



# Chart's Acquisition of AdEdge

August 30, 2021



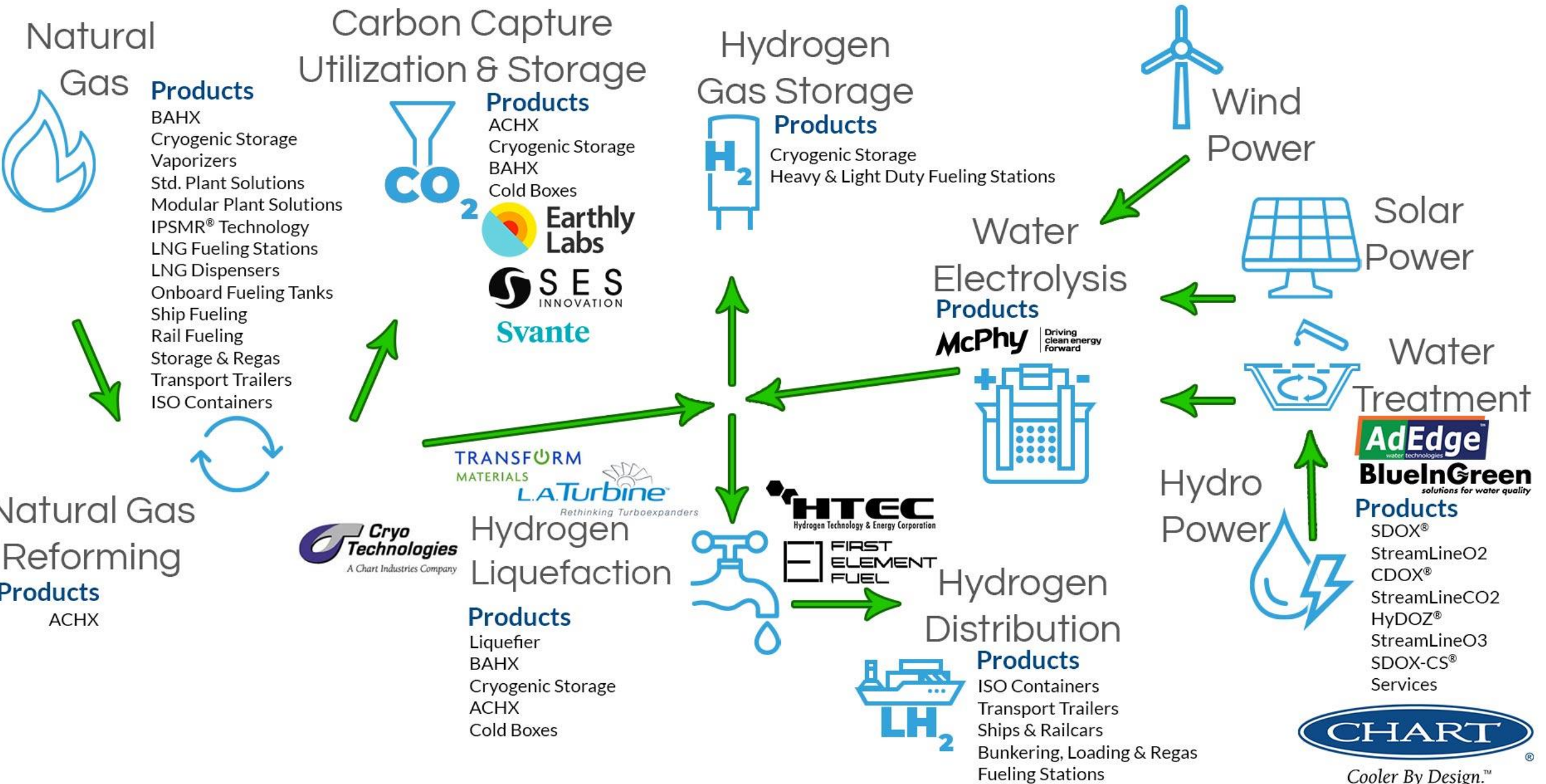
# Forward Looking Statements

Certain statements made in this press release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements concerning Chart'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 press release or in other statements made by Chart are made based on management's expectations and beliefs concerning future events impacting Chart and are subject to uncertainties and factors relating to Chart's operations and business environment, all of which are difficult to predict and many of which are beyond Chart's control, that could cause Chart's actual results to differ materially from those matters expressed or implied by forward-looking statements. Factors that could cause Chart's actual results to differ materially from those described in the forward-looking statements include: Chart'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 Chart's most recent Annual Report on Form 10-K filed with the SEC and Quarterly Reports on Form 10-Q, which should be reviewed carefully. Chart undertakes no obligation to update or revise any forward-looking statement.



# CHART PRODUCTS For the Clean Nexus of Power, Water, Food & Industrials













# Water Industry Has Numerous Challenges That Result in Tailwinds for ChartWater™



- A** Condition of Water Infrastructure (ASCE Grade “C-”; 300 Contaminants in drinking water)
- B** Societal Focus on Water Issues (i.e. Flint, MI)
- C** Water Scarcity & Supply (Globally & Depletion in U.S. freshwater basins)
- D** Retiring Workforce (~10.6% of water sector workers will retire each year)
- E** Drought Potential Globally (Impacting agriculture; megadroughts)
- F** Emergency Planning & Utility Security
- G** U.S. Infrastructure Plan

# Building Full Solutions Platforms From Acquisitions

Clean End Market	Solution	GTLS Process Technology (Owned in Full)	GTLS Process Technologies Through Minority Ownership	GTLS Equipment
Clean Power	<ul style="list-style-type: none"> <li>Hydrogen</li> <li>Helium</li> <li>LNG</li> <li>Biogas</li> </ul>	 	 	<ul style="list-style-type: none"> <li>BAHX</li> <li>ACHX</li> <li>Bulk &amp; Microbulk</li> <li>Fans</li> <li>Transports</li> <li>Valves / Vaporizers</li> <li>Expanders</li> <li>Liquefiers</li> <li>Cold Boxes</li> </ul>
Clean Water	<ul style="list-style-type: none"> <li>Water &amp; Wastewater Treatment</li> <li>Desalination</li> </ul>	 		<ul style="list-style-type: none"> <li>Bulk tanks</li> <li>Dissolution equipment</li> <li>Vaporizers</li> <li>Cryo-lease</li> </ul>
Clean Food, Beverages & Agriculture	<ul style="list-style-type: none"> <li>Small-Scale Carbon Capture</li> <li>Clean Beverages</li> </ul>			<ul style="list-style-type: none"> <li>Microbulk tanks</li> <li>Dosers</li> <li>Vaporizers</li> <li>Transports</li> </ul>
Clean Industrials	<ul style="list-style-type: none"> <li>Post Combustion Carbon Capture</li> <li>Hydrogen/He</li> </ul>		 	<ul style="list-style-type: none"> <li>Heat exchangers</li> <li>Storage tanks</li> <li>Vaporizers</li> <li>VIP/VJP</li> <li>Transports</li> <li>Liquefiers</li> <li>Cold Boxes</li> <li>Expanders</li> </ul>

# About AdEdge

- 35% Revenue CAGR from 2017 to 2020 with gross margin % of sales 32% to 35%+
- In-house custom design, engineering, assembly at Duluth, GA facility
- 900+ installs delivered including systems rated for 1,000 gallons per minute or more
- 100+ new product launches for multi-contaminant removal in past 10 years
- 98% customer retention rate
- Hundreds of hours in product training provided annually
- Largest groundwater project in the U.S. at 14 MGD
- Equipment supplied to 17 countries with branches in India and Chile
- AdEdge current commercial opportunity pipeline is very healthy = \$88M





# AdEdge's Processes and Products are Complementary to BIG/Chart's Current Offering

**BlueInGreen**  
solutions for water quality

## Oxygenation (Oxygen)

- Biological Treatment
- Environmental Remediation
- Advanced Aquaculture

## Oxidation (Ozone)

- Disinfection
- Taste & Odor Control
- Sludge Reduction

## pH Adjustment (CO2)

- Alkalinity Adjustment
- Recarbonation – Softening
- Acid Replacement

## Odor Control (Oxygen)

- Corrosion Control
- Dissolved Sulfide Removal
- Chemical Replacement



## Treatment Processes

- Adsorption – using filtration media
- Filtration – filter large solids to 10-20 microns
- Ion Exchange – chemically charged resin/media
- Biological Treatment – micro-organisms used (NoMonia, biotta relationships)
- Membrane Technology – reverse osmosis (ROTEC relationship)

## Products

- Packaged units – custom designed and engineered
- Modular Systems – smaller systems for schools, housing, etc.
- Chemical feed systems – chemical systems for pre-treatment
- Resi Water Systems – below the sink point-of-use or point-of-entry into the home

# The PFAS Problem Solved by AdEdge's Solution

- What is PFAS?
  - Man-made chemicals that can contaminate soil and drinking water and have adverse health effects on humans
  - PFAS can enter the ecosystem in many ways
- Market is Growing for PFAS Treatment
  - 30 states regulated (or proposed) for PFAS in drinking water
- AdEdge's Solution Addresses the Problem
  - Various AdEdge methods to treat PFAS using ion exchange, granulated active carbon, and other media
  - Designed both skid mounted and modular PFAS removal systems with a current installed base



## Skid-mounted PFAS removal system

Pre-engineered, pre-piped, pre-wired, and factory tested



# AdEdge & Chart Synergies

## Chart's Strategic Building Blocks:

Expands Profitable Growth Opportunities in Specialty Areas (the "nexus of clean")

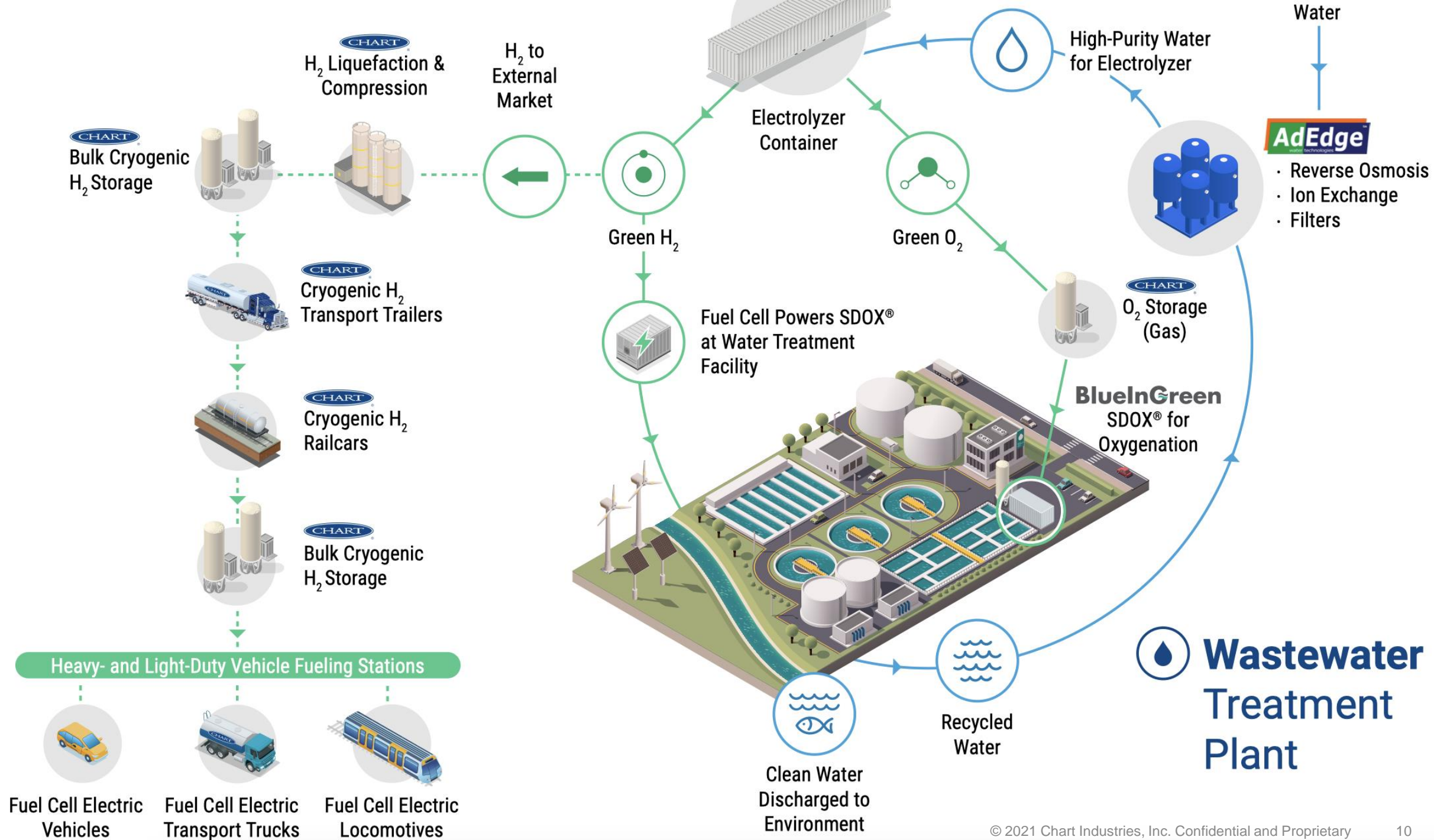
Taking Advantage of Chart's global commercial & manufacturing footprint

Expand Chart's aftermarket, repair & service capabilities and revenue

Deal Structure / Immediately Accretive

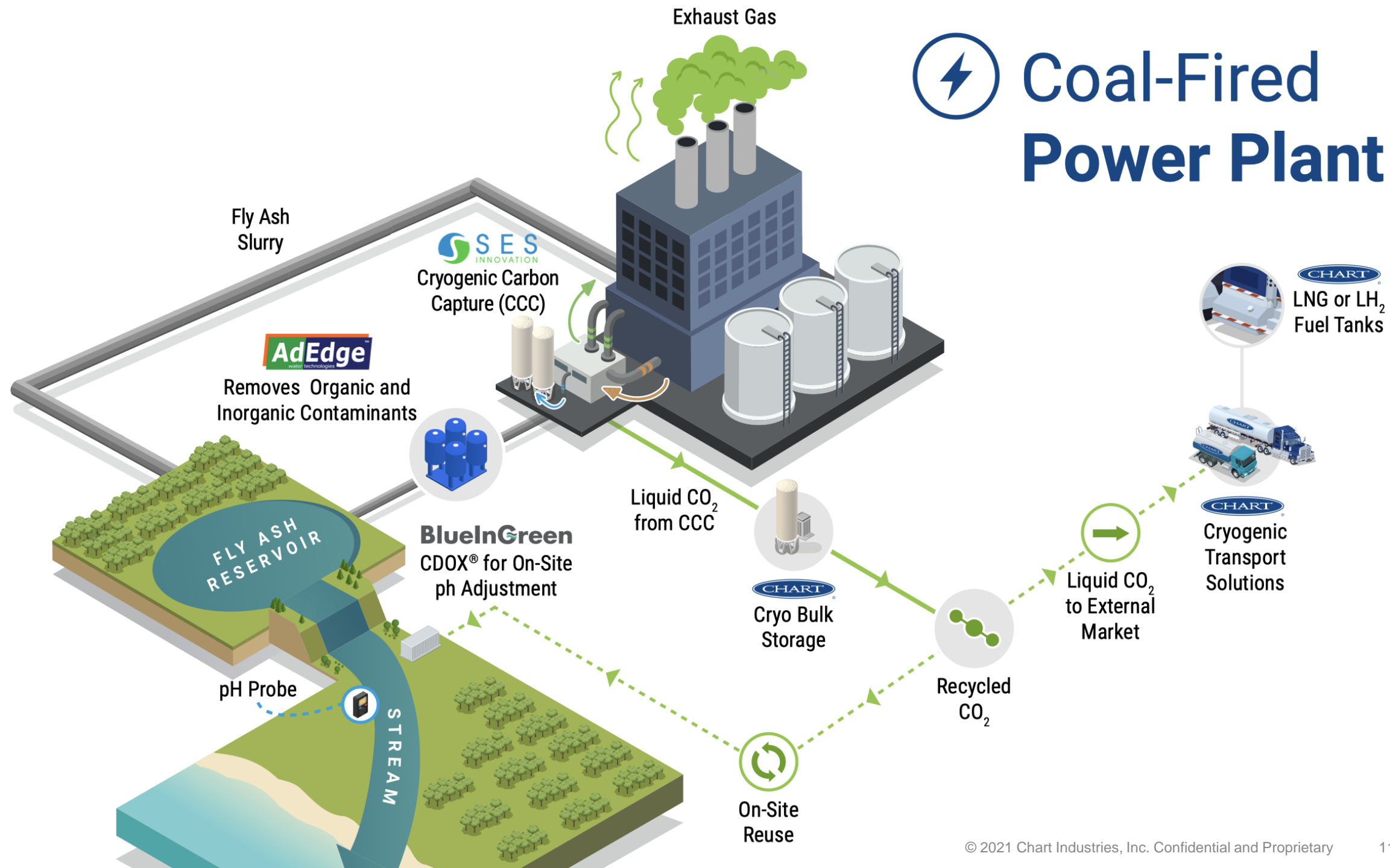
## How AdEdge Complements:

- Broadens offering for water treatment unique challenges including arsenic & chromium
  - Fits perfectly in many of Chart's strategic platforms including the hydrogen ecosystem
  - Provides technology in PFAS/PFOS removal (Chart did not have this previously)
  - Many applications which include Industrial Gas will require pH adjustment (CO2)
  - Addresses the residential market with focus on arsenic removal products
- 
- Leverage Chart commercial teams & AdEdge's 25-person engineering team
  - Leverage Chart manufacturing locations
  - Utilize Chart's pressure vessels, skid mounts with piping/pumps/valves
- 
- Strong aftermarket presence addressing ancillary equipment sales, spare parts, media replacement and equipment upgrades
  - ~13% of revenue in aftermarket, repair & service with considerable growth expansion opportunity
- 
- \$40 million cash at closing (subject to customer closing conditions); no earnout
  - Immediately accretive to Chart
  - Expect ~\$35 to \$40 million of revenue in 2022, inclusive of synergies and ~\$0.11 to \$0.16 of adjusted non-diluted earnings per share





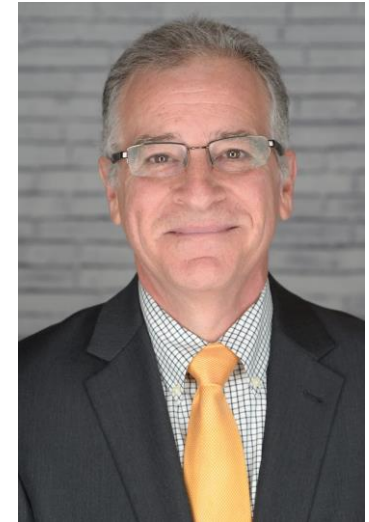
# Coal-Fired Power Plant





# AdEdge Leaders Stay With The Business

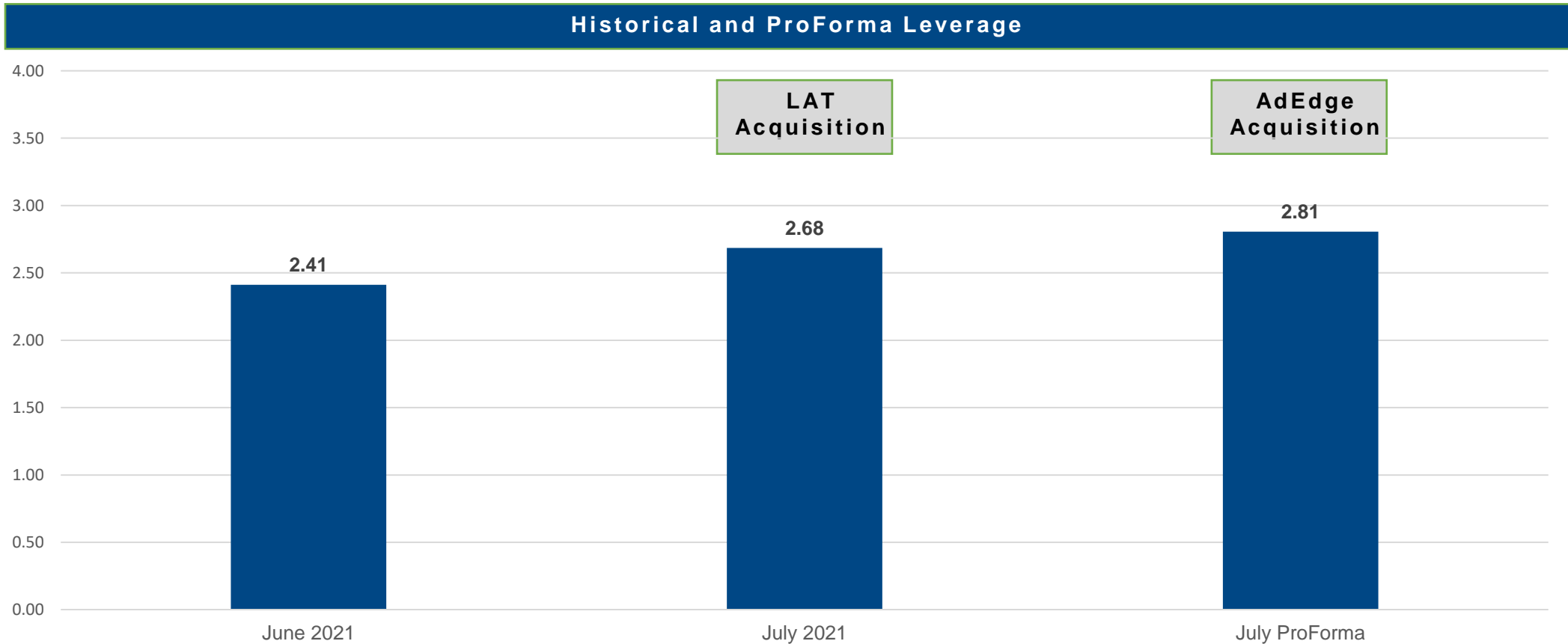
- Rich Cavagnaro, founder of AdEdge Water Technologies, LLC, has over 30 years of international business experience in strategic marketing, business development, product development, and commercialization of new products and services in a broad spectrum of industries. His experience spans industries such as catalysts, adsorbents, drinking water, process separations, paint & coatings, adhesive & sealants, pharmaceuticals and others. In 2013, Cavagnaro was recognized by the Metro Atlanta Chamber of Commerce as Businessperson of the Year.
- Greg Gilles has over 30 years of treatment technology, industrial, regulatory, engineering and management experience. In 2001, Gilles was presented the prestigious R&D 100 Award recognizing the top 100 innovations of the year, as well as the Innovative Technology Award from the Water Environment Federation for the development of arsenic removal systems. His experience includes senior management roles with General Motors and OHM Remediation Services Corp.



# Specialty Near-Term & 2030 Addressable Markets

#	Specialty Area	Near-Term TAM (\$M)	2030 TAM (\$M)	Source of GTLS TAM in 2030
1	Hydrogen & Helium	\$2,950	\$24,000	• Per new Hydrogen Council report on increasing investment rate and our current market share applied
2	Carbon Capture	850	5,600	• Assumes 30 small commercial 200tpd systems, 30 large industrial systems 2000tpd, 10 large utility systems, small-scale CICI® and utilization/DAC
3	Over-the-Road Trucking	750	2,000	• Based on HLNG adoption for OTR trucking at 10% in India and Europe, 1% Japan and 0.1% in U.S. + associated fueling stations • This TAM equates to 46,100 LNG trucks
4	Water	1,000	5,000	• Penetration in and growth in odor control (10%), disinfection (12%), pH adjustment (25%) and aeration (15%), <b>PFAS/PFOS (++)</b>
5	Food & Beverage	500	1,000	• European adoption, replacement systems due to age, increased conversion to microbulk CO2 + market growth = 11% CAGR
6	Cannabis	250	550	• Federal legalization & FDA approvals for CBD in F&B • Assumes a 15.8% CAGR in this period in growhouses, extraction and packaging
7	Space	200	400	• Increased space exploration (both government and private sector) • Ease of access to broader population for space exploration
8	Lasers	200	400	• Increased industrial applications globally
9	Molecules By Rail	200	250	• Limited expansion of the molecules by rail market with the exception of hydrogen expectations which would be included in the H2/He
<b>10</b>	<b>CHART TOTAL</b>	<b>\$6,900</b>	<b>\$39,200</b>	

# Chart's Net Leverage Summary





# Chart's Strategic Acquisitions and Investments

## 2018 / 2019



**2018:**  
Completes BAHX capacity expansion in La Crosse, WI



**2018:**  
Acquires Skaff Cryogenics



**2018:**  
Acquires VRV



**2018:**  
Divestiture of oxygen concentrator business



**2019:**  
Acquisition of Air-X-Changers

## 2020



Divestiture of cryobio product line to Cryoport for \$320M cash



Development Agreement for LH2 automotive



Completed master supply agreement



30M Euro investment with commercial MOU



Acquisition of cryogenic and H2 trailer business and former microbulk business



Acquisition of water treatment business



Investment in Canadian H2 integrator



Acquisition of SES, carbon capture technology

## 2021



\$15M Investment and commercial MOU Completed Feb 2, 2021



Joint development MOU February 10, 2021



Acquisition of Cryo Technologies for \$55 million cash (Feb 16, 2021)



Investment of \$25 million for 5% ownership and commercial MOU (March 31, 2021)



Intend to be Cornerstone, early investor in forthcoming Five T Hydrogen Fund (50 million Euro investment over coming years)



Commercial and development MOU (no investment) for control systems and instrumentation in our modular solutions



Minority investment of 6.5M euros and commercial agreement (May 19, 2021)



Minority investment of \$5 million for 15% ownership and commercial MOU (June 3, 2021)



Acquisition of L.A. Turbine for \$80 million cash (July 1, 2021)



Acquisition of AdEdge for \$40 million cash (August 27, 2021)