Pursuant to Article 87, paragraph 5 of the Energy law ("Official Gazette of RS", No. 145/14),

Ministry of Mining and Energy brings

Disclosure Regulation

"Official Gazette of RS", No. 96 from 27th of October 2017

Article 1

This Disclosure Regulation prescribes the way in which the end consumer is calculated and shown the share of all types of energy sources of the sold electricity, as well as the calculation control and verification.

Article 2

Some terms used in this Disclosure Regulation have the following meanings:

1) cancelled and expired guarantees of origin are only those guarantees of origin which were in the possession of the supplier and which, in accordance with the regulations governing the guarantees of origin, are considered as cancelled or expired,

2) the electricity sold is the electricity consumed by the end consumers,

3) produced electricity is net delivered electricity from the production device to the electricity network, which excludes:

(1) the consumption of electricity in connection with that production,

(2) pumping / storage energy,

4) the national residual mix is the structure of the electricity sold in the Republic of Serbia whose structure of origin has not been proven by the cancelled guarantees of origin, and which is necessary for the suppliers for calculation of share of all types of energy sources in the sold electricity to the end consumers,

5) the support system is a set of incentive instruments to the privileged electricity producers for the production from renewable energy sources or a highly efficient combined production of electricity and heat in accordance with the Energy law,

6) the residual mix of the supplier is the structure of the supplier's electricity sold to its end consumers whose structure of origin has not been proven by the cancelled guarantees of origin and which is necessary for the calculation of the share of all types of energy sources in the sold electricity to the end consumers,

7) The tariff package of services is the supplier's offer to the end consumers to conclude a supply contract that the end consumers can freely choose, or not choose, composed in accordance with the Energy law and regulations governing trade and consumer protection:

(1) by which the supplier is obliged to the end consumers to provide them with a certain price, in addition to electricity supply, a certain share or shares of all or

some part of the renewable energy sources in the electricity sold, in accordance with the cancellation statement, or

(2) by which the supplier is not obliged to the end consumers to provide them with a certain share or shares of all or some part of the renewable energy sources in the electricity sold,

8) The third areas, till the date of accession of the transmission system operator to the European Association of Issuing Bodies for guarantees of origin, are all countries or control areas, and after the accession of the transmission system operator to the European Association of Issuing Bodies for guarantees of origin, third areas are considered to be the countries, or control areas, whose structure of attributes is not included in the calculation of the European attribute mix,

9) attributes represent the primary energy sources that describe electricity, regardless of whether it is an electricity that is produced, sold, imported or exported,

10) the control area is an integral part of the interconnection operated by one transmission system operator.

Other terms used in this Disclosure regulation, which are not defined in paragraph 1 of this Article, have the meaning specified by the regulations governing the guarantees of origin.

Article 3

The share of all types of energy sources in the electricity sold to the end consumers is determined for the previous calendar year, as the supplier calculates:

1) the share of all types of energy sources in the sold electricity, sold by that supplier to all its end consumers,

2) the share of all types of energy sources in the sold electricity, sold by that supplier to its end consumers using the same tariff package of the supplier services.

The supplier determines, calculates and discloses the share of all types of energy sources in the sold electricity to its end consumers referred to in paragraph 1 of this Article exclusively by applying the mathematical formulas from points 9.1. and 9.2. of the Methodology for the calculation and disclosure of the share of all types of energy sources in the electricity sold to the end consumers (hereinafter referred to as: Methodology), which is attached with this Disclosure regulation and constitutes its integral part.

Article 4

The structure of electricity that is produced in the support system is determined for the total electricity produced by the privileged electricity producers in the previous calendar year.

The Guaranteed Supplier shall determine and publicly publish a report on the quantities and structure of the electricity produced in the support system on its

official website by the end of February of the current year, for the previous calendar year.

When disclosing the structure of produced electricity in the support system, the Guaranteed Supplier uses the energy source division and displays the structure of the electricity produced in the support system in accordance with points 3 - 6 of the Methodology.

The supplier shall, during the calculation of the share referred to in Article 3, paragraph 1 of this Disclosure regulation, use the data from the report referred to in paragraph 2 of this Article in accordance with the Methodology.

Article 5

The transmission system operator shall calculate the national residual mix in accordance with point 9.1. of the Methodology, based on:

1) data on the producer's produced electricity for each production unit that is connected to a transmission, distribution or closed distribution network,

2) data on total electricity sold to all end consumers in the transmission, distribution or closed distribution network,

3) data on electricity losses in a transmission, distribution or closed distribution network,

4) data on the realized electricity exchange by certain borders,

5) data on the exchange of attributes with a European mix of attributes in accordance with the Methodology,

6) data on cancelled and expired guarantees of origin.

For the purposes of the calculation referred to in paragraph 1 of this Article, the distribution system operator and the operator of closed distribution system shall provide the transmission system operator with the data referred to in paragraph 1, points 1) - 3) of this Article for production units connected to the distribution or closed distribution network until 1st of March of the current year, for the previous calendar year.

For the purposes of the calculation referred to in paragraph 1 of this Article, the distribution system operator and the operator of closed distribution system shall provide the data referred to in paragraph 1, point 1) of this Article to the transmission system operator, stating the energy source or technology for each production unit.

Article 6

By the 31st of May of the current year, the transmission system operator shall publish on its official website an annual report on the national residual mix for the previous calendar year.

The annual report referred to in paragraph 1 of this Article shall contain:

1) data on production and consumption of electricity in the Republic of Serbia, import and export of electricity, taking into account the structure of electricity,

2) data on issued, expired and cancelled guarantees of origin for electricity in the Republic of Serbia,

3) data on the structure of the national residual mix and the data used in determining the structure of the national residual mix,

4) the share of each particular energy source in the national residual mix.

The transmission system operator shall, in the preparation of the annual report referred to in paragraph 1 of this Article, use the division of the energy sources and the structure of electricity in accordance with points 3 - 6 of the Methodology.

The supplier shall use the data from the report referred to in paragraph 2 of this Article for the calculation of the share referred to in Article 3, paragraph 1 of this Disclosure regulation.

Article 7

Suppliers shall present the shares of all types of energy sources in electricity that they sold to their end consumers in the form of a report, from 1st of July till 31st of July of the current year, for the previous calendar year.

The report referred to in paragraph 1 of this Article shall be delivered as an integral part of the invoice or with the invoice for the sold electricity.

The report referred to in paragraph 1 of this Article shall be prepared in accordance with points 11.1. and 11.2. of the Methodology.

The Suppliers, prior to submitting the report to the end consumer referred to in paragraph 1 of this Article, shall publish on their official website the following information for the previous calendar year:

1) the share of each particular energy source in total electricity sold to all its end consumers,

2) the energy structure of all cancelled guarantees of origin for electricity to all its end consumers,

3) link to the transmission system operator's report for the previous calendar year referred to in Article 6 of this Disclosure regulation,

4) link to the web site of the Registry, as well as the Guaranteed Supplier's link, in relation to the support system referred to in Article 4 of this Disclosure regulation.

Article 8

For the purposes of calculation control and verification, the supplier shall submit to the Energy Agency of the Republic of Serbia by 31st of July of the current year for the previous calendar year:

1) data on total sold electricity to its end consumers,

2) information on the total cancelled guarantees of origin for each tariff package of services,

3) data on the structure of electricity sold for each tariff package of services separately, in accordance with the Methodology,

4) the sample report to the end consumer and at least one reporting to the end consumer, which was sent in the previous year.

Article 9

This Disclosure regulation shall enter into force on the eighth day from the date of its publication in the "Official Gazette of the Republic of Serbia".

No. 110-00-49 / 2016-06

In Belgrade, October 23rd, 2017

Minister,

Aleksandar Antić

ANNEX

METHODOLOGY FOR THE CALCULATION AND DISLOSURE OF THE SHARE OF ALL TYPES OF ENERGY SOURCES IN THE ELECTRICITY SOLD TO THE END CONSUMERS

1. The shares of all types of energy sources in the electricity sold to the end consumers are calculated using the appropriate mathematical formulas determined by this Methodology.

2. All mathematical formulas in this Methodology use mathematical matrices describing the energy for the calculation purposes referred in point 1 of this Methodology, whose elements, symbols, meanings and methods for their usage in formulas are described in more detail in points 3 - 7 of this Methodology.

3. Attributes are used as elements in the mathematical matrices and there are 12 attributes, in the following order:

(1) solar energy,

(2) wind energy,

(3) hydropower,

(4) geothermal energy,

(5) energy from biomass,

(6) energy from renewable sources whose source is unspecified,

(7) energy from hard coal,

(8) energy from brown coal and lignite,

(9) energy from natural gas,

(10) energy from oil,

(11) energy from fossil fuels whose source is unspecified,

(12) nuclear energy.

Apart from the division of electricity into attributes, electricity is presented in mathematical formulas also as structured energy, total energy and the structure of energy.

4. Structured energy is a mathematical matrix expressed as a row vector with 12 elements. Structured energy is symbolically represented with square brackets [SE], where the symbol "SE" in square brackets at this point has only an abstract meaning for the purposes of explanation; otherwise, in concrete formulas for structured energy, different symbols are placed into the brackets depending on what they symbolize (e.g. [RM], [IE], [FiT], etc.)

Each element of a structured energy matrix represents one attribute out of 12 attributes defined in point 3 of this Methodology.

The elements of the structured energy matrix express the amount of energy and their unit is MWh.

When in the mathematical formulas the sign "i" is put behind the square brackets, in the following way: "[ ]i", this means that the i-th element of the structured energy matrix is represented, and the "i" can have a value from 1 to 12, depending on the attribute it represents.

5. The total energy is the sum of 12 elements of the structured energy matrix and is expressed in MWh.

Mathematically, the total energy is expressed as $E = \Sigma\ [SE]$

If the total energy amount is known, but its structure is not known, the total energy in the mathematical formula is denoted as E.

6. The energy structure is expressed in the form of a mathematical matrix, and it is a row vector with 12 elements, where each element of the vector represents one attribute out of the identified 12 attributes from point 3 of this Methodology.

The structure of energy is symbolically represented with curly brackets "{SE}", where the symbol "SE" in curly brackets at this point has only an abstract meaning for the purpose of explanation; otherwise, in the specific formulas for the energy structure, different symbols are placed in curly brackets depending on what they symbolize (e.g. {RMbI}, {Si}, {SS}, etc.).

The elements of the energy structure vector represent the percentage value of the attribute share, where the sum of all 12 elements of one vector is 100%.

When in a mathematical formula a symbol is placed in curly brackets "{}", that means that the energy structure is represented.

When, in mathematical formulas, the sign "i" is put behind the curly bracket in the following way: "{}i", that means that the i-th element of the energy structure matrix is represented, and the "i" can have a value from 1 to 12, depending on the attribute it represents.

7. Mathematical operations of addition and subtraction of mathematical matrices are performed by using the abovementioned calculation operations exclusively between the corresponding matrix elements. For example, the addition of two matrices [SEa] and [SEb], each of which has 12 elements that match the previously defined attributes, whose sum is represented by the third matrix [SEc], is mathematically described by the following equation:

$[SEa] + [SEb] = [SEc]$

whereby the following operations are performed with certain elements:

$[SEa]_1 + [SEb]_1 = [SEc]_1$

...

$[SEa]_i + [SEb]_i = [SEc]_i$

...

$[SEa]_{12} + [SEb]_{12} = [SEc]_{12}$

Similarly to the previous one, the energy structure is calculated as the ratio between the structured energy and total energy, which is mathematically described by the ratio between the structured energy matrix and the total energy:

$\{SE\} = [SE] / \Sigma [SE]$

where the values of the individual elements of the energy structure are calculated for each attribute separately according to the equation:

$\{SE\}_i = [SE]_i / \Sigma [SE]$

8. All the data refer to the previous calendar year, unless otherwise is provided by this Disclosure regulation.

CALCULATION OF THE NATIONAL RESIDUAL MIX

9.1. National residual mix of electricity without the correction with the European mix of attributes [NRMbE] is calculated according to the formula:

$[NRMbE] = [NRMbI] - [IE]$

wherein:

- [NRMbI] - structured energy of the national residual mix of the electricity without correction for export to the third areas determined in accordance with the following formula:

$[NRMbI] = [UP] + [ISGP] + [UE] - [IZGP] - [FiT]$

wherein:

- [UP] - structured total electricity production in the Republic of Serbia determined by the transmission system operator,

- [ISGP] - structured energy of expired guarantees of origin for electricity in the Registry in the period from 1st of April of the previous calendar year till 31st of March of the current calendar year,

- [UE] - structured net imported electricity from the third areas calculated as:

$[UE] = \Sigma (E_j * \{S_j\})$

wherein:

- E_j - net imported electricity at the border with the country j.

- $\{S_j\}$ - the energy structure of the country j from which the imports were made, and it is determined on the basis of the electricity production data in that country published by the European Network of Transmission System Operators for Electricity (ENTSO-E). Exceptionally, the structure of net imported electricity from each third area bordered with the Republic of Serbia can be based on the latest available data published by the relevant EU-level institution that publishes data on electricity production in that country,

- [IZGP] - structured energy of issued guarantees of origin in the Registry of guarantees of origin, for the production from the previous calendar year,

- [FiT] - the structured energy of electricity taken from the support system.

[IE] - structured energy of net exported electricity determined in accordance with the formula:

$[IE] = \{NRMbI\} * \Sigma E_{iz}$

where:

- Σ Eiz - total net exported electricity

- {NRMbI} - energy structure of the national residual mix without correction for export to third areas

9.2. The National Residual Electricity Mix [NRM] is calculated in accordance with the formula:

[NRM] = [NRMbE] + [EM]

wherein:

- [NRMbE] - a national residual mix of electricity without correction with a European mix of attributes,

- [EM] - a structured energy exchange with a European mix of attributes, which can either be transferred from a national residual mix into the European mix of attributes of electricity or taken into the national residual mix of electricity from the European mix of attributes. In addition, the energy exchange with the European mix of attributes [EM] is calculated in accordance with the following formula:

EM = Euk - Σ [ISKGP] - Σ [FiT] - Σ [NRMbE]

wherein:

- Euk - the total energy sold to all end consumers in the Republic of Serbia, including the energy to cover losses in the transmission, distribution or closed distribution electricity network,

- Σ [ISKGP] - total energy of cancelled guarantees of origin in the Registry for the consumption from the previous year, and the cancelled guarantees of origin in the other areas for the consumption from the previous calendar year, all for the purpose of proving to the end consumer from Serbia that a certain amount of electricity is produced from renewable energy sources,

- Σ [FiT] - the total electricity taken from the support system.

If EM> 0 National residual mix withdraws the attributes from the European mix of attributes and in this case, structured energy exchange with European mix of attributes is calculated as:

[EM] = EM * {EAM}

wherein:

{EAM} – the structure of European mix of attributes

If the EM <0 National residual mix delivers the attributes to the European mix of attributes and in this case, structured energy exchange with European mix of attributes is calculated as:

[EM] = EM * {NRMbE}

THE CALCULATION OF THE SHARE OF ALL TYPES OF ENERGY SOURCES IN THE ELECTRICITY THAT SUPPLIERS SOLD TO THE END CONSUMERS

10.1. The share of all types of energy sources in the electricity that supplier sold to all end consumers {SS} is calculated as:

$$\{SS\} = \frac{[IG] + [FiT] * Es/Euk + (Es - \sum[IG] - \sum[FiT] * Es/Euk) * \{NRM\}}{Es}$$

wherein:

- [IG] - structured energy of cancelled guarantees of origin of the supplier for the consumption in the previous calendar year in the Registry and the cancelled guarantees of origin in the other areas for consumption in the previous year, for the purpose of proving to the end consumer from Serbia that a certain amount of electricity is produced from renewable energy sources,

- Es - total energy sold by the supplier to its end consumers

- Euk - total energy that is sold to all end consumers in the Republic of Serbia, including the energy to cover losses in the transmission, distribution or a closed distribution system

- {NRM} - energy structure of the national residual mix

- [FiT] - structured energy of electricity taken from the support system

10.2. The share of all types of energy sources in the electricity sold by the supplier to its end consumers using the same tariff package of supplier's services {STM} is calculated as:

$$\{STM\} = \frac{([IGtm] + (Etm - \sum[IGtm]) * \{SRM\})}{E_{TM}}$$

wherein:

- [IGtm] - structured energy of the cancelled guarantees of origin of the supplier for the consumption from the previous calendar year in the Registry and the cancelled guarantees of origin in the other areas for the consumption from the previous calendar year, for the purpose of proving to the end consumer from Serbia that a certain amount of consumed electricity is produced from renewable energy sources, for the particular tariff package of supplier's service

- Etm - total energy sold by the supplier to the end consumers using the same tariff package

- {SRM} - structure of energy of the supplier's residual mix, whose structured energy is calculated in accordance with the following formula:

[SRM] = (Es - Σ [IG] - Σ [FiT] * Es / Euk) * {NRM} + [FiT] * Es / Euk

wherein:

- Es - total energy sold by the supplier to all its end consumers

- [IG] - structured energy of cancelled guarantees of origin of the supplier for the consumption of the previous calendar year in the Registry of guarantees of origin and the cancelled guarantees of origin in the other areas for the consumption in the previous year, for the purpose of proving to the end consumer from Serbia that a certain amount of electricity is produced from renewable energy sources,

- [FiT] - structured energy taken from the support system

- Euk - total energy that is sold to all end consumers in Serbia

- {NRM} - structure of energy of the national residual mix

SUPPLIER'S REPORT

11.1. The supplier's report under Article 7, paragraph 1 of this Disclosure regulation shall contain:

(1) The basic information about the end consumer,

(2) Information about the tariff package which he has concluded with its end consumers,

(3) information about the structure of the electricity that supplier provides within the tariff package, if this service is included by the tariff package, and if not, the supplier states that the tariff package doesn't include an obligation of the supplier to provide the corresponding structure of electricity to the end consumer,

(4) information about the end consumer's consumption, the period of energy supply, accounting metering points and the contract/contracts for the electricity supply, for which the report is prepared for the end consumer,

(5) information about the structure of the share of particular energy sources in total electricity sold by the supplier to all its end consumers,

(6) a link to the official website reports of the transmission system operator for the previous calendar year and a links to the website of the Registry and Guaranteed Supplier in connection with a support system,

(7) following explanations that are significant for understanding and interpretation of the report to the end consumer.

Data from the sub points (3) and (5) of this point, the supplier shall display using the divisions of the energy sources and the structure of electricity in accordance with points 3 - 6 of this Methodology, with a pie chart, considering that the shares of individual energy sources are represented by circular clippings and each section shows the share expressed in percentages to two decimal points,

11.2. The end consumer that has changed his supplier may, in the period from 1st of July till 31st of December of the current calendar year, request from the supplier, who had supplied him in the previous calendar year, the delivery of the report referred to in Article 7, paragraph 1 of this Disclosure regulation.

For the end consumers with several accounting metering points, the supplier prepares a report from Article 7, paragraph 1 of this Disclosure regulation, for each tariff package.

If the supplier has concluded more tariff packages with the end consumer, which oblige him to provide the same electricity structure to the end consumer, the supplier can consolidate the report from Article 7, Paragraph 1 of this Disclosure regulation to the end consumer for the multiple tariff packages.

If an end consumer, during the reporting period from the same supplier, changes the tariff package, the supplier will deliver the report to the end consumer separately for each tariff package that was used.

The supplier may deliver the report, from Article 7 paragraph 1 of this Disclosure regulation, to the end consumer in electronic form only if the end consumer previously gave his consent to this type of delivery.

The end consumer and supplier can, with reporting under Article 7, paragraph 1 of this Disclosure regulation, arrange an additional reporting on the origin of electricity and also on the structure of electricity.