

	<b>Number:</b> C-EX-ENE-08/2018 <b>Contract Group:</b> Energy <b>Date:</b> 27 February 2018 <b>Effective from:</b> 6 March 2018 <b>Replaces:</b> C-EX-ENE-05/2016
<b>Subject</b>	Methodology for setting Closing Prices.
<b>Summary</b>	Methodology to obtain Closing Prices. It is modified due to exclusion of wind power contracts.

Closing Prices will be calculated by MEFF. Once all prices are checked at MEFF, the system will automatically send them to BME CLEARING who will use them as a source to obtain Daily Settlement Prices and to carry out Settlement and Clearing processes.

## 1. METHODOLOGY TO OBTAIN CLOSING PRICES OF STANDARD POWER CONTRACTS

1. MEFF will calculate Closing Prices for all listed contracts.
2. Contract prices received from brokers before 18:00 CET will serve as a starting point:
  - a. - MEFF will use the best Bid and the best Ask provided by the brokers in each contract.
  - b. - In the event that the spread range is 10 cents or below ("quality spread"), the average of the spread, calculated with two decimals, will be the closing price for the contract. If the spread range is larger than 10 cents, the closing price will be determined by other methods.
  - c. - In case of discrepancy between the quotes provided by the brokers in a particular contract (best Bid higher than best Ask), the contract closing price will be the average of the traded prices.
3. For those listed contracts where prices sent by brokers do not comply with the quality parameter, MEFF will infer the prices by alternative methods. Annex A contains a detailed explanation regarding the methodology used by MEFF.
4. If the methods of calculation defined in previous sections and in Annex A cannot be applied, or if following those methods does not reflect the fair market price then, the Closing Price of any contract will be determined by MEFF. To establish the Closing Price of a contract, MEFF will use objective and reliable criteria, taking into account the price of registered trades, estimated closing prices provided by market participants as well as current and previous sessions closing prices.

### **3. CHANGES IN CLOSING PRICES METHODOLOGY**

In the event that the Closing Prices methodology is modified, leading to the subsequent modification of the present Circular, at least ten working calendar days must elapse between the publication of the Circular and the day new methodology is used for the first time.

## **Annex A**

### **Procedures for inferring Closing Prices of contracts without a Quality Spread**

MEFF will infer the closing prices in the following circumstances:

- In contracts listed by MEFF where the price has not been provided by the brokers.
- In contracts where the spread of the prices provided by the brokers is wider than 10 cents, (i.e. not a quality spread).

In general terms, in the event that there is no quality spread in a contract, MEFF will meet the respective shortfall by means of the following techniques:

- a) Using pricing bases, to maintain price relationship among several contracts that belong to same delivery period (monthly, quarterly, etc...).
- b) Using historic ratios, to maintain the relationship between contracts that have historically held one (relationship of Saturday or Sunday price with regard to working day, or relationship of the quarterly contracts with regard to annual contract price).
- c) Price shall be inferred from another contract of greater delivery period or less delivery period
- d) If it is a new contract with no price base available, the price will be obtained by using the relationship that historically has existed between the price of the new contract and the price of the contract from which it has derived (e.g. the August contract with regard to the price of the third quarter, or the second quarter contract with regard to the annual contract).

### **Using Pricing Bases**

1. Each month, the theoretical base will be calculated (difference in absolute value between two contracts of the same Delivery Period) against the new first weekly, monthly, quarterly and calendar maturity.
2. The base will be used when there are no quality spreads in contracts different from the front. To obtain the Closing Prices of contracts the first day of the month, historical ratio between the monthly price and the quarterly price, or between quarterly price and the calendar price, will be used. The base will be maintained provided that the quotes of brokers at market close do not modify it. If broker's quotes modify these bases, these will prevail and will be used as long as there are no new prices modifying it.
3. In the event that bases must be applied to infer prices, these bases will be applied in absolute value according to the following:

#### Closing Basis Calculation:

Basis (of the contract with the price to be inferred and the Front contract of the same term) = Price of the contract to be inferred – Price of Front contract

Closing price calculation of a contract without a quality spread using the basis:

Induced price = Price of the Front contract on valuation date + Closing Basis of previous day.

4. In the event that a contract has not a quality spread but has a Bid or Ask, the inferred price, if possible, shall not be below the best Bid nor above the best Ask.

### **Calculation process for each type of contract**

#### Calendar Contracts

1. First calendar contract: if it does not have a quality spread, the price of the previous day will prevail as long as that this price is equal or higher than the Bid price and below or equal to the Ask price provided by brokers.
2. Second and subsequent calendar contracts: if it does not have a quality spread, the Closing Price will be calculated using the base against the first calendar contract, as long as this price is equal or higher than the Bid price and below or equal to the Ask price provided by brokers.

#### Quarterly Contracts

1. First quarterly contract: if it does not have a quality spread, price must be inferred from closing prices of monthly contracts, as long as this price is equal or higher than the Bid price and below or equal to the Ask price provided by brokers.
2. Quarterly contract different from front: if it does not have a quality spread, Closing Price shall be calculated using the base, as long as this price is equal or higher than the Bid price and below or equal to the Ask price provided by brokers.
3. Monthly Contracts: if it does not have a quality spread, previous session closing price will prevail, implementing the variation suffered by the quarterly period that contains the monthly contract, and as long as this price is equal or higher than the Bid price and below or equal to the Ask price provided by brokers.
4. Weekly contracts: if it does not have a quality spread, prices will be modified with regard to the previous session closing price so as to meet the following requirements:
  - Price of every week must be equal or above the Bid price and below or equal to the Ask price provided by brokers.
  - No arbitrage can be possible between the price of the month and the weeks it contains.
  - Variation between previous session closing price and current session shall be the minimum possible.
5. Daily Contracts

- Daily Closing prices of the current week will be calculated with the last price for the working days, and using ratios between Saturday/working day, holiday day/working day, and Sunday/Saturday to settle closing price of daily contracts of Saturday, Sunday and holiday days, if applicable.

Those ratios will be re-calculated at year end.

- Quoted weekly contracts prices will be used to calculate the Closing Price of the rest of daily contracts of the month.

#### 6. Peak Contracts

- To calculate peak load contract closing prices, the base will be fixed (in absolute value) once a month between the base load and the peak load contract prices sent by the members of the Pricing Committee. The base will remain as long as no quote for the contract is received.
- If no price is made available for one or more contracts, they will be closed using base load contract prices multiplied by the ratio Peak/Base Load published by OMEL for the last four quarters. This ratio will be updated at the end of each quarter.