

# Chart Industries, Inc. Hydrogen Expansion

**OCTOBER 13, 2020** 





## Forward-Looking Statements

CERTAIN STATEMENTS MADE IN THIS PRESENTATION ARE FORWARD-LOOKING STATEMENTS WITHIN THE MEANING OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995. FORWARD-LOOKING STATEMENTS INCLUDE STATEMENTS CONCERNING THE COMPANY'S BUSINESS PLANS, INCLUDING STATEMENTS REGARDING COMPLETED ACQUISITIONS, COST SYNERGIES AND EFFICIENCY SAVINGS, OBJECTIVES, FUTURE ORDERS, REVENUES, MARGINS, EARNINGS OR PERFORMANCE, LIQUIDITY AND CASH FLOW, CAPITAL EXPENDITURES, BUSINESS TRENDS, GOVERNMENTAL INITIATIVES, INCLUDING EXECUTIVE ORDERS AND OTHER INFORMATION THAT IS NOT HISTORICAL IN NATURE. FORWARD-LOOKING STATEMENTS MAY BE IDENTIFIED BY TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "COULD," "EXPECTS," "ANTICIPATES," "BELIEVES," "PROJECTS," "FORECASTS," "OUTLOOK," "GUIDANCE," "CONTINUE," "TARGET," OR THE NEGATIVE OF SUCH TERMS OR COMPARABLE TERMINOLOGY.

FORWARD-LOOKING STATEMENTS CONTAINED IN THIS PRESENTATION OR IN OTHER STATEMENTS MADE BY THE COMPANY ARE MADE BASED ON MANAGEMENT'S EXPECTATIONS AND BELIEFS CONCERNING FUTURE EVENTS IMPACTING THE COMPANY AND ARE SUBJECT TO UNCERTAINTIES AND FACTORS RELATING TO THE COMPANY'S OPERATIONS AND BUSINESS ENVIRONMENT, ALL OF WHICH ARE DIFFICULT TO PREDICT AND MANY OF WHICH ARE BEYOND THE COMPANY'S CONTROL, THAT COULD CAUSE THE COMPANY'S ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE MATTERS EXPRESSED OR IMPLIED BY FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE THE COMPANY'S ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE DESCRIBED IN THE FORWARD-LOOKING STATEMENTS INCLUDE: THE COMPANY'S ABILITY TO SUCCESSFULLY INTEGRATE RECENT ACQUISITIONS AND ACHIEVE THE ANTICIPATED REVENUE, EARNINGS, ACCRETION AND OTHER BENEFITS FROM THESE ACQUISITIONS; RISKS RELATING TO THE RECENT OUTBREAK AND CONTINUED UNCERTAINTY ASSOCIATED WITH THE CORONAVIRUS (COVID-19) AND THE OTHER FACTORS DISCUSSED IN ITEM 1A (RISK FACTORS) IN THE COMPANY'S MOST RECENT ANNUAL REPORT ON FORM 10-K FILED WITH THE SEC, WHICH SHOULD BE REVIEWED CAREFULLY. THE COMPANY UNDERTAKES NO OBLIGATION TO UPDATE OR REVISE ANY FORWARD-LOOKING STATEMENT.

CHART INDUSTRIES, INC. IS A LEADING INDEPENDENT GLOBAL MANUFACTURER OF HIGHLY ENGINEERED EQUIPMENT SERVICING MULTIPLE APPLICATIONS IN THE ENERGY AND INDUSTRIAL GAS MARKETS. OUR UNIQUE PRODUCT PORTFOLIO IS USED IN EVERY PHASE OF THE LIQUID GAS SUPPLY CHAIN, INCLUDING UPFRONT ENGINEERING, SERVICE AND REPAIR. BEING AT THE FOREFRONT OF THE CLEAN ENERGY TRANSITION, CHART IS A LEADING PROVIDER OF TECHNOLOGY, EQUIPMENT AND SERVICES RELATED TO LIQUEFIED NATURAL GAS, HYDROGEN, BIOGAS AND CO2 CAPTURE AMONGST OTHER APPLICATIONS. WE ARE COMMITTED TO EXCELLENCE IN ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE (ESG) ISSUES BOTH FOR OUR COMPANY AS WELL AS OUR CUSTOMERS. WITH OVER 25 GLOBAL LOCATIONS FROM THE UNITED STATES TO ASIA, AUSTRALIA, INDIA, EUROPE AND SOUTH AMERICA, WE MAINTAIN ACCOUNTABILITY AND TRANSPARENCY TO OUR TEAM MEMBERS, SUPPLIERS, CUSTOMERS AND COMMUNITIES. TO LEARN MORE, VISIT WWW.CHARTINDUSTRIES.COM.

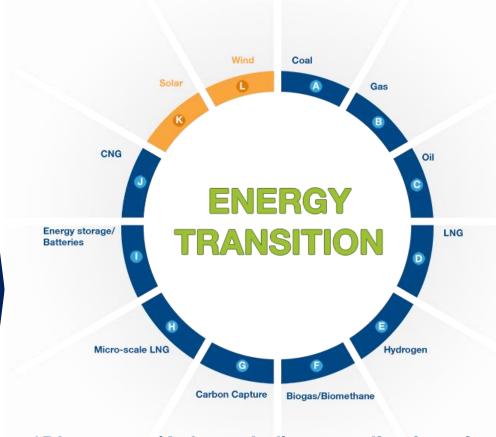


# Focused Strategy Supports Clean Energy Targets

#### **Broadest Product Offering for Industrial Gas & Energy Community & Employees** Application and Customer Expansion • Environmental, Social & Governance Cryo-pump opportunity · Building capabilities to support Repair & Service other strategic pillars Specialty Markets Branding 1. Market **Trends** 2. Profitable **Innovative Solutions** Thinking Disruptive Growth Alternative business Upfront Engineering models Partnerships for new turnkey Smart products (IOT) C solutions Retrofit for efficiencies existing brownfield sites **Margin Expansion** · Strategic location manufacturing · International manufacturing for traditional US products

• 80/20

Strategic sourcing



\*Blue areas (A through J) are applications for which Chart has existing products and solutions; K and L are now accessible through new partnerships

## Recent GTLS Hydrogen Announcements









September	2020	October 13, 2020	October 13, 2020 Announcement
<ul> <li>Key Customer in the California market</li> </ul>	<ul> <li>Master supply agreement</li> </ul>	<ul> <li>Acquisition of cryogenic and hydrogen</li> </ul>	<ul> <li>30M Euro anticipated investment in McPhy (close expected</li> </ul>
<ul> <li>Joint Development</li> </ul>	<ul> <li>Key customer</li> </ul>	transport/trailer business	10/14/2020)
Agreement for LH2 automotive applications	<ul> <li>Pioneer in the U.S.         hydrogen production,         distribution and         logistics markets</li> </ul>	<ul> <li>Expands customer base, capacity and market share</li> </ul>	expande run riyaregen

## Building Partnerships Across the H2/LH2 Value Chain

- Leverage EDF's position in its strategic markets in Europe, the US and China to win new customers
- Bring project development and operations capabilities through Hynamics





- **Together, Bringing Integrated Solutions**
- Integrated H2 production & liquefaction offering
- Liquid H2 backup at onsite electrolysis locations
- Complete solutions from production through to trailer filling and vehicle fueling

- Provide complementary solutions in liquefaction, storage, distribution and transport
- Accelerate development in mobility segment
- Contribute expertise in manufacturing scaleup
- Accelerate access to US markets



- A leading hydrogen process provider, TEN will provide worldwide engineering and project capabilities to support McPhy's growth in all green hydrogen end markets
- Strong access to Oil & Gas and downstream chemical opportunities



Leading LNG and Hydrogen
Liquefaction and Cryogenic
Equipment and Solutions Provider



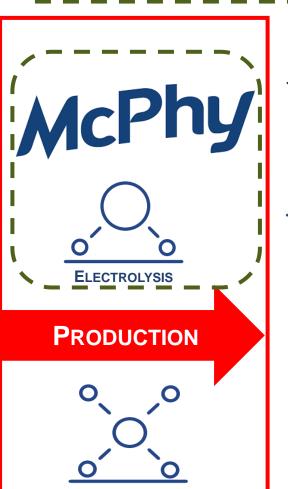
Technip Energies Global Business Unit



Global Engineering & Project and Hydrogen Process Technology Capabilities

# Discipline: Where We Play In the Hydrogen Supply Chain

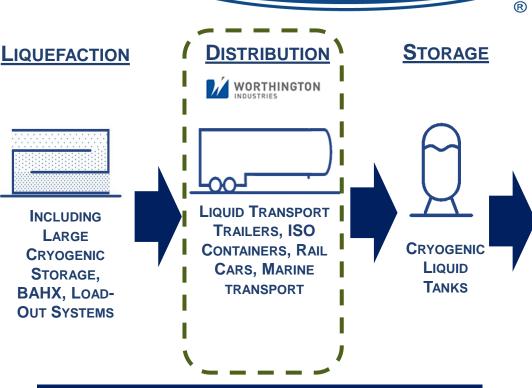
Indicates recently completed or announced investments, commercial partnership and acquisitions

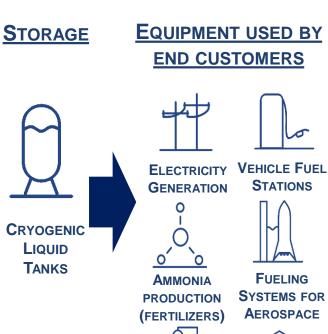


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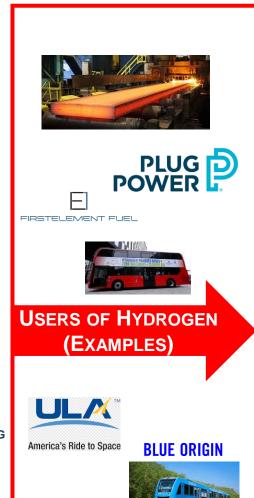
REFORMATION











#### **KEY COMPONENTS INTEGRATED WITHIN SYSTEMS**

**Pumps and Compressors** Flowmeters Vacuum Insulated Piping Valves and Sealing

INCLUDING

LARGE

**CRYOGENIC** 

STORAGE,

BAHX, LOAD-

**OUT SYSTEMS** 

Connections Regulators Sensors High Pressure Storage







	Application/Technology	Chart
Production	Liquefaction	✓
Transport	Cryo Liquid Container	✓
	Flowmeters	✓
Storage	Cryo Tank	✓
Refining	Cryo Storage & Regasification	✓
Ammonia/	Cryo Storage & Regasification	✓
Methanol		
Industrial	Cryo Storage & Regasification	✓
Fueling	Liquid Storage FCEV Fuel Station	✓
	Fork Truck Fuel Station	✓
	FCEB Fuel Station	✓
	Aerospace	✓
	Station Monitoring and Support (EU)	✓
	Station Monitoring and Support (Other)	✓
Power Gen	Cryo Storage & Regasification	✓
Energy Storage	Cryo Storage & Regasification	<b>√</b>
Mobility	Vehicle Fuel Tanks (Liquid)	✓
Organic Dev	LH2 pump	NPD*
Organic Dev	LH2 vehicle tanks	NPD
Organic Dev	LH2 transport	Acquired &
		NPD NPD
Organic Dev	Hydrogen liquefaction	NPD
Organic Dev	Hydrogen filling station for class 8 trucks in Europe	NPD
Organic Dev	Hydrogen insulation improvement	NPD

## **Expanded Hydrogen Transports**



- Immediate capability to manufacture 28 foot, 48 foot and 53 foot sized trailers
- 300,000 square foot facility with Port of Mobile Access

# Chart's Hydrogen Three-Year Addressable Market Expanded Through Inorganic Activity



Prior to October 14, 2020

\$600 Million

### \$600 Million addressable market

(all numbers are annual estimates)

- 100 Fueling stations
- 25 hydrogen transports
- 4 hydrogen liquefiers
- Space launch tanks

### Not included in TAM

- Marine opportunities
- HLH2 onboard tanks

### Current

### \$1.1 Billion

### **\$1.1 Billion addressable market**

(all numbers are annual estimates)

- 136 Fueling stations
- 83 hydrogen transports
- 6 hydrogen liquefiers
- 260 tanks
- 2 Marine Fuel Opportunities

### Not included in TAM

HLH2 onboard tanks

## Commercial Examples of Expanded Project Base

- Dijon Métropole Smart EnergHy / Rougeot Energy two on-site production fuel stations for city's fleet of buses, garbage trucks and cars.
  - Stations could utilize a LH2 backup system; similar to what we currently do with the City of Los Angeles natural gas refuse truck fueling stations
  - Buses and garbage trucks take larger volumes of lower pressure gas (350 bar), an application where LH2 storage and pump fuel stations are already successful in the US and are much lower operating cost than compression stations
- In August McPhy announced a 1 MW McLyzer electrolyzer production project (400 kg/day) that will supply two McPhy fueling stations
  - Chart's high-pressure Hydrogen flow meter technology can be implemented in dispenser
  - Chart could supply the heat exchangers for chilling/cooling the fuel at the dispenser
  - With larger production and network of stations, economic opportunity to switch to a liquid distribution model