

Decarbonisation: Separating Myths from Realities

“The cheapest and greenest energy is the energy we don’t use.”



JOHN SWIRE & SONS LIMITED

Swire Bulk is the **dry bulk shipping** arm of the Swire Group.

Swire is a **highly diversified** global group

Within Asia, Swire's activities come under the group's publicly quoted arm, **Swire Pacific Limited**

Elsewhere, many businesses are held directly by parent company, **John Swire & Sons Limited**, headquartered in the UK and responsible for formulating and directing overall group strategy



Property



Aviation



Marine Services



Beverages & Food Chain



Trading & Industrial



Swire Investments

SWIRE BULK

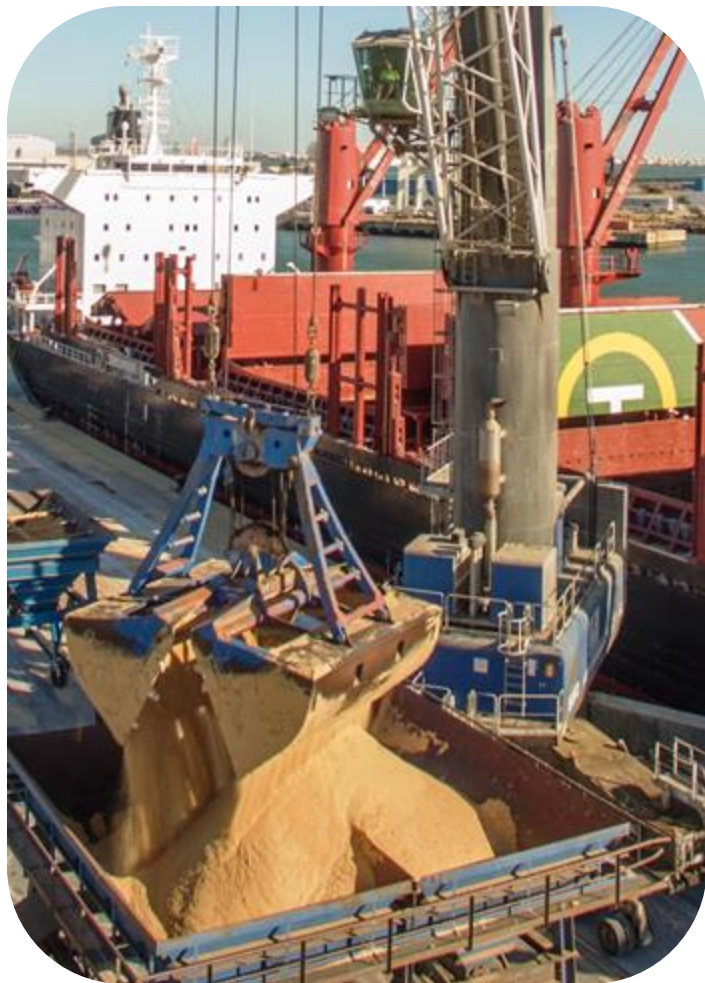
Swire Bulk is established in **2012** as the **dry bulk trading division** of The China Navigation Company (CNCo) (now known as Swire Shipping)

In **2021**, Swire Bulk **separated** from CNCo and is now dry bulk trading arm of the Swire Group

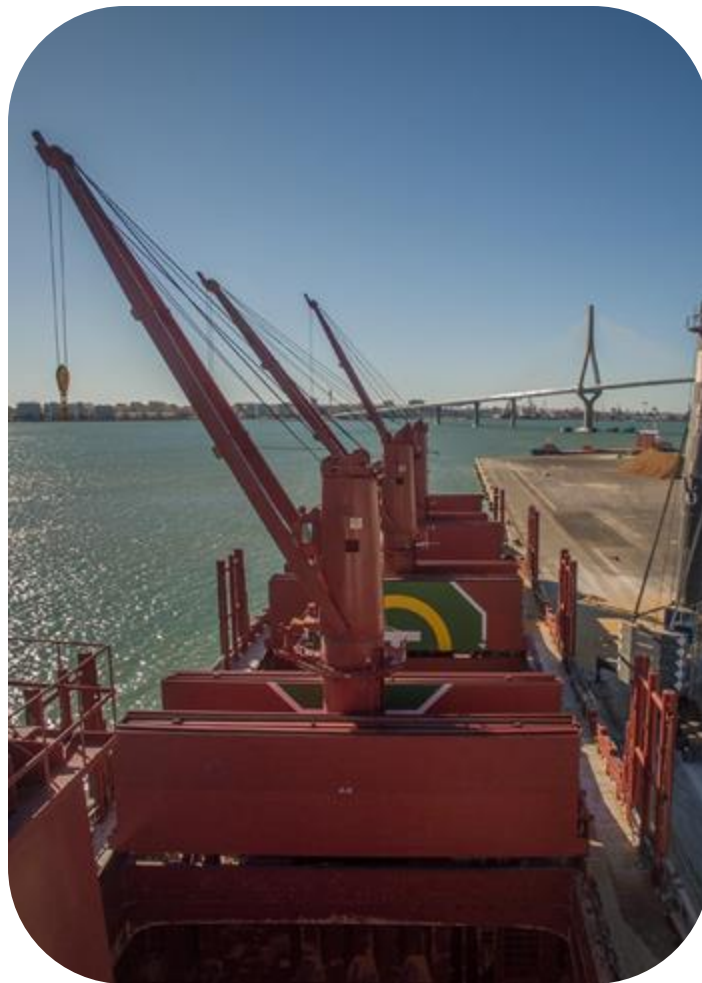
Vision: committed to being an **industry leader for safety and sustainability** and with a flexible trading approach will as an **owner and operator**



SOLUTIONS



Dry Bulk

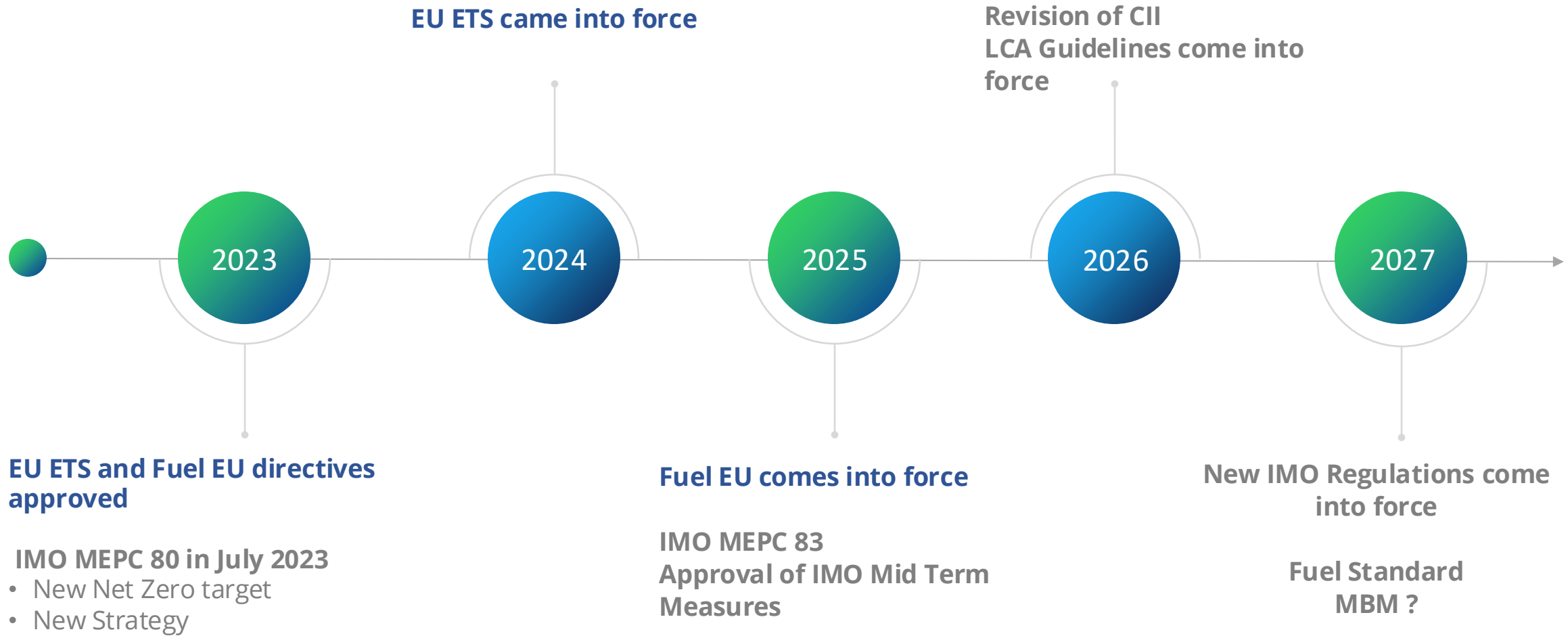


Parcelling





Partnership with Swire Projects






Regulatory Landscape



Decarbonisation Strategy

FLEET EFFICIENCY	ENERGY EFFICIENCY TECHNOLOGIES (EET)	NEAR ZERO EMISSIONS FUELS
<p>Fuel and voyage optimisation for owned and chartered-in fleet</p> <p>.....</p> <p>Proactive management of environmental compliance</p> <p>.....</p> <p>Use of data for continuous improvement (digitalise to decarbonise)</p>	<p>Identification of suitable EET What technologies can be used to incrementally decarbonise</p> <p>.....</p> <p>Optionality How can efficiency be incrementally improved and emissions reduced through the use of new technologies</p> <p>.....</p> <p>Shore Power</p> <p>.....</p> <p>Carbon Capture and Storage</p>	<p>Fuel Strategy (2027 target)</p> <p>.....</p> <p>Future alternative fuels</p> <ul style="list-style-type: none"> • Supply chain • Geographical availability • Price and supply and adoption <p>.....</p> <p>Green Corridors  Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping</p> <p>.....</p> <p>Feasibility of adoption of dual fuel methanol technology fuels</p> <p>.....</p> <p>Marine pilot of 3rd generation biodiesel</p> <p></p>

Key Enablers

Collaborative Platforms for knowledge sharing and research	→  Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping	→  SSI Sustainable Shipping Initiative	→  GETTING TO ZERO COALITION
Alliances & Synergies	→ Green Voyages, SailGreener	→  ARGENTENERGY	→  CATHAY
Regulatory frameworks	→ UK Chamber of Shipping, World Shipping Council, Getting to Zero 2030 Coalition		

Fleet Efficiency



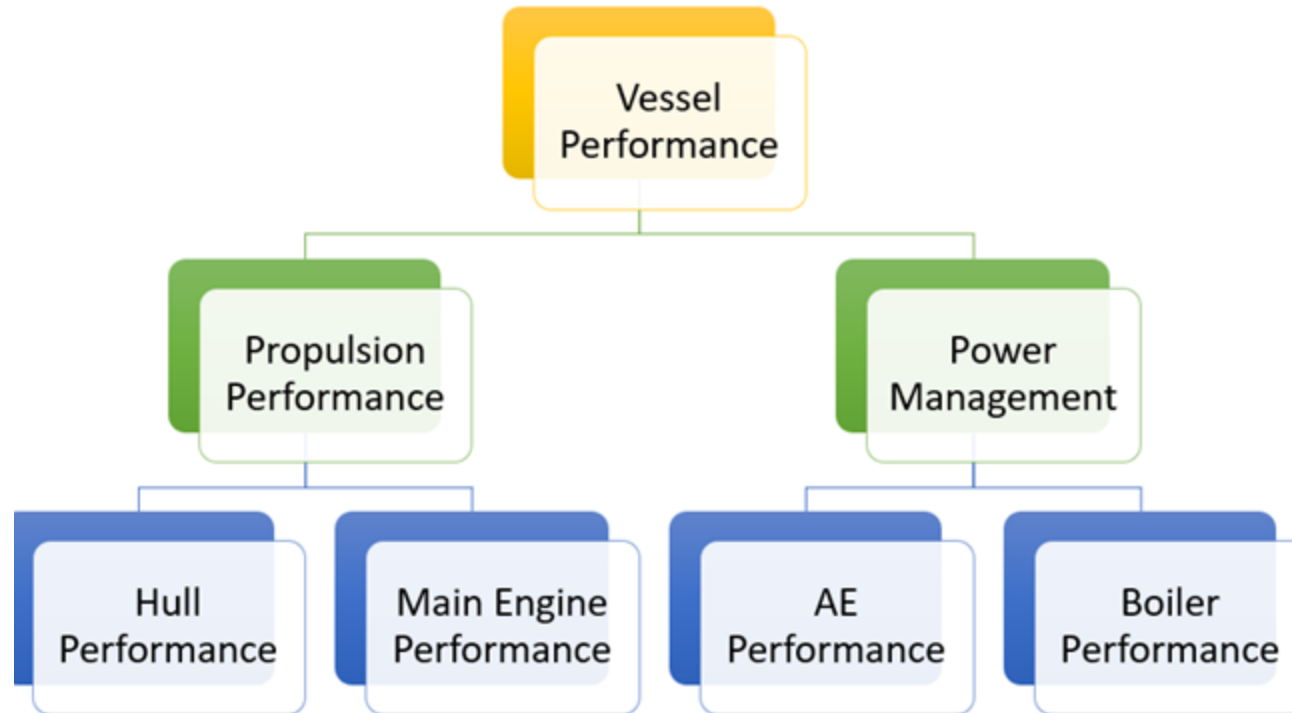
Vessel Performance
(Hardware)



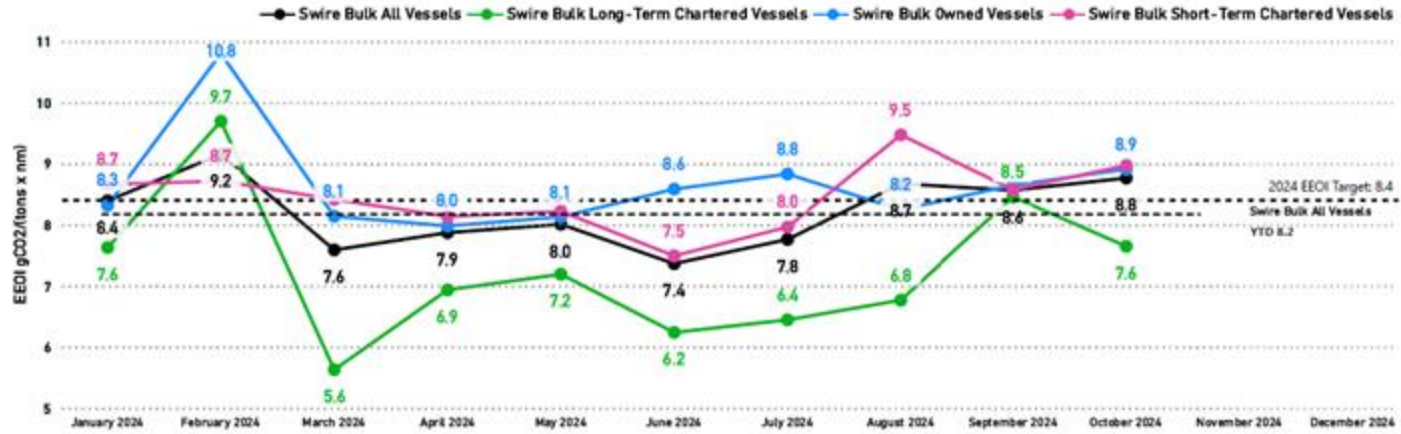
Voyage Performance
(Software)



Compliance (License
to Operate)



FLEET EEOI PERFORMANCE

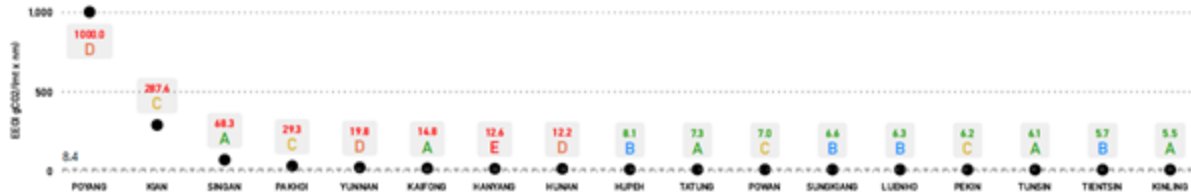


OWNED VESSELS EEOI PERFORMANCE

October 2024



OWNED VESSELS EEOI & CII PERFORMANCE



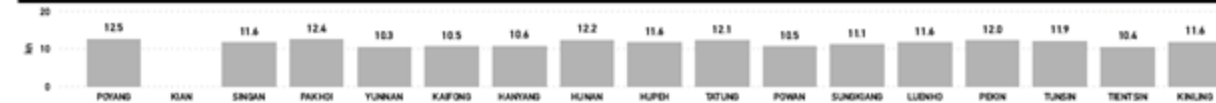
SAILING LADEN & BALLAST PERCENTAGE (%)



SAILING LADEN CARGO CARRIED WEIGHTED AVERAGE (MT/D) & CARGO UTILIZATION RATE (%)



SAILING SPEED WEIGHTED AVERAGE (kn)

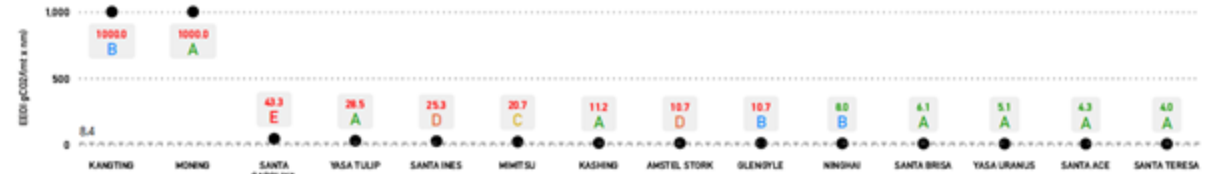


LT CHARTERED VESSELS EEOI PERFORMANCE

October 2024



LONG TERM CHARTERED VESSELS EEOI & CII PERFORMANCE



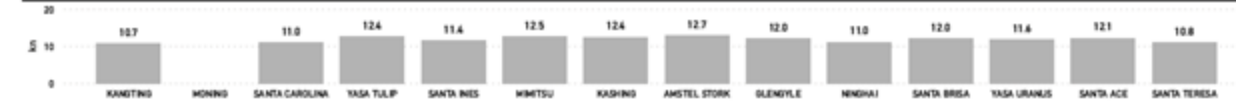
SAILING LADEN & BALLAST PERCENTAGE (%)



SAILING CARGO CARRIED WEIGHTED AVERAGE (MT/D) & CARGO UTILIZATION RATE (%)



SAILING SPEED WEIGHTED AVERAGE (kn)



Energy Efficiency Technology

What is working....

Hull and Hydrodynamics

- Foul Release Coating(Silicone)
- Propeller Boss Cap Fin(PBCF)
- Propeller Painting
- Hull Designing during New Building stage
- Propeller Optimization
- Trim Optimisation

Engine and Energy Management

- Electronic Main Engine like ME engines
- Auxiliary Engine Optimisation
- Waste Heat Recovery Systems

What is not working ... (for now?)

Hull and Hydrodynamics – No proven results yet

- Air Lubrication System
- Wind propulsion for global trade
- GIT coating for Hull and Propeller
- On board Carbon capture and storage

Engine and Energy Management

- Shaft Generator Retrofit
- Boiler on Auxiliary Engine

Green Fuels



Biodiesel



LNG



Methanol



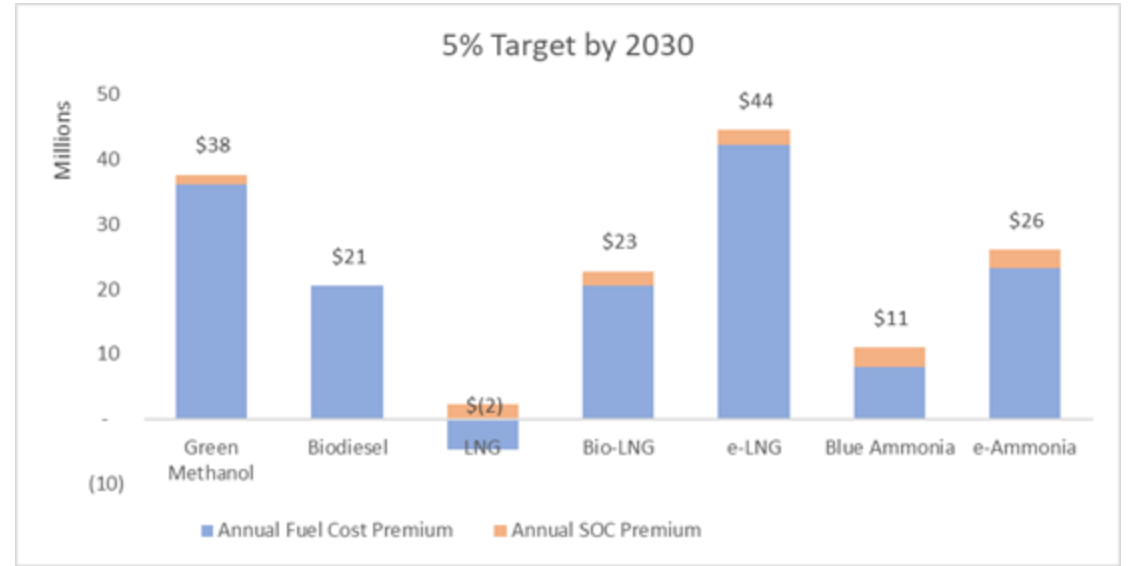
Ammonia



Hydrogen



**Electricity/
Nuclear**



Green Corridors

**Offtake
agreements**

Key Enablers

Collaborative Platforms for knowledge sharing and research



Alliances & Synergies



Regulatory frameworks



Input in future
regulations

Operationalisation
of environmental
regulations

Advocacy

Research and
support

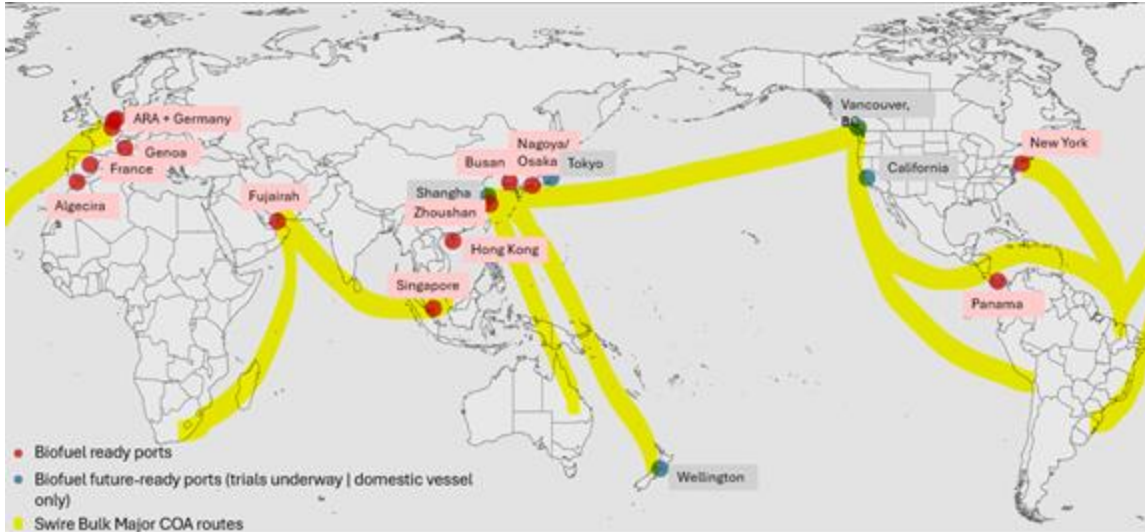
Benchmark and best
practice



Solutions

I want to reduce the emissions on my voyage, what options does Swire Bulk have available?

1. mapped availability of biofuels



MARITIME BOOK & CLAIM

Swire - Ship Operator | 7446637

Search units

Upload Voyage

Select	Block Unit ID	Amount	Emissions/Emission Savings	Scope	Retired By	Data type	Status	Time Stamp
▼	293c163f	2,373 T3	156,677 emissions 50,191 emission savings	GHG-3		Prim-Vol	Active	8/14/2024, 6:24:2
▼	2582293e	1,648 T3	116,123 emissions 34,488 emission savings	GHG-3		Prim-Vol	Active	8/13/2024, 3:41:1
▼	c9e57e8f	1,648 T3	116,123 emissions 35,064 emission savings	GHG-3		Prim-Vol	Active	8/6/2024, 12:3:42


1-3 of 3

Could we consider adding technologies to Long Term TCI/TCO vessels?

Technology	Installation	Payback
Silicon Paint	Drydock	~9 months
FuelOpt + SPM	Afloat	~10 months
13 Mari	Afloat	~36 months
EconoWind	Afloat	~31 months



BUILDING A MORE SUSTAINABLE FUTURE FOR MARITIME SHIPPING




GETTING TO NET ZERO BY 2050

Decarbonisation roadmap and strategy is in place, with short-, medium- and long-term targets to decarbonise vessel operations.

2.1%* 2023: Annual emissions reduction savings from Energy Efficiency Measures and Technologies.

*Equivalent to 25,622 tonnes of CO₂ emissions avoided.



DIVERSITY AND INCLUSION

30% of female senior managers by 2025.

23.3% 2023: Female senior managers.



CARBON INTENSITY REDUCTION

50% reduction by 2030 from 2014 baseline.

28.6% 2023: Reduction in Energy Efficiency Operational Indicator (EEOI) from the baseline (2014).

Market-leading performance of 8 gCO₂/t-nm.
Average owned fleet age: 6.14 years.




COMMITMENT TO SAFETY

Maintain highest safety standards.

2023 *RightShip* assesses vessels' safety and operational performance.

4.8/5.00



SWITCH TO RENEWABLE ELECTRICITY

Renewable Electricity (RE) in offices (where available) by 2030.

21% 2023: RE usage in offices.

100% RE usage in Hamburg and Singapore.
98% RE usage in Vancouver



REDUCING PLASTIC FOOTPRINT

Reduce single-use plastic items on vessels and across the business.

95% 2023: Overall reduction of single-use plastic water bottles on owned vessels from the baseline (2018).

Decarbonisation: Separating Myths from Realities

Thank you - Questions ?