

DECISION OF RAE UNDER NO. 1014/2021

Definition of the percentage X% of the retail supply share and A% of energy quantities and are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments for the year 2022, in accordance with the provisions of subsection 4.4.2.2 of the Day-Ahead Market & Intra-Day Market Rulebook and article 18 par. 6 of the L. 4425/2016, as in force

The Regulatory Authority for Energy

At its regular meeting, at its headquarters, **on the 22nd of December 2021**, and

Taking into account:

1. Chapter C "Stipulations coming under the competency of the Ministry for the Environment and Energy" 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 amended by the L. 4512/2018 (GG A' 5/17.01.2018) as applying and in particular article 18 par. 4 of this law.
2. 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, and mainly article 32.
3. The No. 369/2018 Decision of RAE "Directions for drawing up the Regulations of Energy Markets, as provided for in L. 4425/2016, as applying" (GG B' 1880/24.05.2018).
4. The Day-Ahead and Intra-Day Market Trading Rulebook, (Decision of RAE under the No. 1116/2018, GG B' 5914/2018), as applying following its modification by the Decisions of RAE 820/2020 (GG B' 1941/21.05.2020), 1228/2020 (GG B' 4124/24.09.2020), 610/2021 (GG B' 3857/18.08.2021) and 775/2021 (GG B' 4982/27.10.2021) and 987/2021, and in particular the provisions of subsection 4.4.2.2 hereof.
5. The No. 1124/2019 Decision of RAE "On defining the public limited company "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "HEEx 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».
6. 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 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 "HEEx S.A." as Energy Exchange for the administration and operation of the Day-Ahead and Intra-Day Market" (GG B' 742/10.03.2020).

7. The No. 1008A/2020 Decision of RAE pertaining to the definition of the percentage X% of the retail supply share and A% of energy quantities and are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments for the year 2020, in accordance with the provisions of subsection 4.4.2.2 of the Day-Ahead Market & Intra-Day Market Rulebook and article 18 par. 6 of the L. 4425/2016, as applying" (GG B' B' 3385/13.08.2020).
8. The No. 1657/2020 Decision of RAE pertaining to the definition of the percentage X% of the retail supply share and A% of energy quantities and are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments for the year 2021, in accordance with the provisions of subsection 4.4.2.2 of the Day-Ahead Market & Intra-Day Market Rulebook and article 18 par. 6 of the L. 4425/2016, as applying" (GG B' B' 6027/31.12.2020).
9. 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 Market Rulebook as well as the relevant Methodologies and Technical Decisions in the frame of its application”* which included the study of Ecco International with subject *“Buyer-Side Market Power Analysis of the Maximum threshold of Forward Hedge Ratio in the Greek Wholesale Electricity Market”*.
10. The under Reg. No. RAE I-312821/03.11.2021 document of HEnEx S.A. (HEnEx: 1595/02.11.2021) with subject *“Proposal regarding the definition of the percentage X% of the retail supply share and A% of the quantities of energy that are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments within the Energy Derivatives Market or bilaterally, on the total amounts of energy purchased with acceptable Buy Orders in the Day-Ahead Market for the calendar year 2022”*.
11. The Public Consultation of RAE on the above-mentioned proposal of HEnEx S.A, that took place on 11.11.2021 up until 22.11.2021¹, as well as the results of the same².
12. The under Reg. No. RAE O-91176/02.12.2021 RAE electronic document to HEnEx S.A. regarding the submission of opinions on the comments of the above Public Consultation.
13. The under Reg. No. RAE I-315146/06.12.2021 document of HEnEx S.A. (HEnEx: 1762/03.12.2021) with the subject: *“Opinions of HEnEx on the subjects that have been submitted within the frame of the Public Consultation for specifying the percentage X% of the retail supply share and A% of the quantities of energy that are included in the validated Physical Offtake Nominations, according to the provisions of section 4.4.2.2 of the Day-Ahead & Intra-Day Market Rulebook of the Hellenic Energy Exchange S.A.”*.
14. The under Reg. No. RAE I-316039/16.12.2021 document of the Hellenic Association of Independent Power Producers (HAIPP: 639/15.12.2021) with the subject: *“Proposal to HEnEx for specifying the percentages X% and A% for the year 2022”*.
15. 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 Official Gazette.
16. The fact that the provisions hereof do not entail any charge on the State Budget.

Has come to the following conclusions:

Whereas, according to par. 6 of article 18 of L. 4425/2016 as applying:

¹ <https://www.rae.gr/diavoulefseis/15735/>

² <https://www.rae.gr/diavoulefseis/17301/>

"6. "In order to ensure the efficient operation of Power Markets, it is possible, by decision of RAE, to define for the Participants, per supply portfolio, a maximum transaction rate on Energy Financial Instruments, settled with natural delivery of energy and/or on other energy derivatives and/or on wholesale energy products of the Rulebook (EU) No. 1227/2011 with the obligation of physical delivery, that have been concluded within the Energy Derivatives Market or bilaterally, outside of it, which can be declared in the trading system of the Day-Ahead Market, as specified in detail in the Energy Exchange Rulebook."

Whereas, RAE, in accordance with its No. 369/2018 Decision, regarding the "Directions for drawing up the Regulations of Energy Markets, as provided for in L. 4425/2016, as applying" (rel. 3), stipulated, inter alia, that:

"9. The NEMO audits sell orders prior to the settlement of Day-Ahead Market. The audit includes the following: [...] Additionally, the NEMO following the settlement of Day-Ahead Market, audits sell orders in terms of meeting the maximum transaction rate through Energy Financial Instruments, settled with natural delivery of energy and have been concluded within the Energy Derivatives Market or bilaterally, outside of it, and/or other wholesale energy products of the Rulebook (EU) No. 1227/2011 with the obligation of physical delivery for the Participants per supply portfolio."

Whereas, in accordance with paragraph 1 of subsection 4.4.2.2 "**Non-Compliance Charge for breaching the restriction of the Maximum Percentage of Physically Delivered Energy Financial Instruments** of the Day-Ahead Market and the Intra-Day Market Rulebook (hereinafter referred to as the "Rulebook") (rel. 4), the following is stipulated:

"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 for each calendar year by a RAE Decision, following a proposal of HEnEx.**"

Whereas, by the rel. 7 Decision, according to the stipulations of sub-section 4.4.2.2 of the Rulebook and article 18 par. 6 of the L. 4425/2016, as applying, RAE, weighing the need to find the optimal balance among the objectives of having sufficient liquidity in the Day-Ahead Market, of tackling the abuse of a dominant position and of the existence of hedging tools, defined the percentage X% of the retail supply share at 4% and A% of the quantities of energy that are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments at 20% for the calendar year 2020.

Whereas, additionally, by the aforementioned RAE Decision, the way of calculating the Supply share X% of every Supplier was defined, as well as the procedure for the relevant briefing of the Authority on its calculation, as follows:

"The Supply share, X%, of each Supplier to be calculated on a monthly basis, taking into account the formed total position of Sells and Buys (for Position Correction) of the Supplier *r* in the Day-Ahead Market and in the Intra-Day Market, during the month of Physical Delivery *m-1* for represented consumers in Load Portfolios of Bidding Zone *z*, and after the

announcement of the Day-Ahead Market Results for the first day of physical delivery d of the month m , as follows:

$$X_{r,m,z} = \frac{\sum_{t=1}^T [BQ_{r,z,t} - SQ_{r,z,t}]}{\sum_{r=1}^R \sum_{t=1}^T [BQ_{r,z,t} - SQ_{r,z,t}]}$$

Wherein:

$BQ_{r,z,t}$ The total quantities of the Supplier's transactions r for buying energy in the Day-Ahead Market and the Intra-Day Market, for the Market Time Unit t of month $m-1$ in Load Portfolios of Bidding Zone z , at MWh, excluding the quantities of transactions corresponding to Pumping Units;

$SQ_{r,z,t}$ The total quantities of the Supplier's transactions r for selling energy in the Day-Ahead Market and the Intra-Day Market, for the Market Time Unit t of month $m-1$ in Load Portfolios of Bidding Zone z , at MWh, excluding the quantities of transactions corresponding to Pumping Units;

T The total / number of Market Time Units of month $m-1$.

R The total / number of Suppliers R that participated in the Day-Ahead Market and the Intra-Day Market during month $m-1$.

In particular for the month in which the operation of the Day-Ahead Market will start, the Supply share, $X\%$, for every Supplier will be calculated on the basis of the Load Declarations that were entered in the DAS, during the immediately preceding month.

The results of the above calculations should be sent on a monthly basis to RAE."

Whereas, RAE, further by the No. 8 Decision of the same, due to the lack of sufficient time for the new market to operate and the relevant retention of considerations / assumptions during this period, decided to retain the price of the percentage $X\%$ to 4% , as well as the price of the percentage $A\%$ to 20% for the calendar year 2021 as well.

Whereas, by its relevant 9 document, HEnEx S.A. submitted its proposal regarding the definition of the percentage $X\%$ of the retail supply share and $A\%$ of the quantities of energy that are included in the validated Physical Offtake Nominations and that correspond to energy quantities of trades on Energy Financial Instruments within the Energy Derivatives Market or bilaterally, on the total amounts of energy purchased with acceptable Buy Orders in the Day-Ahead Market for the calendar year 2022, in accordance with the provisions of subsection 4.4.2.2 of the Rulebook, as applying.

Whereas, to the above document, statistics were attached for the period from 01.11.2020 to 30.09.2021 in which only one of the Suppliers to which the control of subsection 4.4.2.2 of the Regulation applies, proceeded to Physical Offtake Nominations that correspond to energy quantities of trades on Energy Financial Instruments, which were concluded bilaterally. This statistical information includes the following:

1. hourly calculation of energy quantities of the Priority Price-Taking Buy Orders (PPT), which were included in the Day-Ahead Market Order Book and which concerned validated Physical Offtake Nomination, in terms of total amounts of energy of all Market Orders that were cleared by the algorithm for that vendor, which were calculated as follows:

A<5%	5%≤A<10%	10%≤A<15%	15%≤A≤20%
44%	9%	34%	13%

2. market liquidity ratio calculation as follows:

$$Liquidity_t = 100\% - \frac{\sum_t(PPTSellOrders_t)}{\sum_t(All\ Buy\ Orders_t)}$$

wherein the numerator $PPTSellOrders_t$ includes all PPT Sell Orders which have been included in the Day-Ahead Market Order Book based on the provisions of sect. 4.1.4 of the Rulebook and in particular:

- α. PPT Sell Orders that correspond to Imports using confirmed nominated Long-Term Physical Rights,
- β. PPT that correspond to scheduled production of Generating Units in Commissioning or Testing Operation and Mandatory Hydro Injections by the HTSO,
- γ. PPT Sell Orders of the Last Resort RES Aggregator for the forecasted production of each Dispatchable and Non-Dispatchable RES Portfolio;
- δ. PPT Sell Orders by the RES & GO Operator, for the forecasted production of each RES FiT Portfolio, for the forecasted production of rooftop Photovoltaics and for the Priority Declarations for each High-Efficiency Cogeneration Dispatchable Unit.
- ε. PPT Sell Orders for the quantities of energy that correspond to transactions carried out within the Energy Derivatives Market or on Energy Financial Instruments, outside the Energy Derivatives Market, and have been declared to the ETS through a validated Physical Offtake Nomination, and
- σ. PPT Sell Orders on account of the Last Resort RES Aggregator for the forecasted production of Dispatchable and Non-Dispatchable RES Portfolio.

The denominator $All\ Buy\ Orders_t$ includes all Buy Orders that have been registered in the Day-Ahead Market Order Book.

According to the above, only in 2.89% of Market Time Units liquidity is less than 40%, while in 81.24% of the cases, the liquidity is set at a rate of more than 55%. It is noted that during this period there has been no case of curtailment of Priority Price-Taking Sell Orders.

Whereas, HEnEx S.A. taking into account the above data, as well as the following:

- α) the aim of the measure is the efficient operation of the market, i.e. the operation of a market that provides sufficient liquidity (market liquidity) and price formation mechanism (price formation) while defining rules for mitigation of economic power and dominance exercise;
- β) the measure was introduced as transitional until the market reached a sufficient level of competition;
- γ) the operation of the Day-Ahead Market to date is characterized by high liquidity and an efficient pricing mechanism that reflects the fundamental sizes of the market, and

- δ) however, the structure of the Greek wholesale electricity market, and especially in the Supply side, has not changed significantly during the implementation of the measure and is still characterized as an oligopoly with a dominant player presence, with a vertical activity and a net buyer position;

considers it necessary to continue the implementation of this measure while maintaining the approved parameter values $X=4\%$ and $A=20\%$ for the calendar year 2022.

Whereas, RAE raised the No. 9 proposal of HEnEx S.A. in Public Consultation from 11.11.2021 up until 22.11.2021 (rel. 11). In the context of the public consultation, opinions were submitted for this proposal by EVIKEN, according to which the proposal of HEnEx S.A. should not be accepted, and the specific measure ceases to apply.

Whereas, HEnEx S.A. with its rel. 13 document, in response to the rel. 12 electronic document of RAE, submitted to the Authority its views on EVIKEN's comments in the above public consultation, and insists on its initial suggestion given that, as it states, this threshold has not been sufficiently used by the participants to such an extent that it is possible to assess the impact of concluding bilateral contracts with physical delivery on liquidity and the pricing mechanism of the Day-Ahead Market. Moreover, according to HEnEx S.A., despite the existing possibility of the Participants in the Day-Ahead Market to register transactions that were conducted bilaterally for Physical Settlement in HEnEx's Trading System, based on the provisions of Section 6.3 of the Rulebook, only one of them proceeded to the registration of the corresponding transactions, without exceeding the limit approved for the year 2021, $A=20\%$.

Whereas, in addition a letter was submitted out of the specified time by the Hellenic Association of Independent Power Producers (HAIPP, rel. 14), which agrees with keeping this measure, meaning setting a limit for the Forward Hedging Ratio, that is, $A\%$, as a transitional measure in the Day-Ahead Market, with the aim to limit mainly the ability of the dominant company to influence (a) the price configuration mechanism, and (b) the effectiveness of the market through the exercise by the portfolio game practices, through the extensive use of futures products, which are concluded within the Futures Market of HEnEx or bilaterally. According to HAIPP, the application of such restrictions to the volume of bilateral contracts concluded between production and supply companies that hold a significant share of their markets (over 30%) has been recognized by the European Regulation 330/2010 as a tool to avoid anti-competitive practices. In brief, the HAIPP expresses the view of keeping the FHR as a measure to limit the power of the dominant company but also as a measure to ensure adequate liquidity in the wholesale market.

Whereas, according to data published by HEnEx S.A. (Day Ahead & Intraday Electricity Markets – Greek Bidding Zone, Monthly Report, November 2021³), the dominant company held a market share of 63.43% in the interconnected system in November 2021 while the remaining twenty-one suppliers held a market share of 36.57%. Out of these, the three vertically integrated suppliers (Mytilineos, Heron and Elpedison) had a share of 20.36%, which has remained at about the same level during the one year of operation of the new electricity markets, according to data published by HEnEx S.A.

³ https://www.enexgroup.gr/el/c/document_library/get_file?uuid=48dbf55f-bd9f-f3d4-8276-ee5fb13b3546&groupId=20126

Whereas, the operation of the Day-Ahead Market, without the parallel operation of the Energy Derivatives Market (hereinafter "Futures Market") with sufficient liquidity may expose the Participants, Producers and/or Suppliers, to the risk of price volatility and prevent the efficient operation of the market, both wholesale and retail, in its entirety. And that because, the Futures Market, operating in parallel with the Day-Ahead Market, allows Participants, through the conclusion of futures contracts, to guard against a possible, intense short-term volatility of prices, while offering incentives to producers to offer their production at competitive prices, securing in the long run part of the necessary cash flows. The benefits of the Futures Market must be weighed against this effect on the liquidity of the Day-Ahead Market, taking into account the structural conditions of competition in the production/consumption mix.

Whereas, the smooth operation of the Day-Ahead Market is based on the price formation, meaning when the Clearing Price reflects the short-term marginal cost of production, which is achieved by ensuring sufficient liquidity to provide reliable market signals. Lifting restrictions to ensure the liquidity and reliability of the Day-Ahead Market should take place gradually, depending on its maturity and degree of concentration.

Whereas, one year has passed since the full operation of the new electricity markets and sufficient liquidity has been achieved in the Day-Ahead Market, but not in the Futures Market. Furthermore, it is appropriate to provide further incentives for concluding futures contracts, which can be tools to mitigate the effects of a strong short-term price volatility in the Day-Ahead Market.

Whereas, the more than one year operation of the Day-Ahead Market from November 2020 and the coupling of this market with the market of Italy and Bulgaria (Single Day-Ahead coupling) from December 2020 and May 2021 respectively, have provided satisfactory price convergence signals with markets of S.E. Europe. Therefore, the maturation of the Day-Ahead Market allows the gradual lifting of restrictions on the futures market, by increasing the validated Physical Offtake Nominations, that correspond to quantities of energy in transactions of Energy Financial Instruments, for the year 2022.

Whereas, in terms of market shares and incentives of participants, during this period PPC SA, as a dominant participant, continues to hold a significant share in the supply of electricity (63.43%).

Whereas, the existing restrictions on the prices of the percentages X% and A%, make it inapplicable to conclude bilateral contracts of alternative suppliers with base units, as the limitation of the percentage A% leads to loads much lower than the technical minimum of competing base thermal units, therefore non-technically guaranteed submission of Physical Offtake Nominations.

Whereas, at the same time, the operation of the Futures Market with sufficient liquidity must be ensured, which will allow the Participants to mitigate the price risk, contracting quantities for longer periods at clearly defined prices, thus limiting their exposure to the most volatile prices of the Day-Ahead Market and the Intra-Day Market. At the same time, futures trading is expected to strengthen long-term activities related to the design of the system, such as investments in Production, Transfer, Distribution and Demand Management, indicating future expectations of hourly market prices and providing reliable financial reference signals to the Participants.

Whereas, the strengthening of the futures market provides a clear message for the implementation of investments on market terms (Merchant PPAs), contributing to the acceleration of the energy transition and the maturation of the domestic electricity market.

Whereas, RAE, based on the above and in particular the need to strengthen the liquidity of the futures market, given that sufficient liquidity and price formation in the Day-Ahead Market, considers it appropriate to increase the price of the percentage X% to 40%, i.e. the restriction to apply only to the dominant company, while maintaining the price of the percentage A% to 20% for the next calendar year, i.e. until 31.12.2022.

Decides:

Within the frame of its duties, subject to article 18, par. 6 of L. 4425/2016, and the provisions of sub-sections 4.4.2.2 of the Day-Ahead and Intra-Day Market Rulebook, as applying:

1. The definition, for the year 2022, of the percentage A% to 20%.
2. The definition, for the year 2020 of the percentage X% - which is the percentage corresponding to the Supply share of each Supplier, to which the restriction A% applies - at 40%.

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, 22/12/2021

The President of RAE

Dep. Prof. Athanasios Dagoumas