

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

Number: 02- 590 - 3 /25

Date: 02.12.2025.

Pursuant to Article 1, paragraph 2 of the Law on Transmission, Regulator and System Operator of Electricity in Bosnia and Herzegovina ('Official Gazette of Bosnia and Herzegovina', number 07/02, 13/03, 76/09 and 1/11); Article 2, paragraph 1, Article 7, point 7) and Article 33, paragraph 1, point j) of the Law Establishing Independent System Operator for the Transmission System of Bosnia and Herzegovina ('Official Gazette of Bosnia and Herzegovina', number 35/04); Article 38 of the Law on electricity of Republika Srpska (('Official Gazette of Republika Srpska', number 68/20); Article 34 and 35 of the Law on Electricity of the Federation of Bosnia and Herzegovina ('Official Gazette of FBiH, number 60/23); Article 19 of the Law on Electricity ('Official Gazette of Brčko District BiH', number 27/21); Articles 8, 12, 13, 17, 19, 20-26 of the Market Rules; point 3.7 of Conditions of license for performance of power activities of Independent System Operator number 05-28-12-17-20/19 and Rules of Third Party Access to the Transmission System number: 04-28-359/06 as of 17th December 2006, in relation to the State Electricity Regulatory Commission's document number 04-28-7-343-7/21 as of 7th March 2022 and in accordance with the Decision on the temporary model which enables non-discriminatory and free access to the unique electricity market in BiH for power plants connected to the distribution grid, its number 01-478-3/22 as of 29th April 2022, General Director adopts:

DECISION

on amendments of the Instruction for the Implementation of the Temporary Model for 'Virtual Power Plants' Access to BiH Electricity Market

Article 1

1. This Decision replaces and amends the Instruction for the Implementation of the Temporary Model for 'Virtual Power Plants' Access to BiH Electricity Market, originally adopted Decision on the temporary model enabling non-discriminatory and free access to the unique electricity market in BiH for power plants connected to the distribution grid, its number 01-478-3/22 of 29th April 2022, subsequently confirmed by the Decision on amendments to the Instruction for the Implementation of the Temporary model for 'Virtual Power Plants' Access to BiH Electricity Market number 10-1165-1/22 of 17th October 2022, by the Decision on amendments to the Instruction for the Implementation of the Temporary model for 'Virtual Power Plants' Access to BiH Electricity Market number 01-1165-3/22 of 28th December 2022 and by the Decision on amendments to the Instruction for the Implementation of the Temporary model for 'Virtual Power Plants' Access to BiH Electricity Market number 01-1873-1/22 of 30th November 2023.

info@nosbih.ba

- 2. This Decision establishes the amended Instruction for the Implementation of the Temporary Model for 'Virtual Power Plants' Access to BiH Electricity Market (hereinafter: Instruction) which defines liabilities and order of actions of market participants with the purpose of the implementation of the model arising from Article 1, paragraph 1 of the Decision on the temporary model enabling non-discriminatory and free access to the unique electricity market in BiH for power plants connected to the distribution grid number: 01-478-3/22 of 29th April 2022.
- 3. The Instruction is an integral part of the Decision.
- 4. The Instruction shall be applied from 1st January 2026.

Article 2

This Decision enters into force on the day of its adoption.

Attachment:

- Instruction

General Director Nemanja Pandurević, PhD

NOS HOC BIX



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

INSTRUCTION FOR IMPLEMENTATION OF THE TEMPORARY MODEL FOR 'VIRTUAL POWER PLANTS' ACCESS TO BIH ELECTRICITY MARKET

1) Balance Responsible Party (hereinafter: BRP) shall submit a request to NOSBiH for allocation of codes EIC Z and W for the 'Virtual Power Plant' which is a part of its Balancing Group (hereinafter: BG).

BRP's request will be accompanied by:

- 1. Installed capacity of 'Virtual Power Plants' per Power Plant types
- Installed capacity of 'Virtual Power Plants' per Distribution System Operators (hereinafter: DSO)
- 2) BRP shall deliver to DSO the list of Power Plants from the distribution area which are within its 'Virtual Power Plant' by the 20th day in a current month for the following month.

Each Power Plant must fulfil technical conditions for collection of necessary data on electricity injection/takeover in 15-minute time periods,

- DSO shall keep and update its Register of 'Virtual Power Plants' per BRPs in accordance with its internal regulations.
- 4) NOSBiH shall keep the Register of BRPs which have a 'Virtual Power Plant' and publish it on its web site.
- 5) DSO shall deliver to NOSBiH the data on installed capacity per power plants type for each BRP which within its 'Virtual Power Plant' has power plants connected at its distribution area at the latest until the 25th day in a current month for the following month.
- 6) The data on total capacity of 'Virtual Power Plants' submitted by DSO to NOSBiH will be considered relevant for nomination of daily schedules, calculations of financial instruments amounts and other purposes. Maximum capacity for nomination of daily schedules for 'Virtual Power Plant' is the amount resulting from rounding the total capacity of 'Virtual Power Plant' to the nearest down whole number.

- 7) In order to identify data on the injected/taken electricity of BRP's 'Virtual Power Plant' in individual DSOs, NOSBiH shall assign code 36Z to BRP for each DSO, regardless of the distribution area in which the power plants that are part of its 'Virtual Power Plants' are located. NOSBiH shall deliver these codes to DSOs.
- 8) After receiving the codes from points 1 and 7 of this Instruction, BRP shall be obligated to start negotiations on updating the existing balance responsibility agreement and ensure that BRP provides NOSBiH with the necessary data and updated injection/withdrawal points.
- 9) The composition of the 'Virtual Power Plant' shall be changed monthly in accordance with the internal regulations of each DSO.
- 10) For the BRP that has a 'Virtual Power Plant' in its composition, the installed capacity of which is greater than 30% of the total installed capacity of BRP's portfolio on the transmission system, the amount of financial insurance instrument for the imbalance of the balance group of the bank guarantee or deposit) shall be determined by taking into account the financial value of the average fifteen-day generation (equivalent to the collective/aggregated/installed capacity of 'Virtual Power Plant') of the BRP's electricity, which is calculated by the average price of the imbalance for the lack of electricity in a year preceding the year for which the instrument of financial insurance is issued, increased by the corresponding amount of value added tax.

At the request of NOSBiH, BRP shall be obligated to submit all the data and documents necessary for determining the market and financial risk and creditworthiness of BRP, in accordance with the rules of the profession. After analysing the submitted documents, and based on the recommendation of expert services, NOSBiH will decide on additional instruments for securing the contractual relations – in accordance with the established risk and the analysed creditworthiness of BRP.

When determining the amount and type of insurance instruments, the correctness of the BRP's behaviour in the balancing energy market, market risks, indebtedness, whether BRP is appearing on the market for the first time, as well as other necessary parameters shall be taken into consideration.

The amount of the financial insurance instrument is not limited.

The amount of the financial insurance instrument for the imbalance of the Balance group (bank guarantee or deposit) can be adjusted quarterly in accordance with the average price of the imbalance realized in that quarter, i.e. quarters, and the average price of the imbalance in the previous year, taking the average price of these two values.

In the event of a change in generation or consumption within the Balance group, NOSBiH can determine the new amount of the financial insurance instrument.

At any time during the validity of the Balance Responsibility Agreement, NOSBiH can determine and require additional insurance instruments, especially in cases where the monthly invoice exceeds 60% of the amount from the instrument of financial insurance of payment.

NOSBiH shall notify BRP in writing and possibly determine new insurance instruments that will cover the said payment.

BRP can submit a request to reduce the amount or to change the type of insurance instrument:

- In case of a significant decrease in generation and consumption of the Balance Group
- In case of reducing the business risk related to BRP
- In case of an increase in the creditworthiness of BRP
- In case that invoices for the imbalance for the three (3) previous months do not individually exceed 30% of the amount of insurance funds.

If BRP submits a bank guarantee issued by a bank registered outside Bosnia and Herzegovina, it is necessary to submit a confirming bank guarantee from a bank registered in Bosnia and Herzegovina.

If NOSBiH activates a financial insurance instrument, BRP shall be obligated to deliver or pay a new bank guarantee or deposit within seven (7) days after activation, if the guarantee or deposit has been used in full amount.

If the financial insurance instrument was used only partially, the bank should return the original guarantee with the indication of the amount of the protest, that is, BRP shall be obligated to pay the used amount of the deposit within seven (7) days after activation.

11) In its daily schedule, BRP shall report the 'Virtual Power Plant' production plan as an aggregated production plan of all power plants connected to the distribution system that belong to its BG. The production plan is submitted according to the technical capabilities and available resources of the power plants in the 'Virtual power plant', in accordance with the document 'Instructions for daily schedules delivery' published on NOSBiH web site. BRP is responsible for the data submitted in the daily schedule.

BRP that reports a generation plan more than 3 times during the month, which is not in accordance with the technical capabilities and available resources of the power plants in the "Virtual Power Plant", will be temporarily suspended from the right to nominate daily schedules for the following month, starting from the date of noticing the violation of the rules for nominating daily schedules. BRP will be informed in a timely manner about the violation of the generation plan application rules and about the suspension.

After 3 temporary suspensions from the electricity market, BRP will be permanently suspended from the electricity market.

- 12) The calculation of BRP's imbalance is done in accordance with valid procedures, whereby BRP's aggregated generation of the "Virtual Power Plant" at the 15-minute level is submitted to NOSBiH by the competent DSO. If, by the 6th day of the current month, the DSO does not submit the necessary data for the previous month, necessary for the calculation of the BOS imbalance, NOSBiH will calculate the BOS imbalance according to the data at its disposal.
- 13) A penalty shall be applied for incorrect behavior on the electricity market of BRP, which includes a "Virtual Power Plant", whose installed capacity is greater than 30% of the total installed capacity of BRP's portfolio on the transmission network.

The amount of the penalty shall be calculated according to the following formula:

whereby:

Fin.deb = financial amounts for negative imbalance (electricity deficit)

K = penalty coefficient for incorrect behaviour in the electricity market which is determined in the following way:

if
$$\frac{\text{real.gener.}}{\text{plan.gener.}} \ge 0.8$$
; K=1

if
$$0.8 > \frac{\text{real.gener.}}{\text{plan.gener.}} \ge 0.75$$
; K=1,2

if
$$0.75 > \frac{\text{real.gener.}}{\text{plan.gener.}} \ge 0.7$$
; K=1,5

if
$$0.7 > \frac{\text{real.gener.}}{\text{plan.gener.}} \ge 0.6$$
; K=2

if
$$> \frac{\text{real.gener.}}{\text{plan.gener.}} < 0.6$$
; K=2.5

whereas:

Real.gener. = total realized generation of 'Virtual Power Plant' in a month

Plan.gener. = total planned generation of 'Virtual Power Plant' in a month

- 14) If BRP, due to incorrect behavior on the electricity market, achieves the coefficient K=2 3 times in one calendar year, it may be temporarily excluded from the electricity market.
- 15) NOSBiH can exclude a certain BRP from the electricity market for a certain period, if that BRP, due to incorrect behavior on the electricity market, achieves the coefficient K=2.5 twice in one calendar year. They will inform the competent regulator about this.