

European Gas Market Methodology

September 2013



GENERAL METHODOLOGY

ICIS publishes market prices based on information continuously gathered from market participants about spot transactions, spot bid and offer levels, contract price negotiations, prices of related commodities and relevant freight costs.

ICIS includes in its price-generation process only information gathered up to the published market close time for each commodity and assessed period. ICIS does not make retrospective adjustments or changes to price quotations based on information subsequently received.

ICIS regards all arm's length transactions that meet its specification criteria as carrying equal weight.

ICIS uses proprietary models where necessary to normalise data to the typical specifications for cargo size and date ranges given for each commodity.

ICIS endeavours to crosscheck all the transaction information it gathers. ICIS will not use information for assessment purposes where such checks call into doubt the accuracy of the original information, or where a transaction appears to have occurred under circumstances that render it non-repeatable or otherwise markedly unusual.

ICIS publishes a number of types of market quotation.

Recent changes to this methodology

Date	Assessment	Change
23-Jun-10	All	Document created

Contract price assessments

ICIS assesses long-term sales contract prices at border points across Europe as follows:

Region	Assessment name	Frequency	Units
Spain	Algeria-Spain LNG sales contract price	Monthly	\$/MMBtu
Germany	Russia-Germany gas sales contract price	Monthly	€/MWh
Germany	Norway-Germany gas sales contract price	Monthly	€/MWh
Germany	Netherlands-Germany gas sales contract price	Monthly	€/MWh

Published monthly, these assess a typical long-term sales contract price for gas at different border points in Europe. The assessments are calculated using:

- Source data obtained by ICIS from counterparties involved in long-term sales contract negotiations
- Source data freely available in the market
- Historical and forwards assessments for various commodities relevant to a typical long-term contract price

In making its border price assessments, ICIS models price formulae against historic price information, to create a line of best fit. The formula for the line of best fit is then used as the basis for the current month assessment. Adjustments to this formula are made based on any additional contract information obtained by ICIS. Forward fuels prices are then used to create a calculated forward curve for the contracts. Where forward fuels prices are unavailable, proxy forward fuels markets are used.

Each calculation has several variables which can change on a monthly basis. These modify a fixed contract formula and include:

- A fixed/base price component
- A fuel efficiency multiplier
- Relevant fuel price variables

Each border price assessment incorporates different fuels as follows:

- Algeria-Spain LNG: ICIS Dated Brent prices
- Russia-Germany pipeline gas: ICIS Low Sulphur Fuel Oil, ICIS Gas Oil, ICIS NBP Day-ahead price assessment and forward curve
- Norway-Germany pipeline gas: ICIS Low Sulphur Fuel Oil, ICIS Gas Oil, ICIS NBP Day-ahead price assessment and forward curve
- Netherlands-Germany pipeline gas: CIS Low Sulphur Fuel Oil, ICIS Gas Oil, ICIS Heren TTF Heren Day-ahead index and forward curve

Fuels data is applied to the contract formula using different reference and lag time periods. For example, typically the reference period for oil product prices is six months, applicable for the quarter ahead. However, as this varies with each contract, these time periods will be frequently reviewed.

Conversion factors

The original source data is priced in the national currency and/or in USD. Where both currencies are provided, the USD values are used. In European contract formulae,

prices are calculated in USD and then converted into euros to generate the line of best fit and forward price.

Prices are then converted back to USD using forward prices for comparable display.

For the Algeria-Spain LNG price, the entire calculation – including matching the line of best fit with the source data – is carried out in USD. The price is converted to euros for comparable display using forward exchange rates.

Forward currency rates are calculated using 29 pricing points, sourced from Bloomberg, at 16:30 London time every day. The pricing points used are all of those available: spot, one week ahead, 24 months ahead, and three to five years ahead.

Using these points, ICIS calculates a smooth curve, providing rates for each day out to five years. From these values, appropriate rates are calculated for the contracts quoted by ICIS in its assessment tables.

Publication schedule

The contract assessments are revised on a monthly basis, on the first working day of every month, but may remain unchanged for quarterly periods depending on the formula used in each calculation. Prices in formulae which are revised on a quarterly basis will be updated with changes in exchange rate calculations.

The forward assessments will also be updated each month on changes in forward fuel markets prices and exchange rates.

To comment on any aspect of this methodology, or to propose changes, please contact Katya Zapletnyuk, Editor, ICIS on +44 207 911 1947

ICIS continually develops, reviews and revises its methodologies in consultation with industry participants. Product specifications and trading terms and conditions are intended to reflect typical working practices prevalent in the industry.

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