

Specifications Guide

Global LNG

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DEFINITIONS OF THE TRADING LOCATIONS FOR WHICH PLATTS PUBLISHES DAILY INDEXES OR ASSESSMENTS

The following contains the primary specifications and methodologies for Platts LNG assessments throughout the world. All the assessments listed here employ Platts Assessments Methodology, as published at https://www.spglobal.com/platts/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/platts-assessments-methodology-guide.pdf.

These guides are designed to give Platts subscribers as much information as possible about a wide range of methodology and specification questions.

This guide is current at the time of publication. Platts may issue further updates and enhancements to this guide and will announce these to subscribers through its usual publications of record. Such updates will be included in the next version of this guide. Platts editorial staff and managers are available to provide guidance when assessment issues require clarification.

Unless otherwise stated, standard specifications for all Platts LNG assessments are as follows:

Frequency: Assessments are published each business day and reflect market values prevailing at the close of markets in the respective region (Singapore/UK/US). On certain days ahead of a public holiday, such as Christmas Eve or New Year's Eve, Platts may assess the market earlier than normal. This would typically be 12:30 pm in Singapore and 12:00 pm in London.

Unit: All prices are quoted in US dollars per million British Thermal Units (\$/MMBtu) to three decimal places. ICE NBP futures in pence per therm are converted to \$/MMBtu using a USD/GBP exchange rate assessed at market close. Prices at European gas hubs in Euros per megawatt hour are converted to \$/MMBtu using a USD/EUR exchange rate assessed at market close.

Quality: Price assessments reflect Btu/scf calorific value in a range; cargoes outside of this range are considered and may be normalized to within the range.

Vessel size: Standard cargoes of 135,000-175,000 cu m. Larger Qatari Q-Flex (210,000 cu m) and Q-Max (260,000 cu m) carriers are not assessed directly, though they may be normalized to the standard volume.

Timing: Platts assesses LNG markets in half-month forward cycles.

For instance, on June 1, Platts will assess Delivered Ex-Ship (DES) cargoes for delivery in H1 July, H2 July, H1 August and H2 August in the case of JKM.

The price assessments represent the average of the two half-month cycles which comprise the first full month of delivery or loading. For instance, on June 4, Platts JKM™, (Jul) represents the average of price assessments for cargoes for delivery in H1

July and H2 July.

DES price assessments roll over on the 16th of each calendar month and FOB price assessments roll on the 1st unless that day is not a business day, in which case the price assessment rolls over on the following business day. For instance, if June 16 is a business day, Platts JKM™, (Aug) is the average of price assessments of cargoes for delivery in H1 August and H2 August.

Netback & netforward assessments: For all netback and netforward assessments, Platts publishes a single value reflecting the implied price of a cargo at market close using the freight route costs, which employ standard Platts freight assumptions and relevant journey time to a stated loading or delivery location. More details are provided in the netback and shipping assessments section below.

Commissioning cargoes: Platts LNG price assessments reflect cargoes that are widely merchantable and do not reflect the commissioning cargoes from a new LNG project site. This applies to bids, offers and trades published during the Platts LNG Market on Close (MOC) assessment process, meaning that neither base loading port stated in offers, nor loading port nominations for trades reported via the MOC process should be against LNG liquefaction sites yet to load an LNG cargo, or whose cargo specifications are still unknown to the wider market.

PACIFIC BASIN SPOT LNG ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	min. size	max. size	Currency	UOM
LNG Japan/Korea Spot Crg DES	AAOVQ00	AAOVQ03	Spot	DES	Japan-Korea	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea DES 1 Half-Month	AAPSU00	AAPSU03	Spot	DES	Japan-Korea	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea DES 2 Half-Month	AAPSV00	AAPSV03	Spot	DES	Japan-Korea	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea DES 3 Half-Month	AAPSW00	AAPSW03	Spot	DES	Japan-Korea	5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea DES 4 Half-Month	AAPXA00	AAPXA03	Spot	DES	Japan-Korea	6th Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea vs Henry Hub Spore 16:30	AAPRZ00		Differential			Front month			USD	MMBtu
LNG Japan/Korea vs UK NBP Spore 16:30	AAPSA00		Differential			Front month			USD	MMBtu
LNG Japan/Korea vs ADB Spore 16:30	AAPSB00		Differential			Front month			USD	MMBtu
LNG Freight Japan/Korea Vs Taiwan/China 16:30	AAPSC00		Differential			Front month			USD	MMBtu
HHub 1-Mo Spore 16:30 Hrs \$	AAPSD00	AAPSD03	Futures		Henry Hub	M+1			USD	MMBtu
HHub 2-Mo Spore 16:30 Hrs \$	AAPSE00	AAPSE03	Futures		Henry Hub	M+2			USD	MMBtu
NBP 1-Mo Spore 16:30 Hrs \$	AAPSF00	AAPSF03	Futures		NBP	M+1			USD	MMBtu
NBP 2-Mo Spore 16:30 Hrs \$	AAPSG00	AAPSG03	Futures		NBP	M+2			USD	MMBtu
NBP 1-Mo Spore 16:30 Hrs p/th	AAPSH00	AAPSH03	Futures		NBP	M+1			GBC	therm
NBP 2-Mo Spore 16:30 Hrs p/th	AAPSI00	AAPSI03	Futures		NBP	M+2			GBC	therm
LNG DES JKM Spot vs Dutch TTF Mo01 \$/MMBtu	LNTFJ00	LNTFJ03	Differential		TTF	vs equivalent TTF			USD	MMBtu
LNG FOB Mid East 25-45 Days	AARXQ00	AARXQ03	Netback	FOB	Middle east	25-45 days	135,000	175,000	USD	MMBtu
LNG FOB Australia NetBack	AARXR00	AARXR03	Netback	FOB	Australia	JKM minus 8 days	135,000	175,000	USD	MMBtu
LNG FOB Singapore	AARXU00		Netback	FOB	Singapore	JKM minus 7 days	135,000	175,000	USD	MMBtu
LNG DES West India Marker	AARXS00	AARXS03	Spot	DES	West India	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES West India Marker 1 Half-Month	LMEAA00		Spot	DES	West India	2nd Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES West India Marker 2 Half-Month	LMEAB00		Spot	DES	West India	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES West India Marker 3 Half-Month	LMEAC00		Spot	DES	West India	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES West India Marker 4 Half-Month	LMEAD00		Spot	DES	West India	5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES West India Marker 5 Half-Month	LMEAE00		Spot	DES	West India	6th Half-Month forward	135,000	175,000	USD	MMBtu
LNG Japan/Korea Spot Crg DES Jpy/MMBtu	AAOVR00	AAOVR03	Spot	DES	Japan-Korea		135,000	175,000	JPY	MMBtu
LNG Japan/Korea DES Spot Crg CNY/mt	LJCMS00	LJCMS03	Spot	DES	Japan-Korea		135,000	175,000	CNY	MT
LNG Japan/Korea DES Spot Crg CNY/MMBtu	LJCWS00	LJCWS03	Spot	DES	Japan-Korea		135,000	175,000	CNY	MMBtu
JKM Monthly Average USD*	AAOV503		Spot	DES	Japan-Korea		135,000	175,000	USD	MMBtu
JKM Monthly Average JPY*	AAOVT03		Spot	DES	Japan-Korea		135,000	175,000	JPY	MMBtu
DES West India Marker Monthly Average*	AAWIC03		Spot	DES	West India		135,000	175,000	USD	MMBtu
JKM Cumulative Moving Average USD*	AAOV500		Spot	DES	Japan-Korea		135,000	175,000	USD	MMBtu
JKM Cumulative Moving Average JPY*	AAOVT00		Spot	DES	Japan-Korea		135,000	175,000	JPY	MMBtu
JKM Cumulative Moving Average CNY/mt*	LJCM00	LJCM03	Spot	DES	Japan-Korea		135,000	175,000	CNY	MT
JKM Cumulative Moving Average CNY/MMBtu*	LJCM00	LJCM03	Spot	DES	Japan-Korea		135,000	175,000	CNY	MMBtu
DES West India Marker Cumulative Moving Average USD*	AALIC00		Spot	DES	West India		135,000	175,000	USD	MMBtu

*Average of assessments between 16th of M-2 and 15th of M-1 for the delivery month (M)

Pacific Basin Assessments

Pacific Basin assessments, derivatives and netbacks are published each business day and reflect market values prevailing at the close of Asian markets, at 4:30 pm Singapore time. Prices are published in the following Platts services: Natural Gas Alert (PGN), LNG Alert (LNG), Platts LNG Daily, Platts Market Data, Platts LNG Navigator and Platts Platform.

Japan/Korea Marker (Platts JKM™)

Platts launched on February 2, 2009, daily spot Asian LNG assessments under the benchmark name Platts Japan/Korea Marker (Platts JKM™). Platts also publishes a single value daily assessment of JKM, in JPY/MMBtu, CNY/MMBtu and CNY/mt, calculated using assessed daily currency exchange rates and published conversion factors.

The assessment is published following editorial engagement with market participants such as producers, consumers, traders, brokers, shippers and other active spot market participants.

Basis & Location: Cargoes delivered ex-ship (DES) to ports in Japan and South Korea that can receive a minimum cargo size of 135,000 cu m.

Prices of LNG spot cargoes delivered into ports in Taiwan or China with the same minimum cargo size may be normalized to basis Japan/Korea, using an assessed deviation cost from Japan/Korea to Taiwan/China. Platts publishes a single value assessment for JKM. The assessment is based on confirmed spot transactions, firm bids and offers, indications of value, expressions of interest, or in the absence of liquidity, where a spot transaction would have been concluded.

Timing: Cargo delivery in the third, fourth, fifth and sixth half-month cycles forward from the date of publication.

Platts considers the following trading terms to be typical for

the publication of bids, offers and other transactional data for spot LNG cargoes reflected in its benchmark JKM LNG price assessments.

These standards apply to bids, offers and trades published by Platts in the MOC price assessment process.

Standard Terms: Unless stated otherwise by a counterparty at the time of providing data for publication, the bids and offers provided for publication in the MOC should reflect these following standards, which Platts understands to be broadly typical in the spot market. Platts may publish bids, offers and trades for LNG cargoes that carry different terms and conditions, but may normalize these when considered in final, published assessments. Participants in the MOC process should clearly state in submitted bids or offers terms that differ from these standards.

Delivery Window: The delivery period reflected by bids and offers should typically be three to five days long, with the buyer to narrow to a one- or two-day delivery window 30 days before the first day of the traded delivery window. The maximum delivery period Platts considers for publication in bids, offers and trades in the Asia LNG MOC assessment process is no greater than five days long.

Discharge Location: Bids and offers should typically reflect delivery into Japan, South Korea, Taiwan and China, with buyer's option to nominate discharge country and port. Bids must state a specific base discharge port. The location chosen sets the conditions for any potential counterparty considering trading. For transactions concluded and reported through the MOC process, buyers should nominate delivery country, and a specific port within that country, at least 30 days before the first day of the traded delivery window. Buyers retain the option to substitute delivery port within the same country up to 20 days before the first day of the traded delivery window, subject to ship shore compatibility study (SSCS).

For all bids and offers reported via the MOC process, Platts would consider for publication only those where the following applies: for an offer, compatibility of the base discharge port can only be a requirement should the base vessel be named; for a bid, compatibility of the base vessel can only be a requirement should the base discharge port be named.

Loading location: Platts considers typical bids, offers and trades where sellers have the option to nominate the loading port and may substitute loading port up to 30 days prior to the first day of the traded delivery window subject to the Gross Heating Value (GHV) quality range reported in the trade. Offers for cargoes for delivery at or less than 45 days from the date of assessment that do not explicitly state a base loading port may be subject to normalization.

Quality: Market participants should clearly state quality specifications in bids and offers submitted for publication. Platts JKM™ assessments reflect cargoes with a GHV of 1030-1130 Btu/scf, maximum total sulfur content of 5mg/Nm³ and maximum ethane content of 10%/mol. Unless explicitly stated, these will be the assumed specifications for bids, offers and trades reported during the MOC process. Bids, offers and trades that differ from the standard specification will continue to be published. Platts may normalize bids, offers and trades for quality specifications with different GHV ranges, as well as for different total sulfur or ethane content limits.

Quantity: The standard cargo quantity reflected in JKM is 3.4 TBtu. Platts considers for publication bids, offers and trades for other cargo sizes, but may normalize these for assessment purposes to the standard value of 3.4 TBtu. Offers with cargo volumes submitted in a range during the Asia LNG MOC process are subject to normalization when considered in the final assessment price. The maximum volume range stated in these offers should be no greater than 0.3 TBtu. An example of an offer with a 0.3 TBtu quantity range would be 3.2 to 3.5 TBtu, with a +/-5% operational tolerance, or optol. For offers or bids submitted in a volume range, the nomination deadline by

which buyers are informed of the final cargo volume (exclusive of operational tolerance) must be stated. Platts considers the standard optol to be +/-5% at the seller's option, and only considers bids where the optol is +/-5% at the seller's option.

LNG Vessel: Platts JKM™ reflects a vessel size range of 135,000-175,000 m3. Sellers should nominate an LNG ship either 45 days prior to the first day of the traded delivery window, or state the base vessel in the offer for more prompt delivery windows. Sellers may substitute delivery vessel up to 30 days prior to the first day of the traded delivery window subject to SSCS. For cargoes for delivery at or less than 30 days from the date of assessment, sellers should state the LNG vessel explicitly.

Platts expects parties to be reasonable when exceptional circumstances require sellers to substitute vessels or buyers to substitute terminals beyond typical standards stated in Platts MOC guidelines. Companies must promptly communicate to their counterparties when such a substitution is required. Buyers or sellers should not unreasonably withhold substitutions or hamper the established delivery process.

For a cargo delivered against an MOC trade, a seller must ensure that an ETA notice of the nominated LNG ship to the discharge port is provided to the buyer upon the ship's departure from the loading port, or as soon as reasonably possible. If such a departure occurs prior to the nomination of the LNG ship, the seller must ensure the initial ETA notice is given as soon as reasonably possible. The seller must also notify the buyer of any material changes to the ETA as soon as the seller is aware of these changes.

Outright & floating prices: Platts considers a variety of inputs, including outright price bids and offers and floating price bids and offers in JKM. Participants in the Platts MOC price assessment process may submit bids and offers for publication that price as a differential to an underlying benchmark. All floating indications should clearly state the pricing period, for example "average of JKM published Jul 16-Aug 15"

Platts establishes the hedgeable, outright value of floating and spread price indications by applying them to the observable, prevailing value of underlying relevant derivatives instruments. The objective is to assess the prevailing tradeable outright price of the commodity at the market close.

Outright price submissions take precedence in the editorial process at all times. For example, an outright price bid or offer (i.e. \$11.50/MMBtu) may invalidate a floating price basis bid or offer (i.e. JKM plus \$1.00/MMBtu) during the assessment process if the prices demonstrably coexist in conflict at any moment in time.

Platts JKM™ Derivatives

Platts publishes daily Asian LNG derivative assessments under the name DES Japan/Korea Marker (Platts JKM™) derivatives. These are assessed at 4:30 pm Singapore time and 4:30 pm London time.

The assessments are published following editorial engagement with market participants such as producers, consumers, traders, brokers and other active spot market participants.

Timing: Derivative prices are assessed for JKM pricing month, one month forward from the physical JKM, two months forward and three months forward, the next two active quarters, the next two active seasons and the active three forward calendar years. For example, on June 1, Platts assesses the physical JKM for July delivery, and assesses JKM derivatives for July, August, September and October. The derivatives assessment rolls over on the 16th of each calendar month unless that day is not a business day, in which case the assessment rolls over on the following business day. For example, if June 16 is a business day, the JKM derivatives assessments roll over to August, September, October and November. Platts assesses two quarters, with each quarterly assessment rolling as pricing begins on the first month of each new quarter. For example, on February 14 2020, with the front month derivative of March, Platts will assess Q2 2020 and

Q3 2020. On February 17, 2020 when the front-month derivative rolls to April, Platts will assess Q4 2020 and Q1 2021. Seasons are defined as follows: Summer represents April to September, and Winter represents October to March. The seasonal assessment rolls over on the first pricing day when JKM's pricing month is either April or October. The Calendar Year assessment rolls over on the first business day of the year. For example, in H2 December 2019, Platts assesses JKM forward curve periods: February, March, April, May, Q2 2020, Q3 2020, Summer 2020, Winter 2020, Cal 2020, Cal 2021 and Cal 2022. In H1 January 2020, the forward curve periods are: February, March, April, May, Q2 2020, Q3 2020, Summer 2020, Winter 2020, Cal 2021, Cal 2022 and Cal 2023.

Settlement: The Platts JKM™ derivative is financially settled against the average of the physical spot Platts JKM™ assessments. For example, the August JKM derivative will be settled against the average of the daily assessments for August physical JKM, published between June 16 and July 15.

Platts will publish bids, offers and expressions of interest to trade from approved participants in the JKM Derivatives MOC process in line with the following editorial standards and guidelines:

Submitting bids, offers and intentions to trade: Buyers and sellers must submit any bids and offers with complete information to Platts editors by phone, instant message or email before 16:10:00 Singapore time or 08:10:00 GMT. Platts expects participants to clearly state all the relevant information when submitting a bid or offer for publication, including price, contract period and volume. Platts may request further information from participants to ensure clarity. Buyers and sellers may withdraw their bids or offers at any time during the MOC by communicating the same to Platts editors, so long as interest in trading against the published bid or offer has not already been received by Platts. Counterparties must clearly communicate their interest to trade a published bid or offer to Platts editors. Bids or offers that are traded in the MOC may be repeated at the same or a less competitive price.

Volume: Platts requires participants to bid or offer LNG derivatives at a minimum size of 250,000 MMBtu (25 lots), and multiples thereof.

Credit and trading terms: Transactions for LNG derivatives reported in the MOC should reflect counterparties' standard credit and trading terms.

Platts West India Marker (WIM)

Platts publishes daily WIM LNG assessments for a total of five half-month periods. Platts assesses cargoes for delivery in the second, third, fourth, fifth and sixth half-month cycles forward from the date of publication. The WIM monthly assessment is based on the average of the two DES West India Marker half-months that match the JKM delivery month period.

The assessment is published following editorial engagement with producers, consumers, traders, brokers, shippers and other active spot market participants.

Basis & Location: Cargoes delivered ex-ship (DES) at ports on the west coast of India that can receive a minimum cargo size of 135,000 cu m.

Assessment: Platts publishes a single value indicating the price at which a cargo could be traded at the close of the MOC process. This assessed value is based on confirmed spot transactions, firm bids/offers, indications of value and expressions of interest, or in the absence of liquidity, where a spot transaction would have been concluded.

Timing: Cargo delivery for Platts WIM monthly assessment matches the month of Platts JKM™.

Standard Terms: Unless stated otherwise by a counterparty at the time of providing data for publication, the bids and offers provided for publication in the MOC should reflect these following standards, which Platts understands to be broadly

typical in the spot market. Platts may publish bids, offers and trades for LNG cargoes that carry different terms and conditions, but may normalize these when considered in final, published assessments. Participants in the MOC process should clearly state in submitted bids or offers terms that differ from these standards.

Delivery Window: The delivery period reflected by bids and offers will typically be three to five days, with the buyer to narrow to a one- or two-day delivery window 30 days before the first day of the traded delivery window. The maximum delivery period Platts considers for publication in bids, offers and trades in the Asia LNG MOC assessment process is no greater than five days long.

Discharge Location: Bids and offers typically reflect delivery into West Indian ports, with buyer's option to nominate the discharge port. Bids will need to be expressed with a specific discharge basis (or base) port. The location chosen sets the conditions for any potential counterparty considering trading. For transactions concluded and reported through the MOC process, buyers should nominate delivery port at least 30 days before the first day of the traded delivery window, or at the time of trade confirmation for more prompt delivery windows.

Buyers will retain the option to substitute delivery location to a port on the West Coast of India up to 15 days before the first day of the traded delivery window, subject to SSCS. Substitution of delivery location to ports on the East coast of India, Dubai or Kuwait may be subject to normalization.

For all bids and offers reported via the MOC process, Platts would consider for publication only those where the following applies: for an offer, compatibility of the base discharge port can only be a requirement should the base vessel be named; for a bid, compatibility of the base vessel can only be a requirement should the base discharge port be named.

Loading Location: Platts will reflect bids, offers and trades where sellers have the option to nominate the loading port up

to 30 days prior to the first day of the traded delivery window and may be substituted up to 15 days prior to the first day of the traded delivery window subject to the GHV quality range reported in the trade. For cargoes for delivery at or less than 30 days from the date of assessment, sellers will have to state the load port explicitly.

Quality: Market participants should clearly state GHV specifications in bids and offers submitted for publication. Platts WIM assessments reflect cargoes with a GHV of 1000-1150 Btu/Scf. Platts may normalize for quality specifications with different ranges.

Quantity: WIM reflects a cargo quantity of 3.2 TBtu. This volume will be subject to +/-5% operational tolerance, at the seller's option. For cargoes offered or bid for in a volume range (i.e. 3.1-3.4 TBtu +/-5%), the specific volume (i.e. 3.3 TBtu +/-5%) should be declared by the seller 30 days prior to delivery, and this declaration deadline should be stated in the offer or bid.

LNG Vessel: Platts standards reflect a vessel size range of 135,000-175,000 cu m. Sellers should nominate an LNG ship either 30 days prior to the first day of the traded delivery window, or at the time of trade confirmation for more prompt delivery window. For cargoes for delivery at or less than 30 days from the date of assessment, sellers should state the LNG vessel explicitly. Sellers may substitute delivery vessel up to 15 days prior to the first day of the traded delivery window, subject to SSCS.

Platts expects parties to be reasonable when exceptional circumstances require sellers to substitute vessels or buyers to substitute terminals beyond typical standards stated in Platts MOC guidelines. Companies must promptly communicate to their counterparties when such a substitution is required. And buyers or sellers should not unreasonably withhold substitutions or hamper the established delivery process.

Middle East Marker (MEM)

Platts publishes daily DES Middle East LNG assessments under the marker name Middle East Marker (MEM). The assessment is published following editorial engagement with market participants such as producers, consumers, traders, brokers, shippers and other active spot market participants.

Basis & Location: Cargoes delivered ex-ship at ports in the Middle East capable of receiving cargoes with a minimum cargo size of 135,000 cubic meters.

The basis ports are Mina Al Ahmadi, Kuwait; Jebel Ali and Ruwais, UAE. All other locations will be normalized using an assessed deviation cost.

Assessment: Platts publishes a single value indicating the price at which a cargo could be traded at the close of the Asia MOC process. This assessed value is based on confirmed spot transactions, firm bids/offers, indications of value and expressions of interest, or in the absence of liquidity, where a spot transaction would have been concluded. It also takes into account netbacks from prevailing consumer markets.

Timing: Cargo delivery in the month matching Platts JKM™.

FOB Middle East Netback

Platts publishes daily spot assessments of LNG under the name FOB Middle East (FOB ME). This assessment is a netback calculation from Platts WIM.

Timing: Assessment of cargoes loading 25-45 days forward from the date of publication. For instance, on March 1, the Platts assessment reflects cargoes for loading between March 26 and April 15.

Basis & Location: Cargoes loaded free on board at ports in Qalhat in Oman, Das Island in Abu Dhabi and Ras Laffan in Qatar.

Assessment: Platts publishes a single netback value indicating the implied price of a cargo at the close of Asian markets using the cost of freight, as well as the forward inter-month structure of the WIM. For FOB Middle East, a freight rate covering a three-day voyage is subtracted from WIM, as well as the forward structure across the third half-month and fifth half-month periods of the WIM assessment.

FOB Australia Netback

Platts publishes a daily spot netback assessment for LNG loading in Australia which subtracts the cost of freight from JKM.

Timing: This netback is assessed using the JKM assessment minus a freight period of eight days, and therefore represents cargoes loading eight days prior to the JKM delivery period.

Location: Loading at Dampier, Australia.

Assessment: Platts publishes a single value indicating the implied price of a cargo at Asian market close using the freight route cost.

FOB Singapore Netback

Platts publishes a daily spot netback assessment for LNG loading in Singapore which subtracts the cost of freight cost subtraction from JKM.

Timing: This netback is assessed using the JKM assessment minus a freight period of seven days, and therefore represents cargoes loading seven days prior to the JKM delivery period.

Location: Loading in Singapore.

Assessment: Platts publishes a single value indicating the implied price of a cargo at Asian market close using the freight route cost.

LNG DERIVATIVES ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Location	Delivery Period	min. size	max. size	Currency	UOM
Singapore Close									
LNG Japan/Korea swap Pricing Month	LJKM000		Derivative	Japan/Korea	JKM physical +0 Months	250,000		USD	MMBtu
LNG Japan/Korea swap Mo01	LJKM001	LJKM031	Derivative	Japan/Korea	JKM physical +1 Month	250,000		USD	MMBtu
LNG Japan/Korea swap Mo02	LJKM002	LJKM032	Derivative	Japan/Korea	JKM physical +2 Months	250,000		USD	MMBtu
LNG Japan/Korea swap Mo03	LJKM003	LJKM033	Derivative	Japan/Korea	JKM physical +3 Months	250,000		USD	MMBtu
LNG Japan/Korea swap Q1	LJKQR01		Derivative	Japan/Korea	JKM physical active forward quarter	250,000		USD	MMBtu
LNG Japan/Korea swap Q2	LJKQR02		Derivative	Japan/Korea	JKM physical active forward quarter+1	250,000		USD	MMBtu
LNG Japan/Korea swap \$/MMBtu Season	LJKSN01		Derivative	Japan-Korea	JKM physical active forward season	250,000		USD	MMBtu
LNG Japan/Korea swap \$/MMBtu Season+1	LJKSN02		Derivative	Japan-Korea	JKM physical active forward season+1	250,000		USD	MMBtu
LNG Japan/Korea swap Calendar Year	LJKYR01		Derivative	Japan/Korea	JKM physical active forward calendar year	250,000		USD	MMBtu
LNG Japan/Korea swap Calendar Year+1	LJKYR02		Derivative	Japan/Korea	JKM physical active forward calendar year+1	250,000		USD	MMBtu
LNG Japan/Korea swap Calendar Year+2	LJKYR03		Derivative	Japan/Korea	JKM physical active forward calendar year+2	250,000		USD	MMBtu
London Close									
LNG Japan/Korea swap Pricing Month	JKLM000		Derivative	Japan/Korea	JKM physical +0 Months	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Mo01	JKLM001		Derivative	Japan/Korea	JKM physical +1 Month	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Mo02	JKLM002		Derivative	Japan/Korea	JKM physical +2 Months	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Mo03	JKLM003		Derivative	Japan/Korea	JKM physical +3 Months	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Q1	JKLQR01		Derivative	Japan/Korea	JKM physical active forward quarter	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Q2	JKLQR02		Derivative	Japan/Korea	JKM physical active forward quarter+1	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap \$/MMBtu Season	JKLSN01		Derivative	Japan-Korea	JKM physical active forward season	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap \$/MMBtu Season+1	JKLSN02		Derivative	Japan-Korea	JKM physical active forward season+1	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Calendar Year	JKLYR01		Derivative	Japan/Korea	JKM physical active forward calendar year	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Calendar Year+1	JKLYR02		Derivative	Japan/Korea	JKM physical active forward calendar year+1	10,000	10,000	USD	MMBtu
LNG Japan/Korea swap Calendar Year+2	JKLYR03		Derivative	Japan/Korea	JKM physical active forward calendar year+2	10,000	10,000	USD	MMBtu

WIM RLNG ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Location	Min size	Max size	Currency	UOM
RLNG Ahmedabad WIM INR/MMBtu	RLDIJ00		Netforward	West India			INR	MMBtu
RLNG Ahmedabad WIM \$/MMBtu	RLDDJ00		Netforward	West India			USD	MMBtu
LNG New Delhi WIM INR/MMBtu	RLDIQ00		Netforward	West India			INR	MMBtu
RLNG New Delhi WIM \$/MMBtu	RLDDQ00		Netforward	West India			USD	MMBtu
RLNG Chhainsa WIM INR/MMBtu	RLDDO00		Netforward	West India			INR	MMBtu
RLNG Chhainsa WIM \$/MMBtu	RLDDO00		Netforward	West India			USD	MMBtu
RLNG Koottanad WIM INR/MMBtu	RLDIR00		Netforward	West India			INR	MMBtu
RLNG Koottanad WIM \$/MMBtu	RLDIR00		Netforward	West India			USD	MMBtu
RLNG Kota WIM INR/MMBtu	RLDIN00		Netforward	West India			INR	MMBtu
RLNG Kota WIM \$/MMBtu	RLDDN00		Netforward	West India			USD	MMBtu

WIM RLNG ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Location	Min size	Max size	Currency	UOM
RLNG Morbi WIM INR/MMBtu	RLDIK00		Netforward	West India			INR	MMBtu
RLNG Morbi WIM \$/MMBtu	RLDDK00		Netforward	West India			USD	MMBtu
RLNG Panvel WIM INR/MMBtu	RLDIL00		Netforward	West India			INR	MMBtu
RLNG Panvel WIM \$/MMBtu	RLDDL00		Netforward	West India			USD	MMBtu
RLNG Vijaipur WIM INR/MMBtu	RLDIM00		Netforward	West India			INR	MMBtu
RLNG Vijaipur WIM \$/MMBtu	RLDDM00		Netforward	West India			USD	MMBtu
RLNG Jagdishpur WIM INR/MMBtu	RLDIP00		Netforward	West India			INR	MMBtu
RLNG Jagdishpur WIM \$/MMBtu	RLDDP00		Netforward	West India			USD	MMBtu
RLNG Kakinada WIM INR/MMBtu	RLDIS00		Netforward	West India			INR	MMBtu
RLNG Kakinada WIM \$/MMBtu	RLDDS00		Netforward	West India			USD	MMBtu
RLNG West India Avg WIM INR/MMBtu	RLDIT00	RLDIT03	Netforward	West India			INR	MMBtu
RLNG West India Avg WIM \$/MMBtu	RLDDT00	RLDDT03	Netforward	West India			USD	MMBtu
RLNG Ex-terminal Dabhol WIM INR/MMBtu	RLEIC00		Netforward	West India			INR	MMBtu
RLNG Ex-terminal Dabhol WIM \$/MMBtu	RLEDC00		Netforward	West India			USD	MMBtu
RLNG Dabhol WIM INR/MMBtu	RLDIC00		Netforward	West India			USD	MMBtu
RLNG Dabhol WIM \$/MMBtu	RLDDC00		Netforward	West India			INR	MMBtu
RLNG Ex-terminal Dahej WIM INR/MMBtu	RLEIA00		Netforward	West India			USD	MMBtu
RLNG Ex-terminal Dahej WIM \$/MMBtu	RLEDA00		Netforward	West India			INR	MMBtu
RLNG Ex-terminal Hazira WIM INR/MMBtu	RLEIB00		Netforward	West India			USD	MMBtu
RLNG Ex-terminal Kochi WIM INR/MMBtu	RLEDI00		Netforward	West India			INR	MMBtu
RLNG Ex-terminal Kochi WIM \$/MMBtu	RLEDD00		Netforward	West India			USD	MMBtu
RLNG Ex-terminal Mundra WIM INR/MMBtu	RLEEI00		Netforward	West India			INR	MMBtu
RLNG Ex-terminal Mundra WIM \$/MMBtu	RLEDE00		Netforward	West India			USD	MMBtu
RLNG Ex-terminal West India Avg WIM INR/MMBtu	RLEIF00	RLEIF03	Netforward	West India			INR	MMBtu
RLNG Ex-terminal West India Avg WIM \$/MMBtu	RLEDF00	RLEDF03	Netforward	West India			USD	MMBtu

Platts WIM RLNG prices

Platts publishes daily prices for WIM re-gasified LNG (RLNG) India on both an ex-terminal and delivered basis for various locations. WIM RLNG prices are published using the WIM price as the basis and additional costs and taxes incurred for regasification and transportation. Daily prices are published in both Indian Rupee/MMBtu and \$/MMBtu, using the daily USD/INR exchange rate at 4.30 pm Singapore time.

Basis & Location: Ex-terminal prices are published daily for Dahej, Hazira, Dabhol, Mundra and Kochi, as well as an average price of these five locations. Delivered prices are published daily

for Ahmedabad, Morbi, Panvel, Dabhol, Vijaipur, Kota, Chhainsa, Jagdishpur, New Delhi, Koottanad and Kakinada, as well as an average price of these 11 locations.

Calculation: The ex-terminal prices are calculated using the daily Platts WIM assessment plus the costs of prevailing import duties, re-gasification fees and GST (Goods and Services Tax) on regasification fees, and re-gasification volume loss. The delivered prices are calculated using the ex-terminal prices from the nearest terminal as per existing natural gas pipeline infrastructure, in addition to the transportation tariffs as published by India's Petroleum and Natural Gas Regulatory Board and GST on transportation fees. Neither the ex-terminal

nor the delivered prices include marketing margin and sales taxes. The calculations are periodically reviewed to ensure the inputs reflect prevailing market dynamics.

Delivery window: The pricing period for the WIM RLNG prices matches that of the WIM assessment (AARXS00). For example, between Nov. 16, 2020 to Dec. 15, 2020, Platts publishes WIM RLNG prices for January 2021.

ATLANTIC BASIN LNG ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Min size	Max size	Currency	UOM
LNG DES Middle East Marker MEM Spot Cargo Mo01	LMEMA00		Spot	DES	Middle East	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES Middle East Marker MEM 1 Half-Month	LMEMB00		Spot	DES	Middle East	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES Middle East Marker MEM 2 Half-Month	LMEMC00		Spot	DES	Middle East	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES Middle East Marker MEM 3 Half-Month	LMEMD00		Spot	DES	Middle East	5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES Middle East Marker MEM 4 Half-Month	LMEME00		Spot	DES	Middle East	6th Half-Month forward	135,000	175,000	USD	MMBtu
LNG DES Middle East Marker MEM vs Middle East Fuel Oil	LMEMF00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG DES Middle East Marker MEM vs Henry Hub 16:30 London Mo01	LMEMG00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG DES Middle East Marker MEM vs JKM 16:30 Singapore Mo01	LMEMH00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG DES Middle East Marker MEM vs NBP 16:30 London Mo01	LMEMJ00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG DES Middle East Marker MEM vs DES Northwest Europe	LMEMK00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG DES Middle East Marker MEM vs DES Mediterranean	LMEML00		Spot	DES	Middle East	Front month			USD	MMBtu
LNG NWE Spot DES	AASXU00	AASXU03	Spot	DES	Northwest Europe	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG NWE Spot DES 1 Half-Month	AASXV00	AASXV03	Spot	DES	Northwest Europe	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG NWE Spot DES 2 Half-Month	AASXW00	AASXW03	Spot	DES	Northwest Europe	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG NWE Spot DES 3 Half-Month	AASXX00	AASXX03	Spot	DES	Northwest Europe	5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG NWE Spot DES Monthly average*	AASDE03		Spot	DES	Northwest Europe		135,000	175,000	USD	MMBtu
LNG NWE Spot DES Cumulative Moving Average*	AASDF00		Spot	DES	Northwest Europe		135,000	175,000	USD	MMBtu
LNG NWE Spot DES Eur/MWh	LNNTA00		Spot	DES	Northwest Europe		135,000	175,000	Eur	MWh
LNG NWE Spot DES Eur/MMBtu	LNNXA00		Spot	DES	Northwest Europe		135,000	175,000	Eur	<<Btu
LNG MED Spot DES	AASXY00	AASXY03	Spot	DES	Mediterranean	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG MED Spot DES 1 Half-Month	AASXZ00	AASXZ03	Spot	DES	Mediterranean	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG MED Spot DES 2 Half-Month	AASYA00	AASYA03	Spot	DES	Mediterranean	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG MED Spot DES 3 Half-Month	AASYB00	AASYB03	Spot	DES	Mediterranean	5th Half-Month forward	135,000	175,000	USD	MMBtu
LNG MED Spot DES Monthly Average*	AASDE03		Spot	DES	Mediterranean		135,000	175,000	USD	MMBtu
LNG MED Spot DES Cumulative Moving Average*	AADCU00		Spot	DES	Mediterranean		135,000	175,000	USD	MMBtu
LNG MED Spot DES Eur/MWh	LNMTA00		Spot	DES	Mediterranean		135,000	175,000	Eur	MWh
LNG MED Spot DES Eur/MMBtu	LNMXA00		Spot	DES	Mediterranean		135,000	175,000	Eur	MMBtu
LNG DES NWE Percent NBP	AASYD00	AASYD03	Percentage			Front Month			UNS	percent
LNG DES NWE Spot vs Dutch TTF Mo01 \$/MMBtu	LNTFN00	LNTFN03	Differential		TTF	vs equivalent TTF			USD	MMBtu
LNG DES MED Spot vs Dutch TTF Mo01 \$/MMBtu	LNTFS00	LNTFS03	Differential		TTF	vs equivalent TTF			USD	MMBtu
LNG NWE vs HH London 16:30	AASYE00	AASYE03	Differential			Front Month			USD	MMBtu
LNG MED vs HH London 16:30	AASYF00	AASYF03	Differential			Front Month			USD	MMBtu
LNG NWE vs UK NBP London 16:30	AASYG00	AASYG03	Differential			Front Month			USD	MMBtu
LNG MED vs UK NBP London 16:30	AASYH00	AASYH03	Differential			Front Month			USD	MMBtu
LNG NWE vs DB London 16:30	AASYI00	AASYI03	Differential			Front Month			USD	MMBtu
LNG MED vs DB London 16:30	AASYJ00	AASYJ03	Differential			Front Month			USD	MMBtu
LNG NWE vs MED London 16:30	AASYK00	AASYK03	Differential			Front Month			USD	MMBtu
LNG NWE Ldn 16:30 vs JKM Spore 16:30	AASYL00	AASYL03	Differential			Front Month			USD	MMBtu
LNG MED Ldn 16:30 vs JKM Spore 16:30	AASYM00	AASYM03	Differential			Front Month			USD	MMBtu
HHub 1-Mo London 16:30 Hrs	AASYN00	AASYN03	Futures		Henry Hub	M+1			USD	MMBtu

ATLANTIC BASIN LNG ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Min size	Max size	Currency	UOM
HHub 2-Mo London 16:30 Hrs	AASY000	AASY003	Futures		Henry Hub	M+2			USD	MMBtu
NBP 1-Mo London 16:30 Hrs p/th	AASYP00	AASYP03	Futures		NBP	M+1			GBP	therm
NBP 2-Mo London 16:30 Hrs p/th	AASYQ00	AASYQ03	Futures		NBP	M+2			GBP	therm
NBP 1-Mo London 16:30Hrs \$/MMBtu	AASYR00	AASYR03	Futures		NBP	M+1			USD	MMBtu
NBP 2-Mo London 16:30Hrs \$/MMBtu	AASYS00	AASYS03	Futures		NBP	M+2			USD	MMBtu
DES Brazil Netforward Mo01	LEBMH01	LEBMH31	Netforward	DES	Brazil	3rd & 4th or 4th & 5th Half-Month forward	135,000	175,000	USD	MMBtu
DES Brazil Netforward vs ARA Fuel Oil	LAARM01	LAAR003	Differential			Front Month			USD	MMBtu
DES Brazil Netforward vs DES MED LNG	LASWM01	LASW003	Differential			Front Month			USD	MMBtu
DES Brazil Netforward vs Dated Brent	LADB001	LADB003	Differential			Front Month			USD	MMBtu
DES Brazil Netforward vs Henry Hub	LAHHM01	LAHH003	Differential			Front Month			USD	MMBtu
DES Brazil Netforward vs JKM	LAJKM01	LAJK003	Differential			Front Month			USD	MMBtu
DES Brazil Netforward vs NBP	LABPM01	LABP003	Differential			Front Month			USD	MMBtu
LNG FOB GCM spot cargo Mo01	LGCSM01	LGCSM31	Spot	FOB	Gulf Coast	2nd & 3rd or 3rd & 4th half month forward	135,000	175,000	USD	MMBtu
LNG FOB GCM spot cargo Monthly Average**	LGCCM31		Spot	FOB	Gulf Coast		135,000	175,000	USD	MMBtu
LNG FOB GCM spot cargo Cumulative Moving Average**	LGCCN00		Spot	FOB	Gulf Coast		135,000	175,000	USD	MMBtu
LNG FOB GCM 1 Half-Month	LUGCA01	LUGCA31	Spot	FOB	Gulf Coast	2nd Half-month forward	135,000	175,000	USD	MMBtu
LNG FOB GCM 2 Half-Month	LUGCB02	LUGCB32	Spot	FOB	Gulf Coast	3rd Half-Month forward	135,000	175,000	USD	MMBtu
LNG FOB GCM 3 Half-Month	LUGCC03	LUGCC33	Spot	FOB	Gulf Coast	4th Half-Month forward	135,000	175,000	USD	MMBtu
LNG FOB GCM vs. Dated Brent	LGMDB00	LGMDB03	Differential			Front Month			USD	MMBtu
LNG FOB US Gulf Coast Cargo Mo01 vs Dutch TTF Mo01 \$/MMBtu	LNTFG00	LNTFG03	Differential		TTF	vs equivalent TTF			USD	MMBtu
LNG FOB GCM vs Henry Hub Houston 13:30 Mo01	LGMHM01	LGMHM31	Differential			Front Month			USD	MMBtu
LNG FOB GCM vs JKM Houston 13:30 Mo01	LGMJM01	LGMJM31	Differential			Front Month			USD	MMBtu
LNG FOB GCM vs NBP Houston 13:30 Mo01	LGMNM01	LGMNM31	Differential			Front Month			USD	MMBtu
LNG FOB GCM vs USGC 3%S fuel oil	LGMFO00	LGMFO03	Differential			Front Month			USD	MMBtu
LNG FOB Murmansk NetBack	AARXV00	AARXV03	Netback	FOB		3rd & 4th or 4th & 5th Half-Month forward			USD	MMBtu

*Average of assessments between 16th of M-2 and 15th of M-1 for the delivery month (M)

**Average of assessments between 1st and last calendar day of M-1 for the loading month (M)

Atlantic Basin Assessments

Atlantic Basin assessments and netforwards are published each business day and reflect market values prevailing at the close of European markets, 4:30 pm London time. Unless otherwise stated, prices are published in the following Platts services: LNG Alert (LNG), Natural Gas Alert (PGN), European Power Alert (EPA), Platts LNG Daily, Platts Market Data, Platts Platform and Platts LNG Navigator.

Platts considers the following trading terms to be typical for

the publication of bids, offers and other transactional data for spot LNG cargoes reflected in its NWE and MED LNG MOC price assessment process.

Standard Terms: Unless stated otherwise by a counterparty at the time of providing data for publication, the bids and offers in the MOC should reflect these following standards, which Platts understands to be broadly typical in the spot market. Platts may publish bids, offers and trades for LNG cargoes that carry different terms and conditions, but may normalize these when considered in final, published assessments. Participants in the

MOC process should clearly state in submitted bids or offers terms that differ from these standards.

Delivery Window: The delivery period reflected by bids and offers should typically be three to five days long, with the buyer to narrow to a one- or two-day delivery window up to 30 days prior to the first day of the traded delivery window.

Discharge Location: Bids and offers into Northwest Europe should typically reflect delivery into Isle of Grain, Zeebrugge, Gate LNG, Dragon LNG, Montoir, South Hook and Dunkirk, with

the buyer to nominate base delivery port at least 30 days prior to delivery. The buyer should retain the option to substitute discharge port up to 20 days prior, subject to SSCS.

Bids and offers into the Mediterranean should typically reflect delivery into all ports in the Iberian Peninsula and Fos Cavaou, with the buyer to nominate base delivery port at least 30 days prior to delivery. The buyer should retain the option to substitute discharge port up to 20 days prior, subject to SSCS. Bids and offers into other Mediterranean destinations may be considered for publication.

Loading Location: Platts considers typical bids, offers and trades where sellers have the option to state the loading port up to 20 days prior to the first day of the traded delivery window subject to the initially-reported (GHV) quality range.

Quality: Market participants should clearly state GHV specifications in bids and offers submitted for publication.

Quantity: Platts notes that a wide range of cargo volumes are traded in the European LNG market. Platts considers for publication bids and offers for typical cargo sizes. Platts reflects cargoes whose operational tolerance is +/- 5% at the seller's option. For cargoes offered or bid for in a volume range (i.e. 3.1 - 3.4 TBtu +/-5%), the specific volume (i.e. 3.3 TBtu +/-5%) should be declared by the seller a reasonable number of days prior to delivery, and this declaration deadline must be stated in the offer or bid.

LNG Vessel: Platts reflects bids and offers where the seller should nominate the LNG carrier up to 20 days prior to delivery. Platts expects parties to be reasonable when exceptional circumstances require sellers to substitute vessels or buyers to substitute terminals beyond typical standards stated in Platts MOC guidelines. Companies must promptly communicate to their counterparties when such a substitution is required. Buyers or sellers should not unreasonably withhold substitutions or hamper the established delivery process.

Mediterranean Marker (MED)

Platts publishes a daily spot Mediterranean Marker (MED) LNG assessment. The assessment is published following direct contact with market participants such as producers, consumers, traders, brokers, shippers and other active spot market participants.

Basis & Location: Cargoes delivered ex-ship (DES) to ports in the Mediterranean, including Spain and Portugal, which can receive a minimum cargo size of 135,000 cu m.

Platts publishes a single value assessment for the MED. This assessed value is based on confirmed spot transactions, firm bids and offers, indications of value and expressions of interest or, in the absence of liquidity, where a spot transaction would have been concluded.

Timing: Cargo delivery in the third, fourth and fifth half-month cycles forward from the date of publication. The assessment rolls on the 16th of the month, or next business day after the 16th, to the following whole month. For example, on June 16, MED reflects the average of H1 and H2 August; on July 16, the month rolls to reflect September deliveries, or the average of H1 and H2 September.

Northwest Europe Marker (NWE)

Platts publishes a daily spot Northwest Europe Marker (NWE) LNG assessment. The assessment is published following direct contact with market participants such as producers, consumers, traders, brokers, shippers and other active spot market participants.

Basis & Location: Cargoes delivered ex-ship (DES) to ports in Northwest Europe that can receive a minimum cargo size of 135,000 cu m.

Platts publishes a single value assessment for NWE. This assessed value is based on confirmed spot transactions, firm bids and offers, indications of value and expressions of interest

or, in the absence of liquidity, where a spot transaction would have been concluded.

Timing: Cargo delivery in the third, fourth and fifth half-month cycles forward from the date of publication. The assessment rolls on the 16th of the month, or next business day after the 16th, to the following whole month. For example, on June 16, NWE reflects the average of H1 and H2 August; on July 16, the month rolls to reflect September deliveries, or the average of H1 and H2 September.

Gulf Coast Marker (GCM)

Platts publishes a daily spot Gulf Coast Marker (GCM) LNG assessment. The assessment is published following direct contact with market participants such as producers, consumers, traders, brokers, shippers and other active spot market participants.

Frequency: The GCM assessment is published each business day and reflects market values prevailing at the close of European markets, 4:30 pm London time.

Basis & Location: Cargoes loaded on an FOB basis from ports across the US Gulf Coast. Basis port is Sabine Pass. All other locations will be normalized to the basis port using an assessed deviation cost.

Platts publishes a single value assessment for the GCM. This assessed value is based on confirmed spot transactions, firm bids and offers, indications of value and expressions of interest or, in the absence of liquidity, where a spot transaction would have been concluded.

Timing: GCM reflects cargoes loading in the second, third and fourth half-month cycles forward from the date of publication. GCM rolls on the first business day of the month to reflect cargoes loading in the following month.

Platts considers the following trading terms to be typical for the publication of bids, offers and other transactional data for spot LNG cargoes reflected in its GCM LNG MOC price assessment process.

Standard Terms: Unless stated otherwise by a counterparty at the time of providing data for publication, the bids and offers in the MOC should reflect these following standards, which Platts understands to be broadly typical in the spot market. Platts may publish bids, offers and trades for LNG cargoes that carry different terms and conditions, but may normalize these when considered in final, published assessments. Participants in the MOC process should clearly state in submitted bids or offers terms that differ from these standards.

Delivery Window: The loading period reflected in bids, offers and trades should typically be three to five days long, with the seller to narrow to a one-day loading window up to 30 days before the first day of the traded delivery window.

Loading Location: Bids, offers and trades should typically reflect loading in US Gulf Coast ports. Offers must be expressed with a specific base load port. The base load port chosen sets the conditions for any potential counterparty considering trading.

Sellers retain the option to substitute loading port in the US Gulf Coast up to a reasonable period before the first day of the traded loading window, subject to SSCS. Substitution of loading locations to ports outside of the US Gulf Coast may be subject to normalization, and the option would need to be stated in the bid or offer.

Quality: Market participants should clearly state GHV specifications in bids and offers submitted for publication. GCM reflects cargoes with a GHV of 1,010-1,050 Btu/Scf. Platts may normalize for quality specifications with different ranges.

Quantity: GCM reflects a cargo quantity of 3.5 TBtu. This volume is subject to +/-2% operational tolerance, at the seller's option. Platts continues to consider different cargo volumes, but may

normalize where appropriate back to 3.5TBtu +/-2% operational tolerance.

LNG Vessel: Buyers should nominate an LNG ship up to 30 days prior to the first day of the traded delivery window, or at the time of trade confirmation for more prompt delivery windows. For cargoes for delivery at or less than 30 days from the date of assessment, buyers should state the LNG vessel explicitly in the bid. Buyers may substitute delivery vessel up to 15 days prior to the first day of the traded delivery window, subject to SSCS.

Platts expects parties to be reasonable when exceptional circumstances require buyers to substitute vessels or sellers to substitute terminals beyond typical standards stated in Platts guidelines. Companies must promptly communicate to their counterparties when such a substitution is required. And buyers or sellers should not unreasonably withhold substitutions or hamper the established delivery process.

FOB Murmansk Netback

Platts publishes a daily FOB Murmansk netback using the assessed freight route cost from Murmansk to Zeebrugge and Platts existing DES NWE Marker.

The voyage length for the Murmansk to Zeebrugge route is four days one-way.

The vessel specifications and assumptions are as per existing methodology (see Atlantic LNG Carrier Day Rates section for details).

DES Brazil

Platts publishes a daily spot netforward assessment for LNG delivered to Brazil, which applies a freight cost addition to the Gulf Coast Marker (GCM) to arrive at a DES Brazil value, taking into consideration the 13 day voyage from the US Gulf Coast to Salvador, Brazil.

NORTH AMERICA FEEDGAS

Assessment	Symbol
Daily average US LNG feedgas cost	ALNFG00
30-day moving average US LNG feedgas cost	ALNUS00
Daily average USGC LNG feedgas cost	ALNFH00
30-day moving average USGC LNG feedgas cost	ALNUG00
Export facility	
Sabine Pass	ALNFA00
Corpus Christi	ALNFB00
Cove Point	ALNFC00
Cameron	ALNFD00
Freeport	ALNFE00
Elba Island	ALNFF00

Timing: Cargo delivery either in the third and fourth or fourth and fifth half-month cycles forward from the date of publication.

The assessment rolls on the 16th of the month, or next business day after the 16th, to the following whole month. For example, on June 16, the DES Brazil netforward month assessed is August; on July 16, the month rolls to September.

Location: Delivery at Bay of All Saints, Salvador de Bahia, Brazil

North American feedgas cost model

Platts indicative feedgas cost model is calculated using data from Platts US natural gas indices as well as S&P Global Platts Analytics gas flow data.

Platts has created a model of indicative procurement prices for feedgas into US LNG export facilities, weighting different gas trading locations' prices and delivery costs according to their likely influence on cumulative gas procurement costs at different facilities.

Proportional flow data and transport costs from Platts Analytics have been used to create a volume-weighted average using the following Platts gas indices, listed by facility:

Cameron LNG (ALNFD00) - Columbia Gulf (IGBBG00), Florida Gas (IGBBK00), Tennessee, La., 800 leg (IGBBR00), Texas Eastern, (IGBBR00), Transco, Zone 2, (IGBBU00)

Corpus Christi LNG (ALNFB00) - Transco Zone 01 (IGBBC00), Texas Eastern, STX (IGBBB03), Tennessee Zone 0 (IGBBA00)

Cove Point LNG (ALNFC00) - Transco Zone 5 (IGBEN00), Columbia Gas, Appalachia (IGBDE00), Dominion South (IGBDC00)

Elba Island LNG (ALNFF00) - Sonat Louisiana (IGBB000), Transco, Zone 5 (IGBEN00)

Freeport LNG (ALNFE00) - Katy (IGBAQ00)

Sabine Pass LNG (ALNFA00) - NGPL TexOk zone (IGBAL00), Trunk Line West LA (IGBBW00), Transco Zone 2 (IGBBU00) and Tetco West LA (IGBBR00)

A daily computation of Average USGC LNG Feedgas Cost (ALNFH00) is calculated using the following capacity-based proportional weightings: Cameron LNG (10%), Corpus Christi LNG (22.5%), Freeport LNG (11.5%) and Sabine Pass LNG (56%).

A daily computation of Average US LNG Feedgas Cost (ALNFG00), is calculated using the following capacity-based proportional weightings: Cameron LNG (9%), Corpus Christi LNG (19.5%), Cove Point LNG (11%), Elba Island (1.5%) Freeport LNG (10%) and Sabine Pass LNG (49%).

A 30-day rolling average of these two costs is also published for USGC LNG Feedgas Cost (ALNUG00) and US LNG Feedgas Cost (ALNUS00).

The model will be periodically reviewed to ensure the weightings of the procurement locations, the delivery costs to the facilities as well as the weightings of each export facility in the average USGC and US feedgas cost price series correspond to market dynamics.

LNG SHIPPING ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max.size	Currency	UOM
LNG Carrier Day Rate Asia-Pac	AARXT00	AARXT03	Day Rate	Asia-Pacific	25-45DaysAhead		155,000	180,000	USD	
LNG Atlantic Carrier Day Rate	AASYC00	AASYC03	Day Rate	Atlantic	25-45DaysAhead		155,000	180,000	USD	
LNG Atlantic Ballast Rate	AAXTM00	AAXTM03		Atlantic						
LNG Pacific Ballast Rate	AAXTN00	AAXTN03		Asia-Pacific						
LNG Time Charter Rate Australia-Japan	ATCRA00	ATCRA03		Asia-Pacific			155,000	180,000	USD	
LNG Time Charter Rate USG-Japan	ATCRC00	ATCRC03		Asia-Pacific			155,000	180,000	USD	
LNG Time Charter Rate USG-Northwest Europe	ATCRB00	ATCRB03		Atlantic			155,000	180,000	USD	
LNG Australia-Japan/Korea Freight cost \$/MMBtu	AAUSA00	AAUSA03					155,000	180,000	USD	MMBtu
LNG Trinidad-Japan/Korea Freight cost \$/MMBtu	AAUSB00	AAUSB03					155,000	180,000	USD	MMBtu
LNG Nigeria-Japan/Korea Freight cost \$/MMBtu	AAUSC00	AAUSC03					155,000	180,000	USD	MMBtu
LNG Algeria-Japan/Korea Freight cost \$/MMBtu	AAUSD00	AAUSD03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-Japan/Korea Freight cost \$/MMBtu	AAUSE00	AAUSE03					155,000	180,000	USD	MMBtu
LNG Peru-Japan/Korea Freight cost \$/MMBtu	AAUSF00	AAUSF03					155,000	180,000	USD	MMBtu
LNG Sakhalin-Japan/Korea Freight cost \$/MMBtu	AAUSG00	AAUSG03					155,000	180,000	USD	MMBtu
LNG Middle East-S China/Taiwan Freight cost \$/MMBtu	AAUSH00	AAUSH03					155,000	180,000	USD	MMBtu
LNG Australia-S China/Taiwan Freight cost \$/MMBtu	AAUSI00	AAUSI03					155,000	180,000	USD	MMBtu
LNG Trinidad-S China/Taiwan Freight cost \$/MMBtu	AAUSJ00	AAUSJ03					155,000	180,000	USD	MMBtu
LNG Nigeria-S China/Taiwan Freight cost \$/MMBtu	AAUSK00	AAUSK03					155,000	180,000	USD	MMBtu
LNG Algeria-S China/Taiwan Freight cost \$/MMBtu	AAUSL00	AAUSL03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-S China/Taiwan Freight cost \$/MMBtu	AAUSM00	AAUSM03					155,000	180,000	USD	MMBtu
LNG Peru-S China/Taiwan Freight cost \$/MMBtu	AAUSN00	AAUSN03					155,000	180,000	USD	MMBtu
LNG Sakhalin-S China/Taiwan Freight cost \$/MMBtu	AAUSO00	AAUSO03					155,000	180,000	USD	MMBtu
LNG Middle East-W India Freight cost \$/MMBtu	AAUSP00	AAUSP03					155,000	180,000	USD	MMBtu
LNG Middle East-W India Fgt MAvg	AAUSP03						155,000	180,000	USD	MMBtu
LNG Australia-W India Freight cost \$/MMBtu	AAUSQ00	AAUSQ03					155,000	180,000	USD	MMBtu
LNG Trinidad-W India Freight cost \$/MMBtu	AAUSR00	AAUSR03					155,000	180,000	USD	MMBtu
LNG Nigeria-W India Freight cost \$/MMBtu	AAUSS00	AAUSS03					155,000	180,000	USD	MMBtu
LNG Algeria-W India Freight cost \$/MMBtu	AAUST00	AAUST03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-W India Freight cost \$/MMBtu	AAUSU00	AAUSU03					155,000	180,000	USD	MMBtu
LNG Peru-W India Freight cost \$/MMBtu	AAUSV00	AAUSV03					155,000	180,000	USD	MMBtu
LNG Sakhalin-W India Freight cost \$/MMBtu	AAUSW00	AAUSW03					155,000	180,000	USD	MMBtu
LNG Middle East-Mediterranean Freight cost \$/MMBtu	AAUSX00	AAUSX03					155,000	180,000	USD	MMBtu
LNG Trinidad-Mediterranean cost \$/MMBtu	AAUSZ00	AAUSZ03					155,000	180,000	USD	MMBtu
LNG Nigeria-Mediterranean cost \$/MMBtu	AAUTA00	AAUTA03					155,000	180,000	USD	MMBtu
LNG Algeria-Mediterranean cost \$/MMBtu	AAUTB00	AAUTB03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-Mediterranean Freight cost \$/MMBtu	AAUTC00	AAUTC03					155,000	180,000	USD	MMBtu
LNG Peru-Mediterranean Freight cost \$/MMBtu	AAUTD00	AAUTD03					155,000	180,000	USD	MMBtu
LNG Platts LNG Freight 2-Middle East-NWE Freight cost \$/MMBtu	AAUTE00	AAUTE03					155,000	180,000	USD	MMBtu
LNG Australia-NWE Freight cost \$/MMBtu	AAUTF00	AAUTF03					155,000	180,000	USD	MMBtu

LNG SHIPPING ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max.size	Currency	UOM
LNG Nigeria-NWE Freight cost \$/MMBtu	AAUTG00	AAUTG03					155,000	180,000	USD	MMBtu
LNG Algeria-NWE Freight cost \$/MMBtu	AAUTH00	AAUTH03					155,000	180,000	USD	MMBtu
LNG Peru-NWE Freight cost \$/MMBtu	AAUTI00	AAUTI03					155,000	180,000	USD	MMBtu
LNG Sakhalin-NWE Freight cost \$/MMBtu	AAUTJ00	AAUTJ03					155,000	180,000	USD	MMBtu
LNG Middle East-North East US Freight cost \$/MMBtu	AAUTK00	AAUTK03					155,000	180,000	USD	MMBtu
LNG Australia-North East US Freight cost \$/MMBtu	AAUTL00	AAUTL03					155,000	180,000	USD	MMBtu
LNG Trinidad-North East US Freight cost \$/MMBtu	AAUTM00	AAUTM03					155,000	180,000	USD	MMBtu
LNG Nigeria-North East US Freight cost \$/MMBtu	AAUTN00	AAUTN03					155,000	180,000	USD	MMBtu
LNG Algeria-North East US Freight cost \$/MMBtu	AAUTO00	AAUTO03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-North East US Freight cost \$/MMBtu	AAUTP00	AAUTP03					155,000	180,000	USD	MMBtu
LNG Peru-North East US Freight cost \$/MMBtu	AAUTQ00	AAUTQ03					155,000	180,000	USD	MMBtu
LNG Sakhalin-North East US Freight cost \$/MMBtu	AAUTR00	AAUTR03					155,000	180,000	USD	MMBtu
LNG Middle East-Argentina Freight cost \$/MMBtu	AAUTS00	AAUTS03					155,000	180,000	USD	MMBtu
LNG Australia-Argentina Freight cost \$/MMBtu	AAUTT00	AAUTT03					155,000	180,000	USD	MMBtu
LNG Trinidad-Argentina Freight cost \$/MMBtu	AAUTU00	AAUTU03					155,000	180,000	USD	MMBtu
LNG Nigeria-Argentina Freight cost \$/MMBtu	AAUTV00	AAUTV03					155,000	180,000	USD	MMBtu
LNG Algeria-Argentina Freight cost \$/MMBtu	AAUTW00	AAUTW03					155,000	180,000	USD	MMBtu
LNG Zeebrugge-Argentina Freight cost \$/MMBtu	AAUTX00	AAUTX03					155,000	180,000	USD	MMBtu
LNG Peru-Argentina Freight cost \$/MMBtu	AAUTY00	AAUTY03					155,000	180,000	USD	MMBtu
LNG Sakhalin-Argentina Freight cost \$/MMBtu	AAUTZ00	AAUTZ03					155,000	180,000	USD	MMBtu
LNG Platts LNG Freight Middle East-Japan/Korea Freight cost \$/MMBtu	AAUUA00	AAUUA03					155,000	180,000	USD	MMBtu
LNG Sakhalin-Mediterranean Freight cost \$/MMBtu	AAUUB00	AAUUB03					155,000	180,000	USD	MMBtu
LNG Platts LNG Freight 3-Trinidad-NWE Freight cost \$/MMBtu	AAUUC00	AAUUC03					155,000	180,000	USD	MMBtu
LNG Spain-Japan/Korea Freight cost \$/MMBtu	ACAAA00	ACAAA03					155,000	180,000	USD	MMBtu
LNG Spain/South China/Taiwan Freight cost \$/MMBtu	ACAAB00	ACAAB03					155,000	180,000	USD	MMBtu
LNG Spain/West India Freight cost \$/MMBtu	ACAAC00	ACAAC03					155,000	180,000	USD	MMBtu
LNG Spain/North West Europe Freight cost \$/MMBtu	ACAAD00	ACAAD03					155,000	180,000	USD	MMBtu
LNG Spain/NorthEast US Freight cost \$/MMBtu	ACA AE00	ACA AE03					155,000	180,000	USD	MMBtu
LNG Spain/Argentina Freight cost \$/MMBtu	ACA AF00	ACA AF03					155,000	180,000	USD	MMBtu
LNG Spain/Brazil Freight cost \$/MMBtu	ACA AG00	ACA AG03					155,000	180,000	USD	MMBtu
LNG Norway-Japan/Korea Freight cost \$/MMBtu	ACA AH00	ACA AH03					155,000	180,000	USD	MMBtu
LNG Norway/South China/Taiwan Freight cost \$/MMBtu	ACA AI00	ACA AI03					155,000	180,000	USD	MMBtu
LNG Norway/West India Freight cost \$/MMBtu	ACA AJ00	ACA AJ03					155,000	180,000	USD	MMBtu
LNG Norway/Mediterranean Freight cost \$/MMBtu	ACA AK00	ACA AK03					155,000	180,000	USD	MMBtu
LNG Norway/North West Europe Freight cost \$/MMBtu	ACA AL00	ACA AL03					155,000	180,000	USD	MMBtu
LNG Norway/NorthEast US Freight cost \$/MMBtu	ACA AM00	ACA AM03					155,000	180,000	USD	MMBtu
LNG Norway/Argentina Freight cost \$/MMBtu	ACA AN00	ACA AN03					155,000	180,000	USD	MMBtu
LNG Norway/Brazil Freight cost \$/MMBtu	ACA AO00	ACA AO03					155,000	180,000	USD	MMBtu
LNG Middle East/Brazil Freight cost \$/MMBtu	ACA AP00	ACA AP03					155,000	180,000	USD	MMBtu
LNG Australia/Brazil Freight cost \$/MMBtu	ACA AQ00	ACA AQ03					155,000	180,000	USD	MMBtu

LNG SHIPPING ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max.size	Currency	UOM
LNG Trinidad/Brazil Freight cost \$/MMBtu	ACAAR00	ACAAR03					155,000	180,000	USD	MMBtu
LNG Nigeria/Brazil Freight cost \$/MMBtu	ACAAS00	ACAAS03					155,000	180,000	USD	MMBtu
LNG Algeria/Brazil Freight cost \$/MMBtu	ACAAT00	ACAAT03					155,000	180,000	USD	MMBtu
LNG Belgium/Brazil Freight cost \$/MMBtu	ACAAU00	ACAAU03					155,000	180,000	USD	MMBtu
LNG Peru/Brazil Freight cost \$/MMBtu	ACA AV00	ACA AV03					155,000	180,000	USD	MMBtu
LNG Russia/Brazil Freight cost \$/MMBtu	ACA AW00	ACA AW03					155,000	180,000	USD	MMBtu
LNG US Gulf - Japan/Korea Freight cost \$/MMBtu	LAUVA00	LAUVA03					155,000	180,000	USD	MMBtu
LNG US Gulf - Japan/Korea Freight cost via Cape \$/MMBtu	LAUVK00	LAUVK03					155,000	180,000	USD	MMBtu
LNG US Gulf - Japan/Korea Freight cost via Panama \$/MMBtu	LAUVI00	LAUVI03					155,000	180,000	USD	MMBtu
LNG US Gulf - Japan/Korea Freight cost via Suez \$/MMBtu	LAUVJ00	LAUVJ03					155,000	180,000	USD	MMBtu
LNG US Gulf - S China/Taiwan Freight cost \$/MMBtu	LAUVB00	LAUVB03					155,000	180,000	USD	MMBtu
LNG US Gulf - S China/Taiwan Freight cost via Cape \$/MMBtu	LAUVN00	LAUVN03					155,000	180,000	USD	MMBtu
LNG US Gulf - S China/Taiwan Freight cost via Panama \$/MMBtu	LAU VL00	LAU VL03					155,000	180,000	USD	MMBtu
LNG US Gulf - S China/Taiwan Freight cost via Suez \$/MMBtu	LAU VM00	LAU VM03					155,000	180,000	USD	MMBtu
LNG US Gulf - Argentina Freight cost \$/MMBtu	LAUVG00	LAUVG03					155,000	180,000	USD	MMBtu
LNG US Gulf - Brazil Freight cost \$/MMBtu	LAUVH00	LAUVH03					155,000	180,000	USD	MMBtu
LNG US Gulf - NW Europe Freight cost \$/MMBtu	LAUVE00	LAUVE03					155,000	180,000	USD	MMBtu
LNG US Gulf - Mediterranean Freight cost \$/MMBtu	LAUVD00	LAUVD03					155,000	180,000	USD	MMBtu
LNG US Gulf - W India Freight cost \$/MMBtu	LAUVC00	LAUVC03					155,000	180,000	USD	MMBtu
LNG US Gulf - W India Freight cost via Cape \$/MMBtu	LAUVP00	LAUVP03					155,000	180,000	USD	MMBtu
LNG US Gulf - W India Freight cost via Suez \$/MMBtu	LAUVO00	LAUVO03					155,000	180,000	USD	MMBtu
LNG Australia-Mediterranean Freight cost \$/MMBtu	AAUSY00	AAUSY03					155,000	180,000	USD	MMBtu
LNG Middle East/Kuwait/UAE Freight cost \$/MMBtu	LMEMM00	LMEMM03					155,000	180,000	USD	MMBtu
LNG Australia - Kuwait/UAE Freight cost \$/MMBtu	LMEMN00	LMEMN03					155,000	180,000	USD	MMBtu
LNG Trinidad - Kuwait/UAE Freight cost \$/MMBtu	LMEMP00	LMEMP03					155,000	180,000	USD	MMBtu
LNG Nigeria - Kuwait/UAE Freight cost \$/MMBtu	LMEMQ00	LMEMQ03					155,000	180,000	USD	MMBtu
LNG Algeria - Kuwait/UAE Freight cost \$/MMBtu	LMEMR00	LMEMR03					155,000	180,000	USD	MMBtu
LNG Belgium - Kuwait/UAE Freight cost \$/MMBtu	LMEMS00	LMEMS03					155,000	180,000	USD	MMBtu
LNG Peru - Kuwait/UAE Freight cost \$/MMBtu	LMENT00	LMENT03					155,000	180,000	USD	MMBtu
LNG Russia - Kuwait/UAE Freight cost \$/MMBtu	LMEMU00	LMEMU03					155,000	180,000	USD	MMBtu
LNG Spain - Kuwait/UAE Freight cost \$/MMBtu	LMEMV00	LMEMV03					155,000	180,000	USD	MMBtu
LNG Norway - Kuwait/UAE Freight cost \$/MMBtu	LMEMW00	LMEMW03					155,000	180,000	USD	MMBtu
LNG US Gulf Coast/Kuwait/UAE Freight cost \$/MMBtu	LMEMX00	LMEMX03					155,000	180,000	USD	MMBtu
LNG US Gulf Coast/Kuwait/UAE Freight cost via Suez \$/MMBtu	LMEMY00	LMEMY03					155,000	180,000	USD	MMBtu
LNG US Gulf Coast/Kuwait/UAE Freight cost via Cape \$/MMBtu	LMEMZ00	LMEMZ03					155,000	180,000	USD	MMBtu
LNG Trinidad-Japan/Korea (most economic) Freight Cost \$/MMBtu	AAUZC00	AAUZC03					155,000	180,000	USD	MMBtu
LNG Trinidad-Japan/Korea via Panama Canal Freight Cost \$/MMBtu	AAUXB00	AAUXB03					155,000	180,000	USD	MMBtu
LNG Trinidad-S China/Taiwan (most economic) Freight Cost \$/MMBtu	AAUZD00	AAUZD03					155,000	180,000	USD	MMBtu

LNG SHIPPING ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max.size	Currency	UOM
LNG Trinidad-S China/Taiwan via Panama Canal Freight Cost \$/MMBtu	AAUZB00	AAUZB03					155,000	180,000	USD	MMBtu
LNG Gladstone-Argentina Freight Cost \$/MMBtu	ACABH00	ACABH03					155,000	180,000	USD	MMBtu
LNG Gladstone-Brazil Freight Cost \$/MMBtu	ACABG00	ACABG03					155,000	180,000	USD	MMBtu
LNG Gladstone- Kuwait/UAE Freight Cost \$/MMBtu	ACABI00	ACABI03					155,000	180,000	USD	MMBtu
LNG Gladstone-Japan/Korea Freight Cost \$/MMBtu	ACABA00	ACABA03					155,000	180,000	USD	MMBtu
LNG Gladstone-Northeast US via Panama Canal Freight Cost \$/MMBtu	ACABF00	ACABF03					155,000	180,000	USD	MMBtu
LNG Gladstone-Northwest Europe via Suez Freight Cost \$/MMBtu	ACABE00	ACABE03					155,000	180,000	USD	MMBtu
LNG Gladstone-S China/Taiwan Freight Cost \$/MMBtu	ACABB00	ACABB03					155,000	180,000	USD	MMBtu
LNG Gladstone-Mediterranean via Suez Freight Cost \$/MMBtu	ACABD00	ACABD03					155,000	180,000	USD	MMBtu
LNG Gladstone-West India Freight Cost \$/MMBtu	ACABC00	ACABC03					155,000	180,000	USD	MMBtu
LNG Bintulu-Japan/Korea Freight Cost \$/MMBtu	ABJKA00	ABJKA03					155,000	180,000	USD	MMBtu
LNG Bintulu-S China/Taiwan Freight Cost \$/MMBtu	ABCTA00	ABCTA03					155,000	180,000	USD	MMBtu
LNG Bintulu-West India Freight Cost \$/MMBtu	ABWIA00	ABWIA03					155,000	180,000	USD	MMBtu
LNG Bontang-Japan/Korea Freight Cost \$/MMBtu	AOJKA00	AOJKA03					155,000	180,000	USD	MMBtu
LNG Bontang-S China/Taiwan Freight Cost \$/MMBtu	AOCTA00	AOCTA03					155,000	180,000	USD	MMBtu
LNG Bontang-West India Freight Cost \$/MMBtu	AOWIA00	AOWIA03					155,000	180,000	USD	MMBtu
LNG Singapore-Japan/Korea Freight Cost \$/MMBtu	ASJKA00	ASJKA03					155,000	180,000	USD	MMBtu
LNG Singapore-S China/Taiwan Freight Cost \$/MMBtu	ASCTA00	ASCTA03					155,000	180,000	USD	MMBtu
LNG Singapore-West India Freight Cost \$/MMBtu	ASWIA00	ASWIA03					155,000	180,000	USD	MMBtu
LNG Tangguh-Japan/Korea Freight Cost \$/MMBtu	ATJKA00	ATJKA03					155,000	180,000	USD	MMBtu
LNG Tangguh-S China/Taiwan Freight Cost \$/MMBtu	ATJKA00	ATJKA03					155,000	180,000	USD	MMBtu
LNG Tangguh-West India Freight Cost \$/MMBtu	ATWIA00	ATWIA03					155,000	180,000	USD	MMBtu
LNG Murmansk-Zeebrugge Freight cost \$/MMBtu	AARXW00	AARXW03					155,000	180,000	USD	MMBtu

VOYAGE TIMES IN DAYS

	Japan/Korea	SChina/ Taiwan	West India	Southwest Europe	Northwest Europe	Northeast US	Argentina	Brazil	Kuwait/UAE
Middle East	15	13	3	13*	16*	22*	21	24	1
Australia	9	7	9	21*	24*	29	21	25	11
Gladstone	9	10	15	27*	30*	27**	18	22	20*
Bontang	6	4	9						
Tangguh	6	5	11						
Bintulu	6	3	8						
Singapore	7	4	6						
Trinidad	33*	31*	22*	9	9	5	11	7	17
Trinidad (via Panama Canal)	23**	28**							
Trinidad (most economic)	lower of above 2								
Nigeria	26	23	17	9	10	13	11	9	17*
Algeria	24*	22*	13*	1	4	9	14	12	11*
Belgium	28*	25*	16*	3	N/A	8	16	14	15*
Peru	21	24	27	23	24	24	9	14	29
Russia	3	5	15	27*	29*	35*	27	37	21
Spain	25*	22*	14*	N/A	3	7	14	11	12*
Norway	32*	28*	20*	6	3	9	19	18	18*
Sabine Pass (most economic)	lower of below 2, until Panama Canal starts	lower of below 2, until Panama Canal starts	lower of below 2, until Panama Canal starts	12	12	N/A	17	13	
Sabine Pass (via Suez Canal)	36*	32*	24*	N/A	N/A	N/A	N/A	N/A	23*
Sabine Pass (via Cape)	38	35	31	N/A	N/A	N/A	N/A	N/A	30
Sabine Pass (via Panama Canal)	24**	29**	N/A	N/A	N/A	N/A	N/A	N/A	

* Route uses Suez canal, adds one day extra for shipping and 24 cents/MMBtu for canal fees ** Route uses Panama canal, adds 21 cents/MMBtu for canal fees

Shipping assessments

Platts shipping assessments and freight costs are published each business day and reflect market values prevailing at the close of markets, in the respective region (Singapore/UK/US). On certain days ahead of a public holiday, such as Christmas Eve and New Year's Eve, Platts may assess the market earlier than normal. This would typically be 12:30pm in Singapore and 12:00pm in London.

Prices are published in the following Platts services: LNG Alert (LNG), Natural Gas Alert (PGN), Platts LNG Daily, Platts Market Data, Platts Platform and Platts LNG Navigator.

Asia Pacific LNG Carrier Day Rates (APDR)

Platts publishes daily spot charter rate LNG carrier assessments

under the benchmark name Asia Pacific LNG Day Rates (APDR).

Frequency: The APDR assessment is published each business day and reflects market values prevailing at the close of Asian markets, typically 4:30 pm Singapore time.

The assessment is published following editorial engagement with shipowners, brokers, producers, consumers, traders and other active spot market participants.

Basis & Location: The day rate covers the daily cost of chartering a modern Tri-Fuel Diesel Engine (TFDE) LNG vessel for a short period. The rate covers carriers delivered in the Asia-Pacific region, without regional transfer costs. It reflects loadings in the Asia-Pacific region, and represents a typical Pacific route of Australia-North Asia. Carriers are assumed to be delivered cooled down. Ice class vessels are not considered in the assessment.

Unit: All prices are quoted in US dollars per day (\$/day), to the nearest dollar.

Assessment: Platts publishes a single value reflecting the price at which a ship can be chartered at the close of Asian markets. This assessed value is based on confirmed spot transactions, firm bids/offers, or in the absence of liquidity, where a spot transaction would have been concluded.

Volume: Standard TFDE carriers of 155,000-180,000 cu m are considered directly in the assessment, but may normalize any indications to a 160,000 cu m standard, as Platts understands that the majority of TFDE fixtures in both the Atlantic and Pacific spot markets are done on a standard vessel size of around 160,000 cu m.

Timing: Carriers for loading 25-45 days from the date of

assessment. For instance, on March 1, Platts would assess carriers loading between March 26 and April 15.

Asia Pacific LNG Ballast Rate

Platts publishes Asia Pacific Ballast Rate LNG carrier assessment.

Frequency: The assessment is published each business day and reflects market values prevailing at the close of Asian markets, typically 4:30 pm Singapore time.

LOAD PORTS

	USD
Ras Laffan	120,000
Dampier	200,000
Gladstone	240,000
Bontang	90,000
Tangguh	30,000
Bintulu	Convert from 800,000 MYR
Singapore	75,000
Point Fortin	60,000
Bonny	900,000
Arzew	160,000
Zeebrugge	130,000
Pampa Melchorita	200,000
Sakhalin	70,000
Huelva	240,000
Hammerfest	200,000
Sabine Pass	190,000
Murmansk	130,000

DISCHARGE PORTS

	USD
Futtsu	120,000
Guangdong Dapeng	125,000
Dahej	40,000
Huelva	240,000
Zeebrugge	130,000
Everett	300,000
Bahia Blanca	0
Salvador Bahia	140,000
Mina Al Ahmadi/Jebel Ali/Ruwais	225,000

The assessment is published following editorial engagement with ship owners, brokers, charterers, and other active spot market participants.

Basis & Location: in line with APDR

Unit: % of APDR

Assessment: Platts publishes a single value indicating the ballast rate at which a spot ship can be chartered at the close of Asian markets. The ballast rates reflect the number of days for which hire is payable during the ballasting part of a spot voyage. In tight markets the ballast rate tends to be a higher percentage, with delivery closer to last discharge port and/or re-delivery closer to the next load port. In this situation a lump sum may also be included in the total charter cost to position or reposition the carrier after the cargo is discharged: in such occasions Platts ballast rate assessments factor this lump sum into the percentage of the total day rate.

Atlantic LNG Carrier Day Rates (ATDR)

Platts publishes daily spot charter LNG carrier assessments under the benchmark name Atlantic LNG Day Rates (ATDR).

Frequency: The ATDR assessment is published each business day and reflects market values prevailing at the close of European markets, typically 4:30 pm London time.

The assessment is published following direct contact with ship owners, brokers, producers, consumers, traders and other active spot market participants.

Basis & Location: The day rate covers the daily cost of chartering a modern Tri-Fuel Diesel Engine (TFDE) LNG vessel for a short period. The rate covers carriers delivered in the Atlantic region, without regional transfer costs. It reflects loadings in the Atlantic region, and represents a typical Atlantic route of US Gulf Coast-Northwest Europe. Carriers are

assumed to be delivered cooled down. Ice class vessels are not considered in the assessment.

Unit: All prices are quoted in US dollars per day (\$/day), to the nearest dollar.

Assessment: Platts publishes a single value reflecting the price at which a ship can be chartered at the close of European markets. This assessed value is based on confirmed spot transactions, firm bids/offers, or in the absence of liquidity, where a spot transaction would have been concluded.

Volume: Standard TFDE carriers of 155,000-180,000 cu m are considered directly in the assessment, but may normalize any indications to a 160,000 cu m standard, as Platts understands that the majority of TFDE fixtures in both the Atlantic and Pacific spot markets are done on a standard vessel size of around 160,000 cu m.

Timing: Carriers for loading 25-45 days out from the date of assessment. For instance, on July 1, Platts would assess carriers loading between July 26 and August 15.

Atlantic LNG Ballast Rate

Platts publishes Atlantic ballast rate LNG carrier assessment.

Frequency: The assessment is published each business day and reflects market values prevailing at the close of European markets, typically at 4:30 pm London time.

The assessment is published following editorial engagement with ship owners, brokers, charterers, and other active spot market participants.

Basis & Location: in line with ATDR

Unit: % of ATDR

Assessment: Platts publishes a single value indicating the ballast rate at which a spot ship can be chartered at the close of European markets, typically at 4:30 pm London time. The ballast rates reflect the number of days for which hire is payable during the ballasting part of a spot voyage. In tight markets the ballast rate tends to be a higher percentage, with delivery closer to last discharge port and/or re-delivery closer to the next load port. In this situation a lump sum may also be included in the total charter cost to position or reposition the carrier after the cargo is discharged: in such occasions Platts ballast rate assessments factor this lump sum into the percentage of the total day rate.

Time Charter Rates (TCRs)

Platts publishes daily TCR price assessments for Australia (Dampier) – Japan (Futtsu), US Gulf Coast (Sabine Pass) – Japan (Futtsu) and US Gulf Coast (Sabine Pass) – Northwest Europe (Zeebrugge). These reflect round-trip economics.

The basis of the calculation is as follows for the Australia – Japan TCR:

Platts Asia Pacific Day Rate (AARXT00) * (laden leg number of days + ballast leg number of days * Platts Asia Pacific Ballast Rate (AAXTN00) + loading and discharge days) / number of round-trip days

The basis of the calculation is as follows for the USGC – Japan TCR:

Platts Atlantic Day Rate (AASYC00) * (laden leg number of days + ballast leg number of days * Platts Atlantic Ballast Rate (AAXTM00) + loading days and discharge days + Canal-transit days) / number of round-trip days

The basis of the calculation is as follows for the USGC – NWE TCR:

Platts Atlantic Day Rate (AASYC00) * (laden leg number of days + ballast leg number of days * Platts Atlantic Ballast Rate (AAXTM00) + loading days and discharge days) / number of

round-trip days.

The number of round-trip days is 21 for the Australia-Japan route (nine days each way, three days for loading and discharge); 51 days (23 days each way, three days for loading and discharge, two days for Panama Canal transit) for the USGC-Japan route and 27 days (12 days each way, three days for loading and discharging) for the USGC-NWE route.

LNG global freight route costs

Frequency: The LNG freight costs are published each business day and reflect market values prevailing at the regional close. On Singapore public holidays, no routes east of the Suez Canal will be published. On UK public holidays, no routes west of the Suez Canal will be published. On US public holidays, no routes to or from the Americas will be published.

Unit: All prices are quoted in \$/MMBtu to two decimal places.

Quality: Any quality of LNG.

Volume: Standard cargoes of 155,000-180,000 cu m normalized to a standard volume of 165,000 cu m.

Timing: Freight costs are calculated as per the APDR and ATDR, including respective ballast rate, listed above.

Location: Loading in: Middle East (Ras Laffan), Australia (Dampier, Gladstone), Indonesia (Bontang, Tangguh), Malaysia (Bintulu), Singapore, Trinidad and Tobago (Point Fortin), Nigeria (Bonny Island), Algeria (Arzew), Belgium (Zeebrugge), Peru (Pampa Melchorita), Spain (Huelva), Norway (Hammerfest), Russia (Sakhalin, Murmansk) and USA (Sabine Pass).

Delivery Points: Japan/Korea (Futtsu), South China/Taiwan (Guangdong Dapeng), West India (Dahej), Southwest Europe (Huelva), Northwest Europe (Zeebrugge), Northeast US (Everett), Brazil (Salvador Bahia), Argentina (Bahia Blanca) and Kuwait/

UAE (Mina Al Ahmadi, Jebel Ali, Ruwais).

Assessment: Platts publishes a single value indicating the implied cost of a voyage. This value is based on applying the relevant freight and ballast rate to a base price assessment (i.e., JKM), a boil-off rate of 0.12%/day while laden, a boil-off rate of 0.09% while on ballast and a boil-off rate of 25% of the laden rate while in port. Boil-off is based off a 98.5% fillable volume. In addition, the value will be based on the engine consuming 5200 MMBtu/day of LNG at an average speed of 17 knots.

Calculation: Platts calculates the total route cost as follows

The cost of charter for the entire voyage, which accounts for a round-trip, including ballast rates, port costs, and three days for loading and discharge.

The cost of charter is divided by the total delivered volume in MMBtu. The total delivered volume accounts for boil-off, which is calculated by multiplying the volume lost by the delivered price in \$/MMBtu.

The delivered cargo volume is calculated by multiplying the vessel size of 165,000 cu m by a fillable volume of 98.5%, minus the volume of boil-off from the combined laden and ballast legs of the journey, including the three day loading and discharge time.

Platts uses a factor of 23.0 in its conversion of cubic meters to MMBtu for loaded LNG in its freight assessments and calculations.

LNG port costs

Platts uses prevailing costs in the following ports to calculate its netbacks and has incorporated these port costs into the corresponding freight cost calculations.

LNG PANAMA CANAL WATER CHARGE

	Symbol	Mavg	Currency	UOM
LNG Panama Canal Surcharge 52	APCSD00			PCT
LNG Panama Canal Surcharge Day 3	APCSB00			PCT
LNG Panama Canal Surcharge Day 4	APCSA00			PCT
LNG Panama Canal Surcharge Day 42	APCSE00			PCT
LNG Panama Canal Surcharge Day 43	APCSC00			PCT
LNG Panama Canal Surcharge Day 51	APCSF00			PCT
LNG Panama Canal Water Level Day 3	APCWB00			FT
LNG Panama Canal Water Level Day 4	APCWA00			FT
LNG Panama Canal Water Level Day 42	APCWE00			FT
LNG Panama Canal Water Level Day 43	APCWC00			FT
LNG Panama Canal Water Level Day 51	APCWF00			FT
LNG Panama Canal Water Level Day 52	APCWD00			FT
LNG Panama Canal Fee Surcharge Sabine Pass-China/Taiwan \$/MMBtu	APCFC00	APCFC03	USD	MMBtu
LNG Panama Canal Fee Surcharge Sabine Pass-Japan/Korea \$/MMBtu	APCFA00	APCFA03	USD	MMBtu
LNG Panama Canal Fee Surcharge Trinidad-China/Taiwan \$/MMBtu	APCFD00	APCFD03	USD	MMBtu
LNG Panama Canal Fee Surcharge Trinidad-Japan/Korea \$/MMBtu	APCFB00	APCFB03	USD	MMBtu

Panama Canal Fresh Water Surcharge

For the following four voyages:

Voyage	Code
US Gulf to Japan/Korea via Panama Canal	LAUVI00
US Gulf to China/Taiwan via Panama Canal	LAUVL00
Trinidad to Japan/Korea via Panama Canal	AAUXB00
Trinidad to China/Taiwan via Panama Canal	AAUZB00

Platts will calculate an additional cost to account for the water level surcharge through the Panama Canal. Platts will use the most up-to-date figures from the Panama Canal Authority in this calculation and will publish both the levels used and the additional voyage cost each business day.

Conversion rates

Platts publishes a list of competing fuel prices daily in \$/MMBtu.

The prices of competing oil and thermal coal assessments are converted from \$/bbl and \$/mt to \$/MMBtu using the conversions listed below. The conversion factors reflect those typically applied throughout the industry.

- Dated Brent and Asian Dated Brent price assessments are converted by using 5.8 MMBtu per barrel.
- Minas crude oil assessments are converted by using 5.9 MMBtu per barrel.
- The factor applied to the fuel oil 2% sulfur 180 CST FOB Singapore assessment to convert from dollars per metric ton to dollars per MMBtu is 39.7.
- The factor applied to the naphtha CFR Japan assessment to convert from dollars per metric ton to dollars per MMBtu is 46.8.

- The factor applied to the Northwest Europe fuel oil assessment to convert from dollars per metric ton to dollars per MMBtu is 39.7.
- The factor applied to the US West Coast 1% and 0.5% fuel oil, US Gulf Coast 3% fuel oil and New York Harbor 1% Sulfur fuel oil assessments to convert from dollars per barrel to dollars per MMBtu is 6.25.
- The factor applied to the Northeast Asia Thermal Coal price index (NEAT Coal Index) (5,750 kcal/kg NAR) is 23.705053 and CIF ARA coal (6,000 kcal/kg NAR) assessments to convert from dollar per metric ton to MMBtu is 24.294692.

LNG COMPETING FUELS ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max. size	Currency	UOM
UK NBP Gas \$/MMBtu	LNCVM01		Futures		NBP	Front month			USD	MMBtu
Naphtha CFR Japan \$/MMBtu	LNPJ00		Conversion		Japan	Front month			USD	MMBtu
CIF ARA 15-60 day thermal coal \$/MMBtu	CSAAB00		Conversion		ARA	15-60 day forward			USD	MMBtu
NEAT Coal Index \$/MMBtu	JKTCB00		Conversion		Japan, South Korea and Taiwan	15-60 day forward			USD	MMBtu
FO 180 FOB Spore \$/MMBtu	LUADW00		Conversion		Singapore	Front month			USD	MMBtu
New York Harbor 1.0 FO \$/MMBtu	LUAXD00		Conversion		New York Harbor	Front month			USD	MMBtu
US Gulf Coast 3% FuelOil \$/MMBtu	LUAXJ00		Conversion		US Gulf Coast	Front month			USD	MMBtu
Singapore Fuel Oil \$/MMBtu	LUAXZ00		Conversion		Singapore	Front month			USD	MMBtu
NorthWest Europe FO \$/MMBtu	LAEGR00		Conversion		Northwest Europe	Front month			USD	MMBtu
Japan Customs Cleared LNG Imp Est CIF \$/MMBtu	LAKPM00		Conversion		Japan				USD	MMBtu
Japan Customs Cleared LNG Imp Fin CIF \$/MMBtu	LAKPN00		Conversion		Japan				USD	MMBtu
Minas FOB Indonesia Crude oil \$/MMBtu	LCAB000		Conversion		Indonesia	Front month			USD	MMBtu

LNG BUNKER FUEL ASSESSMENTS

Assessment	Symbol	Mavg	Contract Type	Contract Basis	Location	Delivery Period	Minimum size	Max.size	Currency	UOM
Singapore LNG Bunker Fuel \$/MMBtu	LNBSG00	LNBSG03			Singapore				USD	MMBtu
Singapore LNG Bunker Fuel \$/mt	LNBSM00	LNBSM03			Singapore				USD	mt
Rotterdam LNG Bunker Fuel Eur/MWh	LNBR00	LNBR03			Rotterdam				Eur	MWh
Rotterdam LNG Bunker Fuel \$/mt	LNBRM00	LNBRM03			Rotterdam				Eur	mt

Marine Fuel LNG Bunker price assessments

Platts publishes daily LNG Bunker Fuel assessments, reflecting the value of LNG used as a marine fuel, in the ports of Singapore and Rotterdam.

Singapore LNG Bunker Fuel

Frequency: The Singapore LNG Bunker Fuel assessment is published each business day and reflects market values prevailing at the close of Asian markets, 4:30 pm Singapore time.

Basis & Location: Platts considers the prevailing tradeable value of LNG bunker fuel in the locations on a truck-to-ship (ex-wharf) or barge-to-ship (delivered) basis in Singapore.

Platts considers a variety of inputs in its LNG Bunker Fuel assessments, including the JKM and FOB Singapore LNG assessments. Platts Singapore LNG bunker assessment is published on a flat price basis in \$/MMBtu.

Unit: The LNG bunker fuel assessment includes the logistics costs from the terminal to the barge or truck, and charges for delivery direct to the receiving vessel. Platts also publishes \$/mt conversions for LNG Bunker Fuel assessments. These \$/mt price series is converted from the MMBtu assessment to a metric ton of fuel oil equivalent, using a factor of 38.643.

Rotterdam LNG Bunker Fuel

Frequency: The Rotterdam LNG Bunker Fuel assessment

is published each business day and reflects market values prevailing at the close of European markets, 4:30 pm London time.

Basis & Location: Platts considers the prevailing tradeable value of LNG bunker fuel in the locations on a truck-to-ship (ex-wharf) or barge-to-ship (delivered) basis in Rotterdam.

Platts assesses the differential from the spot LNG Northwest Europe (AASXU00) assessment, publishing the final assessment on a flat price basis in Eur/MWh. Other local gas hubs may also be considered as the basis for the Rotterdam assessment.

Timing: The Rotterdam LNG bunker fuel assessment is for bunker deliveries 7-20 days ahead.

Volume: The assessed volume is for deliveries of 5,000 cu m. Sizes above and below may be normalized for purposes of assessment.

Unit: The LNG bunker fuel assessment includes the logistics costs from the terminal to the barge or truck, and charges for delivery direct to the receiving vessel. Platts also publishes \$/mt conversions for LNG Bunker Fuel assessments. These \$/mt price series are converted from the MWh assessment to a metric ton of fuel oil equivalent, using a factor of 11.322.

REVISION HISTORY

March 2021: Platts updated its assumptions around boil-off volume in its calculation of delivered LNG volume, as well as the journey time for specific Panama Canal routes. Platts clarified that the APDR represents a typical Pacific route of Australia -North Asia, while the ATDR represents a typical Atlantic route of US Gulf Coast -Northwest Europe. Platts also clarified its standard around the maximum delivery period for cargoes reflected in its Asia MOC process. Details on the inputs into the Platts Singapore LNG bunker assessment, and description of monthly average and cumulative moving average assessments were added. Platts updated the list of LNG competing fuel assessments table to reflect the discontinuation of the FOB Indonesia LSWR Mixed/Cracked assessment from April 1, 2019.

February 2021: Platts clarified that it reflects Tri Fuel Diesel Engine (TFDE) LNG vessels of between 155,000 cu m and 180,000 cu m in its daily higher rates in both the Atlantic and Pacific basin in January 2021. Platts started publishing Japan Customs Cleared crude oil and LNG prices under their full names in February 2021.

December 2020: Platts started publishing WIM RLNG prices.

August 2020: Platts clarified forward delivery period and delivery quantity for Rotterdam LNG marine fuel assessments.

July 2020: Platts completed an annual update to the LNG Methodology and Specifications guide in July 2020. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself. Platts discontinued East Atlantic Marker (EAM) in June 2020. Platts clarified its MOC standard around the provision of ETA notices in May 2020.

June 2020: Platts changed the timestamp of the Gulf Coast Market (GCM) from a 1:30 p.m. Houston time to 4:30 p.m. London

time. Platts added Panama Canal Fresh Water Surcharge to four routes in May 2020. The fees on a \$/MMBtu level are recorded in four new symbols. Platts also added six new symbols for the water levels, and six for the surcharges.

April 2020: Platts changed name of LNG DES West India assessment to West India Marker (WIM). Platts changed minimum volume, timing cut-off for JKM LNG derivatives MOC. Platts changed netback structure, basis of LNG FOB Middle East Netback

March 2020: Platts clarifies in February 2020 maximum quantity range in Asia LNG MOC offers.

January 2020: Platts clarified quarterly roll protocol for JKM and provided an example. Platts launched an analytical feedgas cost model for US LNG export terminals, on January 2 2020. Platts added Yuan conversions of JKM assessment. Platts added Euro conversions for NWE and MED markets on January 16. Platts added published Asia MOC guideline on discharge port and vessel compatibility. Platts changed the assumption on fuel-consumption in its global freight costs to boil-off gas only. The LNG freight calculations references LNG rather than fuel-oil due to this methodology change.

December 2019: Platts clarifies consideration of lump sum positioning or repositioning costs in ballast rate freight assessments. Platts adds seasonal and calendar year JKM derivative assessments and clarifies roll protocol.

November 2019: Platts adds FOB Murmansk netback and Time Charter Rates (TCR) for routes in the Pacific and Atlantic Basin. Platts adds definition to standard terms reflected in GCM. Platts adds sulfur and ethane limits to JKM specification. Platts adds FOB Singapore netback assessment.

October 2019: Platts added sulfur and ethane limits to the specification that forms the basis of JKM.

September 2019: Platts renames the Southwest European Marker (SWE) to Mediterranean Marker (MED). Platts launched LNG Bunker Fuel assessments, in the ports of Singapore and Rotterdam. Platts defined the DES West India standard terms for LNG MOC process.

August 2019: Platts completed an annual update to the LNG Methodology and Specifications guide in August 2019. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself. Platts clarified other locations considered in DES West India assessment process.

July 2019: Platts adds TTF Dutch gas hub differentials against JKM, NWE, SWE and GCM.

June 2019: Platts changed the DES Brazil LNG assessment to be a netforward from the GCM rather than the EAM. Platts updated the MOC guidelines for its JKM and European assessment processes. Platts completed an annual update to sections 1 to 6 of Platts Methodology and Specifications Guides in April 2019, and moved these sections into a standalone Methodology Guide.

May 2019: Platts adds 12 new freight routes; from Bontang, Tangguh, Singapore and Bintulu to Futtsu, Dapeng and Dahej.

April 2019: Platts adds JKM derivatives assessments for Pricing Month on Singapore and London time

February 2019: Platts amends LNG freight cost to align with rebased Middle East Marker

December 2018: Platts adds London 16:30 assessments for JKM derivatives and updates basis for the Middle East Marker.

October 2018: Platts updates guidelines for LNG MOC process.

August 2018: Platts completed an annual update to the LNG

Methodology and Specifications guide in August 2018. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself.

August 2018: Platts launched LNG freight costs from Gladstone, Australia, on August 20 2018.

July 2018: Platts launched Ballast rate assessments, added port costs and updated various components in shipping calculations on July 2. Platts also revamped sections I-VI on July 13, Platts also made changes to the CIF ARA coal price listed under LNG Competing Fuels Assessments on July 23 to replace the existing CIF ARA 90-day coal assessment in \$/MMBtu with the CIF ARA 15-60-day coal assessment in \$/MMBtu.

November 2017: Platts updates JKM™ quality specifics as LNG spot pricing becomes more precise.

October 2017: Platts expanded the JKM™ derivatives curve assessment to include a new calendar year period.

September 2017: Platts amended Panama Canal transit cost from \$0.18/MMBtu to \$0.21/MMBtu on September 18.

August 2017: Platts completed an annual update to the LNG Methodology and Specifications guide in August 2017. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout.

June 2017: Platts launched five half-month assessments for the DES West India assessment. Platts launched new freight route costs from Trinidad to North Asia using Panama Canal.

February 2017: Platts launched new freight route costs to the Egyptian port of Ain Sukhna from loading ports in the existing freight route cost table.

January 2017: Platts launched the DES Middle East Marker and corresponding comparisons on January 16, 2017. Platts also replaced the Qinhuaodao coal price with the Northeast Asia Thermal Coal price index, or NEAT Coal Index (\$/MMBtu conversion).

November 2016: Platts launched monthly averages and cumulative monthly averages for JKM™, JKM™JPY conversions, NWE, SWE, EAM, West India and GCM markers. JKM™ derivatives curve assessment expanded to include two new quarter periods.

October 2016: Platts introduces new assessment of currency conversion for JKM™, assessment to Jpy/MMBtu.

September 2016: Platts completed an annual update to the LNG Methodology and Specifications guide in September 2016. In this update, Platts reviewed all content. In this edition, Platts made minor edits throughout.

August 2016: Platts corrects printing errors in the LNG Methodology and Specifications Guide relating to the freight routes going to Japan/Korea. These were wrongly printed S China/Taiwan; Platts added symbol AAUSY00 for the route Australia>Southwest Europe that was previously missing; clarified Sabine Pass>West India freight

July 2016: Platts clarifies LNG freight route costs following a printing error in the LNG Methodology and Specifications Guide relating to the voyage times for two freight routes. The routes are Sabine Pass to Argentina and Sabine Pass to Brazil.

July 2016: Platts added new freight routes via the Panama Canal.

June 2016: Platts introduced the Gulf Coast marker and corresponding fuel comparisons on June 16, 2016, and added new freight routes loading from US Gulf.

January 2016: Platts revised its shipping assumptions and

netback calculations methodology to reflect newer spot tonnage and provide more specificity regarding routes.

October 2015: Platts introduced the DES Brazil netforward on October 1 2015 and changed its basis port for Brazil from Pecem to Bahia de Salvador. A number of price comparisons against the DES Brazil netforward were also launched.

February 2015: This methodology guide was updated to include further description of Platts processes and practices in survey assessment environments.

January 2015: Platts introduced the East Atlantic Marker (EAM) assessment for FOB cargoes lifted from ports along the East Atlantic on January 2, 2015. Additions to the global freight costs table were made in light of the launch of the EAM. Rotterdam was added as a bunker port to accommodate the addition of Norway as an export destination. Brazil as an import destination was also included within the global freight cost matrix.

November 2014: Platts revamped all LNG Methodology And Specifications Guides, including this guide in November 2014. This revamp was completed to enhance the clarity and usefulness of all guides, and to introduce greater consistency of layout and structure across all published methodology guides. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself.

August 2012: Platts changed the FOB Middle East (FOB ME) quote to a netback calculation. This was clarified in the methodology guide in October 2015.

June 2012: Platts launched daily Asian LNG derivatives assessments. Platts also launched the sixth half-month cycle for JKM™ on June 1, 2012.

August 2011: Platts modified the methodology for the daily spot DES West India assessment from a net-forward calculation

which applied the freight cost addition to the FOB Middle East (FOB ME) assessments, to a stand-alone DES West India assessment on August 1, 2012.

January 2011: Platts launched on January 17, 2011, daily LNG freight cost assessments for 55 routes.

June 2010: Platts launched daily spot Southwest European (SWE) LNG assessments and daily spot Northwest Europe (NWE) LNG assessments on June 28, 2010.

January 2010: Platts launched on June 28, 2010, daily spot charter LNG carrier assessments under the benchmark names Asia Pacific LNG Day Rates (APDR) and Atlantic LNG Day Rates (ATDR). In addition, Platts launched a netforward calculation for West India on January 8 2010. Platts also launched daily spot assessments for FOB Middle East (FOB ME) on January 8.

January 2010: Platts began publishing a single value assessment for the JKM™ from January 4, 2010. Prior to January 4, 2010, Platts published a low-high range of price, indicating a narrow tradable range either side of the mean spot market value, assessed at the close of Asian markets on a typical trading day.