

Resolution no. 24/07/02/2024

adopted by the Management Board of IRGiT S.A.

on 22 February 2024

to define the rules for netting initial margins and the rules for netting variation margins
for Power Group Members

The Management Board of the Warsaw Commodity Clearing House ("IRGiT") acting pursuant to § 39 Section 7 of the Regulations of the Exchange Clearing House (Commodity Market) has resolved as follows:

§ 1

1. The netting of the margins referred to in § 39 Section 7 of the Regulations of the Exchange Clearing House (Commodity Market) for a Power Group as defined in these regulations is conditional upon submission of a netting application by Power Group entities ("Netting Participants") and conclusion of an Agreement by and between IRGiT and all Netting Participants, defining the rules for establishing financial collateral for a Power Group.
2. Margin netting is applied according to the rules laid down in the Detailed Clearing and Settlement Rules of the Exchange Clearing House ("Detailed Clearing and Settlement Rules") and in a separate resolution adopted by the IRGiT Management Board defining the rules for calculation of collateral margins for the given Power Group according to the algorithms described in § 2 - § 6a below.
3. Definitions set forth in the Regulations of the Exchange Clearing House (Commodity Market) and in the Detailed Clearing and Settlement Rules shall be used in this resolution, unless otherwise defined herein.

§ 2

Netting of initial margins for forward contracts for electricity

1. For each delivery period j established separately for each contract type on the Electricity Forward Market, the aggregate position of all Netting Participants (position of the Power Group) is calculated as:
 - a) for BASE, PEAK5, OFFPEAK contract types:

$$LN_j = \sum_i LN''_{i,j}$$

Where:

LN_j – net position during delivery period j [MWh] equal to the sum of synthetic net positions of all Netting Participants (position of the Power Group),

$LN''_{i,j}$ – synthetic net position during delivery period j [MWh] in the portfolio of Netting Participant i calculated in accordance with the Detailed Clearing and Settlement Rules,

- b) for L-PEAK5, H-PEAK5 contract types:

$$LN_j = \sum_i LN_{i,j}$$

Where:

LN_j – net position during delivery period j [MWh] equal to the sum of net positions of all Netting Participants (position of the Power Group),

$LN_{i,j}$ – net position during delivery period j [MWh] in the portfolio of Netting Participant i calculated in accordance with the Detailed Clearing and Settlement Rules.

2. If the position of the Power Group for delivery period j LN_j is non-negative (negative) then, for each Netting Participant i holding a negative (non-negative) position, a surplus on initial margins is calculated for delivery period j :

$$NW_{i,j} = -Dw_{i,j} * 100\%$$

Where:

$Dw_{i,j}$ – initial margin of Netting Participant i holding a negative (non-negative) position determined on the basis of the Detailed Clearing and Settlement Rules for the energy in delivery period j [MWh] found in the portfolio of Netting Participant i portfolio,

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i holding a negative (non-negative) position.

3. If the position of the Power Group for delivery period j LN_j is non-negative (negative) then the Netting Participants i holding a non-negative (negative) position in that delivery period, are assigned a surplus on initial margins for delivery period j based on the following formula:

$$NW_{i,j} = \frac{LN_{i,j}}{\sum_n LN_{n,j}} * \sum_m NW_{m,j}$$

Where:

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i holding a non-negative (negative) position,

$LN_{i,j}$ – net energy volume in delivery period j [MWh] found in the portfolio of Netting Participant i holding a non-negative (negative) position,

$\sum_n LN_{n,j}$ – net energy volume in delivery period j [MWh] found in the portfolio of all Netting Participants n holding a non-negative (negative) position,

$\sum_m NW_{m,j}$ – total surplus on initial margins for delivery period j assigned to all Netting Participants m holding a negative (non-negative) position.

4. For all Netting Participants i , the netted initial collateral margin is calculated based on the following formula:

$$Dwk_{i,EE} = Dw_{i,EE} + \sum_j NW_{i,j} + \sum_j NW_{MP_{i,j}} + NW_{MO_{EE_{GE(i)}}}$$

Where:

$Dwk_{i,EE}$ – the initial margin required from Netting Participant i for forward contracts for electricity, after netting,

$Dw_{i,EE}$ – the initial margin calculated for Netting Participant i for forward contracts for electricity, based on the Detailed Clearing and Settlement Rules,

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i .

$NW_{MP_{i,j}}$ – surplus on initial margins on account of cross-product netting of initial margins for delivery period j assigned to Netting Participant i , calculated in accordance with § 3,

$NW_{MO_{EE_{GE(i)}}}$ – surplus on initial margins on account of cross-period netting for BASE, PEAK5, OFFPEAK contract types, assigned to a given Netting Participant i , calculated in accordance with § 5 - § 5b.

§ 3

1. In order to calculate cross-product netting at the Power Group level, first the Power Group's net positions are determined for the individual delivery periods j in BASE, PEAK5 and OFFPEAK contracts as the sum of synthetic net positions of Netting Participants in those contracts:

$$BASE_{GE,j} = \sum_i BASE'_{i,j}$$

$$PEAK5_{GE,j} = \sum_i PEAK5''_{i,j}$$

$$OFFPEAK_{GE,j} = \sum_i OFFPEAK''_{i,j}$$

Where:

$BASE_{GE,j}$ – net position of the Power Group in BASE contracts during delivery period j , equal to the sum of synthetic net positions of all Netting Participants [MWh],

$PEAK5_{GE,j}$ – net position of the Power Group in PEAK5 contracts during delivery period j , equal to the sum of synthetic net positions of all Netting Participants [MWh],

$OFFPEAK_{GE,j}$ – net position of the Power Group in OFFPEAK contracts during delivery period j , equal to the sum of synthetic net positions of all Netting Participants [MWh],

$BASE'_{i,j}$ – synthetic net position of Netting Participant i in BASE contracts during delivery period j , calculated in accordance with the Detailed Clearing and Settlement Rules [MWh],

$PEAK5''_{i,j}$ – synthetic net position of Netting Participant i in PEAK5 contracts during delivery period j , calculated in accordance with the Detailed Clearing and Settlement Rules [MWh],

$OFFPEAK''_{i,j}$ – synthetic net position of Netting Participant i in OFFPEAK contracts during delivery period j , calculated in accordance with the Detailed Clearing and Settlement Rules [MWh],

2. Net position of the Power Group in BASE contracts during delivery period i is decomposed into synthetic positions in PEAK5 and OFFPEAK contracts in the corresponding delivery periods i (defined in accordance with the Detailed Clearing and Settlement Rules):

$$PEAK5'_{GE,j} = BASE_{GE,j} + PEAK5_{GE,j}$$

$$OFFPEAK'_{GE,j} = BASE_{GE,j} + OFFPEAK_{GE,j}$$

Where:

$PEAK5'_{GE,j}$ – synthetic net position of the Power Group in PEAK5 contracts during the corresponding delivery period j [MWh],

$OFFPEAK'_{GE,j}$ – synthetic net position of the Power Group in OFFPEAK contracts during the corresponding delivery period j [MWh],

$BASE_{GE,j}$ – net position of the Power Group in BASE contracts during delivery period j [MWh],

$PEAK5_{GE,j}$ – net position of the Power Group in PEAK5 contracts during the corresponding delivery period j [MWh],

$OFFPEAK_{GE,j}$ – net position of the Power Group in OFFPEAK contracts during the corresponding delivery period j [MWh].

3. A delivery period in OFFPEAK and PEAK5 contracts, corresponding to a delivery period in a BASE contract mentioned in sec. 2 above, is defined as a delivery period whose beginning is not earlier than the beginning of the delivery period in a BASE contract and the end is no later than the end of the delivery period in a BASE contract. If no period corresponding to the delivery period under a given contract type meets the relevant definition then it is assumed that the net position used for further analyses instead of net positions for the corresponding delivery period is in each case equal to zero.
4. For each delivery period j , a synthetic net position in BASE contracts after cross-product netting is calculated:

- a) If there is no corresponding delivery period j in a PEAK5 contract:

$$BASE'_{GE,j} = OFFPEAK'_{GE,j}$$

- b) If the Power Group holds a net long position in both $PEAK5'_{GE,j}$ and $OFFPEAK'_{GE,j}$ then the number of contracts is calculated based on the following formula:

$$BASE'_{GE,j} = \min(PEAK5'_{GE,j}; OFFPEAK'_{GE,j})$$

- c) If the Power Group holds a net short position in both $PEAK5'_{GE,j}$ and $OFFPEAK'_{GE,j}$ then the number of contracts is calculated based on the following formula:

$$BASE'_{GE,j} = \max(PEAK5'_{GE,j}; OFFPEAK'_{GE,j})$$

- d) In all other cases:

$$BASE'_{GE,j} = 0$$

Where:

$BASE'_{GE,j}$ – synthetic net position of the Power Group in BASE contracts during delivery period j after cross-product netting [MWh],

$PEAK5'_{GE,j}$ – synthetic position of the Power Group in PEAK5 contracts during the corresponding delivery period j [MWh],

$OFFPEAK'_{GE,j}$ – synthetic position of the Power Group in OFFPEAK contracts during the corresponding delivery period j [MWh],

5. For each delivery period j , the quantity of contracts corresponding to the synthetic net positions in PEAK5 and OFFPEAK after netting is calculated based on the following formula:

$$\begin{aligned} PEAK5''_{GE,j} &= PEAK5'_{GE,j} - BASE'_{GE,j} \\ OFFPEAK''_{GE,j} &= OFFPEAK'_{GE,j} - BASE'_{GE,j} \end{aligned}$$

Where:

$BASE'_{GE,j}$ – synthetic net position of the Power Group in BASE contracts during delivery period j after cross-product netting,

$PEAK5''_{GE,j}$ – synthetic net position of the Power Group in PEAK5 contracts during the corresponding delivery period j after cross-product netting,

$OFFPEAK''_{GE,j}$ – synthetic net position of the Power Group in OFFPEAK contracts during the corresponding delivery period j after cross-product netting,

6. For each delivery period j , the value of initial margin netting is calculated using the following formulas:

$$\begin{aligned} \Delta Dw_{BASE_{GE,j}} &= (|BASE_{GE,j}| - |BASE'_{GE,j}|) \cdot P_{BASE_j} \cdot Kr_{BASE_j} \\ \Delta Dw_{PEAK5_{GE,j}} &= (|PEAK5_{GE,j}| - |PEAK5''_{GE,j}|) \cdot P_{PEAK_j} \cdot Kr_{PEAK5_j} \\ \Delta Dw_{OFFPEAK_{GE,j}} &= (|OFFPEAK_{GE,j}| - |OFFPEAK''_{GE,j}|) \cdot P_{OFFPEAK_j} \cdot Kr_{OFFPEAK_j} \\ NW_{MP_{GE,j}} &= (\Delta Dw_{BASE_{GE,j}} + \Delta Dw_{PEAK5_{GE,j}} + \Delta Dw_{OFFPEAK_{GE,j}}) * Parameter_{cross-product} \end{aligned}$$

Where:

$\Delta Dw_{BASE_{GE,j}}$ – potential change in the amount of the required initial margin of the Power Group for BASE contracts during delivery period i , resulting from the difference between the volume of the net position and the volume of the synthetic net position [PLN],

$\Delta Dw_{PEAK5_{GE,j}}$ – potential change in the amount of the required initial margin of the Power Group for PEAK5 contracts during delivery period i , resulting from the difference between the volume of the net position and the volume of the synthetic net position [PLN],

$\Delta Dw_{OFFPEAK_{GE,j}}$ – potential change in the amount of the required initial margin of the Power Group for OFFPEAK contracts during delivery period i , resulting from the difference between the volume of the net position and the volume of the synthetic net position [PLN],

P_j – arithmetic mean of the risk parameters published by IRGiT for BASE, PEAK5 or OFFPEAK contract types assigned to all days in delivery period j ,

Kr_j – clearing price of a BASE, PEAK5 or OFFPEAK contract for the delivery of electricity in delivery period j [PLN/MWh],

$NW_MP_{GE,j}$ – surplus on the Power Group's initial margins in delivery period j [PLN].

$Parameter_{cross-product}$ – parameter of cross-product netting recognition published by IRGiT.

- Based on the changes in the value of required initial margins for positions in each contract type for each delivery period j , each individual contract type is assigned a portion of the value of the total surplus achieved on the Power Group's portfolio reflecting the share that the position in this contract type has in the benefit achieved from cross-product netting:

$$\begin{aligned}\Delta Dw_{EE,GE,j} &= MAX(\Delta Dw_{BASE_{GE,j}}; 0) + MAX(\Delta Dw_{PEAK5_{GE,j}}; 0) \\ &\quad + MAX(\Delta Dw_{OFFPEAK_{GE,j}}; 0) \\ NW_MP_{BASE,GE,j} &= \frac{NW_MP_{GE,j} \cdot MAX(\Delta Dw_{BASE_{GE,j}}; 0)}{\Delta Dw_{EE,GE,j}} \\ NW_MP_{PEAK,GE,j} &= \frac{NW_MP_{GE,j} \cdot MAX(\Delta Dw_{PEAK5_{GE,j}}; 0)}{\Delta Dw_{RAZEM_{GE,j}}} \\ NW_MP_{OFFPEAK,GE,j} &= \frac{NW_MP_{GE,j} \cdot MAX(\Delta Dw_{OFFPEAK_{GE,j}}; 0)}{\Delta Dw_{RAZEM_{GE,j}}}\end{aligned}$$

Where:

$\Delta Dw_{EE,GE,j}$ – sum of reductions of the required initial margins for the Power Group's positions for the BASE, PEAK5 or OFFPEAK profile in delivery period j [PLN],

$NW_MP_{GE,j}$ – surplus on the Power Group's initial margins in delivery period j [PLN].

$NW_MP_{BASE,GE,j}$ – the portion of cross-product netting at the Power Group's level assigned to the Power Group's net position in the BASE contract type in delivery period j [PLN],

$NW_MP_{PEAK,GE,j}$ – the portion of cross-product netting at the Power Group's level assigned to the Power Group's net position in the PEAK5 contract type in delivery period j [PLN],

$NW_MP_{OFFPEAK,GE,j}$ – the portion of the cross-product netting at the Power Group's level assigned to the Power Group's net position in the OFFPEAK contract type in delivery period j [PLN].

8. For each Netting Participant i , in each delivery period j , the value of initial margin netting resulting from cross-product netting is calculated at the Power Group level.
- a) If the Power Group's position in a contract type is non-negative (negative) in delivery period j then the surplus of initial margins in the period j is allocated to Netting Participants i who hold a synthetic non-negative (negative) net position in that delivery period and in that contract type, based on the following formula:

$$DW_{BASE,GE,j} = \sum_i (DW_{BASE,i,j} + NW_{BASE,i,j})$$

$$NW_MP_{BASE,i,j} = NW_MP_{BASE,GE,j} \cdot \frac{DW_{BASE,i,j} + NW_{BASE,i,j}}{D_{BASE,GE,j}} \cdot 100\%$$

Where:

$DW_{BASE,GE,j}$ – the sum of values of initial margins assigned to BASE contracts during delivery period j calculated on the basis of Detailed Clearing and Settlement Rules for those Netting Participants, whose synthetic net position is negative when the Power Group's net position is negative, or whose synthetic net position is positive when the Power Group's net position is positive [PLN],
 $NW_{BASE,i,j}$ – surplus on initial margins assigned to BASE contracts for delivery period j assigned to the Netting Participant i holding a non-negative (negative) position, calculated in accordance with § 2 sec. 3,

$NW_MP_{BASE,i,j}$ – the portion of cross-product netting at the Power Group level assigned to BASE contracts for delivery period j assigned to the Netting Participant i [PLN],

$NW_MP_{BASE,GE,j}$ – the portion of cross-product netting at the Power Group's level assigned to the Power Group's net position in the BASE contract type in delivery period j [PLN].

- b) If the Power Group's position in a contract type is non-negative (negative) for delivery period j then the Netting Participants i who hold a synthetic negative (non-negative) net position in that delivery period and in that contract type are allocated the surplus of initial margins in the period j .

The benefit from cross-product netting at the Power Group level is allocated between Netting Participants in PEAK5 and OFFPEAK contracts in a corresponding manner.

Netting of initial margins for forward contracts for gas

1. For each delivery period j established for the GAS_BASE contract type, the aggregate position of each Netting Participant is calculated as:

$$LN_{i,j} = (LK_{i,j} - LS_{i,j})$$

Where:

$LN_{i,j}$ – net gas volume in delivery period j [MWh] found in the portfolio of Netting Participant i ,

$LK_{i,j}$ – gas volume in purchase contracts for delivery period j [MWh] found in the portfolio of Netting Participant i ,

$LS_{i,j}$ – gas volume in sales contracts for delivery period j [MWh] found in the portfolio of Netting Participant i .

2. For each delivery period j established for the GAS_BASE contract type, the aggregate position of all Netting Participants (position of the Power Group) is calculated as:

$$LN_j = \sum_i LN_{i,j}$$

Where:

LN_j – net gas volume in delivery period j [MWh] in total found in Netting Participants' portfolios (position of the Power Group),

$LN_{i,j}$ – net gas volume in delivery period j [MWh] found in the portfolio of Netting Participant i .

3. If the position of the Power Group for delivery period j LN_j is non-negative (negative) then, for each Netting Participant i holding a negative (non-negative) position, a surplus on initial margins is calculated for delivery period j :

$$NW_{i,j} = -Dw_{i,j} * 100\%$$

Where:

$Dw_{i,j}$ – initial margin of Netting Participant i holding a negative (non-negative) position determined on the basis of the Detailed Clearing and Settlement Rules for the gas volume in delivery period j [MWh] found in the portfolio of Netting Participant i ,

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i holding a negative (non-negative) position.

4. If the position of the Power Group for delivery period j LN_j is non-negative (negative) then the Netting Participants i holding a non-negative (negative) position in that delivery period, are assigned a surplus on initial margins for delivery period j based on the following formula:

$$NW_{i,j} = \frac{LN_{i,j}}{\sum_n LN_{n,j}} * \sum_m NW_{m,j}$$

Where:

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i holding a non-negative (negative) position,

$LN_{i,j}$ – net gas volume in delivery period j [MWh] found in the portfolio of Netting Participant i holding a non-negative (negative) position,

$\sum_n LN_{n,j}$ – net gas volume in delivery period j [MWh] found in the portfolio of all Netting Participants n holding a non-negative (negative) position,

$\sum_m NW_{m,j}$ – total surplus on initial margins for delivery period j assigned to all Netting Participants m holding a negative (non-negative) position.

5. For all Netting Participants i , the netted initial collateral margin is calculated based on the following formula:

$$Dwk_{i,G} = Dw_{i,G} + \sum_j NW_{i,j} + NW_MO_{G_{GE}(i)}$$

Where:

$Dwk_{i,G}$ – the initial margin required from Netting Participant i for forward contracts for gas, after netting,

$Dw_{i,G}$ – the initial margin calculated for Netting Participant i for forward contracts for gas, based on the Detailed Clearing and Settlement Rules,

$NW_{i,j}$ – surplus on initial margins for delivery period j assigned to Netting Participant i ,

$NW_{MO_{G_{GE}(i)}}$ – surplus on initial margins on account of cross-product netting for the GAS_BASE contract type assigned to Netting Participant i , calculated in accordance with § 5 - § 5b.

§ 5

Cross-period netting of initial margins for forward contracts for electricity and forward contracts for gas – calculation of the intra-delivery-group surplus

1. Cross-period netting is calculated separately for each of the contract types: BASE, PEAK5, OFFPEAK and separately for GAS_BASE type contracts, at the level of the Power Group.
2. For each of the BASE, PEAK5, OFFPEAK and GAS_BASE contract types and for each delivery group, two sums of initial collateral margins are calculated based on the Power Group's synthetic net positions ("hypothetical initial margins") assigned to the delivery periods included in the respective delivery group (defined in accordance with the Detailed Clearing and Settlement Rules). By introducing a convention according to which short positions are presented with a negative sign and long positions are presented with a positive sign, the Power Group's hypothetical initial margins are calculated accordingly:
 - margins arising from the Power Group's long positions only,

$$DW_Long_{GED} = \sum_{j \in GD} MAX(Position''_{GEj}; 0) * P_j * h_j * Kr_j$$

- margins arising from the Power Group's short positions only.

$$DW_Short_{GED} = \sum_{j \in GD} MIN(Position''_{GEj}; 0) * (-1) * P_j * h_j * Kr_j$$

Where:

GD – delivery group of the contract type subject to cross-period netting [DAILY, SHORT, MEDIUM, LON] defined in accordance with the Detailed Clearing and Settlement Rules

DW_Long_{GED} – hypothetical initial margin assigned to long positions classified into delivery group GD for a given type of contract in the Power Group's portfolio [PLN],

DW_Short_{GED} – hypothetical initial margin assigned to short positions classified into delivery group GD for a given type of contract in the Power Group's portfolio [PLN],

Position''_{GEj} – a position corresponding to the net position of a given contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, for delivery period j in the Power Group's portfolio, with a qualification that for contracts in electricity, a synthetic net position calculated in accordance with § 3 [MW] is assumed,

P_j – arithmetic mean of the risk parameters published by IRGiT assigned to all days in delivery period j,

h_j – number of delivery hours in delivery period j,

Kr_j – clearing price in delivery period j [PLN/MWh].

3. For each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE and for each delivery group, a margin is calculated for the dominant position ("dominant margin") and netting position ("netting margin") in terms of risk in the Power Group using the following formulas:

$$DW_Dominant_{GED} = MAX(DW_Long_{GED}; DW_Short_{GED})$$

$$DW_Netting_{GED} = MIN(DW_Long_{GED}; DW_Short_{GED})$$

Where:

DW_Dominant_{GED} – dominant margin, i.e. hypothetical initial margin assigned to the Power Group's dominant position classified into delivery group GD for a given contract type [PLN],

$DW_Netting_{GE_GD}$ – netting margin, i.e. hypothetical initial margin assigned to the Power Group's netting position classified into delivery group GD for a given contract type [PLN].

4. For each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, and for each delivery group, the surplus of the Power Group's margin is equal to the product of:
 - double of the Power Group's netting margin, and
 - intra-delivery-group cross-period correlation coefficient corresponding to the respective contract type and the respective delivery group.

$$NW_M01_{GE_GD} = DW_Netting_{GE_GD} * 2 * Correlation_coefficient_{GD}$$

Where:

$NW_M01_{GE_GD}$ – surplus initial margin assigned to delivery group GD in the Power Group's portfolio on account of intra-delivery-group cross-period netting for a given contract type [PLN],

$Correlation_coefficient_{GD}$ – cross-period correlation coefficient published by IRGiT for a given contract type and delivery group GD.

§ 5a

Cross-period netting of initial margins for forward contracts for electricity and forward contracts for gas – calculation of the inter-delivery-group surplus

1. First, for each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, the side of the Power Group's dominant position in terms of risk is determined in each delivery group, i.e. that characterized by the greater amount of assigned hypothetical initial margins, using the following formulas:

$$Position_{GE_GD} = 0, \text{ if } \sum_{j \in GD} Position''_{GE_j} = 0, \text{ otherwise:}$$

$$Position_{GE_GD} = 1, \text{ if } DW_Dominant_{GE_GD} = DW_Long_{GE_GD}$$

$$Position_{GE_GD} = -1, \text{ if } DW_Dominant_{GE_GD} = DW_Short_{GE_GD}$$

Where:

$DW_Long_{GE_GD}$ – hypothetical initial margin assigned to long positions classified into delivery group GD for a given type of contract in the Power Group's portfolio, calculated in accordance with § 5 sec. 2 [PLN],

$DW_Short_{GE_GD}$ – hypothetical initial margin assigned to short positions classified into delivery group GD for a given type of contract in the Power Group's portfolio, calculated in accordance with § 5 sec. 2 [PLN],

$DW_Dominant_{GE_GD}$ – dominant margin, i.e. hypothetical initial margin assigned to the Power Group's dominant position classified into delivery group GD for a given contract type, calculated in accordance with § 5 sec. 3 [PLN],

$Position_{GE_GD}$ – position in delivery group GD for a given contract type in the Power Group's portfolio,

$Position''_{GE_j}$ – position corresponding to the net position for a given contract type (on the Electricity Forward Market – the synthetic net position calculated in accordance with § 3), for delivery period j in the Power Group's portfolio.

2. Then, the Power Group's initial margin subject to cross-period netting is estimated at the level of delivery groups, assigned to the delivery group for each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, in accordance with the following formula:

$$DW_Delivery_groups_{GE_GD} = DW_Dominant_{GE_GD} - DW_Netting_{GE_GD}$$

Where:

$DW_Delivery_groups_{GE_GD}$ – hypothetical initial margin of a Power Group assigned to delivery group GD for a given contract type [PLN],

$DW_Netting_{GE_GD}$ – netting margin, i.e. hypothetical initial margin assigned to the Power Group's netting position classified into delivery group GD for a given contract type, calculated in accordance with § 5 sec. 3 [PLN].

3. For each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, a margin is calculated for the dominant position and netting position in this contract type in the Power Group's portfolio, using the following formulas:

$$DW_Long_{GE} = \sum_{GD} MAX(Position_{GE_GD}; 0) * DW_Delivery_groups_{GE_GD} * Inclusion_coefficient_{GD}$$

$$DW_Short_{GE} = \sum_{GD} MIN(Position_{GE_GD}; 0) * (-1) * DW_Delivery_groups_{GE_GD} * Inclusion_coefficient_{GD}$$

$$DW_Dominant_{GE} = MAX(DW_Long_{GE}; DW_Short_{GE})$$

$$DW_Netting_{GE} = MIN(DW_Long_{GE}; DW_Short_{GE})$$

Where:

DW_Long_{GE} – hypothetical initial margin assigned to long positions for a given contract type in the Power Group's portfolio [PLN],

DW_Short_{GE} – hypothetical initial margin assigned to short positions for a given contract type in the Power Group's portfolio [PLN],

$DW_Dominant_{GE}$ – dominant margin, i.e. hypothetical initial margin assigned to the Power Group's dominant position for a given contract type [PLN],

$DW_Netting_{GE}$ – netting margin, i.e. hypothetical initial margin assigned to the Power Group's netting position for a given contract type [PLN],

$Inclusion_coefficient_{GD}$ – inclusion coefficient for a delivery group for a given contract type in the cross-period netting mechanism, as published by IRGiT.

4. For each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE, the surplus margin on account of inter-delivery-group cross-period netting in the Power Group's portfolio is calculated using the following formula:

$$NW_MO2_{GE} = DW_Netting_{GE} * 2 * Correlation_coefficient$$

Where:

NW_MO2_{GE} – surplus initial margin for a given contract type in the Power Group's portfolio resulting from inter-delivery-group cross-period netting [PLN],

$Correlation_coefficient$ – inter-delivery-group cross-period correlation coefficient for a given contract type, published by IRGiT.

§ 5b

Cross-period netting of initial margins for forward contracts for electricity and forward contracts for gas – surplus calculation at the level of contract types and its allocation between Netting Participants

1. The surplus margin on account of cross-period netting for each contract type: BASE, PEAK5, OFFPEAK, GAS_BASE in the Power Group's portfolio is calculated using the following formula:

$$NW_MO_{GE} = \left(\sum_{GD} NW_{MO1_{GD_{GE}}} + NW_{MO2_{GE}} \right) * Parameter_{cross-period} * Parameter_{portfolio}$$

Where:

NW_MO_{GE} – surplus initial margin for a given contract type in the Power Group's portfolio resulting from intra-delivery-group cross-period netting and inter-delivery-group cross-period netting [PLN],

$NW_MO1_{GD_{GE}}$ – surplus initial margin for all delivery groups GD for a given contract type on account of intra-delivery-group cross-period netting in the Power Group's portfolio, calculated in accordance with § 5 [PLN],

NW_MO2_{GE} – surplus initial margin for a given contract type on account of inter-delivery-group cross-period netting in the Power Group's portfolio, calculated in accordance with § 5a [PLN],

$Parameter_{cross-period}$ – cross-period netting inclusion parameter as published by IRGiT

$Parameter_{portfolio}$ – group netting inclusion parameter as published by IRGiT

2. The allocation of cross-period netting between Netting Participants is carried out pro rata to the value of the initial collateral margins assigned to a given Netting Participant i for all contract types on a given market in aggregate, before cross-period netting, in accordance with the following formulas:

a) for the EFM:

$$NW_MO_{EE_{GE(i)}} = \frac{DW_MP_{EE_{GE(i)}}}{DW_MP_{EE_{GE}}} * \sum_{PROD} NW_MO_{PROD_{EE}}$$

b) for the GFM:

$$NW_MO_{G_{GE(i)}} = \frac{DW_MP_{G_{GE(i)}}}{DW_MP_{G_{GE}}} * NW_MO_{G_{GE}}$$

Where:

$NW_MO_{EE_{GE(i)}}$ – the portion of cross-period netting on the Electricity Forward Market at the Power Group level assigned to Netting Participant i [PLN],

$NW_MO_{PROD_{EE}}$ – cross-period netting on the Electricity Forward Market for a given contract type on the EFM assigned to the Power Group [PLN],

$PROD$ – BASE, PEAK5, OFFPEAK contract types on the EFM,

$DW_MP_{EE_{GE(i)}}$ – the portion of the initial margin calculated for the Power Group's portfolio on the Electricity Forward Market before netting, assigned to Netting Participant i [PLN],

$DW_MP_{EE_{GE}}$ – the initial margin calculated for the Power Group's portfolio on the Electricity Forward Market before cross-period netting [PLN],

$NW_MO_{G_{GE(i)}}$ – the portion of cross-period netting for the GAS_BASE contract type at the Power Group level assigned to Netting Participant i [PLN],

$NW_MO_{G_{GE}}$ – cross-period netting on the Gas Forward Market assigned to the Power Group [PLN],

$DW_MP_{G_{GE(i)}}$ – the portion of the initial margin calculated for the Power Group's portfolio on the Gas Forward Market before cross-period netting, assigned to Netting Participant i [PLN],

$DW_MP_{G_{GE}}$ – the initial margin calculated for the Power Group's portfolio on the Gas Forward Market before cross-period netting [PLN].

§ 6

**Netting of variation margins
(if the Power Group selects the option of utilizing the surplus in accordance
with the agreed sequence)**

1. The margin requirements of the Netting Participant before the netting on account of a surplus on variation margins are calculated as:

$$Dz_i = \text{Min}(Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G}; 0)$$

Where:

Dz_i – margin requirements for Netting Participant i ,
 $Dwk_{i,EE}$ – value of netted initial margins for electricity transactions assigned to Netting Participant i ,
 $Dwk_{i,G}$ – value of netted initial margins for gas transactions assigned to Netting Participant i ,
 $Du_{i,EE}$ – value of variation margin for electricity transactions assigned to Netting Participant i ,
 $Du_{i,G}$ – value of variation margin for gas transactions assigned to Netting Participant i ,

2. Margins can be netted only when the sum of the values of variation margins of one or more Netting Participants shows a surplus (surplus on variation margins) over the sum of margins accrued for such Netting Participant, i.e.:

$$Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G} > 0$$

then:

$$Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G} = NU_i$$

Where:

NU_i – surplus on variation margins resulting from the position of Netting Participant i .

The remaining designations retain the meanings given to them in Item 1.

3. The value of the total surplus on variation margins equals to:

$$NU = \sum_i NU_i$$

Where:

NU_i – surplus on variation margins resulting from the position of Netting Participant i ,

NU – Netting Participants' total surplus on variation margins.

4. The value of the surplus on variation margins is assigned to such Netting Participants who have non-zero margin requirements. The value of the surplus on variation margins assigned to such Netting Participant j whose margin requirements are netted first is:

$$NP_j = \min(-Dz_j; NU)$$

Where:

Dz_j – margin requirements for Netting Participant j before netting,
 NP_j – surplus on variation margins assigned to Netting Participant j ,
 NU – Netting Participants' total surplus on variation margins.

5. The value of the surplus on variation margins assigned to further Netting Participants j who have non-zero margin requirements is:

$$NP_j = \min(-Dz_j; NU - \sum_{k=1}^{j-1} NP_k)$$

Where the remaining denotations retain the meanings assigned to them in Item 4.

6. Reduced margin requirements for Netting Participants are expressed by the following formula:

$$Dzk_i = \min(Dz_i + NP_i; 0)$$

Where:

Dzk_i – margin requirements for Netting Participant i after netting of variation margins,
 Dz_i – margin requirements for Netting Participant i before netting,
 NP_i – surplus on variation margins assigned to Netting Participant i ,

§ 6

Netting of variation margins

(if the Power Group selects the option of proportional division of the surplus)

1. The margin requirements of the Netting Participant before the netting on account of a surplus on variation margins are calculated as:

$$Dz_i = \min(Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G}; 0)$$

Where:

Dz_i – margin requirements for Netting Participant i ,
 $Dwk_{i,EE}$ – value of netted initial margins for electricity transactions assigned to Netting Participant i ,
 $Dwk_{i,G}$ – value of netted initial margins for gas transactions assigned to Netting Participant i ,

$Du_{i,EE}$ – value of variation margin for electricity transactions assigned to Netting Participant i ,
 $Du_{i,G}$ – value of variation margin for gas transactions assigned to Netting Participant i ,

2. Margins can be netted only when the sum of the values of variation margins of one or more Netting Participants shows a surplus (surplus on variation margins) over the sum of margins accrued for such Netting Participant, i.e.:

$$Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G} > 0$$

then:

$$Dwk_{i,EE} + Dwk_{i,G} + Du_{i,EE} + Du_{i,G} = NU_i$$

Where:

NU_i – surplus on variation margins resulting from the position of Netting Participant i .

The remaining designations retain the meanings given to them in Item 1.

3. The value of the total surplus on variation margins equals to:

$$NU = \sum_i NU_i$$

Where:

NU_i – surplus on variation margins resulting from the position of Netting Participant i ,

NU – Netting Participants' total surplus on variation margins.

4. The value of the surplus on variation margins is assigned to such Netting Participants who have non-zero margin requirements. The value of the surplus on variation margins assigned to Netting Participant j is:

$$NP_j = \frac{Dz_j}{\sum_n Dz_n} * NU$$

Where:

NP_j – surplus on variation margins assigned to Netting Participant j ,

Dz_j – collateral margin required from Netting Participant j before netting of variation margins,

$\sum_n Dz_n$ – sum of collateral margins required from all Netting Participants n before netting of variation margins,

NU – Netting Participants' total surplus on variation margins.

5. Reduced margin requirements for Netting Participants are expressed by the following formula:

$$Dzk_i = \min(Dz_i + NP_i; 0)$$

Where:

Dzk_i – margin requirements for Netting Participant i after netting of variation margins,

Dz_i – margin requirements for Netting Participant i before netting,

NP_i – surplus on variation margins assigned to Netting Participant i ,

§ 7

The resolution shall come into force on 1 March 2024

§ 8

As of the effective date of this resolution, Resolution No. 64/24/06/2023 adopted by the IRGiT S.A. Management Board on 7 June 2023 shall be repealed.

Łukasz Goliszewski

President of the Management Board

Piotr Listwoń

Vice-President of the Management Board