Platts
S&P Global
Commodity Insights

Specifications Guide
Carbon Intensity Assessments

Latest update: September 2023

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

The following specifications guide contains the primary specifications for S&P Global Commodity Insights' Platts Carbon Intensity assessments. 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.

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 (CI) of different commodities is one way the market has started to measure GHG emissions from various production types. In the case of crude oil, CI 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, CI is critical in measuring Scope 2 and Scope 3 emissions.

Both the Platts Crude Carbon Intensity and the Platts Refined Products Carbon Intensity assessments measure the amount of carbon dioxide equivalent emitted per unit of oil. 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/commodityinsights/PlattsContent/_assets/_files/en/our-methodology/methodology-specifications/method_carbon_credits.pdf

All Platts Carbon Intensity monthly assessments are updated on the 15th of every month. In the event that the 15th falls on a non-working day, then they will be updated on the previous working day.

Crude Oil

Platts' Upstream Crude Carbon Intensity calculations measure the impact of GHG emissions in the lifecycle from production to storage. For example, Platts' Upstream Carbon Intensity Assessments for US Permian Basin crude include the measurement of carbon intensity from well-head, including venting/flaring, through pipeline and into the storage terminal on the Gulf Coast. Platts does not include any Scope 1 or Scope 2 emissions from activities that happened prior to "today" – ie Platts is calculating today's emissions to deliver today's barrel.

When calculating the upstream carbon intensity, Platts has taken a bottom-up approach and is looking at the production-to-storage terminal segment of the lifecycle. Emissions during the exploration and drilling stages are unaccounted for. Results are generated using the Oil Production Greenhouse Gas Emissions Estimator (OPGEE) 2.0 model, combined with proprietary research and data from S&P Global Commodity Insights' analytics team.

Platts will update the monthly upstream CI calculation on the 15th of each month. If the 15th falls on a non-working day, the CI will be updated the next working day.

In addition to crude fields, Platts calculates the upstream carbon intensity for crude grades based on a volume-weighted average of the carbon intensity of the fields that go into that specific grade. Please find crude grades below and corresponding fields that go into the calculation of the carbon intensity.

WTI Midland: Permian Midland and Delaware

Troll : Fram and Troll

Oseberg: Oseberg and Brage

Ekofisk: Auk, Clyde, Ekofisk, Embla, Fulmar, Gannet, Janice, Joanne, Judy and Ula

Forties: Buzzard, Forties, Brae, Miller, Arbroath, Balmoral, Scott, Nelson, Everest, Brae East, Bruce, Tiffany, and Toni

Brent: Brent, Cormorant, Hutton, Thistle, Murchison, Dunlin, Ninian, Alwyn North, and Magnus.

Dubai: Fateh, Falah, and Rashid

Oman: Oman

Al-Shaheen: Al-Shaheen

Upper Zakum: Upper Zakum

Das Blend: Lower Zakum, Umm Shaif, Nasr, El Bunduq, Abu Al Bukhoosh

Arab Light: Ghawar, Khurais, Abu Hadriya

Saharan Blend: Hassi Messaoud

Murban: Murban

Platts' Midstream Carbon Intensity calculation measures the impact of GHG emissions using different freight, rail, or pipeline routes to major demand destinations. For a specific crude, observing the upstream CI and then looking at the freight/pipeline route to the refinery will provide an all-in carbon intensity up to the refinery-gate.

When calculating the midstream carbon intensity, Platts has chosen one major route, taking crude from each field, and each grade, to its most typical refinery gate.

Platts will periodically review the Midstream CI Calculations and will update them as needed.

Below are the assumptions that Platts has taken into consideration when calculating the midstream carbon intensity for each field, and by shipping route.

Crude Grade Upstream carbon intensity symbols

Crude Grade	Upstream CI KgC02e/bbl	Upstream CI Premium $/bbl	Currency	UOM
Bates	u	c		
WTI Midland	WXTIC40	WXTIC00	USD	CBL
Troll	TXROC40	TXROC00	USD	CBL
Oseberg	OXSEC40	OXSEC00	USD	CBL
Ekofisk	EXKOC40	EXKOC00	USD	CBL
Forties	FXORC40	FXORC00	USD	CBL
Brent	BXREC40	BXREC00	USD	CBL
Dubai	AGINI40	AGINA00	USD	CBL
Oman	AGINJ40	AGINB00	USD	CBL
Al-Shaheen	AGINK40	AGINC00	USD	CBL
Upper Zakum	AGINL40	AGIND00	USD	CBL
Das Blend	AGINM40	AGINE00	USD	CBL
Arab Light	AGINN40	AGINF00	USD	CBL
Saharan Blend	AGINO40	AGING00	USD	CBL
Murban	AGINP40	AGINH00	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgC02e/boe	Upstream CI Premium $/boe	Transport Route	Transport CI KgC02e/bbl	Transport CI Premium $/bbl	Currency	UOM
Bates:	U	c		u	c		
Alpine	ALPIC40	ALPIC00	Alaska to West Coast	ALPIC50	ALPIC10	USD	CBL
Alvheim	ALVHC40	ALVHC00	Alvheim to Havre	ALVHC50	ALVHC10	USD	CBL
Anadarko	ANADC40	ANADC00	Oklahoma to Gulfcoast	ANADC50	ANADC10	USD	CBL
Appomattox	APPOC40	APPOC00	Appomattox to Changxing	APPOC50	APPOC10	USD	CBL
Atlantis	ATLAC40	ATLAC00	Atlantis to Qingdao	ATLAC50	ATLAC10	USD	CBL
Auger	AUGEC40	AUGEC00	Auger to Qingdao	AUGEC50	AUGEC10	USD	CBL
Bakken	BAKNC40	BAKNC00	Beaumont to Rotterdam	BAKNC50	BAKNC10	USD	CBL
Bakken-Canada	BAKKC40	BAKKC00	Canada to Midwest	BAKKC50	BAKKC10	USD	CBL
Big-Foot	BIGMC40	BIGMC00	Bigfoot to Daesan	BIGCC50	BIGCC10	USD	CBL
Buzzard	BZRDC40	BZRDC00	Houndpoint to Rotterdam	BZRDC50	BZRDC10	USD	CBL
CA-Coast	CAMCC40	CAMCC00	Kern to SoCal	CAMCC50	CAMCC10	USD	CBL
Cantarell	CNTLC40	CNTLC00	Cantarell to Bilbao	CNTLC50	CNTLC10	USD	CBL
Captain	CAPTC40	CAPTC00	Captain to Hamburg	CAPTC50	CAPTC10	USD	CBL
Cardium Shale	CARDC40	CARDC00	Cardium to Canada	CARDC50	CARDC10	USD	CBL
Catcher	CATCC40	CATCC00	Catcher to Rotterdam	CATCC50	CATCC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgC02e/boe	Upstream CI Premium $/boe	Transport Route	Transport CI KgC02e/bbl	Transport CI Premium $/bbl	Currency	UOM
Bates:	U	c		u	c		
Chinook	CHINC40	CHINC00	Chinook to Changxing	CHINC50	CHINC10	USD	CBL
Clair	CLAIC40	CLAIC00	Claire to Stanlow	CLAIC50	CLAIC10	USD	CBL
Cold-Lake	CDLKC40	CDLKC00	Canada - US Midwest	CDLKC50	CDLKC10	USD	CBL
CVE Christina Lake	CVECC40	CVECC00	Canada to Midwest	CVECC50	CVECC10	USD	CBL
Denver-Julesburg	DENVC40	DENVC00	Denver to Gulfcoast	DENVC50	DENVC10	USD	CBL
Devils-Tower	DEVIC40	DEVIC00	Devils to Daesan	DEVIC50	DEVIC10	USD	CBL
Eagle Ford	EGFDC40	EGFDC00	Houston to Qingdao	EGFDC50	EGFDC10	USD	CBL
Edvard-Grieg	EDVAC40	EDVAC00	Edvard-Grieg to Sarroch	EDVAC50	EDVAC10	USD	CBL
Ekofisk	EKFSC40	EKFSC00	Teesside to Rotterdam	EKFSC50	EKFSC10	USD	CBL
Europa	EUROC40	EUROC00	Europa to Daesan	EUROC50	EUROC10	USD	CBL
Firebag	FIREC40	FIREC00	Canada to Midwest	FIREC50	FIREC10	USD	CBL
Foster Creek	FOSTC40	FOSTC00	Canada to Gulfcoast	FOSTC50	FOSTC10	USD	CBL
Ghawar	GHWRC40	GHWRC00	Ras Tanura to Qingdao	GHWRC50	GHWRC10	USD	CBL
Girassol	GRSLC40	GRSLC00	Girassol to Qingdao	GRSLC50	GRSLC10	USD	CBL
Golden-Eagle	GOLDC40	GOLDC00	Golden-Eagle to Grangemouth	GOLDC50	GOLDC10	USD	CBL
Goliat	GOLIC40	GOLIC00	Goliat to Rotterdam	GOLIC50	GOLIC10	USD	CBL
Grane	GRANC40	GRANC00	Sture to Immingham	GRANC50	GRANC10	USD	CBL
Great-White	GREAC40	GREAC00	Great-White to Changxing	GREAC50	GREAC10	USD	CBL
Gulf-Coast-Louisiana	GULFC40	GULFC00	Lousiana to Texas	GULFC50	GULFC10	USD	CBL
Gullfaks	GULLC40	GULLC00	Gullfaks to Brofjorden	GULLC50	GULLC10	USD	CBL
Hebron	HEBRC40	HEBRC00	Hebron to Canada	HEBRC50	HEBRC10	USD	CBL
Heidrun	HEIDC40	HEIDC00	Heidrun to Rotterdam	HEIDC50	HEIDC10	USD	CBL
Hibernia	HIBEC40	HIBEC00	Hibernia to Canada	HIBEC50	HIBEC10	USD	CBL
Horn-Mountain	HORNC40	HORNC00	Horn-Mountain to Qingdao	HORNC50	HORNC10	USD	CBL
Ivar-Aasen	IVARC40	IVARC00	Ivar-Aasen to Rotterdam	IVARC50	IVARC10	USD	CBL
Jack	JAKKC40	JAKKC00	Jack to Qingdao	JAKKC50	JAKKC10	USD	CBL
Jackfish	JACKC40	JACKC00	Canada to Midwest	JACKC50	JACKC10	USD	CBL
John Sverdrup	JSVRC40	JSVRC00	Mongstad to Rotterdam	JSVRC50	JSVRC10	USD	CBL
Julia	JULIC40	JULIC00	Julia to Daesan	JULIC50	JULIC10	USD	CBL
Kirby Lake	KIRBC40	KIRBC00	Canada to Midwest	KIRBC50	KIRBC10	USD	CBL
Kirkuk	KIRKC40	KIRKC00	Ceyhan to Rotterdam	KIRKC50	KIRKC10	USD	CBL
Kraken	KRAKC40	KRAKC00	Kraken to Rotterdam	KRAKC50	KRAKC10	USD	CBL
Kuparuk-River	KUPAC40	KUPAC00	Alaska to US West Coast	KUPAC50	KUPAC10	USD	CBL
Leo	LEOMC40	LEOMC00	Leo to Daesan Coast	LEOCC50	LEOCC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgC02e/boe	Upstream CI Premium $/boe	Transport Route	Transport CI KgC02e/bbl	Transport CI Premium $/bbl	Currency	UOM
Bates:	U	c		u	c		
Long Lake	LONGC40	LONGC00	Canada to Midwest	LONGC50	LONGC10	USD	CBL
Lucius	LUCSC40	LUCSC00	Lucius to Qingdao	LUCSC50	LUCSC10	USD	CBL
MacKay River	MCKAC40	MCKAC00	Canada to Rockies	MCKAC50	MCKAC10	USD	CBL
Mad-Dog	MADAC40	MADAC00	Mad-Dog to Changxing	MADAC50	MADAC10	USD	CBL
Mariner	MARIC40	MARIC00	Mariner to Pascagoula	MARIC50	MARIC10	USD	CBL
Mars-Ursa	MRURC40	MRURC00	Mars to Qingdao	MRURC50	MRURC10	USD	CBL
MEG Christina Lake	MEGCC40	MEGCC00	Canada to Gulfcoast	MEGCC50	MEGCC10	USD	CBL
Montney Shale	MONTC40	MONTC00	Montney to to	MONTC50	MONTC10	USD	CBL
Oseberg	OSEBC40	OSEBC00	Sture to Rotterdam	OSEBC50	OSEBC10	USD	CBL
Permian-Delaware	PRDLC40	PRDLC00	Corpus Christi to Rotterdam	PRDLC50	PRDLC10	USD	CBL
Permian-Midland	PRMDC40	PRMDC00	Corpus Christi to Rotterdam	PRMDC50	PRMDC10	USD	CBL
Permian-Other	PERMC40	PERMC00	Corpus to Qingdao	PERMC50	PERMC10	USD	CBL
Powder-River	POWDC40	POWDC00	Wyoming to Gulfcoast	POWDC50	POWDC10	USD	CBL
Primrose/Wolf Lake	PRMWC40	PRMWC00	Canada to Midwest	PRMWC50	PRMWC10	USD	CBL
Prudhoe-Bay	PRUDC40	PRUDC00	Alaska to West Coast	PRUDC50	PRUDC10	USD	CBL
Salina	SALIC40	SALIC00	Kansas to Gulfcoast	SALIC50	SALIC10	USD	CBL
San-Joaquin	SANMC40	SANMC00	San-Joaquin to Socal	SANAC50	SANAC10	USD	CBL
Schiehallion	SCHIC40	SCHIC00	Schiellhallion to Rotterdam	SCHIC50	SCHIC10	USD	CBL
Schrader-Bluff	SCHRC40	SCHRC00	Alaska to US West Coast	SCHRC50	SCHRC10	USD	CBL
SCOOP-STACK	SCOOC40	SCOOC00	Oklahoma to Gulfcoast	SCOOC50	SCOOC10	USD	CBL
Shenzi	SHENC40	SHENC00	Shenzi to Daesan	SHENC50	SHENC10	USD	CBL
Snorre	SNORC40	SNORC00	Snorre to Statfjord	SNORC50	SNORC10	USD	CBL
Statfjord	STATC40	STATC00	Statfjord to Rotterdam	STATC50	STATC10	USD	CBL
Stones	STONC40	STONC00	Stones to Daesan	STONC50	STONC10	USD	CBL
Sunrise	SUNRC40	SUNRC00	Canada to Midwest	SUNRC50	SUNRC10	USD	CBL
Surmont	SURMC40	SURMC00	Canada to Gulfcoast	SURMC50	SURMC10	USD	CBL
Tahiti	TAHIC40	TAHIC00	Tahiti to Yeosu	TAHIC50	TAHIC10	USD	CBL
Tengiz	TNGZC40	TNGZC00	Novo to Rotterdam	TNGZC50	TNGZC10	USD	CBL
Thunder-Horse	THUNC40	THUNC00	Thunder-Horse to Qingdao	THUNC50	THUNC10	USD	CBL
Troll	TROLC40	TROLC00	Mongstad to Rotterdam	TROLC50	TROLC10	USD	CBL
Tupi	TUPIC40	TUPIC00	Rio to Qingdao CI	TUPIC50	TUPIC10	USD	CBL
Uinta	UINTC40	UINTC00	Northeast to Gulfcoast	UINTC50	UINTC10	USD	CBL
Utica	UTICC40	UTICC00	Northeast to Gulfcoast	UTICC50	UTICC10	USD	CBL
Valhall	VALHC40	VALHC00	Valhall to Rotterdam	VALHC50	VALHC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgC02e/boe	Upstream CI Premium $/boe	Transport Route	Transport CI KgC02e/bbl	Transport CI Premium $/bbl	Currency	UOM
Bates:	U	c		u	c		
Viking Shale	VIKIC40	VIKIC00	Canada to Midwest	VIKIC50	VIKIC10	USD	CBL
Agbami	AGBAC40	AGBAC00	Agbami to Paradip	AGBAC50	AGBAC10	USD	CBL
Azeri	AZERC40	AZERC00	Ceyhan to Sarroch	AZERC50	AZERC10	USD	CBL
Bombay High	MUMBC40	MUMBC00	Bombay High to Qingdao	MUMBC50	MUMBC10	USD	CBL
Bonga	BONGC40	BONGC00	Bonga to Rotterdam	BONGC50	BONGC10	USD	CBL
Bozhong	BOZHC40	BOZHC00	Bohai Pengbo to Singapore	BOZHC50	BOZHC10	USD	CBL
Burgan	BURGC40	BURGC00	Mina to Ulsan	BURGC50	BURGC10	USD	CBL
Cusiana	CUSIC40	CUSIC00	Tolu to Houston	CUSIC50	CUSIC10	USD	CBL
Dukhan	DUKHC40	DUKHC00	Mesaieed to Singapore	DUKHC50	DUKHC10	USD	CBL
Fateh	FATEC40	FATEC00	Fateh to Kiire	FATEC50	FATEC10	USD	CBL
Marun	MARUC40	MARUC00	Kharg Island to Qingdao	MARUC50	MARUC10	USD	CBL
Murban	MURBC40	MURBC00	Fujairah to Chiba	MURBC50	MURBC10	USD	CBL
Orinoco Oil Belt	ORINC40	ORINC00	Jose to Sikka	ORINC50	ORINC10	USD	CBL
Rumaila	RUMAC40	RUMAC00	Al Basrah to Sikka	RUMAC50	RUMAC10	USD	CBL
Sacha	SACHC40	SACHC00	Esmeraldas to Long Beach	SACHC50	SACHC10	USD	CBL
Safaniya	SAFAC40	SAFAC00	Ras Tanura to Changxing	SAFAC50	SAFAC10	USD	CBL
Samotlor	SAMOC40	SAMOC00	Primorsk to Rotterdam	SAMOC50	SAMOC10	USD	CBL
Waha	WAHAC40	WAHAC00	Zawia to Augusta	WAHAC50	WAHAC10	USD	CBL
West Qurna	WESTC40	WESTC00	Al Basrah to Sikka	WESTC50	WESTC10	USD	CBL
Zubair	ZUBAC40	ZUBAC00	Al Basrah to Sikka	ZUBAC50	ZUBAC10	USD	CBL
Zuluf	ZULUC40	ZULUC00	Ras Tanura to Changxing	ZULUC50	ZULUC10	USD	CBL
Alwyn North	ALWYC40	ALWYC00	Sullom Voe to Rotterdam	ALWYC50	ALWYC10	USD	CBL
Arbroath	ARBRC40	ARBRC00	Houndpoint to Rotterdam	ARBRC50	ARBRC10	USD	CBL
Auk	AUKCC40	AUKCD00	Teeside to Rotterdam	AUKCC50	AUKCC10	USD	CBL
Brae	BRAEC40	BRAEC00	Houndpoint to Rotterdam	BRAEC50	BRAEC10	USD	CBL
Brage	BRAGC40	BRAGC00	Sture to Brofjorden	BRAGC50	BRAGC10	USD	CBL
Bruce	BRUCC40	BRUCC00	Houndpoint to Rotterdam	BRUCC50	BRUCC10	USD	CBL
Clyde	CLYDC40	CLYDC00	Teeside to Rotterdam	CLYDC50	CLYDC10	USD	CBL
Cormorant	CORMC40	CORMC00	Sullom Voe to Rotterdam	CORMC50	CORMC10	USD	CBL
Embla	EMBLC40	EMBLC00	Teeside to Rotterdam	EMBLC50	EMBLC10	USD	CBL
Everest	EVERC40	EVERC00	Houndpoint to Rotterdam	EVERC50	EVERC10	USD	CBL
Forties	FORTC40	FORTC00	Houndpoint to Rotterdam	FORTC50	FORTC10	USD	CBL
Fram	FRAMC40	FRAMC00	Mongstad to Rotterdam	FORTD50	FORTD10	USD	CBL
Gannet	GANNC40	GANNC00	Teeside to Rotterdam	GANNC50	GANNC10	USD	CBL

Crude Upstream and Midstream carbon intensity symbols

Crude Field	Upstream CI KgC02e/boe	Upstream CI Premium $/boe	Transport Route	Transport CI KgC02e/bbl	Transport CI Premium $/bbl	Currency	UOM
Bates:	U	c		u	c		
Joanne	JOANC40	JOANC00	Teeside to Rotterdam	JOANC50	JOANC10	USD	CBL
Judy	JUDYC40	JUDYC00	Teeside to Rotterdam	JUDYC50	JUDYC10	USD	CBL
Magnus	MAGNC40	MAGNC00	Sullom Voe to Rotterdam	MAGNC50	MAGNC10	USD	CBL
Nelson	NELSC40	NELSC00	Houndpoint to Rotterdam	NELSC50	NELSC10	USD	CBL
Ninian	NINIC40	NINIC00	Sullom Voe to Rotterdam	NINIC50	NINIC10	USD	CBL
Scott	SCOTC40	SCOTC00	Houndpoint to Rotterdam	SCOTC50	SCOTC10	USD	CBL
Tiffany	TIFFC40	TIFFC00	Houndpoint to Rotterdam	TIFFC50	TIFFC10	USD	CBL
Toni	TONIC40	TONIC00	Houndpoint to Rotterdam	TONIC50	TONIC10	USD	CBL
Ula	ULACC40	ULACC00	Teeside to Rotterdam	ULACC50	ULACC10	USD	CBL
Falah	AMRGN40	AMRGA00	Falah to Kiire	ASITN50	ASITA10	USD	CBL
Rashid	AMRGO40	AMRGB00	Mina to Kiire	ASITO50	ASITB10	USD	CBL
Upper Zakum	AMRGP40	AMRGC00	Zirku to Zhoushan	ASITP50	ASITC10	USD	CBL
Lower Zakum	AMRGQ40	AMRGD00	Zirku to Sikka	ASITQ50	ASITD10	USD	CBL
Al-Shaheen	AMRGR40	AMRGE00	Al-Shaheen to Singapore	ASITR50	ASITE10	USD	CBL
Oman Basin	AMRGS40	AMRGF00	Salalah to Tranmere	ASITS50	ASITF10	USD	CBL
Hassi Messaoud	AMRGT40	AMRGG00	Skikda to Tranmere	ASITT50	ASITG10	USD	CBL
Khurais	AMRGU40	AMRGH00	Ras Tanura to Ain Sukhna	ASITU50	ASITH10	USD	CBL
Abu Hadriya	AMRGV40	AMRGI00	Ras Tanura to Ain Sukhna	ASITV50	ASITI10	USD	CBL
Umm Shaif	AMRGW40	AMRGJ00	Zirku to Sikka	ASITW50	ASITJ10	USD	CBL
Nasr	AMRGX40	AMRGK00	Zirku to Sikka	ASITX50	ASITK10	USD	CBL
El Bunduq	AMRGY40	AMRGL00	Zirku to Sikka	ASITY50	ASITL10	USD	CBL
Abu Al Bukhoosh	AMRGZ40	AMRGM00	Zirku to Sikka	ASITZ50	ASITM10	USD	CBL

Shipping assumptions

- Vessel and cargo size: Aframax with 600K barrels
- Load Factor: 0.8
- Speed: 12.5 knots
- Fuel: LSFO

Heating of cargo or volume losses are not accounted for.

The CI 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 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,

Its goal is to increase transparency into the CI of each crude and each route, and provide an indication of the cost associated with the carbon being accounted for through the purchase of voluntary carbon credits.

Refined products carbon intensity symbols

Refined product	CI KgCO2e/bbl	CI Premium $/bbl	Region	Currency	UOM
Bates:	u	c			
Gasoil 10ppm FOB Singapore Cargo	ALCEG00	ALCEH00	Southeast Asia	USD	CBL
Gasoline Unl 92 FOB Singapore Cargo	ALCEI00	ALCEJ00	Southeast Asia	USD	CBL
Jet Kero FOB Singapore Cargo	ALCEK00	ALCEL00	Southeast Asia	USD	CBL

Refined product	CI KgCO2e/gal	CI Premium $/gal	Region		
Bates:	u	c			
Gasoline CBOB USGC Prompt Pipeline	ALCEM00	ALCEN00	US Gulf Coast	USD	CBG
Jet Kero 54 USGC Prompt Pipeline	ALCEO00	ALCEP00	US Gulf Coast	USD	CBG
ULSD USGC Prompt Pipeline	ALCEQ00	ALCER00	US Gulf Coast	USD	CBG

Refined product	CI KgCO2e/mt	CI Premium $/mt	Region		
Bates:	u	c			
Gasoline Eurobob (E5) FOB NWE Barge	ALCEA00	ALCEB00	Northwest Europe	USD	CBT
Jet FOB NWE Barge	ALCEC00	ALCED00	Northwest Europe	USD	CBT
ULSD 10ppm FOB NWE Barge	ALCEE00	ALCEF00	Northwest Europe	USD	CBT

Refined Products

The CI 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. The marginal downstream carbon intensity for these products will be calculated in the regional unit of measurement, e.g., kilograms of carbon dioxide equivalent per gallon (kgCO2eq/gal) for the USGC, kilograms of carbon dioxide equivalent per metric ton (kgCO2eq/MT) for NWE, and carbon dioxide equivalent per barrel (kgCO2eq/bbl) in South-East Asia. The overall calculated refined product carbon intensity reflects an aggregate of the different refinery configuration and crude runs based on weightings assigned to reflect the typical refinery operations in a region for a given quarter. The weightings are based on S&P Commodity Insights view on the contributions from the different refinery types, including hydroskimming, cracking, coking, and crude diet.

When calculating the carbon intensity of refined products, Platts looks at the quantity of greenhouse gas emissions of current stand-alone refinery operations from the refinery entrance gate to the exit. It does not include any transportation to an oil storage terminal or to end-use customers. The carbon intensity numbers are calculated using University of Calgary's Petroleum Refinery Life Cycle Inventory Model (PRELIM) v1.6, combined with proprietary research and data from S&P Global Commodity Insights.

The model is a mass and energy-based process unit-level tool for the estimation of energy use and GHG emissions associated with processing a variety of crude oils within a range of configurations in a refinery. Platts uses a bottom-up approach with detailed data from Commodity Insights analytics databases, such as refinery type, crude runs and yields, to calibrate and customise the hypothetical refinery configurations that are modelled on PRELIM to reflect the region's current refining operations. The refinery configurations Platts models include hydroskimming, cracking (hydrocracking and/or FCC) and coking (hydrocracking and/or FCC), broken down by the existing capacity present in each region. Crude grades are selected based on the typical composition processed by the refinery (i.e., light/sweet, heavy/sour) for widely traded crude grades in that region. Changes in crude slate and runs are assessed every month/quarter.

Revision History

September 2023: Platts completed an annual review of the Carbon Intensity Methodology, with updates to language throughout for concision and clarity.

July 2023: Platts added additional crude grades, fields, and transport routes.

November 2022: Platts completed an Annual Review of the Carbon Intensity Methodology. Platts added the Refined Products Carbon Intensity methodology.

June 2022: Platts added additional crude fields. Platts began publishing the carbon intensity of Brent, Forties, Oseberg, Ekofisk, Troll and WTI Midland crude grades.

February 2022: additional fields were added

November 2021: Additional fields were added and fuel for shipping assumptions was adjusted from High Sulfur Fuel Oil (HSFO) to Low Sulfur Fuel Oil (LSFO). Clarified significant decimal places.

October 2021: Guide was created