

Public Disclosure Authorized

# Final Draft ABM rules\_new\_FINAL (1)

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# 1 GENERAL CONDITIONS

## 1.1 PURPOSE AND OBJECTIVE

### 1.1.1 Purpose

1.1.1.1 Purpose of the Albanian Balancing Market (ABM) Rules is to:

- a. Establish the market-based management in balancing of the Power system operated by the Transmission System Operator,
- b. Define the relations between the market participants on the balancing market,
- c. Enable clear balance responsibilities for market participants ,
- d. Prescribe the rights and responsibilities of balance service providers,
- e. Create a mechanism for determining the price of balancing services procured by the TSO as well as the mechanism for calculating imbalance settlement price and financial settlement of imbalances of Balance Responsible parties; and
- f. Other issues related to the balancing market operation.

### 1.1.2 Objective

1.1.2.1 Objective of the ABM Rules is to establish an efficient, transparent and non-discriminatory balancing mechanism that allocates balance responsibilities and incentivize market participants to perform balancing, as well as to offer balancing services.

## 1.2 CONVENTIONS AND GLOSSARY

### 1.2.1 Conventions

1.2.1.1 In this ABM Rules document, unless a clear contrary intention appears:

- a. The singular number includes the plural number, and vice versa;
- b. Reference to any gender includes each other gender;
- c. Reference to any document, or instrument means such document, or instrument as in effect from time to time in accordance with the terms thereof; provided that reference to the Market Rules means the Market Rules that is in effect on the date when the ABM Rules are adopted;
- d. References to any legislation include references to any statutory modification or re-enactment of such legislation and any legislation substituted for that legislation; and
- e. References to documents or instruments shall be deemed to refer as well to all addenda or amendments thereto.

1.2.1.2 In these ABM Rules :

- a. All times - shall be Albanian local time.
- b. Currency – Currency used in ABM Rules shall be in Euro since the organized ex-ante electricity markets are cleared on this.
- c. Units – All technical units are expressed in the International System of Units (SI). Generation, transmission and consumption of electrical energy is expressed in kWh (MWh, GWh), similarly generation, transmission and consumption of reactive energy

is expressed in kVARh (MVARh). Capacity or demand or Power is expressed in kW (MW).

### 1.2.2 Glossary

aFRR	Automatic Frequency Restoration Reserves
BRP	Balance Responsible Party
BSP	Balance Service Provider
Control Area	LFC control area
Control Block	LFC control block
DSO	Distribution System Operator
DS	Demand Side
EBGL	European Electricity Balancing Guidelines
ENTSO-E	European Network of Transmission System Operators for Electricity
ERE	Electricity Regulatory Authority
FCR	Frequency Containment Reserves
FRR	Frequency Restoration Reserves
ID	Intraday or Incremental/Decremental
IDM	IntraDay Market
ISP	Imbalance Settlement Period
KESH	Albanian state owned producer
LFC	Load Frequency and Control
LFC&R	Load frequency Control and Reserves Code (now part of SOGL)
Lmax	Peak vertical load in the system
LRR	Last resort Reserves
mFRR	Manual Frequency Restoration Reserves
OSSH	Albanian Distribution System Operator
OST	Albanian Transmission System Operator
PX	Power Exchange, organising the day-ahead and intraday market
RR	Replacement Reserves
SOGL	System Operations Guideline
TSO	Transmission System Operator

## **2 LEGAL BASIS**

2.1 The Power Sector Law, no. 43/2015, as amended, defines “balancing” as all actions and processes through which the Transmission System Operator (TSO) operates and maintains the system frequency within predefined stability range. The Balancing Market is defined as market-based management of the functions of balancing of the power system operated by the TSO.

2.2 The ABM Rules were developed as a complementary document to the Market Rules, by virtue of the Power Sector Law, which envisages that the Market Rules will encompass electricity balancing: Article 51.1.b, 51.2.c, Article 98, 99.2 & Article 3 Definitions (59).

2.3 The ABM Rules are based on the principles of equal treatment of all market participants and non-discrimination and transparency in communication and conduct between TSO and market participants (including BRPs and BSPs). In the case of any inconsistency between the provisions related to balancing, set under these ABM Rules and Market Rules, these rules shall prevail.

## **3 GOVERNANCE**

### **3.1 Adoption of the ABM Rules**

3.1.1 Pursuant to the Article 98 of the Power Sector Law, ERE upon proposal of OST and in collaboration with all participants of the electricity sector, shall adopt the Electricity Market Rules, including the rules for planning, dispatching, balancing, settlement of disputes and requests for reserve management.

3.1.2 This Albanian Balancing Market Rules shall be considered as the Balancing Market part of the Market Rules foreseen in the Power Sector Law and therefore follow the above-described development and approval process.

### **3.2 Effectiveness of the ABM Rules**

3.2.1 The ABM Rules becomes effective on the day of its adoption by the Board of ERE. With due regard to Article 2 of the Decision 519 dated 13/7/2016 on the Approval of The Electric Power Market Model, and Article 100.3 of the Power Sector Law no. 43/2015, as amended, ERE shall issue a decision which revokes the “Transitional rules for electricity balancing mechanism” at the time when ABM Rules enter into force.

3.2.2 The ABM Rules shall be published on the web site of ERE and OST.

### **3.3. Modification of the ABM Rules**

3.3.1 The ABM Rules may be modified based on the request of any market participant to the TSO, by the TSO itself, or by ERE, based on justified reasons. The TSO shall establish a Committee responsible for amendments of the Rules, which may initiate modification of the ABM Rules and the TSO will formally submit the proposed modification to ERE.

3.3.2 The modification process follows the same procedure as for adoption of the Balancing Market Rules: the proposed modification is submitted by the TSO to ERE for approval or initiated by ERE after consultation with the TSO.

3.3.3 By exception to the general modification process which is described in the preceding paragraph, an “Initial Review Process of the application of the ABM Rules” is initiated two months after the conclusion of one year of ABM go-live. This is effected by the submission from the TSO to ERE of a report summarising the experience gained so far with the implementation of the ABM rules. This shall include a record of ABM market participants complaints and/or remarks in addition to the issues identified by the TSO complemented with the respective remedial actions. Upon consultation organised by ERE, amendments to the ABM rules may be prepared and implemented in the second year upon enactment of the ABM rules.

#### **3.4 Dispute settlement procedure in the ABM Rules (and in BRP and BSP Agreements)**

3.4.1 In case of dispute, the parties subject to dispute will try to resolve their dispute amicably, through negotiation or any other amicable solution.

3.4.2 In the case that dispute cannot be solved through amicable resolution, the Party/Parties may submit their dispute to ERE in accordance to the Regulation for handling of complaints submitted by clients and for solving disputes between licensees in the electricity sector and natural gas (ERE Board decision no. 114, dated 8.7.2016).

#### **3.5 Procedure and conditions for establishing fines**

3.5.1 The ERE monitors performance of the market players and may impose fines, in accordance to the “Regulation regarding the conditions and procedures of establishing fines”, as foreseen in the Article 107.4 of the Power Sector Law.

#### **3.6 Other governance elements**

3.6.1 Other issues that are not covered in this ABM Rules, such as: code of conduct, confidentiality issues and other governance, shall be applied in accordance to the provisions of the applicable Market Rules.

## **4 SCOPE**

### **4.1 Roles & Responsibilities**

#### **4.1.1 OST**

4.1.1.1 OST is the Transmission System Operator in Albania, who is responsible to maintain the system security. One of the system security criteria is the system balance. In order to maintain this, the TSO shall be responsible for procuring balancing services from balancing service providers (BSP) in order to ensure operational security.

4.1.1.2 The TSO is responsible to minimize the procurement cost of the balancing service by contracting and activating the most cost-efficient reserves. Yearly, the TSO has to dimension the size of the balancing reserves needed.

4.1.1.3 The TSO shall apply a self-dispatching model for determining generation schedules and consumption schedules.

4.1.1.4 The TSO is obliged to keep its regulated financial neutrality by wheeling the net results for balancing services through next year's tariff.

4.1.1.5 The complete needed balancing reserve volume is procured in a market-based, transparent, and non-discriminatory manner.

4.1.1.6 If it is confirmed that the BSP no longer complies with the prequalification conditions, the TSO will notify the BSP via a registered letter about the issue. When the BSP does not react on the registered letter within 15 days after reception of notification, and the BSP remains incompliant with the conditions, the TSO is allowed to terminate the BSP Agreement without prior approval by a court of law. This implies, after termination, that if the BSP wants to offer the service, he must re-apply via the prequalification procedure and sign a new Agreement with the TSO, subject to compliance with said conditions.

4.1.1.7 The TSO is entitled to evaluate, at any time during the validity period of the BSP Agreement, whether the BSP complies with the terms and conditions mentioned in the BSP Agreement. For the avoidance of doubt, this does not entail the right for the TSO to physically access BSP's assets, but is, without prejudice to any other regulation, i.e. the Grid Code, regarding access the BSP's connection installations. If it is confirmed that the BSP no longer complies with these conditions, the TSO will notify the BSP via a registered letter. Within 15 days, the BSP shall prove that remedies are undertaken. If this is not the case, the BSP Agreement will be suspended for 30 days. After the suspension period, the TSO evaluates again BSP's conformity to the conditions. If the conformity is restored, the suspension is cancelled. If not, the BSP Agreement is terminated. After termination, if the BSP wants to offer the service, he must re-apply via the prequalification procedure and sign a new BSP Agreement with the TSO, subject to compliance with said conditions.

4.1.1.8 By 12 months after entry into force of the ABM Rules, the TSO shall develop a prequalification process and shall make publicly available the details of the prequalification process.

4.1.1.9 The TSO has the right to abort the Prequalification Tests at any time if it jeopardizes Transmission Grid or any Distribution Grid security. In the case the TSO decides to abort the Prequalification Test, the TSO shall inform the BSP of a new Prequalification date upon the system security has been stabilized.

4.1.1.10 The TSO has the right to reject Capacity Bids that are not in line with the rules and obligations set forth by the TSO in this ABM Rules and in accordance to the the terms and conditions set forth in the BSP Agreement.

4.1.1.11 In case of observation of a behaviour that might prejudice Market Rules and/or fair competition between parties, and after consultation with ERE, the TSO reserves the right to exclude the BSP from future procurements.

#### **4.1.2 BSP**

4.1.2.1 BSPs are market participant with reserve-providing units able to provide balancing services to the TSO.

4.1.2.2 A potential BSP (also called as BSP candidate) shall submit a formal application to the TSO together with the required information of the potential balancing reserve providing technical units. Within 8 weeks from receipt of the application, the TSO shall **confirm** whether the application is complete. Where the TSO considers that the application is incomplete, the candidate BSP shall submit the additional required information within 4 weeks from receipt of the request for additional information. Where the BSP candidate does not supply the requested information within that deadline, the application shall be deemed withdrawn. Within 3 months from confirmation that the application is complete, the TSO shall evaluate the information provided and decide whether the potential Reserve Power providing units meet the criteria for a prequalification.<sup>1</sup>

4.1.2.3 TSO shall verify in a BSP prequalification the legal, information-technical, communicational, organizational, and financial capability of the BSP. One important criterion in the self-dispatch approach is that the BSP has to have a contract with a BRP with full recognition, and the balancing energy delivery is assigned to a BRP portfolio. The candidate BSP shall pass an administrative communication test that includes all types of information exchanges between the BSP and the TSO, including the messages for bidding, for acceptance, for handshaking, for settlement. and to prove its financial robustness.

4.1.2.4 The TSO will check the generating sources portfolio of the BSP whether the BSP can theoretically provide the balancing capacity for a specific product over an entire contracting period as it is stated in the application. The prequalified BSP will get a BSP designation.

4.1.2.5 The qualification of BSP units can be re-assessed:

- a. In case the technical or availability requirements or the equipment have changed;
- b. In case of modernisation of the equipment related to Reserve Power activation.

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<sup>1</sup> Source: COMMISSION REGULATION (EU) 2017/1485 of establishing a guideline on electricity transmission system operation

Subsequently, the designated BSP will sign a BSP Agreement with the TSO. The BSP Agreement is defining all the Terms and Conditions between the BSP and the TSO.

4.1.2.6 If it is confirmed that the BSP no longer complies with conditions of the prequalification procedure, the TSO will notify the BSP via a registered letter. If after 15 working days upon reception of notification the BSP remains uncompliant with conditions for prequalification, the BSP Agreement will be terminated. After termination, if the BSP wants to offer the Service, he must re-apply via the Qualification Procedure and sign a new BSP Agreement for the Service with the TSO.

4.1.2.7 Once the BSP Agreement is signed, the BSP and the TSO shall agree on a list of technical units that are used to provide the balancing service. All the technical units in the list have to pass the technical unit prequalification that proves their capability to meet the technical and organizational requirements defined by the TSO. Designated BSPs without completing a technical unit prequalification are not allowed to participate in the auctions. The unit prequalification includes:

- a. Successful completion of a SCADA Communication Test, and
- b. Successful completion prequalification tests (for the Technical Unit meeting technical requirements).

4.1.2.8 The prequalified Reserve Power volume of the technical unit can be equal at most to the maximum volume the BSP can offer in auctions. The result for a successful unit prequalification is a license for the prequalified unit.

4.1.2.9 Each BSP shall inform the TSO, as soon as possible, about any changes in the actual availability of its technical unit relevant for the results of prequalification.

4.1.2.10 All the related costs for prequalification are covered by the candidate BSP. This could include all the variable costs for the demonstration like fuel, organisation, etc.

4.1.2.11 The BSP shall undergo prequalification tests once again if the BSP:

- a. Prequalifies his technical units for a new Service Product with other requirements (FCR, aFRR);or
- b. Increases his already prequalified volume.

4.1.2.12 Before entering the capacity auction, the BSP shall sign with TSO auction framework agreement which sets the auction-specific terms and conditions between the BSP and the TSO.

4.1.2.13 Each BSP shall submit to the TSO its balancing capacity bids that affect one or more BRP. Each BSP participating in the procurement process for balancing capacity shall submit and have the right to update its balancing capacity bids before the gate closure time of the procurement process.

4.1.2.14 Once the BSP wins the capacity auction, it will get a BSP capacity contract. The BSP capacity contracts shall contain the specific value balancing reserve capacity in MW, the contracting period, the capacity price, as well as further detailed rights and obligations of the respective BSP.

4.1.2.15 Every BSP with a contract must offer the contracted volume at a free activation price. They should also offer additional volumes beyond the contract obligation for the free activation. Every BSP without a contract may offer at free activation price.

4.1.2.16 The BSP shall not transfer their contractual obligations between themselves, as a strategy to avoid penalty payments.

### **4.1.3 BRP**

4.1.3.1 BRPs are market participants themselves or their chosen representative for being responsible for its imbalances.

4.1.3.2 All nominations from the BRP have to be at a neutral net position. Prior to the intraday cross-zonal gate closure time, each BRP may change the schedules required to calculate its position. The BRP shall behave according to the nomination to avoid imbalances which is the difference between the nominated and the realized grid exchanges. Each BRP shall be financially responsible for the imbalances to be settled with the TSO. Subject to the TSO's approval notified by email, especially for the reason of the grid security, the BRP has the right to deviate from the unit schedules.

4.1.3.3 The BRP shall at all times deploy all reasonable measures in order to behave according to its nomination or to help maintain the system balance by:

- a. The injection and/or off-take position(s) at Connection Points for which the BRP is responsible in accordance to the related Connection Agreements;
- b. The injection and/or off-take position(s) on distribution network(s) other than the TSO grid (i.e. Connection Points for which the BRP is responsible in accordance to the relevant contracts applicable on distribution network(s) taking into account the allocation method used by the relevant DSOs);
- c. Its import and export nomination(s); and
- d. Its internal transfers of energy nomination(s) to other BRPs within the control area of the TSO.

## **4.2 Obligations on all Connected Parties**

### **4.2.1 Obligation to ensure accountable measurements at the designated exchange point(s) with the grid or have an agreement with the connecting party (TSO or DSO) on how these exchanges are determined alternatively**

4.2.1.1 The Connected Parties are obliged to ensure accountable measurements at designated exchange point(s) as described in Chapter VII of the Grid Code (Article 195, para 10), as well as in Chapter II of the Metering code and the Distribution Code (Article 4.6.8) for transmission and distribution network users respectively.

#### **4.2.2 Obligation to designate a Balance Responsible Party (or be it themselves).**

4.2.2.1 In reference to the Article 99 of the Power Sector Law No. 43/2015 a Connected Party can either carry balance responsibility himself or outsource this to a third party (BRP) Each connection point has to be designated to a BRP, either to the connected party himself, or to another BRP. The TSO may rely on the Connection Register to identify whether a Connection Points is represented by a BRP. In this case, the TSO will allocate the measured values accordingly to the BRP's balance account.

4.2.2.2 A BRP may be any other natural or legal person meeting the BRP criteria defined by the TSO, including electricity producers, major consumers, BSPs, traders, etc.

## **5 SYSTEM BALANCING**

### **5.1 Specification of measures to be taken by the TSO in case of system imbalance**

#### **5.1.1 Prevent balancing actions against balancing actions by foreign TSOs within the same synchronous area (imbalance netting)**

5.1.1.1 The TSO shall coordinate with the neighbouring TSOs in order to apply an imbalance netting process according to SOGL Article 145.1 and in line with EBGL, following ENTSO-E initiatives. Imbalance netting helps to avoid simultaneous aFRR and/or mFRR activation in opposite directions by TSOs of two different LFC areas.

5.1.1.2 The TSO shall conclude the necessary agreements in accordance to Article 141 of the Grid Code and implement the processes in accordance to Article 158 of the Grid Code.

#### **5.1.2 Measures and order in which they must be applied**

5.1.2.1 The TSO is responsible for the dimensioning , tendering, contracting, and activation of balancing services in order to maintain the system balance. In case of system imbalance, the TSO is entitled to activate balancing services from the contracted BSP until the system balance is restored. The classification of the balancing services is described in Chapter 6, while the activation process in Chapter 9 of this ABM Rules.

5.1.2.2 After all bids are exhausted, the TSO may consider cancellation of export programs to reduce the system imbalance. The TSO must establish and publish the procedure for this cancellation with respect to cross-border nominations of the BRPs concerned.

5.1.2.3 The next escalation step in the balancing measures is to force BSPs up- or down of which the TSO knows they have reserves available but did not bid for whatever reason. The generators concerned will receive the imbalance price for their contributions by default, pursuant to the provisions of the BSP agreement.

5.1.2.4 As a very last measure The TSO may force demand disconnections in accordance to the provisions of the Grid Code.

## **5.2 Balance responsibility**

### **5.2.1 Definition**

5.2.1.1 As the European Electricity Balancing Guideline stipulates, in real time, each BRP shall strive to be balanced or help the power system to be balanced. Furthermore, each BRP shall be financially responsible for the imbalances to be settled with the connecting TSO.

5.2.1.2 Balance responsibility entails the legal obligation on connected parties to submit schedules regarding the production, the transportation and the consumption of electricity according to requirements specified by the TSO and the DSO and to behave accordingly. The programs must contain nominated grid exchanges on each connection point and/or transactions with all other BRPs, separated between transactions within a bidding zone and transactions across a bidding zone border.

### **5.2.2 Recognition as Balance Responsible Party**

5.2.2.1 There are two types of BRP recognition: BRP with full recognition and BRP with trade recognition. BRPs with full recognition are those who carry balance responsibility on connection points on behalf of the Connected Parties and who are responsible for trades with other BRPs. An eligible party who is not carrying balance responsibility for any Connection Point may also acquire full recognition as a BRP.

5.2.2.2 BRPs with trade recognition are those who only carry balance responsibility on transactions with other BRPs. Although a trader has no connection points, ownership transfer of physical energy can only take place through nomination of transactions which shall only be done by a BRP.

### **5.2.3 Balance Responsibility Party Register**

5.2.3.1 The TSO is responsible for registration of a designated BRP in the BRP Register published on the TSO's web site or any equivalent as deemed necessary by ERE, and a BRP Agreement signed with TSO. The BRP Agreement sets out the terms and conditions in relations between TSO and BRPs.

5.2.3.2 Balance responsibility shall not be transferable to the TSO or the DSO in order to avoid conflict of interests with market responsibilities. The exemption is the situation when BRP ends his services without timely designation of a successor, and the TSO has to act temporarily as the BRP of the last resort until the successor is found. In such situation:

- a. The BRP is split up amongst the remaining BRPs according to described rules (which may be pro rata to the total capacity of connection points for which each BRP is responsible);

- b. Temporary execution of BRP by the TSO (until the split is concluded); obligation to inform the TSO and ERE; wheeling of the costs involved through the tariffs.

5.2.3.3 In order to register as a BRP, the BRP shall submit an application to the TSO in a form and in accordance to the deadlines specified by the TSO.

5.2.3.4 The application shall specify:

- a. The registered name of the Company that is applying
- b. Person contact information for the contract signature, for the nomination, for invoices;
- c. Sworn statement;
- d. Technical capacity of the BRP, that may be presented in a form of a summary of company's main electricity purchase and sale transactions in the past three years;
- e. a list of the European TSOs and/or DSOs for which they offer BRP services, or in other similar form .

5.2.3.5 In order to approve the application, the TSO shall verify that the applicant has the required expertise and technical, administrative and organisational facilities required to execute his rights as BRP including with respect to nomination, bidding and imbalance settlement. For such purpose the TSO shall further test facility for proper exchange of relevant electronic messages. Afterwards the TSO shall sign a BRP Agreement in which the BRP commits to fulfil his obligations related to:

- a. Collateral requirements, that may be fulfilled in the form of a bank guarantee, optionally (by choice of the BRP) supplemented by a deposit at the TSO
- b. Payment of any amounts debited as a consequence of the agreement (e.g. imbalance settlement amounts)
- c. Termination conditions.

5.2.3.6 In the case of earlier withdrawal of recognition as BRP

- a. The TSO shall ensure that the reasons for the earlier withdrawal do no longer exist and there is no suspicion that they will recur.
- b. The TSO shall announce the recognition as BRP and publish it on its web site. Such announcement shall contain Name, address and place of constitution of the BRP and the type of recognition (full or trade). The TSO shall inform the concerned BRP by email prior to the publication.

5.2.3.7 After announcement of successful application, the TSO shall register the BRP in a BRP register.

5.2.3.8 BRP Agreement enters into force one day after being registered in the BRP register. In the BRP register, the TSO shall register names, addresses, phone and fax numbers and

type of recognition of all recognized BRPs Relevant information on computer communication.

5.2.3.9 The TSO shall inform the BRP of the date of entry into the BRP register. A BRP has the right to consult the register and request correction of errors concerning his own balance responsibility. The TSO informs all BRPs and the DSO immediately of any change in the register.

5.2.3.10 Obligation on BRP with full recognition is to carry balance responsibility on the connection points as mentioned in the Connection Register. The Connection Register is a list of all physical connection points organized per connecting operator i.e. the TSO or DSO. (The Connection Register establishment and maintenance is a joint obligation of the TSO and the DSO whereas each of the TSO and DSO individually carry responsibility for updating the registry with information related to the parties with which they have entered into a Connection Agreement); In this respect, the TSO may rely on the Connection Register to assign connection points to the designated BRP.

5.2.3.11 The recognition as a BRP will be considered ended immediately, by termination of the BRP Agreement. In such case the TSO shall immediately inform the DSO and other BRPs and shall strike the recognition in the BRP register.

## **5.3 Energy Nominations Process**

### **5.3.1 Nomination process**

5.3.1.1 All BRPs are obliged to send their nomination before the gate closure to the TSO. The nomination includes all cross-zonal, inter-zonal trades, and intra-zonal grid exchange for each ISP of the day of transaction.

5.3.1.2 The required detailed information are specified by OST and documented in the Specification of Operational Rules, attached to this ABM Rules.

5.3.1.3 The BRP has to follow the nomination process and the respective gate closures that are defined by the TSO and described in the Specification of Operational Rules.

5.3.1.4 The TSO has to check the nominations of the BRPs regarding their consistency. The definition of consistency is provided in the Specification of Operational Rules. If the consistency of the nomination is given, the BRP will receive an approval from the TSO for their cross-zonal and intra-zonal nominations.

5.3.1.5 In case the electronic messaging system via a central postbox does not function or the BRP has temporarily no access to the system, an emergency procedure may allow BRPs to submit the nominations/re-nominations by way of regular e-mail, in a format specified by the TSO

## **5.4 Exchange process of measurement data**

5.4.1 Regarding the real-time data exchange between the SCADA systems of the BSP and the TSO, the TSO shall define a list of exchange information. This list is specified in the Specification of Operational Rules

## **5.5 Operational rules with respect to nominations and exchange of measurement data**

### **5.5.1 Rules with respect to nominations**

5.5.1.1 The BRP has the obligation to nominate to the TSO at 14:00 on the Day Ahead (D-1) his grid position (only BRPs with full acknowledgement), his transactions with other BRPs and the use of any long term transmission rights he possesses.

5.5.1.2 The BRP will use a pre-defined nominations template file indicated by the TSO. The submission of files will be done via a dedicated online platform that will be put in place by the TSO and by email as a backup solution to be used only in case of unavailability of the platform.

5.5.1.3 In the event of a forced outage, the BRP immediately notifies the TSO via email to the TSO's Real-Time Operations and Contractual contact persons. Additionally, the BRP submits a consequently modified intra-day nomination for his Units.

5.5.1.4 For each nomination in any direction, the BSP shall also provide, quarter-hour by quarter-hour, price Bids (in €/MWh) as specified in Chapter **Error! Reference source not found.**

5.5.1.5 After checking the validity of the nominations sent on D-1 by the BRP to the TSO and any corrections, the reserve nominations thus obtained will be subject to a cross-check for coherence between other ancillary service contracts concluded between the TSO and the BRP and, as the case may be, corrected. The granularity of these nominations is 15 minutes. Nominations can be updated in intraday at latest 45 minutes before the beginning of the first quarter hour concerned by the update.

5.5.1.6 The BRP must prove its capability to send and receive all the electronic messages that are defined for the different business processes. This is part of the registration process for BRPs. Without a successful completion of the messages testing, a BRP is denied registration (and the subsequent contract).

5.5.1.7 The TSO and the DSO have the obligation to specify:

- a. The rules regarding message specifications for electronic data exchange,
- b. The procedures and specifications for the use of a central system to exchange electronic messages,

- c. Communication protocols for the daily information exchange, and
- d. The specifications for nomination messages and all related messages.

5.5.1.8 The TSO is the **exclusive administrator** of the central messaging system.

Requirements on user of central messaging system needs to be certified by the TSO for electronic data exchanges through this system.

5.5.1.9 Procedure in case user exchanges messages without the required certificate is:

- a. The TSO will send a warning mentioning that the message was ignored due to wrong certificate, also mentioning that a warning is logged at the TSO, finally mentioning risk of right removal in 2 weeks if user did not resend a message with the correct certificate within these 2 weeks,
- b. warning is logged & stored at the TSO (kept as trigger for withdrawal of rights process) ,
- c. If certificate is not received within 2 weeks from the warning sent by the TSO, effectively this shall mean no nominations and no measurements can be submitted as it will be considered as withdrawal of rights to use the central messaging system.

## 5.5.2 Rules with respect to measurement data exchange

5.5.2.1 Meter Responsible Party collects metering values per Connection Point and submits preliminary values to the connecting TSO or DSO before 10h00 on the next working day and validated final values within 10 working days after the day of operation.

5.5.2.2 The TSO and DSO combine this with the responsible BRP per Connection Point. DSO forwards the metering information per BRP to the TSO. DSO also determines the metering values of all profiled customers per BRP and per ISP and forwards this to the TSO.

5.5.2.3 As a result, the TSO has per ISP and per BRP the metered values on all Connection Points plus the metered values for their profiled customers.

## 5.6 Price of imbalance

5.6.1 The costs of reserve capacity procurement are wheeled through the tariffs. Any net result for the TSO from BRP and BSP settlement shall accrue to the next year's tariff. All other costs allocated to the TSO to develop, operate and maintain operational processes related to BRP registration, mutation, BRP of last resort provisions, imbalance settlement and alike., are wheeled through the tariffs

5.6.2 There are no exemptions for financial obligations of the BRP, nor on the obligation of Connected Parties to designate a BRP on Connection Points. Each connected party and each trading party has to designate a BRP. All BRPs receive in the next day (D+1) an imbalance bill.

5.6.3 BSP balancing energy prices are pay as cleared. The BSP is remunerated with the market-clearing price which is equal to the bid price of the most expensive bid accepted (in case of a capacity bid) or activated (in case of an energy bid). Subsequently, the imbalance price calculation is based on the BSP balancing energy prices. The imbalance price for shortages is always higher than or equal to the highest balancing energy price for upward activation; the imbalance price for shortages is always lower than or equal to the lowest balancing energy price for downward activation. Further details are described in the annex "Specification of Operational Rules" of the ABM Rules.

5.6.4 The TSO shall publish provisional imbalance prices on the next working day and final imbalance prices, as well as final net imbalance volumes, normally within 10 working days after the day of operation.

## **5.7 BRP collateral requirements**

5.7.1 As a suspensive condition for entering into the BRP Agreement, and at the latest by the valid signature of the BRP Agreement, the BRP shall provide the TSO with a guarantee that complies with the conditions both for the entire term of the BRP Agreement and for the entire duration of execution of all the financial obligations arising from its participation to the electricity balancing market.

5.7.2 The guarantee is a security for the requested and punctual execution of all the obligations arising from the BRP's participation to the electricity balancing market, including, but not restricted to, the payment for Imbalance and/or external inconsistencies.

5.7.3 The guarantee may take the form of a bank guarantee at first request issued by a financial institution or of a cash payment to the TSO.

5.7.4 A BRP is entitled to use different guarantee during the time of BRP Agreement validity. Each guarantee must have an initial term of at least one calendar year and shall be renewed in time by BRP, in order to keep the required security both for the entire term of the BRP Agreement, and for the entire duration of execution of all the financial obligations arising from the Agreement.

5.7.5 At the end and/or termination of the BRP Agreement for whatever reason, the TSO shall return the guarantee to BRP on condition that the BRP has fulfilled all its obligations arising from the Agreement.

### **5.7.6 The financial guarantees differ depending on the type of BRP:**

5.7.6.1 For BRPs with trade recognition

- a. The size of the collateral for a BRP is derived from the highest net transaction volume in MWh of that BRP with any other BRP during one natural day;
- b. For the beginning of the ABM implementation, the size of the collateral for a BRP is derived from the expected highest net transaction volume of that BRP with any other BRP during one natural day, with a minimum of 50 MWh;
- c. The amount of the required collateral is equal to twice the size as mentioned under point a), or respectively b) multiplied by the average day ahead market price for electricity over the 3 months prior to the determination of the collateral;

In case the highest net transaction volume surpasses more than incidentally the amount on which the collateral has been based, the BRP will raise its posted collateral on request of the TSO where the new collateral is based on the highest net transaction volume during one natural day, observed over the preceding 6 weeks. In case the highest net transaction volume is structurally lower than the amount on which the collateral has been based, the TSO will allow on request by the BRP a lower collateral amount, where the new collateral is based on the highest net transaction volume during one natural day, observed over the preceding 6 week.

#### 5.7.6.2 For BRPs with full recognition

- a. The size of the collateral for a BRP will be derived from
  - i. The highest net transaction volume in MWh of that BRP with any other BRP during one natural day (for the first time based on expected values with a minimum of 50 MWh)
  - ii. The total transmission capacity on the connection points for which he carries balance responsibility
- b. The amount of the required collateral is equal to twice the size as mentioned in a. i, multiplied by the average market price for electricity over the 3 months prior to the determination of the collateral. This is collateral amount A.
- c. The transmission capacity as mentioned under point a) ii) is determined by:
  - i. Number of connections in the class 2-10 MW multiplied by the lowest capacity occurring in that class
  - ii. Number of connections in the class 11-25 MW multiplied by the lowest capacity occurring in that class
  - iii. Number of connections in the class 26-50 MW multiplied by the lowest capacity occurring in that class

- iv. Total capacity of connections > 50 MW, where individual connection capacities are used
- d. The total transmission capacity thus determined is multiplied by 24, where the result, if lower than 50 MW increased to 50 MW, is subsequently multiplied with the average market price over the three months prior to the determination of the collateral. This is collateral amount B.
- e. The collateral that must be posted by the BRP is then determined as follows:
  - i. If  $(2*A)>B$ , the amount of collateral to be posted is  $2*A$
  - ii. If  $(2*A)\leq B$ , the amount of collateral to be posted is  $A+B$
- f. For adjustment of collateral requirements, the same applies as for BRPs with trade recognition (see the previous paragraph point d) and e))

## **5.8 Invoicing and settlement for BRP**

### **5.8.1 Invoicing**

5.8.1.1 Any credit note sent by the TSO to BRP shall represent a provisional payment, subject to the deduction of an account. This deduction is realised on the next working day, in the form of an invoice or a credit note and takes into consideration corrections and information sent to the TSO in the meantime.

### **5.8.2 Imbalance bill**

5.8.2.1 The TSO shall define an initial account of the Imbalances of BRP for each quarter-hour, in the following working day, after the TSO has collected all approved nominations for take-off and feed-in per connection point, for inter-zonal transaction with other BRPs, and for cross-zonal transaction per zone border.

5.8.2.2 Adjustment relates to the final account and is only possible after the data of the offtake, the feed-in, the inter- and cross-zonal transaction, and the ancillary services activation data are final in accordance with the processes in place.

5.8.2.3 The invoice is sent out according to daily cycle.

### **5.8.3 Payment deadline**

5.8.3.1 The BRP shall pay invoices net without discount to the TSO within seven (7) days following their receipt, which is considered to have taken place three (3) days after the date on which they were sent.

5.8.3.2 If TSO does not receive payment of all or some of the amounts covered by the invoices within ten (10) days of the invoice being sent, the TSO shall have the right to charge late-payment interest and without giving notice of default. The interest shall be due from the 10th day after the date on which the invoice was sent, up to the date when it is paid in full. The reference for the interest is the average base interest from the previous Week W-1 published by the Albanian National Bank.

5.8.3.3 The TSO shall send a notice of default to the BRP between the 11<sup>th</sup> and the 15<sup>th</sup> day after the day the invoice was issued. The currency used for the invoicing and settlement is Euro.

5.8.3.4 The TSO shall be entitled without prejudice to its right to compensation for legal costs in accordance with the Albanian Civil Code and legislation in force in Albania through all proceedings including those before court. The stipulations listed above do not detract from TSO's other rights in accordance with applicable laws and regulations, and the provisions in the terms and conditions.

#### **5.8.4 Objections**

5.8.4.1 Any objection regarding an invoice must, in order to be admissible, be sent by the BRP in form of registered letter before the 10th day after the invoice was sent. The BRP shall describe the reasons for his objection as comprehensibly and in as much detail as is reasonably possible.

5.8.4.2 An objection in no way releases the BRP from his obligation to pay the invoice.

5.8.4.3 If the BRP has paid a disputed invoice in full in accordance with this stipulation and it appears with hindsight that the objection formulated in accordance with this stipulation was justified, the BRP shall have the right to claim back any sums paid that were not due.

#### **5.8.5 Modalities for collecting any unpaid sums**

5.8.5.1 If the invoice is not paid within seven (7) days by the BRP after receiving an official notice of default sent by the TSO, which is considered to have taken place three (3) days after it was sent [10 days in total as referred to in paragraph 1 of art. 5.8.3], the TSO shall have the right to call in the financial guarantee as stated in the auction contractual terms and conditions, without prejudice to the application of the foregoing provisions. The measures for collecting unpaid sums shall be applied by the TSO according to the legislation applicable in Albania.

### **5.9 BRP mutation process**

#### **5.9.1 BRP ends his services**

5.9.1.1 Involved Connected Parties and Suppliers shall be informed in time and given enough time to find an alternative BRP. In case no alternative BRP is found in time, a BRP of last resort shall be in place.

5.9.1.2 A BRP wanting to end his services shall, at least thirty (30) working days before entry into force, inform all Connected Parties or their Suppliers or both (in case the connection is larger than e.g. 3x80A) and the connecting TSO or DSO of the intended ending of his services. If the connection is at DSO level, the TSO shall be informed as well.

5.9.1.3 The TSO shall register BRP's end of service in the BRPregister.

5.9.1.4 The Connected Parties involved or the Supplier representing the Connected Parties shall inform the TSO of the BRP(s) who will take over from the BRP that ends his services.

5.9.1.5 In case of no timely designation of the BRP successor on any of the Connection Points concerned:

- a. The balance responsibility on the Connection Points concerned is distributed over the remaining BRPs with full recognition according to specified rules. This could be on the basis of e.g. historical volumes on the connection points they carry balance responsibility for.
- b. If needed, the TSO temporarily takes over the BRP role on the Connection Points concerned and informs the Connected Parties concerned and ERE accordingly (BRP of last resort, see also paragraph 5.9.3). The costs for this temporary BRP role shall be wheeled through the tariffs.

## **5.9.2 Change of BRP on a connection point**

5.9.2.1 Within 5 working days before entry into force, a Connected Party shall inform the connecting TSO or DSO of a change in BRP on one or more of his Connection Points. This information must be accompanied by a declaration of the BRP concerned that he has accepted this responsibility. If this declaration is missing, the connecting TSO or DSO denies the transfer. Otherwise, the transfer is registered in the Connection Register.

## **5.9.3 BRP of last resort**

5.9.3.1 In case a BRP ends his services without timely designation of a successor, the balance responsibility on the Connection Points concerned shall be split over the remaining BRPs according to a described key. This split may be based on the total size of the connection points per BRP. The TSO shall inform the BRPs concerned immediately including the time that they are given before reallocation takes effect.

5.9.3.2 There shall be a BRP of last resort to temporarily take over the BRP's tasks as long as reallocation of the balance responsibility has not taken effect. At the moment this role is given to the DSO and there is no urgency to change this before go-live of the Albanian Balancing Market. However, in the long run and when the scope of public service supply for the DSO reduces, there may be a need to pass this role over to the TSO.

## 6 PRODUCT DEFINITIONS

### 6.1 List of products

6.1.1 The commitment of resources to maintain the grid frequency at an acceptable level is organised across the four balancing products presented in this section. The BSP is the operator of the technical units providing any one of these three frequency control services. A short overview of the main relevant information regarding each product is presented in the table below:

Product	dimensioning	indicative volume required	capacity contracting	contracting period	capacity pricing	balancing energy pricing
FCR	yes	6	annual	1 year	pay as bid	none, provided energy will be settled as imbalance
aFRR	yes	45	weekly	1 week	pay as bid	pay as cleared (aFRR + mFRR)
mFRR	yes	105	weekly	1 week	pay as bid	pay as cleared (aFRR + mFRR)
emergency reserves	no	N/A	annual	1 year	pay as bid	pay as bid

## 6.2 FCR

(Primary reserves)

6.2.1 In the case of frequency deviation Frequency Containment Reserves, also known as Primary Control Reserves are activated. FCR are the operating reserves necessary for constant containment of frequency deviations from nominal value in order to maintain the instantaneous power balance in the whole synchronously interconnected system in Europe. The purpose of FCR activation is the stabilization of the system frequency as quickly as possible in order to avoid the system imbalance spiralling out of control.

6.2.2 FCR is activated both on upwards and downwards direction. The general definition of upward and downward regulation for all balancing products is the following. Under-Frequency reflects the situation when the injections are lower than off-takes so that additional injection or less off-take is needed to balance the system. Downward regulation is undertaken in case of over-frequency. Over-frequency implies that injections are higher than off-takes so that less injection or more off-takes are needed.

6.2.3 The FCR contracted capacities are continually activated automatically by the BSP's facilities. Thus, the BSP's technical unit needs to be equipped with a frequency control system. The system has the task to detect frequency variations in the grid automatically and react to them by activating the frequency control reserve function. The FCR shall be fully available in the entire contracting time. For a maximum frequency deviation, the FCR providing unit needs to activate half of the contractual capacity within 15 seconds and the full capacity after 30 seconds. After reaching the full capacity, the FCR shall stay activated for at least 15 consecutive minutes.

## 6.3 aFRR

(Secondary reserves)

6.3.1 The main purpose of aFRR is to continuously and automatically restore balance in the control area (LFC control block) within the time to restore frequencies. It is also known as R2. In doing so, aFRR progressively replaces the activated FCR and it brings the net physical exchange over the LFC block borders, blocked for primary reaction, back to the scheduled value.

6.3.2 Yearly, TSO dimensions the volume of aFRR capacity based on the empiric noise management sizing approach. This aFRR dimensioning approach mainly considers the maximal forecasted load of the system over the entire year.

6.3.3 The aFRR is activated upwards or downwards automatically depending on the state of the imbalance (short or long respectively). In case of activation, a signal is transmitted by the TSO's dispatching centre to the BSP's dispatching centre with a setpoint resulting in an increase or decrease in the power injected. The activation process must ensure that the full reserve can be delivered upon the TSO's request within 7.5 minutes as stated in the detailed requirements.

6.3.4 The aFRR is operated in a closed-loop manner taking the Frequency Restoration Control Error (FRCE) as input and the setpoint for aFRR activation as output. The FRCE is equal to the Area Control Error (ACE) which describes the deviation between the real interchanged power between the relevant LFC area with the neighbouring LFC areas and the scheduled interchanging power due to the activation of the shared FRR capacity. The activation of aFRR aims to lead to reduction of the FRCE toward zero.

6.3.5 The setpoint for aFRR activation shall be calculated by a single Frequency Restoration Controller operated by the TSO within its Load Frequency Control (LFC) area. The Article 145 of the European Electricity Balancing Guidelines on transmission system operation establishes the following requirements on the frequency restoration controller. It shall:

- a. Be an automatic control device designed to reduce the FRCE to zero;
- b. Have proportional-integral behaviour;
- c. Have a control algorithm which prevents the integral term of a proportional-integral controller from accumulating the control error and overshooting;
- d. Have functionalities for extraordinary operational modes for the alert and emergency states.

6.3.6 aFRR must be controllable by the TSO's LFC. The real-time power measurements must be made available for monitoring purposes by all BSPs.

6.3.7 The TSO shall secure availability of a minimum required quantity of aFRR balancing capacity per ISP through contracts with BSPs for all ISPs of a defined contracting period. These BSPs thereby commit themselves to bid, for each ISP in the contract period, a volume of aFRR energy bids at least equal to the contracted amount of aFRR balancing capacity the aFRR activation process. Other parties may also bid their remaining available capacity for the balancing energy delivery commitment process as aFRR on a voluntary basis if they are in possession of pre-qualified aFRR reserve providing power units according to the technical requirements defined by the TSO. Balancing energy bids from contracted aFRR do not have any priority over voluntarily bids of aFRR balancing energy. The aFRR bid activation ladder is determined based on the merit order (from low to high) of the activation bid price.

6.3.8 BSPs shall submit their balancing energy bids via their BRP. The activated energy is registered in the portfolio of their respective BRP as an energy transaction between that BRP and the TSO.

6.3.9 The TSO can, after a documented warning, refuse balancing energy bids of aFRR from a BSP for an unlimited period. This may occur when the available operational measurement shows that this BSP is structurally unable to follow the aFRR control signals, or when the operational measurement signal is missing. The BSP can create a regulating object for aFRR by specifying the same regulating object name for one upward bid and one downward bid. The definition of a regulating object prevents the simultaneous activation and deactivation of the upward bid and downward bid which limits the total requested regulating speed.

## 6.4 mFRR

(Tertiary reserves, activation time  $\leq$  15 min.)

6.4.1 The mFRR reserves are manually activated power reserves that certain producers and large industrial customers make available to the TSO. The task of mFRR is the same as aFRR. mFRR takes herein a supplement role for aFRR when an unusual serious (large and systematic) imbalance occurs. An mFRR activation is also preferred when it is cheaper than the activation of aFRR.

6.4.2 Regarding the technical requirement, the full capacity activation and deactivation time of mFRR cannot be longer than 15 minutes. There are two types of mFRR:

- a. Production reserve, i.e. injecting additional power into the grid;
- b. Offtake reserve, i.e. reducing the amount of power taken from the grid by the user.

6.4.3 A BSP that signs an mFRR availability commitment contract for production reserves with the TSO undertakes to:

- a. Provide the TSO during the whole contracting period with a volume of delivery commitment bids for mFRR at least equal to the contracted amount ;
- b. Deliver according to the technical product requirements and delivery commitment bid parameters, on the TSO's activation requests. mFRR must be at full bid output within 15 minutes after the TSO requesting it.
- c. The TSO may only request activation of reserves for which a bid is provided and as long as it is needed.

6.4.4 The activation by the TSO shall be confirmed by the producer using an interface installed at the TSO and on the producer's premises.

## 6.5 RR

(Tertiary reserves, activation time  $>$  15 min.)

6.5.1 RRs are active power reserves available to replace generation units that suffer a forced outage, or to be used for congestion management purposes. In self-dispatch systems, RR should be exclusively deployed by the market to catch up generation outages. This generally requires the ID gate closure to be as close as possible to real-time. In this respect, RR with activation time longer than ID gate closure should not be used by OST for balancing. This remains market responsibility.

6.5.2 The reason for the activation of RR by OST should be thus limited to congestion situations that require efficient and appropriate pro-active management, on any time starting at initial bid gate closure on D-1 until final bid gate closure. The activation of RR happens manually like mFRR. The activation time of RR is by definition more than 15 min. The activation is also manual like for mFRR.

6.5.3 RR must be at full bid output at the start of the Imbalance Settlement Period where OST has requested it or within the full activation time (as specified in the bid) after OST requesting it, whichever is the latest.

## **6.6 Emergency Reserves (ER)**

6.6.1 Emergency reserves (ER) are a special kind of mFRR contracted with the demand side. ER shall be considered in case not enough volume of mFRR from generation assets can be contracted to cover the dimensioning requirements and/or as a back-stop for the market failing to timely activate replacements for outages. ER shall be kept separate from other aFRR and mFRR and only be utilized as a kind of “last resort reserves”.

6.6.2 The ER may be contracted on an annual basis. The ER contract shall include capacity obligations, capacity price and activation price. Similar as FCR, there is no delivery commitment auction. After the yearly contracting, the ER units can once again submit a bid in the capacity auction, or they declare non-availabilities.

6.6.3 ER are not subject to dimensioning requirements as such, but they are a substitute for mFRR and therefore the amount contracted will reduce the amount of mFRR to be contracted.

## **7 PREQUALIFICATION**

7.1 Before entering the balancing market, the BSP shall be registered and obtain pre-qualification certificate on the specific units aiming to be marketed for specific balancing service products. Furthermore, the BSP has to designate a BRP, who is responsible to keep the own balancing portfolio balanced.

7.2 As a prerequisite to access the auction, the BSP has to prove in the prequalification the capability of its technical units to supply the balancing services complying with all organizational, communication, and technical requirements defined and verified by the TSO. The prequalification process, the detailed technical requirements, and the test for each balancing service product are to be specified by the TSO and documented in the Specification of Operational Rules. All information regarding the prequalification has to be published by the TSO.

7.3 The prequalification result determines whether the units can supply the specific type of product, and what the maximum amount of the capacity is that the unit can provide for this specific product. The BSP has to prove not only the capability of its technical units to guarantee the stated availability over the entire contracting period, but also the capability to deliver the required response when these technical units are activated by the TSO for supplying balancing services.

## **8 AVAILABILITY AND DELIVERY COMMITMENT PROCESS**

8.1 The TSO is responsible for the procurement of balancing capacity in the availability commitment auctions and of the option for activating balancing energy delivery in the delivery commitment auction.

8.2 As the Single Buyer, the TSO shall develop standardized processes for the balancing service procurement. These processes have to be specified by the TSO and documented in the Specification of Operational Rules. The procurement process description includes the list of activities that have to be done by the TSO and the BSP, the specifications of each activity, and the timing of all activities. All these informations are also specified in the Specification of Operational Rules

8.3 The TSO has to publish the information regarding the procurement process and the result of all auctions on the website of OST.

## **9 ACTIVATION PROCESS**

### **9.1 FCR**

9.1.1 FCR is continuously activated, reacting on the observed deviations of the measured frequency with the target frequency. The standard frequency level is 50Hz but the target frequency can deviate slightly from that to correct for aggregated frequency deviations over time so called frequency time deviation). The target frequency for Continental Europe is set by Swissgrid. The TSO needs to inform FCR BSPs about any change of the target frequency so that they can set their primary controllers accordingly.

9.1.2 After primary reaction, which is a joint action by all FCRs in the entire synchronous system, the frequency needs to be brought back to the target level.

### **9.2 aFRR**

9.2.1 As a next step in the frequency control, the LFC control block causing the frequency deviation must restore its net position (=sum of import flows minus export flows, corrected for the primary response) to the scheduled net position (=sum of scheduled imports minus sum of scheduled exports). The balance between the two is called the system balance. This balance must be restored within TTRF (Time to Restore Frequency) which is set to 15 minutes in the CE synchronous system. This can only be done through a centrally coordinated process by the TSO: automatic activation of aFRR through the LFC system in combination with manual activation of mFRR by electronic messaging.

9.2.2 The TSO shall seek to minimize the total activation costs to restore the system balance. It has therefore the following decisions to make:

- a. How much of the offered FRR bids shall be given to the LFC system for automatic activation?

- b. What shall be the triggers to add more aFRR to the LFC or to activate mFRR instead?

One of the best practices approaches is as follows:

- a. **Nomination process**, giving the cheapest firm aFRR bids at least up to the required volume to the LFC for selection and activation. This nomination is done for every ISP right after bidding gate closure. The BSPs involved are informed that their bids are nominated for the LFC. Shall at some point in time almost all nominated bids be selected and activated and it is expected that the imbalance will pertain, there are two options from which the operator must chose the optimal one, considering activated volume, expected duration of imbalance, required control quality and resulting costs:
- i. More aFRR bids are nominated and thus added to the LFC or
  - ii. mFRR bids are activated (in bid price merit order) in order to replace activated aFRR

As a guiding principle, ii shall be preferred above i if the mFRR bids are cheaper and it is likely that the severity of the imbalance will remain for the current and the next ISP.

- b. **Selection process**, this is an automatic algorithm within the LFC that selects from the nominated bids as many bids in price merit order as needed to be activated in parallel in order to reach the required response. This process works in two directions: more bids are selected if more response is needed, less bids are selected if less response is needed.
- c. **Activation process:**
- i. All selected bids are activated in parallel (pro-rata)
  - ii. Bids that are activated by the LFC in one ISP but are no longer available or selected for the next ISP are regulated to zero respecting the regulating speed that was specified. Although this does create activated balancing energy for that bid in the next ISP, such bids shall not affect the activation price in the next ISP
  - iii. The amount of aFRR energy demanded in every LFC cycle is constantly monitored by the national LFC, and this information is recorded per bid and per five minutes for settlement purposes. Each BSP (or his acting BRP) is also expected to keep a record of the power activated by the TSO in order to facilitate checks on the exchanged information.

9.2.3 For each ISP, a standard amount of offered aFRR is nominated in price merit order equal to the dimensioning requirement. This is enough to regulate away the imbalance “noise”.

9.2.4 In addition aFRR bids up to 100% of the dimensioning requirement volume for mFRR could also be nominated, up to the point where nominated aFRR bids become more expensive than the cheapest mFRR bid.

9.2.5 Selection criterion for selection of bids by LFC is the available regulation speed from selected bids versus the required regulation speed as determined by the LFC. If this is higher, bids are deselected in reverse price merit order. If this is lower, bids are selected in price merit order.

9.2.6 When bids in LFC are activated during a certain period of time that are more expensive than the next available bid in the mFRR bid ladder, the mFRR bid shall be activated, if the risk of over-activation is minimal to the judgement of the system operator.

See **nomination process** specifications in the Specification of Operational Rules.

### **9.3 mFRR/RR with activation time $\leq$ 30 min.**

9.3.1 mFRR bids are used for large-scale and/or expected long-lasting imbalance. TSO initially detects large loss of production or load from the step wise increase of the imbalance comparable with the size of the outage. The TSO possibly also receives information from the involved market party with an estimate of the extent to which, and the time at which, the consequences of the outage are expected to be solved by the market party itself. In parallel the imbalance will be reduced automatically by the LFC with the available aFRR. If the remaining available aFRR falls below a threshold, and the expectation is that it will remain longer than several ISPs, then mFRR will be activated manually by the TSO until sufficient aFRR becomes available due to corrective actions of market players. Also the activation price can be a reason to activate mFRR when it is cheaper than longer activated aFRR. mFRR bids are activated for a minimum period of a full ISP and always to the full bid size.

### **9.4 Emergency reserves**

9.4.1 In case of contracted emergency reserves, these shall only be activated after submission of an urgent market message that there is an increased risk of activation of emergency reserves unless more upwards mFRR bids are provided. Such a message can already be broadcasted on the day ahead after the day ahead gate closure for reserve bidding if not enough aFRR and mFRR bids are available to cover the dimensioning requirements.

### **9.5 RR with activation time $>$ 30 min.**

9.5.1 Any bids for manually activated reserves with activation time larger than 30 minutes shall be categorized as “bids for other purposes”. The TSO shall only activate these bids for

reasons of congestion and security management of the grid. This requires these bids also to have a geotag.

9.5.2 If these bids are activated, they shall receive for remuneration of activation costs the highest of the bid price and the balancing energy price, but they shall not set the balancing energy price. Thus they must be tagged as activated for other purposes. Any counter-activated bids to maintain the balance shall not be tagged and can be settled like any other balancing bid (pay as cleared).

## **10 INVOICING AND SETTLEMENT FOR BSP**

10.1 For every volume of availability commitment awarded, the BSP will receive an order confirmation stating a purchase order number and the remunerations for the contracted Reserve Capacity (reservation).

10.2 Via a joint validation platform or other channel, the TSO will provide the BSP each next working day after day of operation a report relating to the record and monitoring of the balancing capacity availability and balancing energy delivery in the previous day. A weekly report consists of two parts. The first part obtains the sum of all the remunerations for contracted capacities and activated energies. The second part indicates all remuneration reductions as calculated by the TSO, also showing the method of calculation and all data on which the calculation is based.

10.3 If it appears subsequently that the calculated remuneration reduction is (are) incorrect, the first party to take action will inform the other party thereof as soon as possible. The Parties will then try to reach an amicable solution. In the absence thereof, the pre-defined dispute settlement procedure set forth in Section 3.4 shall apply.

10.4 BSP accumulates the values from the daily reports and sends invoices to the TSO's settlement department his weekly pro-forma invoice for the contracted balancing capacity and the delivery balancing energy within three working days after completion of a week (which ends on a Sunday).

10.5 The TSO shall either approve or reject the pro-forma invoice within 5 working days of receiving it. In accordance with the pro-forma invoice, the invoice may only be sent to the Invoicing & Payment department after the TSO has approved the pro-forma invoice.

## **11 MANAGEMENT OF INTERNAL CONGESTIONS**

11.1 The TSO shall have the obligation to use bids with activation times longer than 30 min. exclusively for congestion management.

11.2 The TSO shall have the right to limit freedom of transactions of Connected Parties (or their BRPs) in case of chance of recurrence of congestion (i.e. change of nominations involving connection points in the congested area in a direction increasing the congestion

are rejected). The TSO must inform the BRPs of the Connected Parties concerned accordingly.

11.3 Operational procedures for management of internal congestions shall be performed as it follows:

- a. The TSO or DSO shall declare the congestion area. A congestion area to be defined e.g. by the set of EIC codes of the connection points concerned. Changes of nominations involving connection points in the congested area in a direction that increases the congestion will be rejected. Transactions out of the area are no longer allowed if the export limits of the area are reached and transactions into the area are no longer allowed if the import limits of the area are reached. Nominations of such transactions shall therefore be rejected by the TSO.
- b. BSPs within a declared congestion area are obliged to bid up- or downwards reserves for internal congestion management to the TSO, the TSO can set the threshold level on technical unit capacities that fall under this obligation, e.g. lower it if not enough bids are received
- c. The TSO shall activate counterbalancing energy bids outside the congested area in case of bid activation within the congested area to manage the internal congestion

11.4 For imbalance settlement in a declared congestion area the TSO may define a different settlement regime that prevents perverse incentives on non-delivery of bids activated in the congested area to relieve the congestion. The TSO must publish the rules of such a regime as part of the specification of operational balancing rules.

## **12 ANNEXES**

**12.1 BSP agreement template (in a separate document)**

**12.2 BRP agreement template (in a separate document)**

**12.3 Specification of Operational Rules (in a separate document)**

**12.4 Determination of imbalance prices**

## 12.4 Determination of imbalance prices

1. Definitions
  - 1.1. Upwards regulation
  - 1.2. Downwards regulation
  - 1.3. Price for upwards balancing energy
  - 1.4. Price for downward balancing energy
  - 1.5. Incentive component
  - 1.6. Regulation state (of the system)
  - 1.7. Balance delta: proxy for system imbalance to be published in real-time by the TSO (open loop ACE)
  - 1.8. Mid-price: definition of the balancing energy price in case of no regulation
2. Specification of regulation states (per ISP)
  - 2.1. no upwards nor downwards regulation requested: regulation state = 0
  - 2.2. only upwards regulation requested: regulation state = +1
  - 2.3. only downward regulation requested: regulation state = -1
  - 2.4. both up- and downward regulation requested but the balance delta has been continuously non-decreasing: regulation state = +1
  - 2.5. both up- and downward regulation requested but the balance delta has been continuously non-increasing: regulation state = -1
  - 2.6. both up- and downward regulation requested but the balance delta has neither been continuously non-increasing nor continuously non-decreasing: regulation state = 2
  - 2.7. both up- and downward regulation requested but the balance delta has been continuously non-increasing and continuously non-decreasing: regulation state = 2
3. Specification of imbalance price
  - 3.1. Imbalance price in case of regulation state = -1 (system surplus)
    - a) If the BRP imbalance implies extraction from the grid (BRP shortage), the imbalance price is equal to the price for downward balancing energy plus the incentive component. In this case the BRP pays to the TSO
    - b) If the BRP imbalance implies feed-in into the grid (BRP surplus), the imbalance price is equal to the price for downward balancing energy minus the incentive component. In this case the TSO pays to the BRP
  - 3.2. Imbalance price in case of regulation state = +1 (system shortage)
    - a) If the BRP imbalance implies extraction from the grid (BRP shortage), the imbalance price is equal to the price for upward balancing energy plus the incentive component. In this case the BRP pays to the TSO
    - b) If the BRP imbalance implies feed-in into the grid (BRP surplus), the imbalance price is equal to the price for upward balancing energy minus the incentive component. In this case the TSO pays to the BRP
  - 3.3. Imbalance price in case of regulation state = 2 (dual system imbalance)
    - a) If the BRP imbalance implies extraction from the grid (BRP shortage) and the mid-price is higher than the price for upward balancing energy, the imbalance price is equal to the mid-price plus the incentive component. In this case the BRP pays to the TSO

- b) If the BRP imbalance implies feed-in into the grid (BRP surplus) and the mid-price is lower than the price for downward balancing energy, the imbalance price is equal to the mid-price minus the incentive component. In this case the TSO pays to the BRP
  - c) If the BRP imbalance implies extraction from the grid (BRP shortage) and the mid-price is not higher than the price for upward balancing energy, the imbalance price is equal to the price for upward balancing energy plus the incentive component. In this case the BRP pays to the TSO
  - d) If the BRP imbalance implies feed-in into the grid (BRP surplus) and the mid-price is not lower than the price for downward balancing energy, the imbalance price is equal to the price for downward balancing energy minus the incentive component. In this case the TSO pays to the BRP
- 3.4. Imbalance price in case of regulation state = 0 (no regulation)
- a) If the BRP imbalance implies extraction from the grid (BRP shortage), the imbalance price is equal to the mid-price plus the incentive component. In this case the BRP pays to the TSO
  - b) If the BRP imbalance implies feed-in into the grid (BRP surplus), the imbalance price is equal to the mid-price minus the incentive component. In this case the TSO pays to the BRP
- 3.5. Incentive component
- a) Initial value: €0/MWh
  - b) Adjustments of incentive component
    - 3.5.b.1. TSO shall adjust the incentive component on the basis of objective criteria according to a procedure determined and published by the TSO on its website
    - 3.5.b.2. The actual value of the incentive component will be published by the TSO on its website
    - 3.5.b.3. ERE has the right to request the TSO to include the procedure for adjustment of the incentive component in the ABM rules
- 3.6. TSO costs neutrality on balancing
- a) TSO will correct the transmission tariff for the next calendar year by the net result of the settlements of
    - 3.6.a.1. Imbalances with BRPs
    - 3.6.a.2. Costs of contracting and activation of balancing reserves
    - 3.6.a.3. Cross-border balancing processes including compensation programs for unintentional exchanges
- 3.7. Compensation for payment of incentive component
- a) In case BRP imbalance is caused by a grid event or by intervention of the TSO or the DSO, BRPs receive compensation for the payments related to the incentive component. Examples of such events are (non-exhaustive)
    - 3.7.a.1. Automatic load shedding or manual load shedding by TSO or DSO
    - 3.7.a.2. Forced increase or decrease of grid exchange by the TSO or DSO
  - b) Compensation will be paid by the grid operator in who's grid the event occurred.