



Calculation method of the Italian Gas Index IGI

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1. GENERAL DEFINITION

This document describes the calculation method for the Italian Gas Index (IGI).

The index (IGI) is calculated by GME, for each gas-day, on the basis of the transaction prices concluded on the natural gas market (MGAS), as specified below.

In case of inconsistency between the Italian and English versions of this document, the Italian version will prevail.

GME reserves the right to modify or update, at any time, the method and parameters for index calculation. The changes and updates will be provided by GME, through the publication of the updated version of this document on its website www.mercatoelettrico.org.

1.1. CHARACTERISTICS OF THE IGI INDEX

The IGI is an index:

- **market-based:** it is calculated on the basis of the prices recorded in the different sessions of the MGAS;
- **representative:** it gives the indication of the gas price at the **PSV (Virtual Trading Point)**, as gas traded on the MGAS in the form of "title transfer" product is automatically nominated at the PSV by GME;
- **based on stability and transparency:** it is calculated on a market (MGAS) characterised by an adequate level of liquidity and on the basis of the actual transactions concluded on it;
- **reliable:** as the MGAS market is a regulated and monitored market in accordance with the provisions of national and European regulations.

The IGI index can be used as a "reference" for hedging transactions and/or supply contracts. The criteria for its determination are:

- clearly defined and made known by GME in the context of this document **Calculation method of the Italian Gas Index IGI**;
- "repeatable" by trading strategies.

2. METHOD

The methodology and functional parameters for calculating the IGI index are shown below.

2.1. CALCULATION OF THE IGI INDEX

The IGI is calculated for each gas-day as the **arithmetic mean** of the prices of the trades concluded in the **time period 17:15–17:30** (ends included) on the MGP-GAS in continuous trading and on the Day-Ahead and WE products, i.e.

$$IGI = \frac{1}{TOT} \sum_{i=1}^{TOT} P_i$$

with:

- *TOT* number of transactions concluded in the time period [17: 15; 17: 30]
- P_i price of the *i*-th transaction concluded in the time period [17: 15; 17: 30]

The IGI value for each gas-day is identified by taking into consideration the transactions concluded in the MGP-GAS segment – only in the trading sessions taking place on working days according to the [reference timetable](#) published by GME on its website, under Technical Rule no. 07 – in respect of the following products:

- **DA secondo calendario** (*DA according to timetable*): daily product with delivery on the first working day following the day of trading according to the reference timetable (whether G+1, G+2, G+3, or G+n). If there are midweek holidays separate from a weekend (from Tuesday through Thursday, Monday and Friday being working days), the IGI will be calculated not only on the *DA according to timetable* as indicated above, but also on each of the daily products pertaining to holidays until the day preceding the *DA according to timetable* day¹: G+1 (if there is a midweek holiday), G+2 (if there are two midweek holidays), and G+3 (if there are three midweek holidays);
- **Prodotto WE** (*WE product*): traded in the session preceding the first day of delivery belonging to the WE product.

In order to reduce the possible effect of clear material errors, trades will be included in the index calculation only if their price is included within the range (*Range*) of prices defined around a Reference price (P_{rif}). In detail, the Price (P_i) of the *i*-th transaction will contribute to the formation of the IGI only if:

$$P_i \in [P_{rif} - Range; P_{rif} + Range]$$

where:

- P_{rif} = arithmetic mean of the prices recorded in the N previous transactions, with N equal to 5;
- *Range* = percentage value applied to the P_{rif} able to fix the tolerability range of the transaction price, equal to 30%.

2.2. CALCULATION OF THE IGI INDEX WITHOUT TRANSACTIONS

In the absence of transactions concluded in the time period 17:15–17.30 on the product on which the index is calculated, the IGI is defined:

- by a "replacement price", intended as the arithmetic mean of the prices recorded on the market from the opening of trading until 17:15, or
- by the *check price* at the start of the session, in case of no transactions on the specific product for the whole session.

¹ For example: if, in a given week, Monday is a working day, Tuesday and Wednesday are holidays, and Thursday and Friday are working days, then the IGI index in the Monday session will be calculated on the following products: G+1 (Tuesday), G+2 (Wednesday), and G+3 (Thursday, corresponding to the *DA according to timetable* product).