

Bloomenergy®

INVESTOR PRESENTATION

# BLOOM ENERGY AND MARITIME TRANSPORT



# DISCLAIMER

This presentation is being made exclusively to qualified institutional buyers (“QIBs”) as defined in Rule 144A (“Rule 144A”) under the U.S. Securities Act of 1933, as amended (the “Securities Act”). The securities described herein have not been and will not be registered under the Securities Act and may not be offered or sold in the United States except to QIBs in reliance on Rule 144A or pursuant to another exemption from, or transaction not subject to, the registration requirements of the Securities Act. This document does not constitute an offer to sell, or a solicitation of an offer to purchase, any securities in any jurisdiction where such offer or sale is not permitted. Any purchaser of such securities will be deemed to have made certain representations and acknowledgments, including, without limitation, that the purchaser is a “qualified institutional buyer” as defined in Rule 144A under the Securities Act.

This presentation regarding Bloom has been prepared solely for informational purposes and is strictly confidential. We request that you keep any information we provide at this meeting confidential and that you do not disclose any of the information to any other parties without prior expressed written permission. This is not a legally binding agreement, and the terms of any agreement or commitment to invest shall be limited to those included in final definitive documentation related thereto.

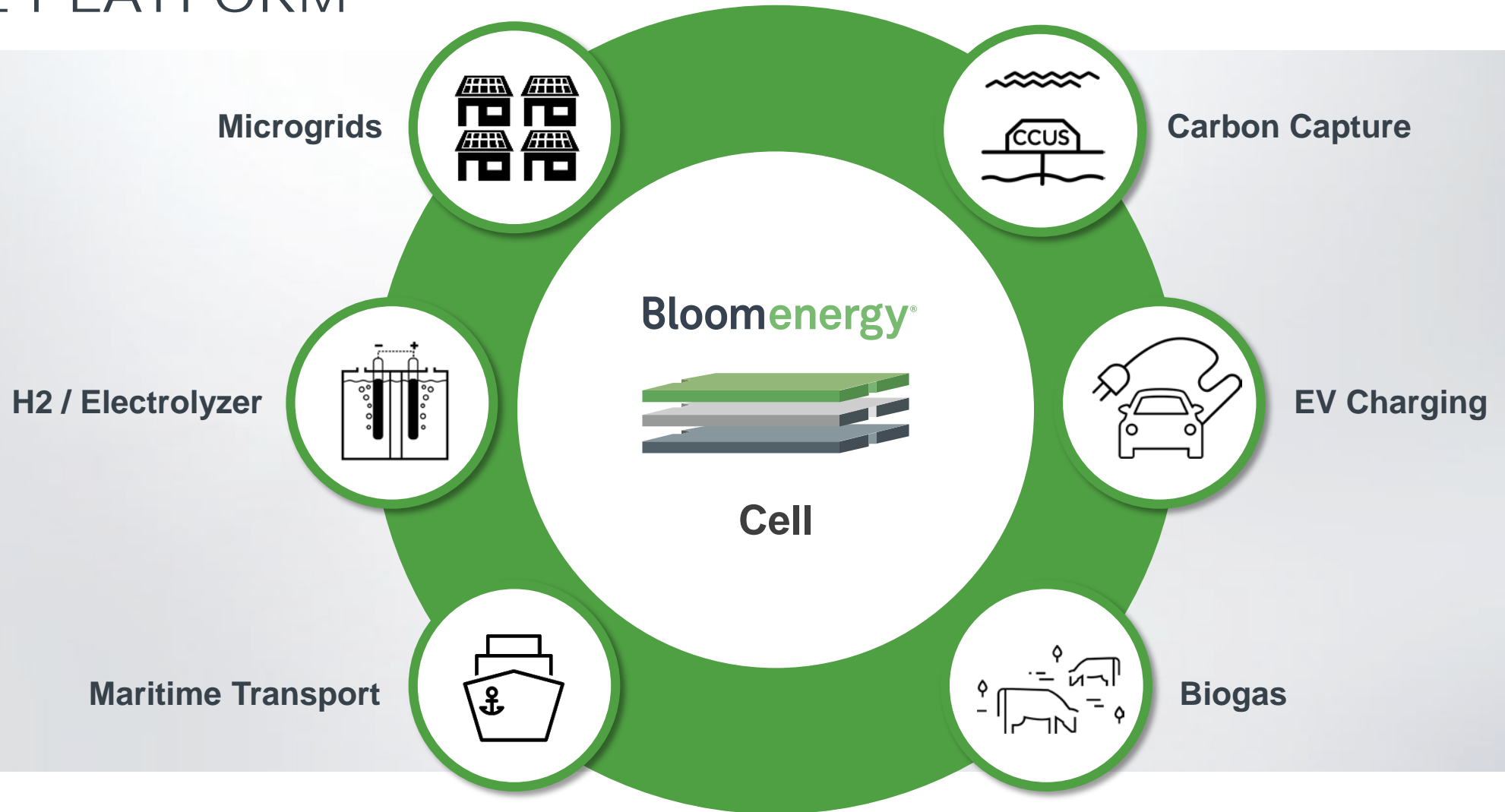
This presentation includes forward-looking statements. All statements contained in this presentation other than statements of historical facts, including statements regarding our future operating results and financial position, our business strategy and plans, and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “predict,” “intend,” “could,” “would,” “should,” “expect,” “plan” and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, operating results, and prospects. Forward-looking statements in this presentation may include, but are not limited to, our plans and expectations regarding the development of our Energy Server for the maritime transport market, the development and timing of the maritime transport market and infrastructure for alternative fuel systems such as our Energy Server, the expected impact of our Energy Servers on the reduction of carbon emissions in the maritime transport market, the level of adoption of alternative fuels and assets in the maritime transport market such as our Energy Server and its impact on the market size, the impact of the COVID-19 pandemic, business strategies, the sufficiency of our cash and our liquidity, projected costs and cost reductions, development of new products and improvements to our existing products, our manufacturing capacity and manufacturing costs, the adequacy of our agreements with our suppliers, legislative actions and regulatory compliance, competitive position, management’s plans and objectives for future operations, our ability to obtain financing, trends in average selling prices, the success of our power purchase agreement entities, expected capital expenditures, warranty matters, general business and economic conditions in our markets, industry trends, the impact of changes in government incentives, trends in revenue, future deployment of our Bloom Energy Servers, expansion into new markets, our ability to expand our business with our existing customers, our ability to increase efficiency of our product, our ability to decrease the cost of our product, our business strategy and plans, our objectives for future operations, and our expected use of the net proceeds from this offering and our intent to allocate an amount equal to the net proceeds from this offering to eligible green expenditures.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions. The forward-looking statements in this presentation represent our beliefs and assumptions as of the date of this presentation. Except as required by law, we are under no duty to update any of these forward-looking statements after the date of this presentation. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements contained in this presentation. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to Bloom's business in general, see Bloom's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the Securities and Exchange Commission on March 31, 2020, its Quarterly Reports on Form 10-Q for the three month periods ended March 31, 2020 and June 30, 2020 filed on May 11, 2020 and August 4, 2020, respectively and the “Risk Factors” section of the offering memorandum for the offering to which this presentation relates. Our results are not necessarily indicative of our results for any future periods.

This presentation also contains estimates, projections and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry and our business. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified the accuracy and completeness of the information obtained by third parties included in this presentation. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

Certain financial data included in this presentation are “non-GAAP financial measures” as defined by the U.S. Securities and Exchange Commission. These non-GAAP financial measures are in addition to, and not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. There are a number of limitations related to the use of these non-GAAP financial measures versus their nearest GAAP equivalents. These non-GAAP financial measures may not be comparable to similarly-titled measures presented by other companies or to third-party expectations. Refer to the Appendix for a reconciliation of our non-GAAP financial measures to the most directly comparable U.S. GAAP financial measure.

# FLEXIBILITY OF SOLID OXIDE PLATFORM



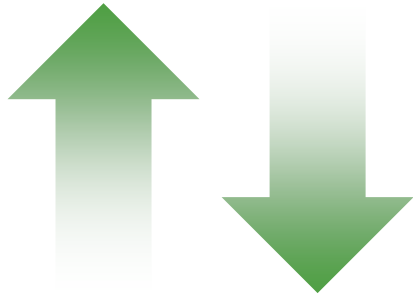
# BLOOM ENERGY + SAMSUNG PARTNERSHIP



Partnership Between Industry Leaders...

**Bloomenergy**<sup>®</sup>

Fuel cell industry leader



**SAMSUNG HEAVY INDUSTRIES**

Industry leader - Drillships,  
LNG carriers, FPSO

**Joint Development Agreement**  
Share design with customers in 2022

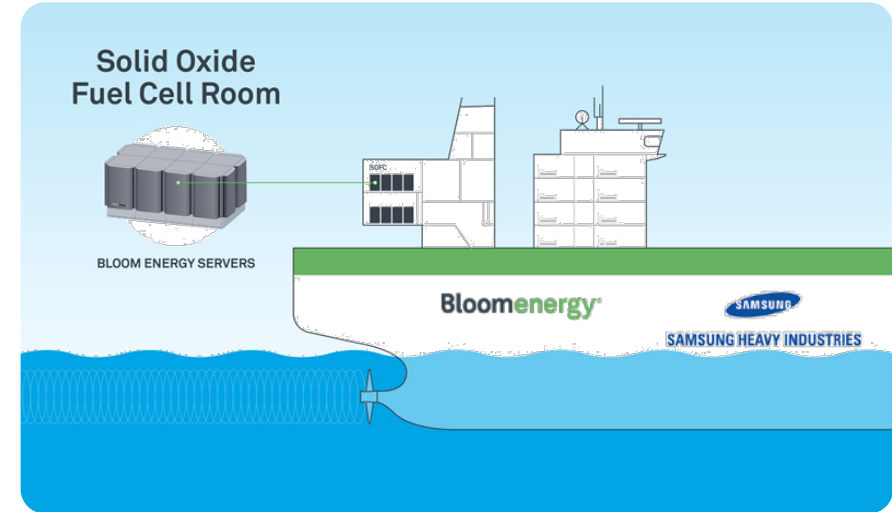
**Research & Development**

**Future-Proof Platform**  
LT plans to collaborate on clean technologies

Planned Timeline to Commercialization



...Results in Large Marine Market Opportunity



~ **300MW**

“As regulations to reduce GHG emissions take effect step-by-step, the *introduction of fuel cells to vessels is inevitable*. This approval, and being the first shipbuilder to secure this marine fuel cell technology, illustrates that Samsung Heavy is highly likely to lead the market.”

**Kyunghee Kim,**  
Vice President of SHI Outfitting Engineering Team

# OPPORTUNITY SIZE



Vessel Type	Power Requirement	Ships in Operation	Ships on Order	LNG Powered Ships in Operation	LNG Ships on Order
Container Ships <sup>1</sup>	Up to 100 MW	46,000+	4000+	27 Cargo and containerships  ~250 Tankers	49 Cargo and containerships  ~140 Tankers
Bulkers <sup>1</sup>	10 to 15 MW				
Tankers <sup>1</sup>	10 to 40 MW				
Cruise Ships <sup>2</sup>	10 to 50 MW	555	116	1	30
Offshore Vessels <sup>3</sup>	40 to 50 MW	11,000+	196	22	15

1. Lloyds List Intelligence  
 2. Cruise Industry News  
 3. IHS Markit





**Proven at Scale**  
**500 MW Deployed**  
**700 sites in US, Japan, India and Korea**  
**Fuel Flexible and Future Proof Design**

**Bloom's platform technology has delivered on emissions and efficiency**

**2.33** million metric tonnes  
↓ of **CO<sub>2</sub>** reduction

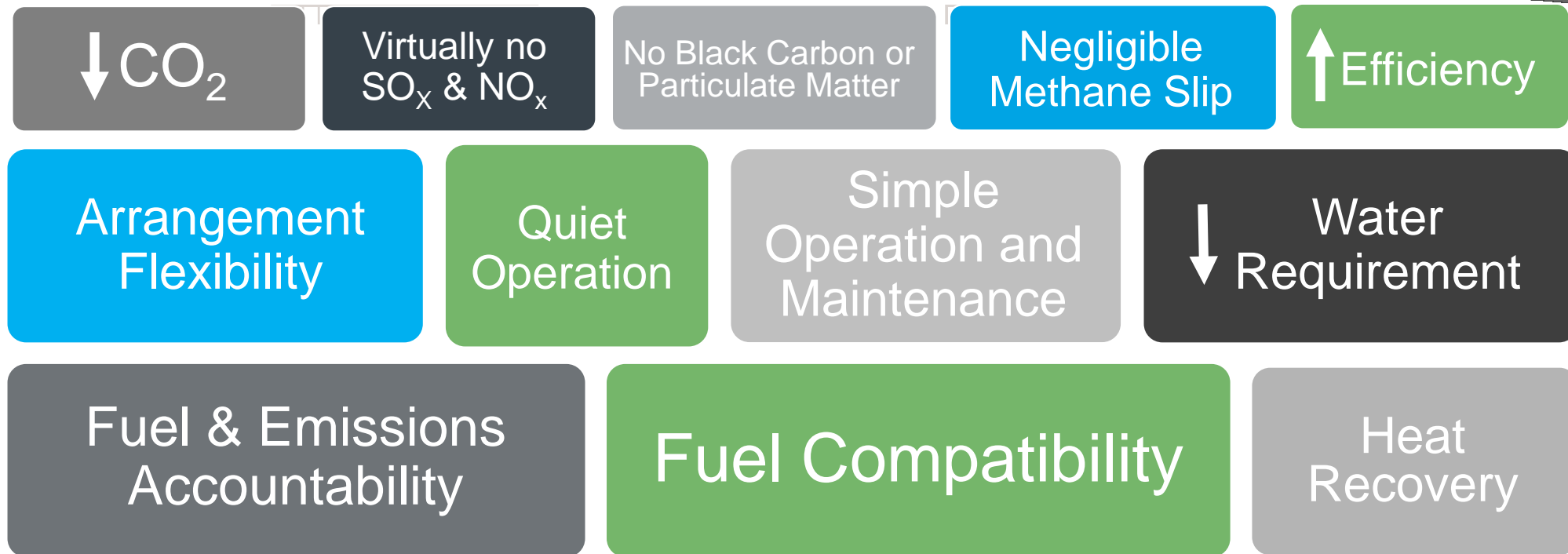
**5.05** million pounds  
↓ of **SO<sub>x</sub>** reduction

**8.9** million pounds  
↓ of **NO<sub>x</sub>** reduction



# MARITIME TRANSPORT PRODUCT FIT

Be



# MARKET DYNAMIC

- Marine transport significant source of **global pollution**.  
Urgency to decarbonize
- **Regulation** expected and targets set
- Current approaches rely on incremental improvements in existing technologies
- Each new fuel requires substantial changes in Engines, Lubricants etc.
- Industry concerns over **stranded assets**
- **Significant opportunity for impact**

Always**ON**





Many cargo ships still use “bunker fuel”

CO<sub>2</sub>

2.2%  
per year

NO<sub>x</sub>

15%  
per year

SO<sub>x</sub>

13%  
per year



Air Quality  
Impact

CO<sub>2</sub> emissions projected to increase by 50%-250% by 2050, despite efficiency improvements of about 40%<sup>(1)</sup>



The Marine sector includes over 50,000 merchant ships and accounts for nearly 90% of world trade

Source: <https://www.shipmap.org/>

# REGULATORY CHANGE COMING TO AN UNPREPARED ECO-SYSTEM



**TARGETS OUTLINED**  
Regulation to be issued in 2023

## Carbon Emissions

By 2030:  
40% intensity reduction

By 2050:  
70% intensity reduction +  
50% absolute reduction

Before 2100  
Zero Emissions

## Other Targets

EEDI for new builds

New NOx ECAs

EEXI for existing Ships

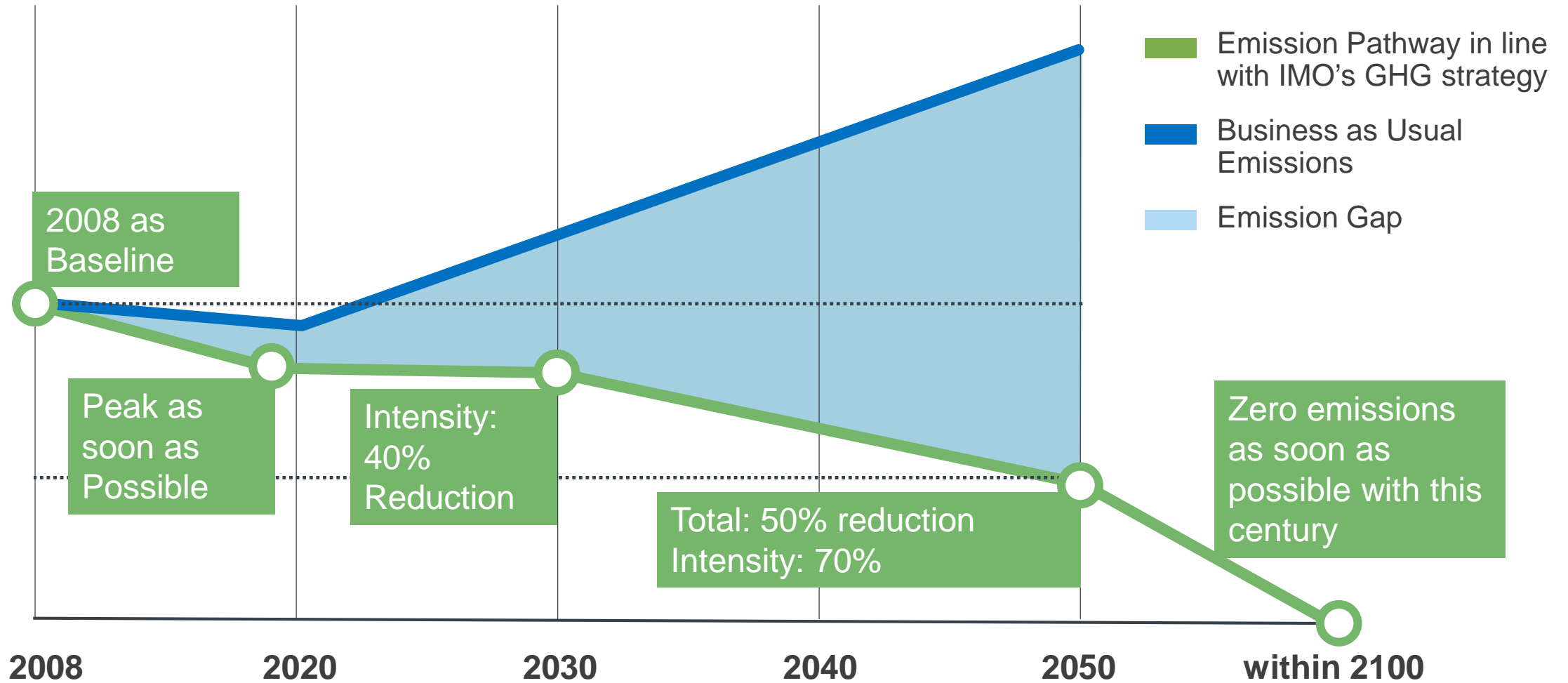


Maritime transport **to be included in EU Emissions Trading System (ETS)**

“MEPs largely agree that ...the IMO has made **insufficient progress** in reaching an ambitious global agreement on greenhouse gas (GHG) emissions.... A global ambitious agreement on GHG emissions from shipping is urgently needed”

# MAGNITUDE OF CHALLENGE AHEAD

## DNV GL ASSESSMENT



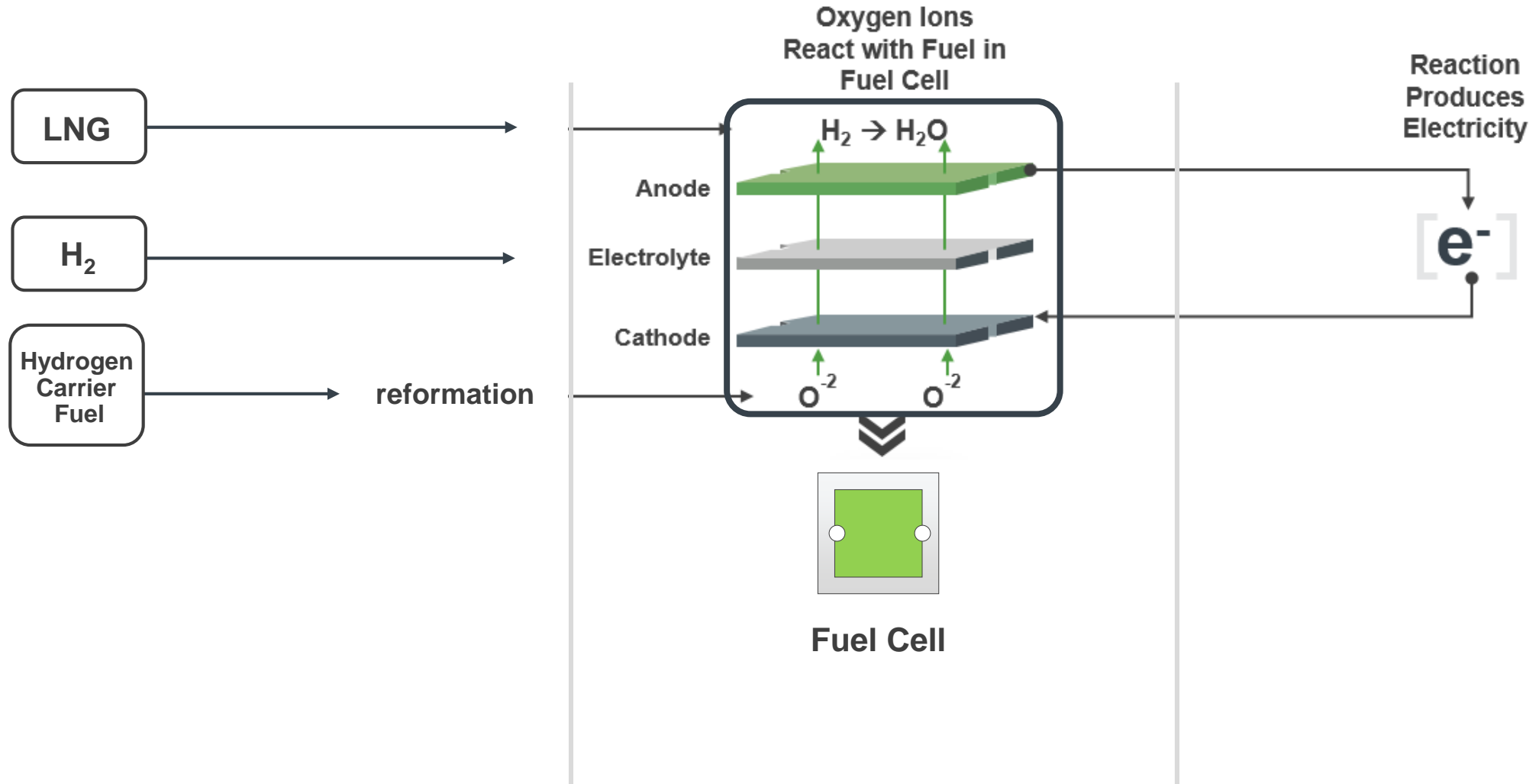


# A TIME OF UNCERTAINTY

- No clear path to meeting IMO requirements
- **Multiple fuels** in the running with no clear winner
- **Timing** of fuel and infrastructure availability for assets with 20-40 year service lifetime
- Even more **complexity onboard** from the various permutations of ICE technology/material sets, fuels, lubricants etc.
- **Concerns about maturity and scaling potential** of new technologies



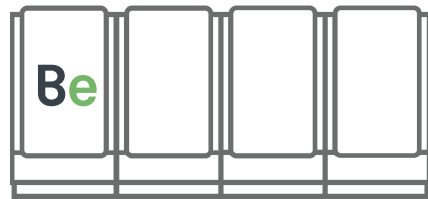
# BLOOM'S PLATFORM TECHNOLOGY



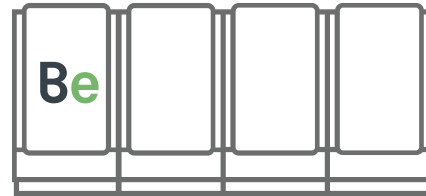
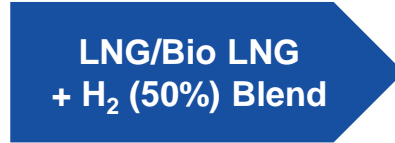
# FUTUREPROOF PLATFORM FOR OPTIONALITY



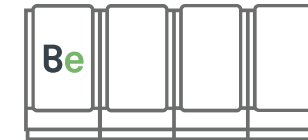
IMO **2030** READY  
AVAILABLE  
TODAY



IMO **2050** READY  
AVAILABLE  
TODAY



**ZERO EMISSION**

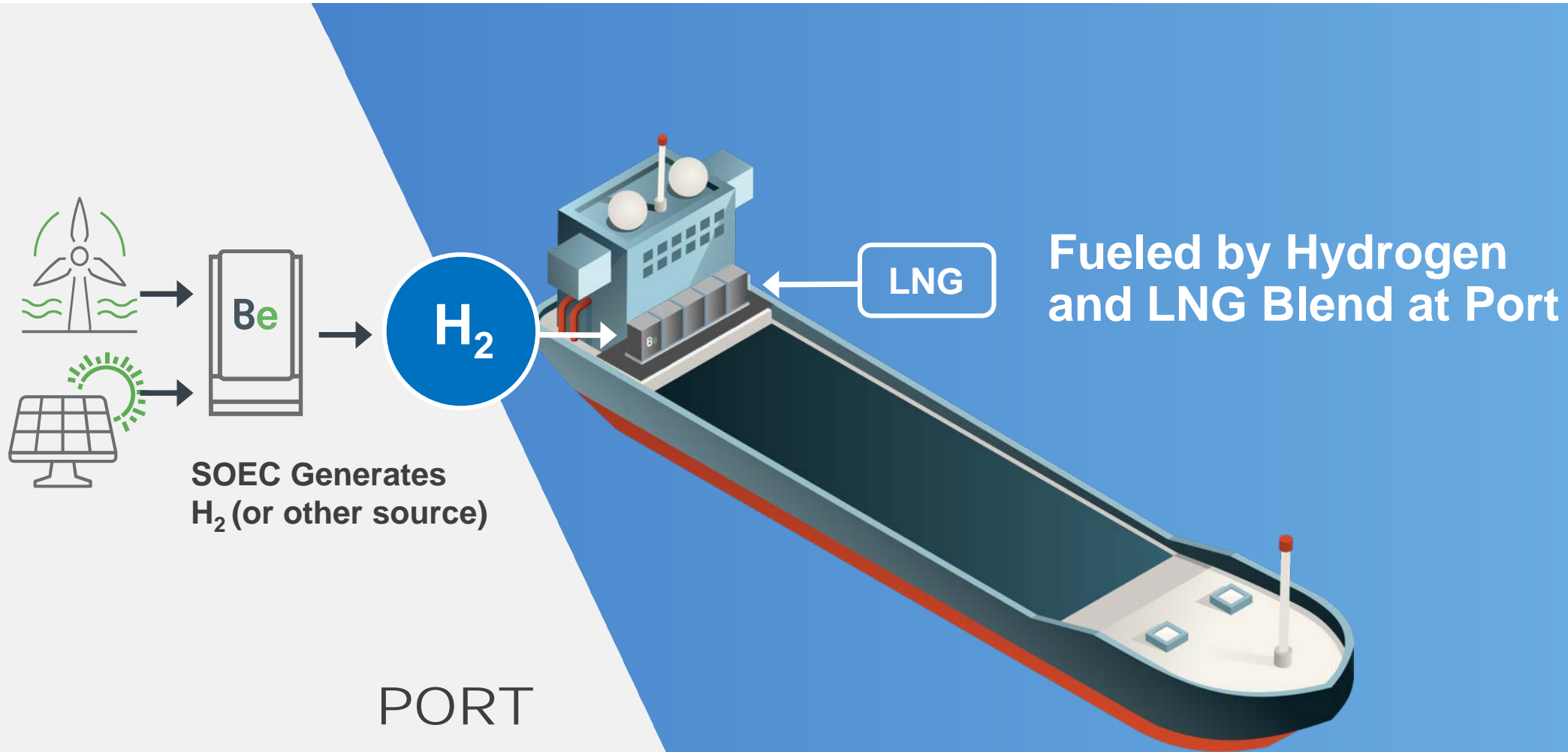


**Green Hydrogen**  
from Electrolysis  
via SOEC

LOW RISK OF STRANDED ASSETS



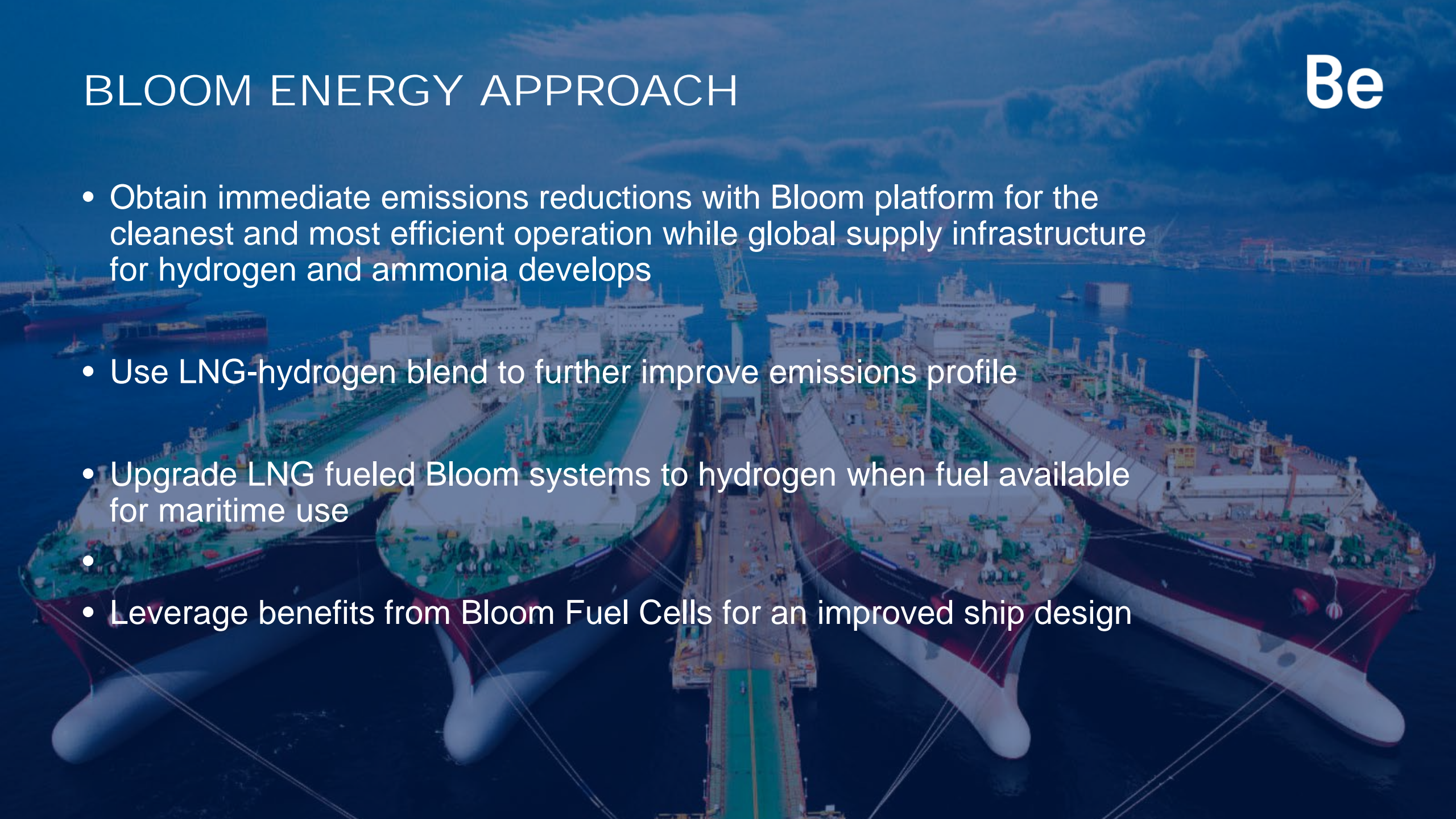
# BLEND HYDROGEN AT PORT TODAY TO MEET OR EXCEED EMISSIONS STANDARDS



# BLOOM ENERGY APPROACH

Be

- Obtain immediate emissions reductions with Bloom platform for the cleanest and most efficient operation while global supply infrastructure for hydrogen and ammonia develops
- Use LNG-hydrogen blend to further improve emissions profile
- Upgrade LNG fueled Bloom systems to hydrogen when fuel available for maritime use
- Leverage benefits from Bloom Fuel Cells for an improved ship design







# Bloomenergy<sup>®</sup>

MARITIME TRANSPORT