Hellenic Energy Exchange S.A.", posted on the official website of RAE and published in the Government Gazette (GG).

Athens, May 25th, 2020

The President of RAE

Dr. Nikolaos G. Boulaxis