

## DECISION OF RAE UNDER NO. 949/2020

### Methodology for Calculating Fees and Charges for the operation of the Day-Ahead Market and the Intra-Day Market

#### The Regulatory Authority for Energy

At its regular meeting, at its headquarters, **on the 2<sup>nd</sup> of June 2020**, which continued on the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> and **15<sup>th</sup> of June**, 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 applying, and especially articles 6, 8 and 18 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 Regulation (EU) 2015/1222 of the Committee dated as of July 24<sup>th</sup>, 2015 establishing a guideline on capacity allocation and congestion management (EEL 197 dated as of 25.07.2015, p. 24 suc.).
4. 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 provisions of section 3.12.
5. 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*" (ΥΠΙΕΝ/ΔΗΕ/7083/112, GG B' 172/30.01.2020).
6. The No. 1124/5.12.2019 Decision of RAE "*On defining the public limited company "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "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*".
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 Markets" (GG B' 742/10.03.2020).*

8. The No. 585/2020 Decision of RAE with subject "Approval of the budget of the company "Hellenic Energy Exchange S.A", according to article 117B par.11 of L.4001/2011 (GG A'179), as applying».
9. The under Reg. No. RAE I-275983/31.01.2020 letter of Enex Clearing House S.A (EnExClear) (EnExClear/43/31.01.2020) with the subject: "*Submission to RAE of Draft Technical and Executive Decisions of EnExClear subject to the Clearing Rulebook of the Day-Ahead and Intra-Day Markets*".
10. The under Reg. No. RAE 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.*".
11. The under Reg. No. O-80899/06.02.2020 letter of RAE from HEnEx S.A. with subject "*Proposals of HEnEx S.A. on issuing decisions by RAE, based on the Day-Ahead and Intra-Day Markets Trading Rulebook*", which as also communicated to EnExClear.
12. The under Reg. No. RAE I-277657/27.02.20 letter of HEnEx S.A. (No./DATE/HEnEx: 388/26.02.2020) with the subject: "*Submission of proposal according to the provisions of section 3.12 of the Day-Ahead and Intra-Day Markets Trading Rulebook*".
13. The RAE Public Consultation on the proposals of HEnEx S.A. (ref. 12) and of EnExClear (rel. 9) as regards the administrative fees and charges for the operation and clearing of transactions of the Day-Ahead and Intra-Day Markets, which took place from 04.03.2020 until 16.03.2020<sup>1</sup> and on which the following remarks were submitted, as these have been posted on the webpage of the Authority<sup>2</sup>:
  - (a) The under Reg. No. RAE I-278669/16.03.2020 letter of the Hellenic Association of Photovoltaic Companies.
  - (b) The under Reg. No. RAE I-278792/16.03.2020 letter of FORENA ENERGY SA.
14. The under Reg. No. O-81539/20.03.2020 e-mail message of RAE with subject "*Proposals on administrative fees and charges – views of HEnEx and EnExClear*".
15. 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*".
16. The under Reg. No. RAE O-82375/22.05.2020 letter of RAE with the subject: "*Proposal of HEnEx S.A. and EnExClear S.A. on the methodology and administrative fees and charges for the operation of the Day-Ahead and Intra-Day Markets*".

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<sup>1</sup> [http://www.rae.gr/site/categories\\_new/about\\_rae/factsheets/2020/gen/0403\\_1.csp](http://www.rae.gr/site/categories_new/about_rae/factsheets/2020/gen/0403_1.csp)

<sup>2</sup> [http://www.rae.gr/site/categories\\_new/about\\_rae/factsheets/2020/gen/190320\\_2.csp](http://www.rae.gr/site/categories_new/about_rae/factsheets/2020/gen/190320_2.csp)

17. The under Reg. No. RAE I-283537/15.06.2020 letter of HEnEx S.A.. (No./DATE/HEnEx: 1277/15.06.2020.) with the subject: "*Submission of proposal according to the provisions of section 3.12 of the Day-Ahead and Intra-Day Markets Trading Rulebook*".
18. The fact that according to the provision of par. 4 of article 18 of L. 4425/2016 methodologies provided by the Market Regulations are decided by RAE and published in the Government Gazette.
19. The fact that the provisions hereof do not entail any charge on the State Budget.

## **Has come to the following conclusions:**

### **I. Legal framework**

*Because*, according to point (c), of par. 1 of article 6 of L. 4425/2016 regarding the Duties of RAE:

*"1. In addition to the duties laid down in the current legislation, and especially in the provisions of L. 4001/2011, RAE: [...]*

*c) Exercises the responsibilities of the regulatory authorities provided for in Regulation (EU) 2015/1222 and provide in particular for the definition of the NEMO, monitoring its compliance with the definition criteria, **approving the administrative fees of the NEMO in case of monopoly**, the approval of the cooperation plan for the NEMOs for the joint establishment and execution of the operation of Market Coupling Operator, the approval of the other terms and conditions or methodologies and the execution of all duties, functions and responsibilities, according to the details provided in this Regulation.[...]*»

*Because*, in accordance with article 8 of L. 4425/2016 regarding the definition and the duties of the NEMO:

*"[...]2. Without prejudice to par. 7 hereof and par. 4 of article 117E of L. 4001/2011, the NEMO is assigned by decision of RAE, according to the criteria provided for in the Regulation (EU) No. 2015/1222. **RAE is also responsible for monitoring the compliance with the definition criteria, the approval of the administrative fees of the NEMO or the methodology for calculating these administrative fees, the recovery of the NEMO, as well as any other duty assigned to the national Regulatory Authorities, in virtue of the aforementioned Regulation [...]***

*5. **The NEMO receives from the Participants administrative fees for the administration and operation of the Day-Ahead and the Intra-Day Markets, with the approval of RAE subject to the provisions of the Regulation (EU) 2015/1222. [...]***"

*Because*, article 18 of the same law provides for, among other things, the following:

*"[...]2. Energy Exchange Rulebook [...] defines the terms and conditions for the operation of the Day-Ahead and Intra-Day Market [...]. 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 Rulebooks concern must comply with their obligations arising from them. The Rulebook determines the consequences that occur in case of breach of its rules. The following are specifically specified: [...]*

- b) *The obligations and rights of the Participants, [...]*
  - g) *The rules and procedures for transactions [...]*
  - j) ***Approval procedures from RAE and recovery procedures from the Energy Exchange and the HTSO of the administrative fees or other charges for the operation cost of Energy Markets. [...]***
  - jj) *Any other regulation necessary for the smooth, transparent and efficient operation of each Energy Market.[...]*
- 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 section 3.12 of the Day-Ahead and Intra-Day Markets Trading Rulebook (Decision RAE 1116/2018, as modified by decision RAE 820/2020, hereinafter referred to as "Rulebook"), the following are provided:

### ***"3.12 Administrative 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 Intra-Day Trading.*
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 Intra-Day Trading 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 Megawatt hours (MWh).*
2. *The Trading Fee is earned 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 service and related trading support procedures (OBOT) 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."*

*Because*, by its decision 1124/2019 (rel. 6), RAE assigned the public limited company operating under the name "HELLENIC ENERGY EXCHANGE S.A." and distinctive title "HEnEx S.A." as Nominated Electricity Market Operator (NEMO) for five (5) years, in application of the provisions of par. 2 of article 8 of L. 4425/2016.

*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. as regards the methodology of calculating administrative fees and charges**

*Because*, by the dated as of 23.01.2020 decision of the Deputy Minister of Environment and Energy (rel. 4) the schedule was set for the date of commencement of the Day-Ahead, Intra-Day and Balancing Markets of L. 4425/2016, as in force. 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 31<sup>st</sup> of January, 2020, [...]".*

*Because*, with the dated as of 31.01.2020 document (rel. 10), HEnEx S.A. submitted on time, inter alia, its proposal on administrative fees and charges of the Day-Ahead Market and the Intra-Day Market, accompanied by a confidential study commissioned by an external consultant which described the methodological approach for calculating administrative fees and charges as provided in section 3.12 of the Rulebook applying at the time, as well as the relevant analysis as documentation of the suggested fees and charges.

*Because*, given that, according to par. 3 and 4 of section 3.12 of the Rulebook, the methodology for the calculation of fees and charges is a distinct proposal of HEnEx S.A. to RAE, by its dated as of 06.02.2020 letter (rel. 11), the Authority invited HEnEx S.A. to submit a separate proposal on the methodology for calculating administrative fees and charges as well as a non-confidential version of the study documenting the proposal for the administrative fees and charges, so that it can be posted in the relevant public consultation. HEnEx S.A. submitted once again its proposal in response to RAE's letter, by its dated as of 26.02.2020 document (rel. 12).

*Because*, RAE raised the updated proposal of HEnEx S.A. in public consultation (rel. 13) in which comments were submitted by two participants.

*Because*, HEnEx S.A., following an invitation from RAE to submit the company's views on the comments of the participants in the consultation (rel.13) as well as any revised proposal (rel. 14), submitted with the relevant document 15, inter alia, its final proposal for the methodology on calculating administrative fees and charges and a draft for the Amendment of the Rulebook. This proposal is compatible with the Rulebook, as amended and in force with the No. 820/2020 decision of RAE.

*Because*, HEnEx S.A. in its final proposal (relevant 15), having taken into account all the observations made at the stage of processing the text by executives of the secretariat of RAE and in collaboration with competent executives of the company, has captured a methodological approach to calculating the administrative fees and charges of the Day-Ahead Market and the Intra-Day Market, where the following are described:

- a) the basic principles to be taken into account when calculating them;
- b) the concept of the Regulatory Period and the definition of its duration in three (3) years;
- c) the processes for determining the prices of the above administrative fees and charges, based on the comparative analysis of similar activities, taking a sample of energy stock exchanges of developed and developing markets with specific features, excluding extreme prices;

d) the main assumptions for determining the trading volume and the number of participants, but also the determination of these specific parameters for the transition period of the first Regulatory Period, so that the current prices to reflect the current market situation, and

e) a detailed mechanism for controlling the amount of administrative fees and charges for these markets as regards the results of the proportional application of the methodology for calculating the Allowed Revenue adopted for the approval of the budget of HEnEx S.A. for 2020 (rel. 8), and which also applies to other regulated electricity activities in Greece.

*Because*, RAE, after examining the final text of the methodology (rel. 15), as well as the comments of the Participants in the public consultation (rel.13), sent a letter to HEnEx S.A. (ref. 16) requesting an amended proposal on the administrative fees and charges, but also on the text of their methodology, as follows:

A) as regards the proposal of HEnEx S.A. on the methodology of calculating administrative fees and charges, it was deemed necessary to add a procedure to article 2, par.3 in order to explicitly provide for the obligation of HEnEx S.A. for submission of annual reports of the previous year and based on them to be monitored by RAE and to evaluate the reasonableness of the prices of fees and charges in relation to the reports of the performance indicators of the company, a step necessary for the extraordinary review of administrative fees and charges.

B) as regards the "Administrative Fee for the Initial Registration of Participant" for HEnEx S.A. and the "Annual Subscription" both for HEnEx S.A. and for EnExClear S.A., RAE considered reasonable the question raised by the Participants regarding the escalation of these charges in proportion to the market size of the participants and therefore deemed it necessary to amend these suggestions of the two companies, in order to incorporate a relevant provision (scale of charges based on size of participants).

Following the letter of RAE, HEnEx S.A. submitted an amended proposal which took into account the above (rel. 17).

*Because*, RAE considered the final proposal HEnEx S.A. (ref. 17) and evaluates it as complete and sufficiently substantiated in the assumptions made about it, promoting the principle of cost orientation and competitiveness of the administrative fees and charges. Especially regarding the duration of the regulatory period, RAE recognizing the need for stability of the prices of administrative fees and charges for the benefit of the Participants and the energy market in general, but also ensuring the possibility of extraordinary revision of administrative fees and charges if deemed absolutely necessary, deems it reasonable to set it at three (3) years.

*Because*, on the final proposal of HEnEx S.A. minor editorial and clarification changes were made.

### **Decides:**

Within the frame of its duties, subject to articles 8, par. 2 and 5, and 18 par. 4 of L. 4425/2016, and according to the provisions of section 3.12 of the Day-Ahead and Intra-

Day Markets Trading Rulebook as applying, the definition of the Methodology for Calculating Administrative Fees and Charges for the operation of the Day-Ahead and Intra-Day Market as follows:

## **"Methodology for Calculating Fees and Charges for the operation of the Day-Ahead Market and the Intra-Day Market"**

### **Article 1. Import/ Basic principles**

1. By this methodology for calculating fees and charges for the operation of the Day-Ahead Market and the Intra-Day Market (hereinafter referred to as "Methodology"), the rules and criteria for the formation of administrative fees and charges imposed on Participants in these Energy Markets are defined.
2. The following basic criteria and principles have been taken into account for drawing up the Methodology:
  1. adherence to the principles of cost-orientation, transparency, equal treatment and impartiality;
  2. stability of administrative fee and charge prices for the benefit of the Participants;
  3. competitive fees in order to attract new Participants and ensure the necessary liquidity in the markets;
  4. administrative fees and charges comparable to the fees of other European stock exchanges in respective markets with similar maturity;
  5. covering the reasonable costs of the HEnEx for the fulfilment of the obligations deriving from the National and European Legislation.

### **Article 2. Regulatory Period**

1. Regulatory Period is the time period for which administrative fees and charges are determined.
2. The term of the Regulatory Period is three (3) years.
3. An extraordinary review of administrative fees and charges may be performed within the Regulatory Period, following a Decision of RAE upon the recommendation of HEnEx, which is submitted either on its own initiative and accompanied by relevant documentation, or after a relevant suggestion or recommendation of RAE. HEnEx submits annual reports of the previous year in order to be monitored by RAE and to evaluate the reasonableness of prices and charges in relation to the reports of the performance indicators of HEnEx. In any case of revision of the administrative fees and charges, the principles of transparency and timely information of the Participants must be observed.



### **Article 3.**

## **Methodology Description**

The Methodology used to determine the administrative fees and charges includes the following steps:

1. Benchmarking of similar activities in Europe is carried out in order to identify a number of parameters and features (as these are analysed in Article 7) and be compared with those of HEnEx.
2. The sample of energy exchanges is divided into developed and developing markets. Statistical analysis is applied to the individual samples calculating the values of minimum, maximum, quadrants and median.
3. Administrative fee and charge prices are selected between the 1<sup>st</sup> and 3<sup>rd</sup> quarter in order to exclude extreme prices.
4. The assumptions on the basis of which the relevant calculations for HEnEx revenue and expenditure will be made are recorded and justified.
5. Using the above assumptions and the proposed administrative fees and charges, the projected financial figures for the next three years are reflected in a financial model and a series of indicators for HEnEx are calculated.
6. Reasonable efficiency is calculated based on the methodology for calculating the Allowed Revenue used in regulated electricity activities.
7. The basic pricing policy is audited by comparing the HEnEx indices with those of the energy exchanges in the sample as well as of the above reasonable return for regulated electricity activities.
8. The Scalable Fees and Charges Mechanism is applied in the basic pricing policy, to reduce the impact of economies of scale from the application of horizontal, annual or lump sums, fees and charges.
9. The basic and final pricing policy are finalized and submitted to RAE for approval.

### **Article 4.**

## **Comparative analysis of European energy exchanges**

1. Initially, a comparative analysis is performed between European energy exchanges in order to find common points of the sample with HEnEx and based on the finally comparable exchanges, to determine the administrative fees and charges for the Day-Ahead Market and the Intra-Day Market. The following are considered in particular for each energy exchange:

#### **1.1. Basic elements of energy exchanges:**

- 1.1.1. Description of activities of each energy exchange, country/countries in which it is active, year of establishment, ownership status and share capital;
- 1.1.2. Products, trading volumes, participants per energy exchange and average market price of the day-ahead and/or intra-day market;

- 1.1.3. Markets in which each energy exchange operates as NEMO, its level of operation (Designated/Passporting) and in what capacity (legal monopoly or competitive).
- 1.2. **Energy exchange pricing policy:** Detailed recording of the pricing policies followed by energy exchanges in Europe. Collection of data on entry costs, annual subscription, transaction costs, as well as additional fees-costs that are necessary for market participation (connection fees to the relevant systems, etc.).
- 1.3. **Cost-efficiency:** Profitability of European energy exchanges (EBIT, return on investment, etc.).
2. From the above analysis, quantitative indicators and qualitative characteristics for the sample of the energy exchanges under consideration emerge. The indicators under consideration include indicatively, in addition to the above data, charges/average energy price, the margin of Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA), the margin of Earnings Before Interest and Taxes (EBIT), as well as the indexes of Return on equity and Return on Capital.

## **Article 5.**

### **Calculation of maximum, minimum, quadratic and mean values**

1. The sample of energy exchanges is divided into developed and emerging markets, based on the stage at which these energy markets are in order to achieve the objectives set by the European Union and the level of interconnection with the pan-European market.
2. Statistical analysis is applied to the individual samples of each category calculating the values of minimum, maximum, quadrants and median.
3. The selection of the proposed fees and charges is based on the values of the 1st quarter, intermediate and 3rd quarter of the sample in order to exclude extreme prices.

## **Article 6.**

### **Results of comparative analysis - Selection of proposed fees and charges**

The proposed fees and charges for the Regulatory Period are based on the results of comparative analysis and statistical processing, taking into account in particular the following characteristics:

1. **Market maturity:** The proposed pricing policy, at least for the first Regulatory Period, should adopt the data of less mature markets, with the long-term goal of converging with more mature markets.
2. **Market size and commercial activity (trading volume):** Larger (and more mature) markets have a wider range of revenue sources and activities, allowing them to split costs into larger trading volumes (economies of scale) and therefore have the potential for lower charges.
3. **Activity of NEMOs:** The tariff policy of the NEMOs acting as national monopolies in accordance with HEnEx is examined, while taking into account the upper and

lower limits on which NEMO charges range in countries where more than one NEMO is active.

## **Article 7. Resulting Financial Data**

1. HEnEx evaluates the financial results by recording the income based on the proposed fees and charges and the expenses of the activity in a financial model, for each year of the Regulatory Period and separately for the different markets and services.
2. For this purpose, assumptions for basic sizes are taken into account as follows:

### **1. Amount of transactions**

- 1.1. The estimation of the trading volume for the Regulatory Period, is obtained by applying the average annual rate of change of the total electricity demand of the Reference Scenario of the Ten-year Network Development Plan (TYNDP) of the Hellenic Transmission System Operator (HTSO), on the trading volume of the year preceding the execution of the calculations under this Methodology.
- 1.2. Last year 's trading volume is the sum of total energy demand and exports.
- 1.3. The apportionment of the estimated trading volume between the Day-Ahead Market and the Intra-Day Market is made on the basis of the corresponding volumes of the previous year from the calculation year, unless an impending change documents a deviation from the historical data.

### **2. Number of Participants**

The number of Participants for the Regulatory Period is calculated taking into account accounting data (number of Participants at the time of application of the methodology, accounting trend of change in number of Participants, etc.) as well as emergencies that may affect the future trend of changing the number of Market Participants.

### **3. Costs**

- 3.1. These are the expenses related to the operation of the Day-Ahead Market and the Intra-Day Market.
  - 3.2. The expenditures foreseen for the Regulatory Period are taken from the last updated HEnEx's Business Plan.
  - 3.3. In the absence of a better forecast, expenditures may change annually based on the country's inflation estimates from valid sources (including but not limited to IMF, European Commission).
3. Based on the above model, which is submitted for evaluation by RAE, and the relevant assumptions, the performance indicators for HEnEx are calculated, as well as the margin of Earnings Before Interest, Taxes and Depreciations (EBITDA), margin of Earnings before Interest and Taxes (EBIT), and indexes of Return on equity and Return on Capital.

## **Article 8.**

### **Calculation of regulated allowed revenue**

Revenues are calculated in proportion to the methodology for calculating the Allowed Revenue used in regulated electricity activities and only for comparability purposes, as follows:

1. The Regulated Asset Base (RAB) is calculated, taking into account the depreciable value of the company assets, its investment needs, as well as working capital.
2. To determine a reasonable profit on RAB, the weighted average cost of capital is used (WACC), at nominal prices before taxes, by analogy methodology for calculating the allowable efficiency used in regulated electricity activities.
3. The revenue for the HEnEx in proportion to the above methodology is calculated by adding the fair return with the total of the reasonable operating expenses of the company and the annual depreciation.

## **Article 9.**

### **Scalable Fees and Charges Mechanism (SFCM)**

1. SFCM is applied to the basic pricing policy, as it emerged from the procedure of the above articles, to reduce the impact of economies of scale from the application of horizontal, annual or lump sum administrative fees and charges and affects the Administrative Fee for the Initial Registration of Participant and the Annual Subscription.
2. SFCM does not change the expected revenue of HEnEx from the Annual Subscriptions, except for small deviations due to rounding.
3. SFCM is based on the distinction of Participants in two categories, A and B, based on the total volume of transactions in the previous calendar year from the year of application of the categorization. The total trading volume includes all quantities of energy sold or purchased in the Day-Ahead Market and the Intra-Day Market. The limits of classes are specified as such:
  - Class A: Up to 0.1 TWh annually.
  - Class B: Above 0.1 TWh annually.
4. New Participants for whom there is no data for the previous calendar year are considered in Class A.
5. The Annual Subscription, otherwise AS, resulting from the basic pricing policy, is further analysed with the application of SFCM at two levels of Annual Subscription,  $AS_A$  and  $AS_B$  for the above Categories of Participants.  $AS_B$  is considered equal to AS.  $AS_A$  results by applying a 90% reduction on  $AS_B$ .
6. HEnEx calculates the loss of revenue from Annual Subscriptions due to the above reductions based on transaction data in the Hellenic Day-Ahead and Intra-Day Market during the previous calendar year of the implementation of the SFCM and the above calculation for the number of Participants of the Regulatory Period. The first application of the SFCM takes into account the trading data of the DAS.

7. The loss of income from Annual Subscriptions is fully compensated, on the verge of rounding the 3rd decimal place, by increasing the Trading Fee on the executed trading volume.
8. The Administrative Fee for the Initial Registration of Participant, otherwise RF, resulting from the basic pricing policy, is further analysed with the application of SFCM at two levels, RF<sub>A</sub> and RF<sub>B</sub> for the above Categories of Participants. RF<sub>B</sub> is considered equal to RF. RF<sub>A</sub> results by applying a 66.6% reduction on RF<sub>B</sub>.
9. New Participants who, in the absence of trading data for the previous calendar year, were included in Class A and paid the reduced Initial Membership Fee for a Participant TE<sub>A</sub>, provided in the following full calendar year they will come under another Class, they pay the corresponding difference of the Initial Membership Fee for a Participant. No part or difference of the Initial Membership Fee is reimbursed.

## **Article 10.**

### **Finalization and Submission of Proposal**

1. HEnEx determines its basic and final pricing policy. The basic pricing policy is defined as the pricing policy without SFCM, which is directly comparable to pricing policies of energy exchanges outside Greece. The final pricing policy is defined as the pricing policy that results from the application of the SFCM to the basic pricing policy.
2. Based on the above results, the basic pricing policy is audited by comparing the HEnEx indicators (margin of Earnings Before Interest, Taxes and Depreciations (EBITDA), margin of Earnings before Interest and Taxes (EBIT), indexes of Return on equity and Return on Capital), with the corresponding ones of the energy exchanges of the sample, as well as the reasonable return based on the methodology of calculation of the Allowed Revenue used in the regulated activities of electricity.
3. Subsequently, the basic and final pricing policy are finalized and submitted to RAE for approval. The proposal is accompanied by complete and detailed documentation of the parameters and assumptions that led to the proposed fees and charges, as well as the corresponding accounts of previous years in the same degree of analysis.

## **Article 11.**

### **Transitory Provisions**

1. For the first Regulatory Period, meaning the years 2020, 2021 and 2022, it is assumed that the trading volume is shared between the Day-Ahead Market and the Intra-Day Market at the percentages of 98% and 2%, respectively.
2. For the first Regulatory Period, the number of Participants and new Participants, is calculated as the average of active Participants and new Participants respectively, of the previous three (3) years."

*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.*

**Athens, 15th of June 2020**

**The President of RAE**

**Dr. Nikolaos G. Boulaxis**