2.1%

of ships carry 78% of the methane bill the EU ETS starts charging on 1 January 2026.

Built from the verified emission reports owners filed themselves.

WHAT CHANGES

On 1 January 2026, methane and N2O enter the EU ETS.

Until now the scheme priced CO2 only. From the 2026 reporting year, CH4 and N2O from EEA voyages are surrendered too — at the same EUA price, on emissions that are already measured and verified.

No trading pattern has to change for the invoice to arrive.

EUR 212m

a year in new liability across 16,961 ships — EUR 107m of it methane alone.

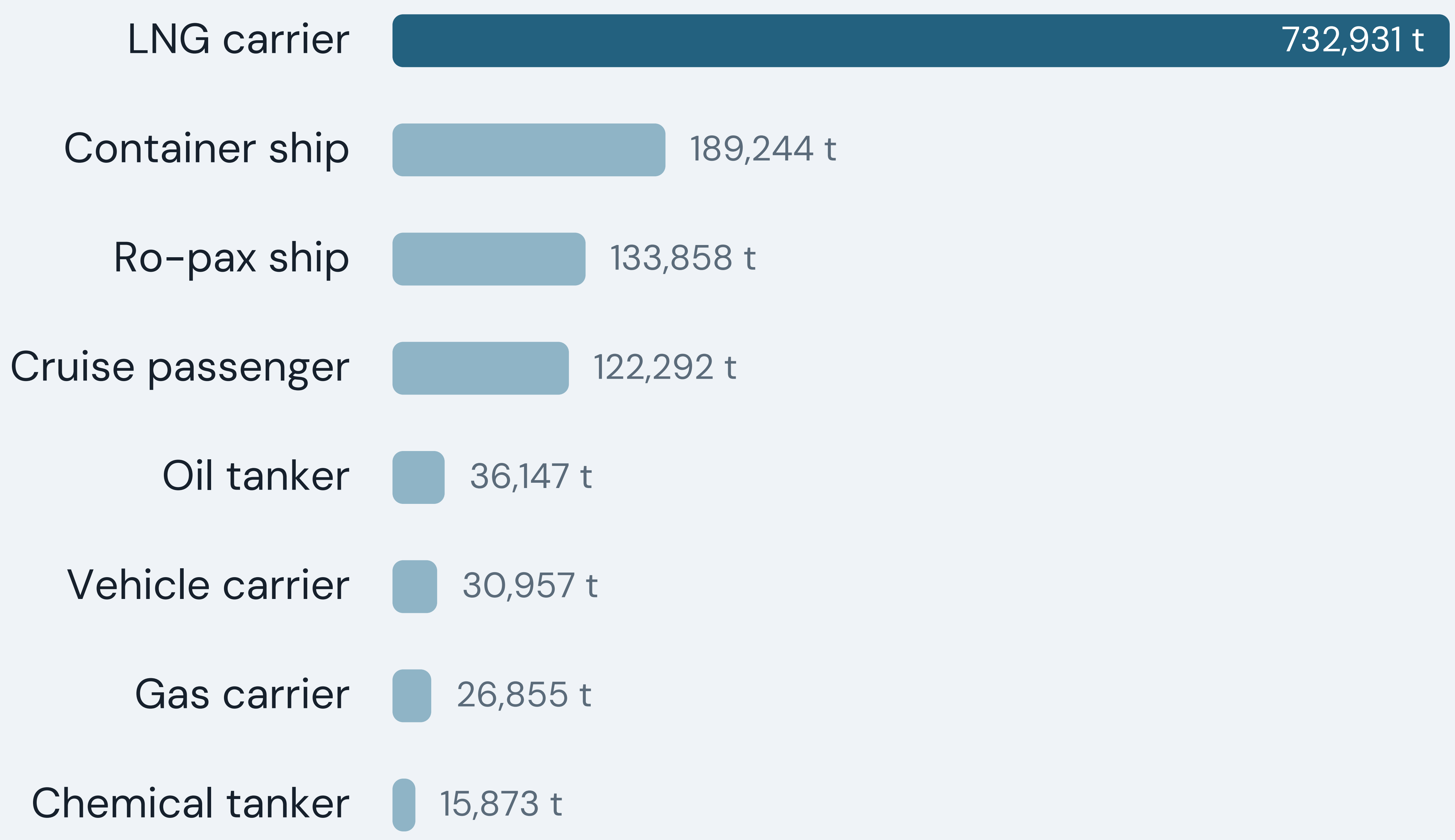
Priced at EUR 80 per tonne CO_2e. 1,342,231 t CO_2e of CH_4 and 1,303,392 t CO_2e of N_2O, AR5 GWP100, ETS-scope share only.

359 LNG-signature ships. 78% of the methane.

An LNG-signature ship reports CH_4 above 0.5% of its CO_2 by mass — the slip fingerprint of LNG and dual-fuel combustion. Conventional oil-fuel ships sit two orders of magnitude below that line.

The exposure is not spread across the fleet. It is concentrated in a group small enough to name.

CH4 IN CO2E BY SHIP TYPE · 2025



ETS-scope CH_4 expressed as CO_2e, AR5 GWP100 (28). Source: EU MRV 2025.

The median LNG-signature ship carries 2,050 t CO2e of methane.

That is roughly EUR 164,000 a year at EUR 80 per tonne — before a single change of route, charterer or fuel. At the 90th percentile, 5,999 t CO2e: about EUR 480,000.

Cruise passenger ships show the highest median of any type at 11,566 t CO2e.

Reproducible from the public export.

ets_scope_share = ETS-scope CO_2 / total CO_2, per ship, capped to [0,1]

ch4_co2e = total CH_4 x 28 x ets_scope_share   (AR5 GWP100, as used by FuelEU)

n2o_co2e = total N_2O x 265 x ets_scope_share

LNG signature = CH_4 > 0.5% of CO_2 by mass

Source: EU MRV verified emission reports (THETIS-MRV), reporting years 2024 and 2025, EMSA.

Three honest limits.

1. It is not a forecast. It prices emissions already reported for 2025 as if the 2026 scope had applied.
2. EUA prices move. Every figure scales linearly with the price you choose — the study lets you set it.
3. MRV self-reporting has gaps. Ships that filed no CH4 figure are counted as zero, so the total is a floor, not a ceiling.

TAKE THE DATA

Free, open, and yours to republish.

CSV and JSON: fullaheadmaritime.com/open-data

Live JSON API: /api/public/methane-uplift.json

Embeddable chart: /embed/methane

Full interactive study: /methane-slip-ets-cost

WHO BUILT THIS

Full Ahead AI Ship Manager

A predictive planned maintenance and compliance system for ship managers, owners and technical superintendents. Statutory registers, audit-ready evidence, FuelEU and EU ETS reporting — working offline at sea.

Built by Georgios Zografos, Chief Engineer and Technical Superintendent.

fullaheadmaritime.com