

MARKET CODE

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MARKET CODE

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1. GENERAL PROVISIONS

1.1. SUBJECT OF MARKET CODE

1.1.1. Market Code regulate more precisely the balance responsibility of market participants, balancing market principles, determination of balancing group deviation, determination of balance responsible parties financial settlement, collaterals and criteria for determining the amount and period for which is requested, calculation of electricity for the purposes of system balancing and ensuring the safe operation of the system, provision of system services and other issues relevant for the operation of the electricity market.

1.1.2. The electricity market participants are:

- a) Power producer;
- b) Supplier;
- c) Wholesale supplier;
- d) Final customer
- e) Transmission system operator;
- f) Distribution system operator;
- g) Operator of closed distribution system;
- h) Market operator;
- i) Nominated Market operator
- j) Prosumer
- k) Energy storage operator
- l) Aggregator.

1.1.3. Besides the participants referred to in point 1.1.2. market participants may also be other legal entities in accordance with the Rules governing the operation of the organized market.

1.2. NOTIFICATION

1.2.1. The written communication among Transmission system operators, Distribution system operators, Operators of closed distribution systems, Market operators and other market participants, as well as delivery of invitations, decisions, notices and other documents is done through a direct delivery through couriers, mail, registered mail, e-mail or information system.

1.2.2. The delivery is deemed done on the day of market participant's receipt of the written notification; or on the day of entering into the information system, according to this Code.

1.2.3. If the Transmission system operator, Distribution system operator, Operator of closed distribution system, Market operator or market participants change their place of business, phone number, fax number or e-mail address they are obliged to notify each other without undue delay.

1.3. COMMISSION FOR MONITORING IMPLEMENTATION OF MARKET CODE

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- 1.3.1. The Commission for monitoring the implementation of the Market Code (hereinafter referred to as the Commission) is an advisory body which monitors the implementation of the Market Code and considers initiatives for amendment of the Market Code.
- 1.3.2. The Transmission system operator provides the conditions for the Commission's work.
- 1.3.3. The Commission members are representatives of the market participants who previously arranged the balance responsibility, as follows:
- 4 representatives of the Transmission system operator, one of them acts as the Chairperson of the Commission;
 - 1 representative of the Power producer which has the dominant participant status,
 - 1 representative of the Power producers which don't have the dominant participant status,
 - 1 representative of the Power producers from the renewable energy sources, who is not user of feed-in tariff,
 - 1 representative of the Distribution system operators,
 - 1 representative of the Operators of closed distribution system,
 - 1 representative of the Market operators,
 - 1 representative of the Public, or guaranteed supplier,
 - 1 representative of the last resort suppliers,
 - 1 representative of the Suppliers,
 - 1 representative of the Wholesale suppliers,
 - 1 representative of Final customers whose facilities are connected to the transmission system,
 - 1 representative of Prosumers
 - 1 representative of Electricity storage operator
 - 1 representative of Aggregator.
- 1.3.4. A representative of the Energy Agency of the Republic of Serbia (hereinafter: the Agency) participates in the activities of the Commission, without voting and decision making rights.

- 1.3.5. The Commission member who represents the group of market participants in the electricity market is appointed for a period of two years.
- 1.3.6. Representatives of the group of market participants in the electricity market are appointed via direct election by the said market participants in the electricity market in line with the procedure organised by the transmission system operator publicly and transparently.
- 1.3.7. The Commission shall adopt Rules of Procedure that regulate:
- Organisation and the manner of the Commission's work;
 - Organisation and the manner of holding the Commission session;
 - Course of a session;
 - Taking and delivery of the minutes of meeting, decisions, conclusions, opinions, proposals, recommendations, and the like;
 - Holding the files and materials resulted from the Commission's work
 - Other matters of significance for the work of the Commission.

2. GLOSSARY

2.1. TERMS

Balancing group – The virtual area that can receive and/ or deliver the electricity, and that is used for the calculation and financial settlement in terms of the balance responsibility. It includes a set of points for injection/withdrawal of electricity in the transmission or distribution system, as well as the receipt and delivery of the electricity as per the blocks of the electricity trading.

Balance responsible party (BRP) – A participant in the electricity market which is balance responsible for imbalances of one Balancing group in the Serbian bidding zone and who has concluded the balance responsibility agreement with the Transmission system operator.

Electricity trading block – reported electricity exchanges between two balancing groups in the same bidding zone (internal trade), or one balancing group and a partner from another bidding zone (exchanges between bidding zones), in a given time interval, with defined value of the block and direction of trade.

Time interval – The time period for which the nomination of daily plans is made for production, consumption and blocks of electricity exchange.

Daily base price – Price published by Market operator which represents a median price of the hourly prices realised on the organised electricity market in Serbia for the relevant market day.

The dominant participant – a participant in the balancing mechanism in charge of the balancing entities whose installed power generation capacity exceeds 40% of the total installed power generation capacities in the Serbian market area.

Bidding zone – the biggest geographical area within which the electricity market participants can exchange electricity without allocation of transmission capacity.

Information system – Information and telecommunication infrastructure for gathering, processing, transfer, publishing and storage of information.

Electricity Market Settlement and Payment Calendar - A calendar which determines the dates of issuance of invoices by the transmission system operator and the maturity of these invoices for regular obligations in accordance with these rules, which is compiled and published on its website by the transmission system operator.

Withdrawal/Injection point – a place of electricity delivery, namely the place of takeover of electricity for which it is possible to provide an information on the realized delivery or the realized receipt of the electricity in the accounting (billing) period. This information is provided on the basis of the electricity measurements in each accounting period (from one or more meters with the use of coefficients of reduction, if necessary) or on the basis of a standardized chart of consumption or production. The WIPs include in particular: the place of electricity delivery to final customers, electricity delivery points from the transmission system into the distribution system, the place of taking over the electricity from the producer, electricity delivery points from the distribution system into the transmission system, the aggregate place of delivery to the Transmission system operator to cover the losses in the transmission system, the aggregate place of delivery to the Distribution system operator, or closed distribution system operator to cover the losses in the distribution system, the place

of takeover or delivery of the electricity on medium or low voltage interconnected (tie) line.

Power park module – unit or a set of units for electricity generation, which is connected to the network asynchronously or via power electronics device and has one point of connection to the transmission/ distribution/ closed distribution system.

Imbalance netting – market mechanism for exchange of energy between operators of the transmission system due to deviation of control areas.

Accounting interval – the period for which calculations are performed as defined by the Market code, which is 1 (one) hour.

Accounting period – The period for which the invoice is issued for a monthly fee, for deviation of the balancing group and the invoice for the engaged balance energy (from the second calendar day of a month at 00:00 h until the first calendar day of the following month at 24:00 h).

Generating module – Synchronous power generating module or power park module.

Synchronous Power Generating Module – Indivisible set of devices (e.g. turbine, generator and necessary accompanying devices) that can generate electric energy so that the frequency of the generated voltage, the speed of the generator and the frequency of the network voltage are in constant ratio, thus in synchronism.

Token (Public Key Infrastructure USB token) – medium in which electronic certificate for access to information system is stored.

Market day – The time period that includes 24 accounting intervals, starting with the first calculating interval at 00:00 (the Central European Time). In a day of transition from summer to winter time, the market day has 25 accounting intervals. In a day of transition from winter to summer time, the market day has 23 accounting intervals.

Other terms used in the Market Code, which are not specified within the Subsection 2.1, have the same meaning as in the Energy Law (hereinafter referred to as: the Law) and in the Law on the use of the renewable energy sources.

2.2. ABBREVIATIONS

The **Cyrillic abbreviations** used in the Market Code:

be – Index indicating a balancing entity;

БЕН – Total balancing energy involved;

БЕС – Balancing energy due to the engagement of secondary regulation;

БЕТ – Balancing energy due to the engagement of tertiary regulation for system balancing;

БЕТС – Balancing energy due to the engagement of tertiary regulation to ensure safe operation of the power system;

БЕУ – Balancing energy due to the activation of the contracted reserve of balancing energy;

БОС – Balance responsible party (BRP);

БРИ – Accepted block of internal trading of electricity which one balancing group delivers to another balancing group;

БРП – Accepted block of internal trading of electricity which one balancing group receives from another balancing group;

Г – year Г;

ГЦЦ – Grid Control Cooperation

Д – Market Day D;

ЕН – energy values used for calculation of risk value;

ЕИ – Accepted block of electricity trading which a balancing group delivers to another bidding zone;

ЕУ – Accepted block of electricity trading which a balancing group receives from another bidding zone;

ЈМБГ – personal identification number;

М – Month M;

МН1 – Monthly fee for imbalance of balancing group, to be received by BRP;

МН2 - Monthly fee for imbalance of balancing group, to be paid by BRP;

НБС – National Bank of Serbia;

НДП – unbalanced daily schedule;

НОБ1 – fee for imbalance of balancing group, to be received by BRP;

- НОБ2** – fee for imbalance of balancing group, to be paid by BRP;
- НОБ3** – fee for unbalanced operation of the balancing group, to be paid by BRP;
- ОБОС** – imbalance of balancing group;
- он** – index used to indicate the accounting interval;
- П** – the period for which the fee for unbalanced daily schedule is calculated;
- ПДВ** – Value Added Tax;
- ПИБ** – Tax Identification Number;
- ПОБ** – acceptable imbalance of balancing group;
- Р** –value of the risk in case of BRP’s non-performance on the level of accounting period;
- систем** – index that indicates the electric power system;
- СРГ** – balancing energy due to the engagement of the secondary regulation up;
- СРД** – balancing energy due to the engagement of secondary regulation down;
- ТРГ** – balancing energy due to the engagement of tertiary regulation upward, for system balancing;
- ТРД** – Balancing energy due to engagement of tertiary regulation downward, for system balancing;
- ТРГС** –balancing energy due to the engagement of tertiary regulation up, to ensure the safe operation of the power system;
- ТРДС** –balancing energy due to the engagement of tertiary regulation down, to ensure the safe operation of the power system,
- y** – index that indicates contract;
- УОП** – Total read position of balancing group;
- УПО** – Total electricity withdrawn at the withdrawal/ injection points;
- УПП** – Total nominated position of balancing group;
- УИП** – Total electricity injected at the withdrawal/ injection points;
- Ц** – Average price of balancing energy for calendar year;
- ЦП** – imbalance settlement price.

Latin abbreviations used in the Market Code:

EIC X – a unique energy code that serves to identify participants in the electricity market;

EIC Z - a unique energy code for identification of Withdrawal/ Injection (W/I) point

EIC W - a unique energy code for identification of balancing entity

ENTSO-E – European Network of Transmission System Operators for Electricity

EUR – euro (currency);

RSD – dinar (currency of Republic of Serbia).

3. BALANCE RESPONSIBILITY

3.1. INTRODUCTION

3.1.1. The balance responsibility in the electricity market is an obligation of market participants, for each accounting interval:

- a) to ensure a balance of production, consumption, and blocks of electricity trading,
- b) to assume financial responsibility towards the Transmission system operator for unbalanced daily schedules after completion of the process of intraday modification of daily schedule,
- c) to assume financial responsibility towards the Transmission system operator for all deviations resulted from the differences in realized (actual) production and consumption and accepted blocks of electricity trading.

3.1.2. Market participants have the right to transfer their balance responsibility to the other participant and to assume the balance responsibility of the other participant on the basis of the agreement on transfer of the balance responsibility, in accordance with the Law.

3.1.3. Supplier, who concluded, for one or several withdrawal/injection points, a full supply contract with the final customer, assumes the balance responsibility for those withdrawal/injection points.

3.1.4. If a Supplier transfers its balance responsibility to another market participant, that market participant assumes the balance responsibility for all withdrawal/injection points of the final customer with whom the Supplier, or the supplier of last resort, has concluded a full supply contract.

3.1.5. In the case that Supplier, who concluded, for one or several withdrawal/injection points, a full supply contract with the final customer, has not regulated its balance responsibility, the final customer is treated as the one with no supplier and as the one who has not regulated its balance responsibility for those withdrawal/injection points.

3.1.6. If the final customer has not regulated its balance responsibility but he did conclude a supply contract on pre-defined volume of electricity, the final customer is treated as the one who does not have a supplier.

3.2. BALANCE RESPONSIBILITY AND BALANCING GROUPS

3.2.1. For one Balancing group, only one market participant can be a balance responsible party (BRP). This market participant shall be registered as BRP, as defined in the Section 3.3.

3.2.2. The obligations of BRP and of market participants regarding the assuming of the balance responsibility are stipulated in the Sections 3.3. and 3.6. of this Code, and in the act governing the Supplier switching.

3.2.3. Each withdrawal/injection point in the transmission and distribution system shall be

assigned to a single Balancing group. The process of transferring the withdrawal/injection point from one Balancing group to another Balancing group is stipulated in the Section 3.6. and in the Rules on supplier switching.

- 3.2.4. BRP performs the nomination of a daily schedule for each Balancing group as defined in the Grid Code.
- 3.2.5. If it is ascertained that there was a period of unauthorized withdrawal or injection of electricity through the withdrawal/injection point, that withdrawal/injection point will be, when calculating the balance responsibility, assigned to the Balancing group responsible for the aggregate point of delivery to the Transmission, Distribution or closed distribution system operator, for covering energy losses in the transmission, distribution, or closed distribution system, depending on the system to which this injection point is connected.
- 3.2.6. Each BRP shall at its own expense provide all required communication and information systems necessary for communication with the Transmission, Distribution and closed distribution system operators, in accordance with the rules governing the operation of the transmission, distribution and closed distribution system and Market Code.

3.3. PROCEDURE FOR ACQUIRING STATUS OF BALANCE RESPONSIBLE PARTY

- 3.3.1. The participant in the electricity market that wants to acquire BRP status shall submit the application for BRP registration to the Transmission system operator. The form and contents of the application is regulated by the Transmission system operator and published on its official website.
- 3.3.2. The application for BRP must contain at least the following information about the applicant:
 - a) business name, head office, registration number and tax identification number of the applicant;
 - b) full name, address and PIN (Personal Identification Number) of the applicant (for natural entities);
 - c) business name, registration number and TIN of the tax proxy (designee)
 - d) EIC X code;
 - e) Number of the License for carrying out energy activities, in accordance with the laws governing the energy sector;
 - f) the names and contact details of persons responsible for communication with the Transmission system operator;
 - g) a list of the withdrawal/injection points in the transmission system with the EIC Z specified and the basis upon which the withdrawal/injection points are associated to the Balancing group of the applicant (the withdrawal/injection point is registered to the applicant, or the withdrawal/injection point is integrated into the balancing group based on the full supply contract);
 - h) a list of the withdrawal/injection points in the distribution system, or closed distribution system, including information about the total number of the withdrawal/injection points, the total approved and total installed power of generating modules and the basis upon which the withdrawal/injection points is associated to the Balancing group of the applicant (the

withdrawal/injection point is registered to the applicant, or the withdrawal/injection point is integrated into the balancing group based on the full supply contract).

3.3.3. Along with the application referred to in Subsection 3.3.2. the applicant based abroad must provide:

- a) the excerpt from the business or a court registry not older than 3 months as of the date of application submission;
- b) Certificate that the applicant is not subject to bankruptcy and liquidation proceedings, issued by a competent institution. The certificate should not be older than 3 months as of the date of application submission;
- c) The balance sheet and income statement accompanied with the Independent Auditors' Report for the previous three years or shorter period if the applicant operates shorter than three years, or the statement of the authorized person of the applicant reading that the applicant is not audit obligor.

These documents must be submitted to the Transmission system operator in Serbian or English language. If the original documents are not in Serbian or English language, they must be accompanied by translation in Serbian or in English, certified by an authorized court interpreter.

3.3.4. In addition to the application data, the transmission system operator shall also verify information and data on bankruptcy and liquidation and applicant's financial reports, as well as information on the status of the license for performing energy activity. All information and data shall be verified from the publicly available sources or from TSO's registries.

3.3.5. The Transmission system is obligated to verify and determine its orderliness within 3 working days from the date of the receipt of the application and documentation referred to in subsections 3.3.3 and 3.3.4.

If the application is incorrect or documentation is incomplete, or the Transmission system operator could not obtain all necessary data referred to in subsection 3.3.4 through the publicly available sources, the TSO shall notify the applicant within 3 working days and give him another time limit of 15 working days to correct the application and submit the missing documentation. If even after the subsequent period the applicant fails to submit the required information and documentation it will be deemed as if the applicant did not file the application.

3.3.6. The TSO is obligated, no later than five (5) business days after receipt of the correct application, to provide the applicant with the information on the risk value amount, and additionally, to deliver the Balance Responsibility Agreement signed by the TSO to the applicant within the eight (8) business days as from the receipt of the information on payment security instrument (collateral) of the applicant.

3.3.7. If the applicant fails to submit the signed balance responsibility agreement within 30 days from the date of delivery of the agreement, the Transmission system operator will assume that the applicant withdrew from signing of the balance responsibility agreement.

3.3.8. The Balance Responsibility Agreement will become effective on the first day following the date on which the Transmission system operator receives the agreed payment security instrument (collateral) of the applicant, by which the applicant obtains the BRP status.

3.3.9. After obtaining the BRP status, the BRP can, based on the composition of the balancing group, have one or more roles for the purpose of nomination of daily schedules, as

follows:

- a) the responsible party for nominating the electricity production (only if within the Balancing group it has, as a withdrawal/injection point, a point of withdrawal of electricity from a power producer);
- b) the responsible party for nominating the electricity consumption (only if within the Balancing group, it has, as a withdrawal/injection point, the delivery point of electricity to the final customer or the aggregate point for delivery to the transmission or distribution or closed distribution system operator to cover energy losses in the transmission, distribution or closed distribution systems);
- c) the responsible party for nominating the blocks of electricity trading (awarded to all applicants).

3.3.10. The Transmission system operator shall notify the distribution/ closed distribution system operators of the effective date of the balance responsibility agreement with BRP.

3.3.11. Immediately upon effectiveness of the balance responsibility agreement, the Transmission system operator shall provide BRP with the access to information systems in accordance with the operating instructions that are published on the website of the Transmission system operator.

3.3.12. The Transmission system operator is obligated to update, publish the list of the BRPs on its web site.

3.3.13. The Transmission system operator, the distribution system operator and closed distribution system operator are required to share and coordinate information about BRP.

3.3.14. In case of change of any data from the application the BRP is obliged to deliver the updated application to the Transmission system operator.

3.4. BALANCE RESPONSIBILITY AGREEMENT

3.4.1. The balance responsibility agreement specifically includes:

- a) Mutual rights and responsibilities;
- b) a list of the withdrawal/injection points in the transmission system including the required information;
- c) a list of the withdrawal/injection points in the distribution system including the required information;
- d) the list of the market participants with which BRP has concluded an agreement on balance responsibility transfer;
- e) type, value and time limits for delivery and validity of payment security instrument, validity date of the payment security instrument in case of termination of the agreement on balance responsibility, as well as conditions for activation of the payment security instrument.

3.4.2. The Transmission system operator publishes the Model of balance responsibility agreement on its official website.

3.5. REGISTRY OF BALANCE RESPONSIBILITY FOR WITHDRAWAL/INJECTION POINTS

3.5.1. The Transmission system operator is establishing and administering the registry of

balance responsibility for the withdrawal/injection points in the transmission system.

- 3.5.2. Distribution and closed distribution system operators are establishing and administering the registry of balance responsibility for the withdrawal/injection points in the distribution system of their respective jurisdiction.
- 3.5.3. The TSO's registry shall contain at least the following information:
- a) business information about BRP: the business name, head office, details about authorized persons, registration number and tax identification number of the BRP, or the details about the tax proxy;
 - b) BRP's EIC X code;
 - c) data on balance responsibility agreement, annexes of balance responsibility agreement, records and other contract documents;
 - d) financial information about BRP: established risk value, type, value and expiry date of the payment security instrument;
 - e) Information on the composition of the Balancing group according to which the role for responsible parties is assigned, for the purposes of the nomination of daily schedules;
 - f) a list of the withdrawal/injection points in the transmission system with corresponding EIC Z codes and information about the approved power of consumption and approved power of the generating modules, for each W/I point of the balancing group in question;
 - g) business data about market participant, to which the withdrawal/injection point is registered: business name, head office, data about authorized personnel, registration number and tax identification number of the market participant (for legal entities and entrepreneurs);
 - h) the basis on which that withdrawal/injection point is associated to the relevant Balancing group – type of the contract with information about the effective date and period of validity of the contract/ agreement by which balance responsibility is transferred to BRP;
 - i) business data about Supplier of the relevant withdrawal/injection point in case that supplier is not BRP, as well as the type of the Supply contract;
 - j) the manner in which access to transmission system for relevant withdrawal/injection point is regulated (e.g. data on agreement on access to the transmission system);
 - k) total number of withdrawal/injection points on distribution system within the relevant Balancing group, total approved power of consumption and total approved power of all generating modules and the basis for assigning withdrawal/injection points to the Balancing group (e.g. agreement on transfer of balance responsibility, the full supply contract, the power purchase contract where the volume is set on the basis of realized (actual) production or the withdrawal/injection point is assigned to the applicant, including also information about the effective date and the period of validity of the contracts/ agreements);
 - l) business data of all other Balancing group members (wholesale supplier, or the Supplier) as well as the effective data and the period of validity of the agreement on transfer of balance responsibility between BRP and Balancing group members.
- 3.5.4. The distribution system operator or a closed distribution system operator's registry shall contain at least the following information:
- a) a list of the withdrawal/injection points in the distribution system with information about the approved power of consumption and approved power of the generating modules,
 - b) data about the user of the distribution, or closed distribution system per withdrawal/injection point;
 - c) data about Supplier per withdrawal/injection point and the basis on which the Supplier serves the relevant withdrawal/injection point;

- d) data about the BRP for each withdrawal/injection point and the basis on which that withdrawal/injection point is assigned to the relevant Balancing group;
- e) the manner in which the access to the distribution system is regulated for the relevant W/I point (i.e. details about the agreement on access to the distribution system).
- 3.5.5. The distribution system operator or a closed distribution system operator shall provide information to the Transmission system operator as defined in subclause 3.5.3. j) of the Market Code.
- 3.5.6. BRP is obligated to report to the Transmission system operator, Distribution system operator and the Operator of a closed distribution system any amendment or supplement of the information contained in the Transmission or Distribution registry.
- 3.5.7. Any BRP has the right to access to their own data from the Transmission/ Distribution / Closed distribution system operator's registry.
- 3.5.8. Data referred to in 3.5.3. a) and 3.5.4. a) as well as the data on composition of the balancing group, constitute a public portion of the registry and are publicly available on the TSO/ DSO/ closed DSO's web site.

3.6. CHANGES IN COMPOSITION OF BALANCING GROUP

- 3.6.1. The composition of balancing group is modified in the following cases:
- a) when existing withdrawal/injection point is included in the balancing group on the basis of the agreement on the transfer of balance responsibility,
 - b) when existing withdrawal/injection point is included in the balancing group on the basis of the supplier switching procedure in line with the rules on supplier switching, except when new supplier is a member of the same balancing group as the previous supplier;
 - c) when a new withdrawal/injection point is included in the balancing group;
 - d) when the wholesale supplier, or the supplier, is included in the balancing group, on the basis of the agreement on the transfer of balance accountability;
 - e) when the withdrawal/injection point is excluded from the balancing group on the basis of the expiry of the contract on the transfer of the balance responsibility;
 - f) when the withdrawal/injection point is excluded from the balancing group on the basis of the supplier switching procedure in case of termination of the full supply agreement;
 - g) when the withdrawal/injection point is excluded from the balancing group in case of termination of the full supply agreement due to outstanding accrued liabilities.
 - h) when the wholesale supplier, or the supplier, is excluded from the balancing group, on the basis of the termination of the agreement on transfer of balance responsibility.
- 3.6.2. In the case referred to in subsection 3.6.1. (a), the BRP who accepts to assume the balance responsibility for the existing withdrawal/injection point, is required to submit to the transmission system operator a Statement on transfer of balance responsibility between the BRP and the end customer, or the producer for the respective withdrawal/injection point.

If the withdrawal/injection point is located in the distribution system, or closed

distribution system, the BRP accepting to assume the balance responsibility for the existing withdrawal/injection point, is required to submit to the DSO or closed DSO a Statement on transfer of balance responsibility. The distribution system operator or a closed distribution system is required to inform the transmission system operator about date and time of the changes in the composition of the balancing group (date of determination of measurement data for the respective withdrawal/injection point).

- 3.6.3. In the case referred to in subsection 3.6.1. (b) for the withdrawal/injection points in the transmission system, the transmission system operator conducts a change of the supplier and of the composition of the balancing group in accordance with the Rules on supplier switching;
- 3.6.4. In the case referred to in subsection 3.6.1. (b) for the withdrawal/injection points in the distribution system, the distribution system operator or closed distribution system operator implements the change of the supplier in accordance with the Rules on supplier switching and shall submit to the transmission system operator:
- a) a new summary approved power of consumption at the withdrawal/injection points in the distribution system, or closed distribution system for the BRP (i.e. full supplier) whose balancing group undergoes a change in the composition;
 - b) a new summary approved power of all generating modules connected to the W/I points in the distribution system or closed distribution system for BRP (full supplier) whose balancing groups undergoes a change in the composition;
 - c) a new summary approved power of all generating modules of the RES producer connected to the W/I points in the distribution system or closed distribution system for BRP whose balancing groups undergoes a change in the composition;
 - d) the total number of W/I points in the distribution system or a closed distribution system for BRP (full supplier) whose balancing group undergoes a change in the composition.

The transmission system operator implements the change of composition of the balancing group on the basis of data submitted by the distribution system operator or operator of closed distribution system.

- 3.6.5. In the case of point 3.6.1. (c) for the new withdrawal/injection point in the transmission system, the transmission system operator implements the change of composition of the balancing group in accordance with the connection process;
- 3.6.6. In the case referred to in subsection 3.6.1. (c) for new withdrawal/injection point in the distribution system, the distribution system operator or closed distribution system operator implements the change of composition of the balancing group in accordance with the connection procedure and it shall submit to the transmission system operator as follows:
- a) a new total approved power of consumption for the W/I points in the distribution system for BRP whose balancing group includes a new withdrawal/injection point;
 - b) a new summary approved power of all generating modules connected to the withdrawal/injection points in distribution system for BRP whose balancing group includes a new withdrawal/injection point;
 - c) a new total approved power of all generating modules of the RES producer connected to the W/I points places in the distribution system or closed distribution system for BRP whose balancing group is subject to a change in the composition;

- d) the total number of withdrawal/injection points in the distribution system for BRP whose balancing group includes a new withdrawal/injection point.

The transmission system operator conducts the change of composition of the balancing group on the basis of data submitted by the distribution system operator or operators of closed distribution system.

- 3.6.7. In the case referred to in subsection 3.6.1. (d) the BRP which accepts to take balance responsibility for the wholesale supplier, or the supplier is obligated to submit to the transmission system operator a Declaration of transfer of balance responsibility between the BRP and the relevant supplier. The transmission system operator informs the relevant distribution system operator or the operator of closed distribution system within 2 working days as of receipt of the application.
- 3.6.8. In the case referred to in subsection 3.6.1. (e) the BRP from whose group the withdrawal/injection point is excluded shall submit application to the transmission system operator for change of the composition of the balancing group and attach the Statement on expiry of the agreement on transfer of balance responsibility for that withdrawal/injection point, unless the BRP indicated the validity date of the agreement on transfer of balance responsibility in the Declaration on transfer of balance responsibility referred to in subsection 3.6.7. If the withdrawal/injection point is in the distribution system, or closed distribution system, the BRP from whose group the withdrawal/injection point is excluded shall submit to the distribution system, or closed distribution system operator an application for change of the composition of the balancing group and attach the statement on expiry of the agreement on transfer of balance responsibility for that withdrawal/injection point. The distribution system operator or a closed distribution system operator is required to inform the transmission system operator about the date and time of changes in the composition of the balancing group (date of determination of measurement data for the respective withdrawal/injection point).
- 3.6.9. In the case referred to in subsection 3.6.1. (f) for the withdrawal/injection point in the transmission system, the transmission system operator conducts the change of the supplier on the basis of supplier's notification on termination of the full supply contract, in accordance with the rules on supplier switching and implements the changes in the composition of the balancing group.
- 3.6.10. In the case referred to in subsection 3.6.1. (f) for the withdrawal/injection point in the distribution system, the distribution system operator or closed distribution system operator implements the change of the supplier on the basis of supplier's notification on termination of the full supply contract, in accordance with the rules on supplier switching and it shall also submit to the transmission system operator:
 - a) a new total approved power of consumption for the withdrawal/injection point in the distribution system or closed distribution system for the BRP (full supplier) whose balancing group underwent a change in the composition,
 - b) a new total approved power for all the production modules connected to the withdrawal/injection point in the distribution system, and a closed distribution system for BRP whose balancing group undergoes a change in the composition;
 - c) a new total approved power for all the production modules of the RES producer which are connected to the withdrawal/injection point in the distribution system, and a closed distribution system for BRP whose balancing group undergoes a change in the composition;
 - d) the total number of the withdrawal/injection points in the distribution system or closed distribution system for the BRP whose balancing group underwent

a change in the composition.

The transmission system operator implements the change in the composition of the balancing group on the basis of the data provided by the distribution system operator or operator of closed distribution system.

- 3.6.11. In the case referred to in subsection 3.6.1. (g) for W/I points in the transmission system, the transmission system operator implements a supplier switching, based on the supplier's Notification on termination of the full-supply contract due to outstanding accrued liabilities in accordance with the Law and implements changes in the composition of the balancing group.
- 3.6.12. In the case referred to in subsection 3.6.1. (g) for W/I points in the distribution system, the distribution system operator, or operator of the closed distribution system, implement a supplier switching on the basis of supplier's notifications of the termination of the full-supply contract due to outstanding accrued liabilities in accordance with the law, and is bound to submit to the transmission system operator:
- a) a new total approved power of consumption for W/I points in the distribution system or a closed distribution system for BRP whose balancing group underwent a change in the composition;
 - b) a new total nominal power for all the production modules which are connected to the W/I points in the distribution system, and a closed distribution system for BRP whose balancing group undergoes a change in the composition;
 - c) a new total approved power for all the production modules of the RES producer which are connected to the withdrawal/injection point in the distribution system, and a closed distribution system for BRP whose balancing group undergoes a change in the composition
 - d) the total number of W/I points in the distribution system or a closed distribution system for BRP whose balancing group underwent a change in the composition.

The transmission system operator implements the change in the composition of the balancing group on the basis of data submitted by the distribution system operator or operators of closed distribution system.

- 3.6.13. In the case referred to in subsection 3.6.1. (h), BRP, which excludes a wholesale supplier, or the supplier from its balancing group, shall submit to the transmission system operator a Declaration of termination of the agreement on the transfer of balance responsibility. The transmission system operator informs the relevant distribution system operator or operator closed distribution system about the changes in the composition of the balancing group within 2 working days of receipt of the application.
- 3.6.14. If the supplier, as in the case referred to in subsection 3.6.1. (F) has a signed contract for the sale of electricity for full supply, it will be considered that the end customer does not have a selected supplier or a resolved matter of balance responsibility.
- 3.6.15. If BRP did not provide all required information and documentation as referred to in subsections 3.6.2, 3.6.7, 3.6.8. and 3.6.13 hereof, the transmission system operator is bound to inform it thereof and to allow an extra time of 5 working days to straighten out the application and submit the complete documentation. If BRP fails to submit the requested information and documentation after the extra time, it shall be deemed as if it did not submit the application for the change in the composition of the balancing

group.

- 3.6.16. The transmission system operator and the BRP whose balancing group underwent a change in the composition, will sign an annex to the agreement on balance responsibility. The transmission system operator may, pursuant to subsection 3.8, request a new payment security instrument for BRP, depending on the changes in the composition of the balancing group.
- 3.6.17. The transmission system operator is obligated to confirm the changes concerning the inclusion, or exclusion of the withdrawal/injection point from the balancing group under subsections 3.6.1. (a), 3.6.1. (d), 3.6.1. (e) and 3.6.1. (h) no later than 3 working days as from the date of the receipt of the application for the change in the composition of the balancing group. About the effective date of such a change, the transmission system operator notifies:
- a) BRP to which the changes apply,
 - b) the relevant distribution system operator or closed distribution system operator.

The distribution system operator or closed distribution system operator is obliged to make changes in the distribution registry no later than 3 working days as from the date of the notification by the transmission system operator.

- 3.6.18. On the basis of the implemented procedure for changing the composition of the balancing group the transmission system operator updates the data in the transmission registry, which relates to the BRP whose balancing group underwent a change in the composition.
- 3.6.19. The distribution system operator, or operator of the closed distribution system shall, on the basis of the implemented procedure for supplier switching, or on the basis of the transmission system operator's notification about changes in the composition of the balancing group, update the data in the distribution registry concerning the respective withdrawal/injection points.
- 3.6.20. BRP which has assumed the balance responsibility for the withdrawal/injection point of market participants shall assume the obligations starting from the date of the change of the supplier determined by the rules on supplier switching, namely from the date of registration in the transmission registry, under the agreement on the transfer of balance responsibility.
- 3.6.21. BRP, from which balancing group a withdrawal/injection point is excluded, shall retain obligations under the balance responsibility until the supplier switching date determined by the rules on supplier switching, or until the day of expunge from the transmission registry, pursuant to the Agreement on the transfer of balance responsibility.
- 3.6.22. Transmission system operator determines the format and content of application on changing the composition of the balancing group and publishes it on its website.

3.7. TERMINATION OF BALANCE RESPONSIBILITY AGREEMENT

- 3.7.1. If a BRP, who is entitled to a BRP status according to the Law, decides not to enjoy the BRP status any longer, it is obligated to notify all members of the balancing group in advance and to submit to the transmission system operator a statement on termination

of the balance responsibility agreement in written form.

- 3.7.2. In the case referred to in subsection 3.7.1. for BRP whose balancing group hosts withdrawal/injection points the termination period lasts 30 days from the date of receipt of the statement on termination of the balance responsibility agreement. During the termination period BRP has all rights and obligations under the balance responsibility agreement.
- 3.7.3. In the case referred to in subsection 3.7.1. for BRP whose balancing group does not host withdrawal/injection points, the termination period lasts no longer than 5 working days from the date of receipt of the statement on termination of the balance responsibility agreement. During the termination period BRP has all rights and obligations under the balance responsibility agreement.
- 3.7.4. The transmission system operator is obligated to unilaterally terminate the balance responsibility agreement with BRP, in the following cases:
- a) when BRP does not submit the appropriate payment security instrument within two months after the conclusion of the balance responsibility agreement,
 - b) when the BRP does not extend the validity of the payment security instrument in accordance with subsection 3.8.13;
 - c) when BRP does not submit a new bank guarantee within a prescribed period or does not change the existing one (e.g. increase its value) on the basis of transmission system operator's notification, in case of change of risk value in accordance with subsection 3.8.14;
 - d) when BRP does not provide the additional amount on the deposit account on the basis of transmission system operator's notification within a prescribed period, in case of change of risk value in accordance with subsection 3.8.14;
 - e) when the BRP does not deliver an adequate new payment security instrument within the prescribed period, in the case of changing the type of payment security instrument in accordance with subsection 3.8.14;
 - f) when the proceedings of bankruptcy or liquidation of BRP were initiated;
 - g) when the BRP loses license for carrying out energy activities;
 - h) when BRP does not fully settle the due monetary obligation to the transmission system operator that was agreed in accordance with these Market Code, within the period stipulated in the Electricity Market of Settlement and Payment Calendar, or within the period stipulated by this Code regarding the monetary obligations based on calculation referred to in subsection 6.5.5.1. hereof;
 - i) when the BRP does not fulfil other obligations under the balance responsibility agreement and/or this Market Code and fails to remedy such breach within an extra time determined in accordance with this Code.
- 3.7.5. In the case referred to in subsection 3.7.4. a), b), c), d) and e) the balance responsibility agreement shall be deemed terminated on the first day following the expiry date for fulfilment of obligations.
- 3.7.6. In the case referred to in subsection 3.7.4. f) the balance responsibility agreement shall be deemed terminated on the first day following the delivery of the notice of unilateral termination of the contract.
- 3.7.7. In the case referred to in subsection 3.7.4. g) the balance responsibility agreement shall be deemed terminated from the date of finality of the Agency's decision on temporary revocation of the license.

- 3.7.8. In the case from point 3.7.4. h) the transmission system operator shall, prior to the termination of the balance responsibility agreement, invite the BRP to settle the due financial obligation in full within an extra time period of one working day. If BRP does not settle the due financial obligation in full within this extended period, the contract will be deemed terminated from the first day following the expiry of the extended period, and the transmission system operator will have the right to activate the payment security instrument to collect the BRP's outstanding monetary obligations.
- 3.7.9. In the case referred to in subsection 3.7.4. i) the transmission system operator is obligated to give to BRP an appropriate extra time period, which is not longer than 5 working days, to eliminate or rectify the omissions caused by non-compliance with the obligations from the balance responsibility agreement and the prescribed obligations assumed under this Market Code. If BRP fails to perform its obligations in the prescribed manner within the additional time period, the agreement shall be deemed terminated from the first day following the day of expiry of the extra time period for discharging the obligations.
- 3.7.10. The transmission system operator is obligated to notify BRP in writing of the unilateral termination of the agreement in accordance with subsection 3.7.4, while the notification will have a declarative character, except in the case referred to in subsection 3.7.4. f). BRP will enjoy all the rights and obligations from the balance responsibility agreement until the date when the balance responsibility agreement is deemed terminated.
- 3.7.11. In the cases under subsections 3.7.1. and 3.7.4, the transmission system operator is obligated to submit the notification on termination of the balance responsibility agreement and cessation of BRP status to:
- a) BRP to which the cessation of the status applies, as result of the termination of the agreement;
 - b) suppliers or wholesale suppliers which belong to the balancing group for which the BRP was balance responsible;
 - c) end customers, or producers whose withdrawal/injection points connected to the transmission system belong to the balancing group for which the BRP was balance responsible;
 - d) distribution system operators or closed distribution system operators whose area hosts withdrawal/injection points that are associated to the balancing group for which the BRP was balance responsible;
 - e) market operator;
 - f) any other registered BRPs.
- 3.7.12. After receiving notification from the transmission system operator, the distribution system operator, or operator of the closed distribution system is obligated to deliver a notification on termination of the balance responsibility agreement and revoked BRP status to end customers or producers whose withdrawal/injection points are connected to the distribution system and associated to the balancing group for which the BRP was balance responsible.
- 3.7.13. Participants in the electricity market under subsections 3.7.11. and 3.7.12. shall, upon receipt of the notice, regulate balance responsibility for their withdrawal/injection points in accordance with the obligations defined by the Law, this Code and the Supplier Switching Rules.

3.8. DETERMINATION OF RISK VALUE IN CASE OF NON-FULFILLMENT OF OBLIGATIONS AND PAYMENT SECURITY INSTRUMENTS

3.8.1. The risk value in case of non-fulfillment of BRP obligations at the level of the accounting period (hereinafter referred to as: the risk value), regarding imbalances of balancing group is determined by the transmission system operator based on the following formula:

$$P = \max(\max(EH_1, EH_2, EH_3) * \Delta * \Pi, Nmax)$$

P - risk value

EH₁ - estimated daily electricity consumption of the balancing group (BG) which corresponds to the total maximum approved power of withdrawal/injection points of the balancing group consumption (EH₁ = total approved power BG x 24 hours);

EH₂ - estimated daily electricity production of the balancing group which corresponds to the total maximum approved power of withdrawal/injection points of the balancing group production (EH₂ = total approved power BG x 24 hours);

EH₃ - average value of balancing group's nominated blocks of electricity trading on daily basis, in the withdrawal direction, over the preceding twelve-month period.

Δ - number of days (Δ = 5)

Π - average price of engaged balancing energy for a calendar year Y (Π means weighted price of engaged balancing energy for regulation up in the period from October 1, Y-2 to September 30, Y-1 in EUR/MWh).

Nmax - maximum value of the difference of sums of the balancing group's monthly negative imbalance fee ($MHZ_{BOC,OH}$) in accordance with subsection 6.5.4.3, and the unbalanced daily schedule fees during the accounting period and the monthly fee for the engaged balancing energy for regulation up in accordance with subsections 5.16. and 5.17. and subsection 6.5.6.2. within a period of 12 months from the date of calculating the risk value.

3.8.2. If it is not possible to determine the values of energy parameters (EH₁, EH₂, EH₃) for BRP's balancing group referred to in subsection 3.8.1, or if the transmission system operator determines that the EH₁, EH₂, EH₃ values of balancing group will be significantly changed due to changes in the composition of the balancing group, the transmission system operator determines BRP's risk value on the basis of planned values of these parameters for the balancing group in accordance with the rules governing the operation of the transmission system, namely the Grid Code.

3.8.3. Upon ending of each month, the transmission system operator determines a new risk value for each BRP based on the change in the realized energy values referred to in subsection 3.8.1, changes in the composition of the balancing group or change of Π price.

3.8.4. Based on the determined risk value, the transmission system operator may request a change in the value of the payment security instrument.

- 3.8.5. If the BRP requires that the estimated risk value be greater than a risk determined by the transmission system operator, the transmission system operator will change the risk value following the request submitted by the BRP.
- 3.8.6. The value of appropriate payment security instrument is determined on the basis of the established risk value, and it cannot be less than EUR 1,000,000.00, and greater than EUR 5,000,000.00 in case that the value of N_{max} is less than EUR 5,000,000.00. If N_{max} is greater than or equal to EUR 5,000,000.00, the maximum value of the payment security instrument equals the three times the value of N_{max} .
- 3.8.7. Collection of receivables - in case of BRP's non-performance of obligations - shall be guaranteed via appropriate payment security instrument acceptable for the TSO, to be provided by BRP in accordance with the balance responsibility agreement.
- 3.8.8. Payment security instruments are:
- a) For BRP, which is headquartered in the Republic of Serbia:
 - bank guarantee issued by a bank headquartered in the Republic of Serbia;
 - special purpose (guarantee) deposit issued by a bank headquartered in the Republic of Serbia.
 - b) For BRP whose head office is located outside of the Republic of Serbia:
 - bank guarantee to warrant payment, issued by a foreign bank;
 - special purpose (guarantee) non-resident deposit in the bank headquartered in the Republic of Serbia.
- 3.8.9. The transmission system operator, distribution system operator, the operator of a closed distribution system and market operator or legal entity which carries out affairs on behalf of and for the account of the market operator in accordance with the Law, namely in the capacity of BRP, are not required to provide payment security instrument.
- 3.8.10. BRP can choose one of the payment security instrument in accordance with the Market Code. The payment security instrument, in accordance with the law governing execution and security, is not subject to forced collection.
- 3.8.11. BRP is entitled to change the type of payment security instrument once in a calendar year. A previous payment security instrument shall be valid until the newly selected payment security instrument has become active.
- 3.8.12. BRP takes care about the maturity period of the chosen payment security instrument and its promptly extension or its replacement for a new payment security instrument in order to maintain active status of a balance responsible party as long as the balance responsibility agreement lasts.
- 3.8.13. BRP is required to submit new or to extend the existing payment security instrument 65 days before the date of expiry of the existing payment security instrument.
- 3.8.14. Within 30 days from the request of the transmission system operator, the BRP is obligated to submit the appropriate payment security instrument in case of a change in the type of payment security instrument or in the event of a change in the risk value.
- 3.8.15. Bank guarantee for the BRP headquartered in the Republic of Serbia, shall be issued by a commercial bank headquartered in the Republic of Serbia having an NBS license; and bank guarantee for the BRP headquartered abroad shall be issued by a foreign commercial bank.

- 3.8.16. The bank guarantee should be irrevocable, unconditional, payable at first demand, without the right to contest and defence, having validity period of 6 months at a minimum.
- 3.8.17. The validity period of the bank guarantee shall be 60 days longer than the date of termination of the balance responsibility agreement. The TSO may return the bank guarantee to the BRP before the expiry of the 60 days period, provided that the TSO and BRP settled their mutual financial liabilities.
- 3.8.18. The bank guarantee for payment guarantee shall be issued to the amount equal to three times the determined risk value for the BRP in question, or the minimum value of the payment security instrument referred to in item 3.8.6. in the event that the amount equivalent to three times the determined risk value is less than that minimum value and the amount of the guarantee will be reduced in accordance with the payments effectuated by the bank guarantor at the request of the transmission system operator. Such a guarantee can be protested partially, but maximally up to the value of the bank guarantee.
- 3.8.19. For BRP headquartered in the Republic of Serbia, the bank guarantee shall include the foreign currency clause, i.e. the value of the bank guarantee shall be expressed in EUR, payable in RSD by applying the middle exchange rate of NBS applicable on the day of payment.
- 3.8.20. For BRP which has headquarters abroad, a bank guarantee shall specify EUR value, and collectable in EUR.
- 3.8.21. In case of BRP's non-fulfilment of its financial obligations towards the transmission system operator as provided by this Code and/ or the balance responsibility agreement, the transmission system operator shall collect the entire due amount of unpaid receivables plus the legally prescribed default interest by protesting the bank guarantee, about which the TSO will notify the BRP in writing at least 3 working days before the initiating the protest of the guarantee.
- 3.8.22. Special purpose (guarantee) deposit is a payment security instrument where BRP deposits funds in a dedicated account in a bank headquartered in the Republic of Serbia holding an operational license issued by the NBS. The funds in the dedicated account shall be deposited by the BRP in favour of the transmission system operator for a period which may not be less than 3 years and in the amount equivalent to three times the determined risk value for each BRP, or in the amount of the minimum value of payment security instrument referred to in item 3.8.6. in the event that the amount equivalent to three times the determined risk value is less than that minimum value, in accordance with the balance responsibility agreement.
- 3.8.23. BRP, a bank and the transmission system operator, conclude the contract on the opening and administration of special purpose (guarantee) deposit.
- 3.8.24. For BRP headquartered in the Republic of Serbia the special purpose (guarantee) deposit (escrow) is nominated, kept and maintained in EUR, payable in RSD by applying the NBS' middle exchange rate applicable on the payment date, pursuant to the balance responsibility agreement.
- 3.8.25. For BRP headquartered abroad the special purpose (guarantee) non-resident deposit is nominated, kept and maintained in EUR and payable in EUR in accordance with the balance responsibility agreement.

- 3.8.26. In case of non-fulfillment of BRP's financial obligation to the transmission system operator provided by this Market Code and / or the balance responsibility agreement, the transmission system operator is entitled, at the first written request towards the bank, to collect the entire due amount claimed from the BRP plus legal interest from the Special purpose (guarantee) deposit.
- 3.8.27. Validity of Special purpose (guarantee) deposit shall be 60 days longer than the date of termination of the balance responsibility agreement. The TSO may give consent to the Bank to release the funds deposited before the expiry of the 60 days period, provided that the TSO and BRP settled their mutual financial obligations.

4. MANNER OF PROVISION OF SYSTEM SERVICES

4.1. PROCUREMENT OF ANCILLARY SERVICES

4.1.1. This Section defines the rules and procedures for procurement of the following ancillary services for the purpose of ensuring the system services by the Transmission system operator:

- a) Primary reserves for ensuring primary control system service;
- b) Secondary reserves for ensuring secondary control system service;
- c) Tertiary reserves for ensuring tertiary control system service;
- d) ensuring the capacities for reactive power generation and absorption on generating modules for provision of voltage regulation system service);
- e) ensuring the capacities for restoring the transmission system after the breakdown, to ensure the black start of generating module and island operation of generating module.

4.1.2. Transmission system operator purchases system services referred to in subsection 4.1.1. points (a) - (f) in accordance with the Ancillary services contracts, which are concluded with power producers, storage operators, end customers, and aggregators which are, in accordance with Energy Law and Grid Code, obligated to offer ancillary services to the Transmission system operator. The content of Ancillary services contract is regulated in subsection 4.2. of this Market Code.

4.1.3. Prices of the ancillary services referred to in Article 4.1.1. points (a) - (e) are regulated in accordance with the Energy Law.

4.1.4. In case that Transmission system operator, according to Ancillary services contracts referred to in Article 4.1.2., cannot provide system services in full volume as provided by the Grid Code, the missing part of the system services gap is purchased from other market participants or other Transmission system operators, in accordance with this Market Code.

4.1.5. With other transmission system operators, the Transmission system operator may arrange mechanisms for the exchange of primary, secondary and tertiary regulation energy and joint use of primary, secondary and tertiary reserves, in accordance with Rules of the interconnection operation.

4.2. ANCILLARY SERVICES CONTRACT

4.2.1. Ancillary services contracts particularly regulate:

- a) The scope of ancillary services (primary reserve, secondary reserve, tertiary reserve, capacity for voltage regulation, capacity for restoration of transmission system after the breakdown etc., depending on the type of ancillary service);
- b) Price, calculation method, method and terms of payment for ancillary services;
- c) The manner of recording, notification and compensation in the event of non-performance of contractual obligations.

4.2.2. In terms of the Primary regulation, Ancillary services contract, between the Transmission system operator and the Power producer, storage operator and aggregator particularly:

- a) define generating modules that provide the Primary regulation and their technical characteristics that are significant for the Primary regulation;
- b) establish the amount of the Primary reserve, the price of lease of the Primary reserve;
- c) regulate method of control of the realization and reporting of the realization, by the Transmission system operator.

4.2.3. In terms of the Secondary regulation, Ancillary services contract, between the Transmission system operator and the power producer, storage operator and aggregator particularly:

- a) define generating modules that provide the Secondary regulation and their technical characteristics that are significant for the Secondary regulation;
- b) establish the amount of the Secondary reserve and price of secondary reserve leases;
- c) regulate the method of control of the realization and reporting of the realization, by the Transmission system operator.

4.2.4. In terms of Tertiary regulation, Ancillary services contract, between the Transmission system operator and the power producer, particularly regulate:

- a) define generating modules, a group of generating modules and controllable load that provide the Tertiary regulation and their technical characteristics that are significant for the Tertiary regulation;
- b) establish the amount of the Tertiary reserve and price of secondary reserve leases;
- c) define the obligation of the power producer to put at disposal the entire volume of Tertiary reserve from all available production capacities, in accordance to the Grid Code;
- d) regulate method of control of the realization and reporting of the realization, by the Transmission system operator.

4.2.5. In terms of Voltage regulation, Ancillary services contract, between the Transmission system operator and the power producer, particularly:

- a) define generating modules that provide this type of service with technical characteristics and scope of the regulation that are significant for the voltage regulation;
- b) establish the obligation of the power producer to carry out the voltage regulation from all production modules in service in compliance with the technical characteristics;
- c) regulate method of control of the realization and reporting of the realization, by the Transmission system operator.

- 4.2.6. In terms of participation in restoration of the Power System after the breakdown, Ancillary services contract, between the Transmission system operator and the power producer, particularly:
- a) define generating modules that provide black start service or the modules having the capability of island operation with their technical characteristics that are significant for these operating regimes;
 - b) regulate method of control of the realization and reporting of the realization, by the Transmission system operator.
- 4.2.7. The Transmission system operator is obliged to keep records on the realization of the contracted ancillary services related to the Secondary and Tertiary regulations. The following data are recorded:
- a) Times in which the volume of the Secondary and Tertiary regulation is fully provided/ partially provided/ not provided;
 - b) Availability of balancing entities for operation in the Secondary and Tertiary regulation.

5. BALANCING ELECTRICITY MARKET

5.1. INTRODUCTION

5.1.1. Transmission system operator is responsible for organization and administration of the balancing electricity market.

5.1.2. Transmission system operator purchases or sells balancing electricity (hereinafter referred to as: the balancing energy) in the balancing electricity market for the purpose of:

- a) maintaining the real-time balance between generation, consumption and exchange of electricity;
- b) providing secure power system operation;
- c) upholding the necessary level of reserve for the Secondary and Tertiary regulation;

in compliance with the Grid Code.

5.1.3. Balancing mechanism is a set of activities that regulates the balancing electricity market.

5.1.4. Balancing energy is injected into the transmission/ distribution/ closed distribution system, or is withdrawn from the transmission/ distribution/ closed distribution system over periods laid down in the Transmission system operator's order for activating the balancing reserve, or exchange of energy due to an imbalance of TSOs' control areas in the process of imbalance netting.

5.1.5. Balancing reserve means all available reserve on the balancing electricity market. Balancing reserve includes:

- a) all available capacities of balancing entities, remained after approved daily schedules, including a mandatory balancing reserve on the basis of the Ancillary services contract referred to in point 4.1.1;
- b) available capacities stipulated in the Balancing energy purchase and sale contract between the Transmission system operator and the Supplier/ Wholesale supplier;
- c) available capacities stipulated in a contracts governing the purchase and sale of cross-border tertiary regulation energy between transmission system operators.

5.1.6. Balancing entity means:

- a) generating module;
- b) a group of generating modules – within one or more generation sites;

- c) controllable load – means reversible hydro power plant or pumped storage site when in pumping regime, or a customer’s facility having the capability of controlling its consumption (i.e. demand response) upon instruction of the Transmission system operator;
- d) power storage facility
- e) a group of generating modules, controllable load and electric energy storage combined by aggregator

and whose daily schedule is nominated to the Transmission system operator.

5.1.7. Contractual balancing reserve comprises:

- a) balancing reserve stipulated in the purchase and sale contract between the Transmission system operator and the Supplier/ Wholesale supplier;
- b) balancing reserve stipulated in the contract regulating the purchase and sale of cross-border tertiary regulation energy and imbalance netting between transmission system operators.

5.1.8. Exchange of energy in the process of imbalance netting means exchange of energy of the control areas’ imbalances between the GCC member transmission system operators.

5.1.9. Operational use of balancing mechanism for relevant market day begins after Transmission system operator’s validation of accepted daily schedules for that day, in compliance with the Grid Code, and ends at 24:00h of the same day.

5.1.10. Operational use of balancing mechanism includes activation of the balancing reserve for regulation up (i.e. when a transmission system operator purchases the balancing energy) and regulation down (i.e. when a transmission system operator sells balancing energy), as well as exchange of energy due to control areas’ imbalance between transmission system operators in the imbalance netting process.

5.1.11. Administration of balancing mechanism includes: registration of balancing mechanism (BM) participants; gathering and verification of offers for engaging regulation up or down; creation of merit order lists for engagement of balancing reserve in the Secondary and Tertiary regulation; calculation of the volume of balancing energy injected / withdrawn; and financial settlement on the basis of balancing energy withdrawn/injected for relevant market day.

5.1.12. Regulation up is accomplished:

- a) via instruction for the increase of active power generation by balancing entities, in case of generation site(s) and generating module(s);
- b) via instruction for reduction of active power consumption by balancing entities in case of controllable load;
- c) via instruction for purchase of balancing energy from Supplier or Wholesale supplier;
- d) via instruction for purchase of cross-border tertiary regulation energy from

- the transmission system operator from another market area;
- e) via purchase of balancing energy based on the imbalance netting.

5.1.13. Regulation down is accomplished:

- a) via instruction for reduction of active power generation by balancing entities, in case of generation site(s) and generating module(s);
- b) via instruction for increase of active power consumption by balancing entities in case of controllable load;
- c) via instruction for sell of cross-border tertiary regulation energy to a transmission system operator from another market area;
- d) via selling balancing energy based on imbalance netting.

5.2. PARTICIPATION IN THE BALANCING MECHANISM

5.2.1. Participation of balancing entities in the balancing mechanism is regulated by Ancillary services contract and the agreement on participation in the balancing mechanism (balancing agreement) that are to be concluded between the Transmission system operator and a market participant having balancing entities in the Serbian market area, by which the market participant acquires the status of participant in the balancing mechanism (BM Participant).

5.2.2. For the purpose of participating in the balancing mechanism, market participants who have balancing entities in the Serbian market area shall put at disposal of the Transmission system operator all available capacities of its balancing entities, which remain after accepted daily schedules.

5.2.3. Balance responsible party is liable for nomination of daily generation and controllable load schedules for balancing entities from its balancing group.

5.2.4. Participation of Suppliers or Wholesale suppliers in the balancing mechanism is regulated by Sale and purchase contract to be concluded by the Transmission system operator and the Supplier/ Wholesale supplier who will therewith obtain the status of a Balancing Mechanism (BM) participant for the period of contract validity.

5.2.5. Participation of transmission system operators from other market areas in the balancing mechanism, regulated with the agreements on the purchase and sale of cross-border tertiary regulation energy signed by transmission system operators, as well as exchange of energy imbalances of control areas in the process of imbalance netting.

5.3. AGREEMENT ON PARTICIPATION IN THE BALANCING MECHANISM

5.3.1. An agreement on participation in the balancing mechanism (balancing agreement) that regulates engagement of balancing energy from the balancing entities, lays down in particular:

- a) list and technical characteristics of balancing entities taking part in the balancing mechanism;

- b) special conditions for employment of balancing entities;
- c) issuance of invoice and payment for engaged balancing energy;
- d) agreement validity date;
- e) conditions for agreement modifications;
- f) procedure for lodging a complaint against the accounted engaged balancing energy and complaint resolution procedure;
- g) method and format of submission of data required for the implementation and administration of balancing mechanism.
- h) manner and conditions of termination of the agreement

5.3.2. Balancing agreement on participation in the balancing mechanism that regulates engagement of balancing energy from the balancing entities, lays down in particular:

- a) price or price setting method;
- b) time of activation;
- c) terms and conditions of balancing energy delivery;
- d) issuance of invoice and payment for engaged balancing energy;
- e) agreement validity date;
- f) conditions for agreement modifications;
- g) procedure for lodging a complaint against the accounted engaged balancing energy and complaint resolution procedure;
- h) method and format of submission of data required for the implementation and administration of balancing mechanism.

5.4. REGISTRY OF BALANCING MECHANISM PARTICIPANTS

5.4.1. Transmission system operator establishes and administrates the Registry of Balancing Mechanism (BM) Participants.

5.4.2. The Registry of BM Participants contains in particular the following information:

- a) official name, head office and contact details of participants in the electricity market, who have the status of BM participant;
- b) start of contract effectiveness, registration number and validity of contract referred to in 5.3.1 and 5.3.2.;
- c) name and contact details of authorized person(s) for the Balancing Mechanism implementation;
- d) list of balancing entities under the competence of BM participant;
- e) EIC X code of the Balance Responsible Party (BRP) whose Balancing

- group includes balancing entities or Suppliers, Wholesale suppliers as BM participants;
- f) EIC Z and W codes for each balancing entity;
 - g) technical characteristics of balancing entities that are significant for the Balancing Mechanism
 - h) relevant details from the Ancillary services contract referred to in point 4.2.1 .
- 5.4.3. BM participant is obliged to provide the Transmission system operator with all information necessary for maintaining the Registry of BM Participants.
- 5.4.4. A BM participant is entitled to access to its own data within the Registry of BM Participants. BM Participant is obliged to report to the Transmission system operator any change or supplement of the data/ information in the Registry of BM Participants.
- 5.5. EXPLICIT OFFERS, PRIORITY MERIT ORDER LIST AND OFFERS FOR REDISPATCHING**
- 5.5.1. Each BM participant that has a balancing entities in the market area of Serbia shall submit explicit offer for engagement of regulation up/down for all balancing entities under its competence.
- 5.5.2. BM participants, who do not have the dominant participant status shall submit an explicit offer for each balancing entity separately, while the dominant participant must submit an explicit offer that includes all balancing entities under its competence.
- 5.5.3. An explicit offer shall contain a set of energy-price pairs based on which the price of engaged regulation up/down can be established.
- 5.5.4. The price in the explicit offer must be higher than or equal to 0.10 EUR / MWh, and less than the higher value between three times the value of the price realised on the day-ahead organized electricity market in Serbia in the observed billing interval and 500 EUR / MWh. The price is expressed in EUR / MWh with two decimal places. Energy is expressed as an integer value in MWh.
- 5.5.5. The price in the explicit offer for regulation down cannot be less than the price realised on the day ahead organised electricity market in Serbia in the observed billing interval.
- 5.5.6. Price for engagement of the first 100MWh upward submitted by a dominant participant cannot be higher than the price realised on the day-ahead organised electricity market in Serbia upped by the higher value between 30 EUR and 40% of the price realised on the day-ahead organised electricity market in Serbia in the observed billing interval.
- 5.5.7. Price for engagement of the first 100MWh downward submitted by a dominant participant cannot be less than the price realised on the day ahead organised electricity market in Serbia reduced by 60% in the observed accounting interval.
- 5.5.8. Together with the explicit offer, the dominant participant shall also submit:
- a) a priority merit order list for engaging balancing entities in the tertiary regulation (hereinafter referred to as: the Merit Order List);

- b) the price for engaging respective balancing entities down and up when they are engaged for ensuring the secure operation of the transmission system (hereinafter referred to as: Offer for redispatching).
- 5.5.9. Along with an explicit offer, the dominant participant delivers also information about the availability of balancing entities.
- 5.5.10. In the Merit Order List and Offer for redispatching, the dominant participant shall include the entire available reserve of the balancing entities under its competence.
- 5.5.11. The dominant participant shall submit separate Merit Order Lists and Offers for redispatching for regulation up / down.
- 5.5.12. Transmission system operator determines the form, contents and method of submission of explicit offer which shall particularly include the following information:
- a) energy-price pairs for regulation up/down;
 - b) EIC X code of BM participants;
 - c) trading day and accounting interval to which the offer relates;
- 5.5.13. Transmission system operator determines the form, contents and method of submission of the priority order list offers for redispatching which shall include particularly the following information:
- a) direction of regulation (up or down) to which the Merit Order List and Offer for redispatching relates;
 - b) EIC X code (identifier) of BM participant;
 - c) market day to which the Merit Order List relates;
 - d) list of balancing entities with the following information:
 - balancing entity EIC W code;
 - ordinal number of priority (1 to x, where 1 implies the top priority for engagement);
 - price for engaging a balancing entity for the reasons of ensuring the secure operation of the transmission system.

5.6. SUBMISSION AND VERIFICATION OF EXPLICIT OFFER, MERIT ORDER LIST AND OFFER FOR REDISPATCHING

- 5.6.1. A BM participant submits explicit offer, Merit Order List and Offer for redispatching to the Transmission system operator for relevant market day, no later than 16:00h on the previous day.
- 5.6.2. Upon receipt of the explicit offer, Merit Order List and Offer for redispatching the Transmission system operator verifies the correctness of their form and content.
- 5.6.3. If BM participant did not submit explicit offer, Merit Order List and Offer for redispatching in the form, content and within the time limit for their submission

according to the Market Code, they shall be deemed invalid, and the Transmission system operator will, without delay, notify the BM participant thereof.

- 5.6.4. Upon receipt of the notification referred to in 5.6.3, the BM participant shall, without delay, submit the correct explicit offers, Merit Order Lists or Offers for redispatching. However, the last valid explicit offers, Merit Order Lists and Offers for redispatching are applied until delivery of a new and correct offers and Merit Order Lists.
- 5.6.5. For relevant market day, BM participant may submit modified explicit offers not later than 60 minutes before the accounting interval to which that modification relates.
- 5.6.6. For relevant market day the BM participant can submit modified Merit Order List not later than 15 minutes before the accounting interval to which that modification relates.
- 5.6.7. Submitted offer for redispatching for relevant market day cannot be modified after submission of a correct offer.

5.7. OFFERS FOR TERTIARY REGULATION FROM SUPPLIERS, WHOLESALE SUPPLIERS AND TSOs FROM OTHER MARKET AREAS

- 5.7.1. Offers for purchasing of cross-border tertiary regulation energy are submitted by the Transmission system operators from other market areas within the time limits and under the conditions determined by the contract regulating the purchase and sale of cross-border tertiary regulation energy.
- 5.7.2. Offers for purchasing balancing energy from Suppliers/ Wholesale suppliers are submitted within the time limits and under the conditions laid down in the Contract on buying and selling of the balancing energy.

5.8. MERIT ORDER LIST FOR BALANCING RESERVE IN THE TERTIARY REGULATION

- 5.8.1. Transmission system operator determines two merit order lists for engagement of balancing reserve in the tertiary regulation for each accounting interval:
 - a) balancing reserve merit order list within the accounting interval (hereinafter referred to as: fast reserve list);
 - b) merit order list of contractual balancing reserve for next accounting intervals (hereinafter referred to as: slow reserve list).
- 5.8.2. Fast reserve list is determined by the minimum cost principle on the basis of:
 - a) explicit offers for engagement of regulation up/down;
 - b) Merit Order List;
 - c) offers for purchasing of cross-border tertiary regulation energy within the accounting interval submitted by a transmission system operator from another market area.

- 5.8.3. Slow reserve list is determined by the minimum cost principle on the basis of:
- a) offers for purchasing and selling of balancing energy from the Supplier or Wholesale supplier;
 - b) offers for purchasing of cross-border tertiary regulation energy for the next accounting intervals submitted by a transmission system operator from another market area.

5.9. ENGAGEMENT OF BALANCING RESERVE IN TERTIARY REGULATION

- 5.9.1. Transmission system operator activates the offers in a priority order in accordance with fast reserve list. In case of an insufficient volume of the reserve, the Transmission system operator can additionally utilise the balancing reserve based on the slow reserve list starting from the next accounting interval.
- 5.9.2. In case of a threat to the security of the transmission system, or threat to the security of the interconnection, the Transmission system operator activates the offers for engagement of the balancing reserve regardless to the priority order specified in the fast and slow reserve lists, in accordance with rules governing the interconnection operation and concluded agreements with other transmission system operators.
- 5.9.3. Activation of explicit offers for participation in the balancing mechanism is carried out by the Transmission system operator via instructions to the balancing entities (hereinafter referred to as: engagement of balancing entities) in accordance with rules governing the transmission system operation - the Grid Code.
- 5.9.4. Activation of the contractual balancing reserve is carried out by the Transmission system operator in the manner stipulated in both the Purchase and sale contract concluded with the Supplier or Wholesale supplier, and the contract regulating the purchase and sale of cross-border tertiary regulation energy concluded with a transmission system operator from another market area.
- 5.9.5. All instructions for engagement of balancing entities must be recorded by the Transmission system operator. Instruction details to be recorded contain in particular the following:
- a) reason for engaging the balancing entity (e.g. power system balancing, provision of secure operation of the power system, etc.);
 - b) EIC W code of the engaged balancing entity;
 - c) engagement period;
 - d) direction of Tertiary regulation: regulation up or regulation down;
 - e) instructed modification of power capacity in MW in respect to the valid daily schedule of the balancing entity.

If the balancing entity was engaged for maintaining the required level of reserve for the Secondary and Tertiary regulation, then the system balancing would be recorded as the

reason for engagement of the balancing entity.

5.9.6. Transmission system operator is obligated to keep records on the activated, contractual balancing reserve. The following details are to be recorded:

- a) volume of activated contractual balancing reserve (MW);
- b) engagement period;
- c) Supplier/ Wholesale supplier/ Transmission system operator from which the balancing energy was purchased.

5.10. ENGAGEMENT OF BALANCING RESERVE IN SECONDARY REGULATION

5.10.1. Transmission system operator activates the Secondary regulation in accordance with the Grid Code and an imbalance netting contract which the Transmission system operator has concluded with transmission system operators from other market areas.

5.10.2. Engagement of balancing entities for the Secondary regulation must be recorded by the Transmission system operator. The following details are to be recorded:

- a) EIC W code of the balancing entity engaged;
- b) engagement period;
- c) direction of the Secondary regulation: regulation up or regulation down;
- d) energy engaged (MWh) for the Secondary regulation purposes.

5.10.3. The engaged energy of a balancing entity for the Secondary regulation at each accounting interval is an integral of the difference between a desired power and the balancing entity's baseload from the daily schedule. The desired power is calculated by a network load regulator (i.e. the secondary regulation system) and it means the target power at which the network load regulator wishes to bring the balancing entity, as to eliminate the error of the regulation area for which the Transmission system operator is responsible.

5.11. IMBALANCE NETTING

5.11.1. Trading of energies of control areas' imbalance between the transmission system operators is carried out in accordance with the contract concluded between the transmission system operator and the GCC TSOs.

5.11.2. The trading of energy due to imbalance netting must be recorded by the TSO. The following details are to be recorded:

- a) time period in imbalance netting;
- b) energy traded (MWh) for the imbalance netting purposes.

5.11.3. The energy traded in the imbalance netting at each accounting interval is determined separately for the energy exchanged upward (i.e. inflow) and the energy exchanged downward (i.e. outflow).

5.11.4. The energy exchanged upward is an integral of the energy exchanged in inflow direction at the accounting interval. The energy exchanged downward is a sum of the

energy exchanged in outflow direction at the accounting interval. The energy traded is calculated by GCC Co-ordinator.

5.12. CALCULATION OF THE BALANCING ENERGY ENGAGED IN THE ELECTRIC POWER SYSTEM

5.12.1. Total balancing energy engaged in the power system in the Secondary regulation at the accounting interval is determined as:

$$БЕС_{систем,ои} = \sum_{бе} (СПГ_{бе,ои} - СПД_{бе,ои})$$

where:

БЕС_{систем} – total balancing energy in the transmission system as a result of engagement of the Secondary regulation;

СПГ – balancing energy as a result of engagement of the Secondary regulation up;

СПД – balancing energy as a result of engagement of the Secondary regulation down;

бе – index designating balancing entity;

ои – index designating accounting interval;

систем – index designating electric power system.

5.12.2. Total engaged balancing energy in the power system in the Tertiary regulation for the needs of system balancing is determined as:

$$БЕТ_{систем,ои} = \sum_{бе} (ТПГ_{бе,ои} - ТРД_{бе,ои}) + \sum_y БЕУ_y$$

where:

БЕТ_{систем} – total balancing energy in the transmission system as a result of engagement of the Tertiary regulation for the purposes of system balancing;

ТПГ – balancing energy as a result of the engagement of the Tertiary regulation up for the purposes of system balancing;

ТРД – balancing energy as a result of engagement of the Tertiary regulation down for the purposes of system balancing;

БЕУ – balancing energy as a result of activation of contractual balancing reserve by means of issuing orders for the purchase of energy;

бе – index designating balancing entity;

ои – index designating accounting interval;

y – index designating the Ancillary services contract between Transmission system operator and Supplier/Wholesale supplier or a contract regulating the purchase and sale of cross-border tertiary regulation energy between TSOs;

систем – index designating electric power system.

- 5.12.3. Total volume of balancing energy engaged in the electric power system in the Tertiary regulation for the purpose of ensuring a secure operation of the electric power system is determined as

$$БЕТС_{систем,ои} = \sum_{бе} (ТРГС_{бе,ои} - ТРДС_{бе,ои})$$

where:

$БЕТС_{систем}$ – total balancing energy in the transmission system as a result of engagement of the Tertiary regulation for the purposes of ensuring a secure operation of the electric power system;

$ТРГС$ – balancing energy as a result of engagement of the Tertiary regulation up for the purposes of ensuring a secure operation of the electric power system;

$ТРДС$ – balancing energy as a result of engagement of the Tertiary regulation down for the purposes of ensuring a secure operation of the electric power system;

$бе$ – index designating balancing entity;

$ои$ – index designating accounting interval;

систем – index designating electric power system

5.13. CALCULATION OF ENGAGEMENT OF BALANCING ENERGY FROM BALANCING ENTITIES

- 5.13.1. For each BM participant, the TSO shall determine the volume of engaged balancing energy from the balancing entity at each accounting interval on the basis of:
- the engaged secondary regulation up and down;
 - given orders for Tertiary regulation up and down, and the reason for engagement.

- 5.13.2. Balancing energy referred to in point 5.12.1.a) is determined as

$$БЕС_{ои} = \sum_{бе} (БЕС_{бе,ои+} - БЕС_{бе,ои-})$$

where:

$АБЕС_{ои}$ – balancing energy as a result of engagement of the Secondary regulation, at the accounting interval;

$БЕС_{ои+}$ – balancing energy as a result of engagement of the Secondary regulation up, at accounting interval;

$БЕС_{ои-}$ – balancing energy as a result of engagement of the Secondary regulation down, at accounting interval;

$бе$ – index designating balancing entity;

Ои – index designating accounting interval.

5.13.3. Balancing energy referred to in point 5.11.1.(б) engaged to balance the system is determined as

$$BET_{ou} = \sum_{\delta e} (BET_{\delta e,ou+} - BET_{\delta e,ou-})$$

where:

БЕТ_{ои} – balancing energy as a result of engagement of the Tertiary regulation for the purposes of system balancing at accounting period;

БЕТ_{ои+} – balancing energy as a result of engagement of the Tertiary regulation up for the purposes of system balancing at accounting interval;

БЕТ_{ои-} – balancing energy as a result of engagement of the Tertiary regulation down for the purposes of system balancing at accounting interval;

бe – index designating balancing entity;

ои – index designating accounting interval.

5.13.4. Balancing energy referred to in point 5.11.1.(б) engaged for the purpose of ensuring a secure operation of the electric power system is determined as

$$BETC_{ou-} = \sum_{\delta e} BETC_{\delta e,ou-}$$

where:

БЕТС_{ои+} – balancing energy as a result of engagement of the Tertiary regulation up for the purposes of ensuring a secure operation of the electric power system;

БЕТС_{ои-} – balancing energy as a result of engagement of the Tertiary regulation down for the purposes of ensuring a secure operation of the electric power system;

бe – index designating balancing entity;

ои – index designating accounting interval.

5.13.5. It is not allowed to sum up, within one accounting interval, the balancing energy as result of the engagement of the Tertiary regulation up for the purposes of ensuring a secure operation of the electric power system (БЕТС_{ои+}) and balancing energy as a result of engagement of the Tertiary regulation down for the purposes of ensuring a secure operation of the electric power system (БЕТС_{ои-}).

5.13.6. The price of the engaged balancing energy referred to in point 5.13.3 as result of engagement of the Tertiary regulation up/ down from the balancing entities for the purposes of ensuring a secure operation of the electric power system is set on the basis of the price offered in explicit bids for each accounting interval.

5.13.7. Price of the engaged balancing energy referred to in point 5.13.2. as result of engagement of the Secondary regulation for each accounting interval is equal to:

- maximum price of the balancing energy engaged in the Tertiary regulation at accounting intervals, when $BET_{систем,ou} > 0$ and $БЕС_{систем,ou} > 0$;
- minimum price of the balancing energy engaged in the Tertiary regulation at accounting intervals, when $BET_{систем,ou} < 0$ and $БЕС_{систем,ои} < 0$;

- price quoted in the explicit offer of the dominant participant, pertaining to the regulation down amounting to 100 MWh when $BET_{cucmem,ou} > 0$ and $BEC_{cucmem,ou} < 0$;
- price quoted in the explicit offer of the dominant participant, pertaining to the regulation up amounting to 100 MWh when $BET_{cucmem,ou} < 0$ and $BEC_{cucmem,ou} > 0$;
- price quoted in the explicit offer of the dominant participant, pertaining to the regulation down amounting to 100 MWh when $BET_{cucmem,ou} = 0$ and $BEC_{cucmem,ou} < 0$;
- price quoted in the explicit offer of the dominant participant, pertaining to the regulation up amounting to 100 MWh when $BET_{cucmem,ou} = 0$ and $BEC_{cucmem,ou} > 0$;
- zero when $BEC_{cucmem,ou} = 0$.

5.13.8. Price of the engaged balancing energy required for ensuring the secure power system operation referred to in point 5.13.4 is set for each balancing entity separately and equals to the price from the Offer for redispatching. In this scenario, the Transmission system operator purchases balancing energy from the BM participant for both up and downward regulation.

5.14. CALCULATION OF ENGAGED BALANCING ENERGY FROM THE CONTRACTED BALANCING RESERVES

5.14.1. The balancing energy engaged in the power system based on activation of the contracted balancing reserves for the purposes of system balancing is calculated as a result of issued and confirmed orders for the balancing energy purchase from the Supplier, the Wholesale supplier and transmission system operators from other market areas.

5.14.2. The price, namely the method of price setting for the contracted balancing reserve engaged is defined in contracts referred to in 5.1.7. In case that the price of the contracted balancing reserve engaged is not defined in contracts which regulate the purchase and sale of cross-border tertiary regulation energy between transmission system operators, and instead of that an exchange of electricity in kind is foreseen, the price of contracted balancing reserve engaged is, for the purpose of determining the imbalance settlement price, determined as two times the Daily base price realised on the organized Serbian electricity market on a day of utilising the contracted balancing reserve.

5.14.3. If the Transmission system operator delivers cross-border tertiary regulation energy to transmission system operators from other market areas, following their request, then the balancing energy engaged in the power system for that purposes is excluded from calculation of the imbalance settlement price as defined in 6.4.1.1 – 6.4.1.3.

5.15. CALCULATION OF BALANCING ENERGY ENGAGED IN THE IMBALANCE NETTING PROCESS

5.15.1. The Transmission system operator determines the volume of energy exchanged in the imbalance netting process for each interval, individually for:

- a) the energy withdrawn from the GCC (Γ_{CC}_{ou+}):

$$\Gamma_{\text{CC}}_{ou+} = \sum_{o\delta b+} \Gamma_{\text{CC}}_{o\delta b+}$$

where

$\Gamma_{\text{CC}}_{o\delta b+}$ – energy withdrawn in the imbalance netting process in an individual sample within the accounting interval;

$o\delta b+$ – 4 sec time interval at which the energy was withdrawn

ou – index designating accounting interval

- b) energy delivered to GCC (Γ_{CC}_{oi-}):

$$\Gamma_{\text{CC}}_{oi-} = \sum_{o\delta b-} \Gamma_{\text{CC}}_{o\delta b-}$$

where:

$\Gamma_{\text{CC}}_{o\delta b-}$ – energy delivered in the imbalance netting process in an individual sample within the accounting interval;

$o\delta b-$ – 4 sec time interval at which the energy was injected

ou – index designating accounting interval.

- 5.15.2. As to set a weighted imbalance settlement price in the imbalance netting process, the Transmission system operator establishes prices, for each accounting interval and for both directions of energy trading in the imbalance netting process, as prices of engaged Secondary balancing energy up and of engaged secondary balancing energy down in the observed accounting interval, and submits it to the GCC Co-ordinator.
- 5.15.3. Price of the traded energy as result of the imbalance netting for each accounting interval is set as a weighted price of the imbalance energy traded between the GCC member TSOs.

5.16. REPORT ON ENGAGED BALANCING ENERGY FROM BALANCING ENTITIES OF BM PARTICIPANTS

- 5.16.1. Transmission system operator shall, not later than 3 working days after the relevant market day, draw up a report on the balancing energy engaged from balancing entities for relevant market day, and sends it to the BM participant.
- 5.16.2. BM participant's report on balancing energy engaged from balancing entities must contain the following information in particular:
- EIC X code of BM participant;
 - market day to which the report relates;
 - EIC W code of the balancing entity;
 - reason for engaging the balancing entity;
 - volume of the Tertiary regulation engaged for system balancing, including the pertinent price at corresponding accounting interval;
 - compensation for total tertiary regulation engaged for system balancing for

- each accounting interval and for each market day to which the report relates;
- g) volume of the engaged Secondary regulation including the pertinent price (determined in 5.12.7.) at corresponding accounting interval;
 - h) compensation for total engaged secondary regulation required for system balancing for each accounting interval and for each market day to which the report relates;
 - i) volume of the tertiary regulation engaged for ensuring the secure power system operation at particular accounting interval per balancing entity including pertinent price;
 - j) compensation for total tertiary regulation engaged for ensuring secure power system operation for market day to which the report relates;
 - k) volume of the cross-border tertiary regulation energy delivered to the transmission system operators from other market areas at corresponding accounting interval.

5.16.3. BM participant may lodge complaint to the Transmission system operator in respect to the contents of the report on the engaged balancing energy from the balancing entities no later than 3 working days from the receipt of the report. If no complaint was lodged by the BM participant within the specified time limit, the report shall be deemed final.

5.16.4. Within 3 working days from the receipt of the complaint the Transmission system operator will notify the BM participant on acknowledgement or rejection of the complaint. In the case of complaint acknowledgement the Transmission system operator will send the corrected report to the BM participant, which is to be deemed final.

5.17 INVOICING AND PAYMENT THE BALANCING ENERGY ENGAGED FROM BALANCING ENTITIES

5.17.1. Transmission system operator makes an accounting of the engaged balancing energy from balancing entities for each BM participant for the accounting period on the basis of the volume and price of the engaged secondary and tertiary regulation mentioned in the final reports on engaged balancing energy from balancing entities referred to in 5.16. at that particular accounting period.

5.17.2. Transmission system operator or BM participant issues an invoice for engaged balancing energy in the accounting period on the invoicing date defined in the Electricity Market Settlement and Payment Calendar which the Transmission system operator shall publish on its website no later than the first calendar day of the month M for invoices which relate to that month. Final date for payment against the invoice issued by the Transmission system operator or BM participant is the date specified in the Electricity Market Settlement and Payment Calendar. The invoice is issued in accordance with the VAT Law. Total invoiced amount must be paid in full within a specified time limit. The payment shall be effected in Serbian dinars counter value of euro amount, calculated on the payment day according to the RSD middle exchange rate established in the Serbian Central Bank's exchange rate list.

5.17.3. The invoice is delivered by e-mail or through the e-invoicing system pursuant to the Law on Electronic Invoicing, and includes minimum the following details:

- a) calculated amount of the balancing energy engaged;
- b) total amount to be collected;
- c) other details in accordance with the VAT Law.

5.18. INVOICING AND PAYMENT THE BALANCING ENERGY ENGAGED FROM THE CONTRACTED BALANCE RESERVE

5.18.1. Transmission system operator makes an accounting of the engaged balancing energy from the contracted balance reserve per BM participant for the accounting period on the basis of the volume of the engaged balancing energy and actual price at that particular accounting period.

5.18.2. Transmission system operator or BM participant issues, on the basis of accounting of the engaged balancing energy from the contracted balance reserve, an invoice for engaged balancing energy in the accounting period in the manner set forth in the contracts/ agreements referred to in 5.2.4, 5.2.5 & 5.3.2.

5.18.3. Final date for payment against the invoice issued by the Transmission system operator or BM participant is the invoice due date as set out in the contracts/ agreements referred to in 5.2.4, 5.2.5 & 5.3.2.

5.19. PUBLICALLY DISSEMINATED DATA ON ENGAGED BALANCING ENERGY

5.19.1. On its website the Transmission system operator is obligated to publish the below data for each accounting interval within 8 working days as from the market day:

- a) total volume and price of engaged balancing energy in the power system in the Tertiary regulation for the purpose of balancing the system;
- b) total volume and price of engaged balancing energy from the balancing entities in the power system in the Secondary regulation;
- c) total volume and price of engaged balancing energy from the contractual balance reserve.

5.19.2. As soon as the transmission system operator receives information from the GCC Co-ordinator, it is obligated to publish on its website the data on volume of the energy traded in the imbalance netting process referred to in 5.15.1. as well as weighted price referred to in 5.15.2. and 5.15.3, for each accounting interval.

6. DETERMINATION OF BALANCING GROUP IMBALANCE AND FINANCIAL ACCOUNTING

6.1. CALCULATION OF BALANCING GROUP IMBALANCE

- 6.1.1. Imbalance of the balancing group under the competence of a Balance Responsible Party is determined on the basis of total nominated position, total metered position, and engaged energy from balancing entities which are part of that balancing group.
- 6.1.2. Total nominated position of each balancing group in the electricity market (hereinafter referred to as: total nominated position) includes all accepted of electricity trading blocks of that Balancing group from the last accepted daily schedule.
- 6.1.3. Total metered position of each Balancing group on the electricity market (hereinafter referred to as: total metered position) includes confirmed metered values of withdrawn and injected energy at that Balancing group's W/I points in the transmission and distribution system.
- 6.1.4. Balancing energy engaged from balancing entities of each Balancing group is determined on the basis of the engaged Secondary regulation and issued Tertiary regulation orders to the balancing entities within that Balancing group.

6.2. DETERMINATION OF TOTAL NOMINATED POSITION, TOTAL METERED POSITION AND ENGAGED BALANCING ENERGY OF BALANCING GROUP

6.2.1. Determination of total nominated position of balancing group

- 6.2.1.1. When determining the total nominated position of a Balancing group the following is to be taken into account:
- a) blocks of exchange of electricity withdrawn by a Balancing group from other Balancing groups within the Serbian bidding zone;
 - b) blocks of exchange of electricity injected by a Balancing group to other Balancing groups within the Serbian bidding zone;
 - c) blocks of exchange of electricity withdrawn by a Balancing group from other bidding zones;
 - d) blocks of exchange of electricity injected by a Balancing group to other bidding zones.

- 6.2.1.2. Total nominated position of Balancing group under the competence of the Balance responsible party for the accounting interval ($VIII_{BRP,ou}$) is defined as follows:

$$УПП_{BOC,oi} = \left(\sum БРП_{BOC,oi} - \sum БРИ_{BOC,oi} \right) + \left(\sum ЕУ_{BOC,oi} - \sum ЕИ_{BOC,oi} \right)$$

where:

БРП – accepted block of internal exchange of electricity withdrawn by a Balancing group from another Balancing group, within the Serbian bidding zone;

БРИ – accepted block of exchange of electricity injected by a balancing group to another balancing group, within the Serbian bidding zone;

ЕУ – accepted block of exchange of electricity withdrawn from another bidding zone by a Balancing group;

ЕИ – accepted block of exchange of electricity injected to another bidding zone by a Balancing group;

BOC – index for designating the Balance responsible party (BRP) in charge of that Balancing group;

oi – index for designating the accounting interval.

6.2.2. Determination of total metered position of balancing group

6.2.2.1. For the accounting interval a total metered position of a balancing group is determined according to the confirmed values read from energy meter.

6.2.2.2. When determining the total metered position of a balancing group the following is taken into account:

- a) total electricity injected at the withdrawal/injection points into transmission, closed distribution system and distribution system;
- b) total electricity withdrawn at the withdrawal/injection points from the transmission, closed distribution system and distribution system.

6.2.2.3. Total metered position of a balancing group under the responsibility of the BRP, for accounting interval (УОПBRP,oi) is determined as:

$$УОП_{BOC,oi} = (УПР_{BOC,oi} - УПО_{BOC,oi})$$

where:

УПР_{BOC,oi} – total electricity injected at the withdrawal/injection points into the transmission, closed distribution system and distribution system within the Balancing group;

УПО_{BOC,oi} – total electricity withdrawn at the withdrawal/injection points from the transmission, closed distribution system and distribution system within the Balancing group;

BOC – index for designating the Balance responsible party (BRP) in charge of that balancing group;

oi – index designating accounting interval.

- 6.2.2.4. Distribution system operator (DSO) and Operator of closed distribution system are obligated to submit to the Transmission system operator the total electricity injected to/withdrawn from the distribution system or closed distribution system within the specified timeframe (no later than 15th day of M+1 month) per Balancing group separately, in a format defined by the Transmission system operator. This data is taken into account when determining the total metered position of a relevant balancing group. In the case that the metering data are not available at an accounting interval level, the DSO and closed DSO are obligated to make accounting of such data using standardized load diagrams for that category of customers of distribution system, or closed distribution system, and to submit this data to the Transmission system operator.
- 6.2.2.5. The Transmission system operator determines the transmission energy losses per accounting interval on the basis of confirmed metered values of electricity withdrawn/injected at delivery points to the transmission system, including withdrawal/injection points with neighbouring systems at the interconnected overhead power lines.
- 6.2.2.6. Compliant to the agreements with the neighbouring TSOs, the confirmed value of electricity traded at the withdrawal/injection points with neighbouring TSOs is used as accounting data on interconnected power lines.
- 6.2.2.7. Distribution system operator (DSO) determines the distribution energy losses per accounting interval on the basis of confirmed metered values of electricity injected/withdrawn at withdrawal/injection points to/ from the distribution system. If metering data is unavailable at the level of accounting interval, the DSO is obligated to account them using the standardized load diagrams and then submit them to the Transmission system operator.
- 6.2.2.8. Operator of a closed distribution system determines the distribution energy losses in the closed distribution system per accounting interval on the basis of confirmed metered values of electricity injected/withdrawn at withdrawal/injection points to /from the closed distribution system. If metering data is unavailable at the level of accounting interval, the Operator of a closed distribution system is obligated to account them using the standardized load diagrams and to submit them to the Transmission system operator.

6.2.3. Determination of balancing group's total engaged balancing energy

- 6.2.3.1. For each balancing group the Transmission system operator determines the volume of engaged balancing energy of balancing entities belonging to the balancing group during relevant accounting interval on the basis of:
- engaged secondary regulation up and down;
 - Issued orders for tertiary regulation up and down, and reason for engagement.
- 6.2.3.2. Balancing energy referred to in 6.2.3.1. a) is determined as:

$$БЕС_{БОО,оИ} = \sum_{\delta e \in БОО} БЕС_{\delta e,оИ}$$

where:

БЕС – balancing energy as a result of engagement of the Secondary regulation;

БООС – index for designating the Balance responsible party (BRP) in charge for that Balancing group;

бе – index designating balancing entity from the Balancing group;

ои – index designating accounting interval.

6.2.3.3. Balancing energy referred to in 6.2.3.1. b) that was engaged to balance the system is determined as:

$$БЕТ_{БООС,ои} = \sum_{бе \in БООС} БЕТ_{бе,ои}$$

where:

БЕТ – balancing energy as a result of engagement of the Tertiary regulation for system balancing;

БООС – index for designating the Balance responsible party (BRP) responsible for that Balancing group;

бе – index designating balancing entity from the Balancing group;

ои – index designating accounting interval.

6.2.3.4. Balancing energy referred to in 6.2.3.1. (b), which was engaged for ensuring the secure power system operation is determined as:

$$БЕТС_{БООС,ои} = \sum_{бе \in БООС} БЕТС_{бе,ои}$$

where:

БЕТС – balancing energy as a result of engagement of the Tertiary regulation for ensuring the secure power system operation;

БООС – index for designating the Balance responsible party (BRP) responsible for that Balancing group;

бе – index designating balancing entity from the Balancing group;

ои – index designating accounting interval.

6.2.3.5. Total engaged balancing energy of each balancing group during relevant accounting interval is calculated as the sum of:

$$БЕН_{БООС,ои} = БЕС_{БООС,ои} + БЕТ_{БООС,ои} + БЕТС_{БООС,ои}$$

where:

БЕН – total balancing energy engaged;

БЕТ – balancing energy as a result of engagement of the Tertiary regulation for system balancing;

БЕС – balancing energy as a result of engagement of the Secondary regulation;

БЕТС – balancing energy as a result of engagement of the Tertiary regulation for ensuring the secure power system operation;

БОО – index for designating the Balance responsible party (BRP) responsible for that Balancing group;

ои – index designating accounting interval.

6.3. DETERMINATION OF IMBALANCE OF BALANCING GROUP AND UNBALANCED DAILY SCHEDULES

6.3.1. Imbalance of Balancing Group

6.3.1.1. Imbalance of an individual balancing group ($ОБОС_{ои}$) is determined for each accounting period:

$$ОБОС_{ои} = УПП_{БОО,ои} + УОП_{БОО,ои} - БЕН_{БОО,ои}$$

where:

УПП – total nominated position of balancing group;

УОП – total metered position of balancing group;

БЕН – total engaged balancing energy of the Balancing group;

БОО – index for designating the Balance responsible party (BRP) responsible for that Balancing group;

ои – index designating accounting interval.

6.3.2. Unbalanced daily schedules

6.3.2.1. Unbalanced daily schedules of the Balancing group under the responsibility of the BRP after deadline for the process of intraday modification of daily schedules ($НДП_{ои}$) is determined for each accounting interval as a sum of the summary plan of production and the electricity trading blocks received by the Balancing group minus the summary plan of consumption and the electricity trading blocks delivered by the Balancing group.

6.3.2.2. In case of $НДП_{ои}=0$, daily schedule of the Balancing group is balanced.

6.3.2.3. In case of $H\Delta\Pi\text{ou} > 0$, the electricity surplus of the balancing group is left in the Serbian bidding zone.

6.3.2.4. In case of $H\Delta\Pi\text{ou} < 0$, the electricity deficiency of the balancing group BRP is taken over from the Serbian bidding zone.

6.4. CALCULATION OF IMBALANCE SETTLEMENT PRICE

6.4.1. Imbalance settlement price ($\Pi\Pi$) for each accounting interval is determined as weighted price of activated explicit offers from the Tertiary regulation, engaged balancing energy from the contractual balancing reserve in case when the Transmission system operator purchases balancing energy from transmission system operators from other market areas, Suppliers or Wholesale suppliers, engaged Secondary regulation, and electricity traded in the imbalance netting process within GCC.

6.4.2. In case that the $\Pi\Pi$ is negative in the accounting interval, the $\Pi\Pi$ equalling to 0 EUR/MWh shall be adopted.

6.4.3. Imbalance settlement price ($\Pi\Pi$) can maximally be 1.5 times greater than the maximum price for the engaged balancing energy in regulation up at that accounting interval.

6.4.4. The Transmission system operator is obligated to publish preliminary imbalance settlement price ($\Pi\Pi$) on its website for all accounting intervals within the relevant market day:

- for hour X, the imbalance settlement price is published in the X+1 hour on European transparency platform, compliant to the Rules on publishing key market data
- for all hours within the market day D, the imbalance settlement prices are published in the day D+1, or on the first working day that follows, in case that the day D+1 is the day of weekend or a non-working day, on the Transmission system operator's official page.

6.4.5. Final imbalance settlement price value for the accounting interval will be published by the TSO after receipt of data from the GCC Coordinator.

6.5. FINANCIAL ACCOUNTING FOR BALANCING GROUP

6.5.1. Method of financial accounting of balancing group imbalance

6.5.1.1. For positive imbalance ($O\text{B}O\text{C}_{ou} > 0$) of a balancing group, the Transmission system operator remunerates the BRP.

6.5.1.2. For negative imbalance ($O\text{B}O\text{C}_{ou} < 0$) of a balancing group, the BRP remunerates the Transmission system operator.

6.5.1.3. For positive imbalance of a balancing group with no withdrawal/injection points associated, the Transmission system operator does not remunerate the BRP in the case of positive imbalance of the BRP's balancing group.

6.5.1.4. Remuneration to BRP or to the Transmission system operator is determined on the basis of:

- Imbalance of an individual balancing group ($O\text{B}O\text{C}_{ou}$) under the responsibility of

that BRP;

- imbalance settlement price defined in 6.4.;
- values of acceptable imbalance of the Balancing group (6.5.1.4).

The fee is determined in euro currency.

6.5.1.5. Value of acceptable imbalance of the balancing group (ПАОБ) is determined for each day and is equal to:

- a) higher value between 1 MWh and 4% of maximum scheduled hourly consumption from the Balancing group's daily schedule in case that the Balancing group is associated with minimum one withdrawal/injection point and that BRP has the role of a Consumption Responsible Party and it does not have the role of a Production Responsible Party;
- b) higher value between 1 MWh and 2.5% of maximum scheduled hourly production from the Balancing group's daily schedule in case that the Balancing group is associated with minimum one withdrawal/injection point and that BRP has the role of a Production Responsible Party and it does not have the role of a Consumption Responsible Party;
- c) higher value between 1 MWh and sum of 4% of maximum scheduled hourly consumption from the Balancing group's daily schedule and 1.5% of maximum scheduled hourly production from the Balancing group's daily schedule in case that the Balancing group has the roles of both a Consumption Responsible Party and a Production Responsible Party;
- d) higher value between 1 MWh and 10% of maximum scheduled hourly production from the Balancing group's daily schedule in case that the Balancing group is only associated with withdrawal/injection points of RES power producer and that BRP does not have the role of a Consumption Responsible Party.
- e) 0 MWh in the case that the BRP only has the role of a Trade Responsible Party in charge of nomination of electricity trading blocks.

6.5.2. Determination of fee for balancing group imbalance

6.5.2.1. Fee for balancing group imbalance is determined as follows:

- a) if balancing group imbalance is positive or equal to zero ($OBOS_{OH} \geq 0$) in the course of observed accounting interval, then the imbalance fee to be received by BRP (HOБ1) equals the product of the imbalance of the balancing group, the imbalance settlement price (ЦП) and coefficient K1:

$$HOБ1_{OH} = OBOS_{OH} \times ЦП \quad \text{when } OBOS_{OH} \leq ПОБ_{OH}$$

$$HOБ1_{OH} = ПОБ_{OH} \times ЦП + (OBOS_{OH} - ПОБ_{OH}) \times K_1 \times ЦП \quad \text{when } OBOS_{OH} > ПОБ_{OH}$$

whereby the coefficient value is $K_1 = 0.5$

- b) if Balancing group imbalance is negative ($OBOS_{OH} < 0$) in the course of observed accounting interval, then the fee for imbalance of the Balancing group, to be paid by BRP (HOБ2) equals the product of the imbalance of the Balancing group, the imbalance settlement price (ЦП) and coefficient K2:

$$HOБ2_{OH} = |OБOC_{OH}| \times ЦП \quad \text{when } |OБOC_{OH}| \leq POБ_{OH}$$

$$HOБ2_{OH} = POБ_{OH} \times ЦП + (|OБOC_{OH}| - POБ_{OH}) \times K_2 \times ЦП \quad \text{when } |OБOC_{OH}| > POБ_{OH}$$

whereby the coefficient value is $K_2 = 1.3$

Particularly in the case when an outage of a generating module of a thermal power plant having the nominal capacity greater than 150 MW occurs at the accounting interval, and that thermal power plant is a balancing entity in the balancing group of the BRP, the coefficient K_2 equalling 1 is used at that as well as at the next accounting interval to calculate any imbalance of that Balancing group.

6.5.2.2. Fee for imbalance of balancing group is determined for each accounting interval.

6.5.3. Report of accounting of balancing group imbalance and of fee for balancing group imbalance

6.5.3.1. After receiving the data according to 6.2.2.4 from Distribution system operator and Operator of closed distribution system, but no later than the invoicing day defined in the Electricity Market Settlement and Payment Calendar, the Transmission system operator will create a final report of accounting of balancing group imbalance and fee for balancing group imbalance for each market day in relevant accounting period.

6.5.3.2. The Report from 6.5.3.1 must particularly contain the following data:

- a) total nominated position of balancing group;
- b) total metered position of balancing group;
- c) total engaged balancing energy in balancing group;
- d) imbalance settlement price;
- e) fee for balancing group imbalance,

for each accounting interval of a market day.

6.5.4. Determination of monthly fee for balancing group imbalance, invoicing and collection

6.5.4.1. According to final reports of accounting of Balancing group imbalance and fee for balancing group imbalance, the Transmission system operator carries out a financial accounting per BRP for each accounting period.

6.5.4.2. Monthly fee to be received by BRP for balancing group imbalance is a sum of fees for imbalances over a relevant accounting period:

$$MH1_{BOC,OH} = \sum_{OH \in M} HOБ1_{OH}$$

where:

MH1 – monthly fee to be received by BRP for balancing group imbalance;

HOБ1 – fee to be received by BRP for balancing group imbalance;

M – index designating the accounting period;

BOC – index for designating the Balance responsible party (BRP) in charge for that Balancing group;

ои – index designating the accounting interval.

- 6.5.4.3. Monthly fee to be paid by BRP for balancing group imbalance is a sum of fees for imbalances of the balancing group within a relevant accounting period:

$$MH2_{BOC,oi} = \sum_{oi \in M} HOB2_{oi}$$

where:

MH2 – monthly fee to be paid by BRP for balancing group imbalance;

HOB2 – fee to be paid by BRP for balancing group imbalance;

M – index designating accounting period;

BOC – index for designating the Balance responsible party (BRP) responsible for that balancing group;

ои – index designating the accounting interval.

- 6.5.4.4. Transmission system operator is obliged to carry out a calculation of monthly fees per balancing group for the accounting period and submits it to the BRP, no later than the accounting date set out in the Electricity Market Settlement and Payment Calendar.

- 6.5.4.5. Based on the calculation of fees for month M, the transmission system operator, or BRP issues an invoice for the accounting period, no later than the invoicing day defined in the Electricity Market Settlement and Payment Calendar. The invoice due date – i.e. deadline for payment of the invoice issued by the transmission system operator, or BRP - is the payment day defined in the Electricity Market Settlement and Payment Calendar. The invoice is issued in accordance with the VAT law. Total amount of the invoice has to be paid in full and within the stipulated time limit. Payments will be, for the BRP with headquarters in the Republic of Serbia, made in dinar equivalent value in euros, calculated at the official middle exchange rate determined by the exchange rate list of the National Bank of Serbia (NBS) on the date of payment, and for BRP based abroad, the payment will be made in euros.

- 6.5.4.6. The invoice is delivered by e-mail or through the e-invoicing system pursuant to the Law on Electronic Invoicing, and includes minimum the following details:

- a) total monthly fee amount for balancing group imbalance;
- b) total amount to be paid;
- c) other data according to the VAT law.

The invoice shall, as attachment, have the accounting of monthly fee for balancing group imbalance.

- 6.5.4.7. The accounting input data for monthly fee may be corrected at request of the Transmission system operator, Distribution system operator, Operator of closed

distribution system or BRP, respectively if there are some changes of the input data. The Transmission system operator decides within 15 days as of request receipt whether the request is justified, and notifies the requesting person thereof. If the request is justified, the Transmission system operator will make a recalculation of monthly fees in the next accounting period defined in Electricity Market Settlement and Payment Calendar, using the corrected data. The recalculation of monthly fees for accounting period M is possible no later than in the month M+12.

- 6.5.4.8. Following the modified accounting of monthly fee for the month M, the Transmission system operator and/or BRP issues debit note or credit note. The deadline for payment is defined in Electricity Market Settlement and Payment Calendar. The credit/debit note amount must be paid in full within the stipulated time limit. The credit/debit note is delivered by e-mail or through the e-invoicing system pursuant to the Law on Electronic Invoicing.
- 6.5.4.9. Final date for submission of a request for review of monthly fee accounting, or request for input data correction for the month M, is the 15th calendar day of the month M+11. Any request submitted after this date shall be found ungrounded.

6.5.5. Establishing the fee for imbalance of the balance group, issuance and collection of invoices in the event that the value of the security instrument is compromised in the amount of more than 50%

- 6.5.5.1. In the event that, in the accounting period, the imbalance of the balancing group on daily level, or collectively at the level of several days, is 50%, or more, of the amount of the payment security instrument, the transmission system operator may calculate the fee for a balancing group of the observed BRP. The period for which the calculation is performed can minimally last one day, and, it can maximally be equivalent to the accounting period. In the event that the imbalance of the balancing group at the daily level, or collectively at the level of several days during the accounting period, exceeds 30% of the amount of the payment security instrument, the transmission system operator shall warn BRP of the possibility of applying calculation of the fee provided in this paragraph of the Market Code for the BRP's balancing group, and request BRP to promptly ensure that the balancing group under its competence is properly balanced.
- 6.5.5.2. The transmission system operator may perform several calculations during one accounting period.
- 6.5.5.3. In the case referred to in 6.5.5.1, the transmission system operator shall calculate the imbalance on the basis of available operational data of the balancing group, available data on the composition of the balancing group, and/ or on the basis of historical records concerning the operation of the balancing group in the previous 6 months.
- 6.5.5.4. Based on the calculation referred to in 6.5.5.1, the transmission system operator shall immediately issue an invoice to BRP of the calculated fee for the imbalance of the balancing group with a maturity day of one working day, the amount of which must be paid in full.
- 6.5.5.5. The transmission system operator shall, in accordance with Section 6.3 and within the time limits stipulated in the Electricity Market Settlement and Payment Calendar, calculate the balancing group imbalance for all accounting intervals falling within the period that begins on the first day following the day for which the calculation referred to in 6.5.5.1 was made and ending on the last day of the accounting period.
- 6.5.5.6. The transmission system operator shall, in accordance with subsections 6.5.1 and 6.5.2. and within the time limits stipulated in the Electricity Market Settlement and

Payment Calendar, perform the calculation of the fee for imbalance of the balancing group for the period referred to in 6.5.5.5 hereof.

- 6.5.5.7. According to the account of fees referred to in 6.5.5.6 hereof, the Transmission system operator, or BRP, issues an invoice for the accounting period on the invoicing day stipulated in the Electricity Market Settlement and Payment Calendar. Due date of the invoice issued by the transmission system operator, or BRP, is the payment day defined in the Electricity Market Settlement and Payment Calendar. The invoice shall be issued in accordance with the VAT law. Total amount of the invoice has to be paid in full within the stipulated period. Settlements will be, for the BRP having head office in the Republic of Serbia, made in dinar equivalent value in euros, calculated at the official middle exchange rate determined by the exchange rate list of the National Bank of Serbia (NBS) on the date of payment; and for BRP based abroad, the settlement will be made in euros. The invoice is delivered by e-mail or via the e-invoicing system pursuant to the Law on Electronic Invoicing.
- 6.5.5.8. If there is a correction of the input data for the calculation referred to in 6.5.5.1 and the fee referred to in 6.5.5.4, the transmission system operator shall recalculate the fee for the observed period referred to in 6.5.5.1. in such a way that the transmission system operator, ie BRP issues a credit/debit note. The maturity date is defined in the Electricity Market Settlement and Payment Calendar. The amount on the credit/debit note must be paid in full within the stipulated period.
- 6.5.5.9. The transmission system operator may, in accordance with the point 6.5.4.7 and within the time limits laid down in the Electricity Market Settlement and Payment Calendar, change the calculation of fees referred to in 6.5.5.1, and 6.5.5.8 respectively and in 6.5.5.6.

6.5.6. Determination of fee for unbalanced daily schedule

- 6.5.6.1. For unbalanced daily schedule (НДП_{ои}), BRP pays a fee to the Transmission system operator.
- 6.5.6.2. If the НДП_{ои} is within the range of -0.5 MWh and 0.5 MWh, BRP does not pay the fee to the Transmission system operator.
- 6.5.6.3. The fee for the imbalance shall be determined according to the unbalanced daily schedule of the Balancing group for which BRP is responsible for, after the process of intraday modification of daily schedules НДП_{ои} and price Ц defined in point 3.8.1.
- 6.5.6.4. On its web site, the Transmission system operator is obligated to publish the price Ц defined in point 3.8.1 for the year Г till 1st of December in year Г-1.
- 6.5.6.5. The fee for the unbalanced daily schedule (НОБЗ) is equal to the multiplication of the absolute value of НДП_{ои} by price Ц referred to in 3.8.1, and by coefficient E:

$$НОБЗ_{ои} = |НДП_{ои}| \times E \times Ц$$

Where the values of the coefficient E are:

$$E=2 \text{ for } НДП_{ои} > 0$$

$$E=4 \text{ for } НДП_{ои} < 0$$

- 6.5.6.6. The fee for the imbalance is defined in EUR currency for each accounting interval.

6.5.7. Defining the fee for imbalance, invoicing and payment

- 6.5.7.1. Transmission system operator is obligated to perform calculation of total fee for the imbalance on day D+1 per balancing group for all accounting intervals.
- 6.5.7.2. According to the account of total fees for imbalance the Transmission system operator shall invoice for imbalance on day D+1 for market day D, or on the first next working day if the day D+1 is weekend day or a non-working day, with payment due date of one working day. The invoice is issued in accordance with the VAT law. Total amount of the invoice has to be paid in full and within stipulated time limit. Settlement will be, for the BRP with headquarters in the Republic of Serbia, made in dinar equivalent value in euros, calculated at the official middle exchange rate determined by the exchange rate list of the National Bank of Serbia (NBS) on the date of payment; and for the BRP based abroad, the settlement will be made in euros.
- 6.5.7.3. The invoice is delivered by e-mail or via the e-invoicing system pursuant to the Law on Electronic Invoicing, and contains at least the following information:
- a) total monthly fee amount for the imbalance;
 - b) total amount to be paid;
 - c) other data according to the VAT law.

7. TRANSITIONAL AND FINAL PROVISIONS

- 7.1. Within 15 days as of entry into force of the Market Code, the Transmission system operator undertakes to start with conclusion of the agreements with BRPs, including harmonisation of the security instruments with the Market Code, as set out in the subsection 3.3.6 of this Market Code.
- 7.2. The Market Code number 917/5, of 29th November 2016 falls in abeyance on the day of entry into force of this Market Code.
- 7.3. After approval from the Energy Agency of the Republic of Serbia, the Market Code is published on the official web site of EMS JSC Belgrade and comes into force on the eight day from its publishing.