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Insights on Fuel Choice & EUA Trading for Shipping Players Under the EU ETS

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FIS ENGINE

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A deep dive report on what the incoming EU ETS will mean for marine fuel prices, as well as practical solutions to issues such as opening a registry trading account outside the EU, who is responsible for paying, and how best to trade EU Allowances (EUAs).

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I. Introduction

The maritime transport industry is now within weeks of its formal admission into the EU Emissions Trading System (EU ETS), the European Union's world-leading cap-and-trade system and its primary policy tool for decarbonisation. Freight Investor Services' (FIS) EU ETS Consultancy has been fielding a litany of teething issues for shipping firms ahead of 1 January 2024. In this joint report with ENGINE, FIS unpacks some of the key challenges and offers practical solutions to overcome them. ENGINE explores the increasingly complex calculations of cost-efficient fuel selection.

Practical Issues Under the EU ETS

From 1 January 2024, ship operators will have to pay a hefty bill for their carbon emissions. In order to settle the equivalent of their year-end accounts, each ship will have to tally emissions, by monitoring fuel type burned and how it converts to CO2 (they vary significantly), and then buy a corresponding number of EUAs, which today sell for around EUR 70 (as of 6 December) per tonne (€70/mt) of CO2 emitted. It will then need to open a special account known as a 'registry account', in which it will bank its EUAs and from which it will have to pay its due by 30 September each year (first bill due in 2025).

While this might sound relatively simple, there are many caveats and additional requirements, and in practice shipping companies have encountered a number of significant challenges. Front and centre among these, is actually opening an account. There's a hurdle for those incorporated outside the EU — not ideal when you consider the maritime freight trade has a deep history of establishing offices in remote jurisdictions, such as the Bahamas or Liberia.

Another thorny issue includes working out who pays — the EU regulation is somewhat grey on where the responsibility to submit allowances falls, whether that be a ship owner or operator.

Central also, and particularly complex, is the question of how best to trade these allowances. EUA prices can fluctuate wildly, this year alone the Dec23 benchmark contract has ranged between €100/mt and €70/mt. As well as a buying strategy, companies need to decide where to obtain allowances and in what form (futures vs physical), another far from straightforward issue.

Figure 1: Dec 23 EUAs have traded from lows of €70/mt to record all-time highs above €100/mt in the past year and have generally been very volatile (Source: ICE).

II. Who Bears the Responsibility for EUA Surrender?

A thorny question among shipping companies concerns who is responsible for surrendering EUAs, especially when a shipowner delegates ISM Code compliance to a manager.

In short, it depends.

In a September draft text, the European Commission defined the responsible entity as the "shipping company." This definition includes Owner, Manager, Bareboat Charterer, or indeed any entity that assumes responsibility for operation.

While the draft stipulates the shipowner has principal responsibility for ETS obligations, a manager, if delegated responsibilities through a management agreement, is obligated to submit allowances. Therefore, the parties can effectively choose who has responsibility. If the manager is chosen, they must present to the relevant administering authority a documented mandate from the shipowner, including contact details. If they do not, the shipowner will be deemed responsible.

How will this play out? In practice, two scenarios are likely:

Option 1: Shipowner and manager decide responsibilities in their bilateral management contract.

Option 2: The manager remains consistently responsible for EUA surrender if shipowner delegates ISM Code compliance, a process in place for the past two decades,although recent indications suggest a shift toward Option 1.

Simultaneously, member states must ensure that if another entity assumes ultimate responsibility for fuel purchase or ship operation, the shipping company, via contractual arrangement, is entitled to reimbursement for surrender costs.

Key Points

- Cost of Non-Compliance: Depending on trade and emissions, costs could average €500,000 per vessel in 2024, €1 million in 2025 and €1.4 million in 2026 (contact FIS for more accurate estimates).
- Risks: Shipowners' failure to transfer allowances leaves a manager empty-handed yet still accountable for EUA surrender.
- EU Commission's Timeline: It will finalise regulations in Q4 2023.

Strategies: Clients uncertain about obligations could create an EUA buffer. More on how to do this follows.

III. Challenges of Opening a Registry Trading Account

The account from which shipping companies will 'surrender' their year-one EUAs is known as a Maritime Operator Holding Account (MOHA). However, it is not possible to open one of these until February 2024, when it is expected that the European Commission will publish a list attributing shipping companies to their respective administering authorities. For example, Greek shipping companies will likely be assigned to the Greek administrator.

Now, while it is widely stated you are already able to open a Registry Trading account, a separate account type on the Union Registry from which companies can trade in and out EUAs, in reality this is not the case.

One of the central stipulations most national administrators of the EU registry have enacted is a requirement to be VAT registered locally. As mentioned, many EU-based shipping companies are incorporated in non-EU jurisdictions. But equally, a significant portion of shipping companies that trade in EU waters are based outside the EU, including in Britain. These are currently mostly unable to open an account.

One country that decided to not make such a stipulation was Malta, which instead requests that you have an EU bank account. However, they were so flooded with applications they closed to further applications months ago with a backlog of 300 among just a handful of staff. There are also other exceptions:

- The Netherlands don't require EU VAT registration, just an EEA bank account. However, they do a risk analysis on the country of origin, which means remote locations might present challenges, and they also request that you register with the Chamber of Commerce, which essentially means setting up a local entity and paying corporation tax for a local business.
- Meanwhile, Spain and Sweden don't require local VAT registration but do ask that one of your two minimum account representatives have permanent residence in the country.
- Finally, Cyprus requires VAT registration in an EU country. Although competing versions of this have been told by different contacts within the registry.

In short, if you don't have an EU VAT number, at present the situation is difficult. Considering the forward-looking nature of the sea transport business, contracts for business in 2024 and beyond are being negotiated now, meaning firms are building increasing exposure to the emissions markets without the means to hedge in the official EU structure supposedly set up for this purpose.

So, what are the options if you don't have VAT registration in an EU country?

The EU is coming under increasing pressure to provide a clear path forward for the many small- and medium-sized shipping clients unable to get started. But there are a couple of trades these companies can do. Firstly, they can buy futures even without a Registry Trading account through some clearing members provided they promise to trade out of them before expiry. However, this only applies to those with clearing accounts. Also, the minimum amount of EUAs you can buy in one futures transaction is 1,000. What's more, many of the smaller-sized companies do not have clearing accounts.

Another option to have emerged is 'warehousing', offered by many financial players, whereby the EUA seller will hold your allowances for you until you decide to have them delivered to an account of your choice. Of course, this trade exposes the purchaser to counterparty risk, however there are a number of advantages:

- Avoiding for now the administration involved in trying to open a trading account with overburdened national administrators.
- Being able to start hedging 2024 exposure or targeting dips.
- Many companies don't even know yet whether the responsibility will fall on them to actually buy the EUAs.
- Finally, and crucially, to some the idea of going long EUAs is somewhat attractive given the EU's stringent climate change policy and its subsequent tendency to limit allowance supply. Based on current forecasts, many leading EUA analysts expect the EUA price to rise significantly towards 2030, and go well beyond the EUR 130 mark. In October, analysts at London Stock Exchange Group (LSEG) projected the price of the benchmark futures contract, the Dec23, to rise "above EUR 400 by 2040". Note, markets can always change.

IV. How Best to Trade EUAs (Route to Market)

EUAs can be bought in the primary market via the auctions or on the secondary market via banks, brokers, or traders. Maintaining a European Energy Exchange (EEX) auction account can be expensive, and it's typically populated by big industry. To date it seems that the majority of the shipping industry favours the latter option.

EUAs come in the form of futures or "physical" EUAs. While many of the bigger, more established traders are keen to hedge the futures, as they would with Forward Freight Agreements (FFAs), many mid- and smaller-sized shipping clients have been interested in buying physical EUAs on the Over-the-Counter (OTC) market. The advantages of the OTC market can be grouped into Cheaper and Easier:

Cheaper:

- Owing to the cost of carry, the physical has sometimes been significantly cheaper upfront. Over the past three years the December future - the main future traded - has typically been a couple of Euros more expensive than the spot price and sometimes significantly more.
- Meanwhile clearing banks build in credit risk and large margins.

Easier:

- Clients don't need margins or clearing accounts.
- OTC physical can be obtained in more convenient custom lot sizes — while the smallest size in futures is 1 lot (1,000 EUAs).
- Many (again, particularly smaller firms) often prefer OTC products to futures, hedging as they go in smaller size, spreading the risk.
- Finally, the liquidity is good. When working with a broker like FIS, you provide your size, the emissions broking desk fields it to the market (FIS work with most of the top EUA traders, many who have their own large inventories) and they increase your chances of receiving the best price. This competition element gives a distinct advantage over others who are working with just one provider.

Of course, trading OTC EUAs also exposes the client to more counterparty risk, but the key here is to select counterparties with good credit and trading histories.

V. ENGINE: Fuel Selection under the EU ETS

Perhaps the greatest influence shipowners and operators have on cutting their ships' operational costs is to buy bunkers at better prices. Price typically trumps all other considerations. Buyers will scope out the market for bargains and push for lower offers from the traders.

Up to now, choice of fuel has been relatively simple, and almost exclusively between fossil fuels. Since 2020, owners and operators have run their ocean-going ships on VLSFO in most corners of the world. Those going into a 0.10% sulphur-capped Emission Control Area (ECA) would switch over to burning LSMGO or ULSFO, and those with scrubbers fitted could still enjoy discounted HSFO. Today, and with the price of emissions factored in, alternative fuels like LNG and biofuel blends are becoming increasingly financially viable.

Challenging Conventional Fuels

A few owners have sworn to LNG when its price is right against VLSFO and LSMGO, either as boil-off or in dual-fuel engines. But up until recently the choice of a fossil fuel has been relatively straightforward and reflected clear-cut emissions regulations. That simplicity is now in a state of flux as regulators are getting more serious about cracking down on emissions – albeit to varying degrees around the world. A disharmonious regulatory regime across regions encourages shipowners and operators to explore new fuel strategies to comply smarter while keeping costs down compared to competitors.

The first step to figuring out which fuel technology to go for is to get an idea of what these fuels cost, both outright, adjusted for emissions costs, and for energy contents – the bang for your buck.

What we have observed in recent months is that fossil LNG prices have come down from the obscene highs recorded during the first summer and winter after Russia invaded Ukraine. The Dutch TTF price has more than halved in the past year, and Rotterdam's LNG bunker price has shed two-thirds of its value. That has brought it down towards prices for LSMGO, and as you can see in the chart, when we adjust for LNG's higher energy content per mt of fuel, it's actually $73/mt cheaper than LSMGO.

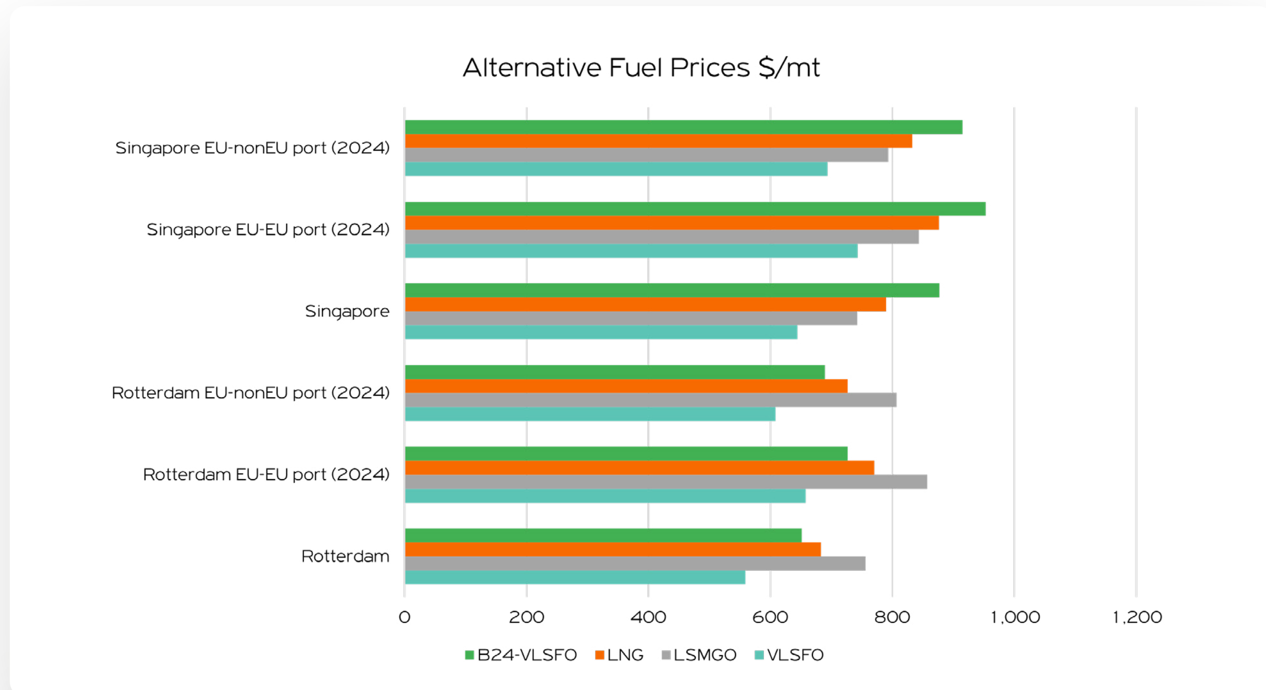

Figure 2: Comparison of conventional and alternative marine fuel prices, adjusted for calorific contents and EU ETS costs into next year. (Sources: ENGINE and ICE)

Gas-Fuelled Intra-EU Voyages

LNG's attractiveness is especially evident when we factor in EU ETS costs, which will be phased in by 40% for ships above 5,000 gross mt from next year. Ships sailing between two ECA ports today will typically burn LSMGO. From next year, they will have to pay for 40% of the EUA price for each mt of CO2 they emit on those voyages. To reduce their exposure to carbon emissions and carbon prices, they can switch to lower-carbon fuels like LNG or second-generation biofuels.

LNG becomes an even more attractive choice against LSMGO when you factor in CO2 costs, as it has a carbon factor that is 14% lower than LSMGOs in the EU's second Renewable Energy Directive (RED II). This results in a $14/mt EU-EU-port carbon discount to LSMGO for LNG, and makes it $87/mt cheaper when both calorific content and CO2 costs (based on a Dec23 EUA price of €72/mt) are accounted for.

As a general rule of thumb, lower-carbon LNG and biofuel blends will get more competitive in price against conventional VLSFO and LSMGO grades when EUA prices increase.

Meanwhile in Singapore, owners and operators will pay significant premiums for bunkering LNG over conventional VLSFO, which is a more realistic fuel type comparison given that Singapore is nowhere near any 0.10% sulphur-capped ECAs. Even if they consume the LNG on a voyage to an EU port, they will pay $139/mt more than they would if they had burned VLSFO. So, there would seem to be few purely price-related incentives for dual-fuel ships to bunker LNG in Singapore these days.

Drop-Ins

The other option is to blend biofuels like fatty acid methyl ester (FAME) into conventional fuels. As long as they meet certain sustainability criteria, biofuels can qualify for a carbon factor of zero towards EU regulations. This means that the responsible shipping company will not be charged for any of the CO2 emitted from combustion of the biofuel component of the blend or pure biofuel stem it burns.

Restrictions on biofuel blending ratios for bunker delivery vessels mean that Singapore's typical blend is 24% biofuel and 76% VLSFO, also known as B24-VLSFO. In Rotterdam we have also seen B24-blends, but more commonly B30. This is because bunker delivery vessels in the ARA region can be registered as inland river barges, and pending flag state approval for receiving ships, they can supply blends of up to B100.

A B24-VLSFO blend of an advanced FAME biofuel that qualifies for Dutch rebates when it is sold in Rotterdam is priced around $93/mt higher than VLSFO after it has been adjusted for calorific content. Biofuels have lower CO2 price exposure than VLSFO, so for ships sailing from a non-EU port to an EU port, that B24-VLSFO premium over pure VLSFO shrinks to $81/mt, and to just $69/mt for voyages between two EU ports.

B24-VLSFO is the most attractively priced lower-carbon fuel in Rotterdam ($32/mt below LNG), but not in Singapore ($88/mt above LNG). Rotterdam's more favourable pricing is almost entirely down to a Dutch rebate of about $123/mt for the biofuel component. The rebate has worked well to stimulate demand and pulled feedstock away from the road fuels market to bunkering. So well in fact that the Dutch Emissions Authority fear there will not be enough bio-feedstock to meet higher domestic biofuel blending mandates for road vehicles. The Dutch regulaton has decided to slash this rebate multiplier for advanced marine biofuels in half from next year, which may help turn the tide more towards Singapore.

VI. Conclusion

In the imminent realm of the EU ETS for shipping, this report unravels some of the complexities and opportunities awaiting industry players from January 1 2024. From fuel type costs to the intricacies of opening registry accounts, we've navigated the landscape.

The responsibility puzzle, especially when shipowners delegate ISM Code compliance, adds layers of complexity to the compliance journey. Opening Registry Trading accounts poses challenges, notably for non-EU entities grappling with VAT registration requirements.

With regulations finalising in Q4 2023, small- and medium-sized players need a clear path forward. Trading EUAs demands nuanced strategies that consider market dynamics and varied trading routes.

In fuel selection, the shift from conventional fuels to LNG and biofuel blends presents more complexity and fuel price calculations. In short, the shipping industry faces a dramatic transformation. Navigating this era requires compliance, strategic acumen, and adaptability for a sustainable and cost-effective future.

VII. Key Takeaways

Who pays?

Two scenarios likely:

Option 1: Bilateral negotiations between shipowner and manager to see who pays.

Option 2: Manager responsible if delegated ISM code of compliance by owner.

Opening Registry Accounts

- Trading Account: Central stipulation to open a trading account is to be VAT registered locally in the EU country of choice.
    - » Work around trades include futures and OTC physical 'warehousing'.

The Benefits of OTC Physical

- No need for margins or clearing accounts.
- Obtained in more convenient, custom lot sizes.
- Can be cheaper.

Rise of LNG

- The cost of burning LNG will come down against that of VLSFO when CO_2 emissions start getting priced next year.
- Methane emissions will be included in the ETS from 2026, and in FuelEU Maritime from 2025. This will eventually make it considerably more expensive to burn methane-rich fuels like LNG, especially for low-speed ship engines with high methane slips.

Biofuels

- Blending certain biofuels into conventional fuels may soon become a financially viable alternative, provided they meet sustainability criteria, as they have a carbon factor of zero.
- The economic efficiency of biofuels and how they compare in price to alternative fuels is dependent on where sold (Rotterdam vs Singapore) due to green fuel policies.

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