

*PRIMA price assessments provide a transparent and reliable fair value benchmark for commodities in the spheres of energy, agricultural and biofuel commodities.*

To facilitate accurate, reliable and timely price discovery, PRIMA establishes named benchmark assessments for specific commodity grades at specific trade hubs. The parameters of each named assessment including specification, dates, location, volume and currency, are determined by PRIMA staff experienced in benchmarking and indexation in partnership with industry participants to create reliable benchmarks that are representative of the relevant underlying market. PRIMA's assessments are designed as much as possible to accurately reflect the organic nature of price formation across the relevant pool of trade participants in each named market. Assessments are subject to initial and ongoing review and approval by PRIMA's editorial team and management, taking into account the views of relevant stakeholders.

All assessments are undertaken by trained (see PRIMA Management System, Hiring and Training Appendix 5) market analysts in strict accordance with PRIMA's overarching published methodology. Individual assessments conform strictly to the specific parameters on location, quality and timing laid out for each price point.

PRIMA analysts daily gauge market conditions and shifts in the market spreads which drive direction in individual commodity markets. With this information, PRIMA pricing analysts will engage with market participants to establish the range and depth of trades, bids, and offers, seen in the market. Communications are made by email, instant messenger, telephone, and in face-to-face conversations.

### Submitter code

Subject to the eligibility requirements set out in PRIMA's Submitter Code of Conduct, any CP or intermediary broker identified to a PRIMA analyst as being in possession of market relevant data may submit inputs to PRIMA. PRIMA continuously reviews the array of participants in each named assessment market with existing CP and intermediary broker contributors to ensure it is canvassing input from the broadest possible number of contributors. PRIMA centrally maintains lists of authorised contributors for each named assessment. PRIMA analysts will contact new CPs or intermediary brokers and outline PRIMA's assessment activity. Inputs are recorded and cross-checked against other CP and intermediary broker sources to check their veracity, and PRIMA assessors are expected to make reasonable efforts to check the identity of inputters to ensure the integrity of their contributions. PRIMA flags its guidelines for submitter conduct in its daily reports sent to contributors.

All records will be kept for five years.

## Hierarchy of inputs

PRIMA considers price contributions towards its assessments according to a strict hierarchy. The Hierarchy, in line with IOSCO principals, reflects the relative strength of the different types of contributions in order to most accurately reflect the underlying market.

In order of priority, named trades, then firm named bids, or offers, satisfying the specifications of PRIMA's price assessment, will be included towards the formation of individual pricing benchmarks.

Reported deals done, confirmed by approved named counterparties (CPs) or an intermediary broker, will be given priority towards the assessment. This is provided the deals fall within the daily assessment time, trade date, and specification parameters of PRIMA's published assessment methodology, and are considered arm's length, legitimate and repeatable.

Absent any confirmed trades, PRIMA analysts will look to confirmations of firm bid/offer indications in its pricing hierarchy by approved named CPs, or intermediary brokers. This is provided the bids and offers fall within the daily assessment time, trade date, and specification parameters of PRIMA's published assessment methodology, and are considered arm's length, legitimate, executable and repeatable.

Absent any fresh firm market indications, PRIMA analysts will look to indicative buy and sell levels from approved named CPs, or intermediary brokers, in order to gauge fair value. This is provided the indications are for product falling within the daily assessment time, trade date, and specification parameters, of PRIMA's published assessment methodology, and are considered arm's length, legitimate, executable and repeatable.

Absent any fresh indications in the market, PRIMA analysts will if necessary gauge fair value against the context of any movement in the wider market backdrop shaping fair value at the point of liquidity being assessed. Such assessments may be informed by contributions from approved named CPs or intermediary brokers. Decisions to move published PRIMA assessments based on market contextual information will be fully documented with supporting data inputs, rationale and calculations if appropriate. Any formulas used to determine market value relative to shifts in more liquid markets will be reviewed every six months.

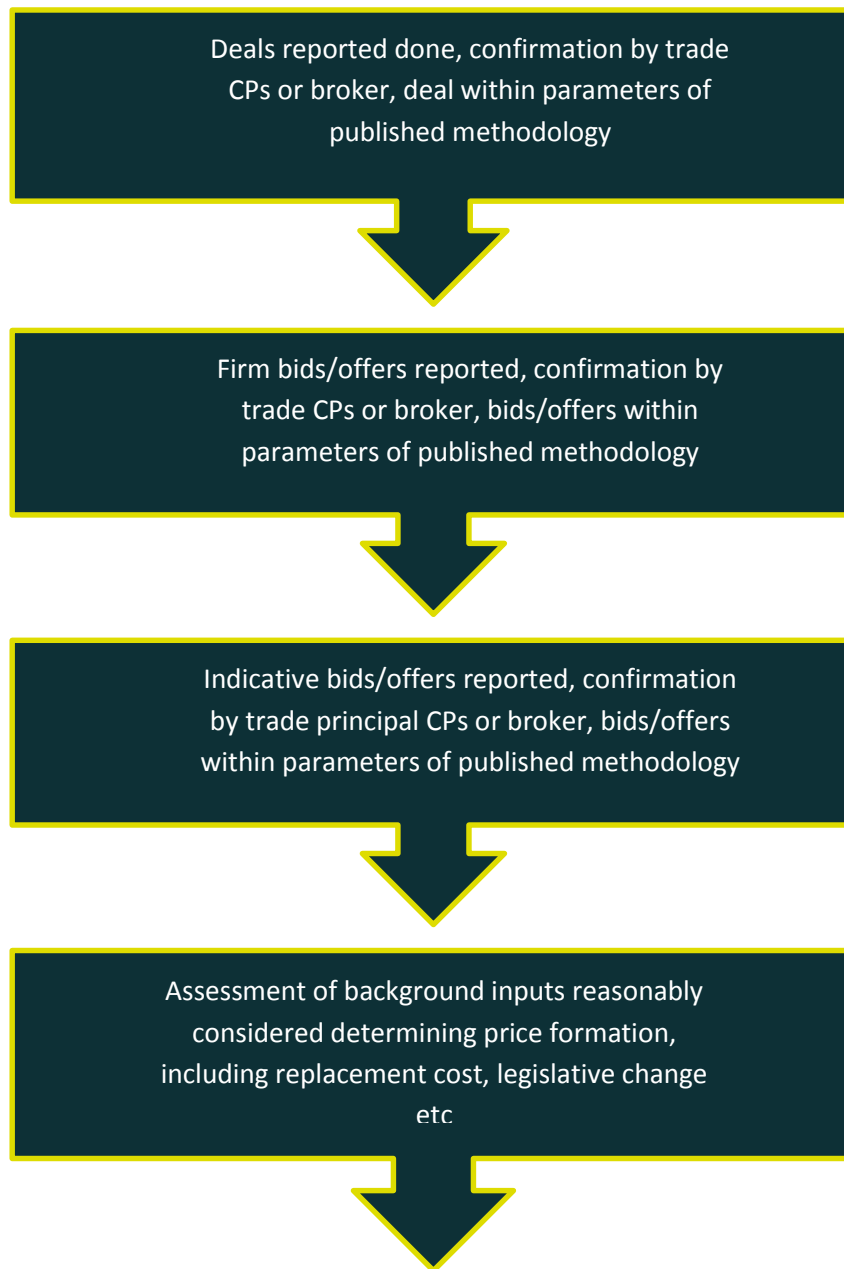
PRIMA endeavours to ensure that inputs towards its assessments are genuine arm's length trades or invitations to treat by a process of confirming or cross-verifying inputs with CPs and/or intermediary brokers. PRIMA will solicit CPs to confirm transaction data via confirmations of deals or other inputs, where possible through back office submissions. PRIMA will meanwhile canvas independent third party intermediary brokers to confirm transaction data.

All contributions of information used towards PRIMA's assessment will be fully archived according to the name of the contributor, and the time and date of the contribution.

Given the lack of consistent liquidity prevalent in many niche markets falling under PRIMA's core biofuels, agricultural and energy umbrella, PRIMA does not set any overarching minimum data thresholds for its named assessments.

The PRIMA hierarchy of assessment inputs is illustrated by the diagram below:

**PRIMA price assessment input hierarchy:**



**Daily matrix of contributor contacts**

PRIMA maintains a detailed daily record of the contacts made to external CPs, or received from external CPs or intermediary brokers, to illustrate the counterparty depth of the market being assessed, and the size of the daily contribution array relative to the overall size of the individual market. As part of their responsibilities, PRIMA assessors are expected to extend contact to the largest array of CPs and intermediary brokers deemed to be in the scope of the market being assessed, provided these CPs and intermediary brokers meet PRIMA's corporate responsibility and

market behavioural standards for inclusion towards assessment input as set out in PRIMA's Submitter Code of Conduct.

Each day attempted contacts are noted, and the modes of communication used for successful contributions are colour coded to allow communication records to be retrieved with ease. PRIMA assessors summarise the information received from individual contributors in the same daily matrix of contribution inputs to ease post-assessment price formation audits. The name of the individual PRIMA assessor is recorded in the same matrix.

The below is a simplified tabular overview of PRIMA's daily record-keeping matrix, recording its communications with price contributors:

**PRIMA matrix of daily assessment inputs:**

	13 March	14 March	15 March	16 March
Firm 1 (Trader)	Reported deal (P)	On holiday	Contacted N/A (P)	Contacted N/A (P, Y, E)
Firm 2 (Trader)	Reported deal (Y)		Contacted N/A (P)	
Firm 3 (Trader)		Reported bid (P)		Reported deal (P)
Firm 4 (Trader)	Contacted N/A (P)	Reported offer (E)		Contacted N/A (P, Y, E)
Firm 5 (Trader)	Contacted N/A (Y)		Reported deal (Y)	Reported deal (FF)
Firm 6 (Trader)		Contacted N/A (Y)	Reported deal (P)	
Firm 7 (Trader)		Contacted N/A (Y)		
Firm 8 (Trader)	Contacted N/A (P, Y)			Reported bid (Y)
Firm 9 (Broker)	Confirmed deal (P)	Confirmed bid (P)	Confirmed deal (P)	Confirmed bid (Y)
Firm 10 (Broker)		Confirmed offer (Y)		Confirmed deal (FF)
Assessor	AB	BC	BC	AB
Key	Y = Yahoo Instant Messenger, P = Telephone, E = Email, FF = Face to Face			

In order to reduce the risk of key submitter dependency, PRIMA assessors will endeavour each day to gauge the depth of the market across a varied and representative spread of participants. Assessors are expected to expand their array of approved contributors to the fullest extent consistent with the operation of the market. Contributions to assessments made by only one counterparty will still be fully weighted according to PRIMA's hierarchy of inputs. Inputs will be presented to other CPs or intermediary brokers for corroboration or comment.

Benchmark assessments are accompanied by a full written rationale describing the logic determining the formation of each day's price fixing, and subjected to recorded PRIMA peer review before

publication. Assessment inputs are fully documented, recorded, and subjected to frequent scrutiny to ensure that they accurately reflect the breadth of participation in the market.

#### Anomalies and exceptions log

Any anomalous inputs deemed exceptional, and therefore discounted from inclusion towards a daily assessment, are individually recorded in an exceptions log.

PRIMA assessors run through a checklist of controls to identify data which may be excluded. These checks include:

- 1) Does the data meet the full specifications of PRIMA's assessment methodology including on timing, specification, location?
- 2) Can the data be verified by other CPs or intermediary brokers?
- 3) Has the data been submitted by an approved contributor?
- 4) Does the data fall within a reasonable threshold relative to the other contributions in the input hierarchy deemed fit for inclusion?

PRIMA assessors will look to other CPs or intermediary brokers for corroboration or comment upon perceived anomalies. PRIMA editors monitor assessors' communications with CPs and intermediary brokers to watch for inappropriate patterns of contributor behaviour, including any attempts to unduly influence assessors.

Inputs failing these combined tests will be recorded in the exceptions log. Consistent patterns of anomalous data contribution may be escalated to PRIMA management for further review to determine action.

PRIMA reserves the right to exclude contributors from its daily assessment process while it internally reviews the scope of the anomalous input data reporting. Following internal review, any decision to exclude a contributor from submitting inputs to a PRIMA assessment or assessments for infringing PRIMA's Submitter Code of Conduct may be escalated to PRIMA Board level for a final ruling. CPs or intermediary brokers excluded from a PRIMA assessment, or assessments, have the right of written appeal to the PRIMA Board over the decision.

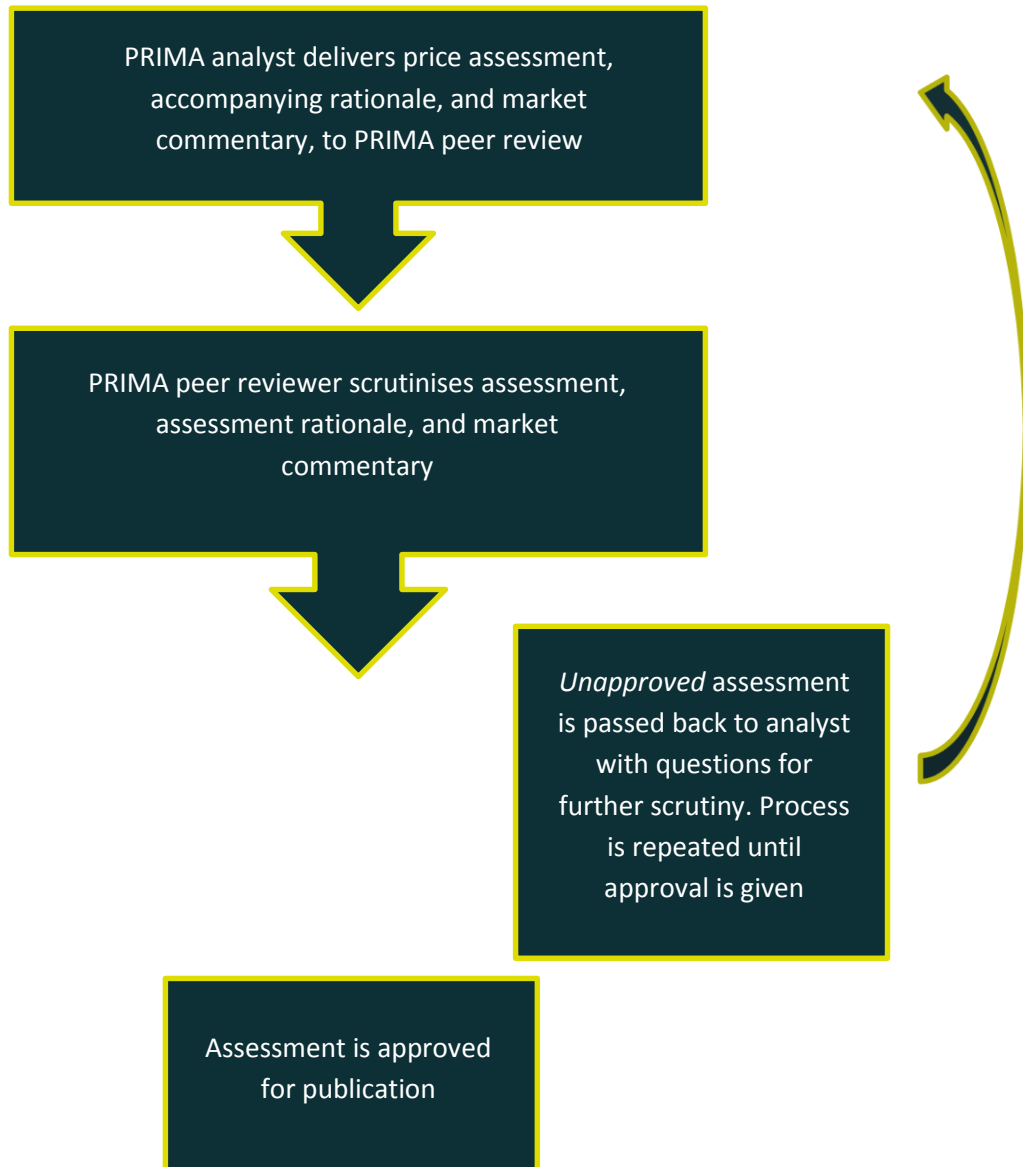
#### Peer review

All assessments are peer reviewed to ensure consistency in the application of the appropriate PRIMA methodology. An assessment cleared by peer review attests that the assessment has been made in accordance with PRIMA's price assessment input hierarchy (above) and met the guidelines controlling exercise of judgement by assessors (below).

PRIMA assessors will deliver their proposed assessment level for peer review, accompanied by a written breakdown of the formation of the assessment in accordance with the hierarchy of inputs, and accompanied by a fuller written commentary on the day's market activity. The workflow between assessor and peer reviewer is recorded electronically daily.

The below diagram illustrates the recorded workflow between PRIMA price assessor and PRIMA peer reviewer prior to the publication of any daily price assessment.

**PRIMA assessment peer review workflow:**



The hierarchy of management accountability for the creation of assessments and maintenance of input and output record keeping is outlined in PRIMA’s Price Reporting Management System. PRIMA’s Board and management is bound by a published Conflicts of Interest policy contained in PRIMA’s Administrator Code of Conduct.

## **Guidelines controlling exercise of judgement by assessors**

PRIMA assessors are required to consider information contributed towards an assessment in the strict hierarchy of inputs outlined above. In the event that a PRIMA assessor is uncertain how to process all or part of the information received on any given day towards an assessment, the assessor may approach an experienced PRIMA peer reviewer or manager for guidance additional to the oversight guaranteed during the peer review process. The PRIMA peer reviewer will document his or her guidance on the day's assessment through a recorded channel, typically email

PRIMA's core area of coverage is the intersection between fossil fuel, biofuel and agricultural commodity markets. A key component of PRIMA's training procedure is understanding the many and varied linkages between these markets. PRIMA analysts scrutinise data points across the energy, agricultural and biofuel spheres daily to gauge wider market context which may be used in the exercise of judgement.

## **Assessor Training**

PRIMA market analysts undergo a process of documented training to undertake all PRIMA benchmark assessments in compliance with PRIMA's Hiring and Training guidelines.

Market analysts are mentored daily by an analyst and price assessor with over ten years' experience of benchmarking and price formation.

Training includes instruction in analytics needed to gauge price formation in individual markets, as well as mentored introduction to communication with input contributing counterparties through monitored telephone, Instant Message and Email communications, face-to-face meetings with external contacts and sources, and conference and other educational session attendance.

## **Methodology changes**

Commodity markets are dynamic. As such, PRIMA recognises that its methodologies must keep pace with, and accurately reflect, the timings and specifications governing the most liquid points of trade, requiring periodic adjustments to its published methodologies. PRIMA continuously reviews each methodology, taking into account the views of relevant stakeholders, to gauge that the named assessment methodology accurately reflects the physical market under assessment.

PRIMA ensures that any methodology changes will be made only after substantive consultation with industry stakeholders. Proposed changes will first be published and subject to public scrutiny, giving stakeholders sufficient lead time to make fair comment about the proposed change ahead of any methodological alteration coming into force.

Individual CP and intermediary broker responses to consultations on methodology changes, and PRIMA's response to those comments, will be published on [www.prima-markets.com](http://www.prima-markets.com), except where the commenter has requested confidentiality. PRIMA will publicly announce its methodological changes, accompanied by a firm, published, date, from which PRIMA will apply the changes to individual assessments.

### **Corrections procedures**

PRIMA has designed its methodology to maximise the consistency, reliability, and objectivity of its price assessments. All assessments are made based on the information available to PRIMA prior to the time cut-off for each daily assessment. No information submitted to PRIMA after the time cut-off for each assessment will be considered retroactively towards a published assessment. In the event that PRIMA's management deems an assessor to have published an incorrect assessment, PRIMA will issue a correction and notify subscribers of the change to the assessed price point, including an explanation as to why the number was changed.

### **Complaints**

Complaints should be addressed in writing, including via email, to:

[Complaints@prima-markets.com](mailto:Complaints@prima-markets.com)

*PRIMA*

*25 Ropemaker St*

*London EC2Y 9LY*

*UK*

The communication should detail the date and description of the PRIMA price assessment or assessments being challenged, as well as a detailed outline of the nature and substance of the complaint.

PRIMA will respond to all complaints as quickly as possible, and will endeavour to respond within ten working days of their original receipt.

**Disputes that fall short of complaints should be handled under the "Corrections Procedure" outlined above.**



***PRIMA assessment methodologies (as described in Appendix 1 of the PRIMA Price Reporting Management System)***

**Asia-Pacific biofuels and feedstocks**

**Korea B Grade ethanol**

Grade: Industrial ethanol meeting Korean B Grade specifications

Basis: CFR Ulsan, South Korea

Price: USD/cubic metre

Timing: Normalised to 2-6 weeks forward

Cargo size: 1-5,000 cubic metres

Assessment: Daily 08:30 – 17:30 Singapore time

Assessment is for internationally sourced ethanol meeting the Korean B Grade standard in the market standard volumetric unit of cubic metres priced in the market standard currency of US dollars.

To maximise the pool of liquidity considered towards each day's assessment in the typically illiquid Ulsan ethanol market, assessment will take account of trades, bid/offer or shifts in netback values and relevant replacement market fundamentals reported for the full Asian day between 08:00 and 17.30 Singapore. Only trades, bid/offer or shifts in netback values occurring before 17.30 Singapore may be included towards the day's assessment.

Trades must be deemed repeatable in order to be considered towards the assessment. Trades, bids and offers must be put forward by counterparties eligible to treat with the majority of the market. All transactions must be made at arm's length.

Assessment is based in order of priority on trade, bid/offer, shifts in netback values, and relevant replacement market fundamentals, in order to establish an accurate gauge of the daily market clearing price.

In the event that several deals are reported, the assessment will reflect a volume weighted average price.

The assessment will be weighted to reflect the volume accompanying indications shown, if appropriate. Bids and offers must be deemed executable to be considered towards the assessment.

In the event of significant intra-day volatility, assessments will be weighted to reflect levels prevailing at the close of the day's discussion in accordance with PRIMA's hierarchy of inputs. In the absence of fresh regional price indications, changes in overnight or on-the-day replacement economics in Ulsan's main import sources may be taken into consideration.

## US biofuels, certificates and feedstocks

### LCFS certificates

Pricing is for tradable certificates issued by the California Air Resources Board (ARB) for compliance with the California Low Carbon Fuel Standard (LCFS)

Price: USD for one certificate equivalent to one metric tonne of CO<sub>2</sub>

Volume: 1,000 metric tonne CO<sub>2</sub>e/MJ – 50,000 metric tonne CO<sub>2</sub>e/MJ

Timing: Normalised to nearby certificate title transfer for 2-6 weeks forward

Assessment: Daily between 08.30 to 16.30 EST. Prices are weighted towards the day's close.

Assessment is for LCFS tickets eligible for retirement by registered parties under the California Air Resources Board's electronic repository. The assessment is for CARB's recognised volumetric unit of tonnes CO<sub>2</sub>e/MJ, priced in the market standard currency of US dollars.

To maximise the pool of liquidity considered towards each day's assessment in the typically illiquid LCFS market, assessment will take account of trades, bid/offer or shifts in netback values and relevant replacement market fundamentals reported for the full LCFS trading day between 08:00 and 16.30 EST. Trades, bid/offer or shifts in netback values and relevant replacement market fundamentals occurring after 16.30 EST will not be included towards the day's assessment.

Trades must be deemed repeatable in order to be considered towards the assessment. Trades, bids and offers must be put forward by counterparties eligible to treat with the majority of the market. All transactions must be made at arm's length.

Assessment is based in order of priority on trade and bid/offer in order to establish an accurate gauge of the daily market clearing price. Bids and offers must be deemed executable to be considered towards the assessment. The assessment will not typically refer to any separate models or outside extrapolations of value in determining price.

In the event that several deals are reported the assessment will reflect a volume weighted average price.

The assessment will be weighted to reflect the volume accompanying indications shown, if appropriate.

In the event of significant intra-day volatility, assessments will be weighted to reflect levels prevailing at the close of the day's discussion in accordance with PRIMA's hierarchy of inputs.

## **About PRIMA**

PRIMA is a UK-based commodity markets research company and Price Reporting Agency (PRA), established in October 2014. Given the increasing share of renewables in the world's fuel supply PRIMA focuses on the interface between biofuels, energy and agricultural markets in its unique suite of informational and analytical reports and web-based information services. PRIMA's price assessment service provides impartial benchmarks for global niche markets in renewable and other commodities. PRIMA's innovatory and unique pricing methodology guarantees its price assessments avoid time or subjectivity distortions.