PUBLISHED MARKET RESEARCH

70% and Counting

The Second EU ETS Maritime Surrender, the Measurement Gap Around It, and What 100% Costs on a Cape Routing

AIG-SCL-26-002 · 14 SEPTEMBER 2026

PUBLIC RELEASE
THE AEGEAN REGISTER

THE AEGEAN REGISTER · PUBLISHED MARKET RESEARCH

70% and Counting

The Second EU ETS Maritime Surrender, the Measurement Gap Around It, and What 100% Costs on a Cape Routing

On 30 September 2026 every shipping company on the Commission's attribution list must surrender allowances covering 70% of its verified 2025 emissions. The obligation is unambiguous, the penalty is EUR 100 per tonne, and the enforcement ladder ends in port refusal and flag State detention. What does not exist is any public, timely measure of whether it was met: the only compliance figure ever published for a maritime surrender appeared nine weeks after the first deadline and counted allowances due rather than operators. The cost question has already moved on for container liner shippers, because four of the largest lines on the Europe trades have moved to 100% emissions accounting for emissions year 2026, three of them from 1 January. On the carriers' own statements this surrender settles a bill recovered through 2025 surcharges, and the live signal is that Maersk cut its Q4 Far East to North Europe surcharge by 27% while its own allowance reference rose 11%.

HEADLINE INDICATORS

5,298	70%	EUR 86.44	42.9%
COMPANIES ON THE ATTRIBUTION LIST	COEFFICIENT DUE 30 SEPTEMBER	EUA AUCTION CLEARING PRICE	COST STEP FROM 70% TO 100%

DOCUMENT CONTROL

REGISTER NUMBER	AIG-SCL-26-002 · formerly PMR-2026-0914-EU-001
PRODUCT	Assessment · Publishable Market Research · Maritime regulation
DESK	Supply Chain and Logistics
ISSUED	2026-09-14 · Aegean Intelligence Group
TIMELINESS	CURRENT
DISTRIBUTION	Public release · The Aegean Register · aegeanintel.com/research

CITE THIS REPORT
Aegean Intelligence Group, “70% and Counting,” AIG-SCL-26-002, The Aegean Register, 2026-09-14.

CENTRAL JUDGMENT

The second maritime surrender is not where the regulatory risk sits. The obligation is clear, the coefficient is clear, and the first cycle cleared at more than 99% of allowances due. What the second cycle exposes is an instrumentation problem. The European Union has built a compliance system over a mobile, largely foreign-domiciled population that grew from 2,104 attributed companies to 5,298 with effect from 1 January 2026, and it has not built a way to say publicly, at or near the deadline, how many of them complied. The measure that publishes is a share of allowances, tonnage-weighted and dominated by the largest and most compliant operators. The measure that would matter for enforcement, a count of companies that failed to surrender, is published by nobody on any date this desk could identify.

On the container liner trades the cost question has already been answered by the market, in the opposite direction to what the deadline implies. Those carriers moved to 100% accounting with methane and nitrous oxide for emissions year 2026, three of the four from 1 January 2026, and folded FuelEU Maritime into the same line, so this surrender settles a 2025 emissions year already recovered through 2025 surcharges, and the live commercial signal is a surcharge falling while its own disclosed input rises. That divergence could be a scope effect, if Asia to North Europe services have moved back onto the Suez routing and shortened the accountable leg; it could equally be a FuelEU component change, a change in the assumed cost per container, or competitive absorption on a soft lane. Maersk gives no reason, no canal transit count or routing dataset was collected for this brief, and the honest reading keeps all four open. Where the arithmetic bites is on routing, and it bites less than the calendar does: diverting an Asia to North Europe voyage around the Cape raises the ETS cost of that voyage by 30.2%, while stepping the same voyage from 70% to 100% raises it by 42.9%.

KEY JUDGMENTS

Six judgments anchor this brief. The first three establish what the obligation is and what the record around it does not measure; the last three price it.

KJ-1	The 30 September 2026 obligation is fixed and unconditional in the primary text. Article 12(3)(c) requires each shipping company to surrender allowances equal to its verified emissions for the preceding calendar year, and Article 3gb(b) sets the coefficient for verified 2025 emissions at 70 per cent.[1,2,3]	HIGH
KJ-2	No public source publishes an operator non-compliance count at or near the surrender deadline, and none is scheduled to. The only figure ever published for a maritime cycle appeared nine weeks late and stated a share of allowances due rather than of companies.[1,4,22]	HIGH
KJ-3	The population under the obligation more than doubled with effect from 1 January 2026. Aegean's row count of the two Annexes gives 5,298 companies against 2,104, with Germany, Greece and Spain administering 1,097, 1,028 and 976.[4,5,6]	HIGH
KJ-4	The 30 September surrender is a settlement, not a cost event. Four of the largest lines on the Europe trades moved to 100 per cent accounting for emissions year 2026, so the 2025 year now falling due was recovered through 2025 surcharges. Container liner trades only.[12]	MODERATE
KJ-5	On the ETS line alone, the phase-in step is the larger cost event. A Cape routing raises an Asia to North Europe voyage's ETS cost by 30.2 per cent, the 70 to 100 per cent step by 42.9 per cent. The ranking reverses only above a distance ratio near 1.43.[9]	LOW
KJ-6	Maersk's Q4 2026 surcharge moved opposite to its own stated input and the reason is not in the record: USD 57 per 20DRY against USD 78 in Q3, while the disclosed allowance reference rose from EUR 71.07 to EUR 78.97. Four explanations fit and none is stated.[12]	LOW

KEY STATISTICS

5,298 Attributed companies from 1 January 2026[5,6]	**70%** Coefficient on verified 2025 emissions[1]	**More than 99%** 2024 requirements met, by allowances[4]	**Nine weeks** Deadline to the only published figure[4]
89.8 Mt Verified 2024 emissions in ETS scope[4]	**54,243,768** Allowances cancelled from auction volume[4]	**EUR 86.44** EU common auction, 14 September 2026[7]	**USD 57** Maersk Q4 surcharge per 20DRY[12]

The 138.3 Mt and 89.8 Mt figures are not comparable and are printed together only to bracket the reported base; the Commission's stated deductions do not close the distance between them. See Section 02.

Scope, method, and limits

EVIDENCE BASE

Open-source intelligence only, collected 9 September 2026, with the EEX auction series refreshed 14 September. Primary sources are Directive 2003/87/EC consolidated, the MRV and FuelEU Regulations, both Implementing Decision Annexes counted by Aegean, and the 2025 Carbon Market Report.

CRITICAL LIMITATIONS

The 2024 compliance record rests on one document, so no High judgment rests on it alone. The Commission figures do not reconcile, near 84.6 Mt against a stated 89.8 Mt, and the gap is flagged rather than forced. Section 04 rests on one Tier 4 distance pair.

TIMELINESS

CURRENT, with a shelf life to the December publication window. Price and surcharges will move. Mechanics hold until the Article 3gg report and the July 2026 revision proposal are read, and the 2025 record cannot be read until a Commission publication states it.

SECTION 01 · ASSESSMENT

The Mechanics

What the Primary Text Requires on 30 September, Stated Exactly.

One deadline, one coefficient, one penalty and a three-rung enforcement ladder. Scope is geographic and the liable person is defined by operational responsibility rather than ownership, which is where the commercial exposure sits.

Article 12(3) of Directive 2003/87/EC, as amended by Directive (EU) 2023/959, requires Member States, administering Member States and administering authorities to ensure that by 30 September each year each shipping company surrenders allowances equal to its total emissions during the preceding calendar year, as verified under Article 15.[1] Article 3gb sets the phase-in: 40% of verified emissions reported for 2024, 70% for 2025, and 100% for 2026 and thereafter, with the difference between verified emissions and the phased coefficient for 2024 and 2025 cancelled from the auction volume rather than forgiven.[1,4] The widely repeated formulation that the ETS moved to 100% on 1 January 2026 is accurate about emissions years and misleading about deadlines: emissions from 1 January 2026 are surrendered at 100% on 30 September 2027, while the obligation falling due on 30 September 2026 is the 70% coefficient applied to calendar 2025 emissions.[1,2,23]

Scope under Article 3ga(1) is geographic rather than flag-based: 50% of emissions on a voyage between an EEA and a non-EEA port of call in either direction, 100% between two EEA ports of call, and 100% within an EEA port of call, for ships of 5,000 gross tonnage and above.[1,2] Article 3(z) excludes from "port of call" stops for refuelling, repairs, dry-docking or shelter, and stops of containerships in a neighbouring container transhipment port listed under Article 3ga(2). Two are listed under Implementing Regulation (EU) 2023/2297: Tanger Med and East Port Said, on criteria including a transhipment share above 65% and location within 300 nautical miles of an EEA port.[1,3] A containership therefore cannot break an Asia to North Europe voyage at either hub and halve the accountable leg, while a call at a non-listed non-EEA port does break it. That is the anti-evasion architecture, and Article 3gg(3) obliges the Commission to report biennially from 2024 on evasion, port-traffic shifts and transhipment hub movement.[1]

The liable person is Article 3(w)'s shipping company: the shipowner, or the manager or bareboat charterer that has assumed responsibility for operation and taken over all ISM Code duties. The Commission FAQ states that absent an explicit agreement the registered owner is responsible by default.[1,3] Article 3gc runs the cost the other way, entitling that company to reimbursement of surrender costs from any entity that has contractually assumed ultimate responsibility for fuel purchase or ship operation.[1] BIMCO's clause library now carries an ETS Clause for Memoranda of Agreement 2025 and a BARECON ETS Allowances Clause 2026; the clause text was not retrieved.[16] Article 3gf attributes each company to a Member State, by registration or, for non-EEA companies, by the greatest estimated number of port calls over four monitoring years.[1]

Enforcement has three rungs, all in Article 16. Paragraph 3 sets an excess emissions penalty of EUR 100 for each tonne of carbon dioxide equivalent not covered by 30 September, indexed under paragraph 4, and provides that payment does not release the operator from the obligation to surrender; paragraph 3a extends it to shipping companies. Paragraph 11a matters most for a mobile asset: after non-compliance for two or more consecutive reporting periods, and where other enforcement has failed, the Member State of the port of entry may issue an expulsion order, after which every Member State except the flag State shall refuse entry to that company's ships until it surrenders, and a flag Member State shall detain the ship.[1] The two-period condition is the point of construction: a company missing 30 September 2026 for the first time faces the penalty and national enforcement, but the expulsion rung cannot be reached before the third cycle.

Two dated items complete the mechanics. Methane and nitrous oxide enter ETS scope from emissions year 2026, so the 2026 surrender covers carbon dioxide only, and offshore ships of 5,000 gross tonnage and above enter scope from 2027.[3,4] And Article 3gg(5) requires the Commission, no later than 31 December 2026, to report on extending the Directive to ships of 400 to 5,000 gross tonnage and on lifecycle accounting for renewable and low-carbon fuels, with legislative proposals if appropriate.[1] No publication date has been announced.

> **ASSESSMENT · HIGH CONFIDENCE.**
>
> The regulatory question on 30 September 2026 is settled; the exposure question is contractual. Recommendation: for any charter, management or fuel-supply arrangement touching an EEA port call, establish in writing before the deadline which entity is the shipping company for Article 3(w) purposes and whether an Article 3gc reimbursement right is documented, rather than assuming a surcharge line on an invoice has allocated the risk. Rationale: the Directive names one liable party by ISM Code responsibility, defaults to the registered owner absent an explicit agreement, and enforces against the ship through port refusal and flag State detention once two consecutive periods are missed.[1,3]

SECTION 02 · ASSESSMENT

The Record and the Measurement Gap

One Cycle of Evidence, Published Nine Weeks Late, Counting the Wrong Unit.

The first surrender cleared at more than 99% of allowances due. That is the only compliance figure any named public source has stated for a maritime cycle, it is a tonnage-weighted share rather than a count of operators, and the population it will next be applied to has more than doubled.

The evidence base is one document. The Commission's 2025 Carbon Market Report, COM(2025) 735 of 3 December 2025, records at section 11.6.4 that shipping companies surrendered allowances for more than 99% of surrendering requirements by the legal deadline in the first maritime cycle, on figures reported in the Union Registry on 1 October 2025 (footnote 117).[4] It gives no count of non-compliant companies and reports no expulsion orders, detentions or maritime fines, while reporting for contrast that 31 stationary installations in nine countries were fined for insufficient surrender in 2024.[4]

The quantities behind the share matter because two do not reconcile. Verified maritime emissions in ETS scope for 2024 were 89.8 million tonnes of carbon dioxide on Union Registry figures at 15 October 2025. The requirement after deductions and the 40% coefficient was 35.6 million allowances, 39.6% of 89.8 Mt, and the 54.2 million difference is being cancelled from the auction volume, stated precisely as 54,243,768 allowances, in 2026.[4] Separately, on company-level THETIS-MRV reports at the same date, 3,313 companies reported 138.3 Mt under the broader MRV scope from 44.7 million tonnes of fuel across 13,627 ships.[4] The stated deductions do not bridge the two bases: 0.7 Mt zero-rated fuels, 48.6 Mt for the 50% extra-EEA rule, 3.9 Mt for islands, public service obligations and outermost regions, 0.5 Mt ice-class and 56 tonnes carbon capture, subtracted from 138.3 Mt, give about 84.6 Mt, not 89.8 Mt. The difference is about 5.2 Mt, roughly 6% of the ETS-scope total, and the report does not explain it. Both figures are reproduced as published, and a share whose denominator runs through a chain that does not visibly reconcile carries more uncertainty than two significant figures suggest.[4]

The population the second cycle applies to is materially different. Implementing Decision (EU) 2025/2452 of 5 December 2025, applying from 1 January 2026, replaced the Annex to Decision (EU) 2024/411.[5,6] Aegean counted the rows of both Annexes, one per IMO company number: 2,104 companies then, 5,298 now, the largest administering States being Germany with 1,097, Greece 1,028, Spain 976 and the Netherlands 537.[5,6] Those are Aegean's counts on published Annex tables, not figures printed in the Decisions; no published headline count of in-scope companies was found for this brief. Note also the first-cycle mismatch, 2,104 companies listed against 3,313 filing reports, so the denominator of any operator-count measure is itself a moving quantity.[4,5,6]

Which brings the section to its finding. There is no maritime surrender-compliance measure published at or near a deadline. The Directive imposes no publication duty on the date: Article 12(3) obliges authorities to ensure surrender and Article 16 obliges Member States to publish the names of operators in breach, but no statistic is required.[1] The Carbon Market Report is the vehicle that has carried the figure, at a precedent lag of about nine weeks.[4] The Agency's Union Registry dataset is an annual extract last versioned 8 July 2026, covering an emissions year whose maritime surrender was not yet due.[22] The EU Transaction Log publishes verified emissions, surrendered units and a compliance status code per account per year, so an operator-count measure is constructible once the Registry settles in autumn 2026, but only by account-level aggregation and with the population question unresolved.[27] EMSA's THETIS-MRV interface returned no content to automated retrieval, and per-ship 2025 reports due by 30 June 2026 under MRV Article 21 were not retrieved; that is a collection failure and is stated as one.

So an obligation binding 5,298 attributed companies falls due on 30 September 2026, and the earliest published aggregate is, on precedent, a December 2026 report stating a share of allowances rather than of operators. That makes the Article 16(11a) ladder hard to audit from outside, because its two-period condition presupposes a public record of a first default that no publication provides, and it leaves anyone using regulatory compliance as a counterparty screen with no published instrument between 30 September and December.

> **ASSESSMENT · HIGH CONFIDENCE.**
>
> The compliance question about the second maritime surrender is not answerable from any published aggregate on any date in the next ten weeks and can be answered only account by account; the answer that eventually arrives will be about allowances rather than operators. Recommendation: do not wait for a published rate; read the EU Transaction Log at account level for the counterparties that matter once the Registry settles in October, and treat the absence of an operator-count measure as a standing condition of this regime. Rationale: the Directive creates no deadline-linked publication duty, the only figure ever published came nine weeks late and counted allowances due, the Agency extract is annual and predates the obligation, and the reporting population is larger and differently bounded than the attribution list. Confidence is High because it rests on the structure of what is published by whom rather than on any single number, and on no source that was not read directly for this brief.[1,4,22]

SECTION 03 · ASSESSMENT

The Price

What an Allowance Costs, on the Series That Is Actually Public.

The settlement most often quoted for European allowances is behind a login. The primary auction clearing price is not, and it is the series this brief prices from and will resolve its forward claim against.

The price commonly quoted in shipping commentary is the ICE Endex EUA futures settlement, usually the December contract. It could not be read for this brief, because the ICE market data page returns no data without a login, so every ICE settlement figure is UNKNOWN here.[20] What is public and free is the primary market: the European Energy Exchange conducts the EU common auction and publishes clearing prices, volumes and cover ratios in a spreadsheet for each calendar year.[7]

On that series the EU common auction cleared at EUR 86.44 per tonne of carbon dioxide on Monday 14 September 2026, on a volume of 2,791,500 allowances at a cover ratio of 1.37, after EUR 85.16 on 10 September, EUR 84.40 on 8 September, EUR 83.45 on 7 September, EUR 82.84 on 3 September and EUR 81.30 on 1 September 2026.[7] That 14 September print is the most recent EU common auction on the report as re-read on 14 September 2026, and it is the price anchor used throughout this brief, including the voyage arithmetic in Section 04. Across 104 EU common auctions in 2026 up to and including 14 September the clearing price ranged from EUR 62.19 on 19 March to EUR 91.32 on 15 January. The comparable point on the first surrender day is EUR 75.95 on 30 September 2025, so allowances entering the second surrender window are about 14% dearer than entering the first.[7] Two points of mechanics matter. EU common auctions are held on Mondays, Tuesdays and Thursdays, so there is no auction on Wednesday 30 September 2026 and the last before the deadline falls on Tuesday 29 September; every auction date cited above falls on one of those three weekdays.[7] And the basis between the auction clearing price and the futures settlement carriers and hedgers actually quote is not measured here, because the futures series could not be read.[20]

The supply side carries one unresolved input and two dated ones. The Market Stability Reserve adjusts auction volumes to the total number of allowances in circulation; the Commission published the 2024 total on 28 May 2025 and scheduled the 2025 publication for 1 June 2026, but the 2026 figure was not on the page read for this brief, so the September 2026 to August 2027 intake is UNKNOWN.[21] The 54,243,768 allowances representing the 2024 difference between verified emissions and the 40% phase-in coefficient, which is a phase-in effect and not a compliance failure, are being cancelled from the 2026 auction volume, while the cap was raised from January 2026 to cover methane and nitrous oxide; 2026 issuance is 1,185,420,090 allowances for electricity and heat, industry and maritime transport plus 24,903,076 for aviation.[4] Which dominates on net is not calculable from what was retrieved and is stated here as unknown. On the demand side, the Commission's Market Stability Reserve page, updated 8 June 2026, refers to a July 2026 EU ETS revision proposal that would strengthen the existing ETS for aviation and maritime transport; it was not fetched and its maritime content is UNKNOWN.[21] That proposal would matter more here than any price move in the window and is the largest open question in this section.

> **ASSESSMENT · MODERATE CONFIDENCE.**
>
> Price the surrender off the auction series and say which series you used. Recommendation: for any accrual, valuation or surcharge reconciliation, name the price series, the date and the auction, because the difference between an auction clearing price, a futures settlement and a benchmark contract for difference is material at two significant figures. Rationale: the auction series is primary, free and published as a dated spreadsheet by the platform conducting the EU common auction, at EUR 86.44 per tonne on 14 September 2026, while the futures settlement usually quoted is login-gated. Confidence is Moderate because the series is single-platform and the forward supply position depends on a Market Stability Reserve figure and an ETS revision proposal that were not retrievable.[7,19,20,21]

SECTION 04 · ASSESSMENT

The Cape Arithmetic

One Voyage, Every Input, Every Step.

An Asia to North Europe container voyage priced for ETS at the 50% extra-EEA scope, at the 40%, 50%, 70% and 100% coefficients, on a stated vessel class, consumption assumption, emission factor and allowance price, then re-run around the Cape. Every figure below is reproducible from the inputs listed. The consumption figure is an assumption and is labelled as one.

Vessel class. Container ship of 14,500 to 19,999 twenty-foot equivalent units. The Fourth IMO Greenhouse Gas Study 2020, Table 35, gives for this class on 2018 fleet data: 16.5 knots average speed over ground at sea, 250 days at sea per year, and annual fuel per ship of 26.7 kilotonnes main engine, 3.7 kilotonnes auxiliaries and 0.6 kilotonnes boilers.[10] This is 2018 fleet-average data and a specific ship will differ.

Consumption assumption, stated as an assumption. Main engine fuel over days at sea: 26,700 divided by 250 is 106.8 tonnes per day. Auxiliary and boiler fuel burns in port as well, so it is spread over the full year: 4,300 divided by 365 is 11.8 tonnes per day. Total consumption assumed at sea is 118.6 tonnes of fuel per day; the bounds are 106.8 (main engine only) and 124.0 (all fuel charged to days at sea).

Speed, distance and emission factor. 16.5 knots is 396 nautical miles per day. Shanghai to Rotterdam is about 10,600 nautical miles via Suez and 13,800 via the Cape, from a single allowlisted routing reference graded Tier 4, which also gives passage times at 16 knots of about 27 and 35 days; the primary distance calculator preferred here was unreachable for this brief.[9] The arithmetic below produces 26.8 and 34.8 days at 16.5 knots, which is the cross-check on that pair. The emission factor is 3.114 tonnes of carbon dioxide per tonne of fuel, the Annex I factor of the consolidated MRV Regulation (EU) 2015/757 for heavy fuel oil of ISO 8217 grades RME to RMK.[11]

Very low sulphur fuel oil is not a separate Annex I row; it is a residual grade and takes that row on Aegean's reading. The "other fuels" alternative of 3.115 changes nothing at this precision.

Scope, coefficient and price. The voyage runs from a non-EEA to an EEA port of call, so 50% of its emissions are in scope under Article 3ga(1); the coefficient is 70% for 2025 emissions surrendered on 30 September 2026 and 100% thereafter, under Article 3gb.[1] The allowance price is EUR 86.44 per tonne of carbon dioxide, the EU common auction clearing price on 14 September 2026, the most recent EU common auction readable on the EEX 2026 report at the time of writing.[7]

Exclusions, stated. At-berth emissions in Rotterdam are in scope at 100% and are excluded; this is a voyage leg only. Methane and nitrous oxide are excluded because they enter scope only from emissions year 2026, and because converting their Annex I mass factors of 0.00005 and 0.00018 tonnes per tonne of fuel to carbon dioxide equivalent requires global warming potential values not verified for this brief: UNKNOWN. Ballast legs, intermediate calls, weather routeing and slow steaming are excluded. A Cape voyage calling at Tanger Med does not break the voyage, because Tanger Med is a listed transhipment port; a call at a non-listed non-EEA port would.[1,3]

The Suez routing, step by step

1. Passage time: 10,600 nautical miles divided by 396 nautical miles per day is 26.77 days.
2. Fuel burned: 26.77 days times 118.6 tonnes per day is 3,174 tonnes.
3. Carbon dioxide: 3,174 tonnes of fuel times 3.114 is 9,884 tonnes.
4. ETS scope at 50%: 4,942 tonnes.
5. At the 70% coefficient: 4,942 times 0.70 is 3,459 allowances.
6. At the 100% coefficient: 4,942 allowances.
7. Cost at EUR 86.44 per allowance: EUR 299,000 at 70% and EUR 427,000 at 100%.

The Cape routing, step by step

1. Passage time: 13,800 nautical miles divided by 396 nautical miles per day is 34.85 days.
2. Fuel burned: 34.85 days times 118.6 tonnes per day is 4,132 tonnes.
3. Carbon dioxide: 4,132 tonnes of fuel times 3.114 is 12,868 tonnes. Each step is carried to the printed precision, so recomputing from unrounded intermediates gives differences of a few tonnes.
4. ETS scope at 50%: 6,434 tonnes.
5. At the 70% coefficient: 6,434 times 0.70 is 4,504 allowances.
6. At the 100% coefficient: 6,434 allowances.
7. Cost at EUR 86.44 per allowance: EUR 389,000 at 70% and EUR 556,000 at 100%.

Reading the two together

The Cape routing costs EUR 90,000 more in allowances than the Suez routing at 70%, and EUR 129,000 more at 100%. Proportionally the increment is 30.2% in both cases, which it must be: at a fixed 50% scope and fixed consumption per day, ETS cost on this lane is linear in distance, and 13,800 divided by 10,600 is 1.302. The coefficient step is the larger lever: 70% to 100% raises the ETS cost by 42.9%, which is 1 divided by 0.7, on either routing, and it reaches the shipper who stayed on Suez as well as the one who diverted.

Per container, on a stated assumption of 17,000 nominal twenty-foot equivalent units at 85% utilisation, 14,450 laden units: the Cape leg carries EUR 26.94 per unit at 70% and EUR 38.49 at 100%; the Suez leg EUR 20.69 and EUR 29.56. These four are computed from the unrounded allowance counts, not from the rounded voyage totals above. Capacity and utilisation are unsourced assumptions.

Sensitivity, so the assumptions can be priced.

- **Consumption and price.** At 106.8 tonnes per day the Cape leg costs EUR 351,000 at 70% and EUR 501,000 at 100%; at 124.0 tonnes per day, EUR 407,000 and EUR 582,000, so the answer across the full consumption range is about 16% wide, from about 10% below the central figure to about 5% above it. At the 2026 auction low of EUR 62.19 the Cape leg costs EUR 280,000 at 70% and EUR 400,000 at 100%; at the high of EUR 91.32, EUR 411,000 and EUR 588,000.[7]
- **Method.** A second path within the same dataset avoids the speed and consumption assumptions by using the Study's carbon intensity per distance for the same class: mean 972.4 and median 1,059.5 kilogrammes of carbon dioxide per nautical mile, quartiles 787.3 and 1,107.0.[10] At the mean the Cape leg emits 13,419 tonnes against the 12,868 computed above, a difference of 4.3%, and costs EUR 406,000 at 70% and EUR 580,000 at 100%; at the median, 14,621 tonnes, EUR 442,000 and EUR 632,000. The two paths agree within about 5% at the mean. They are not independent, because both draw on the same 2018 Study, the same vessel class and the same distance figure, so this is an internal consistency check rather than corroboration.

For scale against the decision itself: the Cape leg burns 4,132 tonnes of fuel against 3,174 via Suez, and at the Ship & Bunker Rotterdam very low sulphur fuel oil assessment of USD 695.00 per tonne on 8 September 2026 that is about USD 2.87 million against USD 2.21 million, a difference of about USD 0.66 million.[8] The ETS increment is EUR 90,000 at 70% and EUR 129,000 at 100%. It is not stated here as a share of that fuel cost, because the fuel figure is in US dollars and no euro reference rate for 8 September 2026 could be read for this brief, so the two are left in their own currencies and not divided one by the other. On their face the ETS increment is a small fraction of the incremental fuel cost. Carbon is a second-order line on a first-order decision.

ASSESSMENT · LOW CONFIDENCE.

The regulatory calendar is a larger cost step on this lane than the routing choice, and both are small against fuel. Recommendation: model the 2027 surrender at 100% with methane and nitrous oxide as the planning case rather than the 2026 surrender at 70%, and hold the ETS line separately from the bunker line. Rationale: the coefficient step adds 42.9% against 30.2% for the full Cape diversion, and that diversion's ETS increment of EUR 90,000 at 70% is a small fraction of its incremental fuel cost of about USD 0.66 million, a comparison left in two currencies because no dated conversion rate could be read. Confidence is Low because the consumption figure is an assumption and the distance pair that decides the comparison rests on one Tier 4 source, and the second path through the same 2018 Study is a consistency check rather than corroboration.[7,8,9,10,11]

SECTION 05 · ASSESSMENT

The Pass-Through and FuelEU

Carriers Already Price 100%, and the Price Is Falling.

Four of the largest lines on the Europe trades moved to 100% emissions accounting with methane and nitrous oxide for emissions year 2026, three of them from 1 January, and bundled FuelEU into the same line. Every figure here is a carrier's own statement about container liner trades, a claim source rather than proof, and none of the four discloses its ETS and FuelEU split; nothing in this section speaks to the bulk, tanker and short-sea operators that make up most of the attributed population. So the 70% surrender settles a bill already collected, and the live signal is a surcharge moving against its own disclosed input.

Maersk operates a quarterly Emissions Surcharge referenced to the average European Union Allowance daily future price over a window ending 45 days before the quarter, covering both EU ETS and FuelEU compliance with no split.[12] The disclosed sequence on the Far East Asia to North Europe lane is: Q1 2026, reference EUR 76.75, USD 84 per 20DRY and USD 168 per 40DRY; Q3 2026, reference EUR 71.07, USD 78 and USD 155; Q4 2026, effective 1 October, reference EUR 78.97, USD 57 and USD 114.[12] Maersk's December 2025 notice attributes the step up into 2026 to the ETS increase from 70% to 100% with methane and nitrous oxide added, plus FuelEU costs.[12] Hapag-Lloyd stated in November 2025 that from 1 January 2026 allowances are due for 100% of verified carbon dioxide emissions and that its combined surcharge would rise by approximately 45% against 2025; its quarterly tables were not retrievable and its Q3 and Q4 2026 amounts are UNKNOWN.[13] ONE's Europe Environment Surcharge, effective 1 July 2026, is USD 102 per 20-foot and USD 204 per 40-foot on Asia to Europe, incorporating FuelEU and not applied to China exports.[14] MSC's advisory of 15 December 2025 estimates EUR 73 down to EUR 43 per twenty-foot equivalent unit on Far East to North Europe, with no allowance reference disclosed.[15]

Against Section 04 those levels are the right order of magnitude and mostly above the computed voyage cost, which is what a bundled surcharge should be. That section gives EUR 29.56 per unit at 100% on the Suez routing and EUR 38.49 on the Cape routing, one way, carbon dioxide only, excluding at-berth emissions and FuelEU, while Maersk's USD 57 per 20DRY and MSC's EUR 43 to EUR 73 per twenty-foot equivalent unit sit above it on their face by a margin that FuelEU, the non-carbon-dioxide gases, at-berth emissions, utilisation below 85% and a hedging margin could each occupy.[12,15] ONE's USD 102 per 20-foot is above all of them and the reason is not disclosed.[14] The Maersk and ONE figures are published in US dollars and the MSC and Section 04 figures in euros. They are not converted, because no notice states a rate and none could be read for this brief, so this is a comparison of orders of magnitude and not a ratio. Nothing here supports a finding of over-recovery or under-recovery, because the surcharges are bundled and the computed figure is deliberately partial.

The finding is the direction. Maersk's Q4 surcharge fell 26.9% against Q3 while the allowance reference published alongside it rose 11.1%.[12] Cost per tonne up, surcharge down, no reason given. Four explanations fit. One is a scope effect: if Asia to North Europe services have moved back onto the Suez routing, the accountable portion of the voyage shortens, and on Section 04's arithmetic a Cape routing carries 30.2% more ETS cost than a Suez routing for the same cargo, an increment of the same order as the observed 26.9% fall. Whether that shift has occurred is not established here. No canal transit count, routing dataset or named transit tracker was collected for this brief, and the firm's own dashboard is not a source for a fact about a strait, so the magnitude is the evidenced part of this explanation and the premise behind it is not. Two is a FuelEU component change: the 2025 compliance period closed on 30 April 2026 with pooling and banking recorded, and a carrier that ended it in surplus and banked would carry a lower FuelEU cost into the second period with no change in its ETS position. Three is a change in the assumed cost per container from utilisation or vessel mix, which would move the surcharge without any change in the cost per tonne. Four is competitive absorption on a lane where container rates have been falling. None is stated in any notice, and the first is the one this desk would test first because it is the only one with a testable magnitude.

FuelEU Maritime is the other half of the bundled line, and its 2026 calendar has already closed. Regulation (EU) 2023/1805 applies from 1 January 2025 and sets a reference greenhouse gas intensity of 91.16 grammes of carbon dioxide equivalent per megajoule, reduced by 2% from 2025 and on a ladder to 80% by 2050.[17] For the 2025 reporting year the dates were: report to the verifier by 31 January 2026 (Article 15(3)); verified report and compliance balance recorded in the FuelEU database by 31 March 2026 (Article 16(5)); banking and borrowing (Article 20(3)) and pool composition and allocation (Article 21(8)) recorded by 30 April 2026; verified balances before 1 May and deficits identified 1 June (Article 23(1)); penalty paid and the document of compliance issued by 30 June (Articles 23(2) and 22), with ships required to hold a valid document from 30

June (Article 24).[17,24] Every one of those dates has passed, so 2026 is the second reporting period and the first in which pooling has actually been exercised, on 2025 balances.

The penalty is EUR 2,400 per tonne of very low sulphur fuel oil energy equivalent at 41,000 megajoules per tonne, applied to the deficit under Annex IV Part B and escalated by 1 plus (n minus 1) divided by 10 for n consecutive deficit periods; pooling requires a positive total pool balance with no deficit ship worse off, and borrowing is capped at 2%, barred in consecutive periods and repaid at 1.1 times.[17] What none of that yields is an outcome: no Commission or EMSA statistics on the first verification period were located, so ships in deficit, penalties paid and the clearing price of pooled surplus are all UNKNOWN. The FuelEU regime has the same shape of problem as the ETS one, a first cycle closed with no public account of how it went.

> **ASSESSMENT · LOW CONFIDENCE.**
>
> The Q4 surcharge cut has no stated cause; a scope effect from services moving back onto the Suez routing is a hypothesis this brief cannot test on its own evidence, and competitive absorption cannot be excluded and would carry a different implication for 2027. Recommendation: treat the emissions surcharge as a negotiable commercial line rather than a regulatory pass-through, and require any carrier quoting it to state the allowance reference, the reference window, the assumed accountable share of the voyage and the FuelEU component separately. Rationale: the surcharge fell 26.9% quarter on quarter while its own disclosed reference rose 11.1%, the notice gives no reason, the fall is of the same order as the 30.2% ETS increment a Cape routing carries over a Suez routing on this brief's arithmetic, no transit evidence for a routing shift was collected, and no carrier discloses the ETS and FuelEU split. Confidence is Low because the cause is not in the record and every input is the carrier's own statement.[1,12,13,14,15,17]

SECTION 06 · DECISION

Decision

Decision	Owner	Trigger	Pre-authorised action
Confirm the Article 3(w) shipping company and the Article 3gc reimbursement chain for every EEA-touching arrangement	Chartering and legal	Before 30 September 2026, and on every new fixture	Obtain written confirmation of which entity holds ISM Code responsibility and whether an allowance reimbursement clause is in the contract; absent that, plan on the registered owner as the default liable party and take legal advice
Screen counterparties on account-level Registry data rather than on a published rate	Credit and counterparty risk	Registry data for the 2025 emissions year readable, expected mid-October 2026	Pull EU Transaction Log account status for named counterparties; record that no operator-count compliance measure exists or is scheduled
Re-base voyage and budget models on the 100% coefficient with methane and nitrous oxide	Commercial and finance	Now, ahead of the 2027 planning cycle	Substitute 1.00 for 0.70 in the accountable-share calculation, add a stated allowance for the two

Decision	Owner	Trigger	Pre-authorised action
			gases, and hold the ETS line separately from bunkers
Require surcharge decomposition from every carrier and forwarder	Procurement and logistics	Next quarterly surcharge notice, Q1 2027	Request the allowance reference, reference window, assumed accountable share and FuelEU component in writing; treat a bundled unexplained number as negotiable
Watch the July 2026 ETS revision proposal and the Article 3gg(5) report for maritime content	Regulatory affairs	Publication of either, or 31 December 2026, whichever is first	Read for changes to the coefficient, the 50% geographic scope, the transhipment port list and the 5,000 gross tonnage threshold; re-run Section 04 on any change

SECTION 07 · OUTLOOK

Outlook

Three Scenarios, Thirty to Ninety Days.

Construction confidence reflects analytical quality, not probability. Each scenario carries a triggering signal for the question this brief tracks: whether the second maritime surrender passes as an administrative event or becomes a visible compliance problem.

Baseline · The Deadline Passes Silently. Construction Confidence: High · Velocity: Gradual. The deadline passes with no Commission statement, no enforcement announcement and no published compliance figure, exactly as the first did. Registry data for the 2025 emissions year settles in October, readable at account level by anyone who aggregates it. The allowance price stays in the upper part of its 2026 range. Carriers publish Q1 2027 surcharges in December on the 100% coefficient, FuelEU component still undisclosed. The next public compliance read arrives in the 2026 Carbon Market Report in early December, states a share of allowances due rather than of operators, and comes in at or above the 99% precedent because the measure is tonnage-weighted and the tonnage sits with the largest and most compliant companies. SIGNAL TO WATCH: no Commission news item on maritime surrender in the first two weeks of October 2026; Transaction Log account data showing 2025-year surrenders against verified emissions; Q1 2027 carrier notices citing the 100% coefficient.[1,4,7,12,27]

Deterioration · The Small-Owner Tail Becomes Visible. Construction Confidence: Moderate · Velocity: Event-driven. The doubling of the attributed population to 5,298 companies pulls in operators with one or two ships, no EU establishment, no allowance account history and no hedging capacity, facing a 70% coefficient at a price about 14% above the first surrender day. Some miss. The first visible sign would not be a statistic, because none publishes; it would be a national enforcement action, a published Article 16 list of operators in breach, or a detention reported in trade press. A second consecutive default in 2027 would open the Article 16(11a) expulsion and detention rung, the point at which a compliance failure becomes a chartering and port-access problem for counterparties. SIGNAL TO WATCH: any Member State publication of operators in breach under Article 16; a reported detention or expulsion order on ETS grounds; an administering authority statement on maritime non-surrender; trade reporting of allowance-account problems among small owners.[1,5,6,7]

Stabilization · The Measurement Gap Closes. Construction Confidence: Low · Velocity: Event-driven. A publisher fills the gap: the Article 3gg(3) biennial implementation report, the Article 3gg(5) report due by 31 December 2026, impact material accompanying the July 2026 ETS revision proposal, an EMSA or Agency release keyed to the Registry settlement, or a third party aggregating the Transaction Log into an operator-count rate. Construction confidence is Low because nothing in the record indicates any of those publishers intends an operator-count measure, and the one report with a legal deadline in the window is about scope extension rather than compliance. SIGNAL TO WATCH: publication of the Article 3gg(5) or any Article 3gg(3) report; the July 2026 ETS revision proposal text and its maritime content; any Commission, EMSA or Agency publication stating a maritime surrender rate before December 2026; a third-party Transaction Log aggregation.[1,4,21,22,27]

The forward claims. Two claims are proposed with this brief, stated here in the words in which they are proposed.

Forward claim 1, numeric. "The EEX EU allowance primary market spot auction clearing price for the EU common auction held on 30 September 2026, or for the last EU common auction held before that date if none is held on it, will be EUR 85.00 per tonne of carbon dioxide, within an interval of EUR 76.00 to EUR 94.00 per tonne." Resolution source: the EEX EU allowance primary market auction results page and the EEX emission spot primary market auction report for 2026. Resolution date 30 September 2026. 30 September 2026 is a Wednesday and EU common auctions fall on Mondays, Tuesdays and Thursdays, so the resolving auction is expected to be that of Tuesday 29 September 2026.[7] The interval was set on the EU common auction price of EUR 84.40 on 8 September 2026, against a 2026 range of EUR 62.19 to EUR 91.32 and EUR 75.95 on 30 September 2025; on the refresh of 14 September 2026 the latest EU common auction print is EUR 86.44, which sits inside the interval, so the claim is carried forward as proposed and the interval now runs about 12% below and about 9% above that refreshed anchor.[7] A simple threshold at or above EUR 80 was already satisfied on 8 September and would have carried no information, which is why a point and an interval are used. The point and interval are the analyst's own judgment; no model forecast informed them.

Forward claim 2, binary. "The next European Commission Carbon Market Report, or any other European Commission or European Environment Agency publication issued on or before 31 December 2026, states that shipping companies surrendered allowances for less than 99% of the surrendering requirements for the 2025 compliance cycle." Probability 0.25, the analyst's own number. Resolution source: the Commission's Carbon Market Report series and Commission and Agency publications. Resolution date 31 December 2026. The threshold is set on the only precedent, more than 99% for the 2024 cycle.[4] The measure named is allowances due rather than operators, because that is the measure that publishes; a claim about operators would have no resolution source at all.

The indicators that would move this read. Four, in likely order of arrival. Union Registry and Transaction Log account-level data for the 2025 emissions year, expected mid-October 2026, the earliest instrument capable of answering the compliance question at all. Any Member State publication under Article 16 of operators in breach, the only route by which a specific non-surrender becomes public before December. The reconvened IMO extraordinary session on the Net-Zero Framework, indicated for about October 2026 by the IMO's own 12-month statement, exact date UNRESOLVED.[18,25] And the Q1 2027 carrier surcharge notices due in December, which will show whether the Q4 cut was a scope effect that reverses or a repricing that holds.[12]

> ASSESSMENT · MODERATE CONFIDENCE.
>
> Baseline is the path to plan against. Recommendation: build the October review around account-level Registry data for named counterparties and around the two Commission documents due or possible in the window, and schedule no decision that depends on a published compliance rate before December. Rationale: the first cycle passed without any deadline-linked publication and the Directive requires none, the second has no scheduled publication either, and the rung that would make a default visible cannot be reached before a second consecutive miss in 2027.[1,4,21,22,27]

SECTION 08 · SCORECARD

Scorecard

No firm claim resolves in this brief and none is advanced by it. The desk's live claims on this horizon are corridor claims settled on transit counts, war-risk premiums and crude prices: CLM-2026-053 on the corridor's structural cost base against its January 2026 floor, resolving 1 December 2026, and the Hormuz and US-Iran claims. None is settled by an allowance price or an EU compliance record, and stretching one to fit would corrupt its resolution rule. They remain pending and are not pre-empted here.

This brief opens a new cluster on the desk, maritime regulation, and proposes the first two claims in it. The first is numeric and resolves on the EEX EU allowance primary auction clearing price for 30 September 2026 or, because that day is a Wednesday and not an EU common auction day, for the last auction before it on Tuesday 29 September 2026; that series is public, free and dated where the more commonly quoted futures settlement is not. The second is binary and resolves by 31

December 2026 against the Commission's Carbon Market Report or any Commission or Agency publication, on the threshold and the measure set by the single available precedent.

The cluster will hold the compliance and cost architecture of maritime environmental regulation as a governed system: the ETS coefficient path to 100% and the 2027 arrival of methane, nitrous oxide and offshore ships; the FuelEU intensity ladder, its pooling market and its penalty; the Article 3gg review track; the IMO Net-Zero Framework as the competitor to unilateral EU pricing; and the allowance price that converts all of it into a number on a voyage. The measurement gap in Section 02 is the cluster's standing question.

SYNTHESIS

The obligation is settled; the measurement is not

The deadline is fixed, the coefficient is fixed and the price is public. What no publisher states is how many of the 5,298 attributed companies met it.

01 · 30 SEP

Seventy per cent falls due

Article 3gb(b) sets the coefficient on verified 2025 emissions. The penalty is EUR 100 per tonne and the enforcement ladder ends in port refusal and flag State detention.

02 · THE GAP

No operator count is published

The one compliance figure ever published for a maritime cycle arrived nine weeks after the deadline and counted allowances due, not companies. The attributed population has since more than doubled to 5,298.

03 · THE PRICE

EUR 86.44 on the series that is public

The EEX common auction clearing price is the series this brief prices from and resolves its forward claim against. The settlement more often quoted sits behind a login.

04 · DECISION

Re-base on the 100 per cent coefficient

Carriers already price emissions year 2026 at 100 per cent with methane and nitrous oxide. Substitute 1.00 for 0.70 before the 2027 planning cycle and hold the ETS line separately from bunkers.

> **The second surrender is an administrative event with no public scoreboard. Screen counterparties on account-level Registry data, plan against the 100 per cent coefficient, and schedule no decision that depends on a published compliance rate before December.**

SOURCE REGISTRY

1. EUR-Lex, "Directive 2003/87/EC, consolidated CELEX: 02003L0087-20240301, Articles 3(w), 3(z), 3ga, 3gb, 3gc, 3gf, 3gg, 12(3), 16," read 2026-09-09. [Tier 1] [Allowlist candidate]
2. European Commission, "Reducing emissions from the shipping sector," 2026-05-06. [Tier 1] [Allowlist candidate]
3. European Commission, "FAQ: Maritime transport in the EU ETS," 2025-04-02. [Tier 1] [Allowlist candidate]
4. European Commission, "2025 Carbon Market Report, COM(2025) 735, sections 3, 4.1, 10, 11.5, 11.6.1 to 11.6.4, footnotes 93, 112, 115, 117," 2025-12-03. [Tier 1] [Allowlist candidate] SINGLE SOURCE for every 2024-cycle compliance figure here.
5. EUR-Lex, "Implementing Decision (EU) 2025/2452; Annex counted by Aegean," 2025-12-08. [Tier 1] [Allowlist candidate]
6. EUR-Lex, "Implementing Decision (EU) 2024/411; Annex counted by Aegean," 2024-01-31. [Tier 1] [Allowlist candidate]
7. European Energy Exchange, "Emission Spot Primary Market Auction Reports 2025 and 2026," read 2026-09-09, 2026 report re-read 2026-09-14. [Tier 1] [Allowlist candidate] Auction data, not an ICE settlement.
8. Ship & Bunker, "Rotterdam bunker prices, VLSFO and MGO," 2026-09-08. [Tier 3] [Allowlist candidate] SINGLE SOURCE.
9. Notteboom, Pallis and Rodrigue, "Port Economics: routing options Shanghai to Rotterdam," 2025-07-24. [Tier 4] [Allowlisted] SINGLE SOURCE for the two distances underpinning Section 04 and KJ-5.
10. IMO, "Fourth IMO Greenhouse Gas Study 2020, Tables 35 and 60, 2018 fleet data," 2020. [Tier 2]
11. EUR-Lex, "Regulation (EU) 2015/757, CELEX: 02015R0757-20240101, Annex I," 2026-09-09. [Tier 1] [Allowlist candidate] VLSFO to residual-row mapping is Aegean's reading.
12. Maersk, "Emissions Surcharge notices, 2025-12-01, 2026-06-01, 2026-09-01." [Tier 3] COMPANY-STATED.
13. Hapag-Lloyd, "Update on the EU ETS, full implementation from 2026," 2025-11. [Tier 3] COMPANY-STATED.
14. Ocean Network Express, "Europe Environment Surcharge effective 1 July 2026," 2026-06-01. [Tier 3] COMPANY-STATED.
15. MSC, "EU ETS update, effective 1 January 2026," 2025-12-15. [Tier 3] COMPANY-STATED.
16. BIMCO, "Contracts and clauses index," 2026-09-09. [Tier 2] [Allowlist candidate] Clause names only.
17. EUR-Lex, "Regulation (EU) 2023/1805 FuelEU Maritime, Articles 4, 15, 16, 20 to 24, 32, Annex IV Part B," 2026-09-09. [Tier 1] [Allowlist candidate]
18. IMO, "IMO net-zero shipping talks to resume in 2026," 2025-10. [Tier 2] [Allowlisted] Media centre; allowlisted in the Tier 2 block. No High-confidence judgment rests on it.
19. Carbon Pulse, "EUA Dec-26 rose above EUR 83," 2026-08-31. [Tier 3] [Allowlist candidate] Free headline only.
20. Trading Economics, "EU carbon permits benchmark," 2026-09-09; ICE, "EUA Futures data page, login-gated," 2026-09-09. [Tier 4] [Allowlist candidate] [UNVERIFIED]
21. European Commission, "Market Stability Reserve page," 2026-06-08. [Tier 1] [Allowlist candidate]
22. European Environment Agency, "EU ETS data from the Union Registry, version 2026-07-08." [Tier 2] [Allowlist candidate]
23. IIMS, "New EU ETS rules from January 2026," 2026-01-08. [Tier 3] [Allowlist candidate] Restates source 4.
24. Skuld, "FuelEU compliance timeline, 2025 reporting year," 2026-04-08. [Tier 2] [Allowlist candidate] Corroborates source 17.
25. Vinson and Elkins, "IMO postpones the Net-Zero Framework," 2025-10-24. [Tier 3] [Allowlist candidate] 2026 session date UNRESOLVED.
26. Aegean Intelligence Group, "The Re-Priced Corridor, PMR-2026-0601-MEAST-002; The Two-Front Corridor, PMR-2026-0728-MEAST-001," 2026. [Tier 1, own work]
27. European Union Transaction Log, public account and compliance pages. [Tier 1] [Allowlist candidate] NOT FETCHED; cited for what it publishes structurally, per source 4. It supports no High-confidence judgment in this brief.

AEGEAN INTELLIGENCE GROUP

Publishable Market Research

Timeliness. Current to 14 September 2026, with the EEX auction series refreshed that day. The surrender falls due on 30 September 2026, Union Registry data for the 2025 emissions year is expected mid-October, and the next Commission compliance statement is not due before the 2026 Carbon Market Report in early December.

Classification. PUBLIC. Open-source intelligence and analytic product. No client-attributable material is used.

contact@aegeanintel.com · aegeanintel.com