

INSTRUCTION № 4 METHOD FOR CALCULATION OF REQUIRED COLLATERAL IN ACCORDANCE WITH THE POWER EXCHANGE OPERATIONAL RULES

Approved by the Board of Directors of IBEX EAD on 19 June 2020, effective as of 19 June 2020

Chapter one General provisions

Art. 1 This instruction regulates the method for calculation of required collateral on organized power exchange market for electricity.

Art. 2 For Intraday and Day-ahead market segments the collateral is managed via an electronic system for settlement and collaterals (CASS) accessible for every person responsible for settlement and collateral who is authorized to represent the trading participant for the Intraday and Day-ahead market segments.

Art. 3 For Bilateral contracts market segment the collateral is managed via an electronic system for settlement and collaterals (RMS) accessible for every person responsible for settlement and collateral who is authorized to represent the trading participant for Bilateral contracts market segment.

Chapter two Intraday and Day-ahead market segments

Section I Risk indicators

Art. 4 The method for calculation of the required collateral includes the following risk indicators:

1. Net position;
2. Risk indicator;
3. Day factor.

Art. 5 The net position is set in MWh for a particular day and a particular trading participant and is the difference between the quantity of electricity purchased and sold, netted with respect to the net positions in MWh on both market segments calculated using the following formula:

Net position in MWh for day D = Net position in MWh on Intraday market segment for delivery day D-1 + Net position in MWh on Day-ahead market segment for delivery day D+1.

Art. 6 The Risk indicator is a price set in EUR/MWh for either a net long or a net short position and is estimated as a worst-case spot price, using three years' lookback and a defined confidence interval taking into account the following:

1. The exact value of the risk indicator is calculated on a daily basis through specialized software EasyFit, which calculates data for the closest statistical distribution of the values of the base prices entered for Day-ahead market for a three-year lookback. The information for the value of the risk indicator for a given day is generated after the parameters of the function of

the statistical distribution are put in Excel, using a level of the confidence interval- 99.7% determined based on risk assessment.

2. As IBEX EAD functions as a separate market zone, only the calculation of risk indicator for long position is relevant to the calculation of the daily margin.

Art. 7 The Day Factor is an indicator measured in number of days and accounts for trading participants' risk exposure for a series of non-working days.

Art. 8 The current values of the risk indicators are as follows:

1. Risk indicator – 83;
2. Day factor – 3.

Section II

Daily margin

Art. 9 The daily margin is calculated in BGN and is the product of risk indicators and the official exchange rate of BNB (Bulgarian National Bank) for BGN to EUR and it is calculated using the following formula:

Daily margin = Net position under art. 5 x Risk indicator under art. 6 x Daily margin under art. 7x Official exchange rate to EUR under art. 10.

Art. 10 Official exchange rate to EUR is the official exchange rate for one BGN to EUR published on the website of BNB.

Chapter three

Bilateral contracts market segment

Section I

Application principles

Art. 11 The required collateral on Bilateral contracts market segment gives an option for submission of an order and/or application for auction initiation (application) and is calculated based on the specific parameters of the respective order and/or auction initiation application.

Art. 12 When calculating the required collateral for Bilateral contracts market segment no VAT shall be charged in accordance with the Excise duties and tax warehouses act and the price approved by EWRC under art. 30, par. 1, item 17 of the Energy Act.

Art. 13 Upon submission of more than one order/application for purchase and/or sale by a trading participant, the amount of all collaterals required according to the orders/applications submitted is compared and only the highest is blocked. Upon conclusion of a transaction as a result of the order submitted with the highest amount of collateral required, the electronic system for settlement and collaterals checks the next highest amount of collateral required based on the orders/applications submitted and again blocks only it. If there isn't sufficient free required collateral for active orders already submitted, they shall be automatically deactivated.

Section II

Calculation of required collateral on Auctions screen

Art. 14 For submission of an order/application for purchase/sale of electricity on Auctions screen, the required collateral shall be of the following amount:

1. For products with a delivery period of up to 31 (thirty-one) days included- 4% (four percent) of the value of electricity for the order/application submitted;
2. For products with a delivery period longer than 32 (thirty-two) days - 1% (one percent) of the value of electricity for the order/application submitted.

Art. 15 The value of electricity under an order /application submitted is set as the product of the price indicated and the volume of electricity as follows:

1. Upon submission of an auction initiation application it is set as the product of electricity price in the auction initiation application and volume of electricity in the auction initiation application;
2. Upon submission of an order for participation in an auction it is set as the product of electricity price in the order submitted and volume of electricity in the order submitted.

Section III

Calculation of required collateral on Continuous trading screen

Art. 16 Upon submission of an order for purchase/sale of electricity on Continuous trading screen, the required collateral is of the following amount:

1. For products with delivery period of 1 (one) day- 100% (hundred percent) of the collateral amount of the order submitted;
2. For products with delivery period from 2 (two) days to 31 (thirty-one) days included- 4 % (four percent) of the collateral amount of the order submitted;
3. For products with delivery period longer than 32 (thirty- two) days – 1 % (one percent) of the collateral amount of the order submitted.

Art. 17 The collateral amount of the order submitted is set as the product of the forecast annual market price for baseload set by EWRC and the volume of electricity offered in the order for purchase/sale.

Art. 18 The forecast annual market price for baseload is the forecast market price for baseload in force set pursuant to a decision of EWRC and publicly available on their website.