



Nezavisni operator sistema u Bosni i Hercegovini

Независни оператор система у Босни и Херцеговини

Neovisni operator sustava u Bosni i Hercegovini

Independent System Operator in Bosnia and Herzegovina

MARKET RULES

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Pursuant to Articles 4.2 and 5.3 of the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina ("Official Gazette BiH", 7/02, 13/03, 76/09 and 1/11) and Article 7 of the Law on Establishing Independent System Operator for the Transmission System in Bosnia and Herzegovina ("Official Gazette BiH", 35/04), the Managing Board of Independent System Operator in Bosnia and Herzegovina at its 191st session held on June 24th 2021 establishes the

MARKET RULES

INTRODUCTION

Article 1

Subject

The subjects of the Market Rules are:

- Definitions, abbreviations and conventions that are used in the Market Rules,
- Electricity Market Participants in BiH, Registration of Market Participants, Exclusion of Market Participants, Registration of Balance Responsible Parties, Balance Groups, a change of a Balance Group's structure,
- Nomination and renomination of daily schedules, a notification procedure on agreements, operative phase of ancillary service engagement,
- Defining injection and withdrawal points in the transmission and distribution system and joining accounting points to Market Participants, data delivery from the accounting points,
- Balance Responsibility of Balance Responsible Parties, Market Participants and Final Users, Agreement on Balance Responsibility and Termination of Agreement on Balance Responsibility,
- Ancillary services including primary, secondary and tertiary control, Q-V support, compensation of active power losses in the transmission system, elimination of unintentional deviations from daily schedules – compensations, balancing market operation, calculation and reporting,
- Imbalance settlement, imbalance of BRP (Balance Responsible Party), imbalance of Market Participants, price for positive and negative imbalance, imbalance charge of BRP, data publication,
- Calculation performed in line with management of constraints, management of interconnector constraints, management of internal constraints,

- Changes of the Market Rules, disputes resolution, provisions for unforeseen circumstances.

Article 2

Objectives

The main objectives of the Market Rules are:

- To provide conditions for safe work of the power system in BiH by providing an efficient system of ancillary services and balancing market,
- To provide balance of the power system in BiH with respect to prices,
- To create conditions for efficient functioning and further development of wholesale and retail electricity market in BiH.

Article 3

Principles

The main principles within these Market Rules are:

- Market principles of balancing in the power system in BiH and procurement of ancillary services,
- Equal and non-discriminatory treatment of all Market Participants,
- Transparency.

DEFINITIONS, ABBREVIATIONS, CONVENTIONS

Article 4

Definitions

Terms used in this document are defined as follows:

Aggregated Energy Data means data that presents total amount of power injected i.e. withdrawn from the distribution system for a single Market Participant, data on energy delivered in accordance with a public service or realized losses in the network

Balancing	means all actions and processes, in all timelines, through which transmission system operators ensure, in a continuous way, maintenance of the system frequency within a predefined stability range and compliance with the amount of reserves needed with respect to the required quality
Balancing Energy	means energy used by a transmission system operator to carry out balancing and is provided by a balancing service provider
Balance Group	means one or group of more Market Participants that have or do not have injection and withdrawal points in BiH regulation area <i>For a purpose of daily schedules delivery it is possible to establish Balance Groups without injection and withdrawal points in BiH regulation area, so called Market Balance Groups.</i>
Balance Service	means balance capacity or balance energy
Balancing Capacity	means a volume of capacity that a balancing service provider has agreed to hold and in respect to which the balancing service provider has agreed to submit bids for a corresponding volume of balancing energy to the transmission system operator for the duration of the contract
Balancing Market	means the central electricity market managed by NOSBiH for the purpose of maintaining a continuous balance of supply and demand in real time
Balance Responsible Party	means a Market Participant who, in accordance with the Contract on Balance responsibility, accepted balance responsibility for the Balance Group and is registered at NOSBiH as a Balance Responsible Party
Imbalance Price	means the price of electricity, positive, zero or negative, which serves for financial settlement of actual positive i.e. negative imbalance of Balance Responsible Parties
Imbalance	means the difference between the measured amount of injected and withdrawn electricity and a programme of a Balance Responsible Party or a Market Participant taking into consideration engaged balancing energy
Distribution Area	means the area which is responsibility of single Distribution System Operator
Daily Schedule	means a schedule covering scheduled generation, consumption, trade and sale of electricity of a Balance Responsible Party or a Market Participant
EIC X code	means a unique code for a Market Participant in the European Electricity Market according to EIC scheme (<i>Energy Identification Coding</i>)
Interval Meter	means a metering device collecting and storing energy data in resolution which correspond to the settlement period

LFC Block	means a part of a synchronous area consisting of one or more LFC Areas, physically demarcated by points of measurement at interconnectors to other LFC Blocks, operated by one or more Transmission System Operators fulfilling the obligations of a load-frequency control
LFC Area	means a part of a synchronous area, physically demarcated by points of measurement at interconnectors to other LFC Blocks, operated by one Transmission System Operators fulfilling the obligations of a load-frequency control
Merit Order List	means a list of balancing energy bids sorted in order of their bid prices for the purpose of their optimal activation
Grid Code	means rules and procedures which, among other issues, regulate technical issues in regard of connection to the transmission system, ancillary services, measurements and daily schedules delivery
Unintentional Deviation	means the difference between actual and scheduled power exchange of a LFC area
Notice on Agreement	means data submitted by a Market Participant to NOSBiH in relation to any bilateral agreement signed
Accounting Point	means actual or virtual location where the network users are charged for the usage of power services. <i>An accounting point can be a physical accounting point or an accounting formula using readings from physical meters (Virtual accounting point).</i>
Distribution System Operator	means a power entity responsible for operating, ensuring the maintenance of and developing the distribution system in a given area and, where applicable, its interconnections with other systems and for ensuring the long term ability of the system to meet reasonable demands for the distribution of electricity
Imbalance Settlement Period	means the time unit for which the imbalance of the balance responsible party is calculated
Market Time Unit	means the basic time unit for which nominations are delivered within a daily schedule
Ancillary Services	mean all services which NOSBiH procures from the service providers for the purpose of ensuring system services i.e with purpose of maintaining safe and reliable operations of the power grid in BiH and continuous and qualitative supply of consumers
Imbalance Settlement	means the mechanism of financial imbalance settlement for a Balance Responsible Party
Transmission Capacity Right	means the right of a Market Participant to use crossborder transmission capacity for electricity import and export which is allocated to a Market Participant in allocation procedures

Compensation Programme	means an hourly programme which serves for settlement of accumulated unintentional deviation of LFC area during a compensation period
Programme	means balance of scheduled electricity generation and consumption that is electricity sale and purchase on an hourly base for a Balance Responsible Party
Producer	means a role of a Market Participant, a company which possesses a license for electricity generation
Balancing Services Provider	means a Market Participant whose resources are registered at NOSBiH as those providing balancing services
Ancillary Services Provider	means a Market Participant whose resources are registered at NOSBiH as those providing ancillary services
Balancing Services Exchange	means crossborder exchange of balancing capacity or balancing energy
Metering Data Registry	means a set of metering points on the border between a user and the transmission system with the technical data on the metering installations as described by the Grid Code
Re-nomination	means modifications in daily schedules submitted in accordance with the relevant procedure set by the Grid Code
Frequency Restoration Reserve	means the active power reserves available to restore system frequency to the nominal frequency and to restore active power balance and to maintain load frequency control
Frequency Containment Reserve	means the active power reserves available to restore system frequency after occurrence of active power imbalance in the system
Supplier	means a role of a Market Participant, an entity licensed to supply final consumers with electricity
Injection and Withdrawal Point	means a point in the transmission and distribution system in BiH where electricity is injected, withdrawn or exchanged
Transfer of Balancing Capacity	means a transfer of balancing capacity from the initially contracted balancing service provider to another balancing service provider
Trader	means a role of a Market Participant, an entity licensed for electricity trading
Market Participant	means a holder of a valid license for generation, supply, or trading of electricity
Load Profile Diagram	means a profile of hourly levels of load and consumption during a daily, a weekly, a monthly or a yearly time frame, created on the basis of load data of examined final buyers
Replacement Reserve	means the active power reserves available to restore or support the required level of frequency restoration reserves to be prepared for additional system imbalances, including generation reserves

Article 5

Abbreviations

In the Document the following abbreviations shall be used:

BG	Balance Group
BRP	Balance Responsible Party
B_{REAL}	Realised Balance of Balance Responsible Party
B_{PLAN}	Planned Balance of Balance Responsible Party
C_{real}	Realized Consumption of BRP
$C_{BalEn}^{DOWNWARD}$	The lowest bid price of negative balancing energy (downward)
C_{BalEn}^{UPWARD}	The highest bid price of positive balancing energy (upward)
C_+	The price for positive imbalance
C_-	The price for negative imbalance
ΔBRP	Imbalance of Balance Responsible Party
$SERC$	State Electricity Regulatory Commission
EIC	ENTSO-E Identification Code
$ENTSO-E$	European Network of Transmission System Operators for Electricity
ESS	<i>ENTSO-E Scheduling System</i>
EXP_{PLAN}	Total Sale of BRP
IMP_{PLAN}	Total Purchase of BRP
k_+, k_-	Coefficients for imbalance prices
LFC	<i>load-frequency control</i>
MOL	<i>Merit-Order List</i>
$NOSBiH$	Independent System Operator in Bosnia and Herzegovina
DSO	Distribution System Operator
AP	Accounting Point
$p_{MaxSecCap}$	The price cap for secondary control capacity
$p_{MaxSecCapMont}$	The price cap for secondary control capacity for each month
$p_{MaxSecCapYear}$	The price cap for secondary control capacity for a year
$p_{MaxTerCap}$	The price cap for tertiary control capacity
$p_{MaxTerEnUp}$	The price cap for upward tertiary control energy
P_{real}	Realized production of BRP
BSP	Balancing Service Provider

<i>ASP</i>	Ancillary Service Provider
$P_{Reg}^{DOWNWARD}$	Delivered balancing power of downward secondary and tertiary control
P_{Reg}^{UPWARD}	Delivered balancing power of upward secondary and tertiary control
S	Difference in prices of energy for upward and downward secondary control

Article 6

Conventions

In the procedures in relation to these Market Rules all times have reference to Central European Time (CET) and the convention that is used is that first hour lasts from 00:00:00 until 01:00:00. An hour is consisted of four 15 minute intervals (15 minute intervals for the first hour are: 00:00:00 – 00:15:00, 00:15:00 – 00:30:00, 00:30:00 – 00:45:00 and 00:45:00 – 01:00:00).

Payments and calculation shall be made in local currency, i.e., in convertible marks (KM). Financial calculation shall be set on two decimal points.

Generation, consumption, reception and delivery of electric energy is measured and calculated in kWh.

Generation, consumption, reception and delivery of reactive energy is measured and calculated in kVArh.

Active Power is measured and calculated in kW.

Pursuant to paragraph 1 of this Article the major trading period is one 15 minute interval for transactions within BiH (internal transactions), i.e. one hour for cross-border (external) transactions.

Pursuant to paragraph 1 of this Article the major settlement period is one 15 minute interval.

ELECTRICITY MARKET IN BIH

Article 7

Division and parts of the market

Electricity Market in BiH is single and is consisted of wholesale and retail market.

The Wholesale Electricity Market refers to trading of electricity between companies licensed for generation, supply and trading of electricity.

The Retail Electricity Market refers to supply of final buyers by companies licensed for electricity supply.

Balancing Market is a part of the Wholesale Market and it is the central market for electricity purchase and sale managed by NOSBiH for the purpose of ensuring continuous balance of

supply and demand in real time. NOSBiH is always one of the Parties involved in any transaction in the Balancing Market.

These Market Rules shall govern the relations in the Balancing Market in BiH.

Article 8

Wholesale Electricity Market Participants

A Wholesale Electricity Market Participant (hereinafter 'the Market Participant') owns at least one license that is related to electricity generation, trade or supply in BiH and is issued by the Regulatory Commission in BiH.

The Market Participant may have one or more roles depending on valid licenses it owns:

- Producer generates electricity in its energy undertaking and owns the right to sell the generated electricity in the market in accordance with the license it owns.
- In accordance with a license it owns, Supplier owns the right to participate both in the retail market and in the wholesale market and to supply final customers.
- In accordance with a license it owns, Trader has the right to buy and sell electricity.

Exceptionally, if electricity is procured to cover losses in the network a role of supplier may be performed by a network operator that manages the network in accordance with the legal constraints and a relevant decision of the authorized Regulatory Commission.

In accordance with a license it owns, Operator for Renewable Energy Sources may participate in the Electricity Market.

Types of licenses, roles and constraints of those licenses and the information on the Regulatory Commission authorized for their issuance shall be published on NOSBiH web page.

The Market Participant is obliged to respect the provisions of the Market Rules.

Article 9

Registration of Market Participants

In order to achieve the right to participate in the Market, the Market Participant shall be obliged to register with NOSBiH. The registration procedure shall comprise the following activities:

1. The Market Participant shall submit a request to obtain an EIC X Code, a unique identification code of a Market Participant, which is used for identification in daily schedules nominations, in notifications on contracts and in the allocation of crossborder transmission capacities. A request form for issuance of EIC X Code can be found on NOSBiH website and is to be sent by a fax or an email to: trziste@nosbih.ba. Upon the verification of the data in the request, NOSBiH as the Local Issuing Office (LIO 36) shall inform an applicant on issued EIC Code within seven working days upon the request acceptance.
2. The Market Participant shall submit to NOSBiH:
 - a) Copies of licenses it owns,

- b) A list of all injection and withdrawal points in the electricity transmission network in BiH,
- c) A list of distribution areas in which the Market Participant undertakes electricity or supplies buyers with electricity
- d) Data on the Balance Group it belongs to and data on the authorised Balance Responsible Party in a fulfilled BG form,
- e) Data on a method for daily schedules delivery (through BRP or independently).

If delivered documentation is valid and complete, the Market Participant shall be registered within 10 days upon the documentation receipt. In case that delivered documentation is not valid and complete, NOSBiH shall inform the Market Participant on that within three working days and the registration procedure is to be revised.

NOSBiH shall keep the Register of Market Participants and shall publish it on its website.

The Market Participant shall give full and timely notice to NOSBiH of any changes of the given data.

The Market Participant is obliged to register with SERC in accordance with the Decision on Register of participants in the wholesale electricity market adopted by SERC.

Article 10

Exclusion of a Market Participant from the Electricity Market

NOSBiH may exclude a participant from the Electricity Market for a definite period of time until the removal of the reasons for the exclusion, if:

- The Regulatory Authority denies or does not verify a license of the Market Participant,
- The Market Participant violates any of the Market Rules provisions,
- The Market Participant registered as a Balance Responsible Party does not fulfill its responsibilities arising out of the Agreement on Balance Responsibility.

NOSBiH shall give notice to the Regulatory Commission in BiH on any exclusion of the Market Participant for a definite period of time.

If the Market Participant has been excluded from the Market for a definite period of time for three (3) times during three sequential calendar years, with SERC's consent NOSBiH may bring a decision to permanently exclude the Market Participant from BiH Electricity Market.

NOSBiH shall inform SERC and other Market Participants on permanent exclusion or exclusion for a definite period of time of the Market Participant.

Article 11

Balance Group and Balance Responsible Party

A Balance Group is a group of one or more Market Participants with the accompanying receipt-delivery points of electricity in the transmission and distribution systems in BiH. Market Participants may join Balance Groups for the purpose of reducing imbalance costs or for other reasons. A Balance Group must have one Market Participant defined as a Balance Responsible Party (hereinafter the BRP).

A Market Participant may be a member of only one Balance Group.

BRPs and members of a Balance Group shall be responsible for the imbalance settlement within the Balance Group.

Article 12

Registration of BRP

Market Participant who wants to form a Balance Group has to be registered with NOSBiH as a Balance Responsible Party. During the registration BRP:

- shall fulfill a registration form of Balance Responsible Party. The registration form can be found on NOSBiH website
- shall sign with NOSBiH a Balance Responsibility Agreement regulating the relations between NOSBiH and BRP in relation to the imbalance costs of a Balance Group represented by BRP. A form of Balance Responsibility Agreement can also be found on NOSBiH website
- shall submit to NOSBiH a list of all Market Participants of the Balance Group represented by the BRP
- shall submit to NOSBiH individual BG forms signed by each Market Participant belonging to the Balance Group (*A sample of BG form can be found on NOSBiH website*)
- shall submit to NOSBiH a list of all injection/withdrawal points in the transmission system for the Balance Group it represents

If a Market Participant also wants to be a Balance Responsible Party, at the same time it shall submit to NOSBiH a Market Participant Registration Form and a BRP Registration Form.

Within seven working days from the day when the Market Participant fulfills the above mentioned tasks, NOSBiH shall register the Market Participant as BRP. In case that the given tasks are not completely fulfilled NOSBiH shall, within three working days, inform the Market Participant and the registration procedure is to be revised.

NOSBiH shall keep the Registry of BRPs and shall publish it on its website.

BRP must timely inform NOSBiH of any change of the given data.

Article 13

Membership change of a Balance Group

BRP shall inform NOSBiH on any changes of the structure of the Balance Group by filling a BG form. BG form can be found on NOSBiH website.

IF BRP requests an entry or exit of a Market Participant in or from the Balance Group, the BRP representing the Balance Group shall inform NOSBiH on that by filling a BG form.

If a Market Participant wants to change its BRP, new BRP shall inform NOSBiH on this by filling a BG form. Upon the receipt of the BG form on the structural change of a Balance Group

which is sent by new BRP, NOSBiH shall inform former BRP on this within three working days.

Structural change of a Balance Group, i.e. change of BRP, shall be applied from the first day of M month as for the requests i.e. BG forms submitted to NOSBiH until the 10 (tenth) day of M-1 month. The requests for change of BRP's submitted to NOSBiH in BG forms after the 10 (tenth) day of month M-1 shall start to apply on the first day of M+1 month.

When changing the structure of the Balance Group BRP shall deliver to NOSBiH a new list of Market Participants which compose the Balance Group and a new list of injection and withdrawal points of electricity.

TIME STAGES OF THE ELECTRICITY MARKET

Article 14

Nomination and Re-nomination of Daily Schedules

A Market Participant shall submit to NOSBiH a daily schedule by using ESS platform (ENTSO-E Scheduling System) independently or through its BRP as specified in the process of registration of Market Participants.

Each daily schedule delivered by BRP or a Market Participant should provide balance levels for all generation/purchase/reception of electricity and consumption/sales/delivery of electricity for each trading period. A delivery format is defined in ESS platform.

Nominations and Re-nominations of daily schedules shall be done within the deadlines and in a way as defined in the Instructions for daily schedules delivery.

The last version of the Daily Schedule approved by NOSBiH shall be binding and shall be used at the stage of imbalance settlement.

Article 15

Operative Stage

During the implementation of daily schedules NOSBiH shall engage ancillary services and shall use Balance Energy for balancing and congestion management within the BiH LFC Area as defined in Chapter VI - Ancillary Services.

Each activation of balancing energy is related to one Market Participant i.e. to its BRP. Any such engagement shall be recorded and taken into consideration in the procedure of imbalance settlement.

Article 16

Contract Notifications Procedure

A Market Participant shall be obliged to submit to NOSBiH all information, hereinafter referred to as Contract Notifications, with regard to any bilateral contract it has entered into.

Contract notifications shall be delivered by an electronic platform *Contract Notification* that Market Participants fulfill with the following data:

- Identification number of the Contract
- EIC Codes of the Contracting Parties
- Type of the Contract (internal trade, cross-border trade, transit)
- Injection and Withdrawal points,
- Type of cross-border capacity,
- duration of the Contract,
- Contracted quantities and applicable hourly programs.

These requirements will apply to all bilateral agreements, including agreements for electricity export/import.

In the Contract Notifications Market Participants will not provide the information on prices and other confidential and commercial information

Information delivered in the procedure of Contract Notifications will be used by NOSBiH for compilation of reports on internal and cross-border sales.

Contract Notifications delivered by the Market Participants for the same transaction must be harmonized, i.e. energy amount sold to Market Participants must be equal to the energy amount purchased by Market Participants. NOSBiH shall cross check the Contract Notifications submitted by Market Participants and nominations delivered by the BRP and in cases of inconsistencies it shall ask for corrections.

NOSBiH shall submit harmonized monthly report on internal and cross-border trade to SERC, the Entities' Regulatory Authorities and Market Participants no later than by the tenth day in M month for M-1 month.

INJECTION AND WITHDRAWAL ELECTRICITY POINTS

Article 17

Injection and Withdrawal Points

Injection and withdrawal points are the points where electricity is injected, withdrawn and exchanged between energy undertakings in the transmission and distribution systems in BiH.

Each injection and withdrawal electricity point in the transmission system shall have an accounting point defined (hereinafter AP) and accompanying calculating formula within the Metering Registry and in line with the Grid Code.

The Procedures for data exchange between NOSBiH and the Distribution System Operator (hereinafter the DSO) shall regulate treatment of electricity injection and withdrawal points and of APs in the distribution system.

Article 18

Injection and Withdrawal Points in the Transmission System

Injection and withdrawal points in the transmission system may be:

- On the border between the transmission and the distribution system
- On the border between the transmission system and generator units
- On the border between the transmission system and a consumer/a buyer directly connected to the transmission system
- On the border between BiH transmission system and neighbouring countries' systems.

Article 19

Injection and Withdrawal Points in the Distribution System

Injection and Withdrawal Points in the Distribution System may be:

- At the interface between the distribution and the transmission system,
- At the interface between the distribution system and generation units
- At the interface between the distribution system and consumers i.e. buyers
- At the interface between neighbouring distribution systems within BiH,
- At the interface between BiH distribution system and neighbouring countries' distribution systems.

Article 20

Accounting Points Data Delivery

Grid Code defines the obligation for data delivery on electricity injection, withdrawal and exchange for all APs at the border of the transmission system.

The Distribution System Operator (hereinafter DSO) shall be responsible for data delivery from injection/withdrawal points at the border of the distribution system. The DSO shall be obliged to submit to NOSBiH the following data on the distribution system within its responsibility:

- Aggregated data, as a single AP, on electricity injections and withdrawals from the distribution system for any producer whose entities are connected to the distribution system under DSO's responsibility
- Aggregated data, as a single AP, on electricity injections and withdrawals from the distribution system for any supplier that provides electricity to consumers connected to the distribution system under the DSO's responsibility
- Aggregated data on electricity injections and withdrawals in/from all neighbouring distribution systems in BiH

- Aggregated data on electricity injections and withdrawals from neighbouring power systems
- Data on realized distribution losses of a distribution area under the DSO's responsibility.

Data on injection, withdrawal and electricity exchanges are values measured in the interval meters or estimated values on the basis of load profile diagram. The data are in an hourly or 15 minute resolutions in accordance with the settlement period as provided in Article 6 of these Market Rules. The data shall be delivered in kWh. Format of documents, sending procedure and other information relating the delivery of metering data submitted by the DSO to NOSBiH shall be defined by the Procedure for data exchange between NOSBiH and the DSO.

With NOSBiH's approval the DSO may aggregate data on injected, withdrawn and exchanged electricity from the distribution system, distribution losses, data on energy withdrawn on the basis of public service and other services if those data relate to the same Market Participant.

Article 21

Assigning APs to Market Participants

Each Market Participant acting as a producer shall be assigned:

- each AP assigned to the producer in the Metering Register
- and AP from a distribution system for each DSO on whose system the producer connected its generation units.

Each Market Participant acting as a supplier shall be assigned:

- each AP assigned to the supplier in accordance with the Contract on supply of buyers directly connected to the transmission system
- and AP from a distribution system for each DSO on whose system the supplier undertakes the supply of final customers.

AP representing the transmission losses shall be assigned to the Market Participant who entered into the Contract for covering the transmission losses.

AP representing the distribution losses shall be assigned to the Market Participant who entered into the Contract for covering the distribution losses in a particular distribution system.

A Market Participant acting as a trader shall not be assigned any AP.

One AP may be assigned to only one Market Participant.

A Market Participant and its BRP shall have the right to access to information which are possessed by NOSBiH relating AP and injection/withdrawal points assigned to them.

BALANCE RESPONSIBILITY

Article 22

Balance Responsibility of BRP

Balance responsibility of BRP means that it shall undertake financial responsibility for the imbalance of the Balance Group it represents.

NOSBiH shall determine balance responsibility and make allocation of imbalance cost of BiH power system on BRP level.

Balance responsibility of BRP in respect of NOSBiH shall be regulated by the Contract on Balance Responsibility which can be found on NOSBiH website.

Article 23

Contract on Balance Responsibility

The Contract on balance responsibility shall, among other things, define a method of payment between NOSBiH and BRP for the imbalance of a Balance group, payment security instrument, conditions for activation, validity period and the conditions for a change of payment security instrument.

The payment security instrument of BRP for imbalance of a Balance Group shall be:

1. a bank guarantee issued on behalf of NOSBiH
2. guarantee deposit

The amount of the bank guarantee and the deposit shall be set for a period of a calendar year and shall be higher than these two values:

- Financial value of scheduled average three-day electricity generation of BRP that is calculated on the basis of average imbalance price for shortage of electricity in a year which precedes the year for which the bank guarantee is issued
- Financial value of scheduled average three-day electricity consumption of BRP that is calculated on the basis of average imbalance price for shortage of electricity in a year which precedes the year for which the bank guarantee is issued.

Whereby the amount of the bank guarantee i.e. of the deposit may not exceed KM 2, 000.000.

In case that no electricity generation or final consumers supply are planned within the Balance Group, BRP shall not be obliged to issue the payment security instrument.

BRP can choose one of the payment security instrument.

BRP is entitled to change the type of payment security instrument once in a calendar year but previous payment security instrument shall be valid until the newly selected payment security instrument became active.

Before signing the Contract on Balance Responsibility, BRP shall submit to NOSBiH planned values of electricity generation and consumption within the Balance Group it represents. These

values, as maximum value of BRP imbalance, shall be used in the process of calculation the amounts of payment security instruments in accordance with paragraph 2 of this Article.

BRP shall inform NOSBiH on each relevant change of generation and consumption within the Balance Group in order to set, if appropriate, new amounts of payment security instruments. The relevant change of electricity generation and consumption within the Balance Group shall be the one exceeding 10%. In case of this relevant increase of electricity generation and consumption BRP shall be obliged to deliver new payment security instruments that shall cover the increase. BRP shall also hold right to decrease the amount of a payment security instrument in case of significant decrease of electricity generation and consumption of its Balance Group.

If NOSBiH considers that there are significant changes in electricity generation and consumption of BRP, NOSBiH may initiate a calculation procedure and demand a delivery of new payment security instruments. The basis for this calculation shall be historical data of electrical quantities for the last three months or planned electrical quantities delivered by BRP.

BRP shall have responsibility to ensure the required payment security instrument during the validity period of the Contract on Balance Responsibility whereby the payment security instrument shall be provided for intervals lasting for one year. The payment security instrument shall be delivered upon signing the Contract on Balance Responsibility whereby the Contract shall become valid only upon delivery of the bank guarantee or upon the deposit payment.

NOSBiH shall activate the payment security instrument if BRP fails to fulfill an obligation related to the payments as provided under the Contract on Balance Responsibility. Upon the activation of the payment security instrument, BRP shall deliver a new bank guarantee or shall pay deposit within the defined time period according to the provisions of the Contract on Balance Responsibility. A bank guarantee form and the instruction for deposit payment and other conditions shall be defined under the Contract on Balance Responsibility.

BRP from a Balance Group which has no plans for electricity generation or supply shall not be obliged to deliver a payment security instrument but shall be obliged to sign the Contract on Balance Responsibility.

Article 24

Termination of the Contract on Balance Responsibility

The Contract on Balance Responsibility may be terminated upon request of one of the contracting parties, NOSBiH or BRP.

In case that BRP requests a termination of the Contract on Balance Responsibility, BRP is obliged to submit to NOSBiH a written request for a termination of the Contract and a BG form for exclusion from the Balance Group for each Market Participant it has balance responsibility for.

The termination period mentioned in previous paragraph shall start on the first day of the calendar month following the month in which a request for termination of the Contract on Balance Responsibility was received. The contractual relationship shall end upon the expiry of the termination period which lasts for two calendar months.

During the termination period BRP shall have all rights and obligations arising from the Contract on Balance Responsibility. During the termination period NOSBiH and BRP shall be obliged to regulate the rights and obligations on the basis of the termination of the Contract on Balance Responsibility.

NOSBiH may unilaterally terminate the Contract on Balance Responsibility with BRP if:

- a) BRP fails to deliver an adequate payment security instrument within the time frame and amounts specified in the Contract on Balance Responsibility,
- b) BRP is declared bankrupt or placed in liquidation,
- c) BRP fails to meet liabilities arising from the Contract on Balance Responsibility.

Upon sending a notice to BRP on its failure to meet the responsibilities, NOSBiH shall ensure additional time period not longer than 5 (five) working days for BRP to eliminate the defaults occurred by not meeting the responsibilities arising from the Contract on Balance Responsibility. If BRP in the additional time period fails to fulfill its obligations, the Contract is considered terminated from the first day of the calendar month following the expiry of the additional time period provided for performing of BRP's responsibilities. In this case BRP shall have all the rights and liabilities from the Contract as of the date of its termination.

In case of termination of the Contract on Balance Responsibility NOSBiH shall inform thereof:

- a) BRP to which the termination of the Contract is related to
- b) Market participants from the Balance Group within its balance obligation
- c) Any other registered BRP.

Article 25

Balance Responsibility of Market Participants

The Market Participant shall be responsible for the imbalance to its BRP. The Market Participant and BRP shall be obliged to define mutual relationships in regards to the allocation of imbalance costs within the Balance Group.

If NOSBiH have data on planning and data on realization of a Market Participant in the market, it shall calculate the imbalance of the Market Participant and deliver it to the Market Participant and its BRP as a possible ground for allocation of the imbalance costs within the Balance Group.

Article 26

Balance Responsibility of Final Consumer

Balance responsibility of a final consumer is related to the responsibility of the consumer towards its supplier and should be defined within the Contract on Balance Responsibility or any other document.

ANCILLARY SERVICES

Article 27

General Notes

Ancillary services are services that NOSBiH procures from ancillary service providers (hereinafter ASPs) for the purpose of maintaining safe and reliable operation of the power system in BiH and continuous and qualitative supply of electricity users.

Commercial relations between NOSBiH and ASPs shall be regulated by these Market Rules, and the Grid Code and the Procedures for Ancillary Services shall define types and technical

characteristics of the ancillary services, the technical requests to be satisfied by the ancillary services providers and adequate level of the services for the power system in BiH.

Article 28

Types of Ancillary Services

The subject matter of these Market Rules are the following ancillary/system services:

- regulation of frequency and active power
- regulation of voltage and reactive power,
- black start procedure,
- coverage of electricity losses in the transmission system,
- elimination of deviations.

Ancillary services pertaining to control of frequency and active power are called balancing services and they include:

- Maintenance of frequency (*Frequency Containment Reserve – FCR*) – primary regulation
- Restoration of frequency (*Frequency Restoration Reserve - FRR*), which may be:
 - Automatic (aFRR) – secondary regulation
 - Manual (mFRR) – tertiary regulation
- Replacement Reserve - RR.

Market Participants providing balancing services are called Balancing Service Providers (BSPs).

Article 29

Frequency Containment Reserve – Primary Regulation

BSP shall demonstrate that all generation units for which it is competent and which are by the Grid Code reported as reserve providing units, are in compliance with the required technical conditions for maintenance of frequency (FCR) by means of prequalification tests. The prequalification process of FCR shall be defined in the Procedures for Ancillary Services.

The right to provide FCR shall belong not only to generation units connected to the transmission system but to all other facilities that meet the technical preconditions for providing FCR as defined by the Grid Code.

NOSBiH shall provide the required reserve in the market through public bidding. The procurement process is defined in the Procedures for Ancillary Services. The cost of FCR capacity may be financially compensated in accordance with the Tariff Pricing Methodology for Services of Electricity Transmission, Independent System Operator and Ancillary Services developed by SERC.

If the required reserve is not procured through the market procedure, NOSBiH shall allocate the required scope of frequency containment reserve to the balancing service providers that have the facilities for the provision of the service, taking into account the availability of generation units throughout the whole period for which the provision of service is required. The basis for the allocation is the balanced (planned) generation of the facility. The Methodology for Allocation of FCR to BSPs shall be defined in the Procedures for Ancillary Services.

If the FCR is activated each BSP is entitled to receive financial compensation for energy. Compensation for energy is proportional to the activated energy and the price of energy for maintaining the frequency at the level of the Continental Europe synchronous area pursuant to Article 38 of the Market Rules. The Methodology for Determination of Activated Energy and the Price of Energy FCR shall be defined in the Procedures for Ancillary Services.

FCR calculation and settlement shall be defined in the Procedures for Ancillary Services.

Article 30

Automatic Frequency Restoration Process – Secondary Regulation

NOSBiH shall procure capacity for automatic frequency restoration reserve (aFRR) through the public purchase procedure. The submitted bids for aFRR shall be ranked by offered bid price of reserve capacity. The bids shall be selected with the aim of minimizing the cost of capacity reservation to the level of required capacity of aFRR whereby the capacity of BSP can be divided.

The selected bids shall be paid by the price offered for aFRR capacity (Pay-As-Bid). The price of aFRR capacity shall be limited by the price cap $p_{MaxSecCap}$ that shall be determined by SERC in an annual ($p_{MaxSecCapYear}$) and a monthly ($p_{MaxSecCapMont}$) procurement procedure.

The right to participate in the market procedure belongs to BSPs whose structures satisfy the technical preconditions for providing aFRR and that are registered at the Registry of aFRR providers. The processes related to the technical validity and registration of the structures for providing aFRR shall be defined in the Procedures for Ancillary Services.

The required capacity of aFRR shall be determined on a monthly basis in line with the procedure described in the Ancillary Services Procedures, for peak load hours (from 6:00 to 24.00 hrs) and off-peak hours (from 0:00 to 6:00hrs) separately, every day.

The procedure to purchase aFRR capacity shall be carried out on an annual basis, at the end of the current year for the next 12 months of the next year. If an annual public procurement procedure has not provided the required capacity of aFRR for any month, the missing quantities of aFRR shall be purchased through a monthly public procurement procedure

If the required scope of aFRR capacity has not been purchased through an annual or monthly procedure for a certain month, the missing quantities shall be re-allocated per BSPs whose resources may provide secondary regulation. The price of this capacity shall equal to the weighted average price of accepted bids for aFRR capacity for a specific month.

The Procedures for procurement and allocation of the missing capacity per BSPs shall be specified in the Procedures for Ancillary Services.

After the market procedure is finished NOSBiH and ASPs shall enter a Contract on providing the service of aFRR which shall, among other issues, define details on payment, a method for evaluation the quality of a given service, compensations if any default occurs and other details. A form of the Contract may be found on NOSBiH website.

aFRR is automatically activated when SCADA system, located in NOSBiH, sends a signal to an individual BSP Regulator or to a group of BSPs Regulators as described in the Ancillary Services Procedures. BSP may merge several units into one virtual unit for providing aFRR. In that case the BSP shall be responsible for distribution of the managing signal it receives from NOSBiH to individual units.

The activated energy of aFRR shall be compensated by offered prices of the energy. The price of the energy for two directions of regulation shall be submitted by BSPs to NOSBiH in activities in the Balancing Market for a next day, and for the changes of bids in intraday activities. The price difference of the activated energy of secondary control in two directions of the regulation shall be limited by the value of S . The value of S shall be determined by SERC.

Details related to delivery of bids for energy aFRR are given in the Operating Rules on Daily Balancing Energy Market published on NOSBiH website.

Any BSP which, for technical or any other reason, is not able to provide the contracted capacity of aFRR, shall be obliged to inform NOSBiH on that. If a BSP has failed to provide the balancing service or if it has been of insufficient quality, it shall be obliged to pay compensation to NOSBiH. The way of determining the compensation amount and the quality of provided service of aFRR shall be described in detail in the Procedures for Ancillary Services.

Article 31

Manual Frequency Restoration Process – Tertiary regulation

NOSBiH shall carry out the procedure of public procurement of positive reserve (upward regulation) for manual Frequency Restoration Reserve – mFRR and negative reserve (downward regulation) for manual Frequency Restoration Reserve. The submitted bids for mFRR shall be ranked by the bid price of reserve capacity. The bids shall be selected with the aim of minimizing the cost of mFRR to the level of required capacity whereby the capacity of BSP may be divided. The selected bids shall be paid by the price offered for mFRR (Pay-As-Bid). The price cap for reserve capacity mFRR shall be established by SERC.

The right to participate in the market procedure belongs to BSPs whose objects satisfy the technical preconditions for providing mFRR and that are registered at the Registry of mFRR resources. The processes related to the technical validity and registration of the objects for providing mFRR shall be defined in Procedures for Ancillary Services.

The scope of required mFRR shall be determined on a monthly level and separately for the scopes of positive and negative reserve capacities in accordance to the rules of the Grid Code and taking into consideration the existing arrangements for the joint reserve in the LFC block SHB and other arrangements at the ENTSO-E level.

The procedure to purchase mFRR shall be carried out on an annual level and on a monthly level for purchase of the missing values of reserve. The Procedures for procurement of mFRR capacity shall be specified in the Procedures for Ancillary Services.

After the market procedure is finished NOSBiH and BSPs shall enter a Contract on providing mFRR reserves which shall, among other issues, define details on payment, a method for evaluation the quality of a given service, compensations if any default occurs and other details. A form of the Contract may be found on NOSBiH website.

Products of mFRR and their characteristics shall be specified in the Procedures for Ancillary Services.

The activated energy of mFRR shall be compensated according to offered prices of the energy, in particular for upward and downward tertiary control. The price of the energy for positive

and negative mFRR shall be delivered through the activities in Daily Balancing Market as a part of day-ahead and intraday activities. The price of activated energy for positive and negative mFRR shall be limited with the price cap which shall be established by SERC. Detailed information relating to delivery of bids for mFRR energy shall be provided in Balancing Market Operation Rules which has been published on NOSBiH website.

The price for balancing energy within BSP's bid may be positive and negative whereby the negative price changes the payment direction between NOSBiH and the BSP.

Bids for energy with or without the contracted capacity participate on equal footing in the mFRR balancing energy market.

Article 32

Replacement Reserve

NOSBiH shall, in accordance with needs and the condition in the Balancing Market, take a decision on the required introduction of replacement reserve – RR in BiH balancing mechanism.

Detailed information relating to a possible procurement process, deployment and settlement of RR shall be defined in the Procedures for Ancillary Services.

Article 33

Capacity Transfer

BSP shall have the right to transfer the contracted or allocated liability for balancing capacity to another BSP with mutual agreement and under the condition that it has been accepted by NOSBiH.

In case of capacity transfer, all liabilities for the transferred capacity pertaining to the capacity fee, penalty for undelivered capacity and for quality of the provided service shall be undertaken by the BRP that has undertaken the capacity. The capacity price pursuant to which NOSBiH shall calculate all liabilities shall be equal to the initial price set before the transfer. The way of the transfer of obligation of balancing service provision for the relevant parties shall be defined in the Procedures for Ancillary Services.

Article 34

Daily Balancing Energy Market

NOSBiH shall organize and use the Daily Balancing Energy Market to collect balancing energy bids to correct imbalances in the BiH LFC area.

In the daily balancing energy market, balancing energy bids are delivered for positive and negative FRR and RR. The products in the Balancing Market and their characteristics are defined in the Procedures for Ancillary Services and the Rulebook on the Daily Balancing Market Operation.

BSP which contracted the provision of positive or negative balancing capacity shall be obliged to submit one bid or more bids to cover at least the contracted balancing capacity. BSPs may submit their bids in the Daily Balancing Energy Market notwithstanding the lack of contracted capacities. Bids shall be submitted separately for positive and negative balancing energy.

Additional restrictions may be introduced for the submission of the aFRR energy bids in terms of the symmetric scope of regulation, number of bids by one BSP and the price difference for positive and negative aFRR, which shall be defined in the Rulebook on the Daily Balancing Market Operations. Automatic or manual activation of bids shall be done in accordance with a merit order list (MOL) with the activation of the most favourable bids. A more favourable bid in case of the positive balancing energy shall be a bid with a lower price while a more favourable bid in case of the negative balancing energy shall be a bid with a higher price.

Until the technical preconditions for the activation and calculation of aFRR in accordance with the MOL have been fulfilled, the activation of aFRR may be done proportionally to the aFRR scope by individual BSP.

With an appropriate explanation, NOSBiH may deviate from the MOL activation in situations when the security of the power system is endangered.

Activated balancing energy bids shall be paid at the offered prices.

Detailed information relating to delivery of bids and their activation and calculation at the Daily Balancing Energy Market shall be provided in the Rulebook on the Daily Balancing Market Operation.

Article 35

Q-V Support

Generator units shall be obliged to provide ancillary service of Q-V support and to maintain the voltage at connection points of generators within the defined limits in accordance to the power chart.

Charges related to the ancillary service of Q-V Support shall be calculated to the service providers in accordance to the Tariff Pricing Methodology for Services of Electricity Transmission, Operation of NOSBiH and Ancillary Services which shall be adopted by SERC.

Article 36

Black Start Capability

Generator units which may provide the service of black start shall be obliged to provide this service upon a request made by NOSBiH and shall do this without any compensation.

Article 37

Covering of Losses in the Transmission System

NOSBiH shall provide energy to cover loss in the transmission system by purchase in the electricity market through public bidding. The procedure to purchase energy to cover losses in the transmission system shall be carried out on an annual, semi-annual, quarterly or monthly basis depending on an assessment of the situation in the electricity market.

NOSBiH and the service providers shall conclude agreements defining mutual rights and liabilities.

Article 38

Calculation and Settlement of Deviations of the BiH LFC area

Calculation and settlement of deviations of the BIH LFC area shall be done by NOSBiH with other transmission system operators in the Regional Group Continental Europe - RGCE pursuant to Article 3 of the Synchronous Area Framework Agreement (SAFA) for the Regional Group Continental Europe, which pertains to calculation and settlement.

Article 39

Cross-border Cooperation

For the purpose of improving quality, effectiveness and balancing mechanism in BiH NOSBiH may join regional and other initiatives and conclude agreements on balancing services exchange i.e. agreements related to the share and exchange of balancing capacities and balancing energy including imbalance netting arrangements.

NOSBiH may enter an agreement only upon SERC's approval.

Article 40

Settlement of Ancillary Services and Reporting

NOSBiH shall create a daily report on ancillary services for each BSP separately and in each working day for a previous working day and all previous non-working days, i.e. on day D+1 for day D. A daily report shall contain all energy and financial standings of provided ancillary services and balance energy that is engaged by a BRP.

NOSBiH shall create a monthly report on ancillary services for each BSP separately by the tenth day in month M+1 for month M. A monthly report shall contain all energy and financial standings of provided ancillary services and balance energy that is engaged by a BSP during month M.

NOSBiH shall create a daily report summary and a monthly report summary on ancillary services in BiH and shall publish them on its website. The reports shall contain relevant information on balancing services, costs of those services and imbalance prices. The reports shall not contain any confidential financial information on a BSP.

Detailed information relating to a form and contents of the reports, a way of delivery daily and monthly reports on ancillary services and a complaint procedure shall be defined in the Procedures for Ancillary Services.

IMBALANCE CALCULATION

Article 41

Imbalance of BRP

Imbalance of BRPs shall be calculated for each settlement period as the difference between realized and planned position of BRPs:

$$\Delta BRP = B_{REAL} - B_{PLAN}$$

Positive BRP imbalance shall mean that BRP realized balance energy surplus. Negative BRP imbalance shall mean that BRP realized balance energy deficit.

Realized BRP balance shall mean the difference between totally realized volumes of injected and withdrawn energy of the Balancing Group represented by BRP within the BiH LFC area.

$$B_{REAL} = \sum P_{real} - \sum C_{real}$$

where:

P_{REAL} shall mean realised injected energy of BRP
 C_{REAL} shall mean realised withdrawn energy of BRP

Planned position of BRP is the difference between sold and purchased energy within each imbalance settlement period taking into account balancing energy on the level of BRP:

$$B_{PLAN} = \left[\sum P_{reg}^{up} + EXP_{PLAN} \right] - \left[\sum P_{reg}^{down} + IMP_{PLAN} \right]$$

where:

IMP_{PLAN} shall mean total purchase/procurement of BRP
 EXP_{PLAN} shall mean total sale/delivery of BRP
 P_{reg}^{UP} shall mean supplied balancing energy
 P_{reg}^{DOWN} shall mean withdrawn balancing energy

Article 42

Delivery of the Data from the Distribution System

When calculating imbalance of BRP, NOSBiH shall also use the data related to injections and withdrawals of energy in the distribution system. The data delivery method and relevant procedures shall be defined in the Procedures for Data Exchange between NOSBiH and ODSs.

Article 43

Imbalance of Market Participants

If all the necessary data are available NOSBiH shall calculate imbalance of each Market Participant following the methodology described in Articles 41 and 42 for calculating imbalance of BRP. Imbalance of Market Participants may be a ground for financial settlement of BRPs imbalance between members of a Balance Group.

Article 44

Positive Imbalance Price and Negative Imbalance Price

For each settlement period the price for positive and negative imbalance shall be determined. Positive Imbalance Price shall be determined as follows:

$$C_+ = \begin{cases} k_+ * \min(C_{BalEn}^{DOWN}), & \min(C_{BalEn}^{DOWN}) \geq 0 \\ 1/k_+ * \min(C_{BalEn}^{DOWN}), & \min(C_{BalEn}^{DOWN}) < 0 \end{cases}$$

where:

C_{BalEn}^{DOWN} shall be the lowest price for activated downward balancing energy FRR and RR in a settlement period,

k_+ shall be a coefficient that shall be determined by SERC in a Decision on Ancillary Services

Negative Imbalance Price shall be determined as follows:

$$C_- = k_- * \max C_{BalEn}^{UP}$$

where:

C_{BalEn}^{UP} shall be the highest price for activated upward balancing energy in a settlement period

k_- shall be a coefficient that shall be determined by SERC in a Decision on Ancillary Services

When determining prices for positive and negative imbalance there shall be used the prices of activated local and cross-border balancing energy of FRR and RR which shall be activated exclusively to balance the BiH LFC area.

In the event that no activation of positive balancing energy has occurred during an imbalance settlement period for the purpose of balancing the BiH LFC area, as the price for negative imbalance there shall be used the lowest price bid out of those nominated for positive balancing energy aFRR.

In the event that no activation of negative balancing energy has occurred during an imbalance settlement period for the purpose of balancing the BiH LFC area, as the price for positive imbalance there shall be used the highest price bid out of those nominated for negative balancing energy aFRR.

In the event that there have not been aFRR positive and negative balancing energy bids in the balancing energy market, the positive imbalance price shall be equal to zero, and the negative imbalance price shall be the reference price equal to the price realized to compensate transmission losses for the relevant imbalance settlement period.

In the event that aFRR activation signal has been proportionally distributed to BSPs, when determining imbalance price there shall be taken into account aFRR price from BRPs in both directions of regulation regardless of whether or not the bids have been activated. In the event that no activation of realized bids for aFRR (realized capacity is equal to zero) has occurred during an imbalance settlement period and that no mFRR has been activated, the price for negative imbalance shall be equal to the referential price and the positive imbalance shall be equal to zero. The referential price shall be determined as the price realized for covering losses in the transmission system for the relevant imbalance settlement period.

Article 45

Imbalance Cost for BRPs

An imbalance charge of BRP shall be calculated per each imbalance settlement period as the product of BRP imbalance and respective imbalance price.

If within the settlement period the imbalance of BRP has been negative i.e. if BRP has short energy position within this period, there shall be applied the price of negative imbalance C-. If within the settlement period the imbalance price of BRP has been positive, the BRP shall pay to NOSBiH for the imbalance cost. If within the settlement period the price C- is negative, NOSBiH shall pay to BRP for the imbalance.

In the event that the imbalance of BRP has been positive i.e. if BRP has long energy position within the settlement period, there shall be applied the price of positive imbalance C+. If the price C+ is positive for the specific settlement period NOSBiH shall pay to BRP for the imbalance cost. If the price C+ is negative for the specific settlement period BRP shall pay to NOSBiH for the imbalance cost.

Monthly debt of BRP in terms of imbalance shall present a sum of imbalance costs for all settlement periods within a month in which BRP shall pay to NOSBiH for the imbalance it has realised.

Monthly claim of BRP in terms of imbalance shall present a sum of imbalance costs for all settlement periods within a month in which NOSBiH shall pay to BRP for the imbalance that BRP has realised.

Article 46

Compensation of Imbalance of BRPs

An imbalance charge of BRPs shall be financially settled between NOSBiH and BRPs on a monthly basis according to a calculation settled by NOSBiH.

Financial liability of BRP for imbalance within one settlement period shall be equal to the product of medium hour imbalance of BRP, determined in accordance to Article 41, and the price of the observed imbalance of BRP (deficit or surplus) in accordance with Article 44. BRP shall pay or receive compensation for imbalance depending on a direction of BRP's imbalance and achieved positive or negative price for BRP's imbalance.

Daily calculation of BRP's imbalance shall consist of imbalance and financial liabilities of the BRP on the basis of imbalance for each settlement period of that day.

NOSBiH shall submit to BRP on day D+1 a preliminary daily report on imbalance for day D if it has available appropriate measurements for that BRP. Within 7 days each BRP may submit a complaint to NOSBiH about the daily calculation of imbalance. If NOSBiH considers the complaint justified, it shall issue a new daily report for that BRP.

NOSBiH shall send a preliminary monthly report on imbalance to BRP for previous calendar month 1 (one) working day upon receipt of all necessary data.

BRP's possible complaints in respect of the delivered monthly report on imbalance and imbalance costs and energy and financial positions shall be agreed by NOSBiH and BRP in next 2 (two) working days upon receipt of the report.

Final version of the report submitted by NOSBiH shall be final and binding for the BRP. Total imbalance calculation and issuance of invoices shall be completed by the tenth day in month M+1.

Imbalance payment shall be effected in line with the final monthly report on imbalance.

NOSBiH shall make a detailed report on imbalance and imbalance costs and submit it to SERC.

Article 47

Data Publication

NOSBiH is obliged to present any information and data concerning the balancing energy market which are not deemed confidential to Market Participants through its website in a transparent, unbiased and non-discriminatory manner.

No later than eight working days after the observed market day, NOSBiH is obliged to publish the following data for each settlement interval:

- total volumes of activated balancing energy aFRR,
- total volumes of activated balancing energy mFRR
- the imbalance price

For each settlement interval, NOSBiH is obliged to publish on its website on day D+1 a preliminary settlement price for day-D deviations by balancing groups (on Mondays for weekend days).

CALCULATION IN THE PROCESS OF CONGESTION MANAGEMENT

Article 48

Management of Interconnector Constraints

Market Participants holders of International Trade Licenses who wish to import or export energy will need to ensure the right to use crossborder transmission capacity. NOSBiH shall accept the nominations of daily schedule for crossborder transactions only of those Market Participants who have the right to use crossborder capacity. The procedure for awarding the usage right to crossborder transmission capacity shall be defined by specific Procedures that may be found on NOSBiH website.

During Congestion Management Procedure, NOSBiH may order any Market Participant to modify the amounts of any export/import transactions for system security reasons.

Article 49

Management of Internal Constraints

When managing internal constraints in order to overcome other disturbances in the power system, NOSBiH may use balancing energy bids in the balancing market. In doing so, price of activated balancing energy shall be paid to BRP by offered price and it shall not affect the determination of imbalance price.

In addition, if internal constraints and other disturbances appear in BiH power system, NOSBiH may instruct generator units to change their generation. The generator units instructed by NOSBiH to change generation or withdrawal due to internal constraints in the system will be compensated for the increase/decrease of generation according to imbalance price as given in Article 44 of these Market Rules, that is:

- additional power injecting or reduced withdrawal of electricity by the negative imbalance price
- reduced power injecting or additional withdrawal of electricity by the positive imbalance price

Energy deployed for managing internal constraints shall be exempted and shall not make imbalance for BRP.

Quantities of redispatched energy shall be summed and financially settled on a monthly basis for each Market Participant whose generator units have been redispatched within a calendar month.

CHANGES

Article 50

Changes of Market Rules

These Market Rules may be changed in a same manner as enacted.

Article 51

ENTSO-E Rules

These Market Rules shall be amended in accordance with the adoption of ENTSO-E Codes and changes of rules on ENTSO-E level which have influence on the established processes.

DISPUTE RESOLUTION

Article 52

Dispute Resolution

In case of a dispute between the System Users in relation to rules and regulations defined in the Market Rules the parties will attempt, in good faith, to resolve a dispute in relation to issues concerning the rules.

In case the parties fail to agree to resolve the dispute, the same will be resolved in accordance to the Law, secondary legislation and relevant regulations.

PROVISIONS FOR UNFORESEEN CIRCUMSTANCES

Article 53

Provisions for unforeseen circumstances

In emergency circumstances requiring immediate action, NOSBiH may deviate from Market Rules about which it shall promptly notify SERC.

TRANSITIONAL AND FINAL PROVISIONS

Article 54

Provisions on the Effective Date and Application of Market Rules

These Market Rules shall come into effect on the eighth day from the day SERC issues the decision on their approval. These Market Rules shall start to apply as decided by SERC in its decision on approval.

After the Market Rules enters into force all supporting documents shall be made available on NOSBiH website.