February 2025

FAQ: Argus bio-LNG dob northwest Europe

What has *Argus* launched?

Argus has launched a new weekly price for waste-based bio-LNG bunkers delivered on board in northwest Europe. This price is based on the sum of three *Argus* prices;

- TTF front-month natural gas
- The LNG dob northwest Europe bunker premium to the TTF front-month
- Current year Dutch waste-based renewable gas guarantees of origin (RGGO)

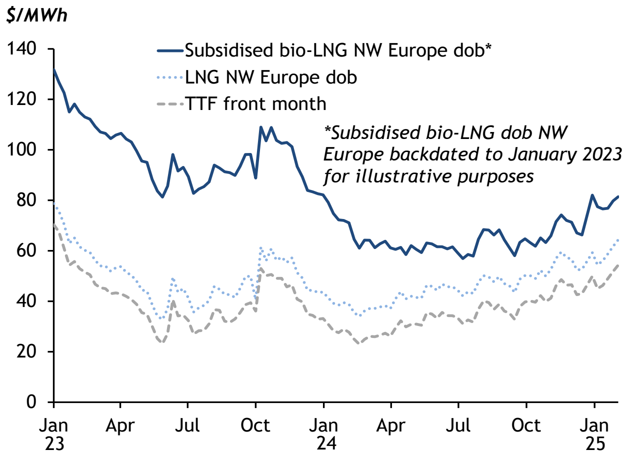
Also included is the regulated bio-LNG liquefaction fee charged by grid operator Fluxys at Belgium's Zeebrugge terminal for short-term capacity.

Two indexes are available, calculated separately using subsidised and unsubsidised RGGO prices. Bio-LNG bunker prices are published in €/MWh and $/mn Btu as outright values and as differentials to the TTF front-month and northwest Europe fossil-LNG bunker prices.

How can this price be used?

Shipowners and bunker suppliers entering supply contracts are looking to price bio-LNG as a premium to existing TTF-linked LNG contracts. The Argus price allows counterparties to pin down the bio-LNG bunker premium. The price can also be used on an outright basis for contract and analysis purposes.

Subsidised bio-LNG premium to LNG and TTF

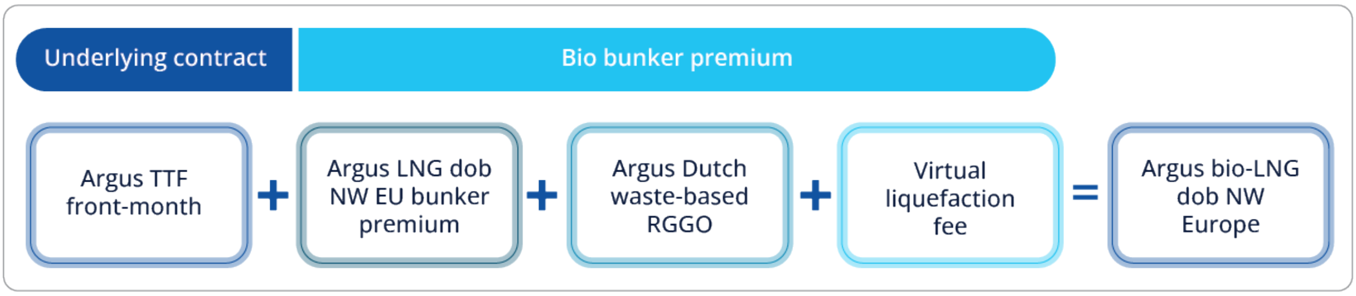


Why is demand for bio-LNG rising?

The EU's FuelEU Maritime legislation is driving bio-LNG demand today, and the International Maritime Organisation's greenhouse gas (GHG) emissions reduction strategy is expected to bolster demand from 2030.

FuelEU Maritime came in to effect at the start of this year. It sets a 2pc full-lifecycle GHG reduction mandate, which rises to 6pc from 2030 and 80pc from 2050. This EU-level regulation has global consequences, with all commercial and passenger ships of 5,000 gross tonnes and above calling at EU and European Economic Area ports required to meet 100pc of the target, and vessels entering EU waters from overseas ports required to meet 50pc of the target.

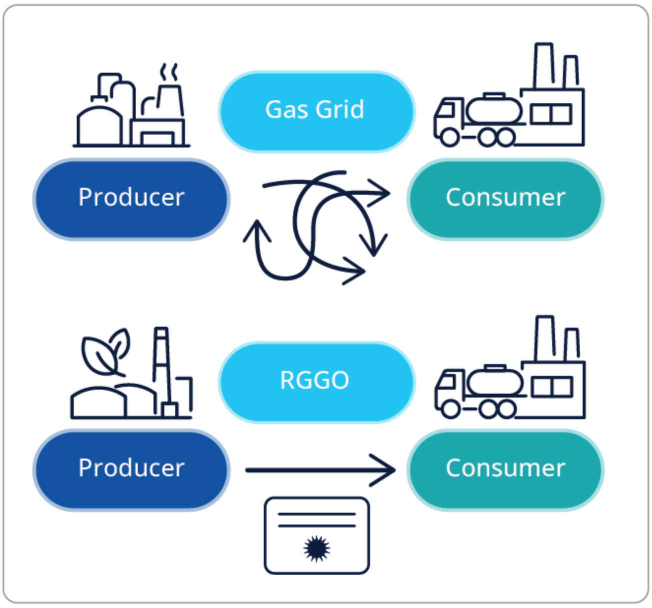
For shipowners with LNG capability in their fleet, waste-based bio-LNG offers a GHG reduction of 68-206pc against a



fossil comparator of 94g of CO_2 equivalent/MJ, depending on feedstock and production. So shipowners with LNG vessels can achieve a large GHG reduction by mass balancing a portion of bio-LNG to:

- Meet FuelEU Maritime compliance targets
- Generate overcompliance that can be spread across a shipowners fleet under FuelEU's pooling mechanism
- Sell overcompliance to other shipowners, generating a new revenue stream

The benefits of mass-balancing a higher percentage of bio-LNG will become even more profound from 2030 when the IMO's GHG emission strategy kicks in for international shipping, setting a full lifecycle GHG emission reduction of 20pc from 2030, 70pc by 2040 and 100pc by 2050.



How is the market starting to trade bio-LNG for bunkering in northwest Europe?

Current bunkering of bio-LNG requires no physical operational or logistical changes for companies already bunkering fossil LNG. At the point of liquification, the RGGO is tied to the physical volume attributing green molecules from the grid to the bunker volume. Shipowners have been trialling this process with suppliers and verifiers to ensure that volumes bunkered throughout the year will meet FuelEU Maritime compliance requirements at the end of the reporting year.

What does RGGO mean and why are they used?

A RGGO is a digital certificate that says that 1MWh of green biomethane from waste or crop feedstock has been injected into the gas grid. RGGOs allow biomethane to be tracked and traded even after it has been physically mixed with fossil gas in the pipeline network. RGGOs can be retained by the producer to meet decarbonisation targets or sold to companies looking to reduce their GHG emissions without physically changing the fuels they consume. RGGOs are retired when the green benefits are realised for that accounting year.

Argus publishes spot price assessments for RGGOs for the UK, German, Danish and Dutch markets. The *Argus* bio-LNG dob northwest Europe price includes waste-based RGGO costs only, as crop-based RGGOs are not eligible under FuelEU Maritime regulations.

Why does *Argus* publish subsidised and unsubsidised bio-LNG dob prices?

There is a lack of clarity on the eligibility of subsidised RGGOs under the FuelEU Maritime regulation at present. Some companies use the subsidised RGGO price to pin down the bio-premium while they wait for an update later this year, while others prefer to use an unsubsidised linked price. *Argus* is publishing both options to provide the market with a choice and to facilitate tracking of the unsubsidised price differential.

What is the difference between a subsidised and unsubsidised RGGO?

Most countries in the EU offer some form of subsidy, feed-in-tariff, tax exemption or other form of financial incentive to encourage growth of the biomethane market and to reduce investment risk. Subsidy schemes vary greatly between EU states, and so too can RGGO prices.

It is not yet clear whether subsidised RGGOs will qualify under FuelEU Maritime regulations. *Argus* publishes bio-LNG prices calculated using both options to help track the difference between subsidised and unsubsidised prices.

For more information

This price is published in the ***Argus Biofuels*** and ***Argus LNG Daily*** daily spot price reports. For general queries on our global marine biodiesel price suite and to talk to one of our experts, please contact ***oil-products@argusmedia.com***.