

Specifications Guide

Carbon Intensity and Low Carbon Markets

Latest update: December 2025

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Definitions of the trading locations for which Platts publishes daily indexes or assessments

The following specifications guide contains the primary specifications for Platts Low Carbon Gas, Biomethane Guarantees of Origin, and Carbon Intensity price assessments. All the assessments listed here employ Platts Assessments Methodology, as published at <https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/platts-assessments-methodology-guide.pdf>

This guide is 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.

European Biomethane GO and RGGO Assessments

Assessment Name	Eur/MWh	GBP/MWh	Min
European Unsubsidized Biomethane (EUB) Certified Waste Spot Eur/MWh	ASIZA00		5 GWh
European Unsubsidized Biomethane (EUB) Certified Waste Yr01 Eur/MWh	ASIZY01		5 GWh
European Unsubsidized Biomethane (EUB) Certified Waste Spot Eur/MWh MAvg	ASIZA03		5 GWh
European Unsubsidized Biomethane (EUB) Certified Waste Yr01 Eur/MWh MAvg	ASIZY03		5 GWh
UK Renewable Gas Guarantees of Origin (RGGO) Waste Spot	GORUA00	GORUC00	5 GWh
UK Renewable Gas Guarantees of Origin (RGGO) Waste Yr01	GORUA01	GORUC01	5 GWh
UK Renewable Gas Guarantees of Origin (RGGO) Crop Spot	AUKAA00	AUKAC00	5 GWh
UK Renewable Gas Guarantees of Origin (RGGO) Crop Yr01	AUKAB00	AUKAD00	5 GWh
UK RGGO Certified and Subsidized Waste Spot	ARGGA00	ARGBB00	5 GWh
UK RGGO Certified and Subsidized Waste Yr01	ARGAY01	ARGBY01	5 GWh
Denmark Biomethane Guarantees of Origin (GO) Waste Spot	GORDA00		5 GWh
Denmark Biomethane Guarantees of Origin (GO) Waste Yr01	GORDA01		5 GWh
Denmark Biomethane Guarantees of Origin (GO) Manure Spot	ADENA00		5 GWh
Denmark Biomethane Guarantees of Origin (GO) Manure Yr01	ADENB00		5 GWh
Denmark Biomethane Guarantees of Origin (GO) Unsubsidised Waste Spot	DBGOA00		5 GWh
Denmark Biomethane Guarantees of Origin (GO) Unsubsidised Waste Yr01	DBGOA01		5 GWh
Germany Biomethane Guarantees of Origin (GO) Waste Spot	GORGA00		5 GWh
Germany Biomethane Guarantees of Origin (GO) Waste Yr01	GORGA01		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Waste Spot	GORNA00		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Waste Yr01	GORNA01		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Manure Spot	ANETA00		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Manure Yr01	ANETB00		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Unsubsidised Waste Spot	DBGOB00		5 GWh
Netherlands Biomethane Guarantees of Origin (GO) Unsubsidised Waste Yr01	DBGOB01		5 GWh

European Biomethane Guarantee of Origin and UK Biomethane Renewable Gas Guarantee of Origin Assessments

Platts publishes daily spot market assessments for European Biomethane Guarantees of Origin (GOs) and UK Renewable Gas Guarantees of Origin (RGGOs).

Both European GOs and UK RGGOs are electronic tracking certificates that represent the environmental attributes of 1 megawatt hour of biomethane entering the natural gas grid. Biomethane is purified biogas, which itself is an alternative to traditional, fossil fuel-derived natural gas, generated through the processing of organic residues from different feedstocks, many of which may otherwise emit methane into the atmosphere. Biogas can be generated by a number of sources, including from landfills, agricultural waste and livestock waste.

GOs and RGGOs are issued by the relevant registries certifying biomethane production within each country but can be traded and retired internationally. GOs and RGGOs represent a premium for gas with a clear organic pathway over the cost of gas with an undisclosed origin pathway in the natural gas grid.

Both GOs and RGGOs can be bought and sold until they are retired by a counterparty.

Platts' Biomethane GO and RGGO assessments reflect feedstock certificates spot and one year forward.

Platts' assessments reflect bids, offers and transactions as reported in either the Platts Market on Close assessment process, in the brokered market, or on trading and exchange instruments. Assessments are timestamped to 16:30 London time and are published according to the Platts London holiday calendar.

Platts also assesses European Guarantees of Origin (EuGOs), UK Renewable Energy Guarantees of Origin (REGOs), alongside US and International Renewable Energy Certificates. The

specifications for these assessments can be found here: <https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/energy-transition/renewables-certificates-specifications.pdf>

Feedstock definitions

Platts publishes daily Biomethane GO and RGGO assessments for several feedstocks with accompanying Carbon Intensity definitions as calculated under EU Renewable Energy Directive methodology.

Assessments for biomethane GOs and RGGOs from waste feedstock reflect a carbon intensity of between +20.00 g CO2e/MJ to +0.00 CO2e/MJ.

Assessments for biomethane GOs and RGGOs from manure feedstock reflect a carbon intensity of – 85.00 g CO2e/MJ and lower.

Assessments for biomethane GOs and RGGOs from crop feedstock reflect a carbon intensity of +25.00 g CO2e/MJ with no maximum. Platts understands that biomethane of significantly higher Carbon Intensity do not receive GOs.

Bids/offers/trades/indicative values received outside of these definitions may be normalised to these definitions during the assessment process.

Vintage

Platts publishes daily Biomethane GO and RGGO assessments for both spot and forward year markets.

The spot assessment reflects transactions for immediate delivery where contracts have a minimum validity of three months from the date of transaction. The forward year assessment reflects transactions for delivery in the next calendar year of contracts that are issued in that same calendar year.

Platts reflects both Biomethane GO and RGGO bids, offers and trades for contracts that remain valid for three months from the date of title transfer, with title transfer at time of trade.

For example, if Company A sold 1 GWh of Biomethane GOs to Company B on March 18, 2022, Company A would be able to deliver GOs of vintage June 2021 and later.

The majority of Biomethane GOs must be retired within 12 months of issuance, while UK RGGOs must be retired within 36 months of issuance.

Volume

Platts assessments reflect bids, offers and trades of a minimum of 5GWh of Biomethane GOs and RGGOs. Platts does not currently apply a maximum to the volumes reflected in its assessments.

Certification

The assessments for Denmark and the Netherlands reflect certified GOs while the RGGO assessments for the UK reflect certified and uncertified volumes. Certification is considered as a voluntary standard achieved by a producer of biomethane which the market accepts as improving fungibility of the associated guarantee of origin. This includes, but is not exclusive to, standards such as ISCC and REDCert.

Subsidised and Unsubsidised certificates

Assessments for UK RGGOs are for subsidised certificates. Assessments for Denmark and the Netherlands include subsidised waste, unsubsidised waste and unsubsidised manure.

Location

Platts publishes daily Biomethane GO assessments for certificates issued for the current year and one year forward originating in the Netherlands, Denmark, Germany or other relevant competing markets and available for trade

internationally. Platts publishes daily Biomethane RGGO assessments for certificates issued for the current year and one year forward originating in the UK, and available for trade internationally.

Units

Platts publishes its Biomethane GO assessments in Eur/MWh, UK RGGOs are published in GBP/MWh, with conversions for Eur/MWh.

European Unsubsidised Biomethane (EUB) certified waste

The EUB assessment reflects the most competitive spot and year-ahead value for certified unsubsidised waste of European origin. EUB assessments also reflect Annex IX A feedstocks under the EU's Renewable Energy Directive as defined below:

[https://wikis.ec.europa.eu/spaces/UDBBIS/pages/116163541/
Raw+materials+intermediate+products+Revision+April+2025](https://wikis.ec.europa.eu/spaces/UDBBIS/pages/116163541/Raw+materials+intermediate+products+Revision+April+2025)

North America Renewable Natural Gas Premiums

Assessment Name	\$/MMBtu
North America Renewable Natural Gas Premium (California)	AEWAA00
North America Renewable Natural Gas Premium (Excl. California)	AEWAB00
North America RNG CI value per point	AEWAC00

North America Renewable Natural Gas Assessments

Platts publishes North America RNG price assessments reflecting the premium for pipeline quality RNG relative to pipeline quality natural gas. Assessments reflect volumes delivered on a spot basis in North America, with a pathway that has a carbon intensity of 45g CO₂e/MJ under the California Air Resources Board methodology. The carbon intensity of 45g CO₂e/MJ represents that of landfill derived RNG.

The North America Renewable Natural Gas Premium (California) price assessment reflects the RNG premium for gas sold into California. The North America Renewable Natural Gas Premium (excl. California) price assessment reflects the RNG premium for gas sold to consumers outside of California.

The North America Renewable Natural Gas carbon intensity value per point price assessment represents the change in

value of the North America Renewable Natural Gas Premium based on a one-point decrease in the carbon intensity. The price varies based on the value of the prompt quarter Low Carbon Fuel Standard (LCFS) credit price. The RNG premium increases for a production pathway with a carbon intensity less than 45g CO₂e/MJ and decreases for a production pathway with a carbon intensity greater than 45g CO₂e/MJ. For example, an RNG production pathway with a carbon intensity of 10 at a carbon intensity value per point of \$0.08 would have a higher RNG premium by $(45 - 10) \times \$0.08 = \2.80 . Similarly, an RNG production pathway with a carbon intensity of 100 at a carbon intensity value per point of \$0.08 would have a lower RNG premium by $(45 - 100) \times \$0.08 = (4.40)$.

Platts uses data from market participants to inform the assessment process for the RNG assessments. Information used includes trades, bids, offers, indicative values and other information deemed relevant to the assessment process.

Platts will normalize trade details such as carbon intensity and tenor in the assessment process where necessary.

Delivery

Platts publishes daily RNG premium assessments for the spot market, which reflect transactions for immediate delivery.

Volume

Platts assessments reflect bids, offers and trades of any volume.

Location

Platts publishes daily premiums for RNG produced and purchased in North America, including the US, Canada, and Mexico.

Units

Platts publishes its RNG premium assessments in \$/MMBtu.

Platts Carbon Intensity price assessment specifications

The energy landscape is set to change dramatically over the coming years as companies may seek to curb greenhouse gas (GHG) emissions from fossil fuels to meet net-zero ambitions by 2050.

Measuring the carbon intensity of different commodities is one way the market has started to measure GHG emissions from various production types. In the case of crude oil, carbon intensity is used to measure the volume of GHG emissions to be offset; however, it could be considered an additional attribute, similar to API, sulfur or TAN. In the case of refined products, carbon intensity is critical in measuring Scope 2 and Scope 3 emissions.

Crude Carbon Intensity and the Refined Products Carbon Intensity values published by S&P Global Energy Horizons measure the amount of carbon dioxide equivalent emitted per unit of oil. For further information on the S&P Global Energy Horizons' Upstream Crude Carbon Intensity calculations can be found in the links below:

<https://www.spglobal.com/energy/en/products-solutions/carbon-scenarios/emissions-capabilities>

This is then used to calculate a Carbon Intensity Premium, using the daily Platts Carbon Removal Credit Assessment (Platts CRC, ACRCA00). This calculation is published to three decimal places. The Platts CRC assessment reflects the price of carbon credits from projects that result in the removal of existing GHG

emissions from the atmosphere and include credits from both the Natural Carbon Capture and Technological Carbon Capture categories.

To learn more about the Platts CRC assessment please visit: <https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/energy-transition/carbon-markets-specifications.pdf>

Crude Oil

S&P Global Energy Horizons' Upstream Crude Carbon Intensity calculations measure the impact of GHG emissions in the lifecycle from production to storage.

Crude Grade Upstream carbon intensity symbols

Crude Grade	Upstream CI Premium \$/bbl	Currency	UOM
Bates	C		
WTI Midland	WXTIC00	USD	CBL
Troll	TXROC00	USD	CBL
Oseberg	OXSEC00	USD	CBL
Ekofisk	EXKOC00	USD	CBL
Forties	FXORC00	USD	CBL
Brent	BXREC00	USD	CBL
Dubai	AGINA00	USD	CBL
Oman	AGINB00	USD	CBL
Al-Shaheen	AGINC00	USD	CBL
Upper Zakum	AGIND00	USD	CBL
Das Blend	AGINE00	USD	CBL
Arab Light	AGINF00	USD	CBL
Saharan Blend	AGING00	USD	CBL
Murban	AGINH00	USD	CBL
Canadon Seco	AMGLB00	USD	CBL
Castilla Blend	AMGLH00	USD	CBL
Cuban Heavy	AMGLI00	USD	CBL
Escalante	AMGLC00	USD	CBL
Galeota Mix	AMGLR00	USD	CBL
Istmo	AMGLP00	USD	CBL
Jubarte	AMGLD00	USD	CBL
Liza	AMGLL00	USD	CBL
Maya	AMGLQ00	USD	CBL
Medanito	AMGLA00	USD	CBL
Merey 16	AMGLS00	USD	CBL
Napo	AMGLK00	USD	CBL
Olmeca	AMGL000	USD	CBL
Oriente	AMGLJ00	USD	CBL
Payara	AMGLM00	USD	CBL
Roncador Heavy	AMGLE00	USD	CBL
Rubiales	AMGLG00	USD	CBL
Tupi	AMGRY00	USD	CBL
Unity Gold	AMGLN00	USD	CBL

Crude Grade Upstream carbon intensity symbols

Crude Grade	Upstream CI Premium \$/bbl	Currency	UOM
Bates	C		
Vasconia	AMGLF00	USD	CBL
Alaskan North Slope	AMGRA00	USD	CBL
Bakken	AMGRC00	USD	CBL
Eagle Ford	AMGRB00	USD	CBL
Mixed Sweet Blend	AMGRG00	USD	CBL
West Texas Intermediate (Cushing)	AMGRE00	USD	CBL
West Texas Intermediate (MEH)	AMGRD00	USD	CBL
Wyoming Sweet	AMGRF00	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgCO2e/boe	Upstream CI Premium \$/boe	Transport Route	Transport CI Premium \$/bbl	Currency	UOM
Bates:	U	C		C		
Alpine	ALPIC40	ALPIC00	Alaska to West Coast	ALPIC10	USD	CBL
Alvheim	ALVHC40	ALVHC00	Alvheim to Havre	ALVHC10	USD	CBL
Anadarko	ANADC40	ANADC00	Oklahoma to Gulfcoast	ANADC10	USD	CBL
Appomattox	APPOC40	APPOC00	Appomattox to Changxing	APPOC10	USD	CBL
Atlantis	ATLAC40	ATLAC00	Atlantis to Qingdao	ATLAC10	USD	CBL
Auger	AUGECA40	AUGECA00	Auger to Qingdao	AUGECA10	USD	CBL
Bakken	BAKNC40	BAKNC00	Beaumont to Rotterdam	BAKNC10	USD	CBL
Bakken-Canada	BAKKC40	BAKKC00	Canada to Midwest	BAKKC10	USD	CBL
Big-Foot	BIGMC40	BIGMC00	Bigfoot to Daesan	BIGCC10	USD	CBL
Buzzard	BZRDC40	BZRDC00	Houndpoint to Rotterdam	BZRDC10	USD	CBL
CA-Coast	CAMCC40	CAMCC00	Kern to SoCal	CAMCC10	USD	CBL
Cantarell	CNTLC40	CNTLC00	Cantarell to Bilbao	CNTLC10	USD	CBL
Captain	CAPTC40	CAPTC00	Captain to Hamburg	CAPTC10	USD	CBL
Cardium Shale	CARDC40	CARDC00	Cardium to Canada	CARDC10	USD	CBL
Catcher	CATCC40	CATCC00	Catcher to Rotterdam	CATCC10	USD	CBL
Chinook	CHINC40	CHINC00	Chinook to Changxing	CHINC10	USD	CBL
Clair	CLAIC40	CLAIC00	Claire to Stanlow	CLAIC10	USD	CBL
Cold-Lake	CDLKC40	CDLKC00	Canada - US Midwest	CDLKC10	USD	CBL
CVE Christina Lake	CVECC40	CVECC00	Canada to Midwest	CVECC10	USD	CBL
Denver-Julesburg	DENVCA40	DENVCA00	Denver to Gulfcoast	DENVCA10	USD	CBL
Devils-Tower	DEVIC40	DEVIC00	Devils to Daesan	DEVIC10	USD	CBL
Eagle Ford	EGFDC40	EGFDC00	Houston to Qingdao	EGFDC10	USD	CBL
Edvard-Grieg	EDVAC40	EDVAC00	Edvard-Grieg to Sarroch	EDVAC10	USD	CBL
Ekofisk	EKFSC40	EKFSC00	Teesside to Rotterdam	EKFSC10	USD	CBL
Europa	EUROCA40	EUROCA00	Europa to Daesan	EUROCA10	USD	CBL
Firebag	FIRECA40	FIRECA00	Canada to Midwest	FIRECA10	USD	CBL
Foster Creek	FOSTC40	FOSTC00	Canada to Gulfcoast	FOSTC10	USD	CBL
Ghawar	GHWRC40	GHWRC00	Ras Tanura to Qingdao	GHWRC10	USD	CBL
Girassol	GRSLC40	GRSLC00	Girassol to Qingdao	GRSLC10	USD	CBL
Golden-Eagle	GOLDC40	GOLDC00	Golden-Eagle to Grangemouth	GOLDC10	USD	CBL
Goliat	GOLIC40	GOLIC00	Goliat to Rotterdam	GOLIC10	USD	CBL
Grane	GRANC40	GRANC00	Sture to Immingham	GRANC10	USD	CBL
Great-White	GREAC40	GREAC00	Great-White to Changxing	GREAC10	USD	CBL
Gulf-Coast-Louisiana	GULFC40	GULFC00	Lousiana to Texas	GULFC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgCO2e/boe	Upstream CI Premium \$/boe	Transport Route	Transport CI Premium \$/bbl	Currency	UOM
Bates:	U	C		C		
Gullfaks	GULLC40	GULLC00	Gullfaks to Brofjorden	GULLC10	USD	CBL
Hebron	HEBRC40	HEBRC00	Hebron to Canada	HEBRC10	USD	CBL
Heidrun	HEIDC40	HEIDC00	Heidrun to Rotterdam	HEIDC10	USD	CBL
Hibernia	HIBEC40	HIBEC00	Hibernia to Canada	HIBEC10	USD	CBL
Horn-Mountain	HORNC40	HORNCO0	Horn-Mountain to Qingdao	HORNC10	USD	CBL
Ivar-Aasen	IVARC40	IVARC00	Ivar-Aasen to Rotterdam	IVARC10	USD	CBL
Jack	JAKKC40	JAKKC00	Jack to Qingdao	JAKKC10	USD	CBL
Jackfish	JACKC40	JACKC00	Canada to Midwest	JACKC10	USD	CBL
John Sverdrup	JSVRC40	JSVRC00	Mongstad to Rotterdam	JSVRC10	USD	CBL
Julia	JULIC40	JULIC00	Julia to Daesan	JULIC10	USD	CBL
Kirby Lake	KIRBC40	KIRBC00	Canada to Midwest	KIRBC10	USD	CBL
Kirkuk	KIRKC40	KIRKC00	Ceyhan to Rotterdam	KIRKC10	USD	CBL
Kraken	KRAKC40	KRAKC00	Kraken to Rotterdam	KRAKC10	USD	CBL
Kuparuk-River	KUPAC40	KUPAC00	Alaska to US West Coast	KUPAC10	USD	CBL
Leo	LEOMC40	LEOMC00	Leo to Daesan Coast	LEOCC10	USD	CBL
Long Lake	LONGC40	LONGC00	Canada to Midwest	LONGC10	USD	CBL
Lucius	LUCSC40	LUCSC00	Lucius to Qingdao	LUCSC10	USD	CBL
MacKay River	MCKAC40	MCKAC00	Canada to Rockies	MCKAC10	USD	CBL
Mad-Dog	MADAC40	MADAC00	Mad-Dog to Changxing	MADAC10	USD	CBL
Mariner	MARIC40	MARIC00	Mariner to Pascagoula	MARIC10	USD	CBL
Mars-Ursa	MRURC40	MRURC00	Mars to Qingdao	MRURC10	USD	CBL
MEG Christina Lake	MEGCC40	MEGCC00	Canada to Gulfcoast	MEGCC10	USD	CBL
Montney Shale	MONTC40	MONTC00	Montney to to	MONTC10	USD	CBL
Oseberg	OSEBC40	OSEBC00	Sture to Rotterdam	OSEBC10	USD	CBL
Permian-Delaware	PRDLC40	PRDLC00	Corpus Christi to Rotterdam	PRDLC10	USD	CBL
Permian-Midland	PRMDC40	PRMDC00	Corpus Christi to Rotterdam	PRMDC10	USD	CBL
Permian-Other	PERMC40	PERMC00	Corpus to Qingdao	PERMC10	USD	CBL
Powder-River	POWDC40	POWDC00	Wyoming to Gulfcoast	POWDC10	USD	CBL
Primrose/Wolf Lake	PRMWC40	PRMWC00	Canada to Midwest	PRMWC10	USD	CBL
Prudhoe-Bay	PRUDC40	PRUDC00	Alaska to West Coast	PRUDC10	USD	CBL
Salina	SALIC40	SALIC00	Kansas to Gulfcoast	SALIC10	USD	CBL
San-Joaquin	SANMC40	SANMC00	San-Joaquin to Socal	SANAC10	USD	CBL
Schiehallion	SCHIC40	SCHIC00	Schiellhallion to Rotterdam	SCHIC10	USD	CBL
Schrader-Bluff	SCHRC40	SCHRC00	Alaska to US West Coast	SCHRC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgCO2e/boe	Upstream CI Premium \$/boe	Transport Route	Transport CI Premium \$/bbl	Currency	UOM
Bates:	U	C		C		
SCOOP-STACK	SCOOC40	SCOOC00	Oklahoma to Gulfcoast	SCOOC10	USD	CBL
Shenzi	SHENC40	SHENC00	Shenzi to Daesan	SHENC10	USD	CBL
Snorre	SNORC40	SNORC00	Snorre to Statfjord	SNORC10	USD	CBL
Statfjord	STATC40	STATC00	Statfjord to Rotterdam	STATC10	USD	CBL
Stones	STONC40	STONC00	Stones to Daesan	STONC10	USD	CBL
Sunrise	SUNRC40	SUNRC00	Canada to Midwest	SUNRC10	USD	CBL
Surmont	SURMC40	SURMC00	Canada to Gulfcoast	SURMC10	USD	CBL
Tahiti	TAHIC40	TAHIC00	Tahiti to Yeosu	TAHIC10	USD	CBL
Tengiz	TNGZC40	TNGZC00	Novo to Rotterdam	TNGZC10	USD	CBL
Thunder-Horse	THUNC40	THUNC00	Thunder-Horse to Qingdao	THUNC10	USD	CBL
Troll	TROLC40	TROLC00	Mongstad to Rotterdam	TROLC10	USD	CBL
Tupi	TUPIC40	TUPIC00	Rio to Qingdao CI	TUPIC10	USD	CBL
Uinta	UINTC40	UINTC00	Northeast to Gulfcoast	UINTC10	USD	CBL
Utica	UTICC40	UTICC00	Northeast to Gulfcoast	UTICC10	USD	CBL
Valhall	VALHC40	VALHC00	Valhall to Rotterdam	VALHC10	USD	CBL
Viking Shale	VIKIC40	VIKIC00	Canada to Midwest	VIKIC10	USD	CBL
Agbami	AGBAC40	AGBAC00	Agbami to Paradip	AGBAC10	USD	CBL
Azeri	AZERC40	AZERC00	Ceyhan to Sarroch	AZERC10	USD	CBL
Bombay High	MUMBC40	MUMBC00	Bombay High to Qingdao	MUMBC10	USD	CBL
Bonga	BONGC40	BONGC00	Bonga to Rotterdam	BONGC10	USD	CBL
Bozhong	BOZHC40	BOZHC00	Bohai Pengbo to Singapore	BOZHC10	USD	CBL
Burgan	BURGC40	BURGC00	Mina to Ulsan	BURGC10	USD	CBL
Cusiana	CUSIC40	CUSIC00	Tolu to Houston	CUSIC10	USD	CBL
Dukhan	DUKHC40	DUKHC00	Mesaieed to Singapore	DUKHC10	USD	CBL
Fateh	FATEC40	FATEC00	Fateh to Kiire	FATEC10	USD	CBL
Marun	MARUC40	MARUC00	Kharg Island to Qingdao	MARUC10	USD	CBL
Murban	MURBC40	MURBC00	Fujairah to Chiba	MURBC10	USD	CBL
Orinoco Oil Belt	ORINC40	ORINC00	Jose to Sikka	ORINC10	USD	CBL
Rumaila	RUMAC40	RUMAC00	Al Basrah to Sikka	RUMAC10	USD	CBL
Sacha	SACHC40	SACHC00	Esmeraldas to Long Beach	SACHC10	USD	CBL
Safaniya	SAFAC40	SAFAC00	Ras Tanura to Changxing	SAFAC10	USD	CBL
Samotlor	SAMOC40	SAMOC00	Primorsk to Rotterdam	SAMOC10	USD	CBL
Waha	WAHAC40	WAHAC00	Zawia to Augusta	WAHAC10	USD	CBL
West Qurna	WESTC40	WESTC00	Al Basrah to Sikka	WESTC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgCO2e/boe	Upstream CI Premium \$/boe	Transport Route	Transport CI Premium \$/bbl	Currency	UOM
Bates:	U	C		C		
Zubair	ZUBAC40	ZUBAC00	Al Basrah to Sikka	ZUBAC10	USD	CBL
Zuluf	ZULUC40	ZULUC00	Ras Tanura to Changxing	ZULUC10	USD	CBL
Alwyn North	ALWYC40	ALWYC00	Sullom Voe to Rotterdam	ALWYC10	USD	CBL
Arbroath	ARBRC40	ARBRC00	Houndpoint to Rotterdam	ARBRC10	USD	CBL
Auk	AUKCC40	AUKCD00	Teeside to Rotterdam	AUKCC10	USD	CBL
Brae	BRAEC40	BRAEC00	Houndpoint to Rotterdam	BRAEC10	USD	CBL
Brage	BRAGC40	BRAGC00	Sture to Brofjorden	BRAGC10	USD	CBL
Bruce	BRUCC40	BRUCC00	Houndpoint to Rotterdam	BRUCC10	USD	CBL
Clyde	CLYDC40	CLYDC00	Teeside to Rotterdam	CLYDC10	USD	CBL
Cormorant	CORMC40	CORMC00	Sullom Voe to Rotterdam	CORMC10	USD	CBL
Embla	EMBLC40	EMBLC00	Teeside to Rotterdam	EMBLC10	USD	CBL
Everest	EVERC40	EVERC00	Houndpoint to Rotterdam	EVERC10	USD	CBL
Forties	FORTC40	FORTC00	Houndpoint to Rotterdam	FORTC10	USD	CBL
Fram	FRAMC40	FRAMC00	Mongstad to Rotterdam	FORTD10	USD	CBL
Gannet	GANNC40	GANNC00	Teeside to Rotterdam	GANNC10	USD	CBL
Joanne	JOANC40	JOANC00	Teeside to Rotterdam	JOANC10	USD	CBL
Judy	JUDYC40	JUDYC00	Teeside to Rotterdam	JUDYC10	USD	CBL
Magnus	MAGNC40	MAGNC00	Sullom Voe to Rotterdam	MAGNC10	USD	CBL
Nelson	NELSC40	NELSC00	Houndpoint to Rotterdam	NELSC10	USD	CBL
Ninian	NINIC40	NINIC00	Sullom Voe to Rotterdam	NINIC10	USD	CBL
Scott	SCOTC40	SCOTC00	Houndpoint to Rotterdam	SCOTC10	USD	CBL
Tiffany	TIFFC40	TIFFC00	Houndpoint to Rotterdam	TIFFC10	USD	CBL
Toni	TONIC40	TONIC00	Houndpoint to Rotterdam	TONIC10	USD	CBL
Ula	ULACC40	ULACC00	Teeside to Rotterdam	ULACC10	USD	CBL
Falah	AMRGN40	AMRGA00	Falah to Kiire	ASITA10	USD	CBL
Rashid	AMRG040	AMRGB00	Mina to Kiire	ASITB10	USD	CBL
Upper Zakum	AMRGP40	AMRGC00	Zirku to Zhoushan	ASITC10	USD	CBL
Lower Zakum	AMRGQ40	AMRGD00	Zirku to Sikka	ASITD10	USD	CBL
Al-Shaheen	AMRGR40	AMRGE00	Al-Shaheen to Singapore	ASITE10	USD	CBL
Oman Basin	AMRGS40	AMRGF00	Salalah to Tranmere	ASITF10	USD	CBL
Hassi Messaoud	AMRGT40	AMRGG00	Skikda to Tranmere	ASITG10	USD	CBL
Khurais	AMRGU40	AMRGH00	Ras Tanura to Ain Sukhna	ASITH10	USD	CBL
Abu Hadriya	AMRGV40	AMRGI00	Ras Tanura to Ain Sukhna	ASITI10	USD	CBL
Umm Shaif	AMRGW40	AMRGJ00	Zirku to Sikka	ASITJ10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgCO2e/boe	Upstream CI Premium \$/boe	Transport Route	Transport CI Premium \$/bbl	Currency	UOM
Bates:	U	C		C		
Nasr	AMRGX40	AMRGK00	Zirku to Sikka	ASITK10	USD	CBL
El Bunduq	AMRGY40	AMRGL00	Zirku to Sikka	ASITL10	USD	CBL
Abu Al Bukhoosh	AMRGZ40	AMRGM00	Zirku to Sikka	ASITM10	USD	CBL
Canadon Seco	AMGNK40	AMGMN00	Comodoro Rivadavia to Long Beach	AMGPH10	USD	CBL
El Medanito	AMGNJ40	AMGMJ00	Bahia Blanca to Cherry Point	AMGPG10	USD	CBL
Escalante	AMGNL40	AMGM000	Comodoro Rivadavia to Long Beach	AMGPI10	USD	CBL
Jubarte	AMGNM40	AMGMP00	Madre de Deus to Singapore	AMGPJ10	USD	CBL
Roncador	AMGNN40	AMGMQ00	Madre de Deus to Galveston	AMGPK10	USD	CBL
Castilla (Norte Este)	AMGNQ40	AMGTM00	Covenas Terminal to Jieyang	AMGPN10	USD	CBL
Cupiagua	AMGNO40	AMGMR00	Covenas Terminal to Sikka	AMGPL10	USD	CBL
Rubiales	AMGNP40	AMGMS00	Covenas Terminal to Jieyang	AMGPM10	USD	CBL
Varadero	AMGNR40	AMGMU00	Mariel to Antwerp	AMGP010	USD	CBL
Cuyabeno	AMGNT40	AMGMW00	Balao to Houston	AMGPQ10	USD	CBL
Ishpingo	AMGNU40	AMGMX00	Balao to Panama Canal	AMGPR10	USD	CBL
Jivino-Napo	AMGNV40	AMGMY00	Balao to Panama Canal	AMGPS10	USD	CBL
Shushufindi-Aguarico	AMGNS40	AMGMV00	Balao to Galveston	AMGPP10	USD	CBL
Liza 1	AMGNW40	AMGMZ00	FPSO Liza Destiny to Rotterdam	AMGPT10	USD	CBL
Liza 2	AMGPF40	AMGNI00	FPSO Liza Unity to Chiriqui Grande Terminal	AMGQC10	USD	CBL
Payara	AMGNX40	AMGNA00	FPSO Prosperity to Chiriqui Grande Terminal	AMGPU10	USD	CBL
Abkatun	AMGPA40	AMGND00	Mexico STS to Daesan	AMGPX10	USD	CBL
Chuc	AMGPB40	AMGNE00	Coatzacoalcos to Cartagena	AMGPY10	USD	CBL
Pol	AMGPC40	AMGNF00	Mexico STS to Yokkaichi	AMGPZ10	USD	CBL
Tsimin	AMGNZ40	AMGNC00	Dos Bocas to Corpus Christi	AMGPW10	USD	CBL
Xux	AMGNY40	AMGNB00	Dos Bocas to Milazzo Anchorages	AMGPV10	USD	CBL
Galeota (Trintes)	AMGPD40	AMGNG00	Galeota Point to Callao	AMGQA10	USD	CBL
Santa Barbara	AMGPE40	AMGNH00	Jose Terminal to Singapore	AMGQB10	USD	CBL

Shipping assumptions

The carbon intensity premiums reflect the respective cost to offset the emissions from upstream production of each crude field, as well as the additional midstream carbon intensity cost to deliver each type of crude to specific refinery regions, as highlighted below. Depending on the carbon intensity of each crude and the carbon intensity of

the route, the calculation is a \$/b assessment that measures how much it would cost to use a removals voluntary carbon credit to compensate for the associated GHG emissions from the production of the crude as well as the route in question. The higher the carbon intensity, the larger the carbon intensity premium will be to account for the price of carbon removal. This is a calculated carbon intensity premium based on Platts CRC.

Refined products carbon intensity symbols

Refined product	CI Premium \$/bbl	Region	Currency	UOM
Bates:	c			
Gasoil 10ppm FOB Singapore Cargo	ALCEH00	Southeast Asia	USD	CBL
Gasoline Unl 92 FOB Singapore Cargo	ALCEJ00	Southeast Asia	USD	CBL
Jet Kero FOB Singapore Cargo	ALCEL00	Southeast Asia	USD	CBL
Refined product	CI Premium \$/gal	Region		
Bates:	c			
Gasoline CBOB USGC Prompt Pipeline	ALCEN00	US Gulf Coast	USD	CBG
Jet Kero 54 USGC Prompt Pipeline	ALCEP00	US Gulf Coast	USD	CBG
ULSD USGC Prompt Pipeline	ALCER00	US Gulf Coast	USD	CBG
Refined product	CI Premium \$/mt	Region		
Bates:	c			
Gasoline Eurobob (E5) FOB NWE Barge	ALCEB00	Northwest Europe	USD	CBT
Jet FOB NWE Barge	ALCED00	Northwest Europe	USD	CBT
ULSD 10ppm FOB NWE Barge	ALCEF00	Northwest Europe	USD	CBT

Refined Products

The carbon intensity premiums reflect the respective cost to offset the emissions from the production of key transportation fuels- gasoline, diesel, and jet, in the main geographical demand regions – US Gulf Coast, North-West Europe, and South-East Asia.

North America Gas Carbon Intensity

Location	Carbon Intensity Cost (\$/MMBtu)
Chicago city-gates	ACCAA00
AECO-C	ACCAB00
Dawn Ontario	ACCAC00
Eastern Gas South	ACCAD00
Waha	ACCAE00
NGPL Midcontinent	ACCAG00
Kern River, Opal plant	ACCAH00
PG&E Malin	ACCAJ00
Algonquin City-Gates	ACCAM00
Henry Hub	ACCAF00
Houston Ship Channel	ACCAK00
SoCal Gas	ACCAI00
Transco Zone 6 Non-NY	ACCAL00

US Methane Intensity

More information on the S&P Global Energy Horizons' US Methane Intensity data calculated by the S&P Global Energy Horizons team can be found here:

North America Gas Carbon Intensity Assessments

Platts publishes daily natural gas carbon accounted costs from 22 representative production basins in North America.

Further Information on the S&P Global Energy Horizons carbon accounted costs can be found here:

<https://www.spglobal.com/energy/en/products-solutions/carbon-scenarios/emissions-capabilities>

Frequency of publication

Carbon intensity costs are published on a daily cadence.

Location

Platts is publishing assessments for the following locations:

- AECO-C
- Chicago City-Gates
- Dawn
- PG&E Malin
- Eastern Gas, South
- Waha
- Kern River, Opal plant
- NGPL Midcontinent
- Algonquin City-Gates
- Henry Hub
- Houston Ship Channel
- SoCal Gas
- Transco Zone 6 Non-NY

Units

The carbon-accounted cost of natural gas at these locations is published daily in \$/MMBtu, using Platts CRC as an input.

Related Markets

LNG

Platts publishes a number of Carbon Accounted LNG assessments. The specifications for these assessments can be found in the Global LNG methodology guide here:

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/lng/lng-specifications.pdf>

Metals

Platts publishes a number of Low Carbon Metals assessments. Please refer to the following guides:

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/metals/nonferrous-specifications.pdf>

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/metals/iron-ore-specifications.pdf>

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/metals/steel-ferrous-specifications.pdf>

Fertilizers

Platts publishes a number of Low Carbon Fertilizer assessments. The specifications for these assessments can be found in the Fertecon methodology guide here:

https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/minerals-fertilizers/fertecon_specifications.pdf

Chemicals

Platts publishes a number of Low Carbon chemical assessments. Please refer to the following guides:

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/chemicals/chemicals-americas-specifications.pdf>

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/chemicals/chemicals-europe-specifications.pdf>

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/chemicals/chemicals-asia-pacific-specifications.pdf>

Freight

Platts publishes a number of Carbon-Inclusive freight assessments. The specifications for these assessments can be found in the Global Freight methodology guide here:

<https://www.spglobal.com/content/dam/spglobal/ci/en/documents/platts/en/our-methodology/methodology-specifications/shipping/freight-specifications.pdf>

Revision history

December 2025: Calculation methodology for S&P Global Energy Horizons intensity data removed. EUB, UK certified waste and specification updates added to European biomethane. Platts conducted an annual review of this guide and made grammatical changes and edits to language throughout for greater clarity.

August 2025: Platts discontinued Methane Performance Certificate and Methane Intensity Premium assessments.

April 2025: Platts added 27 additional Crude Carbon Intensities calculated in gCO₂e/MJ and kgCO₂e/bbl by the S&P Global Commodity Insights analytics team. Platts added new units in gCO₂e/MJ for the existing 41 Crude Carbon Intensities which are calculated by the S&P Global Commodity Insights analytics team. Platts removed Producer Certified Gas.

November 2024: Platts created the Carbon Intensity and Low Carbon Markets Specifications Guide which followed the merging of the Low Carbon Gas, Carbon Intensity, and Methane Performance Certificate methodology guides. Platts also added reference to other low-carbon market assessments and their respective methodology guides. Platts clarified the roll calendar for methane intensity premium as of November 2024. Platts clarified the publishing schedule for carbon intensity calculations which feed into the Crude Carbon Intensity Premiums.