

**INSTRUCTION**  
**FOR THE IMPLEMENTATION OF THE TEMPORARY MODEL FOR "VIRTUAL**  
**POWER PLANTS" ACCESS TO BiH ELECTRICITY MARKET**

1) Balance Responsible Party (hereinafter BRP) shall submit to NOSBiH the request for assignment of the EIC Z and W codes to "Virtual Power Plant" which will be a part of its Balance Group (hereinafter BG). With its request, the BRP shall submit the list of power plants which compose its "Virtual Power Plant" including the following data for each power plant separately:

1. Name of the Power Plant
2. Installed capacity of the Power Plant
3. Type of the Power Plant
4. Certificate (Declaration) issued by the entitled DSO stating that Power Plant satisfies technical conditions for collecting necessary data on electricity injection/withdrawal in 15-minute intervals in accordance with NOSBiH instructions and the Grid Code provisions as well as other applicable regulations.

If power plants within the "Virtual Power Plants" of the BRP are connected to different DSOs, the BRP shall submit certificates by all DSOs to whose systems they are connected.

- 2) For the purpose of the identification of data on injected/withdrawn electricity of the BRP's "Virtual Power Plant" in each DSO, NOSBiH shall assign 36Z code to the BRP for each DSO where the BRP has its affiliated power plants within its "Virtual Power Plant". NOSBiH shall submit these codes to the relevant DSOs as well.
- 3) After receiving the codes from points 1 and 2 of this Instruction, the BRP shall be obliged to launch negotiations for updating the existing Balance Responsibility Agreement and to ensure that BRP submits to NOSBiH all necessary data and updated data on electricity injection/withdrawal points. BRP shall submit the data to NOSBiH by the 20<sup>th</sup> day in month M-1 for month M.
- 4) For each Power Plant being part of the "Virtual Power Plant" the BRP shall be obliged to:
  1. Inform the relevant DSO that the respective Power Plant will be in composition of the BRP's "Virtual Power Plant" in accordance with DSO's internal procedures

2. Determine the exact date of a change (change is done on a monthly basis) of the market participant (supplier) withdrawing energy from the Power Plant, taking into consideration the DSO's internal procedures pertaining to the existing agreement and informing previous market participant, DSO and the relevant BRP.
- 5) Changes in the composition of "Virtual Power Plants" shall be done on a monthly basis. If there have been changes in the composition of "Virtual Power Plants", the BRP shall submit to NOSBiH the updated list of power plants which constitute its "Virtual Power Plant" by the 20<sup>th</sup> day in month M-1 for month M. With its updated list, the BRP shall submit all necessary data and documents as requested by NOSBiH.
- 6) The BRP is obliged to submit the requests defined by points 1, 3 and 5 of this Instruction by email to these addresses: [info@nosbih.ba](mailto:info@nosbih.ba); [trziste@nosbih.ba](mailto:trziste@nosbih.ba); [schedules-bh@nosbih.ba](mailto:schedules-bh@nosbih.ba) and [msegrt@nosbih.ba](mailto:msegrt@nosbih.ba). With authenticated and scanned request, the BRP shall also submit data on the composition of "Virtual Power Plant" (power plant's name, installed capacity and type) in excel file. When delivering the request for change in the composition of "Virtual Power Plant", it is necessary to submit only the final version of "Virtual Power Plant", any subsequent request/correction within a month shall not be taken into consideration.
- 7) For the BRP whose generation composition involves "Virtual Power Plant" with the installed capacity exceeding 30% of the total installed capacity of BRP's portfolio in the transmission system, the amount of financial security instrument for imbalance of the Balance Group (a bank guarantee or a security deposit) shall be determined by taking into account the financial value of average 15-minute electricity generation (equivalent to aggregate installed capacity of "Virtual Power Plant") of the BRP's calculated by the average imbalance cost for shortage of electricity in a year preceding the year for which the financial security instrument is issued and which is now increased by the corresponding amount of value-added tax.

At NOSBiH's request the BRP is also obliged to submit all necessary data and documents relevant for determination of market and financial risks and of the BRP's solvency in line with the professional rules. After analyzing the submitted documents, based on the recommendation of professional services, NOSBiH will issue a decision on additional instrument to secure the contractual relationship in accordance with the identified financial risk and analyzed solvency of the BRP.

In determining the amount and type of security instrument, there shall be taken into account the BRP's fair behaviour in the balancing energy market, market risk, indebtedness, whether the BRP appears in the market for the first time and other relevant parameters.

The amount of the financial security instrument shall not be limited.

If there are changes in generation or consumption within the Balance Group, NOSBiH may determine another amount of the financial security instrument.

At any time during the Balance Responsibility Agreement NOSBiH may specify and request additional security instruments, and specifically if the monthly invoice exceeds 60% of the amount in the financial security instrument. NOSBiH shall thereby send a written notice to the BRP and eventually determine another security instruments for covering the respective payment.

BRP may submit a request to reduce the amount of the financial security instrument or change its type:

- If the balancing group has significant reduction in generation and consumption
- If the enterprise risk concerning the BRP is reduced
- If the BRP's solvency is increased
- If each imbalance invoice over the last three (3) months does not exceed 30% of the amount of the financial security instrument.

If the BRP submits a bank guarantee issued by a bank registered outside Bosnia and Herzegovina, it is necessary to submit a confirmation of the bank guarantee by a bank registered within Bosnia and Herzegovina.

If NOSBiH has activated the financial security instrument, the BRP shall be obliged to submit a new bank guarantee or security deposit, i.e., to effect the payment within seven (7) days of the activation, if the guarantee or the deposit have been used in full.

If the financial security instrument has only been partially used, the bank shall refund the original guarantee with the indication of the protest amount, i.e., the BRP shall be obliged to effect the payment of the used deposit within seven (7) days of the activation.

- 8) In its daily schedule, the generation plan of "Virtual Power Plant" shall be reported by the BRP as an aggregate generation plan of all power plants connected to the distribution system which belong to its BG. The generation plan shall be reported in line with technical possibilities and available resources of power plants comprising the "Virtual Power Plant" in accordance with "Instructions for Daily Schedules Delivery" published on NOSBiH website. The BRP shall be responsible for data submitted in a daily schedule. The BRP reporting the generation plan for more than 3 times in a month which is not in accordance with technical possibilities and available resources of power plants comprising the "Virtual Power Plant" shall be temporarily suspended from reporting daily schedules for next month as from the date the violation has been noticed. BRP shall be timely informed of the violation of the Rules on generation plan reporting.

In case of 3 temporary suspensions from the electricity market, the BRP shall be permanently suspended from the electricity market.

- 9) Imbalance calculation of the BRP shall be done in accordance with valid procedures whereby the entitled DSO delivers to NOSBiH the data on BRP aggregate amount of the "Virtual Power Plant" realized generation in 15-minute resolution. If the DSO fails to deliver the necessary data to NOSBiH for imbalance calculation of the BRP for previous month until the 6<sup>th</sup> day in a current month, NOSBiH shall calculate the BRP's imbalance in accordance with available data.
- 10) In case of inappropriate behavior in the electricity market of BRPs which within their composition have a "Virtual Power Plant" whose installed capacity is 30% higher than the BRP's portfolio in the transmission system, penalties shall apply.

This formula shall be used for penalties calculation:

$$\text{Penalty} = \text{Fin.imb.} * (K-1)$$

Whereas:

Fin.imb = Financial value for negative imbalance (energy shortage);

K = penalty coefficient for inappropriate behaviour in the electricity market, determined as follows:

$$\text{If } \frac{\text{Real. gener.}}{\text{Sched. gener.}} \geq 0,8 ; K = 1$$

$$\text{If } 0,8 > \frac{\text{Real. gener.}}{\text{Sched. gener.}} \geq 0,75 ; K = 1,2$$

$$\text{If } 0,75 > \frac{\text{Real. gener.}}{\text{Sched. gener.}} \geq 0,7 ; K = 1,5$$

$$\text{If } 0,7 > \frac{\text{Real. gener.}}{\text{Sched. gener.}} \geq 0,6 ; K = 2$$

$$\text{If } \frac{\text{Real. gener.}}{\text{Sched. gener.}} < 0,6 ; K = 2,5$$

Whereas:

Real. gener. = total monthly realized generation of the BRP

Sched.gener. = total monthly scheduled generation of the BRP

- 11) If within a calendar year the BRP 3 times receives the coefficient  $K=2$  for inappropriate behavior in the electricity market, it may be temporarily suspended from the electricity market.
- 12) If within a calendar year the BRP 2 times receives the coefficient  $K=2,5$  for inappropriate behavior in the electricity market, it shall be temporarily suspended from the electricity market and the procedure for its license suspension will be initiated with the regulatory authority.
- 13) NOSBiH shall keep the Register of BRPs that have "Virtual Power Plant" in their composition and shall made it available on its website.