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ARGUS INTERNATIONAL COAL FORWARD CURVES

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The most up-to-date Argus International Coal Forward Curves methodology is available on
www.argusmedia.com

Methodology overview

Argus International Coal Forward Curves delivers a daily assessment of forward coal prices. Argus forward curves provide an independent view of forward prices informed by a variety of market data for both liquid and illiquid markets.

Argus forward curves are not intended to be predictive and are not a forecast of what coal will be worth in future physical prompt markets but are assessments of the price today of delivery at a future date.

Prices are published as outright values.

Argus International Coal Forward Curves support mark-to-market accounting and analytical applications such as value-at-risk, potential future exposure, deal valuation, regression analysis, scenario analysis, and valuing option premiums associated with forward coal contracts.

Argus publishes coal forward curves according to the schedules that govern the publication of Argus Coal Daily International and Argus Coal Daily, depending on the forward price series.

A full publication schedule can be found at www.argusmedia.com

Subscribers are encouraged to review the [Argus Coal Daily](#) and [Argus Coal Daily International](#) methodologies, which contain more information on our editorial processes, policies and procedures, as well as detailed specifications for the physical coal markets referred to and used in producing Argus International Coal Forward Curves.

Means of assessment

Argus collects market data including trades, bids and offers from a wide variety of sources including brokers, traders and the mid and back offices of trading companies. Information that Argus cannot validate may be excluded from the assessment process.

Argus assesses each market at the midpoint of the bid-offer range in the market at the timestamp specified in the timing section below. If the bid-offer range is unusually wide, Argus may assess the price elsewhere within the bid-offer range. In the absence of a bid-offer range, Argus may base its assessment on the last validated transaction price.

In the absence of bid, offer, and transactional data, Argus employs proprietary algorithms using statistical analysis which includes assessing a market on the basis of its relationship to a more liquid market, so long as that relationship shows a historical r^2 correlation of over 95pc. Market relationships are reassessed for a 95pc r^2 correlation at least every two weeks.

Argus may assess an illiquid market by:

- applying the historic spread between the two markets to its assessment of the liquid market
- applying the liquid market's day-on-day change to the price at which it assessed the illiquid market on the last business day

- In the event that the explanation power of the model (r-square) falls below 95pc, Argus considers the rate at which spot prices are moving and applies that rate of changes to the calculated forward price series.

Argus also uses this rate of change method to calculate daily coal spot prices for markets in which only a weekly physical spot price assessment is published. In those markets, Argus produces a calculated daily spot market price to inform the forward pricing model and to maintain consistency during periods of daily price volatility.

Markets covered

Coal forward curves are calculated and published for the following markets:

- fob Baltic (6,000 kcal/kg NAR) — anchored to Argus cif ARA price assessments
- fob Bolivar (6,000 kcal/kg NAR) — anchored to Argus cif ARA price assessments
- fob Richards Bay (5,500 kcal/kg NAR) — anchored to Argus fob Richards Bay price assessments
- fob Indonesia (5,800 kcal/kg GAR) — anchored to Argus fob Richards Bay price assessments
- fob Indonesia (5,000 kcal/kg GAR) — anchored to Argus fob Richards Bay price assessments
- fob Vostochny (6,000 kcal/kg NAR) — anchored to Argus fob Richards Bay price assessments
- cfr India (5,500 kcal/kg NAR) — anchored to Argus fob Richards Bay price assessments
- fob China domestic (5,500 kcal/kg NAR) — anchored to Argus fob Richards Bay price assessments
- Powder River basin UP & BNSF Converse/Campbell fob mine (8,800 Btu/lb, 0.8 lb SO₂/mmBtu) — anchored to Argus fob Powder River price assessments
- Illinois basin, Illinois/Indiana, fob mine (11,500 Btu/lb, 5 lb SO₂mmBtu) — anchored to Argus fob Illinois Indiana price assessment

The pairing of correlated reference and calculated prices above is subject to change to best reflect prevailing market conditions and price correlations. Subscribers will be notified of any changes.

Periods calculated

- 60 forward months
- Five forward quarters

Timing

US prices for the Powder River basin and Illinois basin are published with a 2.30pm New York timestamp. All other prices carry a 4.30pm London timestamp.

Argus International Forward Curves is distributed by 8pm London time each day.

Corrections

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.

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. 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).

Subscribers and other stakeholders are encouraged to review the Argus Global Compliance Policy to understand the rigorous and transparent controls framework Argus has employed to govern its price reporting activities. The company's Global Compliance Officer oversees the compliance framework, including a rolling programme of internal audits to ensure compliance with stated methodologies and policies.