

## Instruction 7

### regarding the establishment of the Daily Settlement Price

effective as of 01.09.2020

#### 1. Identification of data sources:

**The use of the following data sources is considered in order to calculate the Daily Settlement Price:**

- I. Transactions concluded on *standard forward contracts* on the Clearing Market trading platform – the electronic platform dedicated to transactions with the post-trading method only through the Central Counterparty with specific procedure<sup>1</sup>.
- II. Transactions concluded on *standard forward contracts* on the Main Market trading platform – the electronic platform dedicated to transactions with multiple post-trading modalities with specific procedure<sup>2</sup>.
- III. Transactions on external reference hubs on futures contracts with delivery, mainly CEGH (Austria) and TTF (the Netherlands).
- IV. Transactions on other platforms at national level with forward contracts with delivery on the Romanian territory.

**The main data sources used for the calculations shall be those mentioned at points I and II above, together. In exceptional situations, in case that:**

- there are no data from transactions or
- the data from the transactions are insufficient or
- for the additional validation of the calculations of hypothetical prices

the sources III and IV shall be used to establish the Daily Settlement Price.<sup>3</sup>

#### 2. General principles of application

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<sup>1</sup> Trading procedure on the Centralized natural gas markets managed by the company *Bursa Română de Mărfuri* (Romanian Commodities Exchange) S.A., under the conditions of using a CLEARING HOUSE / CENTRAL COUNTERPARTY

<sup>2</sup> "The procedure for the organization and functioning of the standardized medium and long-term products market administered by the company *Bursa Română de Mărfuri* (Romanian Commodities Exchange) S.A."

<sup>3</sup> Hypothetical prices are prices calculated by the RCE specifically in the event of cascading Contracts into smaller Contracts.

**2.1** From the point of view of identifying the situations in which the existence of a Daily Settlement Price is required, the following principles apply:

- i. Each Contract shall have a mandatory Daily Settlement Price if at least 1 (one) transaction has been registered on that Contract or it comes from a cascading Contract, on which there was at least one Position to be distributed.
- ii. Contracts without transactions or on which there is no Position to take over from a cascading Contract shall not have a Daily Settlement Price calculated.

**2.2** From the point of view of identifying a Contract in relation to data sources, the following principles apply:

- i. **The prices from transactions on Contracts that have identical delivery periods represent** the data source of the Daily Settlement Price of a Contract. In this sense, for the purpose of exemplification:
  - A Contract with the delivery period in December 2020 shall have as price source only transactions with identical delivery period - *December 2020*; a Contract with the delivery period the 1<sup>st</sup> Quarter of 2021 shall have as price source only transactions with identical delivery period - *the 1<sup>st</sup> Quarter*; *In this case the price sources are from transactions on the RCE (the data sources I and II)*
  - A contract for the delivery period the 4<sup>th</sup> Quarter of 2021 may have as source price (*the data source III*) the price of the futures contract *plus a fixed margin determinable at that time* with identical delivery period on the CEGH stock exchange (VTP Austria)
- ii. **The prices of transactions on Contracts that include at least the entire delivery period of the respective Contract** (*for the data sources I and II*) and the prices from transactions with identical delivery period (*for the data sources III and IV*) are the data source of the *hypothetical* Daily Settlement Price of a Contract. In this sense, for the purpose of exemplification:
  - The transactions with Contracts are the price source of a Contract for the delivery period December 2021: Annual (*delivery period Jan-Dec 2021*), Biannual (*delivery period Jul-Dec 2021*), Seasonal (*delivery period Oct 2021- Mar 2022*), and *Quarterly (Oct-Dec 2021)*, as appropriate, or
  - The price of the futures contract for the 4<sup>th</sup> Quarter of 2021 listed on the ICE stock exchange (TTF Netherlands) may be the price source of a Contract for the delivery period the 4<sup>th</sup> Quarter of 2021, *plus a fixed margin determinable at that time*.

### **2.3 Hypothetical Daily Settlement Price - concept definition:**

The hypothetical price is the Daily Settlement Price calculated by the RCE for Contracts with monthly or quarterly delivery periods, strictly in the situation where a certain Contract with a delivery period of at least one quarter reaches maturity, respectively enters the

delivery period and on the respective Contract there was at least 1 (one) open position, respectively a transaction. For example:

We assume that on a **Contract with the delivery period the year 2021 there is a transaction / position**; as a result of the cascading process, the position held by a CM shall cascade on 6 smaller Contracts, but cumulatively equal as follows: 3 monthly contracts and 3 quarterly contracts (*January, February and March, respectively the second, the third and the fourth quarters of 2021*). **If there are no transactions** on the respective Contracts (*January, February and March, respectively the second, third and fourth quarters of 2021*), then, for the purpose of managing the Variation Margin for the positions redistributed on the respective Contracts (*January, February and March, respectively the second, the third and the fourth quarters of 2021*) it is necessary for the RCE to establish a Daily Settlement Price - this being the Daily Settlement Price, hereinafter also called *Hypothetical*.

### 3. Algorithms for calculating the Daily Settlement Price and their priority

#### 3.1 Daily Settlement Price

##### 3.1.1 Main Algorithm of the Daily Settlement Price

***ALL transactions concluded on the RCE platforms on the STANDARD medium and long-term products market*** (the sources I and II cumulated) are used as data source for the algorithm.

The algorithm applied daily for a Contract is:

- (i) **Daily Settlement Price = Weighted Average Price** of all transactions concluded on the current Day on the respective Contract;

*If no transaction has been concluded on the current day, then:*

- (ii) **Daily Settlement Price = Weighted Average Price** of all transactions concluded over the last 5 previous days on the respective Contract;

*If no transaction has been concluded over the last 5 Days, then:*

- (iii) **Daily Settlement Price = Weighted Average Price** of all transactions concluded over the last 20 previous days on the respective Contract;

*If no transaction has been concluded over the last 20 Days, then:*

- (iv) **Daily Settlement Price = Weighted Average Price** of all transactions concluded over the last 40 Days prior to the respective Contract;

*If no transaction has been concluded over the last 40 Days, then:*

- (v) **The sequence is repeated identically until the identification of transactions in the trading history, adding 20 additional Days to the total calculation period.**

**Note: Day = Working day**

### **3.1.2 Control / exceptional algorithm to the Daily Settlement Price**

It is applied implicitly if the Daily Settlement Price has a variation of over 10% (“+” or “-”) compared to the Daily Settlement Price from the previous Day or in exceptional situations where it is necessary if there are suspicions of manipulation of the Daily Settlement Price.

In both situations, the Daily Settlement Price calculated by the RCE shall be +/- 10% compared to the Daily Settlement Price from the previous day. According to Article 19 of the Regulation the CMs shall be informed on the Application Day regarding the calculation method used by the RCE.

*As a basic principle, the price of a product with an identical delivery period shall be taken over from CEGH or ICE and a price difference shall be introduced, as the case may be, based on the analysis of prices from transactions existing on the RCE markets and on transaction prices on reference foreign markets.*

## **3.2 Hypothetical Daily Settlement Price**

### **3.2.1 Hypothetical Daily Settlement Price Algorithm**

**NOTE: This algorithm applies to Contracts with a delivery period of Month and Quarter in the situation where there are no transactions actually performed on these Contracts, but as a result of the cascading process, there are some Positions to allocate from previous transactions on these Contracts.**

The algorithm establishes the hypothetical Daily Settlement Price. The algorithm uses as data source ***ALL transactions concluded on the RCE platforms on the STANDARD medium and long-term products market on (the sources I and II cumulated).***

The algorithm applied daily for a Contract is as follows:

**Step 1:** The hypothetical calculation of the Hypothetical Daily Settlement Price for a Contract with a delivery period of the Month type is taken into account;

**Step 2:** All relevant transactions are identified; in this sense, the algorithm searches the database for all transactions (*considered relevant*) with standard periods (*CALENDAR YEAR and GAS YEAR, SEMESTER, GAS SEASON, QUARTER and MONTH*) **that include the delivery period related to the Contract** from step 1.

**Step 3:** Distribution of quantities; the algorithm distributes MWh from the relevant transactions on the Contract pursued in Step 1 within the relevant transaction.

**Step 4:** Price adjustment; the algorithm adjusts the relevant transactions price based on coefficients, as follows:

- The Calendar and Gas Years are adjusted with **a basic coefficient at the level of the month.**
- **Semesters / Seasons The Quarter by multiplying the price of the relevant transaction by a coefficient derived from the basic coefficient.**
- The Months keep the price of the relevant transaction, no adjustment is necessary, the delivery period being identical to the delivery period of the month followed related to the Contract in Step 1.

**Step 5:** Calculation of the weighted average price at month and quarter level:

- In the case of the price of a month, **the weighted average** of all the identified relevant transactions is calculated (*in Step 1*), taking into account the total quantity of the month (Step 2) and the Price adjusted by coefficients (Step 3)
- The price for a quarter is obtained by applying an **arithmetic mean for the component months included in the quarter.**

#### Adjustment coefficients (Ci)

Basic coefficients (Ci) applied for calculating the adjusted prices of the relevant transactions for annual periods (Calendar Year and Gas Year).

The principle used is to distribute a constant price over a long delivery period (YEAR) in different price series at month level, but cumulatively equal, based on an estimated price curve (*estimated higher prices in the cold season and lower in the warm season*).

The checksum of the monthly indices is equal to 12.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.2	1.2	1.15	1	0.85	0.8	0.8	0.8	1	0.85	1.15	1.2

**Derived coefficients:** are coefficients derived from the basic coefficients with a single role to ensure the adjustment in a uniform framework of the prices from the relevant transactions of quarterly, biannual or seasonal type,

The calculation formula is:

$$Ci_{adjusted} = Ci / (\text{arithmetic mean of } Ci \text{ of the delivery period of the relevant transaction})$$

Example for the Ci adjusted for March following the allocation of a relevant transaction with the delivery period the 1<sup>st</sup> Quarter:

$$Ci_{adjusted\ March} = 1.15 / (1.2 + 1.2 + 1.15) / 3 = 0.97183.$$

### **3.2.2 Control / exceptional algorithm to the hypothetical Daily Settlement Price**

If the hypothetical Daily Settlement Price is contested by the participants or considered by the RCE in discrepancy with the evolution of prices on similar products in terms of the delivery period on external products, the RCE may apply a similar algorithm for establishing the Daily Settlement Price with the one mentioned at point 3.1.2.

*This Instruction can be modified only if it has been published previously on the website and has been communicated by email to the CM!*