### Resolution no. 65/14/03/2019

# adopted by the Management Board of the Warsaw Commodity Clearing House (Izba Rozliczeniowa Giełd Towarowych S.A.)

dated 1st March 2019

to determine the rules for set-off of initial margins and rules for set-off of additional 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

- The set-off 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 set-off application by Power Group entities ("Set-off Participants") and conclusion of an Agreement by and between IRGiT and all Set-off Participants, defining the rules for establishing financial collateral for the Power Group.
- Margin set-off is applied according to the rules laid down 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 - § 5a below.

# \$ 2 Set-off of initial margins for forward contracts for electricity

1. For each *j* period of delivery established in each of the electricity delivery profiles being cleared (BASE, PEAK, OFFPEAK), the aggregate position of each Set-off Participant is calculated as:

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

Where:

 $LN_{i,j}$  – net energy volume in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,

 $LK_{i,j}$  – energy volume in purchase contracts for the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,

 $LS_{i,j}$  – energy volume in sales contracts for the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio.

2. For each *j* period of delivery established in each of the electricity delivery profiles being cleared, the aggregate position of all Set-off Participants (position of the Power Group) is calculated as:

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

Where:

 $LN_{i,j}$  – net energy volume in the *j* period of delivery [MWh] in total found in the Setoff Participants' portfolios (position of the Power Group),

 $LN_{i,j}$  – net energy volume in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio.

3. If for the given *j* period of delivery the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, for each *i* Set-off Participant who holds a negative (non-negative) position, a surplus on initial margins is calculated for the respective *j* period of delivery:

$$NW_{i,j} = -Dw_{i,j} * 80\%$$

Where:

 $Dw_{i,j}$  – initial margin of the *i* Set-off Participant holding a negative (non-negative) position, determined on the basis of the Detailed Clearing Rules for the energy in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,  $NW_{i,j}$  – surplus on the initial margins for the *j* period of delivery assigned to the *i* Set-off Participant holding a negative (non-negative) position.

4. If for the given *j* period of delivery the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, *i* Set-off Participants who hold a non-negative (negative) position in such period of delivery, are assigned a surplus on initial margins for the respective *j* period of delivery according to 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 the initial margins for the *j* period of delivery assigned to the *i* Set-off Participant holding a non-negative (negative) position,

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

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

 $\sum_{m} NW_{m,j}$  – total surplus on the initial margins for the *j* period of delivery assigned to all *m* Set-off Participants holding a negative (non-negative) position.

5. For all *i* Set-off Participants, the initial margin being set off is calculated according to the following formula:

$$Dwk_{i,EE} = Dw_{i,EE} + \sum_{j} NW_{i,j}$$

Where:

 $Dwk_{i,EE}$  – the initial margin required from the *i* Set-off Participant for forward contracts for electricity being cleared, after the set-off,

 $Dw_{i,EE}$  – the initial margin calculated for the *i* Set-off Participant for forward contracts for electricity being cleared, based on the Detailed Clearing Rules,

 $NW_{i,j}$  – surplus on the initial margins for the *j* period of delivery assigned to the given *i* Set-off Participant.

#### § 3

# Set-off of initial margins for forward contracts for gas

1. For each *j* period of delivery established in each of the products involving gas deliveries being cleared, the aggregate position of each Set-off Participant is calculated as:

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

Where:

 $LN_{i,j}$  – net gas volume in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,

 $LK_{i,j}$  – gas volume in purchase contracts for the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,

 $LS_{i,j}$  – gas volume in sales contracts for the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio.

2. For each *j* period of delivery established in each of the products involving gas deliveries being cleared, the aggregate position of all Set-off Participants (position of the Power Group) is calculated as:

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

Where:

 $LN_{i,j}$  – net gas volume in the *j* period of delivery [MWh] in total found in the Set-off Participants' portfolios (position of the Power Group),

 $LN_{i,j}$  – net gas volume in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio.

3. If for the given *j* period of delivery the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, for each *i* Set-off Participant who holds a negative (non-negative) position, a surplus on initial margins is calculated for the respective *j* period of delivery:

$$NW_{i,j} = -Dw_{i,j} * 80\%$$

Where:

 $Dw_{i,j}$  – initial margin of the *i* Set-off Participant holding a negative (non-negative) position, determined on the basis of the Detailed Clearing Rules for the gas volume in the *j* period of delivery [MWh] found in the *i* Set-off Participant's portfolio,  $NW_{i,j}$  – surplus on the initial margins for the *j* period of delivery assigned to the *i* Set-off Participant holding a negative (non-negative) position.

4. If for the given *j* period of delivery the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, *i* Set-off Participants who hold a non-negative (negative) position in such period of delivery, are assigned a surplus on initial margins for the respective *j* period of delivery according to 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 the initial margins for the *j* period of delivery assigned to the *i* Set-off Participant holding a non-negative (negative) position,

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

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

 $\sum_{m} NW_{m,j}$  – total surplus on the initial margins for the *j* period of delivery assigned to all *m* Set-off Participants holding a negative (non-negative) position.

5. For all *i* Set-off Participants, the initial margin being set off is calculated according to the following formula:

$$Dwk_{i,G} = Dw_{i,G} + \sum_{j} NW_{i,j}$$

Where:

 $Dwk_{i,G}$  – the initial margin required from the *i* Set-off Participant for forward contracts for gas being cleared, after the set-off,

 $Dw_{i,G}$  – the initial margin calculated for the *i* Set-off Participant for forward contracts for gas being cleared, based on Detailed Clearing Rules,

 $NW_{i,j}$  – surplus on the initial margins for the *j* period of delivery assigned to the given *i* Set-off Participant.

### § 4

# Set-off of initial margins for forward contracts for Property Rights under Certificates of Origin

1. For each of the series of *j* forward contracts for Property Rights under Certificates of Origin, the aggregate position of each Set-off Participant is calculated as:

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

Where:

 $LN_{i,j}$  – volume of forward purchase contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the *i* Set-off Participant's portfolio,

 $LK_{i,j}$  – volume of forward sales contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the *i* Set-off Participant's portfolio,

 $LS_{i,j}$  – volume of net forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] in total found in the *i* Set-off Participant's portfolio.

2. For each of the series of *j* forward contracts for Property Rights under Certificates of Origin, the aggregate position of all Set-off Participants (position of the Power Group) is calculated as:

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

Where:

 $LN_{j-}$  volume of net forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] in total found in the *i* Set-off Participants' portfolios (position of the Power Group),

 $LN_{i,j}$  – volume of net forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the *i* Set-off Participant's portfolio.

3. If for the given *j* series of contracts the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, for each *i* Set-off Participant who has a negative (non-negative) position, a surplus on initial margins is calculated for the respective *j* series of contracts:

$$NW_{i,j} = -Dw_{i,j} * 80\%$$

Where:

 $Dw_{i,j}$  – initial margin of the *i* Set-off Participant holding a negative (non-negative) position, determined on the basis of the Detailed Clearing Rules for the forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the *i* Set-off Participant's portfolio,

 $NW_{i,j}$  – surplus on the initial margins for the *j* series of contracts assigned to the *i* Set-off Participant holding a negative (non-negative) position.

4. If for the given *j* series of contracts the position of the Power Group *LN<sub>j</sub>* is non-negative (negative) then, *i* Set-off Participants who hold a non-negative (negative) position in the respective *j* series of contracts, are assigned a surplus on initial margins for the respective *j* series of contracts according to 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 the initial margins for series *j* forward contracts for Property Rights under Certificates of Origin assigned to the *i* Set-off Participant holding a non-negative (negative) position,

 $LN_{i,j}$  – volume of net forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the portfolio of the *i* Set-off Participant holding a non-negative (negative) position,

 $\sum_{n} LN_{n,j}$  – volume of net forward contracts for Property Rights under Certificates of Origin in the *j* series [MWh] found in the portfolio of all *i* Set-off Participants holding a non-negative (negative) position,

 $\sum_{m} NW_{m,j}$  – total surplus on the initial margins for the *j* series of contracts assigned to all *m* Set-off Participants holding a negative (non-negative) position.

5. For all *i* Set-off Participants, the initial collateral margin being set off is calculated according to the following formula:

$$Dwk_{i,PM} = Dw_{i,PM} + \sum_{j} NW_{i,j}$$

Where:

 $Dwk_{i,PM}$  – the initial margin required from the *i* Set-off Participant for forward contracts for Property Rights under Certificates of Origin being cleared, after the set-off,

 $Dw_{i,PM}$  – the initial margin calculated for the *i* Set-off Participant for forward contracts for Property Rights under Certificates of Origin being cleared, based on Detailed Clearing Rules,

 $NW_{i,j}$  – surplus on the initial margins for the *j* series of contracts assigned to the given *i* Set-off Participant.

# $\frac{8}{5}$ Set-off of additional margins (if the Power Group selects the option of utilizing the surplus in accordance with the agreed sequence)

1. The margin requirements of the Set-off Participant before the set-off on account of a surplus on additional margins are calculated as:

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

Where:

 $Dz_i$  – margin requirements for the *i* Set-off Participant,

 $Dwk_{i,EE}$  – value of set off initial margins for electricity transactions assigned to the *i* Set-off Participant,

 $Dwk_{i,G}$  – value of set off initial margins for gas transactions assigned to the *i* Set-off Participant,

 $Dwk_{i,PM}$  – value of set off initial margins for Property Rights under Certificates of Origin transactions assigned to the *i* Set-off Participant,

 $Du_{i,EE}$  – value of additional margin for electricity transactions assigned to the *i* Setoff Participant,

 $Du_{i,G}$  – value of additional margin for gas transactions assigned to the *i* Set-off Participant,

 $Du_{i,PM}$  – value of additional margin for Property Rights under Certificates of Origin transactions assigned to the *i* Set-off Participant.

2. Set-off of margins is possible only when the sum of the values of additional margins of one or more Set-off Participants shows a surplus (surplus on additional margins) over the sum of accrued initial margins for such Set-off Participant, i.e.:

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

then:

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

Where:

 $NU_i$  – surplus on additional margins resulting from the position of the *i* Set-off Participant.

The remaining denotations retain the meanings assigned to them in Item 1.

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

$$NU = \sum_{i} NU_{i}$$

Where:

 $NU_i$  – surplus on additional margins resulting from the position of the *i* Set-off Participant,

*NU* – total surplus of Set-off Participants on additional margins.

4. The value of the surplus on additional margins is assigned to such Set-off Participants who hold non-zero margin requirements. The value of the surplus on additional margins assigned to such *j* Set-off Participant whose margin requirements are set off in the first place is:

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

Where:

- $Dz_j$  margin requirements for the *j* Set-off Participant before the set-off,
- $NP_i$  surplus on additional margins assigned to the *j* Set-off Participant,
- *NU* total surplus of Set-off Participants on additional margins.
- 5. The value of the surplus on additional margins assigned to further *j* Set-off Participants who hold 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 the Set-off Participants are expressed by the following formula:

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

Where:

 $Dzk_i$  – margin requirements for the *i* Set-off Participant after the set-off of additional margins,

 $Dz_i$  – margin requirements for the *i* Set-off Participant before the set-off,

 $NP_i$  – surplus on additional margins assigned to the *i* Set-off Participant,

# § 5a

# Set-off of additional margins (if the Power Group selects the option of proportional division of the surplus)

1. The margin requirements of the Set-off Participant before the set-off on account of a surplus on additional margins are calculated as:

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

Where:

 $Dz_i$  – margin requirements for the *i* Set-off Participant,

 $Dwk_{i,EE}$  – value of set off initial margins for electricity transactions assigned to the *i* Set-off Participant,

 $Dwk_{i,G}$  – value of set off initial margins for gas transactions assigned to the *i* Set-off Participant,

 $Dwk_{i,PM}$  – value of set off initial margins for Property Rights under Certificates of Origin transactions assigned to the *i* Set-off Participant,

 $Du_{i,EE}$  – value of additional margin for electricity transactions assigned to the *i* Setoff Participant,

 $Du_{i,G}$  – value of additional margin for gas transactions assigned to the *i* Set-off Participant,

 $Du_{i,PM}$  – value of additional margin for Property Rights under Certificates of Origin transactions assigned to the *i* Set-off Participant.

2. Set-off of margins is possible only when the sum of the values of additional margins of one or more Set-off Participants shows a surplus (surplus on additional margins) over the sum of accrued initial margins for such Set-off Participant, i.e.:

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

then:

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

Where:

 $NU_i$  – surplus on additional margins resulting from the position of the *i* Set-off Participant.

The remaining denotations retain the meanings assigned to them in Item 1.

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

$$NU = \sum_{i} NU_{i}$$

Where:

 $NU_i$  – surplus on additional margins resulting from the position of the *i* Set-off Participant,

*NU* – total surplus of Set-off Participants on additional margins.

4. The value of the surplus on additional margins is assigned to such Set-off Participants who hold non-zero margin requirements. The value of the surplus on additional margins assigned to such *j* Set-off Participant is:

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

Where:

 $NP_i$  – surplus on additional margins assigned to the *j* Set-off Participant,

 $Dz_j$  – required collateral margin from the *j* Set-off Participant before the set-off of additional margins,

 $\sum_n Dz_n$  - sum of required collateral margins from all *n* Set-off Participant before the set-off of additional margins,

*NU* – total surplus of Set-off Participants on additional margins.

5. Reduced margin requirements for the Set-off Participants are expressed by the following formula:

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

Where:

 $Dzk_i$  – margin requirements for the *i* Set-off Participant after the set-off of additional margins,

 $Dz_i$  – margin requirements for the *i* Set-off Participant before the set-off,

 $NP_i$  – surplus on additional margins assigned to the *i* Set-off Participant,

### § 6

The Resolution shall come into force on the date of its adoption.