



Emission-free marine fuel for a **sustainably-driven** future

11.16.2023



Global Presence

Funding raised to date

\$220M

Founded: Nov 2020

Employees: 180+

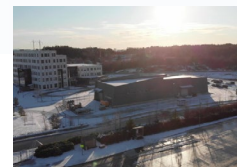
Headquarter: Brooklyn, NY



Amogy Brooklyn

Global Headquarters
R&D, Product Development,
Commercial Team

Amogy Norway



Commercial Team in Stavanger

R&D testing at Energy House in Stord

Amogy Houston



R&D, Product Development, and Manufacturing

Target open date: Q1 2024

Size: 4 acres

Full production: ~100MW/yr in 2025-26

Amogy Singapore

Business Development and Sales



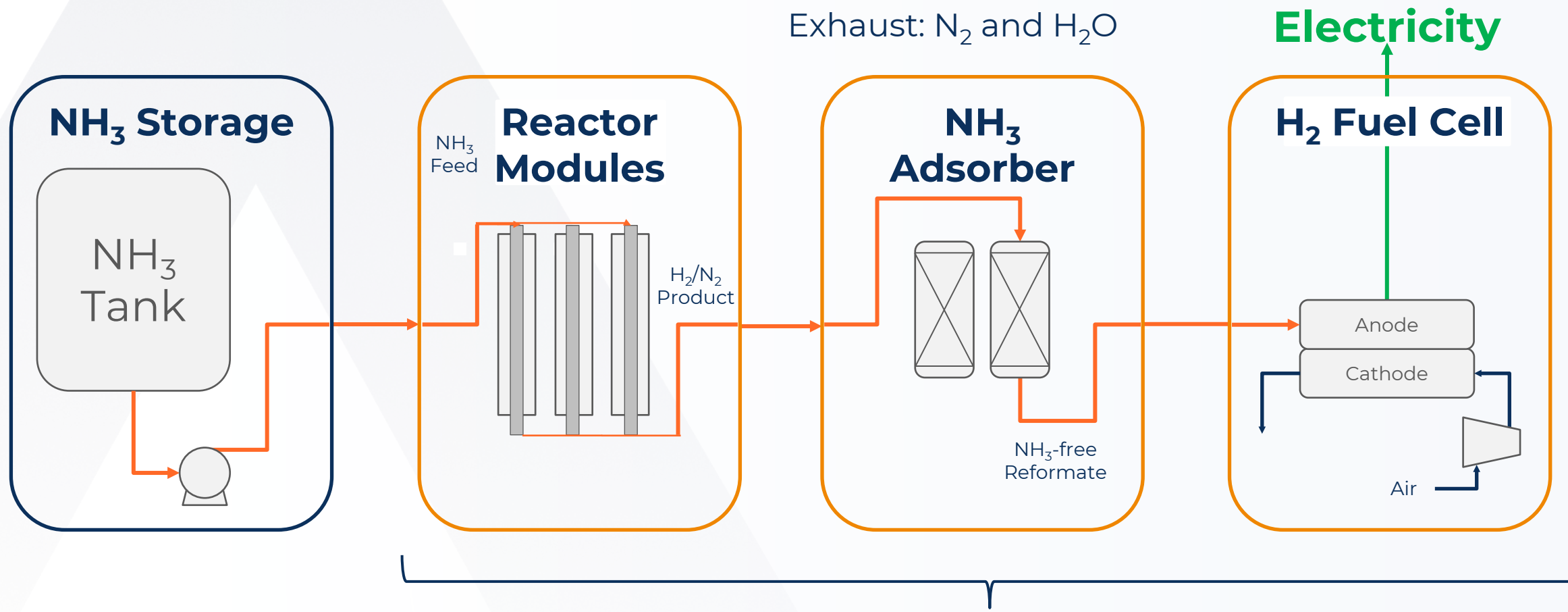
TEMASEK



Mitsui O.S.K. Lines



NH₃ to Electrical Power



Amogy Powerpack

NH₃ to Electrical Power



DRONE

Jul 2021



TRACTOR

May 2022



CLASS 8 TRUCK

Jan 2023



TUGBOAT

2024

	5kW	100 kW	300 kW	1000 kW
TRL	4	5	6	7-8
Powerpack System	Manual control	Automated at steady state	Full system automation	Full system automation standards / code compliance
Reaction System	Lab scale catalyst Autothermal	Bench scale catalyst Modular design	50kW module Fast startup	Durability certified catalyst/reactor Continuous unreacted NH ₃ removal
Test Environment	Hovering in test field	Test drive & implements Corn field	Highway-speed test drive Closed course track	Public waterway sailing (Hudson River & Port of NY)

Well-understood as a Chemical

Safe handling of ammonia is not new



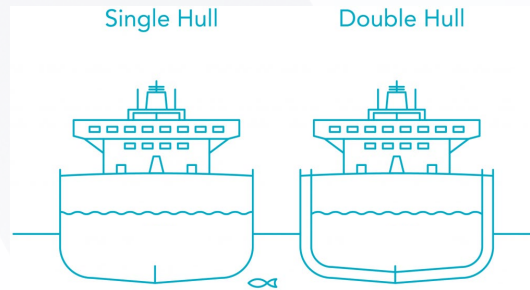
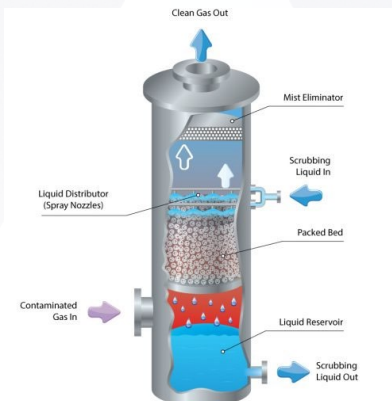
Odor threshold
5 PPM



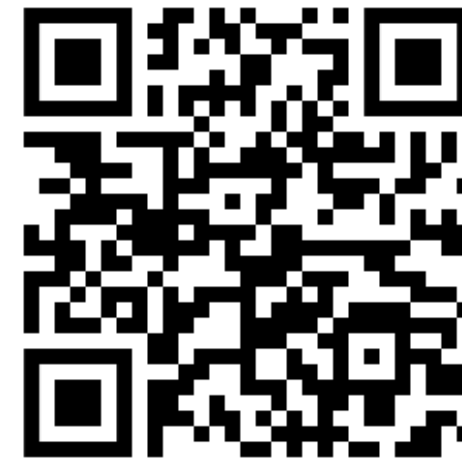
OSHA PEL*
50 PPM

NH₃ scrubbers absorb trace ammonia

Double hull vessels prevents spills



Download Amogy's latest white paper "**Debunking Myths about Ammonia's Safety and Scalability**" here:

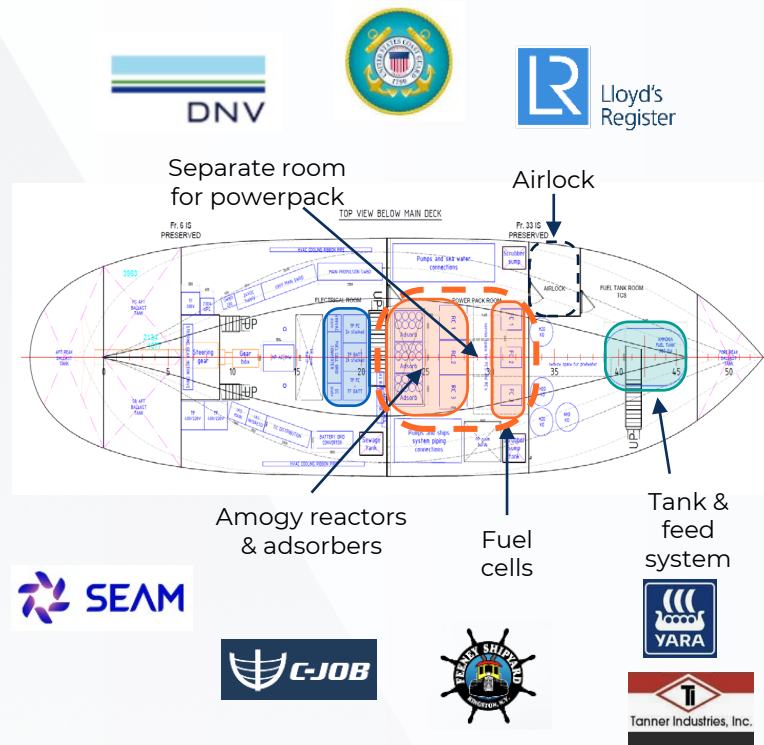


*OSHA PEL: Permissible exposure limit of an employee averaged over an 8-hour work shift

Lack of Regulations as a Fuel

Regulatory Challenges

- ❑ Lack of requirements for usage (IMO, IACS)
- ❑ Lack of requirements for bunkering (IMO, Flag)
- ❑ Lack of requirements for storage (Flag, IEC, OSHA, EPA)



Amogy Tugboat

- ❑ Usage: Partnership with the USCG Center of excellence for LNG to develop flag requirements for the IMO. HAZID/HAZOP with DNV.
- ❑ Bunkering: Developing bunkering procedures based on Cargo transfers and LNG Bunkering
- ❑ Storage: Applied the more stringent requirement of NIOSH at 25 ppm in the design.

Close Collaborations with Regulatory Bodies

Tugboat Demonstration



Productization



Broader Deployment

Containerized solution for on-deck
(400 kW)



Integrated engine room solution
(200 kW)



2024

2025

2026+

Class Societies



HAZID/HAZOP; AiP

Technology Qualification

Unit Approval

Type Approval

Enforcers



Education; Safety Assessment

Continuous Engagement

Flags



Inclusion of Ammonia in GF/IGC Code

Thank You

GANCHENG SUN

Strategy & Business Development Manager



Gancheng.sun@amogy.co



contact@amogy.co