



AMMONIA ENERGY
ASSOCIATION

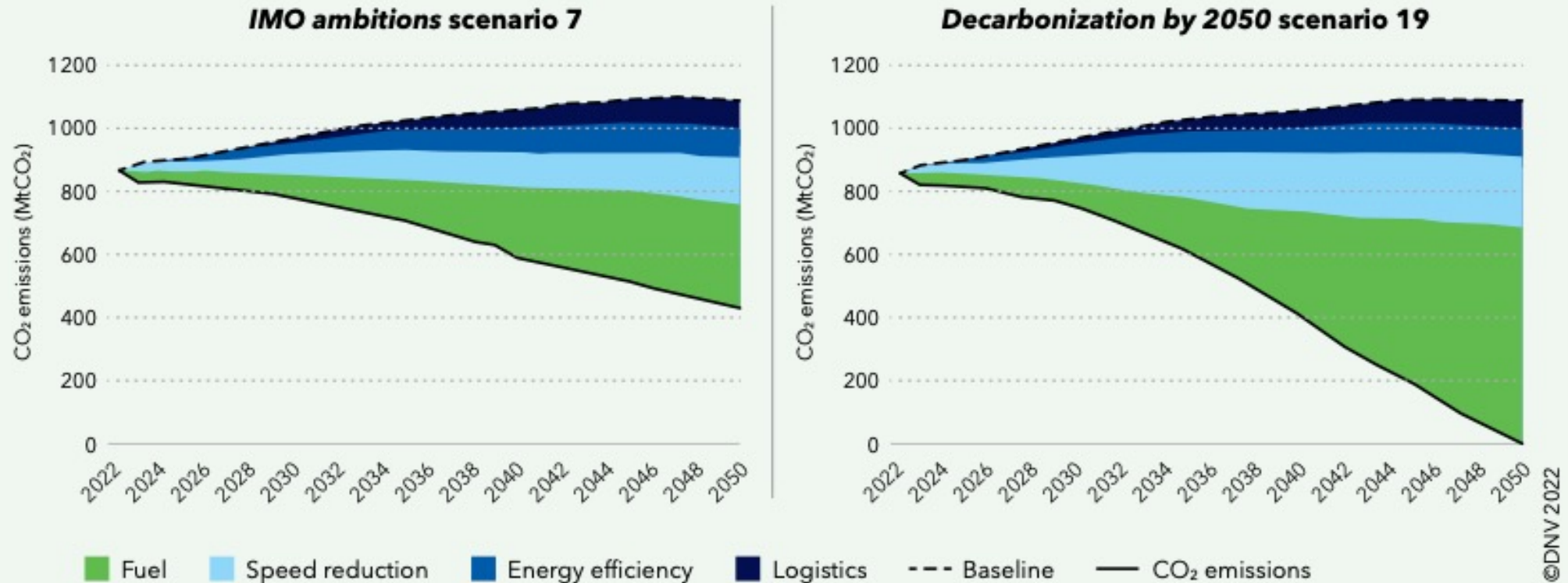
Ammonia Energy Conference 2022

**AEA Maritime Ammonia Session:
Advancing Maritime Ammonia**

Phoenix
15 November 2022

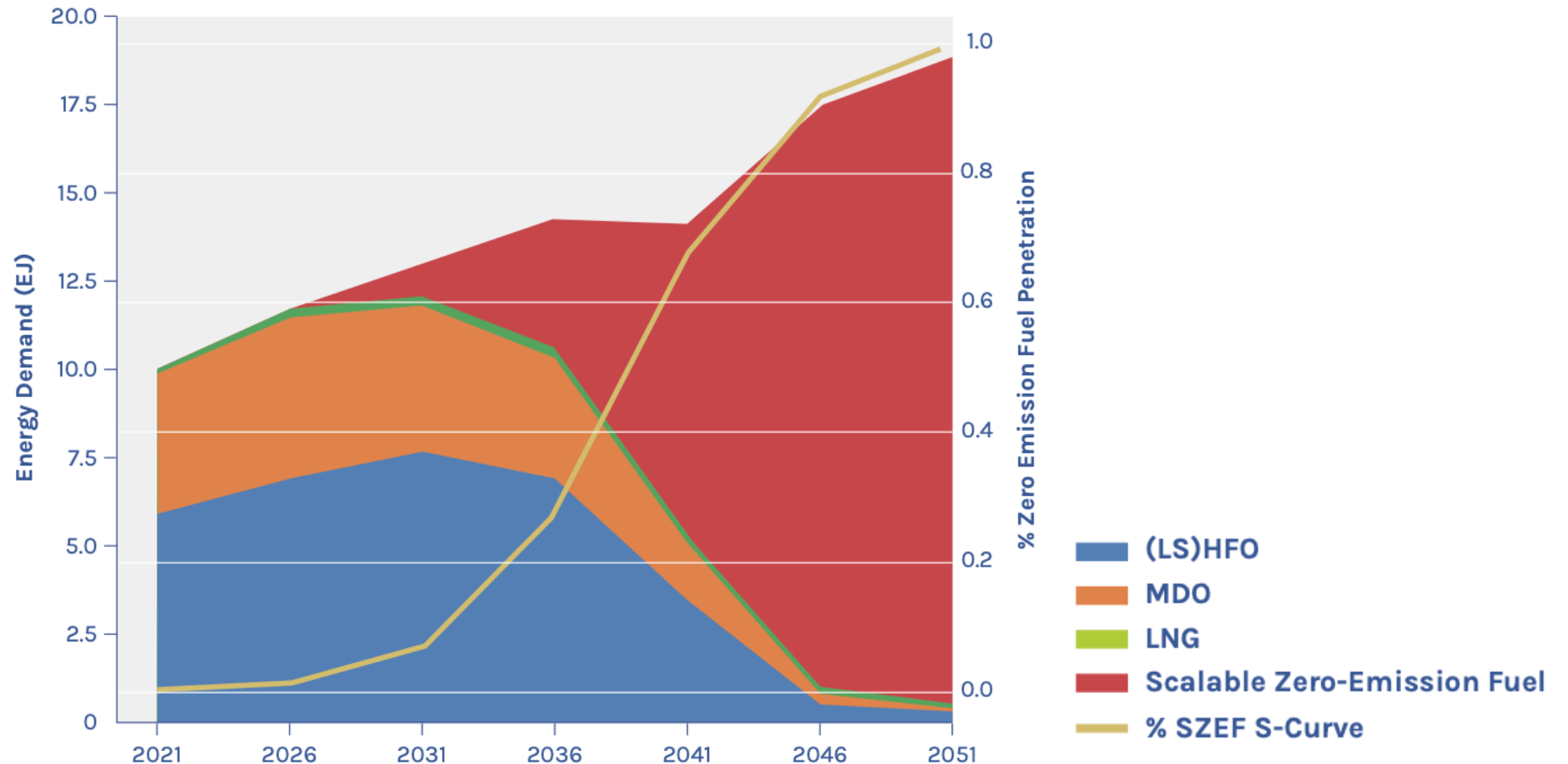
Global Shipping Aims To Decarbonize By 2050

EXPECTED CARBON REDUCTIONS FROM SELECT MEASURES



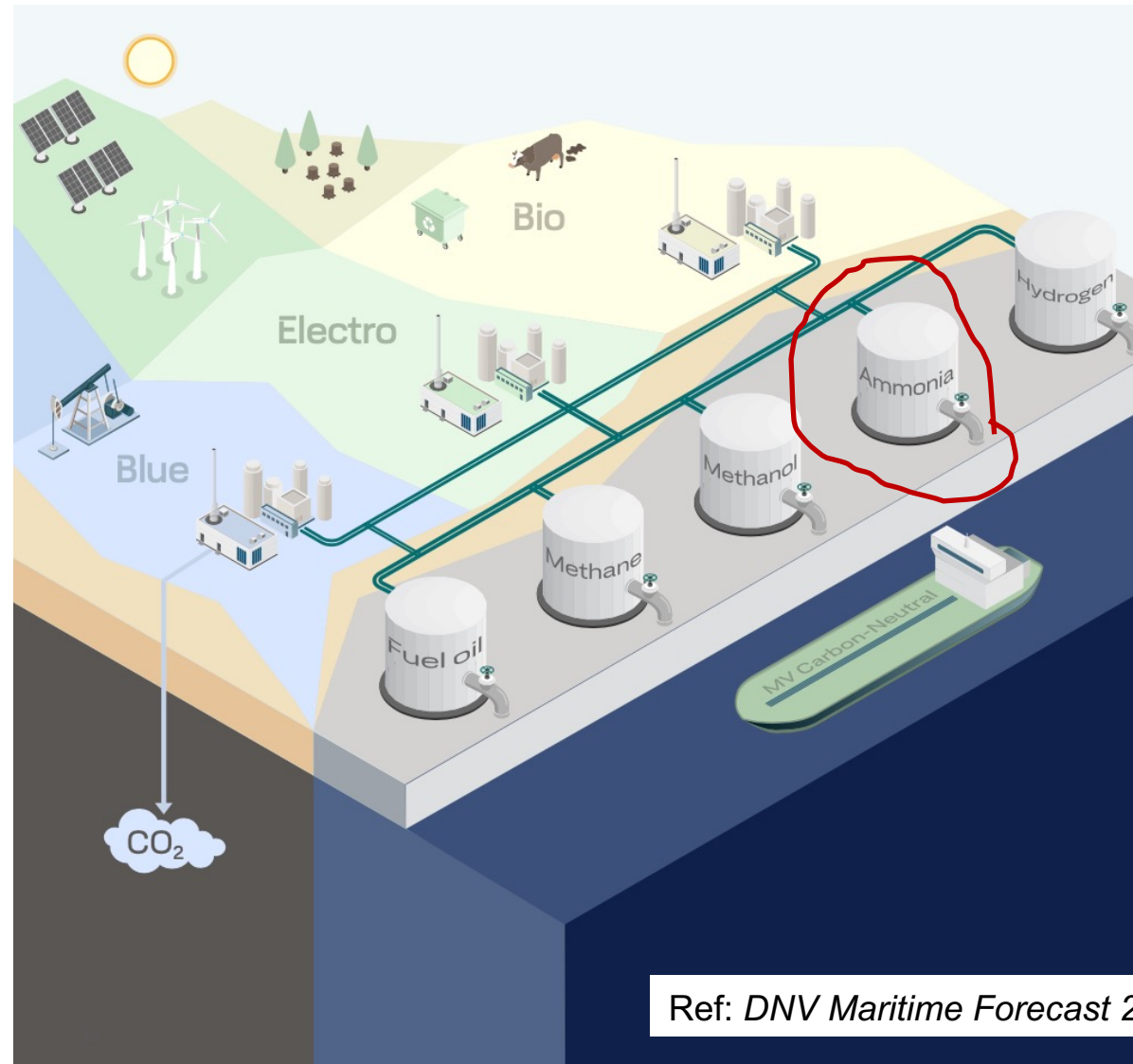
Ref: DNV Maritime Forecast 2050, DNV, 2022

Decarbonization Through Scalable Zero-Emission Fuels



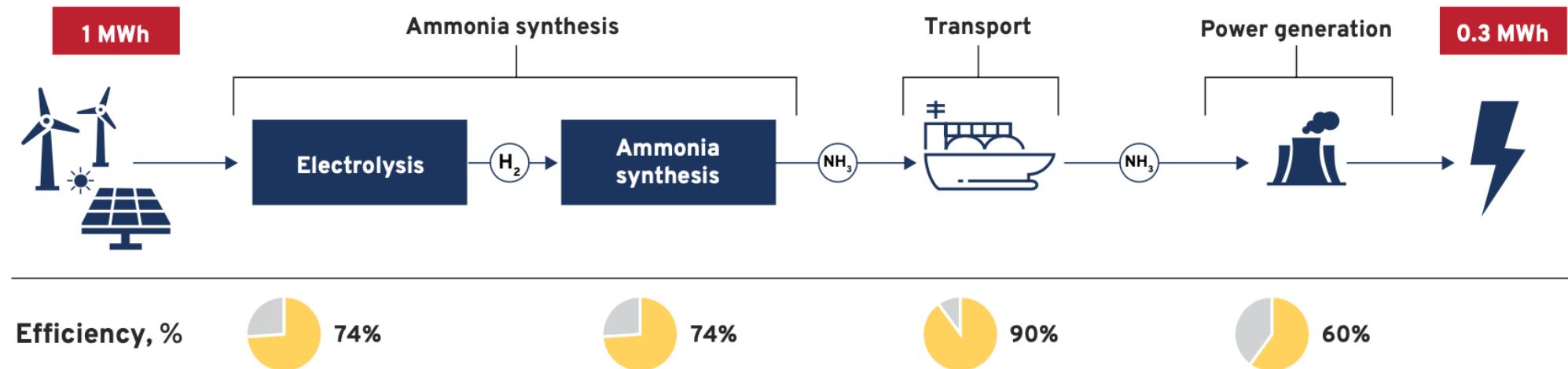
Ref: *A Strategy For The Transition to Zero-Emission Shipping*, UMAS & Getting To Zero Coalition, 2021

Ammonia's Role In Future Energy Supply Chains



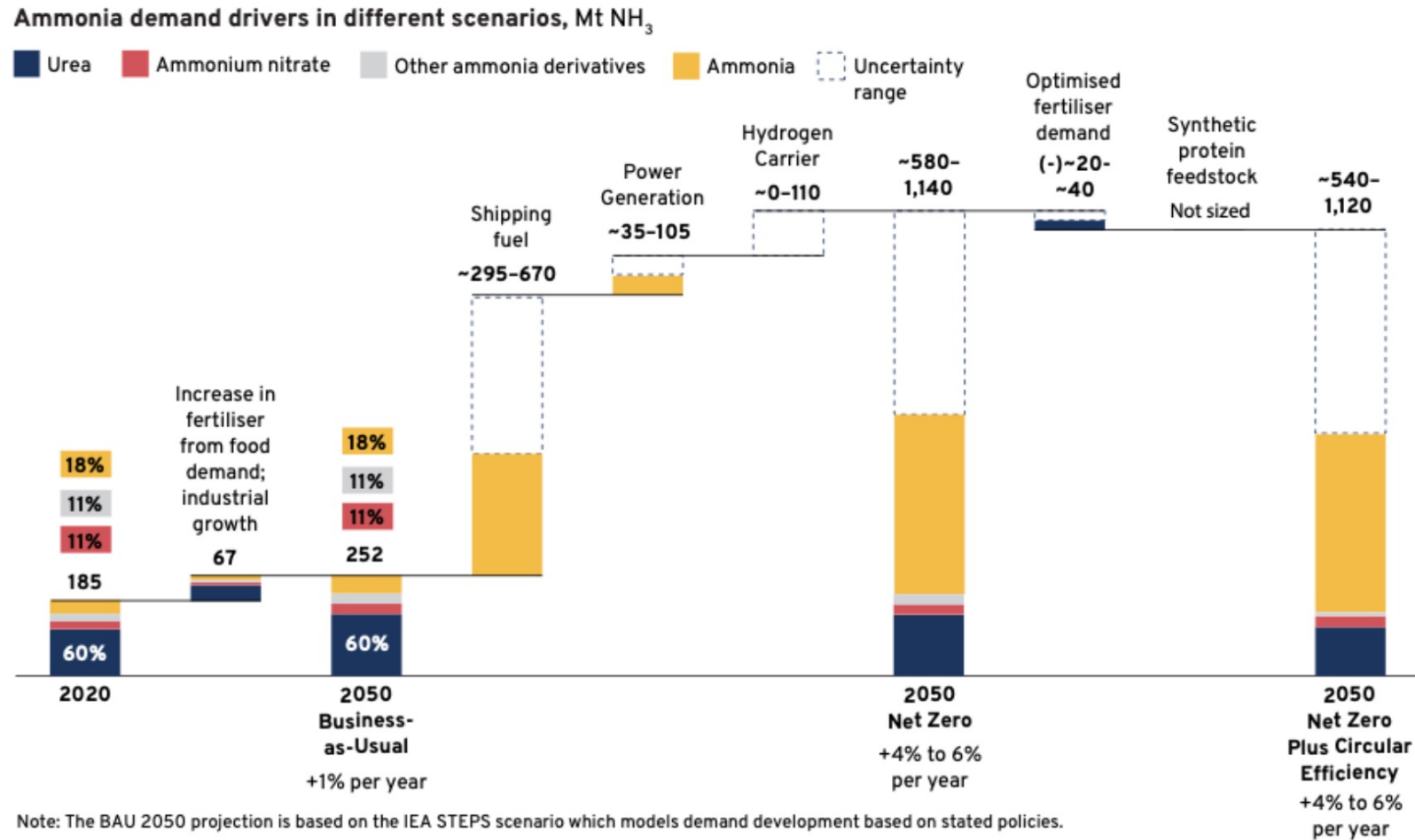
Ref: DNV Maritime Forecast 2050, DNV, 2022

Ammonia Is A Renewable Hydrogen Carrier



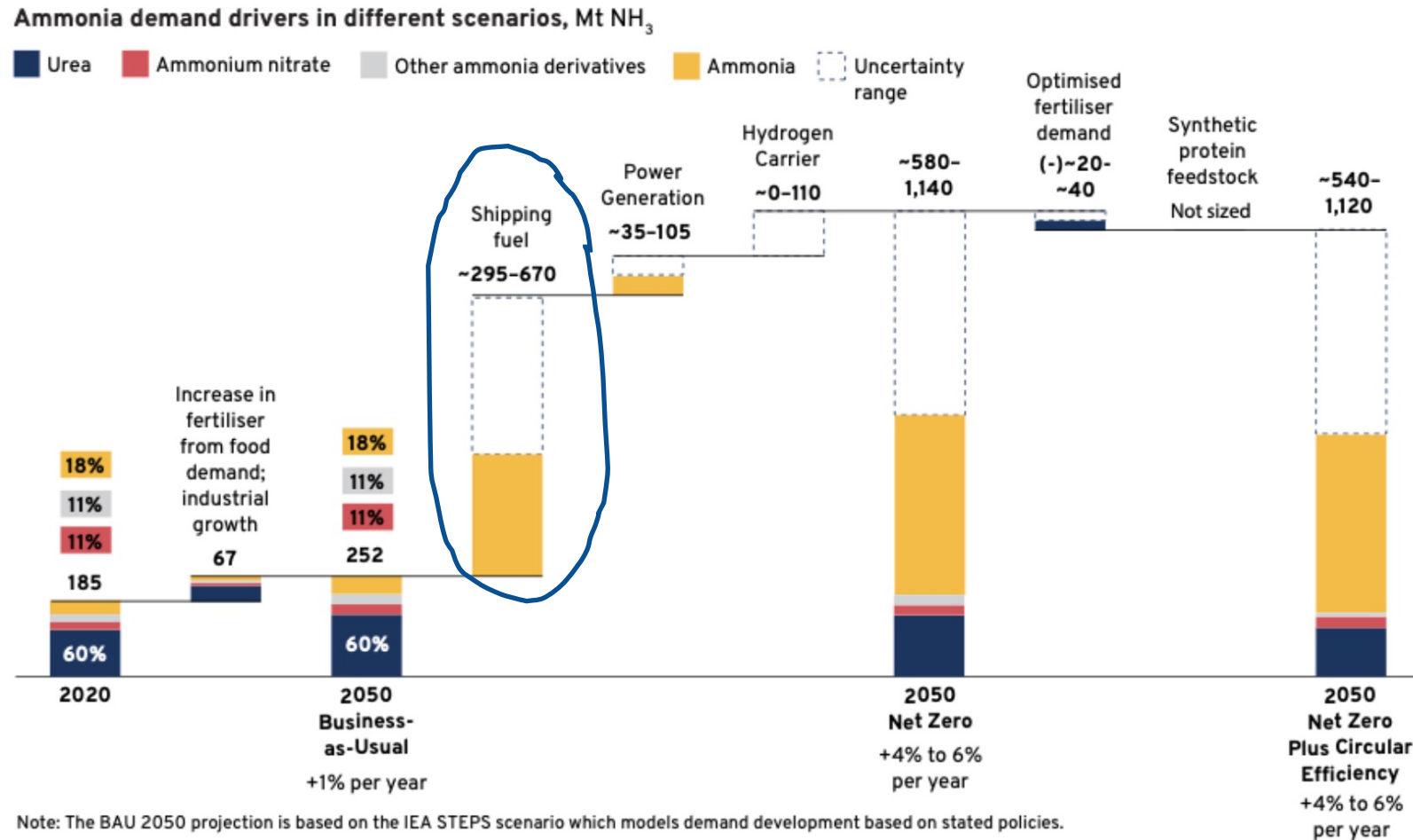
Ref: *Making 1.5-Aligned Ammonia Possible*, Mission Possible, 2022

Major Increase In Ammonia Demand From Shipping



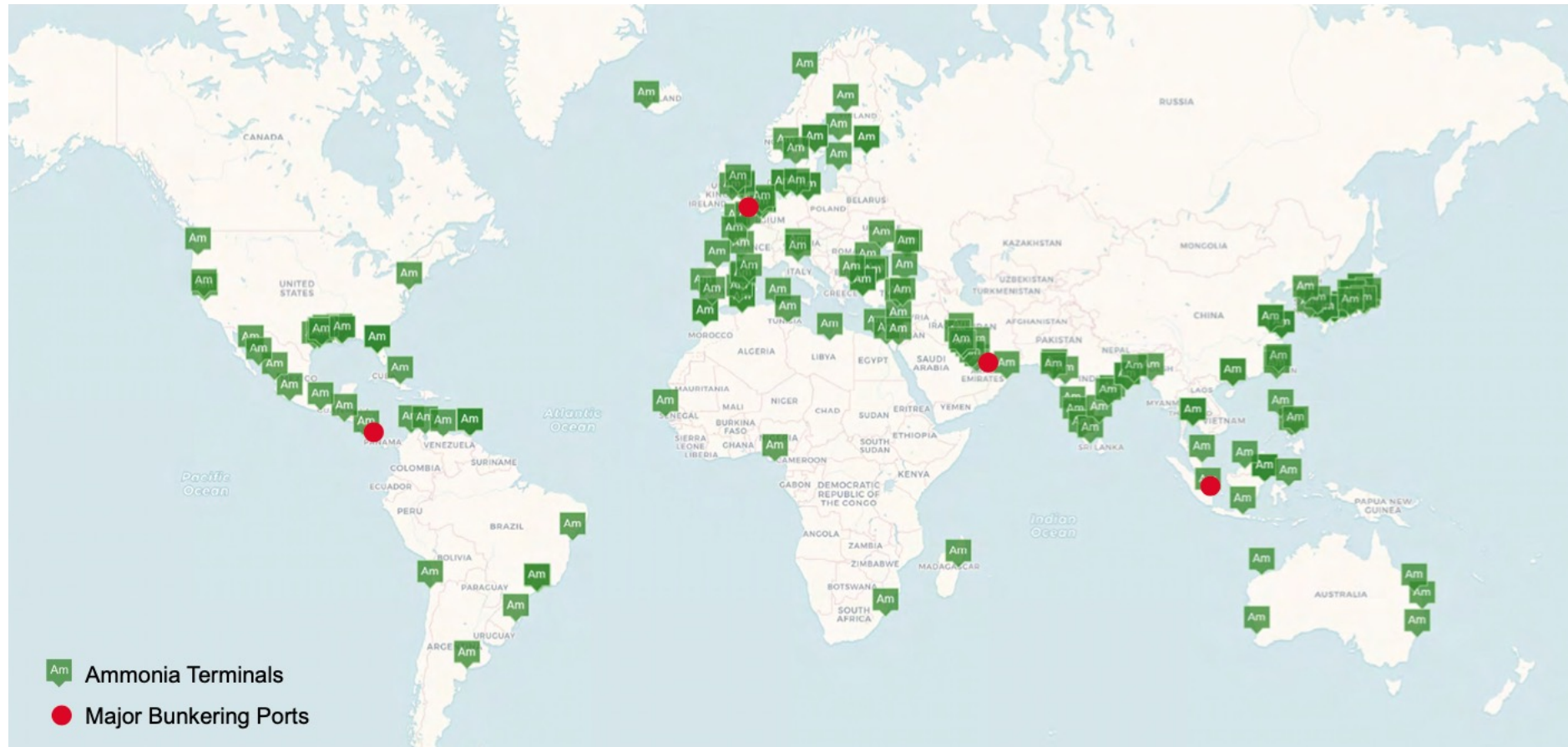
Ref: *Making 1.5-Aligned Ammonia Possible*, Mission Possible, 2022

Major Increase In Ammonia Demand From Shipping



Ref: *Making 1.5-Aligned Ammonia Possible*, Mission Possible, 2022

Ammonia Terminals Need Connection to Major Bunkering Ports



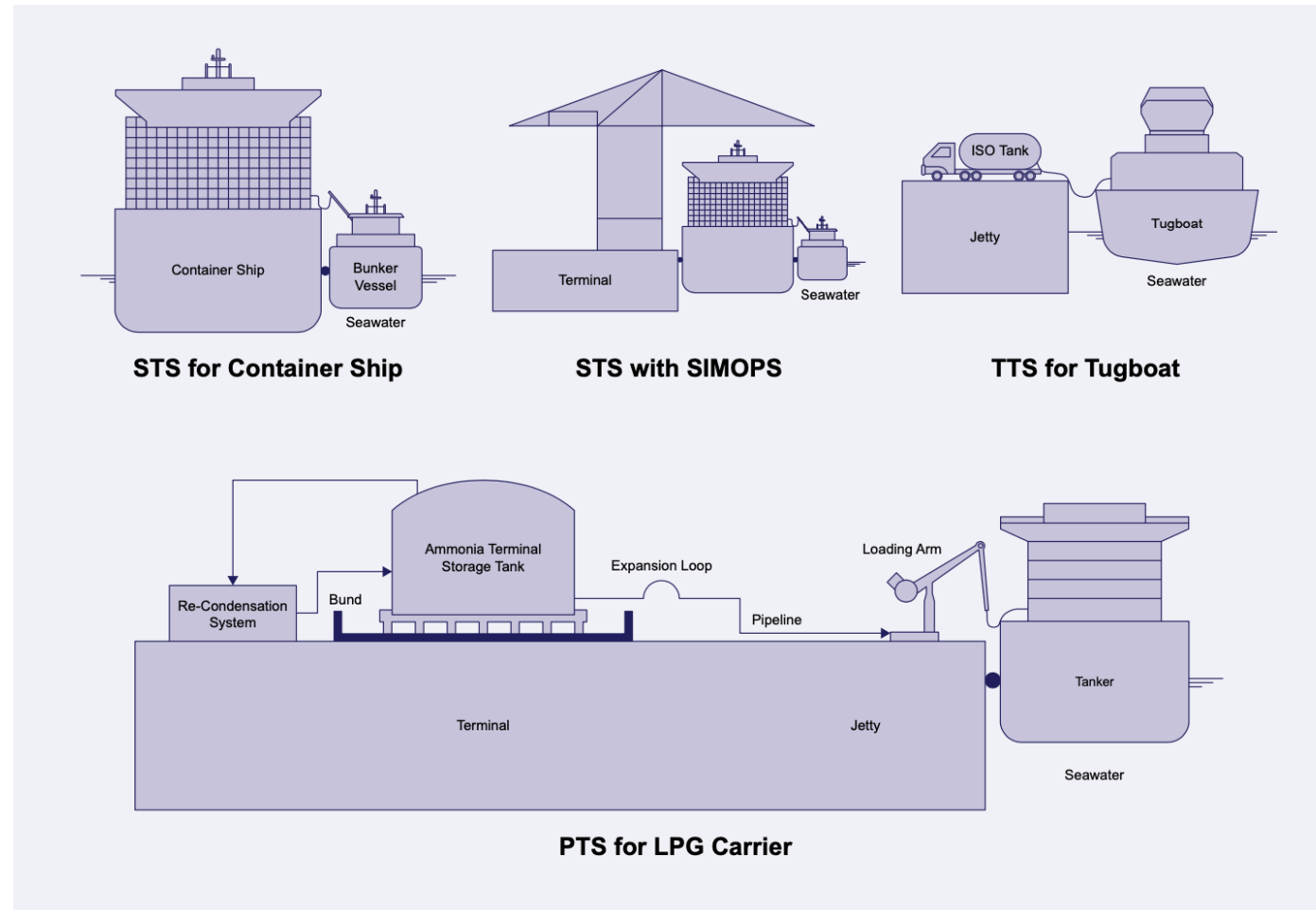
Ref: *Alternative Fuels Insight*, DNV, 2021

Green Corridors To Advance Ammonia Are Needed



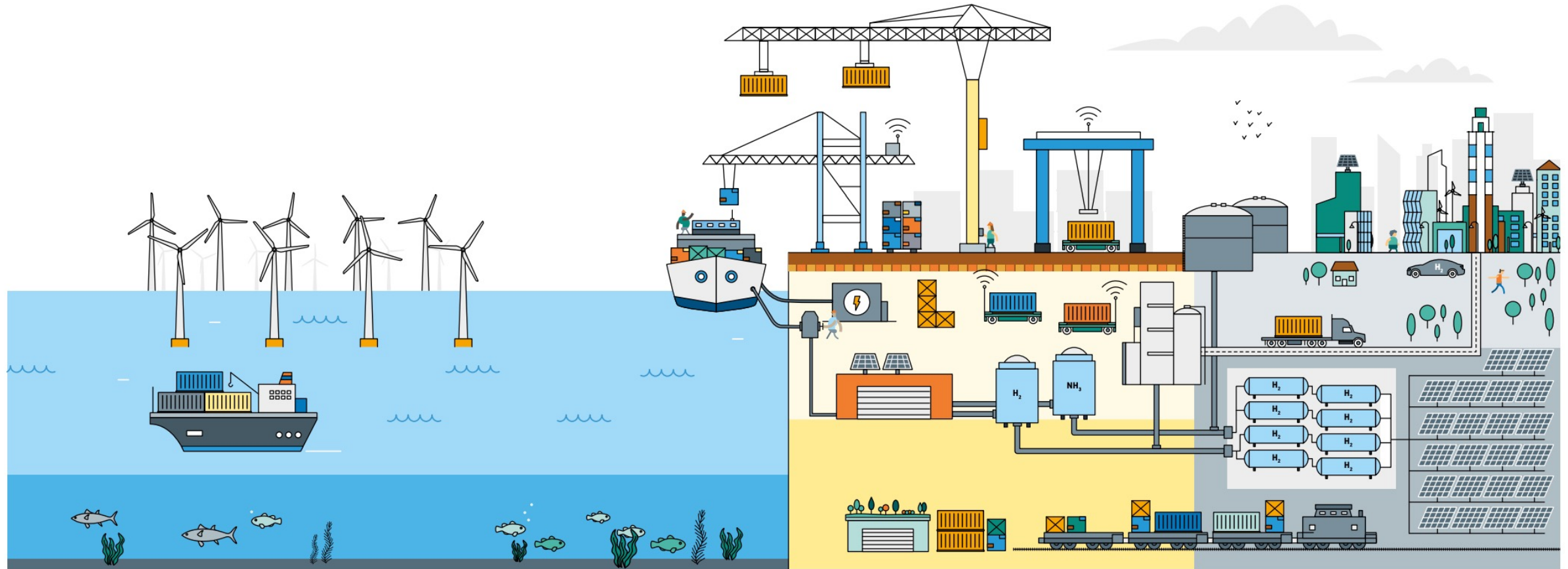
Ref: *Climate Champions*

Ammonia Bunkering Is A Matter Of Safety



Ref: *Ammonia as a Marine Fuel*, NTU, 2022

Integrated Approach To Port Electrification Will Be Beneficial



Ref: *Port Energy Supply For Green Shipping Corridors*, Argus, 2022



AMMONIA ENERGY
ASSOCIATION

PLEASE WELCOME OUR PANELISTS

**AEA Maritime Ammonia Session:
Advancing Maritime Ammonia**

Phoenix
15 November 2022

Advancing Maritime Ammonia - Speakers



Trends, Priorities and Examples of Increasing Ammonia Shipping Fuel Readiness Across the Value Chain

Emile Herben,
Product Manager,
Clean Hydrogen & Ammonia
Yara Clean Ammonia



Ammonia Safety – Safety and Public Perception

Monique Berrevoets,
Strategic Consultant
Antea Group



Ammonia as a Marine Fuel – Bunkering Operations and Dispersion Simulations

Chase Ji,
Senior Sustainability Engineer
American Bureau of Shipping (ABS)



Accelerating Maritime Decarbonization via Multi-Sectoral Integration

Tatum Auvil,
Research Analyst,
Low Carbon Resources
Electrical Power Research Institute
(EPRI)