

# FuelCell Energy Investor Day

16 March 2022



# Safe Harbor Statement

This presentation and related commentary from Company management contain forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 regarding future events or our future financial performance that involve certain contingencies and uncertainties, including those discussed in our Annual Report on Form 10-K for the fiscal year ended October 31, 2021, in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations". The forward-looking statements include, without limitation, statements with respect to the Company's anticipated financial results, the Company's plans and expectations regarding the continuing development, commercialization and financing of its current and future fuel cell technologies, its business plans and strategies, the Company's plans and expectations regarding the completion of its existing generation backlog, the markets in which the Company expects to operate, and the size and scope of its total addressable market opportunity, which is a projection based on currently available public information. Annualized, projected and estimated numbers contained in this presentation and commentary from Company management are not forecasts and may not reflect actual results. These forward-looking statements are not guarantees of future performance, and all forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Factors that could cause such a difference include, without limitation: general risks associated with product development and manufacturing; general economic conditions; changes in interest rates, which may impact project financing; supply chain disruptions; changes in the utility regulatory environment; changes in the utility industry and the markets for distributed generation, distributed hydrogen, and fuel cell power plants configured for carbon capture or carbon separation; potential volatility of commodity and energy prices that may adversely affect our projects; availability of government subsidies and economic incentives for alternative energy technologies; our ability to remain in compliance with U.S. federal and state and foreign government laws and regulations and the listing rules of The Nasdaq Stock Market; rapid technological change; competition; the risk that our bid awards will not convert to contracts or that our contracts will not convert to revenue; market acceptance of our products; changes in accounting policies or practices adopted voluntarily or as required by accounting principles generally accepted in the United States; factors affecting our liquidity position and financial condition; government appropriations; the ability of the government and third parties to terminate their development contracts at any time; the ability of the government to exercise "march-in" rights with respect to certain of our patents; our ability to successfully market and sell our products internationally; our ability to implement our strategy; our ability to reduce our levelized cost of energy and our cost reduction strategy generally; our ability to protect our intellectual property; litigation and other proceedings; the risk that commercialization of our products will not occur when anticipated or, if it does, that we will not have adequate capacity to satisfy demand; our need for and the availability of additional financing; our ability to generate positive cash flow from operations; our ability to service our long-term debt; our ability to increase the output and longevity of our platforms and to meet the performance requirements of our contracts; our ability to expand our customer base and maintain relationships with our largest customers and strategic business allies; changes by the U.S. Small Business Administration or other governmental authorities to, or with respect to the implementation or interpretation of, the Coronavirus Aid, Relief, and Economic Security Act, the Paycheck Protection Program or related administrative matters; and concerns with, threats of, or the consequences of, pandemics, contagious diseases or health epidemics, including the novel coronavirus, and resulting supply chain disruptions, shifts in clean energy demand, impacts to our customers' capital budgets and investment plans, impacts to our project schedules, impacts to our ability to service existing projects, and impacts on the demand for our products, as well as other risks set forth in the Company's filings with the Securities and Exchange Commission (the "SEC"). The forward-looking statements contained herein and in related commentary from Company management speak only as of the date of this presentation. The Company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any such statement contained or incorporated by reference herein to reflect any change in the Company's expectations or any change in events, conditions or circumstances on which any such statement is based.

The information set forth in this presentation and related commentary from Company management is qualified by reference to, and should be read and considered in conjunction with, our Annual Report on Form 10-K for the fiscal year ended October 31, 2021, filed with the SEC on December 29, 2021, our Quarterly Report on Form 10-Q for the three months ended January 31, 2022, filed with the SEC on March 10, 2022, and our Current Report on Form 8-K filed with the SEC on March 16, 2022.

This presentation and related commentary from Company management are neither an offer to sell nor a solicitation of an offer to buy any securities of the Company, and shall not constitute an offer, solicitation, or sale in any jurisdiction in which such offer, solicitation, or sale is unlawful.

# Today's Agenda

10:00 am

## Welcome & Introductions

**Tom Gelston**

SVP, Finance and Investor Relations

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## Company Overview & Strategy

**Jason Few**

President & CEO

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## Market Opportunity

**Troy Michaud**

VP, Global Market Strategy

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## Technology & Innovation

**Tony Leo**

EVP & CTO

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**Q&A (~15 Minutes)**

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**BREAK (5 Minutes)**

12:15 pm

## Scaling Operations for the Future

**Mike Lisowski**

EVP & COO

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## Focusing on the Human Element

**Andrea Jones**

Chief People Officer

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## Financial Update

**Mike Bishop**

EVP & CFO

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## Closing Remarks

**Jason Few**

President, CEO & CCO

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**Q&A (~20 Minutes)**

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**Event Conclusion**

# Company Overview & Strategy



# Key Messages

- 1 **Global energy transformation** is currently underway – every company and every industry will be impacted by the transition to net zero – and, based on our analysis, we have competitive advantages and offer highly efficient solutions to meet the challenge
- 2 Our technologies provide **optionality as the transition toward decarbonizing power evolves**, with hydrogen becoming a primary energy carrier and carbon capture achieving scale; multidimensional energy platforms go beyond electric power to deliver value for multiple customer applications
- 3 **Innovative, practical solutions that reduce Scope 1 and 2 emissions** from customer operations, offering the only known system that can produce hydrogen, water, and power from a single platform; the only known platform technology that can capture carbon from an external source and produce more power and hydrogen at the same time; differentiated electrolysis platform being commercialized that is capable of achieving ultra-high efficiency when acting as an electrolyzer — all while supporting energy security and resiliency
- 4 **Positioned to scale our business** by attracting key talent, expanding internal operations and looking for opportunities to utilize strategic partnerships and leverage third party manufacturing networks where optimal to maximize speed, efficiency and use of capital
- 5 **Strengthened balance sheet** and **disciplined capital allocation** to support profitable growth in the future
- 6 **Market confidence in the energy transition** and our purpose has supported raising capital to scale our organizational and manufacturing capacity, and accelerate commercialization of our solid oxide platform and carbon capture solutions

# FuelCell Energy Snapshot

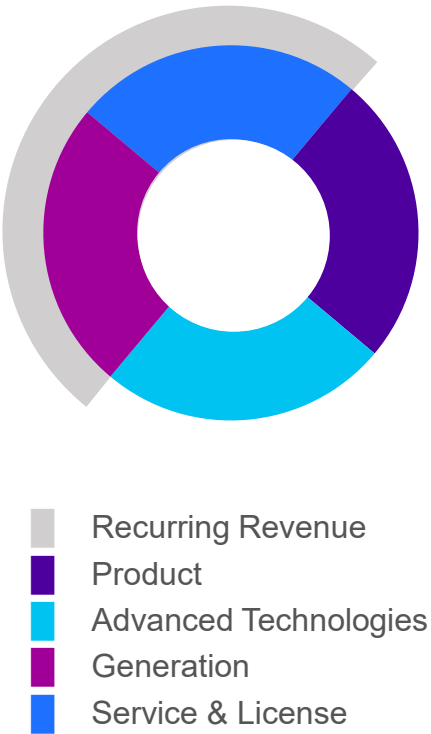
ENGINEERING EXPERTISE AND MANUFACTURING FACILITIES ALIGNED WITH CUSTOMERS WORLDWIDE

A global leader in manufacturing stationary fuel cell **energy platforms** for **decarbonizing power** and **producing hydrogen** through our proprietary fuel cell technologies

### KEY STATISTICS<sup>1</sup>

Primary Market Focus	APAC, EMEA, NA
Employees Worldwide	~400
Manufacturing sites	U.S., Canada, Germany
Platforms in Commercial Operation <sup>2</sup>	95
Capacity in Field	>225 MW

### LONG-TERM REVENUE MIX TARGETS



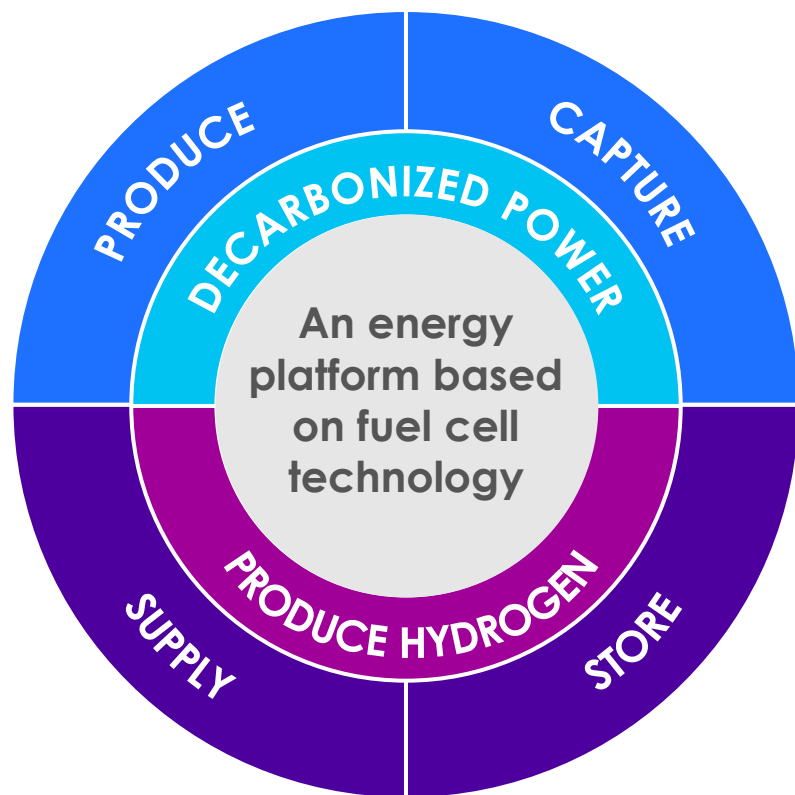
### EXPANDING GLOBAL COLLABORATIONS / SOLUTIONS DELIVERED / PARTNERS / RELATIONSHIPS



<sup>1</sup> As of January 31, 2022; <sup>2</sup> Note that certain sites have multiple platforms. As an example, our 14.9 MW Bridgeport project site has five SureSource 3000 platforms. Currently there are 38 sites with the Company's carbonate fuel cell platforms.

# Purpose Statement: Enable A World Empowered By Clean Energy

ENABLING A SAFE, SECURE AND PRACTICAL JOURNEY  
TO CARBON ZERO



OUR PLATFORM EMPOWERS A SAFE, SECURE AND  
PRACTICAL JOURNEY TO CARBON ZERO

## DECARBONIZING POWER



- Produce decarbonized power
- Capture carbon and greenhouse gases at low cost with the ability to generate power and hydrogen at the same time
- Negligible nitrogen oxide (NOx) and sulfur oxide (SOx) emissions

## PRODUCING HYDROGEN



- Supply green hydrogen (using electrolysis of water or reforming of biogas) or blue hydrogen power (using natural gas with carbon separation or carbon capture) with high efficiency
- Working to commercialize a solution that scales renewables by converting excess power to hydrogen – then converting hydrogen back to power when needed
- Ensuring people and industry continue to have access to reliable and affordable energy as the industrialized world continues to move forward by supporting our hardest to decarbonize sectors
- Working to commercialize a gigawatt scalable solution that supports the intermittency of renewables by converting excess power to hydrogen – then using that hydrogen to make zero carbon power

# Experienced Leadership Team Focused on Execution



**Jason Few**  
President,  
CEO & CCO  
Time with FCE: 3 years



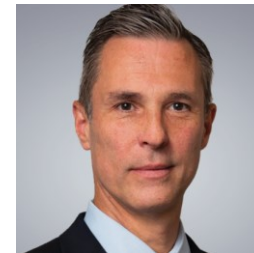
**Mike Bishop**  
Exec. Vice President,  
CFO  
18 years



**Josh Dolger**  
Exec. Vice President,  
General Counsel  
<1 year



**Tony Leo**  
Exec. Vice President,  
CTO  
43 years



**Mike Lisowski**  
Exec. Vice President,  
COO  
20 years



**Andrea "AJ" Jones**  
Chief People  
Officer  
<1 year



**Troy Michaud**  
VP, Global Market  
Strategy & Bus. Dev.  
1 year



**Betsy Schaefer**  
Chief Marketing  
Officer  
<1 year



**Ben Toby**  
Sr. Vice President,  
Direct Sales &  
Customer Service  
18 years



**Greg Adams**  
Sr. Vice President,  
Finance & Strategic Dev.  
1 year



**Jill Crossman**  
Sr. Vice President,  
Global Controller  
16 years



**Tom Gelston**  
Sr. Vice President,  
Finance & IR  
4 years

 New to FuelCell Energy



# Company Rebranding

ENABLING A SAFE, SECURE AND PRACTICAL JOURNEY TO CARBON ZERO

Three+ Design Points Define the New Identity:

**1** It represents the journey we are helping our customers take to carbon zero  
The design's use of gradients signals the journey our customers are taking to carbon zero. Additionally, the reductive footprint of the broader design system reinforces how frictionless adoption of clean energy can be

**2** It takes inspiration from our DNA  
Fuel cells don't combust their fuel but are fuel flexible in that they can run on biogas, renewable natural gas, hydrogen and natural gas blends, natural gas or a mixture of those fuels and hydrogen. In all cases, the fuel cell produces a chemical reaction with hydrogen that generates electricity. Non-hydrogen fuels are converted to hydrogen inside the cells before the power generation reaction. The design of the logo is inspired by the bonds between molecules that are broken and formed in the chemical reactions in our fuel cells

**3** Its letter forms incorporate F-C-E-L— our stock ticker symbol



**+** When you combine the outer edges of the full logo, it forms a zero, representing our customers' journey and ours toward net zero



## EVOLVING THE FUELCELL ENERGY BRAND

is intended to be a signal to our customers, communities, team members, and stockholders, of our absolute commitment to enabling a safe, secure and practical approach to realizing our ESG goals and assisting our customers to achieve their ESG and business goals

# Expert and Diverse Board of Directors

CURRENTLY EXCEEDING NASDAQ REQUIREMENTS FOR DIVERSITY, BASED ON GENDER IDENTITY AND DEMOGRAPHIC BACKGROUND<sup>1</sup>



**James England**  
Stahlman-England  
Irrigation  
Director & CEO  
Director since: 2008



**Betsy Bingham**  
Lean Operations Leader,  
Sustainability and  
EH&S at GE Aviation  
2021



**Jason Few**  
FuelCell Energy  
President,  
CEO & CCO  
2018



**Chris Groobey<sup>2</sup>**  
Wilson Sonsini  
Goodrich & Rosati  
Former Partner  
2019



**Cynthia Hansen**  
Enbridge, Inc.  
EVP & President, Gas  
Distr. and Storage  
2021



**Matt Hilzinger**  
USG, Former  
EVP & CFO  
2015



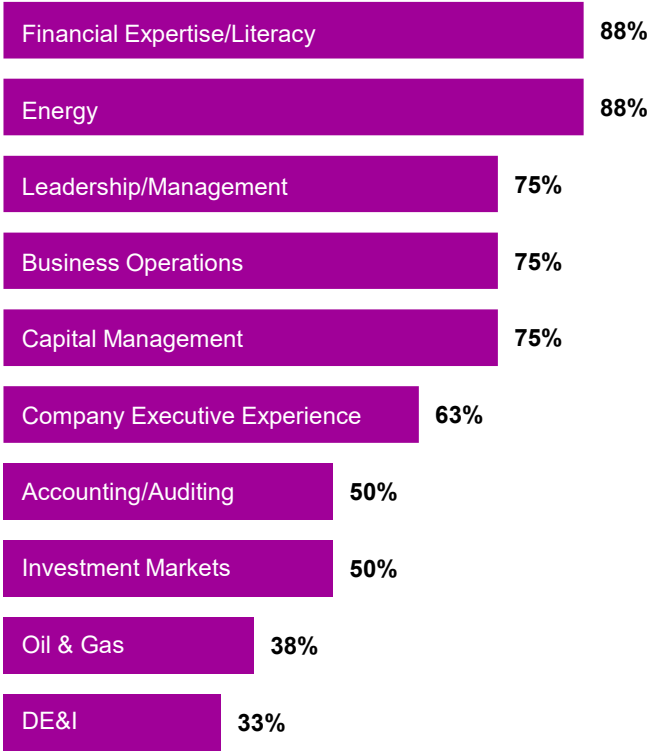
**Donna Sims Wilson**  
Kah Capital Management  
COO  
2021



**Natica von Althann**  
C&A Advisors  
Founding Partner  
2015

**63%**  
of Our Board  
is Diverse

## DIRECTOR SKILLS AND QUALIFICATIONS<sup>1</sup>

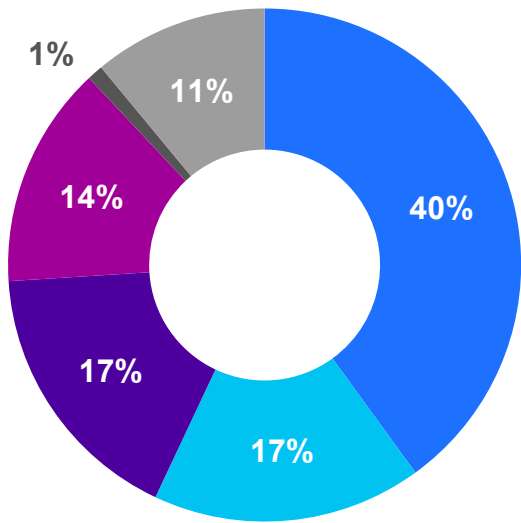


 New to the Board of Directors

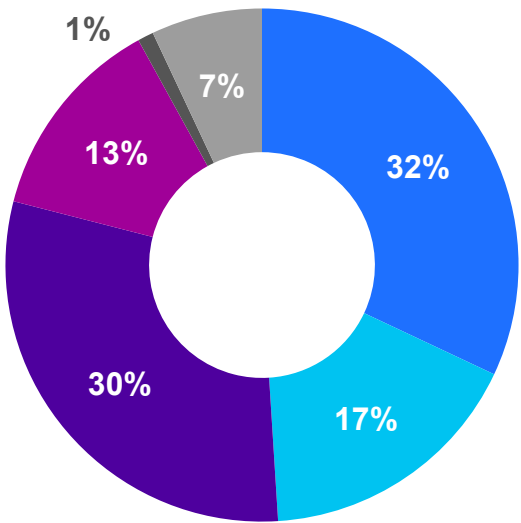
<sup>1</sup> Includes all current directors; <sup>2</sup> Director Chris Groobey not standing for reelection in 2022.

# Global Energy Consumption

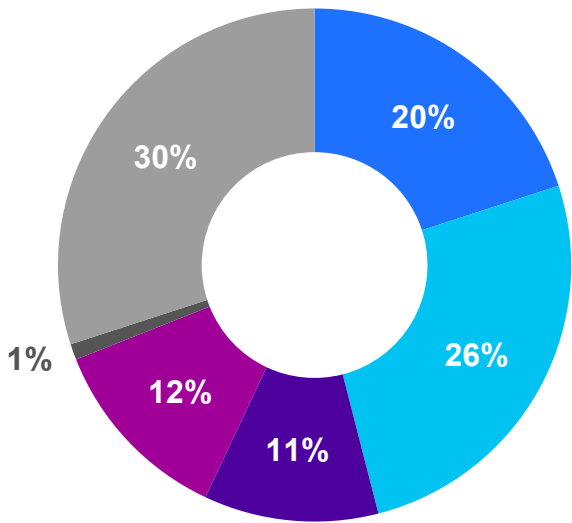
UNITED STATES  
TOTAL ENERGY CONSUMPTION<sup>1</sup>



UNITED KINGDOM  
TOTAL ENERGY CONSUMPTION<sup>1</sup>



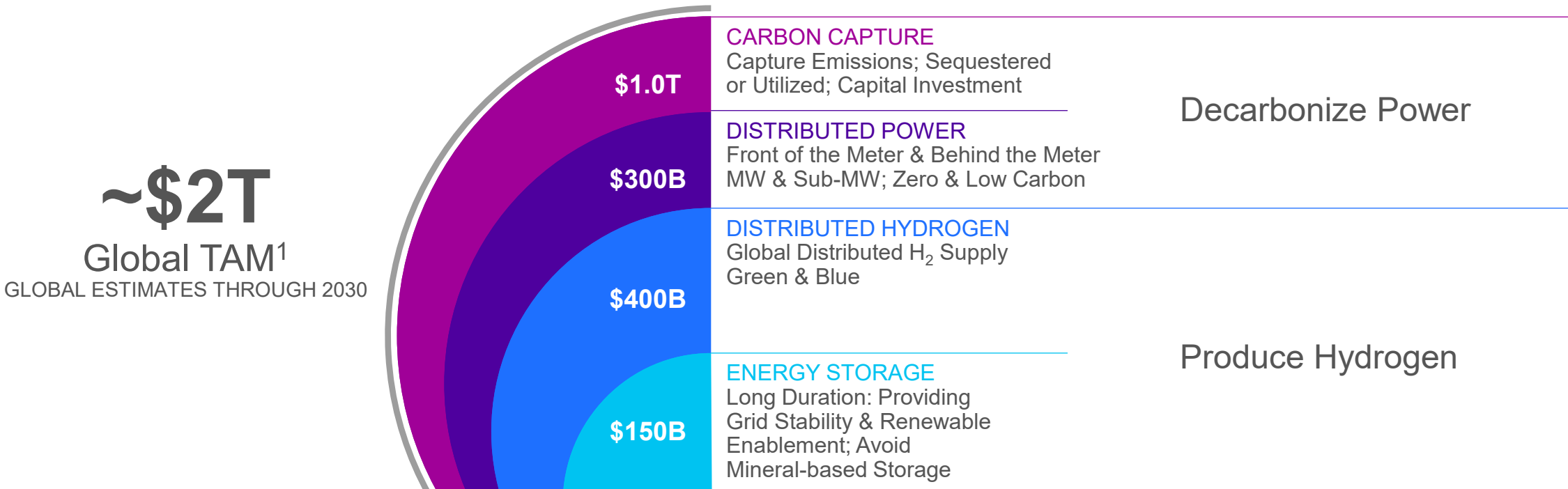
SOUTH KOREA  
TOTAL ENERGY CONSUMPTION<sup>1</sup>



■ Transport   ■ Industry   ■ Residential   ■ Commercial & Public Services   ■ Agriculture / Forestry   ■ Non-specified

<sup>1</sup> International Energy Agency, <https://www.iea.org/countries>

# Proactively Focusing on Industry Trends to Expand Our Future TAM



PRODUCT PORTFOLIO WELL-POSITIONED TO CAPITALIZE ON THE ENERGY TRANSITION

<sup>1</sup> See Appendix for more details on estimates and assumptions



# Differentiated Business Model Based on Multiple Revenue Streams

## RECURRING REVENUE



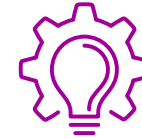
### GENERATION BUSINESS

As the availability of project capital has improved, project structures in the U.S. have transitioned to predominantly power purchase agreements (“PPAs”)



### SERVICE AND LICENSE / PARTNERSHIPS

Every platform we sell is bundled with a service agreement that runs coterminously with the life of the platform, generally 20 years<sup>1</sup>



### ADVANCED TECHNOLOGIES PROGRAMS

R&D or demonstration programs funded by third parties. We undertake both privately funded and publicly funded R&D to develop opportunities, reduce product and output costs, and expand our technology portfolio



### PRODUCT SALES

Drives top line revenue growth and service revenues, opens channels to project developers, and does not burden the balance sheet

## TOP LINE GROWTH

<sup>1</sup>Excludes product sales to POSCO Energy/Korea Fuel Cell.

# Solutions Enabling Clean Energy

	DECARBONIZE POWER				PRODUCE HYDROGEN			
INDUSTRY APPLICATION	Combined Heat & Power	Microgrids	Carbon Separation	Carbon Capture <sup>1</sup>	Trigen Carbonate	Electrolysis Solid Oxide <sup>1</sup>	Energy Storage <sup>1</sup>	Zero Carbon Hydrogen Power <sup>1</sup>
TECHNOLOGY EMPLOYED	Carbonate Solid Oxide			Carbonate		Solid Oxide		
SUSTAINABLE COMPETITIVE ADVANTAGE	<ul style="list-style-type: none"><li>• The only fuel cell platform capable of producing steam</li><li>• Baseload power with a low emission profile</li><li>• Clean baseload utility scale microgrid platform that can be deployed in the urban center</li></ul>		<ul style="list-style-type: none"><li>• The only known platform that can capture carbon from an external source and produce more power and hydrogen at the same time</li><li>• The only known platform that can produce hydrogen, power and water from a single platform</li><li>• IP portfolio</li></ul>			<ul style="list-style-type: none"><li>• Test operation has demonstrated an initial 90% + electrical efficiency converting electricity and water to hydrogen and the opportunity for increasing efficiency to 100% electrical efficiency when incorporating waste heat</li><li>• Proprietary cell architecture design – IP portfolio</li></ul>		

COMMERCIALIZING AN ADVANCED CLEAN ENERGY TECHNOLOGY PORTFOLIO

<sup>1</sup> Under development

# New Path Forward in Asia

## IMPORTANCE OF THE SOUTH KOREAN MARKET

- Currently the largest fuel cell market in the world
- South Korean gov't targets from Hydrogen Economy Roadmap:
  - 6.2M fuel cell vehicles and 1,200 refilling stations
  - 41K hydrogen-fueled buses and conversion of service trucks into hydrogen-powered vehicles
  - 15 GW of fuel cell power generation supply and 2.1 GW of fuel cell capacity for homes and buildings
  - Annual hydrogen supply of ~5.3M tons priced below \$3/kg



20 MW fuel cell project sold and constructed by FuelCell Energy in Incheon, South Korea during 2018

<sup>1</sup> Refer to Form 8-K filing with the SEC December 27, 2021

## WHY WE BELIEVE WE ARE WELL POSITIONED IN SOUTH KOREA

- GenCo's are our leading customers and require utility-scale solutions
- Grid infrastructure favors utility scale district heating and cooling solutions
- Robust set of distributed hydrogen solutions
- Favorably resolved legal proceedings with POSCO Energy Co., Ltd. in December 2021 to clarify access to the Asian market<sup>1</sup>
- POSCO Energy has an obligation to purchase 20 modules (28 MW) to service its existing installed base during calendar year 2022
- POSCO Energy has an installed base of 140MW that needs servicing
- FuelCell Energy also has an existing 20MW installation with KOSPO
- Differentiated technology that we believe allows us to compete in some of the world's most important markets

# Well-Positioned with Competitive Advantages



## INTELLECTUAL PROPERTY & TECHNICAL EXPERTISE

335 patents and 137 pending applications<sup>1</sup>



## PRODUCTS CHARACTERIZED BY SUSTAINABILITY OVER THEIR FULL LIFECYCLE

By weight, ~93% of the entire power plant can be reused or recycled at the end of its useful life

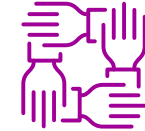


## TECHNOLOGY PLATFORMS THAT ARE ATTRACTIVE BASED ON MARKET ECONOMICS

Projects deliver power at a rate comparable to pricing from the grid in our targeted markets

Projects deliver power at an LCOE comparable to the grid in our targeted markets and with tax and policy support can deliver LCOE below the grid price

Multiple value streams are delivered from our platforms; power, thermal energy, hydrogen, water, carbon, enhanced reliability and resiliency



## STRATEGIC INNOVATION AND DEVELOPMENT RELATIONSHIPS

Joint-Development Agreement with ExxonMobil Research & Development for carbon capture technology

Clean Resource Innovation Network (CRIN) carbon capture project

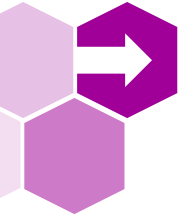
Distributed hydrogen and water production platform under construction for Toyota

PROPRIETARY TECHNOLOGIES – SUSTAINABLE – ECONOMIC – STRATEGIC DEVELOPMENTS

<sup>1</sup>As of October 31, 2021, we have 113 U.S. patents and 222 patents in other jurisdictions covering our fuel cell technology (excluding our subsidiaries). We also have 45 patent applications pending in the U.S. and 92 applications pending in other jurisdictions.

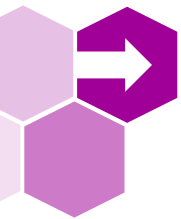


# Grow Significant Market Opportunities



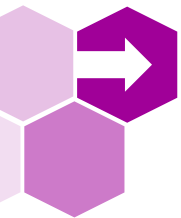
## OPTIMIZE THE CORE BUSINESS

Capitalizing on our core technological strengths in key product markets, including the use of biofuels, microgrids, distributed hydrogen, combined heat & power, and carbon separation and utilization



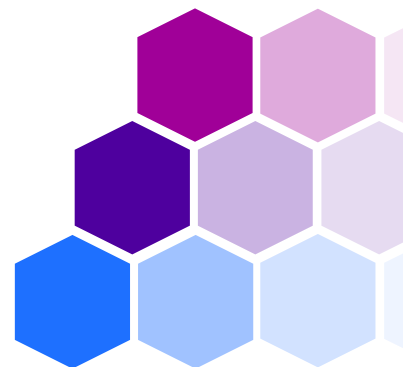
## DRIVE COMMERCIAL EXCELLENCE

Strengthening customer relationships and building a customer-centric reputation; building our sales pipeline by increasing focus on targeted differentiated applications, product sales and geographic market and customer segment expansion

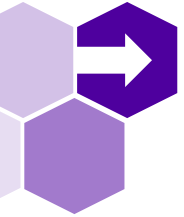


## EXPAND GEOGRAPHICALLY AND BY MARKET

Targeting growth opportunities in APAC, EMEA, and North America

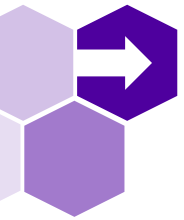


# Scale Our Existing Platform to Support Growth



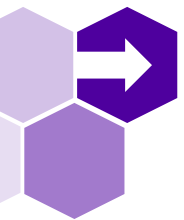
## INVEST

Investing in our current manufacturing capabilities, advancing to commercialization our Advanced Technologies, enhancing our commercial organization, and investing in marketing to ensure the various audiences of our message have a clear understanding of our platforms and solutions, including customers, international regulatory and legislative bodies, and investors



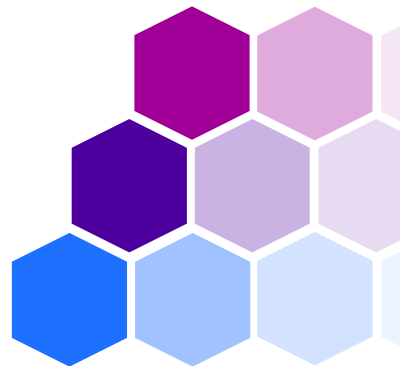
## EXTEND PROCESS LEADERSHIP

Building on our legacy of process excellence, so that we scale with the same degree of quality as our current footprint

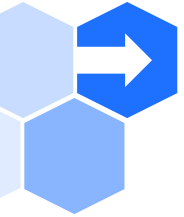


## BROADEN & DEEPEN OUR HUMAN CAPITAL

Implementing the next phase of our plan for human capital development to support growth and enable our future

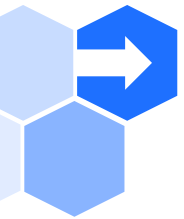


# Innovate for the Future



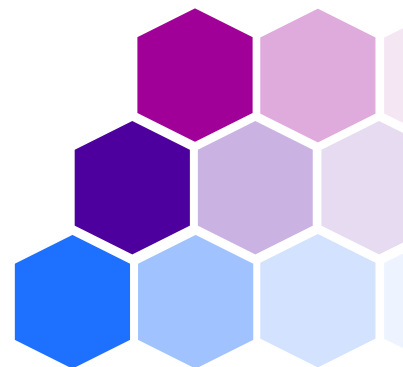
## CONTINUE PRODUCT INNOVATIONS

Investing in continuous product improvement, expanding commercialization of new technologies, including proprietary gas treatment systems, and advancing hydrogen-based energy storage and electrolysis, as well as carbon capture and sequestration



## DEEPEN PARTICIPATION IN THE DEVELOPING HYDROGEN ECONOMY

Advancing our reversible solid oxide technology to support growing applications for distributed hydrogen, electrolysis and energy storage applications



# We Are Committed to Net Zero

**Our purpose:** Enable the world to be empowered by clean energy



SCOPE 1 & 2  
**NET ZERO 2030**

## WE ARE COMMITTED TO NET ZERO

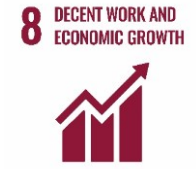
At FuelCell Energy, we're doing our part by developing a plan to reduce our carbon emissions to net zero by 2050. This year, we are:

- Calculating our organizational carbon footprint baseline
- Conducting product life cycle assessments (LCAs) to understand emissions throughout the value chain
- Setting short-term goals (2030) and long-term goals (2050) aligned with science-based targets
- Developing a roadmap to net zero emissions to guide our Scope 1, 2 and 3 emissions reduction goals
- Engaging employees on our net zero journey

Our next zero commitment is supported by a cross-functional team of strategic and operational leaders across the company, sponsored by our Chief Financial Officer.

Oversight of the project is provided by the Environmental, Social, Governance and Nominating Committee of the Board of Directors.

## WE ARE ALIGNED





# We Are Committed to Comprehensive Reporting on ESG Programs

## **E** ENVIRONMENTAL

### OUR PLANET

We utilize Design for Environment (DfE) principles in the design, manufacturing, installation, and servicing of our power platforms. DfE principles aim to reduce the overall negative human health and environmental impact of a product, process, or service, when such impacts are considered across the product's lifecycle.

### IMPROVING AIR QUALITY WHILE GENERATING POWER



Our platforms are designated as “Ultra-Clean” under California Air Resources Board (CARB) standards. They not only generate clean power,

but also help clean dirty sources of power generation, thus improving air quality.

**By weight, ~93% of the entire power plant can be re-used or recycled at the end of its useful life**

## **S** SOCIAL

### OUR PEOPLE

Delivering clean innovative solutions one employee at a time by enabling a work environment that stimulates passion, collaboration, engagement, and speed, to ensure a performance-based culture built upon a total rewards program with three main goals:

- Attracting and retaining talented and diverse team members
- Alignment of employee and shareholders' mutual purpose
- Winning as a team – as a company, and with our broad ecosystem of customers, partners, suppliers, and the communities in which we operate



### DIVERSITY, EQUITY AND INCLUSION

- We view diversity, equity and inclusion in the workplace as a business asset.

## **G** GOVERNANCE

### OUR PRINCIPLES

The Environmental, Social, Governance and Nominating Committee has oversight of implementing ESG best practices and contributing to the development of overall ESG strategy.

FuelCell Energy's Senior Vice President, Investor Relations, provides quarterly updates to the Board with regard to the Company's ESG efforts and progress toward its ESG-related goals.

We are committed to board diversity, as evidenced by the makeup of our Board, including diversity of gender, race, and professional experience/thought.

# Market Opportunity

# Key Messages

1

Energy sector is undergoing an **unprecedented global transformation to decarbonize**

2

Our technology is **complementary** to the energy transition – including **renewables, electrification, and decarbonization of heavy-industry, transport and other hard-to-abate sectors**

3

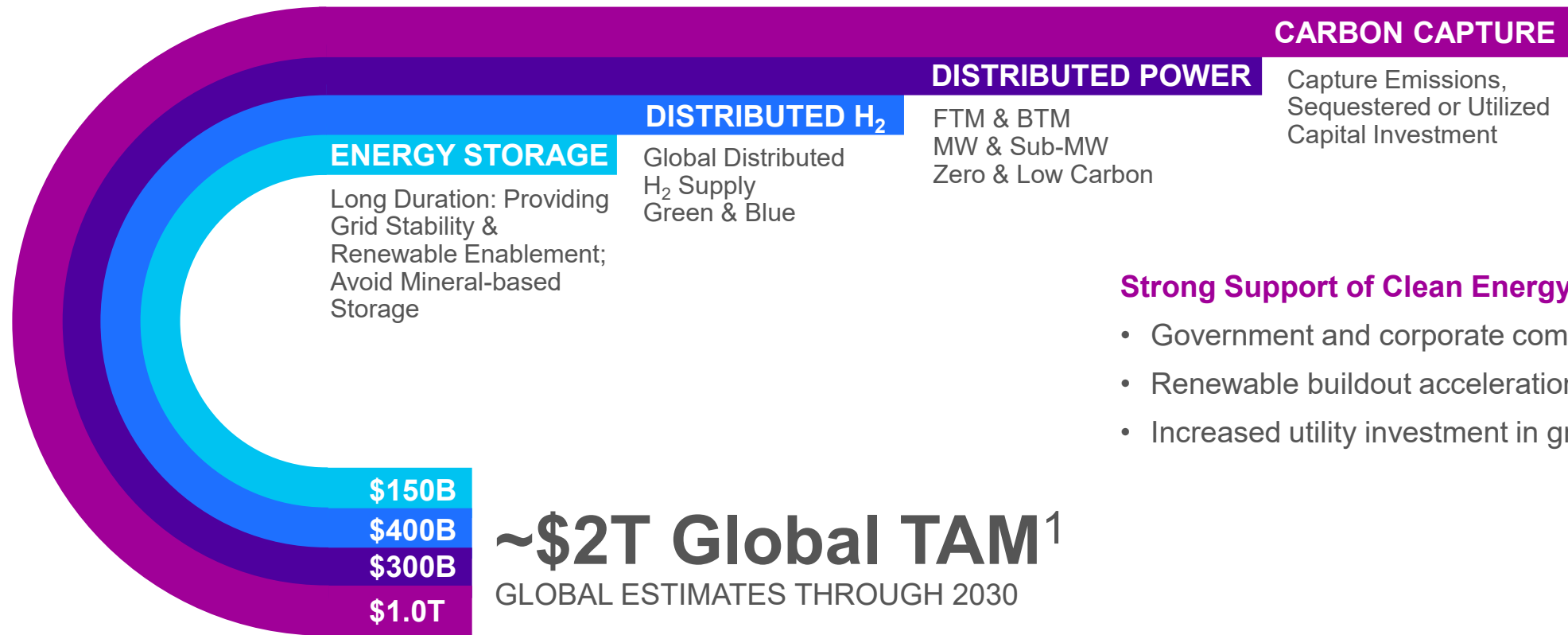
Proven engineering expertise provides **differentiated and industry leading solutions**

4

**Pursuing opportunities to build strategic partnerships** to expand technology and addressable markets

# We Believe Strong Energy Transition Tailwinds Will Expand Our Addressable Market Opportunity

CLIMATE GOALS FOR DECARBONIZATION DRIVING MULTIPLE OPPORTUNITY SETS



## Strong Support of Clean Energy Adoption

- Government and corporate commitments to decarbonize
- Renewable buildout acceleration
- Increased utility investment in grid resiliency

PRODUCT PORTFOLIO WELL-POSITIONED TO CAPTIALIZE ON THE ENERGY TRANSITION

<sup>1</sup> See Appendix for more details on estimates and assumptions



# Well-Positioned to Accelerate Growth and Enable the Energy Transition



## GEOGRAPHY & MARKETS

ENABLE GLOBAL  
SUSTAINABILITY GOALS

Optionality from a single technology provider enabling rapid, cost effective, decarbonization adoption



## TECHNOLOGY

PROPRIETARY TECHNOLOGIES TO  
LOWER COST OF THE TRANSITION

High-efficiency electrolyzer  
Carbon capture<sup>1</sup>  
Long duration energy storage<sup>1</sup>  
Zero-carbon thermal energy + power<sup>1</sup>



## PARTNERSHIPS

ENABLING RAPID SCALE  
AND COMPLETE SOLUTIONS

Creating additional routes to market and extending solution reach

<sup>1</sup> Under development

# Global Carbon Neutral Pledge

## COUNTRIES <sup>1</sup>

with net-zero emissions targets



## UTILITIES <sup>2</sup>

with net-zero emissions targets



## COMPANIES <sup>2</sup>

with net-zero emissions targets

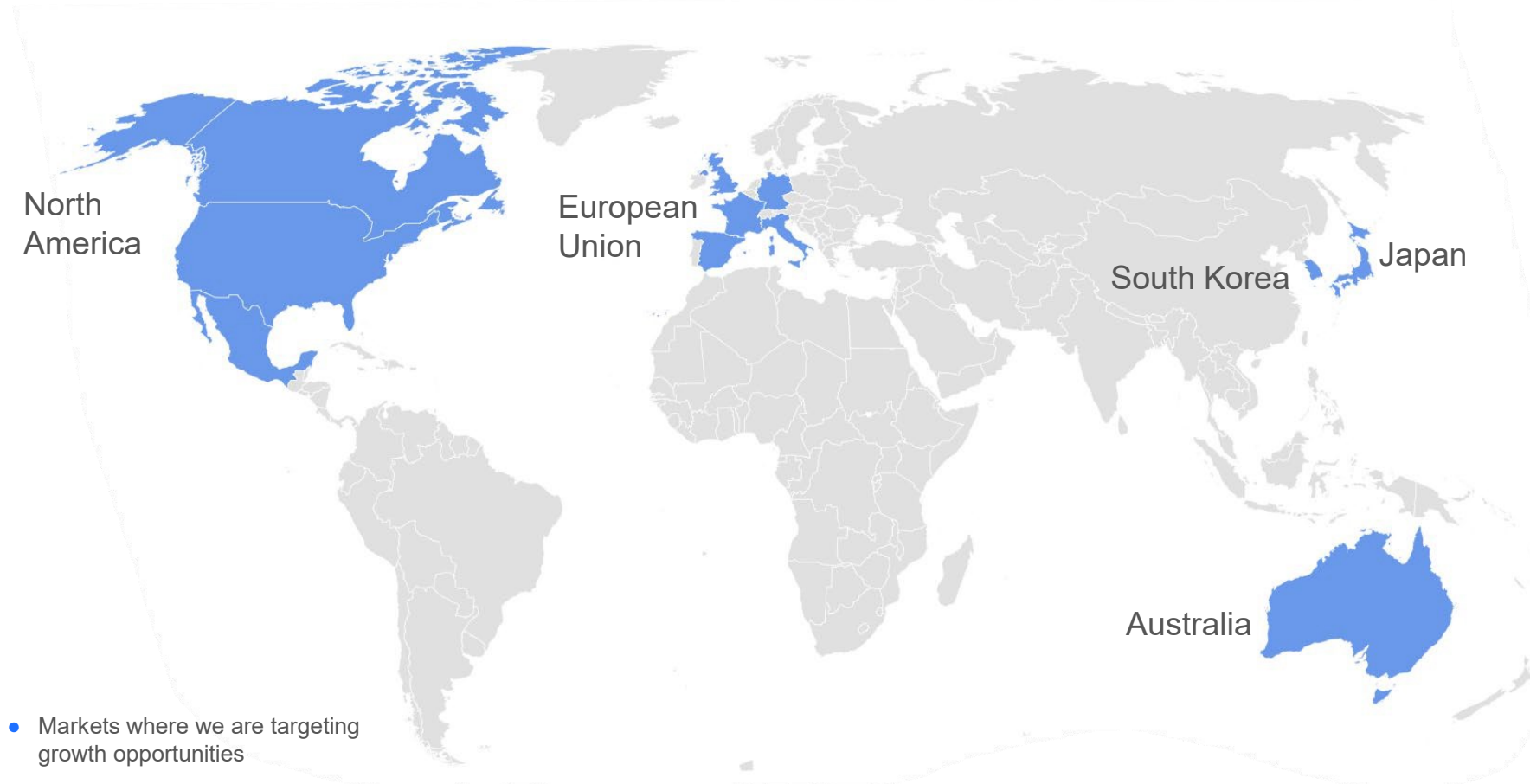


<sup>1</sup> Source - Energy and Climate Intelligence Unit, Carbon Neutrality Coalition - non-exhaustive list      <sup>2</sup> Source - Respective Company Websites - non-exhaustive list



# Key Global Markets with Strong Policy Support to Accelerate Adoption

WELL-POSITIONED IN KEY REGIONS TODAY



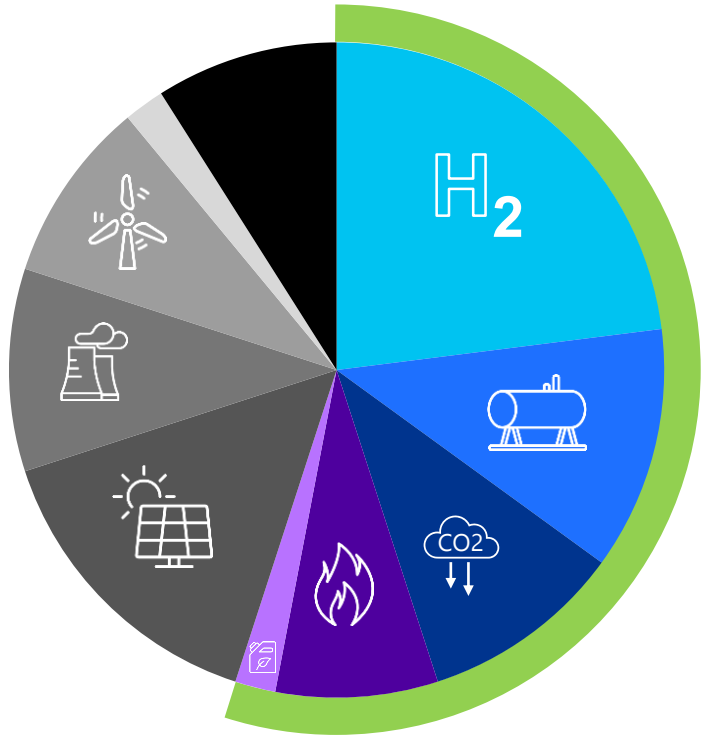
## FOCUSED ON TARGETING GROWTH IN THE EMERGING MARKETS OF TOMORROW

- **North America**  
\$9Bn Bipartisan bill for hydrogen and clean technologies
- **South Korea**  
Government goal of 15GW of Utility-Scale Fuel Cells by 2040
- **European Union**  
€34bn investment in green hydrogen electrolyzers by 2030
- **Australia**  
Govt investing \$1.4bn in hydrogen industry buildup

FUEL CELL SOLUTIONS POSITIONED TO SERVE THE FASTEST EVOLVING WORLD MARKETS AS THE ENERGY TRANSITION UNFOLDS



# Developing Comprehensive Set of Solutions to Maximize Decarbonization



## ENERGY SECTORS WHERE OUR TECHNOLOGY IS APPLICABLE

			FCE CAPABILITY	FCE COMPLEMENTS
Hydrogen	23%		●	
Storage	12%		●	
CCSU	10%		●	
Natural Gas	8%		●	
Biofuels	2%		●	
Solar	15%			●
Nuclear	10%			●
Wind	9%			●
Geothermal	2%			
Other	9%			

OUR TECHNOLOGIES INCLUDE THOSE WITH GREAT POTENTIAL TO ACCELERATE THE ENERGY TRANSITION

Source: Reuters Events Energy Transition Insight Survey, 2021

# Technology & Innovation

# Key Messages

- 1 Carbonate fuel cell **technology available since 2003**; our existing fleet is installed around the world, demonstrating the reliability and durability of our proven technology
- 2 **Unique, proprietary technologies**—Trigeneration: the only known platform capable of producing hydrogen, water & electricity; Carbon capture: the only known platform capable of capturing carbon from emitters while simultaneously producing power; Solid oxide: high efficiency, high temperature electrolysis<sup>1</sup>
- 3 **Expanding from the base of proven commercial products** today to commercialize newer hydrogen and carbon capture technologies
- 4 **Deep organizational expertise** with an engineering legacy dating back five decades
- 5 **New market opportunities are emerging during the energy transition**, and now we can accelerate path to scaling technologies

<sup>1</sup> Under development



# Leading Technologies to Provide More Energy Solutions



## APPLICATION

## CARBONATE<sup>1</sup>

## SOLID OXIDE<sup>2</sup>

Power gen/CHP<sup>3</sup> from natural gas, biogas, or H<sub>2</sub> blends



Power generation/CHP from hydrogen fuel



CO<sub>2</sub> capture from platform



CO<sub>2</sub> capture from external source while making power



H<sub>2</sub>/Power/Water production from natural gas or biogas



High efficiency electrolysis H<sub>2</sub> production



Electrolysis/Reforming/Purification



TWO ADVANCED HIGH TEMPERATURE ELECTROCHEMICAL PLATFORMS TO ADDRESS MULTIPLE APPLICATIONS

<sup>1</sup> Carbon capture and electrolysis applications are under development; <sup>2</sup> Solid Oxide technology under development ; <sup>3</sup> generation / combined heat and power (CHP)

# Superior Advantages to Drive Adoption – Power

## 1 MULTI-FEATURED

Broad and capable fuel cell portfolio; Platforms to produce power with multiple applications for high-grade waste heat; Microgrid applications; Carbon separation

## 2 ATTRACTIVE ECONOMICS & ENERGY SECURITY

Providing power at the point of use rather than utilizing transmission lines, improves efficiency, reduces cost, reduces new grid/distribution network investment

Eliminates long distance power line power losses, which average ~5% for the U.S. grid

## 3 EASY TO SITE

Compact footprint of SureSource system is a large differentiating factor, specifically in urban settings where land is limited and/or expensive and the power is most needed

## 4 FUEL FLEXIBLE

Renewable biogas, natural gas, hydrogen blends, and a variety of other fuels deliver low to zero carbon

## 5 CARBON CAPTURE & CARBON SEPARATION

Capture separation from platform power operations; Capture carbon from external source while making power<sup>1</sup>



FuelCell Providing On-Site Power Generation



Avangrid Fuel Cell / Solar Combination



Wastewater / Biofuel Applications Deliver Zero or Negative CO<sub>2</sub> Emission Profile

ELECTROCHEMICAL CONVERSION OF FUEL TO POWER CAN REDUCE EMISSIONS, INCREASE EFFICIENCY, AND IMPROVE SITING

<sup>1</sup> Under development

# Superior Advantages to Drive Adoption – Hydrogen

## 1 MULTIPLE HYDROGEN PRODUCTION PLATFORMS

Carbonate Trigenation: co-production of power, hydrogen, and water; Carbonate reforming/electrolysis/purification; High efficiency solid oxide electrolysis<sup>1</sup>

## 2 MULTIPLE PLATFORMS DRIVE ECONOMICS IN DIFFERENT APPLICATIONS

High power cost applications favor Trigenation, where co-produced power drives revenue to reduce hydrogen cost; Low power cost applications favor electrolysis

## 3 MODULAR, DISTRIBUTED SYSTEMS

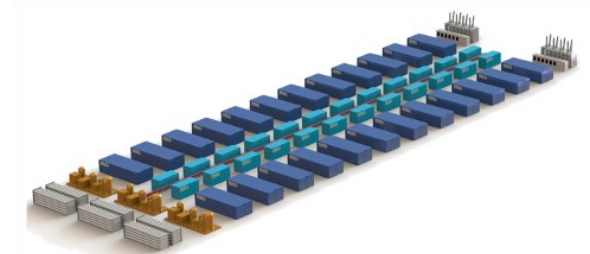
Modular architecture of carbonate and solid oxide hydrogen systems<sup>1</sup> expected to position the Company to address the wide range of emerging hydrogen applications, from distributed to large scale

## 4 LOW TO ZERO CARBON

Trigenation makes hydrogen from natural gas cleaner and with lower carbon footprint than conventional reforming; Trigenation with biogas is carbon neutral or negative; Trigenation can also have carbon separation; High efficiency of electrolysis platform<sup>1</sup> will reduce carbon footprint from grid mix power, and will be able to produce more power from zero carbon renewables or nuclear power<sup>1</sup>



Rendering of Long Beach Trigenation Platform



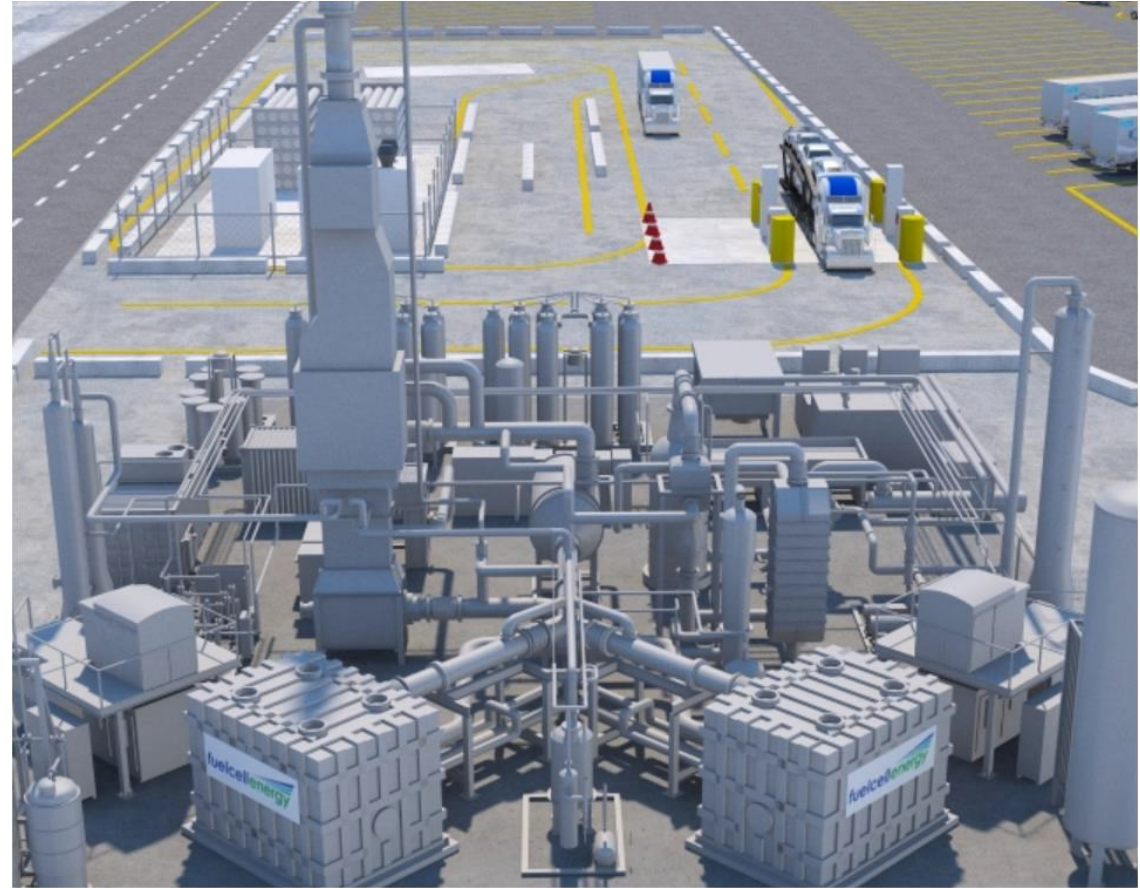
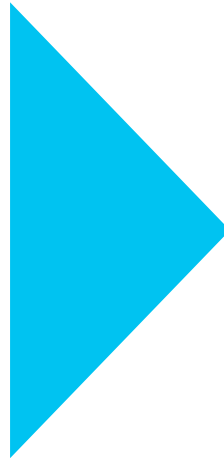
Large Scale Electrolysis Platform

MULTIPLE PLATFORMS ADDRESS DIVERSE HYDROGEN APPLICATIONS EMERGING DURING ENERGY TRANSITION

<sup>1</sup> Under development

# Video – Partnership with Toyota at Long Beach, CA Facility

- Trigeneration platform we are building will address the need for hydrogen fueling infrastructure by cleanly and affordably generating high-purity hydrogen in an urban location
- Will be the first 100% renewable Toyota facility in North America
- Key value streams:
  - 2.3MW **Clean power** – will avoid grid emissions in an area with some of the worst air quality in US
  - 1.3 Tons/day **green hydrogen** – will fuel Toyota Mirai passenger vehicles and Toyota/Paccar heavy-duty hydrogen vehicles
  - 1,400 gallons/day **water** – will be used for car washing, avoids use of city water in severe drought area

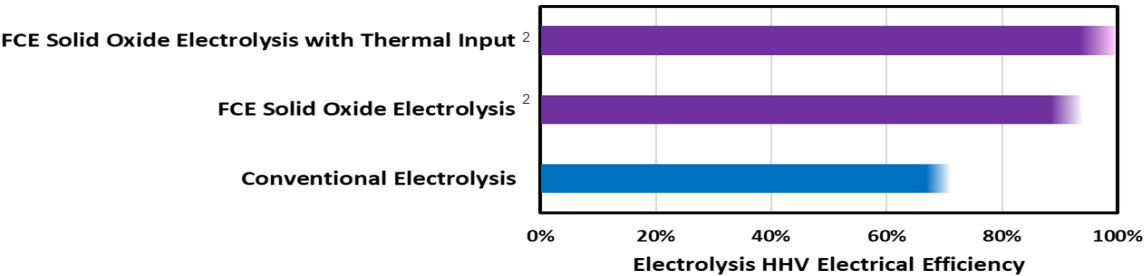


TOYOTA PORT OF LONG BEACH, CA TRIGENERATION PROJECT

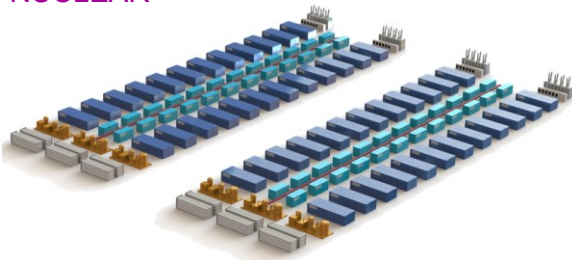


# Solid Oxide Electrolysis<sup>1</sup>

## EFFICIENCY ADVANTAGE



## LARGE SCALE HYDROGEN PRODUCTION FROM NUCLEAR OR RENEWABLES



## DEMONSTRATION SYSTEM



## DISTRIBUTED HYDROGEN PRODUCTION



MULTIPLE PLATFORMS BEING DEVELOPED TO ADDRESS DIVERSE H<sub>2</sub> APPLICATIONS EMERGING DURING ENERGY TRANSITION

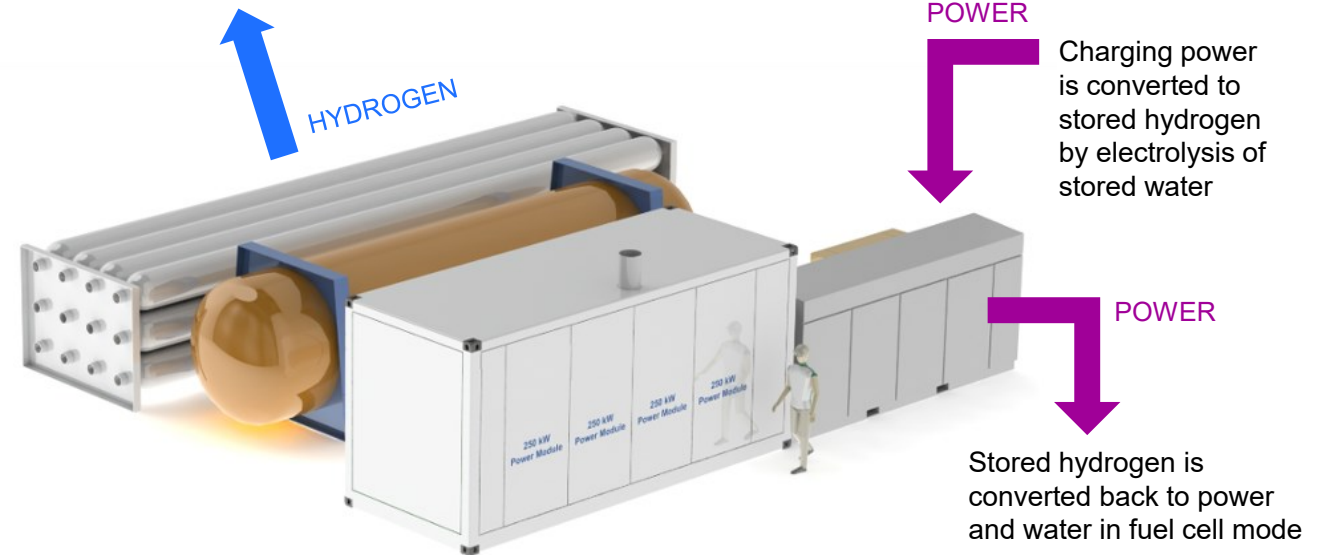
<sup>1</sup> Under development; <sup>2</sup> As tested in demonstration project

# Long Duration Energy Storage<sup>1</sup>

- Solid oxide stacks in electrolysis mode will produce hydrogen from power, with hydrogen to be stored for future use
- Stored hydrogen will be sent back to stacks operating in fuel cell mode to make power. Stored hydrogen can also be exported to hydrogen user
- Storage duration can be increased by adding hydrogen storage capacity. Geological storage of hydrogen can provide weekly or seasonal storage
- The storage reactant is water, which is regenerated during power generation discharge – does not depend on limited quantities of lithium or cobalt

## 1MW REVERSIBLE SOLID OXIDE (RSOFC) SYSTEM

H<sub>2</sub> can be converted back to power or supplied to H<sub>2</sub> user, enhancing project economics



AVOIDING DEPENDENCE ON LIMITED MINERALS, H<sub>2</sub> BASED ENERGY STORAGE IS ONLY PRACTICAL APPROACH FOR LONG DURATION

<sup>1</sup> Under development



# Well-Positioned with Competitive Advantages



## INTELLECTUAL PROPERTY REPRESENTS A BARRIER TO ENTRY FOR POTENTIAL COMPETITORS

Five decades of carbonate development leading to unique proprietary technologies for power generation, carbon capture<sup>1</sup>, and hydrogen production

Two decades of solid oxide development leading to unique proprietary technologies for power generation and hydrogen production<sup>1</sup>



## TECHNOLOGIES ARE ATTRACTIVE BASED ON MARKET ECONOMICS

High-efficiency power generation with optionality to co-produce heat, hydrogen, or CO<sub>2</sub>

Carbon capture with co-production of power reduces cost of capture<sup>1</sup>

High-efficiency electrolysis<sup>1</sup> reduces cost of hydrogen



## SUSTAINABILITY OVER FULL PRODUCT LIFECYCLE

ISO14001:2015, Environmental Management System certified

Approximately 93% of power plant by weight can be recycled/reused at end of life

Committed to the 2030 Net Zero target for scope 1 and scope 2 emissions

UNIQUELY POSITIONED WITH PROPRIETARY TECHNOLOGIES THAT CAN SCALE AS THE ENERGY TRANSITION GAINS MOMENTUM

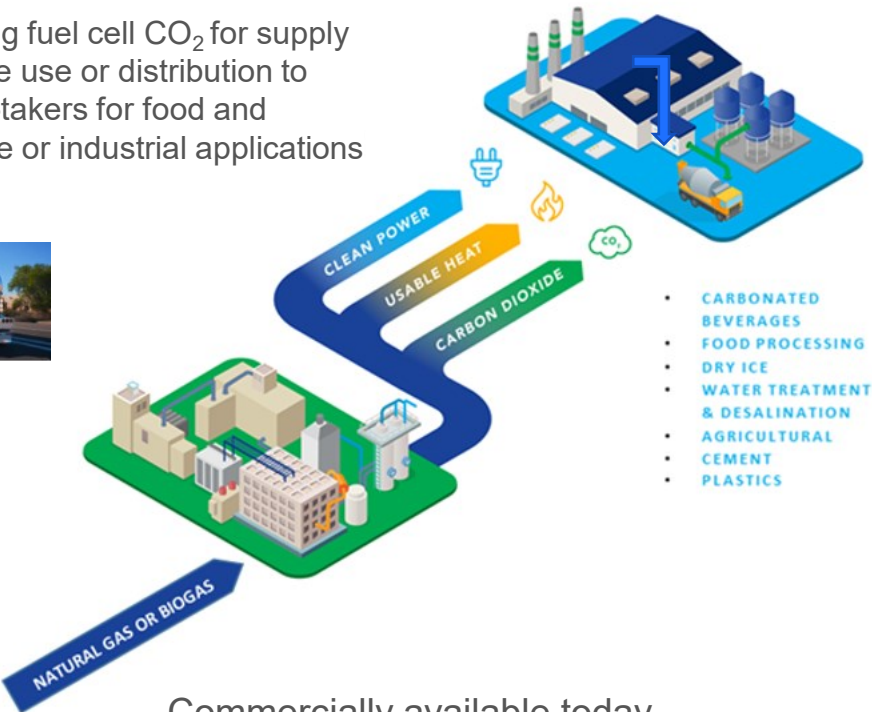
<sup>1</sup> Under development

# Carbon Capture Technology With Favorable Economics

## CARBON SEPARATION

Purification and capture of CO<sub>2</sub> from fuel cell power generation

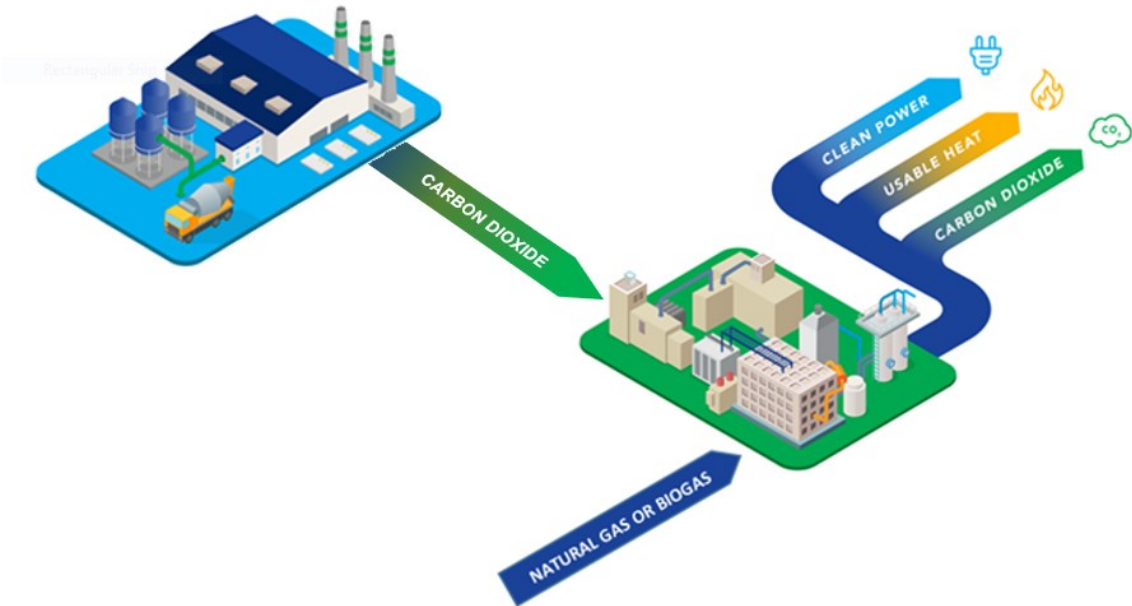
Capturing fuel cell CO<sub>2</sub> for supply to on-site use or distribution to local off-takers for food and beverage or industrial applications



Commercially available today

## CARBON CAPTURE

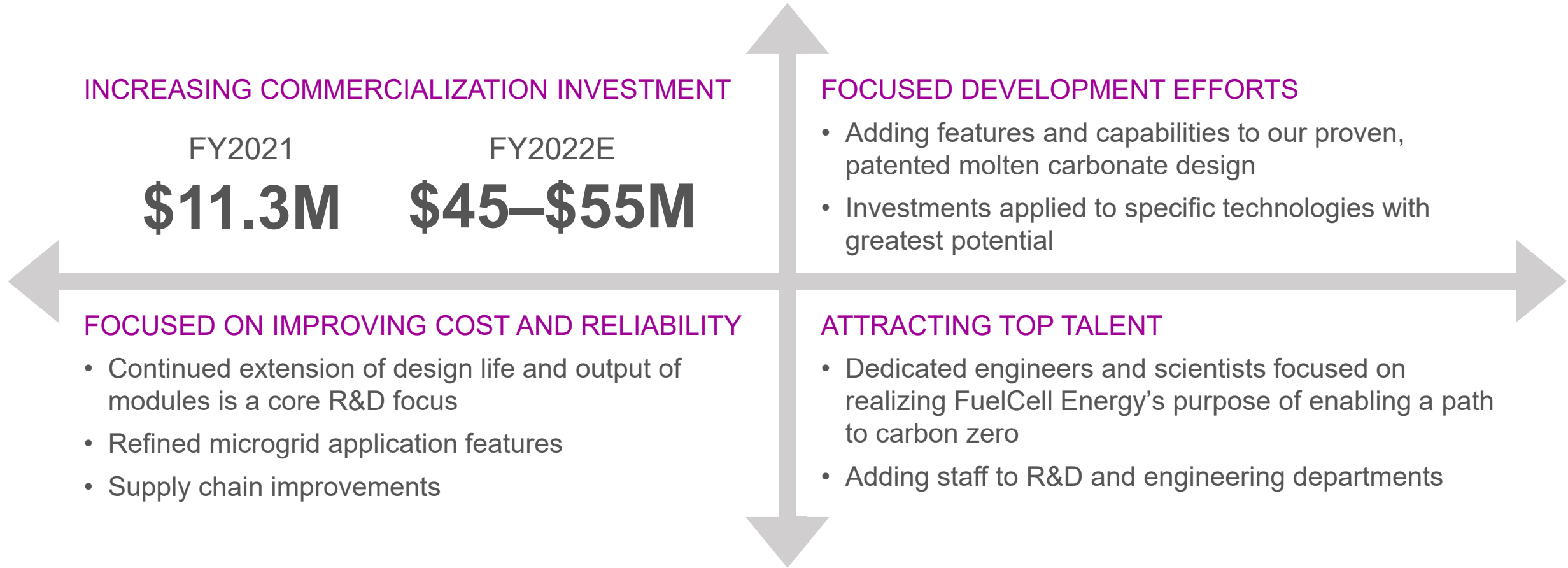
Purification and capture of CO<sub>2</sub> from external sources



Under development with ExxonMobil Research & Engineering Company

ONLY CARBON CAPTURE SOLUTION IN THE WORLD SHOWN TO ACHIEVE NET POSITIVE POWER GENERATION

# Accelerating Innovation Through Investments in Products, People and Processes



DEVELOPING COMMERCIAL PRODUCTS AND TECHNOLOGIES TO ENABLE THE ENERGY TRANSITION

# Q&A

# Scaling Operations for the Future

# Key Messages

- 1 **Manufacturing expertise** based on decades of proprietary knowledge
- 2 **Continuous improvement** is culturally ingrained and important to capacity expansion as we further develop and leverage our operational excellence
- 3 **Scaling manufacturing capabilities** to significantly ramp up our annualized production of fuel cell stacks and platform equipment to **meet current and expected demand**
- 4 **Flexibility to scale** carbonate and solid oxide manufacturing capacity in North America and Europe
- 5 **Optionality to scale** efficiently as new products reach commercialization



# Established Integrated Operating Model

## OPERATIONS VALUE CHAIN



# Fuel Cell Manufacturing Expertise – Global Footprint

Advanced manufacturing process utilizing proprietary designs and state-of-the-art manufacturing equipment to produce components are the heart of the company's SureSource carbonate and solid oxide systems<sup>1</sup>

Experienced global team with broad technical expertise optimizing our global manufacturing footprint as we ramp manufacturing of carbonate systems and work to launch commercial production of our solid oxide systems

## CARBONATE MANUFACTURING

Torrington, CT, USA



## CARBONATE MANUFACTURING

Taufkirchen, Germany



## SOLID OXIDE MANUFACTURING

Calgary, Canada



<sup>1</sup> Under development

# Strong Culture of Continuous Improvement

## OPERATIONAL EXCELLENCE

- Safety: ISO45001:2018, Occupational Health & Safety System certified 4/2021
- Quality: ISO9001:2015, Quality Management System certified 11/2020
- Delivery: Manufacturing 100% OTD for 3 years with a 7% increase in installed fleet since 2019

## LEAN CULTURE

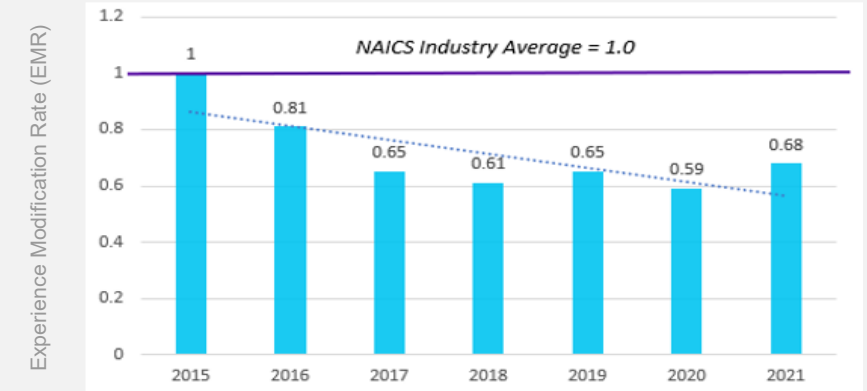
- Aggressively reducing waste as manufacturing production rate increases: 52% reduction YoY
- Yield and efficiency improvements: optimization of 45 MW capacity on 1-shift operation
- Process improvements: reduction of cycle times >20% in final manufacturing operation step
- Cost reduction/containment: direct and indirect cost reduction focus across platform

## ENVIRONMENTAL LEADERSHIP

- ESG: ISO14001:2015, Environmental Management System certified 10/2021
- “Cradle-to-cradle” Life Cycle Analysis (LCA): approximately 93% of power plant by weight can be recycled/reused at end of life
- Launched CO<sub>2</sub> footprint baseline, Organizational LCA, and roadmap to net zero campaign
- Committed to the 2030 net zero target for scope 1 and scope 2 emissions

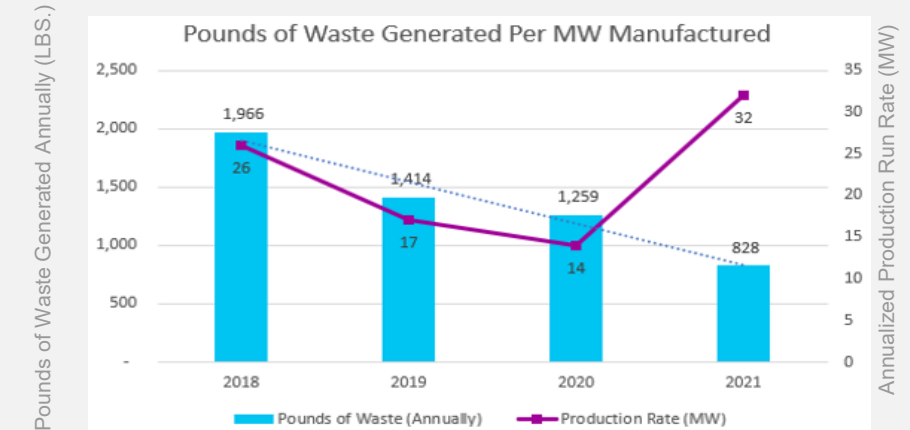
## FuelCell Energy Safety Centered Culture

Experience Modification Rate (EMR)



## Lean to Our Core

Waste Reduction Realization



CONTINUOUS IMPROVEMENT CULTURE - SOLID FOUNDATION OF EXPERIENCE AND INDUSTRIAL RIGOR

# Established and Stable Supply Chain

## INTEGRATED SUPPLY CHAIN QUALIFICATION AND RISK MITIGATION PROGRAM

- Robust supplier qualification approval process
- Ongoing rigorous performance and supply risk monitoring
- Advanced supply chain scale-up planning for facilities, tooling, resources, and direct materials

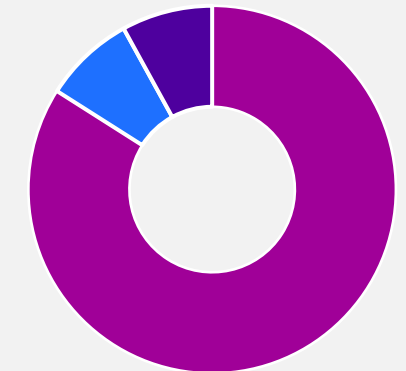
## WORKING TO ASSURE SUPPLY CONTINUITY AND REDUCE RISK

- Established relationships, strong commercial contracts, coupled with communication across Tier 1 suppliers
- Focused and direct engagement with critical Tier 2 and Tier 3 suppliers
- Overall lean inventory management with strategic focus on critical safety stock
- Commodity market risk mitigation through physical hedging program
- Alternate supplier development and qualification to increase optionality and competitive landscape
- Developing supplier capabilities to improve quality, reduce lead time and costs, and expand capacity
- Proactively advancing U.S.-domestic supplier development to mitigate geopolitical trade challenges

Qualified Global Supply Chain,  
Centered in North America, is Stable  
and Built on a Foundation of Strong  
Time-tested Relationships

Headwinds: geopolitical trade challenges,  
commodity dynamics, COVID, logistics

GLOBAL SUPPLY CHAIN



- North America (~84%)
- Europe (~8%)
- Asia (~8%)

FOCUSED ON MAINTAINING SUPPLY CONTINUITY BY LEVERAGING STRONG FOUNDATIONAL RISK MITIGATION STRATEGIES AND TACTICS



# Performance of Installed Fleet

## CENTRALIZED GLOBAL MONITORING AND CONTROL

- Entire global fleet centrally and remotely monitored 24/7 at our GMCC located in the U.S.; platforms do not require on-site operators
- Field Service teams regionally located near fleet sites to enable rapid response times
- Continuous improvement focus on fleet reliability
- Legacy plants upgraded with newer-generation equipment to improve reliability and resiliency

## CORE FOCUS ON FLEET PERFORMANCE

- Achieved a >9% increase in actual fleet output since 2018, many improvements implemented in 2020 & 2021



FLEET GLOBAL MONITORING & CONTROL CENTER (GMCC)

# Project Backlog Completion

## EXECUTION OF PROJECT BACKLOG

- Focused on completing construction and achieving commercial operation of current project backlog
- Building selected cross-functional bench strength across operations to support project execution
- Expanding qualification of strategic Engineering, Procurement and Construction (EPC) partnership network with leading site civil, mechanical and electrical construction firms
- Streamlining project management and execution process



IN CONSTRUCTION – SureSource Trigen Plant for Toyota Logistics America – Port of Long Beach, Long Beach, CA

CORE FOCUS ON SUSTAINABLE VELOCITY THROUGH THE PROJECT EXECUTION PROCESS – CONVERSION OF BACKLOG TO REVENUE



# Roadmap for Scaling Capacity

## NEAR-TERM PRODUCTION SCALE-UP

- Passionate and experienced team driving continuous improvements across operations
- Growing our team and increasing talent depth
- Efficiently optimizing existing North American production facility with maximum annualized capacity of 100 MW when fully utilized; scalable to 200 MW with additional investment in machinery, tooling, equipment and inventory
- Working to ensure supply chain capacity meets production demand
- Leveraging existing facility footprint and infrastructure – with expansion of our U.S. and Canadian facilities

## STRATEGIC PRODUCTION SCALE-UP ROADMAP

- Proven replicable production system - efficient to scale
- Leveraging leading-edge technologies and advanced manufacturing automation
- Evaluating optionality: strategic make/buy, acquisitions, licensing, partnering, or further internal expansion



FUELCELL ENERGY  
North American Production Operations - Torrington, CT USA

# Focusing on the Human Element

# Key Messages

- 1** **Position of Chief People Officer created** to support scaling the organization as we refocus our mission to build the next generation of talent as we grow our business
- 2** **Strategically building out HR infrastructure** as a business partner model to better align the organization with business objectives
- 3** **Aggressively addressing current workforce trends** and evolving our employee value proposition to attract critical talent as we scale
- 4** **We believe the inherent appeal of our purpose-driven culture** is a competitive advantage that gives us confidence in our ability to execute

# Human Resources Strategic Initiatives



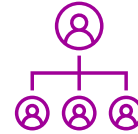
## HUMAN RESOURCES TRANSFORMATION

Transitioning HR to serve as a strategic business partner to align the organization with business objectives



## RECRUITMENT & SELECTION

Thinking differently to attract, hire, and retain top talent by looking at skill-based hiring



## HUMAN CAPITAL INITIATIVES

Harnessing our workforce expertise to develop the next generation of employees through a performance and talent management process



## LIVING OUR VALUES

Committed to our values of inclusion and innovation; a diverse workforce amplifies skills and idea generation

# Human Resources Mission Statement

Delivering clean innovative solutions one employee at a time by enabling a work environment that stimulates passion, collaboration, engagement and speed, to ensure a performance-based culture built upon a total rewards program with three main goals:



ENABLING A WORLD EMPOWERED BY CLEAN ENERGY



## RECRUITMENT AND SELECTION

- Building our brand in the community
- Working with schools/community colleges
- Increasing visa sponsorship
- More agile approach to screening

- Aggressively recruiting to fill open positions
- Interview training – skill based
- Build up manufacturing capabilities – adding additional shifts
- Considering alternative opportunities to scale operational needs



FuelCell Energy



# Our People Approach

## RETAINING OUR TALENT: FORWARD LOOKING

### TALENT & PERFORMANCE MANAGEMENT

- Initiating a new performance management platform that is tied to a pay-for-performance model
- Developing individual growth plans to help people “GROW” their career
- Establishing leadership competencies to know what “Winning Looks Like” at FuelCell Energy
- Creating on-the-job experiences to grow professionally using the 70/20/10 model
- Developing a technical career path for our engineering talent

### COMPENSATION & BENEFITS

- Compensation
  - Standardized equity for most levels in the organization
  - Proper leveling tied to market value
  - Pay equity across the organization
  - Developing a rewards and recognition program
- Benefits
  - Creating wellness programs
  - Modernizing our HR policies and procedures based on new norms
  - Benchmarking competitor benefit packages
  - Tuition reimbursement
  - Flexible work environment

**The grass is greener  
where you  
water it**



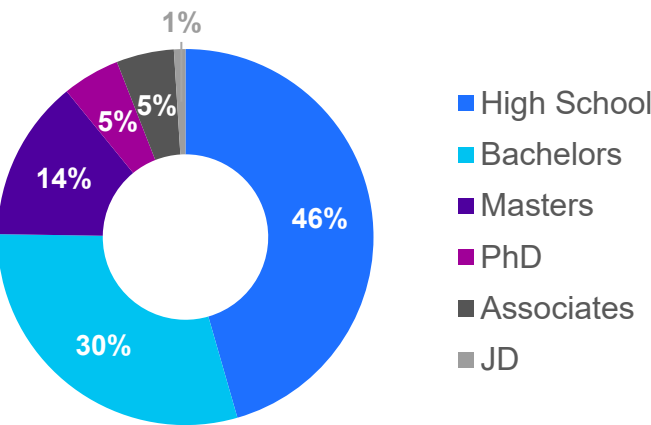
BUILDING NEXT-GENERATION TALENT TO STRENGTHEN OUR CULTURE

# A Journey To Be Best in Class

## GLOBAL FOOTPRINT



## EDUCATED WORKFORCE



## DIVERSITY AND INCLUSION – UNITED IN PURPOSE

Developing a Diversity Diagnostic Assessment

Defining a DE&I commitment tied to compensation

Fostering affinity groups

- Celebrate Black History Month
- Continue celebrations for Asian American and Pacific Islander Heritage Month
- Celebrate National Hispanic Heritage Month

Implementing unconscious bias training for ALL employees

Recruiting Society for Women Engineers at UCONN and nationally

Modernizing our policies



Photo: Manufacturing Day – October 2021

CREATING AN INCLUSIVE WORK ENVIRONMENT THAT STIMULATES PASSION FOR OUR PURPOSE

# Financial Update

# Key Messages

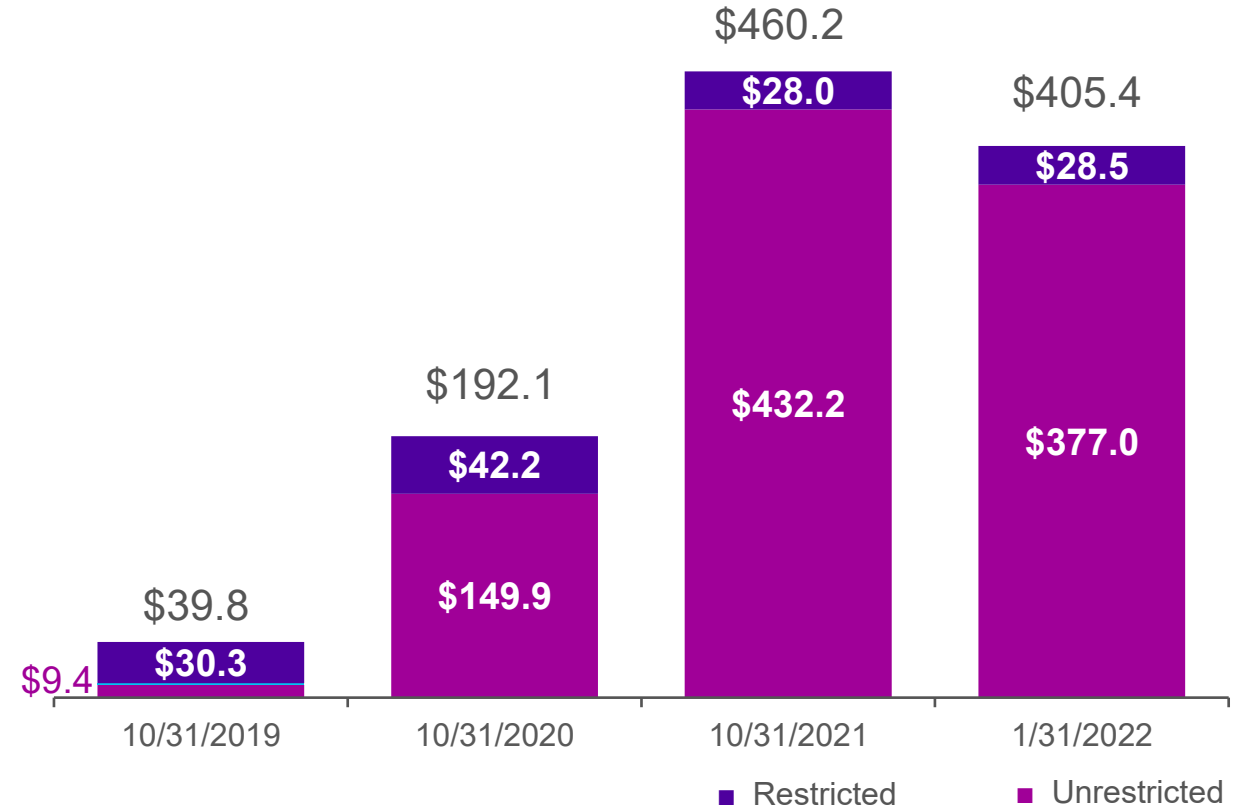
- 1 **Transformed balance sheet** since implementation of Powerhouse strategy
- 2 **Multiple sources of funding** resulting in strengthened financial liquidity
- 3 **Strong backlog with recurring revenues** from long-term contracts with Tier 1 customers. Targeting increasing product sales in the U.S., Asia, and Europe bundled with long-term service contracts
- 4 **Strong financial foundation**, expected to enable us to grow, scale, and innovate, while exploring strategic opportunities for partnerships
- 5 **Thoughtfully allocating capital** to fund the next phase of growth aligned with addressable market opportunity

# Transformed Balance Sheet

## \$405.4M OF CASH, RESTRICTED CASH AND EQUIVALENTS OF AS OF 1/31/22

- De-levered corporate balance sheet in FY 2021
  - Paid down \$87.3M of senior debt
  - Paid off \$21.5M preferred stock obligation
- Well-established financing relationships with bulge-bracket banks
- Expanded sources of liquidity to include tax equity financing transactions, and we expect to target debt financing to accelerate strategic initiatives
- Flexibility to scale by making investments in project assets, manufacturing, commercialization of hydrogen technologies, and sales and marketing efforts

## CASH AND EQUIVALENTS (\$M)

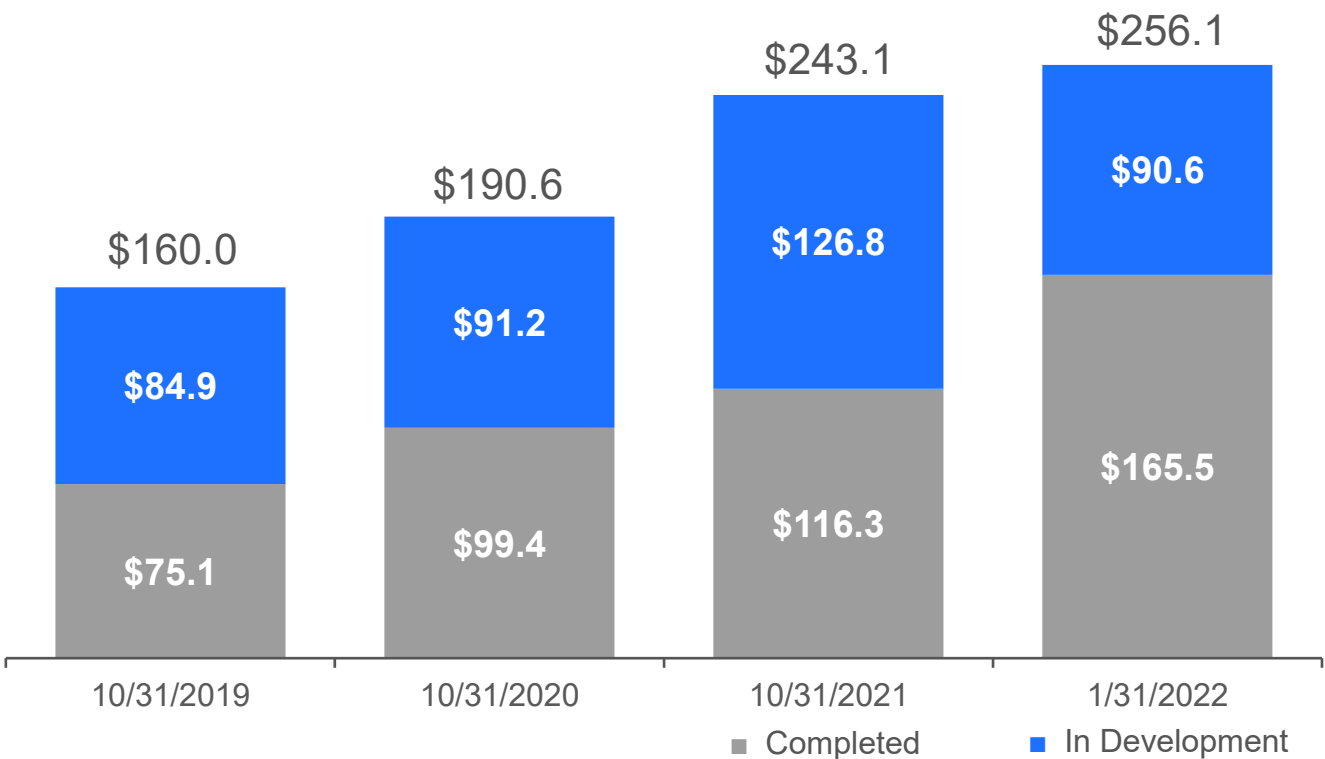


STRENGTHENED BALANCE SHEET SINCE START OF POWERHOUSE STRATEGY PROVIDES FLEXIBILITY AND LIQUIDITY

# Liquidity to Invest in Growth

- \$256.1M of total project assets<sup>1</sup> as of January 31, 2022, reflecting progress made against project backlog
- These assets are sited at Tier 1 off-takers under long-term power purchase agreements (PPAs)
- As generation projects go into operation, we seek project financing through tax equity and debt, which allows capital to be redeployed and recycled in the business

INVESTMENTS IN PROJECT ASSETS<sup>1</sup> (\$M)



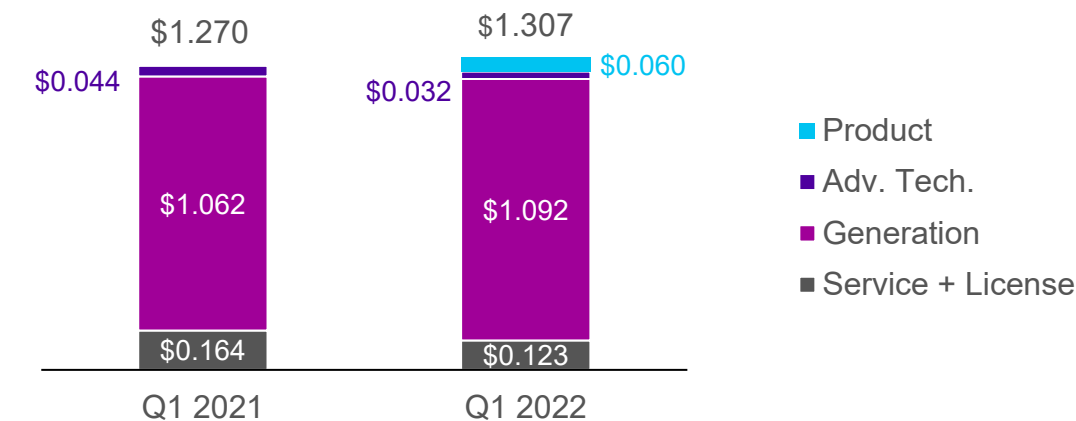
INVESTMENTS IN CAPEX GROW ASSET BASE AS PROJECTS GO INTO OPERATION

<sup>1</sup> Project assets consist of capitalized costs for fuel cell projects and excludes accumulated depreciation. Net of depreciation, project assets totaled \$235.6 million as of January 31, 2022.



# Recurring Cash Flow Growth From Generation Portfolio

## BACKLOG AS OF JANUARY 31 (\$1B)

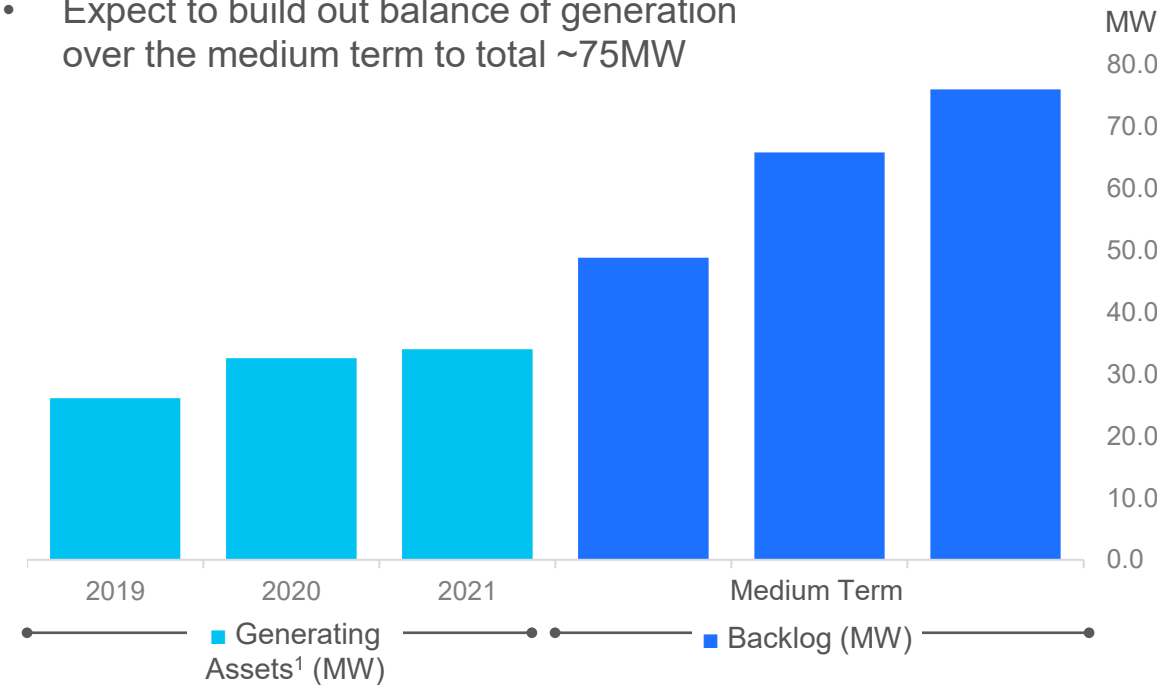


Backlog increased by approximately 3% year-over-year reflecting continued project execution and adjustments to generation backlog, primarily resulting from (i) the addition of the product sales backlog from the module order received from a POSCO Energy subsidiary, (ii) module exchanges with higher future output and revenues expected and (iii) inclusion of the project with United Illuminating in Derby, CT which was awarded in the second quarter of fiscal year 2021; Advance Technologies backlog reflects new contracts from the U.S. Department of Energy partially offset by work performed under our Joint Development Agreement with ExxonMobil Research and Engineering Company. Note that approximately \$22.2 million of backlog which was previously classified as “Service and license backlog” was reclassified to “Product” backlog as a result of the settlement agreement with POSCO Energy. This amount represents the value of the extended warranty associated with the module order.

<sup>1</sup> Purchase Power Agreements;

## RECURRING REVENUE EXPECTED TO GROW WITH EXECUTION OF PROJECT BACKLOG

- Finished 2021 with 34MW of operating assets
- Added the 7.4MW LIPA project in Q1 2022
- Expect to build out balance of generation over the medium term to total ~75MW



# Partnerships to Expand Presence and Capabilities

WE BELIEVE THERE WILL BE NATURAL PARTNERS ACROSS THE ENERGY TRANSITION ECOSYSTEM.

**FuelCell Energy will consider opportunities to establish strategically aligned partnerships, which could take many different forms.**



## JOINT DEVELOPMENT AGREEMENT WITH EXXONMOBIL RESEARCH AND ENGINEERING COMPANY

Utilizing FuelCell Energy's proprietary carbonate technology to develop and commercialize large scale carbon capture

Working towards a future demonstration project at ExxonMobil location in Rotterdam, the Netherlands, leveraging the Porthos North Sea project

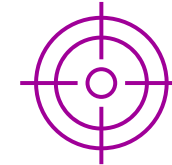


## CRITERIA AND FILTERS

Market, customer and/or product

Operational and supply chain alignment

Core competencies and synergies



## POTENTIAL AREAS FOR NEW PARTNERSHIPS

Manufacturing / capacity expansion

Commercial geographic expansion

Offtake of product attributes  
(i.e., power, hydrogen, CO<sub>2</sub>,  
environmental attributes, etc.

Implementation of carbon capture

PARTNERSHIPS CAN BE AN AVENUE TO STRENGTHEN THE COMPANY TO COMPETE IN THE MARKETPLACE

# Clear Strategic Capital Allocation Priorities

## POTENTIAL SOURCES AND USES OF CASH

### DIVERSE SOURCES

- Existing cash balance
- Tax equity financing of completed projects
- Existing and future debt financing
- Potential future partnerships or JVs
- Asset-backed financing
- Equity capital markets (including At-the-market sales of shares)
- Future cash flow from operations
- Future revolver

### POTENTIAL USES

- Completion of projects in backlog or future project awards
- Expansion of manufacturing capacity of fuel cell modules
- Expansion of manufacturing capacity for solid oxide products
- R&D expense
  - Commercialize technology
  - Lengthen product life
  - Reduce cost
- Acquisition of technologies or companies

### COMMENTARY

- Optionality to scale investments in various technologies
- Efficient capital deployment to achieve product commercialization
- Execution on project backlog
- Investment in innovation to reduce manufacturing costs
- Investment in R&D to commercialize technology and lengthen product life
- Maintain strong balance sheet

INCREASING AVAILABLE LIQUIDITY TO FUND COMMERCIALIZATION OF NEW TECHNOLOGIES

# FY2022 Projected Investments for Future Growth

LARGE SCALE INVESTMENT TO ENABLE THE COMPANY TO COMPETE AND MEET THE MARKET NEEDS IN MEDIUM- AND LONG-TERM

## PLANNED CAPITAL EXPENDITURES OF \$40M TO \$50M FOR FY2022

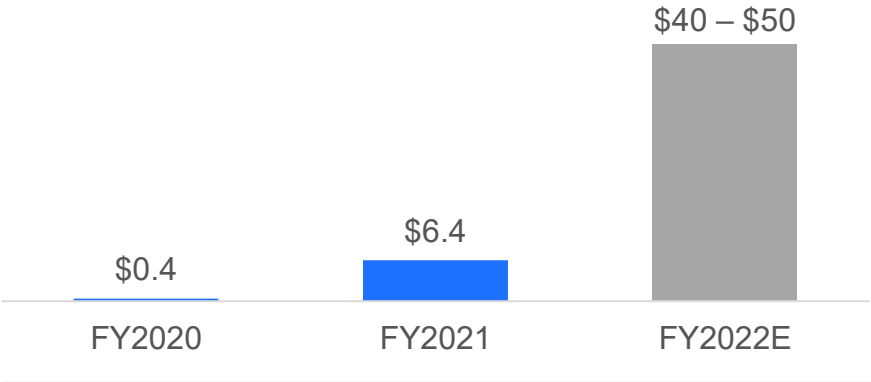
- Investments in our factories for carbonate and solid oxide production capacity expansion
- Addition of test facilities for new products and components
- Expansion of laboratories
- Upgrades to and expansion of our business systems

## PLANNED COMPANY FUNDED R&D ACTIVITIES OF \$45M TO \$55M IN FY2022 to accelerate commercialization of our Advanced Technologies solutions

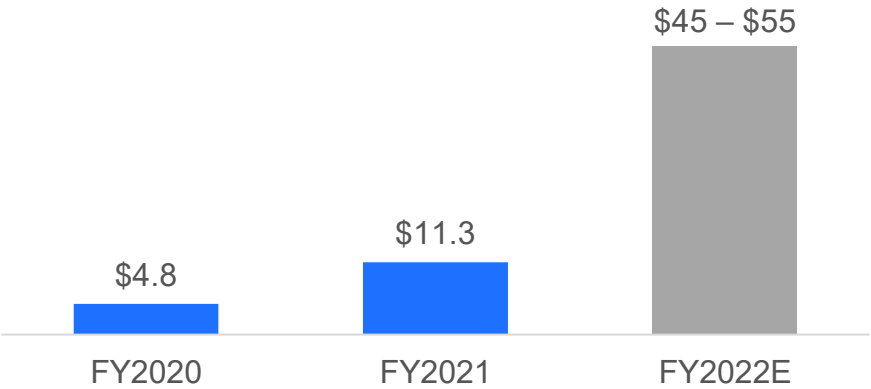
- Distributed hydrogen
- Long duration hydrogen-based energy storage
- Hydrogen power generation

## PLANNED INVESTMENT OF \$40 TO \$60 MILLION for project assets in our Generation portfolio backlog

### CAPITAL EXPENDITURES (\$M)



### RESEARCH AND DEVELOPMENT (\$M)



# Long Term Targets

BASED ON COMMERCIALIZATION OF TECHNOLOGIES UNDER DEVELOPMENT

FY 2025 Revenues > \$300 Million

FY 2030 Revenues > \$1 Billion

## KEYS TO BUSINESS PLAN ACHIEVEMENT

- Execution on project backlog, generating recurring revenue
- Winning new business around the world
- Capacity expansion
- Achieving product commercialization (SOFC / Carbon Capture) and gaining market share
- Reducing manufacturing costs and improving product performance through continuous innovation
- Recruiting and retaining talent
- Deploying capital efficiently

## MACRO ASSUMPTIONS

- Continuation of the global energy transition with businesses and governments investing in resolving the global climate crisis and achieving their Net Zero commitments
- Global carbon reduction initiatives receive broad regulatory support including a price for carbon
- Hydrogen becomes a significant energy source
- Continuation of favorable clean energy policies in the regions where we operate
- FCE's Proprietary technology can command high margins



REVENUE TARGETS AND INVESTMENTS TO BE UPDATED AS THE ENERGY TRANSITION EVOLVES

# Closing Remarks



# Key Messages

- Global tailwinds
- Compelling long-term strategy
- Significant competitive advantages
- Deep and broad leadership team including new talent
- Proven operating capabilities to support execution
- Disciplined approach to capital allocation
- Confidence in our future



# Q&A

# Appendix

# Appendix

## **Total Addressable Market**

Climate initiatives are driving the global push to reduce greenhouse gases, including CO<sub>2</sub>, nitrogen oxides and sulfur oxides. The Company believes there exists a large and increasing combined total addressable market (“TAM”) opportunity for the solutions the Company has commercially available today and the solutions that the Company is actively developing for commercialization, which are focused on addressing global climate change, air quality, emissions, and the need for resilient and reliable power. Through the unique capabilities of our platforms, we can isolate and remove CO<sub>2</sub> from exhaust streams, provide distributed hydrogen cost effectively to further advance the transportation industry’s shift to hydrogen powered vehicles, and provide industrial and utility customers with a secure and local supply of hydrogen. Hydrogen is also an effective medium for the storage of energy, and we are in the process of commercializing a highly efficient and environmentally favorable hydrogen-based long-duration energy storage solution. We believe hydrogen-based storage is environmentally superior to a mineral-based storage solution such as lithium-ion batteries. Additionally, through the deployment of our megawatt and sub-megawatt platform solutions, we can deliver the benefits of clean distributed power generation, including the desirable value stream of thermal energy, and avoid the need for massive, long distance transmission infrastructure and the risks that the traditional transmission grid creates.

The Company views TAM as the overall revenue opportunity that is available for a product or solution if 100% market share is achieved. We believe that the combined value of our TAM opportunity based on third party sources and application of management’s current assumptions is approximately \$2 trillion cumulatively from the date hereof through the end of calendar year 2030 (the “Measuring Period”). This cumulative number represents the combined estimated total market size over the Measuring Period and is not a projection or estimate of the actual market share that the Company could achieve or the amount of revenue that could be generated in these markets in the Measuring Period. The four primary solutions which the Company views as serving its combined, cumulative \$2 trillion TAM opportunity are:

- (i) Carbon capture, carbon separation and utilization (approximately \$1 trillion). Carbon capture technology is currently under development by the Company to serve this market, while the Company currently has carbon separation and utilization solutions. The Company’s ability to participate in the carbon capture market also assumes that ExxonMobil Research & Engineering Company (“EMRE”), which funds some of the Company’s research into carbon capture and which owns certain intellectual property rights related to the Company’s carbon capture technology, will provide the Company with the necessary licenses or will otherwise allow the Company to exploit carbon capture technology outside of capturing carbon generated by the Company’s own platforms (for which the Company does not require a license from EMRE)
- (ii) Distributed hydrogen (approximately \$400 billion). The Company currently has a distributed hydrogen solution to serve this market.

# Appendix

## **Total Addressable Market (cont.)**

- (iii) Megawatt and sub-megawatt in front of the meter and behind the meter distributed power (approximately \$300 billion). The Company currently has solutions to serve this market.
- (iv) Solid oxide based long-duration hydrogen energy storage and electrolysis (approximately \$150 billion). Solid oxide based long-duration hydrogen energy storage and electrolysis is currently under development by the Company to serve this market.



# Appendix - Sources

## Carbon Capture TAM sources:

- 1) *International Energy Agency*, CCUS in Clean Energy Transitions Report (2020), available at <https://www.iea.org/reports/ccus-in-clean-energy-transitions>
- 2) *Morgan Stanley*, Carbon Capture Report (April 2021) (not publicly available, on file with the Company)
- 3) *Intergovernmental Panel on Climate Change*, Special Report on Global Warming of 1.5°C (October 2018), available at <https://www.ipcc.ch/sr15/>

## Distributed H2 TAM sources:

- 1) *BloombergNEF*, H2 Economy Outlook (2020), available at <https://data.bloomberglp.com/professional/sites/24/BNEF-Hydrogen-Economy-Outlook-Key-Messages-30-Mar-2020.pdf>
- 2) *Hydrogen Council*, Hydrogen Insights 2021, available at <https://hydrogencouncil.com/en/hydrogen-insights-2021/>

## Distributed Power Generation TAM sources:

- 1) *Morgan Stanley*, Equity Research (July 2020) (not publicly available, on file with the Company)
- 2) *MarketLine* data, (not publicly available, on file with the Company)
- 3) *Wells Fargo*, Equity Research (April 2021) (not publicly available, on file with the Company)

## Energy Storage TAM source:

- 1) *BloombergNEF*, Long-Term Storage Outlook (2020), available at <https://about.bnef.com/new-energy-outlook-2020/>
- 2) *Wood Mackenzie*, Power & Renewables (April 2021), available at <https://www.woodmac.com/store/industry-sector/power-and-renewables/>
- 3) *Guidehouse Insights*, Market Data: Utility-Scale Energy Storage Market Update (1Q 2022), (not publicly available, on file with the Company)