CAPITAL
CLEAN ENERGY CARRIERS CORP.

Capital Clean Energy Carriers Corp.

September 2024

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www.capitalcleanenergycarriers.com

Important Notice

This presentation contains forward-looking statements (as such term is defined in Section 21E of the Securities Exchange Act of 1934, as amended). These statements can be identified by the fact that they do not relate only to historical or current facts. In particular, forward-looking statements include all statements that express forecasts, expectations, plans, outlook, objectives and projections with respect to future matters, including, among other things, the expected financial performance of CCEC's business, the effect of our conversion from a limited partnership to a corporate, CCEC's expectations or objectives regarding future dividends, and market and charter rate expectations. These forward-looking statements involve risks and uncertainties that could cause the stated or forecasted results to be materially different from those anticipated. For a discussion of factors that could materially affect the outcome of forward-looking statements and other risks and uncertainties, see "Risk Factors" in CCEC's annual report on Form 20-F filed with the SEC on April 23 2024 and the risk factors set our in exhniit 99.8 to our report on Form 6-K published on August 26, 2024. Any forward-looking statements made by or on behalf of CCEC speak only as of the date they are made. Unless required by law, CCEC expressly disclaims any obligation to update or revise any of these forward-looking statements, whether because of future events, new information, a change in its views or expectations, to conform them to actual results or otherwise. You are cautioned not to place undue reliance on forward-looking statements.

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Who We Are: Capital Clean Energy Carriers Corp.

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Capital Clean Energy Carriers – Key Highlights

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✓ Expected to become the largest and youngest fleet[1] of energy transition vessels capable of transporting LNG, LPG, ammonia and liquid CO2

2.3 Years
Avg. Fleet Age[2]

36 Vessels
Fleet Size[2]

18 LNG Carriers, 10 Multi Gas Carriers and 8 legacy Container Carriers

✓ Significant charter coverage with leading energy companies provides cash flow stability

bp, CHENIERE, ENGIE, Hartree, JERA, Nigeria LNG Limited, QatarEnergy, TOKYO GAS, HMM, Hapag-Lloyd

✓ Considerable go-forward growth as newbuilding program of technologically-advanced vessels delivers

$2.4 billion Newbuilding Program for LNG/Cs, MGCs and LCO2 state of the art vessels

✓ Growth largely financed through monetization of container vessels in strong market and debt from leading institutions

$177.8 million
Net proceeds from sale of 7x container vessels in 2024

~$348.4 million[3]
Potential to monetize remaining 8 x container fleet

1. Among U.S.-listed shipping companies based on information available as of June 30, 2024
2. As of June 30, 2024, including six LNG/Cs expected to be delivered between the first quarter of 2026 and the first quarter of 2027 and 10 gas carriers expected to be delivered between the first quarter of 2026 and the third quarter of 2027
3. Based on charter attached valuations as of June 2024 and debt balance of June 30, 2024

Very Modern Fleet

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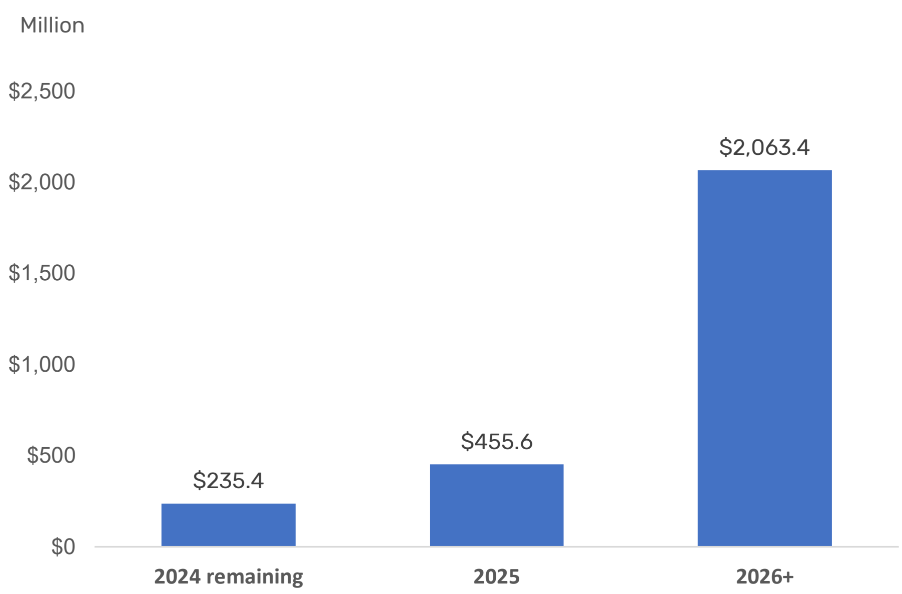
	On the water						New Deliveries					
LNG carriers All dual fuel 174k cbm	2020	2021	2021	2021	2021	2021	2026	2026	2026	2026	2027	2027
	2023	2023	2024	2024	2024	2024						
Containers	2013	2013	2013	2013	2013	5,023 TEU All debt free						
	2022	2023	2023	13,300 TEU 3x long term charter								
Mid Sized Gas carriers					Capable of transporting LPG, NH3		2026	2026	2027	2027	2027	2027
LCO2 carriers					Multi gas carriers capable of transporting Liquid CO2, NH3, LPG		2026	2026	2026	2026		

Diversified Contracted Revenue

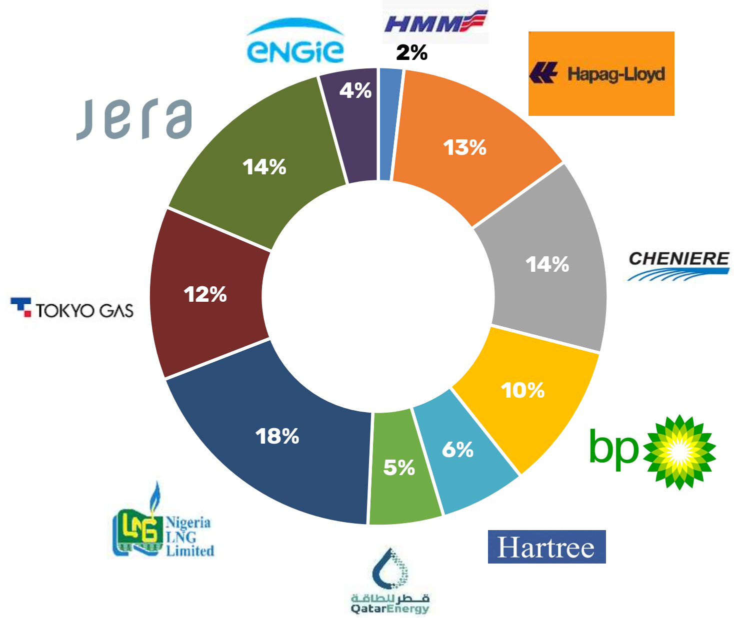
Contracted Revenue*

Contracted Revenue Backlog: $2.8 billion



Contracted Revenue Contribution*

High Quality & Diversified Customer Base



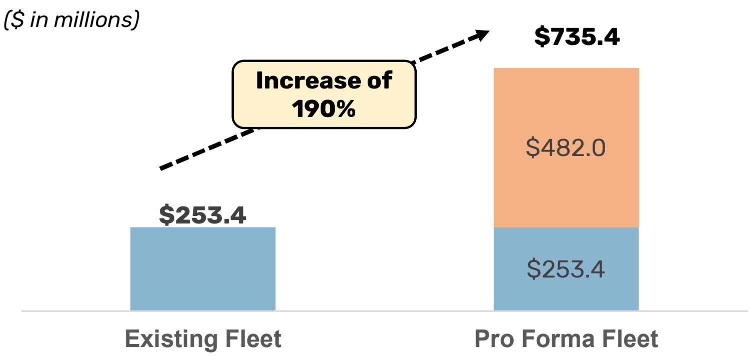
~7.2 years* average remaining charter duration

~85% of our contracted revenue, or $2.4 billion, come from LNG assets

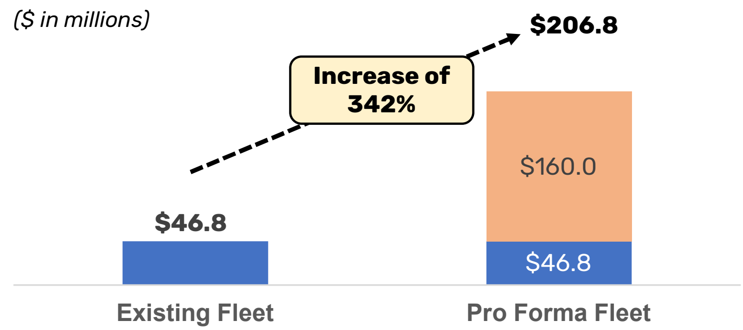
* As of June 30, 2024. Assumes the exercise of the first two options (total 4 years per vessel) for the three vessels on charter to BP, as the structure of the time charter party makes the exercise of these options highly likely. BP has already exercised their first option for the LNG/Cs Aristos I and Aristidis I. Excludes revenue of Axios II based on index-linked, one-year TC

Significant Increase in Revenues and EBITDA on "Fully Delivered" Basis

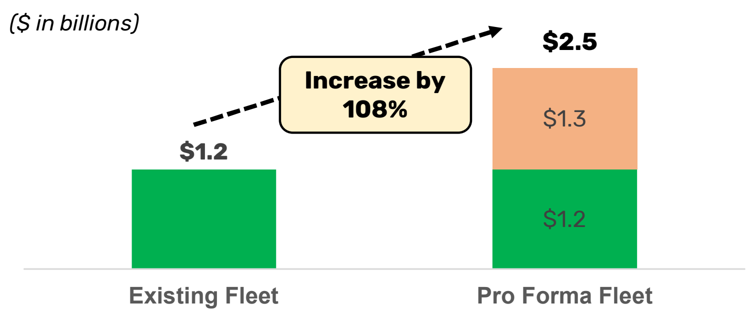
Total Fleet: EBITDA[1] (per year)



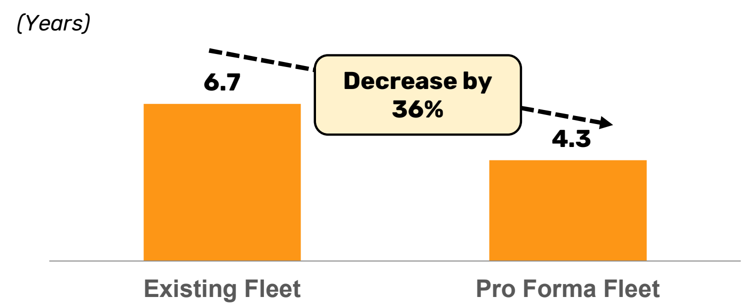
Total Fleet: Adjusted Free Cash Flow[1] (per year)



LNG/C Fleet: Contracted Revenue[2]



Total Fleet: Age[3]



1. Non-GAAP measures. For definitions, please refer to the Appendix, p.31. Existing Fleet includes CCEC fleet as of December 31, 2023. Pro Forma Fleet information includes expected EBITDA/Adjusted Free Cash Flow from one year of operation of all 11 LNG/Cs and 10 LPG/ LCO2s acquired, and assumes the same EBITDA and Adjusted Free Cash Flow as 12 months ended December 31, 2023 of existing fleet, including containers
2. As of December 31, 2023
3. As of December 31, 2023. Pro Forma Fleet includes the Existing Fleet and all 11 LNG/Cs and 10 LPG/ LCO2s acquired

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LNG Fleet & Market

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Charter Profile* - CCEC LNG/C Fleet

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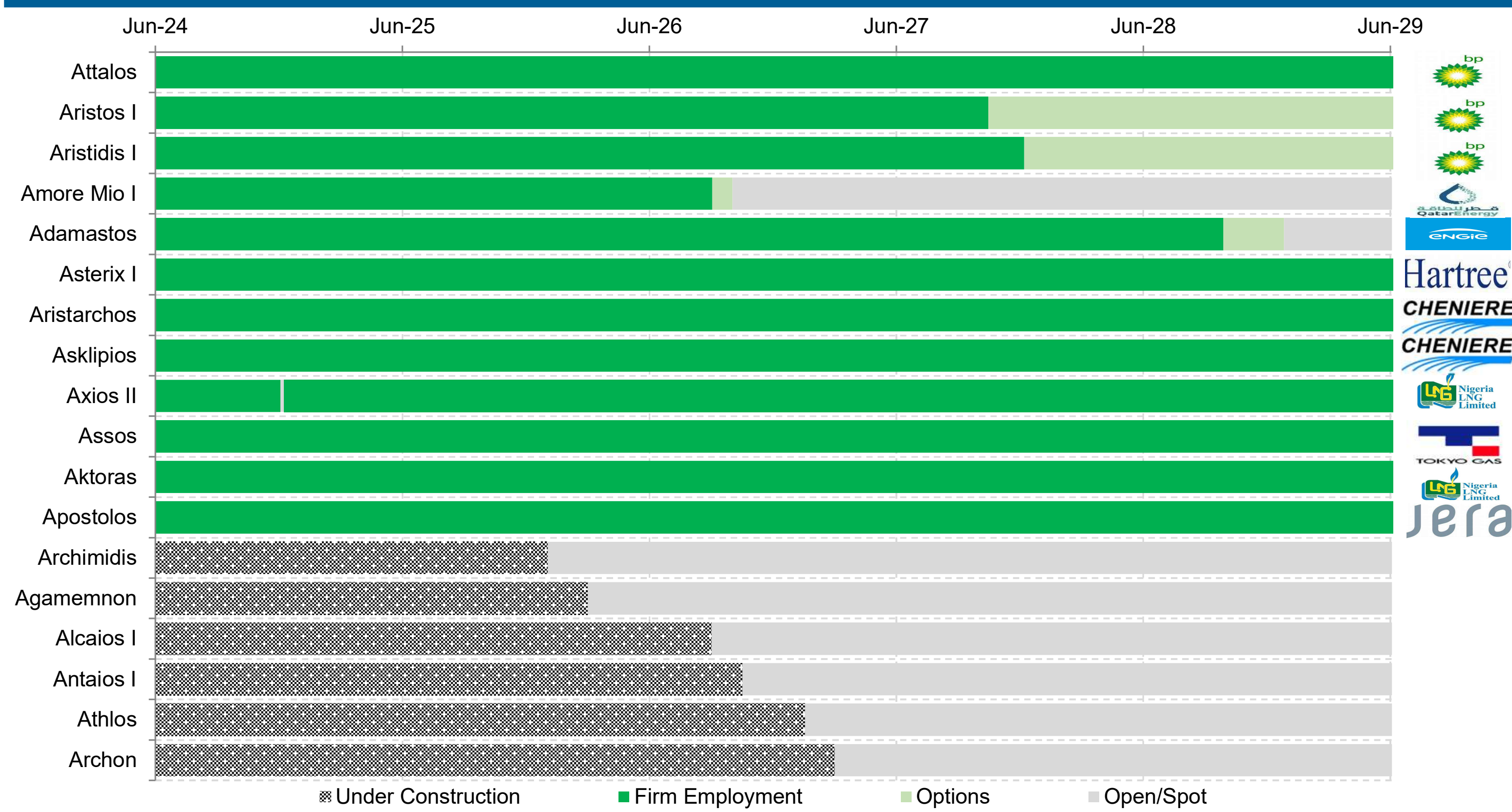
Contracted backlog of 74 years at an average daily rate of $88,537, or ~$2.4bn of revenue
Backlog could increase to 109 years with all options exercised



Firm	With Options
2029	2034
2027	2032
2028	2033
2026	-
2028	-
2030	2032
2031	2035
2031	2035
2032	2035
2034	-
2031	2034
2034	2037
-	-
-	-
-	-
-	-
-	-
-	-

*Estimates as of June 30, 2024, including six LNG/Cs expected to be delivered. Assumes the exercise of the first two options (total 4 years per vessel) for the three vessels on charter to BP, as the structure of the time charter party makes the exercise of these options highly likely. BP has already exercised their first option for the LNG/Cs Aristos I and Aristidis I

LNG Global Fleet – Fleet Structure Is Split Between 3 Technologies

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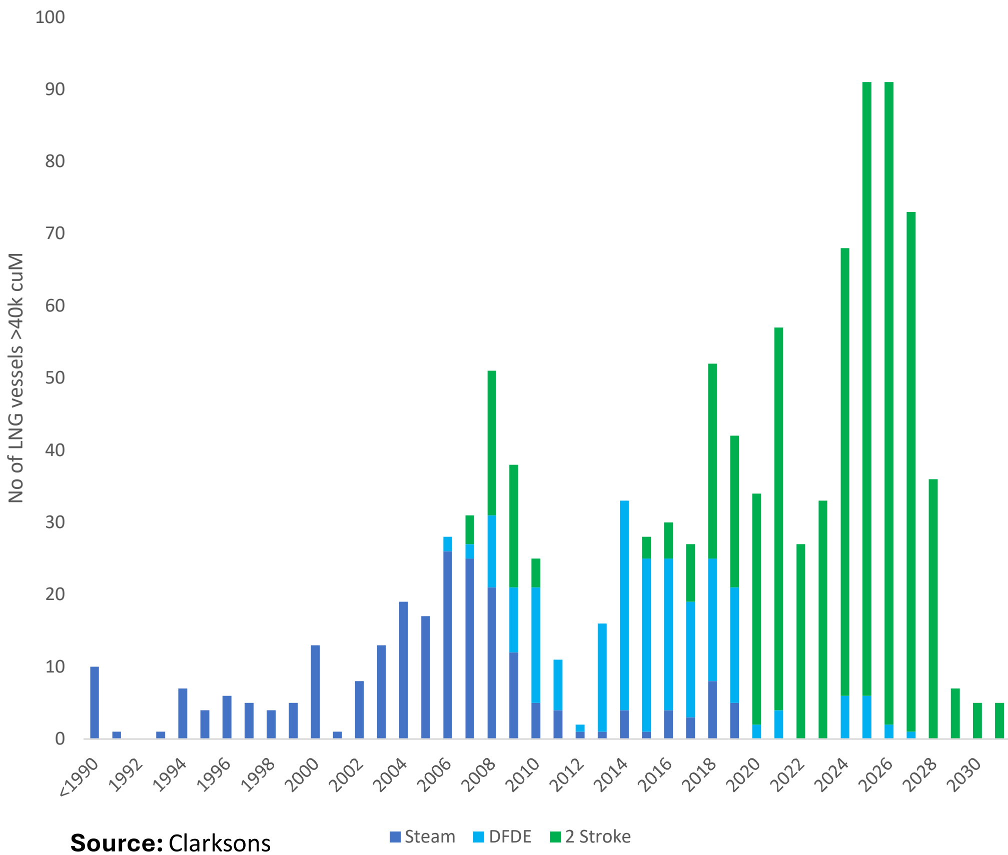
2 stroke engines dominant since 2018



Source: Clarksons

Older vessels face operational challenges

Vessel type	Steam Turbine	Diesel Electric (DFDE/TFDE)	2 stroke Inj (MEGI/X-DF)
Capacity	145,000 cbm	160,000 cbm	174,000 cbm
Fuel consumption @19k	N/A due to EEXI	125	90
Fuel consumption @17k	160	100	78
CO2 per voyage in tons*	54,632	42,081	26,033

*based on US-Japan round trip

Source: CCEC

Age split of LNG global fleet

Existing fleet = 652	245 LNGC >15 years
Orderbook = 347	407 LNGC <15 years
Average Age = 12 years	

Source: Clarksons

LNG Global Fleet – Orderbook Ratio is High – But so is Future Growth

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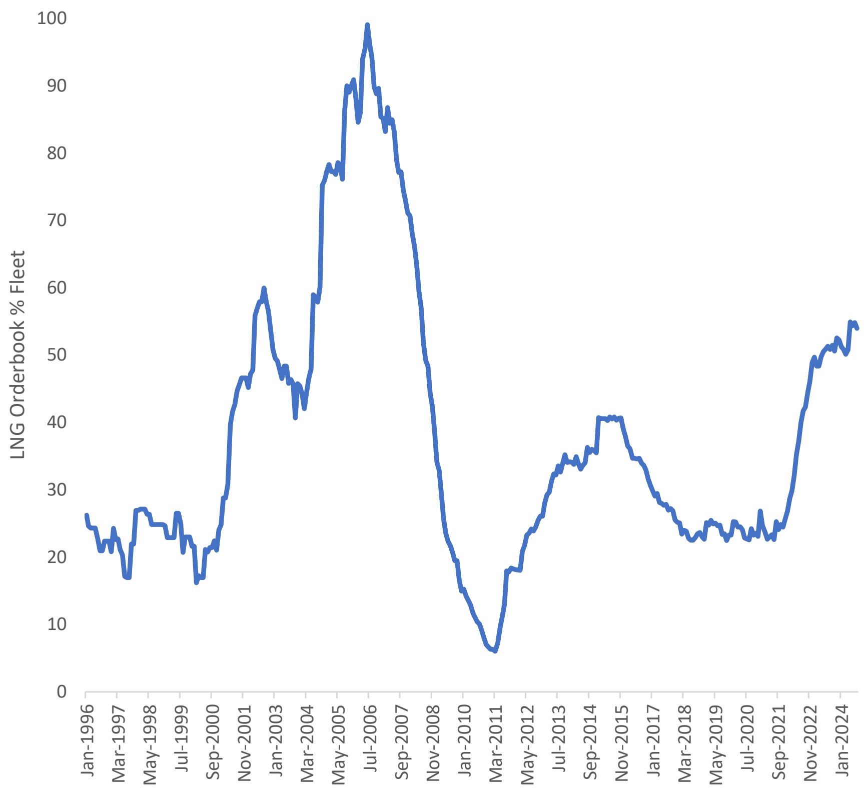
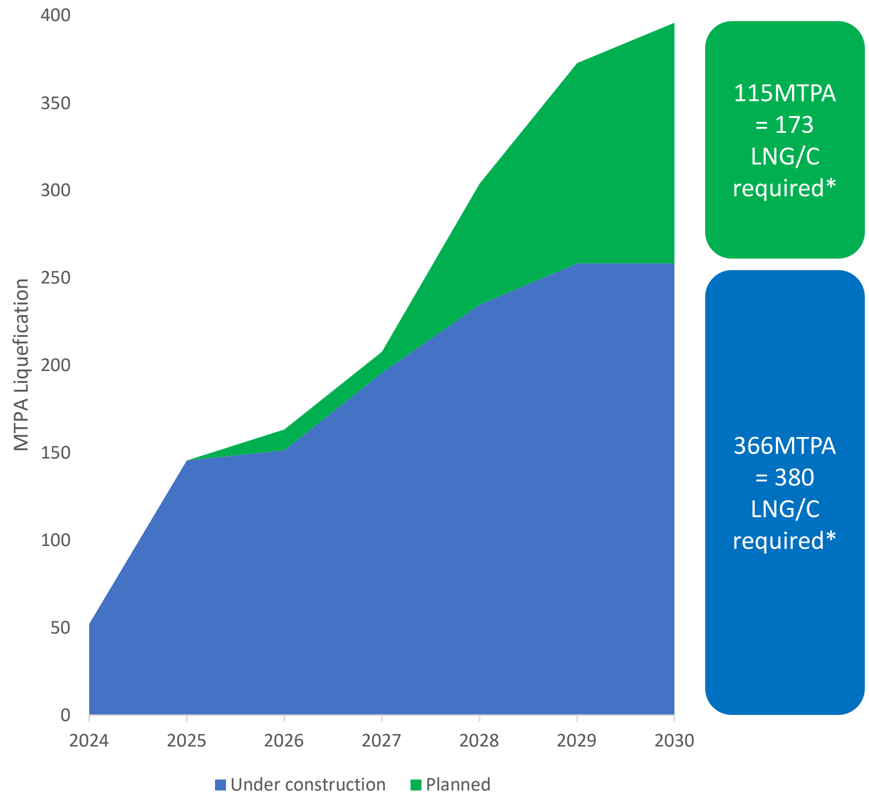
Orderbook/fleet ratio is high at >50%....



Source: Clarksons

....but so is LNG production growth >400MTPA by 2030



*assumption 1.5x LNG/C for every MT of LNG given tonne mile impact

Source: Clarksons, Fearnley

LNG Sector – Asset Prices Underpinned By Multiple Factors

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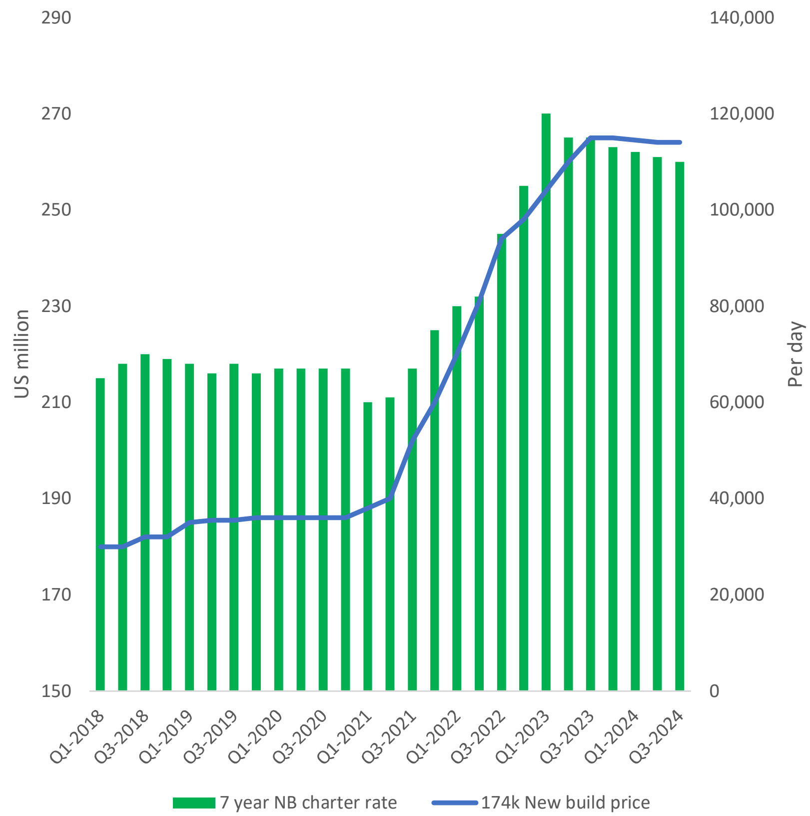
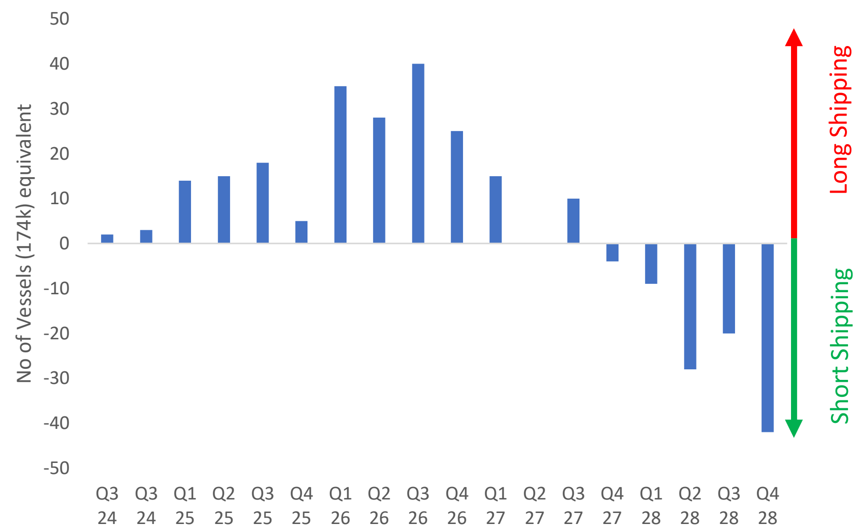
LNG 174k @$260m – underpinned by rates…



Source: Clarksons

….and tight vessel supply market from 2027



Yard capacity

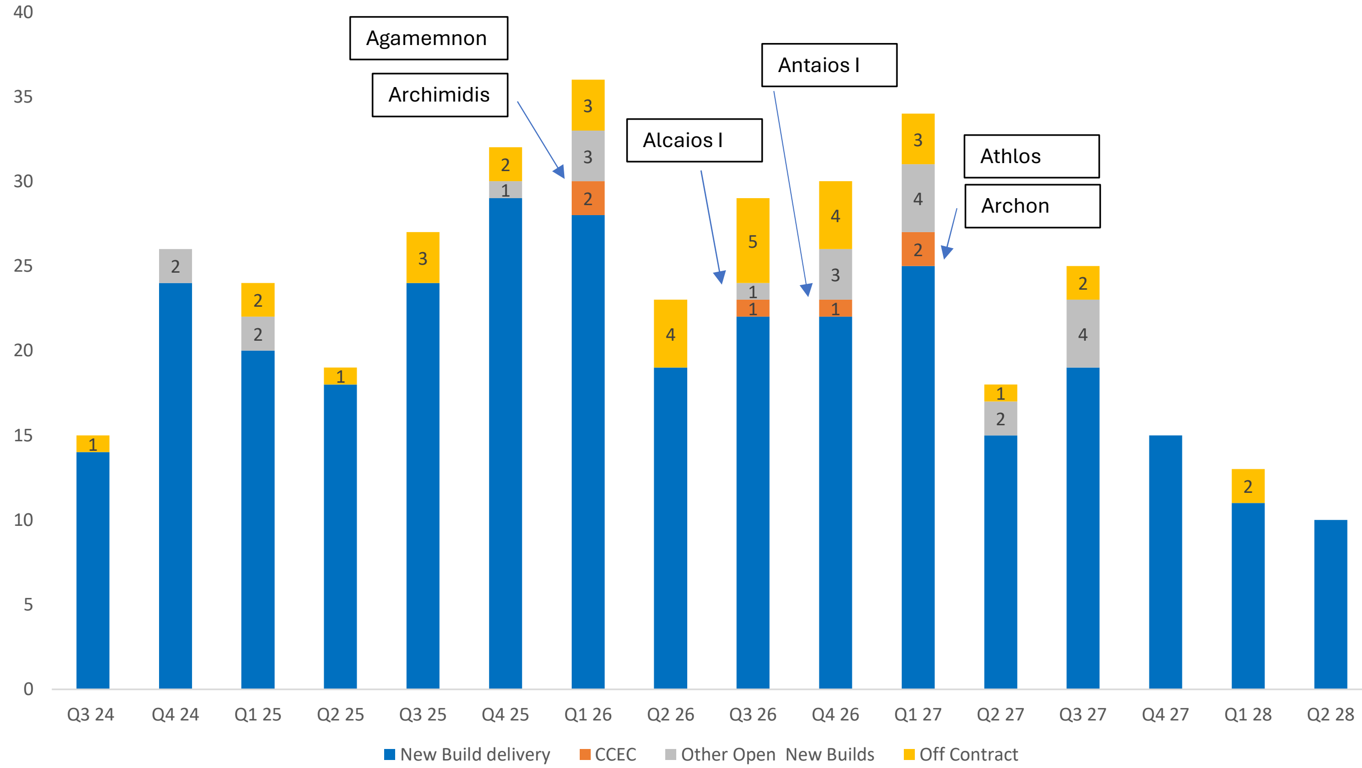
Lead Times

Cost Inflation

Source: SSY, Affinity

Very Few Open LNG/C Delivery Slots In Orderbook

Only 28 out of 343 LNG/C deliveries are open – CCEC has 21% or 6 of these slots



21% of open book = CCEC

CCEC is well positioned to take advantage of the strong LNG/C term market with the largest positions in uncommitted vessels among shipowners

Source: Clarksons

LNG Global Fleet – Contract Duration is Rising

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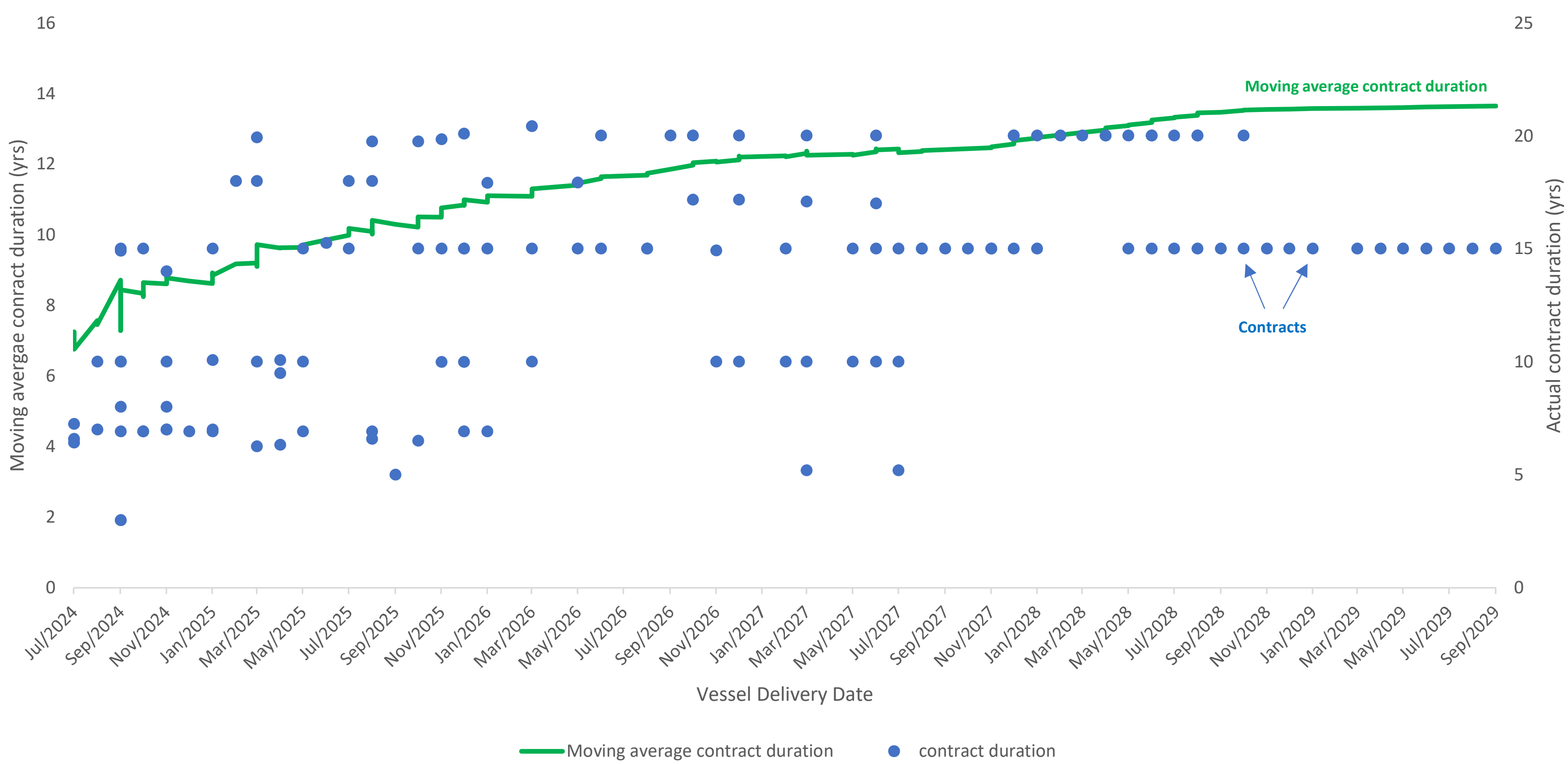
Contract duration has risen from 2026 delivery onward – post 2027 delivery > 15 years



* Where contract duration is known – covers 40% of the orderbook

Source: SSY

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Container Fleet & Market

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Charter Profile* - CCEC Container Fleet - 7 Sold in 2024; 8 Left; 5 Off Charter in 2025

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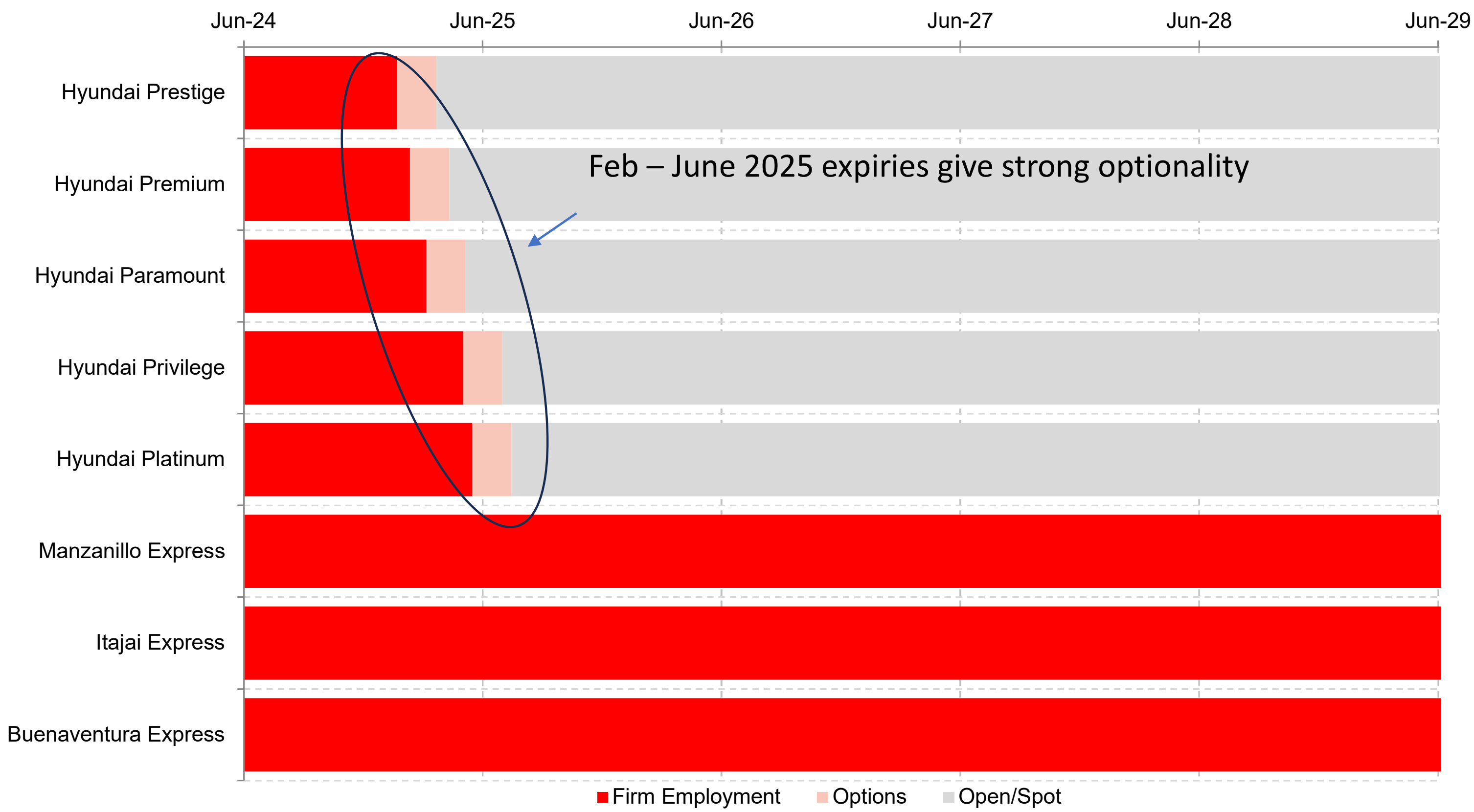
Contracted backlog of 30 years at an average daily rate of $38,362, or ca. $413.8 million of revenue
Backlog could increase to 49 years with all options exercised



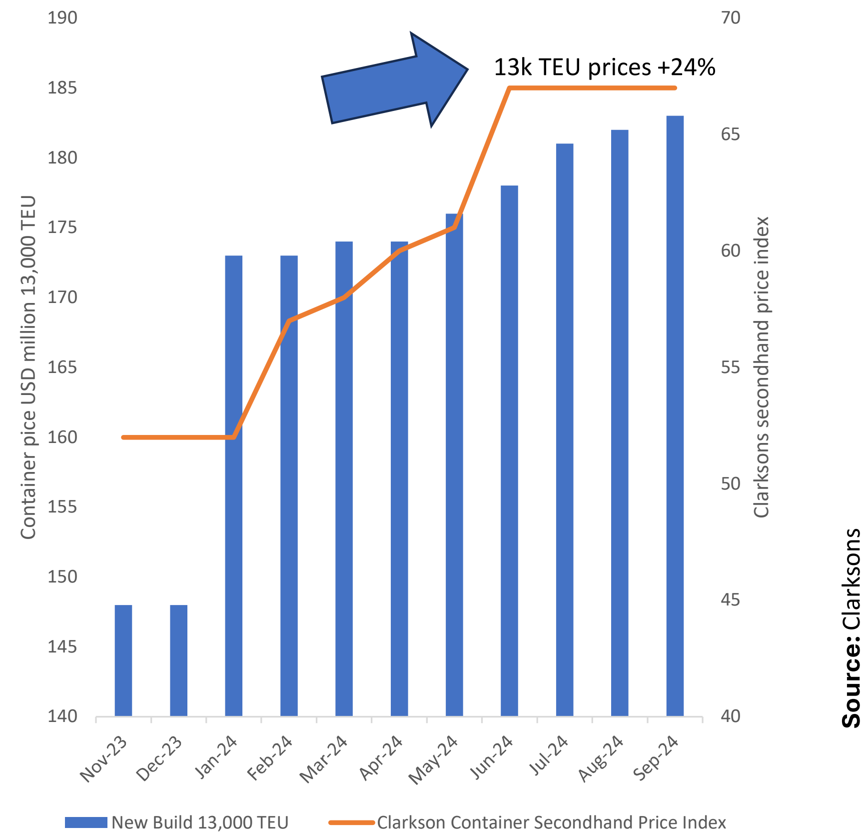
Firm	With Options
2025	-
2025	-
2025	-
2025	-
2025	-
2032	2038
2033	2039
2033	2039

* Estimates as of June 30, 2024

Containers – Optionality from Strong Market Recovery

1 year time charter rates - rising

Asset prices rising – focused on smaller containers



04

Financials

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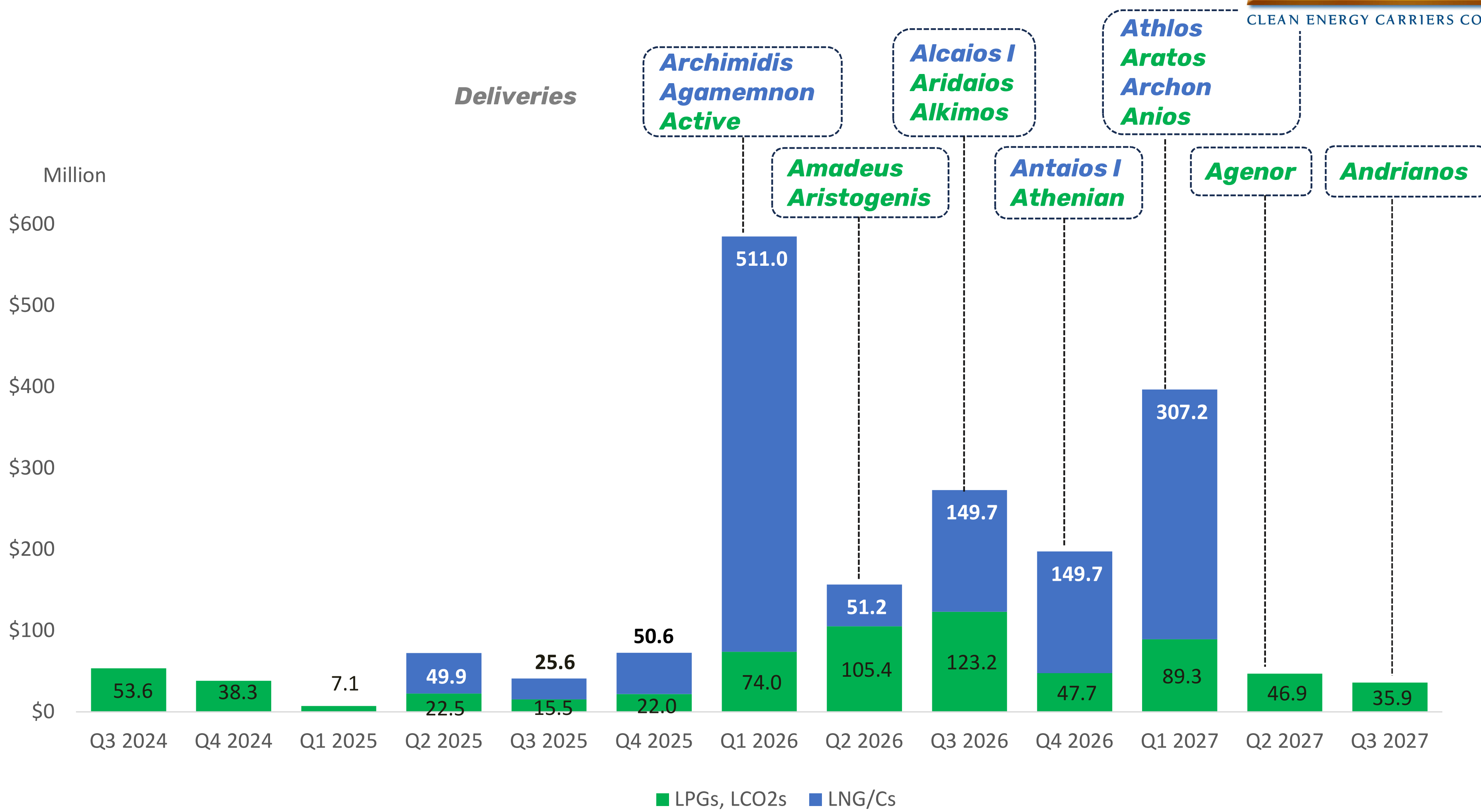
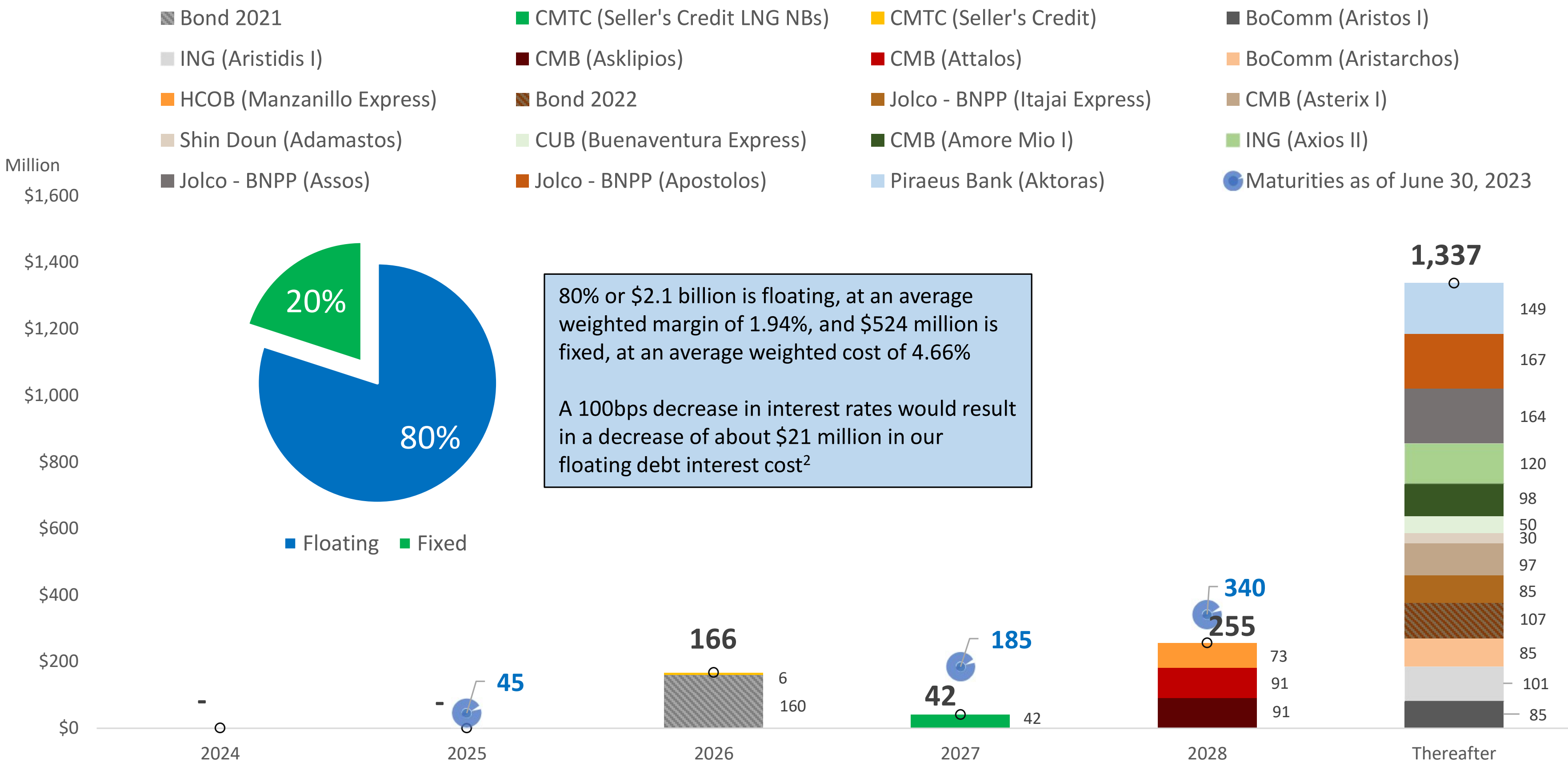
Newbuilding Commitments



* As of June 30, 2024.Basis preliminary yard schedule for the gas vessels

Debt Maturities Overview[1]



80% or $2.1 billion is floating, at an average weighted margin of 1.94%, and $524 million is fixed, at an average weighted cost of 4.66%

A 100bps decrease in interest rates would result in a decrease of about $21 million in our floating debt interest cost[2]

1. As of June 30, 2024. The Itajai Express JOLCO, the Assos JOLCO and the Apostolos JOLCO amounts due on maturity include interest accrued on the equity portion
2. As of June 30, 2024. Calculated basis the relevant average debt balances for the next 12 months, including the Apostolos JOLCO, drawn on July 16, 2024

05

Gas Fleet & Market

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Dual Fuel LPG & Liquid CO2 Fleet

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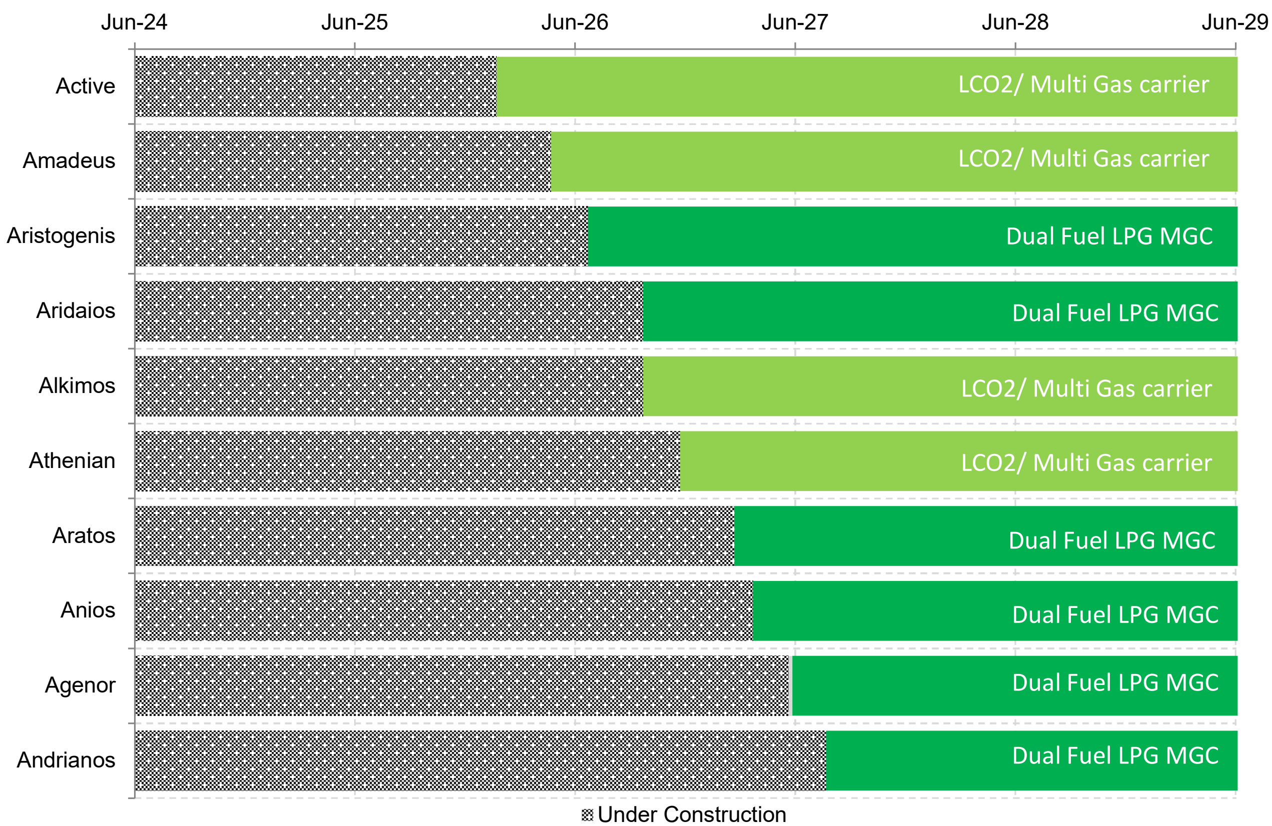
High specification, dual fuel LPG & LCO2 vessels, with increased capacity for reduced freight cost
LCO2 vessels capable of transporting liquid CO2, LPG and ammonia



Size (cbm)	Price US$m	Delivery
22,000	$78.2m	Jan-2026
22,000	$78.2m	Apr-2026
45,000	$78.1m	Jun-2026
45,000	$78.1m	Sep-2026
22,000	$78.2m	Sep-2026
22,000	$78.2m	Nov-2026
45,000	$78.1m	Feb-2027
40,000	$65.3m	Mar-2027
45,000	$78.1m	May-2027
40,000	$65.3m	Jul-2027

*Estimates as of June 30, 2024

New Markets to Emerge in Mid Sized Gas Carrier Segment

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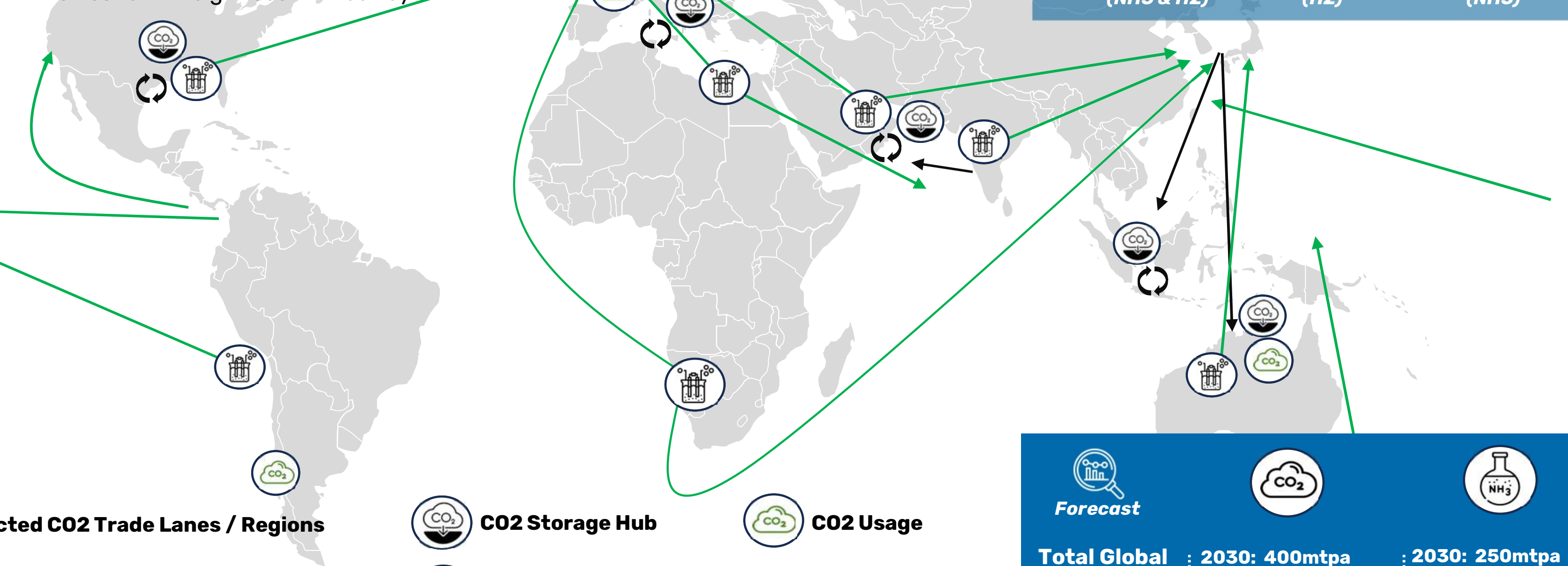
Unit freight cost:

- Need for **larger** and **more efficient vessels**
- MGCs with lowest unit freight cost will be key



INDUSTRIES FOR LOW CARBON AMMONIA:

Power generation (NH3 & H2)	District heating (H2)	Industrial application (NH3)

Expected CO2 Trade Lanes / Regions

Expected Low Carbon Ammonia Trade

CO2 Storage Hub

Green/Blue Ammonia /Hydrogen Hub

CO2 Usage

- Source: IEA, IRENA, S&P Global, Rystad

Forecast	CO_2	NH_3
Total Global Volumes	**2030: 400mtpa** **2050: 4,000mtpa**	**2030: 250mtpa** **2050: 650mtpa**
Maritime Volumes	**2030: 90mtpa** **2050: 600mtpa**	**2030: 65mtpa** **2050: 180mtpa**

Mid Sized Gas Carrier Market is Changing

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MGC market traditionally been a “one size fits all” approach – a MULTI TIER market is emerging with new more efficient 38k, 40k and recently 45k cbm vessels competing with older established 35k cbm ships

Fuel Flexibility

Ability to transport **Ammonia, LPG, Propylene, Butylene** provides further huge trading flexibility

High specification

High-Specification, proprietary design providing charterers with flexible and efficient assets

Scale Economies

Larger vessel capacity to provide **economies of scale** and more **attractive unit freight cost economics**

Multi-tier Market

Going forward the MGC sector likely to split into multiple specialist segments driven by engagement between shipping co & industry

Environmental Regulation

New rules & regulations are underpinning **investment in new vessels** reflecting current and prospective regulations

Source: IEA, GCCSI, IRENA, Rystad, IOGP // * CCSA: Carbon Capture Storage Association

Liquid C02 Carriers – Key Fundamentals & Drivers

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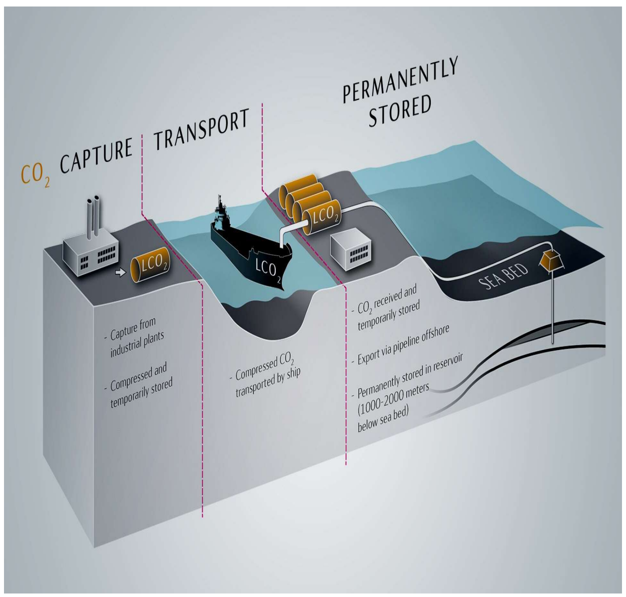


KEY DRIVERS

- **Emission Reduction Targets (Gov / Corp)**
- **Carbon Taxes**
- **Subsidies / Credit Schemes**
- **Demand for low carbon products**

GLOBAL MARKET

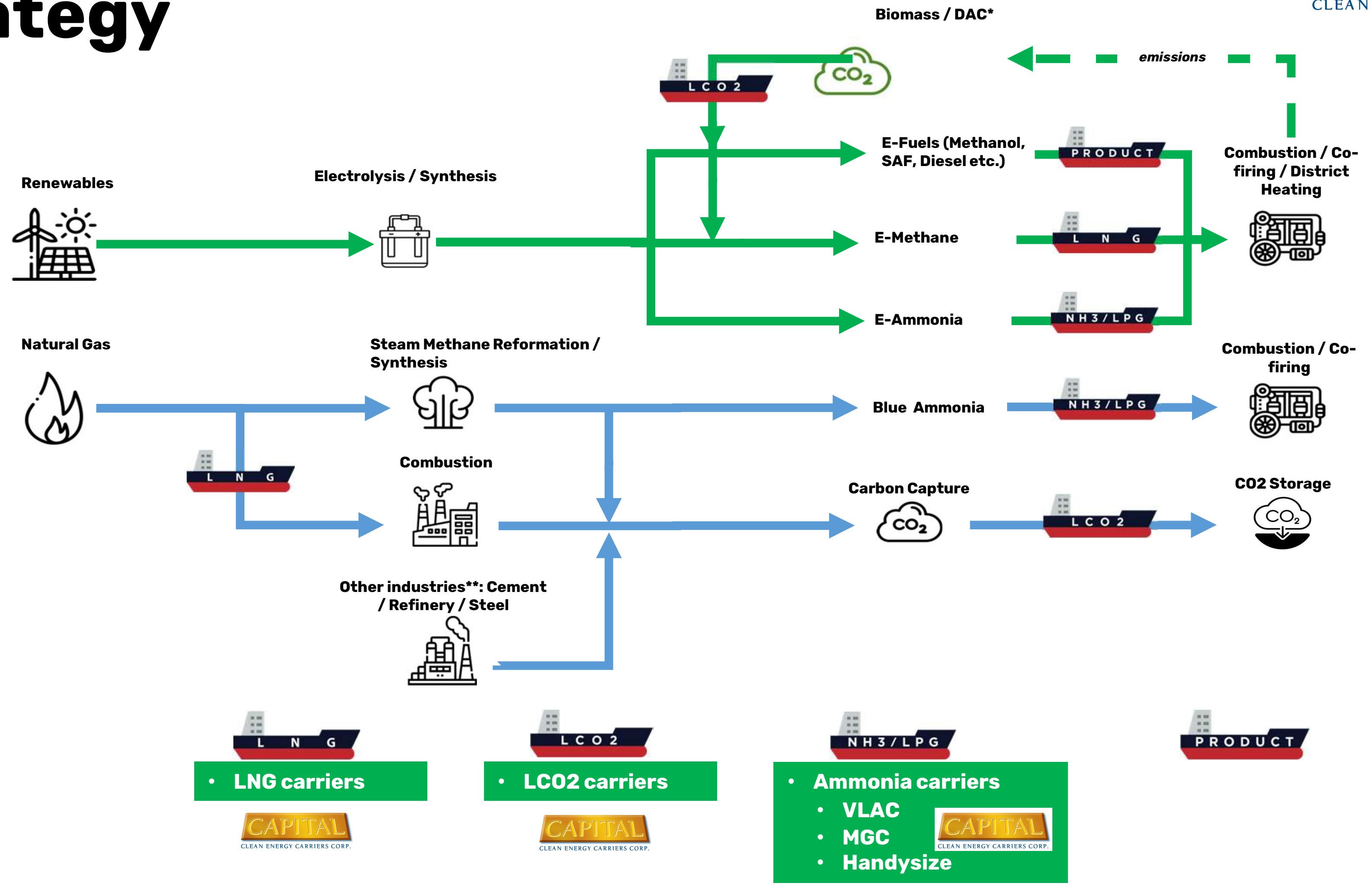
IEA: Total CCS Market 2030	IEA: Total CCS Market 2050
- Planned: **400mtpa** - Net Zero: **1,025mtpa**	- Net Zero: **7,000mtpa**

MARITIME REQUIREMENTS

CCSA*	Rystad	IEA (10% of total CCS)
YEAR 2030 *Europe* - Volumes: **40mtpa** - No. Ships: **40**	**YEAR 2030** *Globally* - Volumes: **90mtpa** - No. Ships: **55** *All sizes*	**YEAR 2050** *Globally* - Volumes: **700mtpa** - No. Ships: **700**

Source: IEA, GCCSI, IRENA, Rystad, IOGP // * CCSA: Carbon Capture Storage Association, Aker solutions

Fully Integrated Gas Transportation Strategy



06
Section
Conclusion & Summary

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Very Modern Fleet & Platform Available

Upon Delivery CCEC expected to be the **largest** gas carrier platform with 28 gas vessels

Capital Clean Energy Carriers – Key Highlights

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Avg. Fleet Age[2]

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Fleet Size[2]

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$2.4 billion Newbuilding Program for LNG/Cs, MGCs and LCO2 state of the art vessels

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3. Based on charter attached valuations as of June 2024 and debt balance of June 30, 2024

Appendix

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CPLP/ CCEC Strong Capital Markets History

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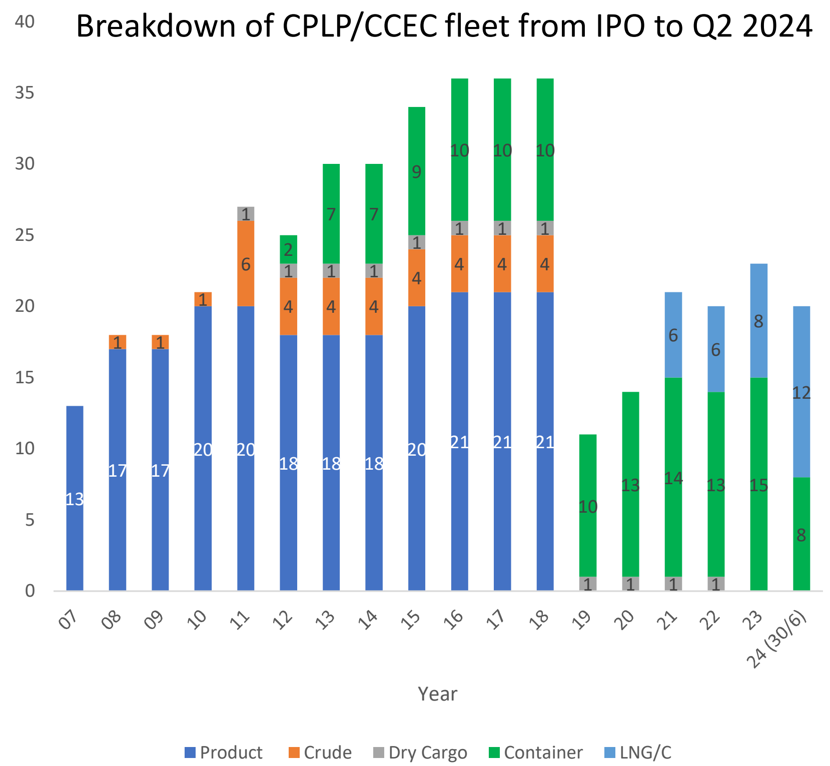
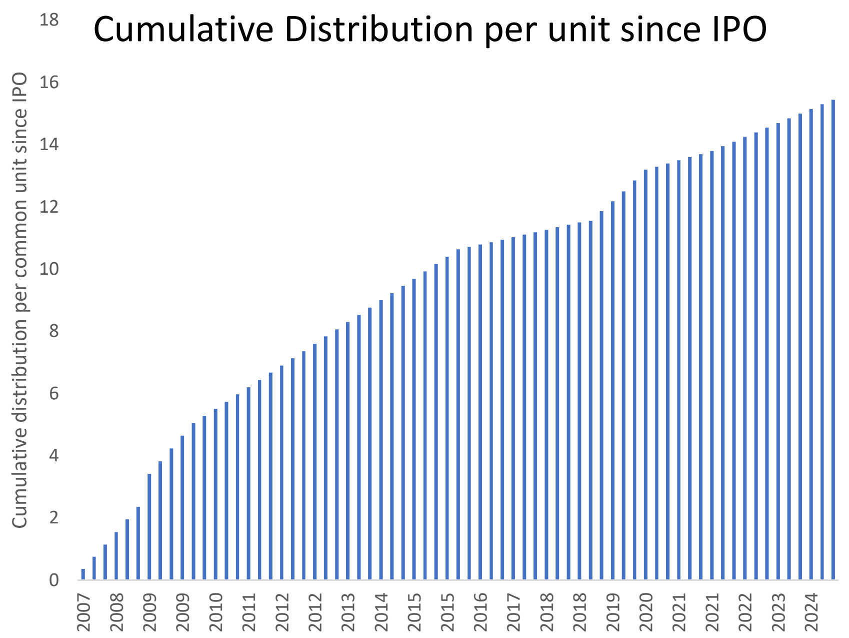
Company has long history – pivoting away from crude & product tankers in 2019

Paid 69 consecutive QUARTERLY dividends on common units totalling $15.44 per unit since IPO*





* Not accounting for share splits

Assumptions

- **Annual debt amortization:** $155.1 million. Estimated amount of the average annual amortization for each vessel basis $2.91 billion debt
- **Interest rate:** Average margin of 1.97% over the 5 year SOFR rate of 4.02%
- **Interest Expense:** Interest rate multiplied by the average of Vessel Debt and Vessel Debt minus Amortization
- **Ownership Days:** Aggregate number of days each vessel is expected to be part of the CCEC fleet per year
- **Contracted Revenue:** Time charter rate multiplied by the total number of available days during the time charter period. Available days per vessel for LNG/Cs Assos and Apostolos are adjusted for one special survey per vessel
- **Daily Rate Average per year:** sum of the contracted revenue for the subject year divided by the number of Ownership Days
- **EBITDA:** Earnings before interest, tax, depreciation, and amortization charges. Forward-looking EBITDA included in this presentation is not reconcilable to its most directly comparable GAAP measure without unreasonable efforts, because the amounts excluded from such GAAP measure to determine EBITDA cannot be predicted with reasonable certainty
- **Adjusted Free Cash Flow:** For existing fleet: Operating Surplus *prior to capital reserve* minus scheduled principal payments. Please refer to previous announcements for a reconciliation of Operating Surplus with net income for existing fleet. For 11 LNG/C fleet and 10 LPG/ LCO2 fleet: EBITDA less Interest Cost less Annual Debt Amortization
- **Daily operating expenses:** for the LNG/Cs $14,500 per day, for the LPG/LCO2s: $8,000 per day
- **Daily time charter rate for unfixed vessels:** for the LNG/Cs: $100,000 per day; for the 45,000 cbm LPGs and the LCO2s: $40,000 per day, for the 40,000 cbm LPGs $37,000 per day