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## ***ARGUS O.M.R. FUELS***

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The most up-to-date Argus O.M.R. Fuels methodology is available on [www.argusmedia.com](http://www.argusmedia.com)

## Methodology overview

### Methodology rationale

Argus strives to construct methodologies that reflect the way the market trades. Argus aims to produce price assessments that are reliable indicators of commodity market values, free from distortion and representative of spot market values. As a result, the specific currencies, volume units, locations and other particulars of an assessment are determined by industry conventions.

In the German downstream markets, Argus publishes physical market prices in the open spot market as laid out in the specification and methodology guide. Argus uses the trading period deemed by Argus to be most appropriate, in consultation with industry, to capture spot liquidity.

Argus may assess some clean product markets as a basis differential to Ice gasoil to arrive at fixed prices because the futures settlement price is a representative futures price reference.

In order to be included in the assessment process, deals must meet the minimum volume, delivery, timing and specification requirements in our methodology. In illiquid markets, Argus assesses the range within which product could have traded by applying a strict process outlined later in this methodology.

### Survey process

Argus price assessments are informed by information received from a wide cross-section of market participants, including producers, consumers and intermediaries. Argus reporters engage with the industry by proactively polling participants for market data. Argus will contact and accept market data from all credible market sources including front and back office of market participants and brokers.

Argus will also receive market data from electronic trading platforms and directly from the back offices of market participants. Argus will accept market data by telephone, instant messenger, email or other means.

Argus encourages all sources of market data to submit all market data to which they are a party that falls within the Argus stated methodological criteria for the relevant assessment. Argus encourages all sources of market data to submit transaction data from back office functions.

Throughout all markets, Argus is constantly seeking to increase the number of companies willing to provide market data. Reporters are mentored and held accountable for expanding their pool of contacts. The number of entities providing market data can vary significantly from day to day based on market conditions.

For certain price assessments identified by local management, if more than 50pc of the market data involved in arriving at a price assessment is sourced from a single party the supervising editor will engage in an analysis of the market data with the primary reporter to ensure that the quality and integrity of the assessment has not been affected.

### Market data usage

In each market, Argus uses the methodological approach deemed to be the most reliable and representative for that market. Argus will utilise various types of market data in its methodologies, to include:

- Transactions
- Bids and offers
- Other market information, to include spread values between grades, locations, timings, and many other data.

In many markets, the relevant methodology will assign a relatively higher importance to transactions over bids and offers, and a relatively higher importance to bids and offers over other market information. Certain markets however will exist for which such a hierarchy would produce unreliable and non-representative price assessments, and so the methodology must assign a different relative importance in order to ensure the quality and integrity of the price assessment. And even in markets for which the hierarchy normally applies, certain market situations will at times emerge for which the strict hierarchy would produce non-representative prices, requiring Argus to adapt in order to publish representative prices.

### Verification of transaction data

Reporters carefully analyse all data submitted to the price assessment process. These data include transactions, bids, offers, volumes, counterparties, specifications and any other information that contributes materially to the determination of price. This high level of care described applies regardless of the methodology employed. Specific to transactions, bids, and offers, reporters seek to verify the price, the volume, the specifications, location basis, and counterparty. In some transactional average methodologies, reporters also examine the full array of transactions to match counterparties and arrive at a list of unique transactions. In some transactional average methodologies, details of the transactions verified are published electronically and are accessible by subscribers. The number of transactions and volumes are also published in the daily report.

Several tests are applied by reporters in all markets to transactional data to determine if they should be subjected to further scrutiny. If a transaction has been identified as failing such a test, it will receive further scrutiny. For assessments used to settle derivatives and for many other assessments, Argus has established internal procedures that involve escalation of inquiry within the source's company and escalating review within Argus management. Should this process determine that a transaction should be excluded from the price assessment process, the supervising editor will initiate approval and, if necessary, documentation procedures.

### Primary tests applied by reporters

- Transactions not transacted at arms length, including deals between related parties or affiliates.
- Transaction prices that deviate significantly from the mean of all transactions submitted for that day.
- Transaction prices that fall outside of the generally observed lows and highs that operated throughout the trading day.
- Transactions that are suspected to be a leg of another transaction or in some way contingent on an unknown transaction.

- Single deal volumes that significantly exceed the typical transaction volume for that market.
- Transaction details that are identified by other market participants as being for any reason potentially anomalous and perceived by Argus to be as such.
- Transaction details that are reported by one counterparty differently than the other counterparty.
- Any transaction details that appear to the reporter to be illogical or to stray from the norms of trading behaviour. This could include but is not limited to divergent specifications, unusual delivery location and counterparties not typically seen.
- Transactions that involve the same counterparties, the same price and delivery dates are checked to see that they are separate deals and not one deal duplicated in Argus records.

### Secondary tests applied by editors for transactions identified for further scrutiny

#### Transaction tests

- The impact of linkage of the deal to possible other transactions such as contingent legs, exchanges, options, swaps, or other derivative instruments. This will include a review of transactions in markets that the reporter may not be covering.
- The nature of disagreement between counterparties on transactional details.
- The possibility that a deal is directly linked to an offsetting transaction that is not publicly known, for example a “wash trade” which has the purpose of influencing the published price.
- The impact of non-market factors on price or volume, including distressed delivery, credit issues, scheduling issues, demurrage, or containment.

#### Source tests

- The credibility of the explanation provided for the outlying nature of the transaction.
- The track record of the source. Sources will be deemed more credible if they
  - Regularly provide transaction data with few errors.
  - Provide data by Argus’ established deadline.
  - Quickly respond to queries from Argus reporters.
- How close the information receipt is to the deadline for information, and the impact of that proximity on the validation process.

### Assessment guidelines

When insufficient, inadequate, or no transaction information exists, or when Argus concludes that a transaction-based methodology will not produce representative prices, Argus reporters will make an assessment of market value by applying intelligent judgment based on a broad array of factual market information. Reporters must use a high degree of care in gathering and validating all market data used in determining price assessments, a degree of care equal to that applying to gathering and validating transactions. The information used to form an assessment could include deals done, bids, offers, tenders, spread trades, exchange trades, fundamental supply and demand information and other inputs.

The assessment process employing judgment is rigorous, replicable and uses widely accepted valuation metrics. These valuation metrics mirror the process used by physical commodity traders to internally assess value prior to entering the market with a bid or offer. Applying these valuation metrics along with sound judgment significantly narrows the band within which a commodity can be assessed, and greatly increases the accuracy and consistency of the price series. The application of judgment is conducted jointly with the supervising editor, in order to be sure that the guidelines below are being followed. Valuation metrics include the following:

#### Bids and offers

If a sufficient number of bids and offers populate the market, then the highest bid and the lowest offer can be assumed to define the boundaries between which a deal could be transacted.

#### Comparative metrics

The relative values between compared commodities are readily discussed in the market and can be discovered through dialogue with market participants. These discussions are the precursor to negotiation and conclusion of transactions.

- Comparison to the same commodity in another market centre.
- Comparison to a more actively traded but slightly different specification commodity in the same market centre.
- Comparison to the commodity’s primary feedstock or primary derived product(s).
- Comparison to trade in the same commodity but in a different modality (as in barges versus trucks) or in a different total volume.

### Volume minimums and transaction data thresholds

Because of the varying transportation infrastructure found in all commodity markets, Argus typically does not establish thresholds strictly on the basis of a count of transactions, as this could lead to unreliable and non-representative assessments. Instead, minimum volumes are typically established which may apply to each transaction accepted, to the aggregate of transactions, to transactions which set a low or high assessment or to other volumetrically relevant parameters.

For some price assessments, Argus will seek to establish minimum transaction data thresholds and when no such threshold can be established Argus will explain the reasons. These thresholds will often reflect the minimum volumes necessary to produce a transaction-based methodology, but may also establish minimum deal parameters for use by a methodology that is based primarily on judgment.

Should no transaction threshold exist, or should submitted data fall below this methodology’s stated transaction data threshold for any reason, Argus will follow the procedures outlined elsewhere in this document regarding the exercise of judgment in the price assessment process.

### Corrections to assessments

Argus will on occasion publish corrections to price assessments after the publication date. We will correct errors that arise from clerical mistakes, calculation errors, or a misapplication of our stated

methodology. Argus will not retroactively assess markets based on new information learned after the assessments are published. We make our best effort to assess markets based on the information we gather during the trading day assessed.

From time to time, trade data reported to Argus are corrected after the fact by market participants. In these cases, Argus will take into consideration the materiality of the corrected trade data's effect on the final price assessments and the timing of the corrected trade data when deciding whether to issue a correction.

- Materiality – if the receipt of corrected trade data would change the published low or high price by any amount or would change the published volume-weighted average price by 1pc or more, Argus will publish a corrected low, high and/or volume-weighted average price.
- Timing – if transaction information is submitted in error, and the company submitting the information informs Argus of the error more than one business day after the original submission, Argus will review both the material effect the correction will have on the published price data and the amount of time that has elapsed from the date of the published price data before deciding whether to issue a correction.

### Ethics and compliance

Argus operates according to the best practices in the publishing field, and maintains thorough compliance procedures throughout the firm. We want to be seen as a preferred provider by our subscribers, who are held to equally high standards, while at the same time maintaining our editorial integrity and independence. Argus has a strict ethics policy that applies to all staff. The policy can be found on our website at [www.argusmedia.com](http://www.argusmedia.com). Included in this policy are restrictions against staff trading in any energy commodity or energy-related stocks, and guidelines for accepting gifts. Argus also has strict policies regarding central archiving of email and instant messenger communication, maintenance and archiving of notes, and archiving of spreadsheets and deal lists used in the price assessment process. Argus publishes prices that report and reflect prevailing levels for open-market arms length transactions (please see the [Argus Global Compliance Policy](#) for a detailed definition of arms length).

### Consistency in the assessment process

Argus recognises the need to have judgment consistently applied by reporters covering separate markets, and by reporters replacing existing reporters in the assessment process. In order to ensure this consistency, Argus has developed a programme of training and oversight of reporters. This programme includes:

- A global price reporting manual describing among other things the guidelines for the exercise of judgment.
- Cross-training of staff between markets to ensure proper holiday and sick leave backup. Editors that float between markets to monitor staff application of best practices.
- Experienced editors overseeing reporting teams are involved in daily mentoring and assisting in the application of judgment for illiquid markets.
- Editors are required to sign-off on all price assessments each day, thus ensuring the consistent application of judgment.

### Review of methodology

The overriding objective of any methodology is to produce price assessments that are reliable indicators of commodity market values, free from distortion and representative of spot market values. As a result, Argus editors and reporters regularly examine our methodologies and are in regular dialogue with the industry in order to ensure that the methodologies are representative of the physical market being assessed. This process is integral with reporting on a given market. In addition to this ongoing review of methodology, Argus conducts reviews of all of its methodologies and methodology documents on at least an annual basis.

Argus market report editors and management will periodically and as merited initiate reviews of market coverage based on a qualitative analysis that includes measurements of liquidity, visibility of market data, consistency of market data, quality of market data and industry usage of the assessments. Report editors will review:

- Appropriateness of the methodology of existing assessments
- Termination of existing assessments
- Initiation of new assessments

The report editor will initiate an informal process to examine viability. This process includes:

- Informal discussions with market participants
- Informal discussions with other stakeholders
- Internal review of market data

Should changes, terminations, or initiations be merited, the report editor will submit an internal proposal to management for review and approval. Should changes or terminations of existing assessments be approved, then formal procedures for external consultation are begun.

### Changes to methodology

Formal proposals to change methodologies typically emerge out of the ongoing process of internal and external review of the methodologies. Formal procedures for external consultation regarding material changes to existing methodologies will be initiated with an announcement of the proposed change published in the relevant Argus report. This announcement will include:

- Details on the proposed change and the rationale
- Method for submitting comments with a deadline for submissions
- Notice that all formal comments will be published after the given consultation period unless submitter requests confidentiality.

Argus will provide sufficient opportunity for stakeholders to analyse and comment on changes, but will not allow the time needed to follow these procedures to create a situation wherein unrepresentative or false prices are published, markets are disrupted, or market participants are put at unnecessary risk. Argus will engage with industry throughout this process in order to gain acceptance of proposed changes to methodology. Argus cannot however guarantee universal acceptance and will act for the good order of the market and ensure the continued integrity of its price assessments as an overriding objective.

Following the consultation period, Argus management will commence an internal review and decide on the methodology change. This will be followed by an announcement of the decision, which will be published in the relevant Argus report and include a date for implementation. Publication of stakeholders' formal comments that are not subject to confidentiality and Argus' response to those comments will also take place.

### Data handling and storage

All transaction data submitted to Argus as part of the Argus O.M.R. Fuels service will be handled and stored in accordance with relevant law. Counterparty information including, but not limited to, company names or addresses will not be published without the express written consent of the counterparty. More information on data and data security policies can be found [here](#).

### Verification and use of transaction data

Transaction data will be used to form the basis of the Argus O.M.R. Fuels service. These data include transactions, bids, offers, volumes, counterparties, specifications and any other information that contributes materially to the determination of price. For transaction data to be included in the regional FCA truck price assessments they must meet the following requirements:

- For delivery within Germany
- Transactions at arms length (please see the [Argus Global Compliance Policy](#) for a detailed definition of arms length).
- Product specifications meet those standards outlined within this methodology

Transactional data may be excluded for the following reasons:

- Transactions not transacted at arms length, including deals between related parties or affiliates.
- Price or volume corrections, in particular those which do not take place on the same day as the reported transaction.
- Transaction prices that fall outside of the generally observed lows and highs that operated throughout the trading day.

## Germany

### Price assessments

All Argus fuel price assessments are for fca truck spot trades and are reported in €/100l including energy tax, CO2 tax and EBV fees where applicable, and excluding value-added tax.

### vDIP — volume-weighted averages

Volume-weighted average prices (vDIP) are published for:

- 95 Ron E5
- diesel EN 590 10ppm,
- heating oil 50ppm

in each region when a minimum of three sources have submitted data to Argus totalling at least 300m<sup>3</sup> of total volume for a given product and region.

If these conditions are not met, Argus uses its discretion in deciding whether to include transaction data with a combined volume of less than 300m<sup>3</sup> or received from fewer than three sources. Argus will take into account the verifiability of transaction data and other market information when making such decisions.

If no transaction data have been received, the assessment will be made using other market data such as bids, offers and activity on the international market.

Information about trades completed after 5pm Central European Time and/or reported to Argus after 6pm Central European Time may not be considered for inclusion in the assessment.

95 Ron E10 and 98 Ron follow a different methodology outlined later in this document.

### Argus O.M.R. low, high and mean

Low, high and mean prices are published for

- 95 Ron E5
- diesel EN 590 10ppm,
- heating oil 50ppm

in each region. The high price is the highest price at which 90m<sup>3</sup> of heating oil and diesel and 30m<sup>3</sup> of E5 gasoline traded in the relevant location, and the low price is the lowest price at which 90m<sup>3</sup> of heating oil and diesel and 30m<sup>3</sup> of E5 gasoline traded in the relevant location.

If either the high or low traded price did not trade in at least 90m<sup>3</sup> or 30m<sup>3</sup>, Argus constructs a volume-weighted average of the highest-priced or lowest-priced trades whose total aggregate volume meets the 90m<sup>3</sup> or 30m<sup>3</sup> threshold.

If less than 500m<sup>3</sup> of total volume is reported for a given assessment or fewer than six parties report transactions, offers may also be taken into account in constructing the published low/high assessment.

Midpoint prices are published as the mean of the low/high assessments for each product in each region.

### 95 Ron E10 and 98 Ron gasoline assessments

98 Ron and 95 Ron E10 gasoline prices are assessed on the basis of reported transactions and a daily market survey of offers.

Argus publishes assessments of regional 98 Ron and 95 Ron E10 gasoline price differentials to the regional E5 price. For each region an outright 98 Ron price and 95 Ron E10 price are also published as the regional E5 price assessment plus the regional differential for each product.

Only price information for 98 Ron or 95 Ron E10 gasoline offered or sold as part of a "Tankstellenmix" or "retail mix" that includes E5 or other motor fuels as part of a combined shipment to retailers will be considered for inclusion in the assessments.

### Weekly, 10-day, half-monthly and monthly averages

Argus publishes weekly, 10-day, half-monthly, month-to-date and monthly average assessments that are the arithmetic average of end-of-day price assessments.

Month-to-date averages are of the prices published over the calendar month to date. For example, on the first publication day of the month, the month-to-date average is equal to the relevant published price that day. On the second publication day of the month, the month-to-date average is equal to the average of the relevant prices published on the first and second publication date of the month.

Averages are published for the volume-weighted average (vDIP) and Argus O.M.R. low, high and mean price assessments for each product in each region.

Weekly average assessments are published on the last publication day of the week. 10-day average assessments are published on the last publication day on or before the 10th, the 20th and the last day of the month. Half-monthly average assessments are published on the last publication day on or before the 15th of the month and on the last publication day of the month. Monthly average assessments are published on the last publication day of the month. A publication schedule is available at [www.argusmedia.com](http://www.argusmedia.com)

### Euro per tonne prices

Argus also publishes prices converted to euro per tonne (€/t) with German energy tax and current EBV fees removed.

The conversion of prices from €/100l to €/t uses the specific gravity listed under product specifications.

### Prisma

The Argus O.M.R. Fuels service includes intraday Prisma prices, a set of low-high and volume-weighted average prices published during the morning and early afternoon based on trade information received to that point and a survey of market participants.

### Timing

The first Prisma price includes information received until 11:15am Central European Time and the second Prisma price indication includes information received until 2:15pm.

### Price types

#### Low-high

Prisma prices are published as a low-high range for each product and region except 98 Ron gasoline.

The high price is the highest price at which 90m<sup>3</sup> of heating oil and diesel and 30m<sup>3</sup> of E5 gasoline traded in the relevant location and the low price is the lowest price at which 90m<sup>3</sup> of heating oil and diesel and 30m<sup>3</sup> of E5 gasoline traded in the relevant location.

If either the high or low traded price did not trade in at least 90m<sup>3</sup> or 30m<sup>3</sup>, Argus constructs a volume-weighted average of the highest-priced or lowest-priced trades whose total aggregate volume meets the 90m<sup>3</sup> or 30m<sup>3</sup> threshold.

If less than 500m<sup>3</sup> of total volume is reported for a given assessment or fewer than six parties report transactions, offers may also be taken into account in constructing the published low/high assessment.

Argus indicates which low-high prices are based on reported trades.

### Volume-weighted averages (vDIP)

Volume-weighted prices are published when a minimum of three sources have submitted data to Argus totalling at least 300m<sup>3</sup> of total volume for a given product and region.

If these conditions are not met, Argus uses its discretion in deciding whether to include transaction data with a combined volume of less than 300m<sup>3</sup> or received from fewer than three sources. Argus will take into account the verifiability of transaction data and other market information when making such decisions.

If no transaction data have been received, no Prisma volume-weighted averages are published.

### Intraday import parity prices (MIPS)

Calculated prices for product loaded on trucks at the named locations, calculated as the sum of bulk import commodity prices, freight, handling, taxes, supplier margins and other fees.

Prices are updated throughout the day as underlying futures prices change.

For each product, prices are published for:

#### Germany (€/100l)

- Hamburg
- Duisburg
- Cologne
- Frankfurt
- Karlsruhe
- Ingolstadt

#### Austria (€/100l)

- Linz

#### Switzerland (CHF/100l)

- Basel

### 50ppm heating oil price components

- The previous day's Argus assessment of the differential of 50ppm heating oil to Ice front-month gasoil futures
- Ice gasoil front-month futures prices, updating throughout the day
- Barge freight rates assessed by Argus. Note, Austrian freight costs are not assessed and are assumed at a flat rate; no freight costs are added for Hamburg
- Handling fees, margins, energy taxes, strategic oil reserve fees. Austrian prices also include the IWO fee
- CO2 taxes, except for Austria

### 10ppm diesel price components

- The previous day's Argus assessment of the differential of 10ppm diesel to Ice front-month gasoil futures
- Ice gasoil front-month futures prices, updating throughout the day
- Barge freight rates assessed by Argus. Note, Austrian freight costs are not assessed and are assumed at a flat rate; no freight costs are added for Hamburg
- Handling fees, margins, energy taxes, strategic oil reserve fees. Austrian and Swiss fees also include diesel additive costs; Swiss fees include a voluntary contribution to industry promotion activities
- CO2 taxes, except for Austria
- GHG compliance costs, except for Austria and Switzerland. Austrian prices include a biodiesel component.

### 95r E5 gasoline price components

- The previous day's Argus Eurobob oxy fob barge price assessment
- Per cent change in Ice Brent front-month crude futures, updated during the day Barge freight rates assessed by Argus. Note, Austrian freight costs are not assessed and are assumed at a flat rate; no freight costs are added for Hamburg
- Handling fees, margins, energy taxes, strategic oil reserve fees. Swiss fees include a voluntary contribution to industry promotion activities
- CO2 taxes, except for Austria
- Bioenergy component, except for Austria and Switzerland

## Early Morning

### Ice Gasoil Frontmonat

The difference between the Ice gasoil price at 6:30am and the previous day's Ice gasoil settlement. Published as a low-high range, 75¢/t on either side of the value. Note, on the day after expiry, the calculation compares the current front-month price to the previous day's second-month price.

### Diesel 10ppm fob ARA barge

The Ice Gasoil Frontmonat price described above added to the most recent Argus German 10ppm diesel fob northwest Europe barge price. See the [Argus European Products methodology](#).

### German downstream diesel and heating oil morning differentials to Ice gasoil settlement

The difference between the Ice gasoil price at 6:30am and the previous day's average Ice gasoil price converted to €/100l using the latest European Central Bank exchange rate and assuming 0.845kg/l. The average Ice gasoil price is calculated as the average of prices taken at one-minute intervals between 6:30am and 5:30pm. Published as a low-high range, €0.1/100l on either side of the value.

In the absence of a front-month Ice gasoil price at 6:30am, Argus will use the day-on-day change in second-month prices and the previous day's front-month settlement to approximate a 6:30am front-month price.

Calculations follow the Ice holiday calendar. Prices are calculated, but not published on German holidays and used in the next publishing day's calculation. On Ice holidays, the previous day's calculated values are published, converted using the most recent ECB exchange rate.

## Specifications

### 95 Ron E5

The specifications are 95 Ron, unleaded 10ppm sulphur, meeting all requirements of the latest official version of DIN EN228, 0.755 specific gravity at 15°C, and a maximum ethanol content of 5pc. Prices include typical industry performance additives.

The loading window ends no later than 28 calendar days after the transaction was made.

### 95 Ron E10

The specifications are 95 Ron, unleaded, 10ppm sulphur, meeting all requirements of the latest official version of DIN EN228, 0.755 specific gravity at 15°C, and a maximum ethanol content of 10pc. Prices include typical industry performance additives.

The loading window ends no later than 28 calendar days after the transaction was made.

### 98 Ron

The specifications are 98 Ron, unleaded, 10ppm sulphur, meeting all requirements of the latest official version of DIN EN228, 0.755 specific gravity at 15°C. Prices include typical industry performance additives.

The loading window ends no later than 28 calendar days after the transaction was made.

### Diesel EN 590 10ppm

The specifications are 10ppm sulphur, 0.845 specific gravity at 15°C, diesel meeting all requirements of the latest official version of DIN EN590. Prices include typical industry performance additives.

The loading window ends no later than 28 calendar days after the transaction was made.

### Heating oil 50ppm

The specifications are 50ppm max sulphur, 0.845 specific gravity at 15°C, heating oil meeting the latest version of DIN EN 51603-1.

The loading window ends no later than 28 calendar days after the transaction was made.

Trades, bids and offers and other market information used in Argus O.M.R. heating oil assessments may include a contribution to IWO, an oil industry association. Neither market information nor published prices are adjusted in consideration of this voluntary levy.

## Regions and locations

**South:** Ingolstadt, Neustadt, Vohburg

**Southwest:** Karlsruhe

**Rhine-Main:** basis Frankfurt, with Flörsheim (including Raunheim and Gustavsburg), Hanau and Aschaffenburg

Prices are assessed at Frankfurt, with transaction and offer prices in the other locations considered with a freight adjustment. Freight adjustment rates are updated and published daily in the Argus O.M.R. Fuels report.

**West:** basis Duisburg, Gelsenkirchen and Essen with Düsseldorf and Neuss

Prices are assessed at Duisburg, Gelsenkirchen and Essen with transaction and offer prices in the other locations considered with a freight adjustment. Freight adjustment rates are published in the daily Argus O.M.R. Fuels report. Argus will periodically update the freight rates to reflect the market and reserves the right to do so without prior notification.

**North:** Hamburg

**Cologne Lowland:** Cologne, Cologne-Godorf, Wesseling

**Southeast:** Cunnersdorf, Gera, Hartmannsdorf, Leuna, Rhäsa, and Thüringen

**Magdeburg:** Magdeburg

**Seefeld-Schwedt:** Seefeld, PCK Schwedt

**East:** Berlin including Kablo

**Emsland:** Lingen, Osnabrück, Münster

## HVO

Hydrotreated vegetable oil (HVO) meeting DIN EN 15940 specifications. If the DIN EN 15940 specification differs from the Argus specification listed below, the Argus specification takes precedence.

Outright prices are assessed daily as low-high range based on survey of market participants. A differential to the Argus RED HVO fob ARA range (Class II) price is also published. Weekly, month-to-date and monthly average outright prices are also published.

**Currency/unit:** outright prices are published in €/100l, differentials to fob ARA HVO are published in \$/t

**Location:** fca truck in each of the following regions

- **North:** Hamburg, Bremen
- **West:** Duisburg, Cologne, Bendorf, Koblenz
- **Southwest:** Karlsruhe, Mannheim, Ludwigshafen, Frankfurt
- **National average:** the average of the above regional prices

**Timing:** loading up to 28 days forward from the day of assessment

**Tax, freight and GHG:** energy tax and the value of GHG compliance tickets are included, value-added tax and freight costs are excluded

**Feedstock:** RED compliant feedstocks listed in Annex I & IV of the 38th enactment of the Bundes-Immissionsschutzgesetz

**GHG savings:** minimum 80 pc greenhouse gas savings, based on a fossil fuel comparator of 94g CO<sub>2</sub> equivalent/MJ

## Rhine freight rates

Argus assesses Rhine freight rates for the cost of shipping on barges from Amsterdam-Rotterdam-Antwerp. Rhine freight assessments are published daily. Assessments are based on fixtures and market discussions for the relevant cargo, volume, route and timings. Rhine freight assessments are published in €/t, unless specified.

Argus surveys a range of market participants. Assessments are based on transactions, bids, offers and other market information.

Barge freight rates are assessed for gasoil and for gasoline. Gasoil freight rates to Flörsheim and Aschaffenburg are assessed as a differential to gasoil freight to Frankfurt

All gasoline freight rates are assessed as differentials to the relevant gasoil freight rate.

**Currency/unit:** €/t unless specified

**Timing:** barges loading 2-7 days forward from the day of assessment

**Location:** routes from Amsterdam-Rotterdam-Antwerp to the specified Rhine destination

**Size:** cargo sizes ranging from 1,200-2,500t

**Assessment time:** noon-3:00pm Central European Time

## Destinations

**Gasoil rates are published for routes to**

- Duisburg
- Dortmund
- Cologne
- Frankfurt
- Karlsruhe
- Flörsheim
- Aschaffenburg
- Basel (CHF/t)

**Gasoline rates are published as €1/t premiums to the relevant gasoil rate for routes to**

- Duisburg
- Dortmund
- Cologne
- Frankfurt
- Karlsruhe
- Flörsheim
- Aschaffenburg
- Basel (CHF/t)



## ARA freight rates

Argus assesses freight rates for the cost of shipping on barges in the Amsterdam-Rotterdam-Antwerp area. ARA freight assessments are published daily. Assessments are based on fixtures and market discussions for the relevant cargo, volume, route and timings. ARA freight assessments are published in €/t.

Argus surveys a range of market participants. Assessments are based on transactions, bids, offers and other market information.

**Currency/unit:** €/t

**Timing:** barges loading 2-7 days forward from the day of assessment

**Size:** cargo sizes ranging from 1,200-3,000t

**Assessment time:** noon-3:00pm Central European Time

### Rates are assessed for

- Rotterdam to Amsterdam or Antwerp
- Antwerp to Amsterdam
- ARA cross-harbour
- Antwerp to Amsterdam differential to Rotterdam to Amsterdam or Antwerp

## Import prices

Import prices are the calculated price of gasoline, diesel and heating oil from northwest Europe delivered to regional markets in Germany. Import prices are the Argus assessment of the price of the product in the ARA (Amsterdam-Rotterdam-Antwerp) region plus the freight rate between ARA and each of the destination markets and associated costs. Prices are published for Duisburg, Dortmund, Cologne, Frankfurt and Karlsruhe.

### Underlying price assessments

Gasoline Eurobob oxy barge

German heating oil 0.005% fob barge

German diesel 10ppm fob barge

See the [Argus European Products methodology](#).

### Associated costs

Associated costs are included in the calculation, such as mineral oil charges (including energy tax) and EBV fee (German National Petroleum Stockpiling Agency). Prices do not include VAT, biofuel components and handling costs. Tax rates are reviewed on a regular basis and adjusted if necessary.

## Biofuels, GHG and emissions certificates

### German biofuel quota (Treibhausgasminderungsquote)

The price for the transfer of biofuel quotas between companies, which in Germany must meet the legally prescribed greenhouse gas saving quota for finished gasoline and diesel; or companies that generate biofuel quotas by placing biofuels and fossil fuels on the market that are eligible and achieve greenhouse gas reductions.

Argus publishes daily assessments for quotas differentiated by the means of quota generation.

Prices are assessed and published as the best bid and offer in the market at 5:30pm Central European Time.

**Timing:** prices are assessed for the most recent compliance year which has yet to be surrendered and may also be assessed for forward compliance years for which Argus has determined that sufficient market liquidity exists to produce a robust assessment. The compliance year ends on 31 December, and Argus begins assessing a compliance year no later than 16 April of that year.

For example, Argus will begin publishing a 2025 compliance year assessment no later than 16 April 2025 but may begin publication earlier than that date should Argus deem market liquidity sufficient to produce a robust assessment.

Argus will continue to publish prices for each compliance year until the date on which quotas must be surrendered under the relevant law. Before the 2019 compliance year, obligated parties had until 15 April of the following year to submit their final GHG reduction balance for the previous compliance year. For the 2019-2023 compliance years, the German government has each year postponed the date until 15 June.

**Currency/Unit:** €/t CO<sub>2e</sub>, rounded to the nearest €/t CO<sub>2e</sub>

### Conventional GHG quota

The price of the transfer of biofuel quota generated by conventional liquid or gaseous biofuels as defined in the 38th enactment of the Bundes-Immissionsschutzgesetz.

### Single-counting advanced GHG quota

The price of the transfer of single-counting biofuel quota generated by advanced liquid or gaseous biofuels as defined in the 38th enactment of the Bundes-Immissionsschutzgesetz. Assessed as a €/GJ differential to the other GHG quota assessment.

### Double-counting advanced GHG quota

The price of the transfer of double-counting biofuel quota generated by advanced liquid or gaseous biofuels as defined in the 38th enactment of the Bundes-Immissionsschutzgesetz. Assessed as a €/t CO<sub>2e</sub> outright price.

### Other GHG quota

The price of the transfer of biofuel quota generated by biofuels not capped under domestic blending mandates, including biofuel quotas generated by electricity for electric vehicles. Does not include quotas generated by waste-based biofuels from feedstocks listed in Annex IV of the 38th enactment of the Bundes-Immissionsschutzgesetz.

### Annex IX part B GHG quota

The price of the transfer of quota generated by biofuels produced from feedstocks listed in Annex IV of the 38th enactment of the Bundes-Immissionsschutzgesetz.

## Upstream emission reduction (UER) certificates

The price of certified upstream emission reductions (UER) generated and validated in accordance with the German upstream emissions reduction ordinance (UERV). To be considered for inclusion in the assessment UER trade must include a provision that GHG quota will be provided to the buyer if UER certificates cannot be delivered at the end of the compliance year.

## European refined products and biofuels

Published as outright prices and as differentials to the Ice gasoil futures settlement. A daily month-to-date price is also published.

### Cargoes

#### Prices are published for

- Diesel 10ppm cif Hamburg cargo
- Diesel French 10ppm cif ARA 30,000t cargo (formerly open origin)
- Diesel French 10ppm cif ARA 30,000-60,000t cargo
- Diesel 10ppm LR2 cif ARA cargo
- Diesel French 10ppm fob ARA cargo

### Barges

#### Prices are published for

- Diesel German 10ppm fob northwest Europe barge
- Heating oil German 50ppm fob northwest Europe barge

### Biomethane

#### Prices are published for

- RED biomethane Germany VTP (THE)
- RED premium biomethane Germany VTP (THE)

## Daily and weekly changes

Day-on-day and week-on-week price changes for refined products and biofuels benchmarks. Prices are calculated as the change between the two most recent published prices.

#### Day-on-day changes are published for

- Eurobob oxy barge
- Eurobob non-oxy barge
- RED rapeseed OME fob ARA range barge
- RED Fame -10°C CFPP fob ARA range
- RED Fame 0°C CFPP fob ARA range
- RED UCOME fob ARA range
- RED (T2) Ethanol fob ARA range 68pc GHG savings, inc duty
- RED HVO fob ARA range (Class I)
- RED HVO fob ARA range (Class II)

See the [Argus European Products](#) and [Argus Biofuels](#) methodologies

## LNG

Argus O.M.R. Fuels includes small-scale LNG prices and freight costs republished from Argus LNG Daily. See the [Argus LNG Daily methodology](#).

### LNG

Small-scale LNG prices are assessed weekly.

- Free on truck northwest Europe
- Delivered North Germany (DPU)
- Delivered West Germany (DPU)
- Delivered South Germany (DPU)
- Delivered East Germany (DPU)

Free-on-truck prices are published in €/MWh. Delivered prices are published in €/MWh and €/kg.

### LNG Freight

An inland small-scale LNG freight rate is also assessed as the cost in €/km of delivering small-scale LNG cargoes by truck within Europe. Inland LNG freight rates are assessed monthly.

Prices are available electronically via Argus Direct, FTP and other means on the day of assessment and are published in the next Argus O.M.R. report.

## AdBlue®

Argus publishes price assessments for the free on truck AdBlue market in Germany.

AdBlue® is a registered trademark of the VDA (Verband der Automobilindustrie).

### Price assessments

Prices are assessed as a low-high range in which product traded, or in the absence of liquidity, could have traded on the day of publication. The midpoint of this range is published.

Prices are assessed and published on Friday, or the previous working day if Friday is a holiday.

Market information must be received by 4pm Central European Time on the day of publication to be considered for inclusion in the assessment.

Argus surveys a range of market participants, assessments are based on transactions, bids, offers and other market information.

Spot pricing is of product scheduled to load within 28 days of the sale. Prices are cash prices, net of any credit and excluding value added tax.

## Product specifications

**AdBlue:** AdBlue is an aqueous urea solution that is defined by the ISO-22241 standard with urea content of 32.5pc by weight. It is produced by combining low biuret urea, termed as automotive-grade urea, with deionised water

**Currency/unit:** AdBlue prices are assessed in euro per 100 litres

**Basis:** fot (free on truck), carriage unpaid

### Markets covered

- North: loading in Brunsbüttel, Hamm, Lutherstadt Wittenberg, Police (Poland)
- South: loading in Ludwigshafen, Linz (Austria)

For loading sites outside of Germany only trades for delivery into Germany will be considered for inclusion in the assessment.

## Germany average price range

An all-Germany average price is published as the average of all markets covered.

## Monthly average prices

Monthly average prices for both regions and the Germany average are published on the last publication day of the calendar month. Monthly averages are the average of weekly assessments published during the calendar month. Month-to-date average prices are also published.

## 10-day and half-monthly prices

Argus publishes 10-day and half-monthly AdBlue prices to align with timing of related fuels price assessments. 10-day and half-month AdBlue prices are republications of the latest Argus AdBlue price assessments available at the time of publication.

10-day prices are the latest available Argus AdBlue assessment on or before the 10th, the 20th and the last publication day of the month.

Half-monthly prices are the latest available Argus AdBlue assessment on or before the 15th of the month and on the last publication day of the month.

A publication schedule is available at [www.argusmedia.com](http://www.argusmedia.com)

## Exchange rates and conversion factors

Exchange rates are updated each afternoon.

The conversion from tonnes to litres is based on the following densities:

- Gasoline Eurobob oxy barge — 0.755 kg/l
- German heating oil 0.005% fob barge — 0.845 kg/l
- German diesel 10ppm fob barge — 0.845 kg/l