

*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. 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**

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 and within IOSCO scope.

All records will be kept for five years.

### **Hierarchy of inputs**

PRIMA considers price contributions towards its IOSCO-scope assessments according to a strict hierarchy.

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. 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.

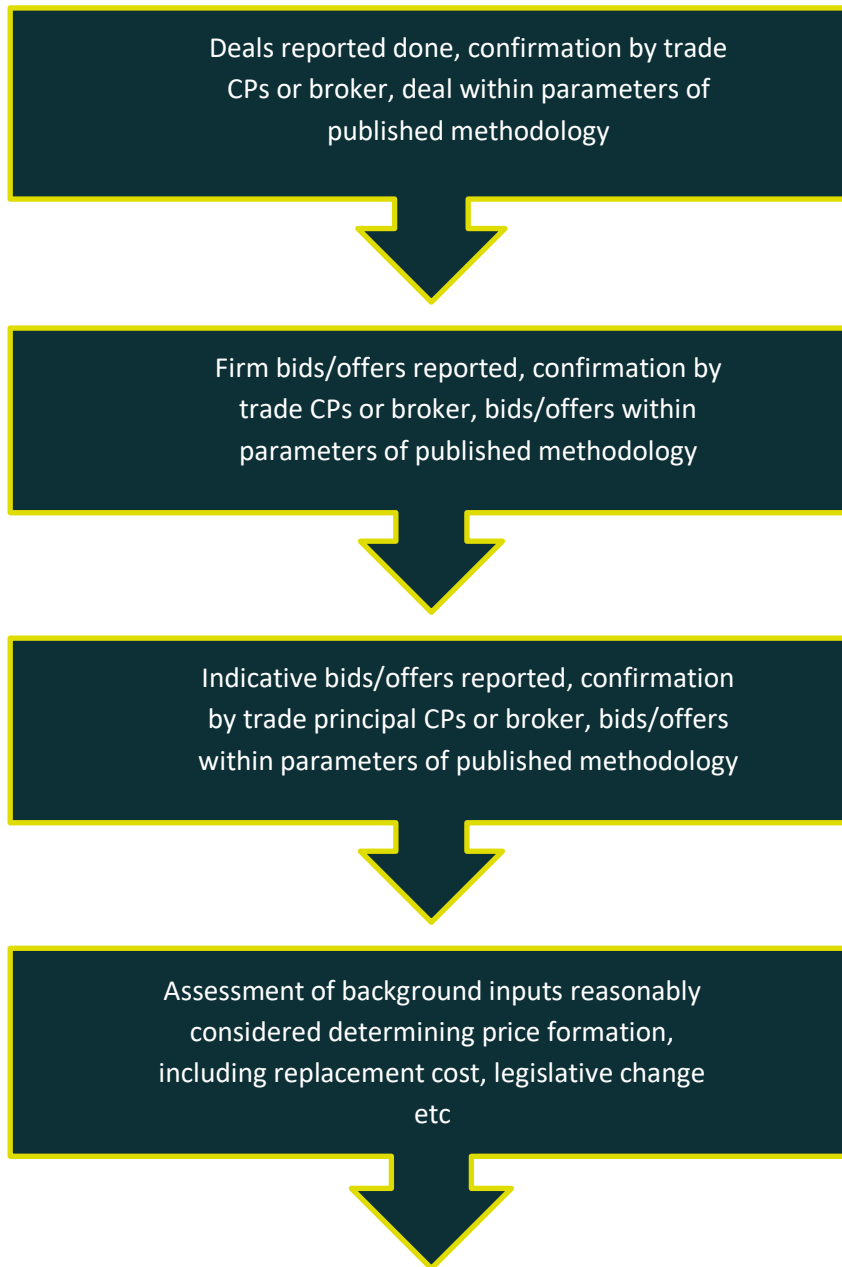
PRIMA endeavours to ensure that inputs forward towards its assessments are genuine arms-length trades or invitations to treat by a process of confirming or cross-verifying inputs with CPs and/or intermediary brokers. PRIMA will solicit CPs to confirm transaction data via confirmations of deals or other 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**

For assessments inside current IOSCO scope, 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 IOSCO-scope 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 methodology 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 may monitor assessors' communications with CPs and intermediary brokers to watch for inappropriate patterns of contributor behaviour.

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.

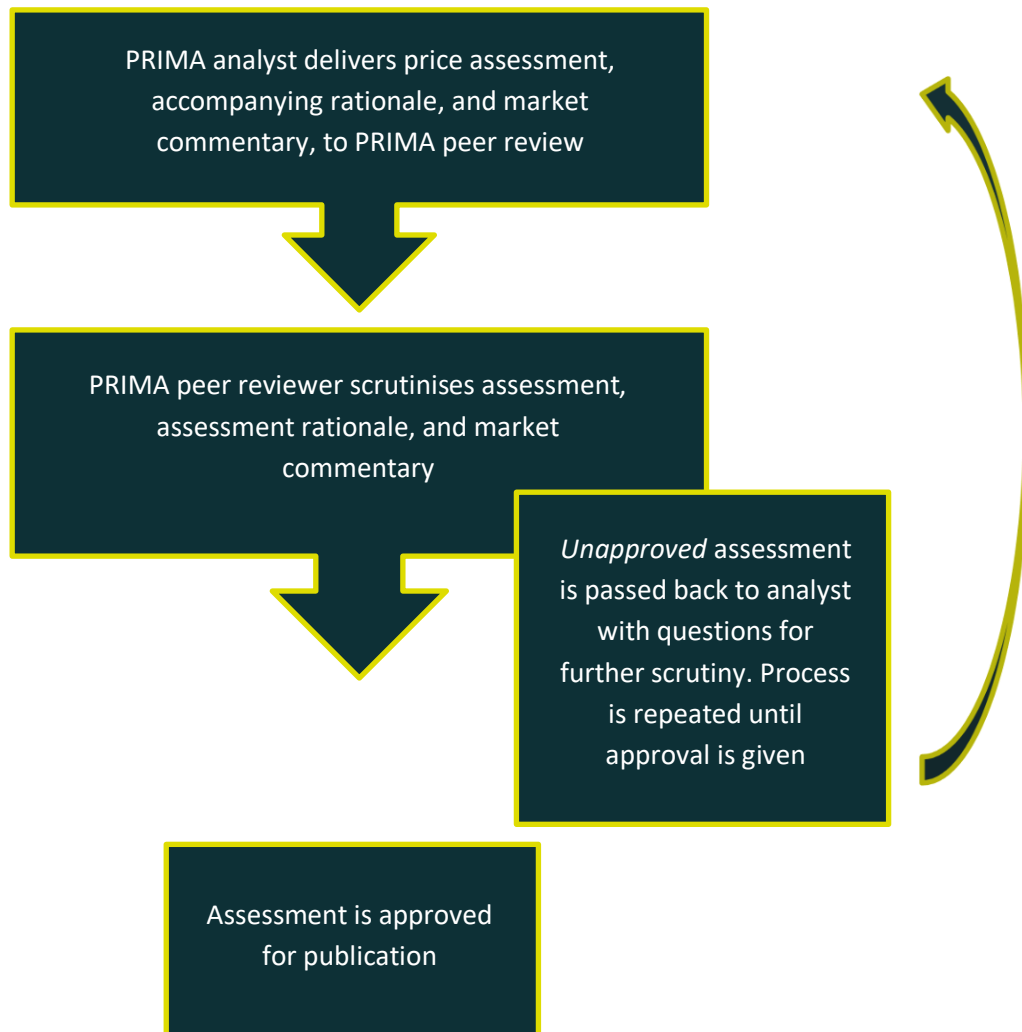
### ***Peer review***

All IOSCO-scope 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 IOSCO-scope 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 manager will document his or her guidance on the day’s assessment through a recorded channel, typically email.

## **Assessor Training**

PRIMA market analysts undergo a process of documented training to undertake all PRIMA IOSCO-scope benchmark assessments in compliance with PRIMA's Hiring and Training guidelines, PRIMA Management System Appendix 4.

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

Training includes instruction 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.

## **Business continuity**

PRIMA's assessors are cross-trained in named benchmark assessment to ensure that each assessment has several levels of built in redundancy to ensure continuity of assessment production in accordance with PRIMA's Business Continuity guidelines, PRIMA Management System, Appendix 2. These internal guidelines record a hierarchy of "on call" cover redundancy in the event of sickness or other absences, complete with full contact details in case of emergency. PRIMA assessors have access to centrally stored instructional manuals on how to produce individual assessments, complete with market contact details to ensure continuity of assessment production. The guidelines also outline procedures for ensuring continuity of benchmark output from premises other than PRIMA's regular offices.

## **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 will frequently review each assessment, considering the views of relevant stakeholders, to gauge that the named assessment 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, may be published on 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. If 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 no later than within ten working days of their original receipt.

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

***PRIMA primary assessment methodologies (governed by systems 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.

If 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 tradeable 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.

If 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.

### T1 Non EU UCO CIF ARA

Pricing is for tradeable physical Used-Cooking Oil (UCO) delivered to ARA ports before customs clearance, supplied by UCO traders or producers accredited with ISCC or other RED certification. The UCO must hold the standard specifications listed below:

#### **UCO specifications:**

Year-round standard specifications used towards assessment are:

FFA max 5%

M&I max 2%

Iodine Value min 80

Sulphur max 50

If both FFA 5% information and FFA 6% information are available during the day, 5% information is prioritised towards the assessment

If FFA 5% information is not available but FFA 6% information is available during the day while other specifications are the same as the above stated, 5% FFA value is assessed to be 5 USD above the value of product with 6% FFAs unless otherwise indicated.

**Assessment point:** CIF ARA

**Delivery mode:** Flexi bag

**Price:** USD for one metric tonne of UCO

**Timing:** Normalised to nearby cargoes titled transfer for 2-6 weeks forward

**Volume:** Normalised to a 500-1000t lot size

**Assessment Time:** Daily 9am - 4:30pm London time. Where possible prices are weighted towards the day's close.

#### Zero degree CFPP UCOME fob ARA

Pricing is for tradeable physical Used Cooking Oil Methyl Ester (UCOME) barges delivered to ARA ports, all duties paid, accredited by ISCC or other RED certification. The UCOME must hold the standard specifications listed below:

**UCOME specifications:**

Year-round standard specifications used towards assessment are CFPP Zero degrees Celsius, sulphur max 50ppm, water max 350ppm mg/kg

**Assessment point:** FOB ARA

**Delivery mode:** Barge

**Price:** EUR for one metric tonne of UCOME

**Timing:** Normalised to nearby cargoes titled transfer for 2-6 weeks forward

**GHG:** Assessment assumes 91% GHG saving, normalised if liquidity is for UCOME with higher or lower GHG

**Volume:** Normalised to a 1,000t lot size

**Assessment Time:** Daily 9am - 4:30pm London time. Where possible prices are weighted towards the day's close.

#### UCO FOB main ports China in flexi bag

**Definition:** Pricing is for tradeable physical Used Cooking Oil (UCO) originated from China, supplied by UCO traders or producers credited with recognised standard RED or RED II sustainability certification

Assessment includes product originated from the following regions:

**Regions:** Typical North China ports include: Tianjin; Eastern China ports: Suzhou, Shanghai, Taizhou, Yangzhou. Typical South China ports include: Huangpu, Shantou, Fangchenggang. Other Chinese port origins can be considered towards assessment

**Basis:** FOB

**Shipping mode:** Flexi

The following terms apply to all the assessment points mentioned above:

**UCO specifications:**

*May to August:*

Normal assessed specification is - FFA max 6%

M&I max 2%, Iodine Value min 80

Sulphur max 50

If both FFA 5% information and FFA 6% information are available during the day, 5% information is prioritised towards the assessment

If FFA 5% information is not available but FFA 6% information is available during the day while other specifications are the same as the above stated, 5% FFA value is assessed to be 5 USD above the value of product with 6% FFAs unless otherwise indicated

*January to April & September to December:*

Normal spec to contribute to assessment is - FFA max 5%. M&I max 2%, Iodine Value min 80, Sulphur max 50

**Price:** USD for one metric tonne of UCO

**Timing:** Normalised to nearby cargoes titled transfer for 2-6 weeks forward

**Volume:** Normalised to a 500t lot size

**Assessment Time:** GMT+8 working day. Where possible prices are weighted towards the day's close.

**UCO FOB main ports China in bulk**

**Definition:** Pricing is for tradeable physical Used Cooking Oil (UCO) originated from China, supplied by UCO traders or producers credited with recognised standard RED or RED II sustainability certification

**Regions:** Typical North China ports include: Tianjin; Eastern China ports: Suzhou, Shanghai, Taizhou, Yangzhou. Typical South China ports include: Huangpu, Shantou, Fangchenggang. Other Chinese port origins can be considered towards assessment

**Shipping basis:** FOB

**Shipping mode:** Bulk

The following terms apply to all the assessment points mentioned above:

**UCO specifications:**

Year-round standard specifications:

FFA max 5%

M&I max 2%

Iodine Value min 80

Sulphur max 50

If both FFA 5% information and FFA 6% information are available during the day, 5% information is prioritised towards the assessment

If FFA 5% information is not available but FFA 6% information is available during the day while other specifications are the same as the above stated, 5% FFA value is assessed to be 5 USD above the value of product with 6% FFAs unless otherwise indicated.

**Price:** USD for one metric tonne of UCO including bulk rental fees

**Timing:** Normalised to nearby cargoes titled for transfer for 2-6 weeks forward

**Volume:** Normalized to a 1,000t lot size

**Assessment Time:** GMT+8 working day. Where possible prices are weighted towards the day's close.

#### POME FOB Southeast Asia

**Definition:** Pricing is for tradeable Palm Oil Mill Effluent (POME) originated from Southeast Asia, supplied by POME traders or producers credited with recognised standard RED or RED II sustainability certification

**Regions:** Indonesian/Malaysian ports

**Shipping basis:** FOB

**Shipping mode:** Bulk

The following terms apply to all the assessment points mentioned above:

**POME specifications:**

Year-round standard specifications:

Netted back to standard PORAM Palm Acid Oil contract specifications

**Price:** USD for one metric tonne of POME including bulk rental fees

**Timing:** Normalised to nearby cargoes titled for transfer for 2-6 weeks forward

**Volume:** Normalized to a 1,000t lot size

**Assessment Time:** GMT+8 working day. Where possible prices are weighted towards the day's close.

## T2 UCO FOB ARA

Pricing is for tradeable physical Used-Cooking Oil (UCO) delivered to ARA ports before customs clearance, supplied by UCO traders or producers accredited with ISCC or other RED certification. The UCO must hold the standard specifications listed below:

### **UCO specifications:**

Year-round standard specifications used towards assessment are:

FFA max 5%

M&I max 2%

Iodine Value min 70

Sulphur max 50

If both FFA 5% information and FFA 6% information are available during the day, 5% information is prioritised towards the assessment.

If FFA 5% information is not available but FFA 6% information is available during the day while other specifications are the same as the above stated, 5% FFA value is assessed to be 5 USD above the value of product with 6% FFAs unless otherwise indicated.

**Assessment point:** FOB ARA

**Delivery mode:** Flexi bag

**Price:** EUR for one metric tonne of UCO

**Timing:** Normalised to nearby cargoes titled transfer for 2-6 weeks forward

**Volume:** Normalised to a 50-500t lot size

**Assessment Time:** Daily 9am - 4:30pm London time. Where possible prices are weighted towards the day's close.

### **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, agricultural and other renewable fuel and feedstock 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 innovative and unique pricing methodology guarantees its price assessments avoid time or subjectivity distortions.

