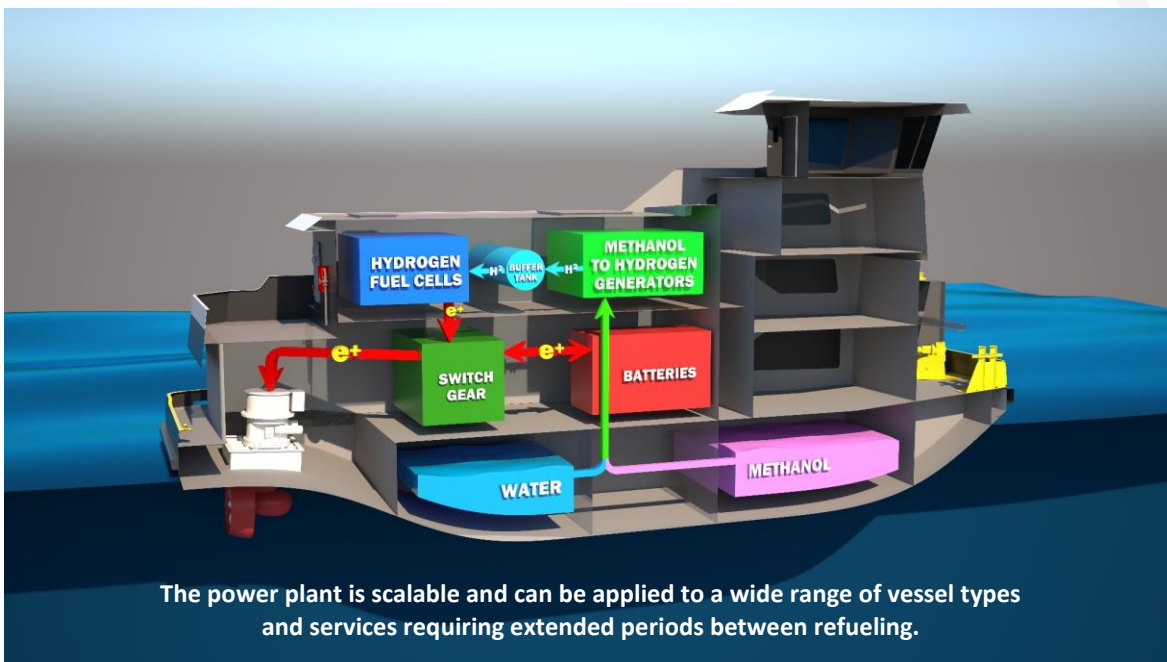




M/V HYDROGEN ONE | Methanol Reformer Hydrogen Powered Towboat

EBDG is partnering with Maritime Partners, e1 Marine and ABB to design and build the industry's first long-range towboat compliant with IMO 2030 emissions requirements. e1 Marine's patented reformer technology converts methanol to hydrogen directly onboard the vessel to eliminate the fuel transfer and storage complications associated with all other low carbon emission alternatives.



The power plant is scalable and can be applied to a wide range of vessel types and services requiring extended periods between refueling.

M/V HYDROGEN ONE

Methanol Reformer Hydrogen Powered Towboat

DIMENSIONS & REGULATORY INFORMATION

Length Overall:	90' – 0"	Design Draft:	9' – 0"
Beam Maximum:	43' – 0"	Air Draft:	46' – 0"
Depth Amidships:	11' – 0"		

PERFORMANCE

Design Speed:	10 mph / 7 mph pushing	Horsepower:	1,700 to 2,700 (see notes)
Range:	550 miles	Duration:	4 days at 6 mph

POWER AND PROPULSION MACHINERY

Hydrogen Reformers:	e1 Marine	Thrusters:	(2) Electric L Drive
Fuel Cells:	PowerCell Marine System 200	Diesel Generator:	Caterpillar 150 kW
Batteries:	Lithium Ion		

CAPACITIES

Methanol Fuel:	Specifications upon request	Total Berths:	9 (3 private / 3 double)
Water Fuel:	Specifications upon request	Fresh Water:	7,000 GAL
Hydrogen Reserve:	Specifications upon request	Wash Water:	5,000 GAL
Battery Capacity:	Specifications upon request	Sewage:	5,000 GAL

NOTES

- IMO 2030 compliant ultra-low emissions
- Refuel safely and conveniently virtually anywhere
- 1,700 hp continuous fuel cell only
- Battery boost provides 6+ hours at 2,000 hp in 24-hour cycle
- Scalable powerplant within specified vessel dimension
- Horsepower can be increased up to 3,500 with proportionate increase in vessel length
- 24+ hours dockside with zero emission and no shore power connection
- L-drive propulsion for optimal maneuverability