



JV JERICHO

ENERGY VENTURES

ADVANCING THE LOW-CARBON ENERGY TRANSITION

FORWARD LOOKING STATEMENT

- Presentation and Reader Advisory

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What We Do

Developing high growth technology companies across the hydrogen value chain and searching for technologies to address industry's pain points

JEV invests in hydrogen production, storage, transportation as well as hydrogen applications to address structural constraints which affects many industrial sectors



Our Vision

JEV envisions a transition towards affordable, accessible and resilient clean energy

Meeting today's demands while solving tomorrow's climate challenges for Fortune 500 and sustainability-minded corporations and governments will take a multi-faceted approach and a rethinking of our current energy systems

A portfolio of hydrogen focused growth companies across the value chain

JEV JERICHO

ENERGY VENTURES

INVESTING IN THE ENERGY TRANSITION

What We Look For

Technology Co. with
Disruptive Product

Identify pre or early-revenue
growth companies with game-
changing H2 technology

Large and Growing Global
Market

> 70 national H2 strategies with
surge in interest from corporate
investors to enable the
transition

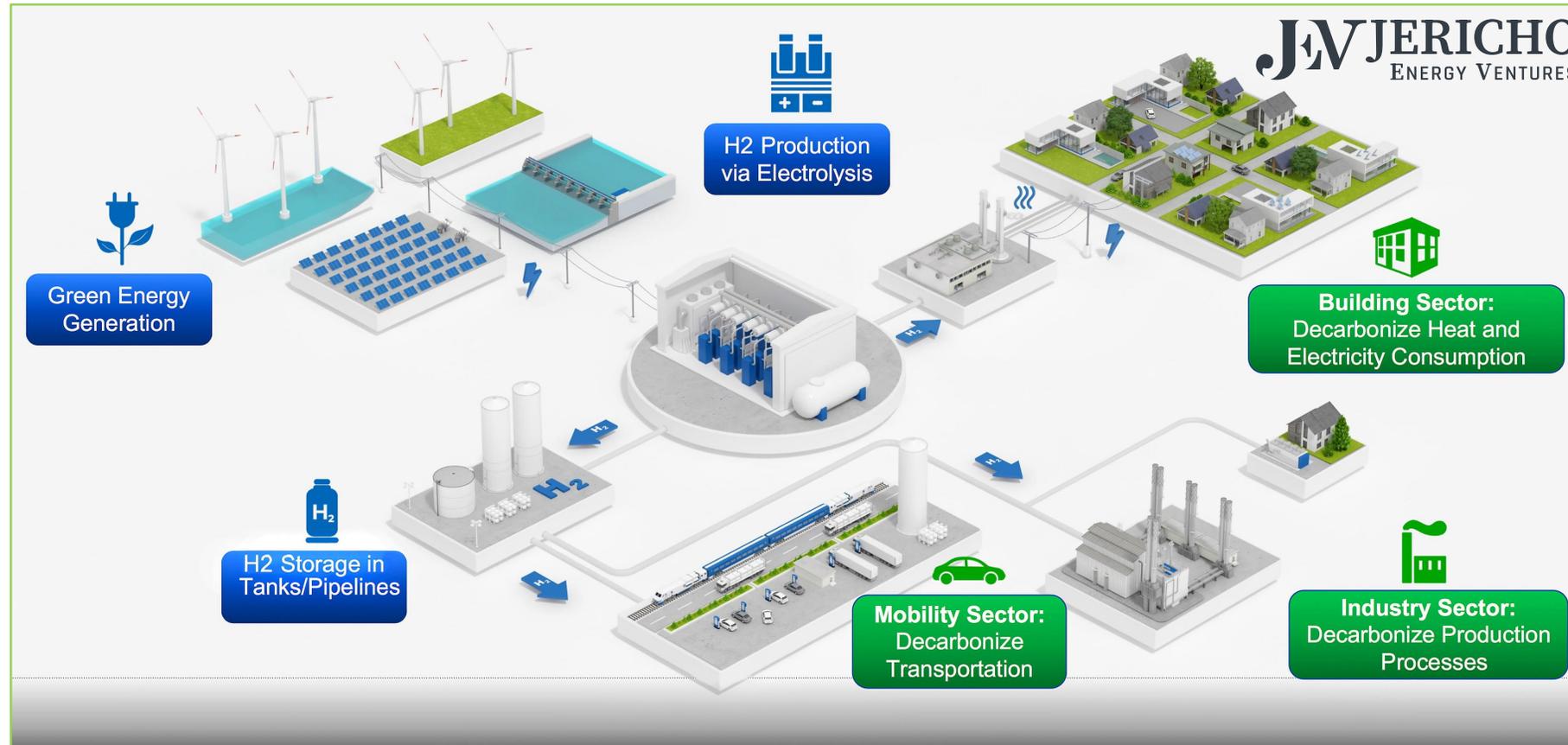
Commercialization with
Identified Market
Applications

Rigorous technical due
diligence and product market fit
analysis verified by corporate
partners and their pain points to
adoption

JEV's Value Add

- Create a Global Sales Pipeline with High-Quality Customers – Leading Edge Adopters
- Partner with local and national governments to help plan and implement H2 strategies
- Premium Financial and Strategic Partners, Board Members and Management Team
 - Corporate Nexus to the Hydrogen Value Chain & Critical Supply Chain

JEV HYDROGEN VALUE CHAIN



- Leading Technologies across H2 Production, Storage and Applications with Advantaged Economics
 - The Green Hydrogen Solution Provider through our Portfolio Investment Approach
- Ability to offer end-to-end or tailored hydrogen solutions to the marketplace – serving customers best

JEV'S HYDROGEN VALUE CHAIN SOLUTIONS

Critical Hydrogen Technologies

Hydrogen Generation and Enabling Technologies



Low-Cost
Electrolyser

Co-Led Minority
Investment Stake

H2 Generation

Novel and disruptive PEM design with upgradeable catalysts



AI-Driven
Electro-Catalyst
Discovery

Co-Led Minority
Investment Stake

Enabling Catalysts

Ultrahigh throughput AI and data-driven process which prepares, characterizes, and quantifies the catalytic activity of millions of compositions per month (fuel cell and electrolyser)

Hydrogen-Based Application Technologies



Zero Emissions
Hydrogen
Boiler

OWNED BY JEV

H2 Boiler

Patented method for combining H2 and O2 in a vacuum to create high-temp heat and steam

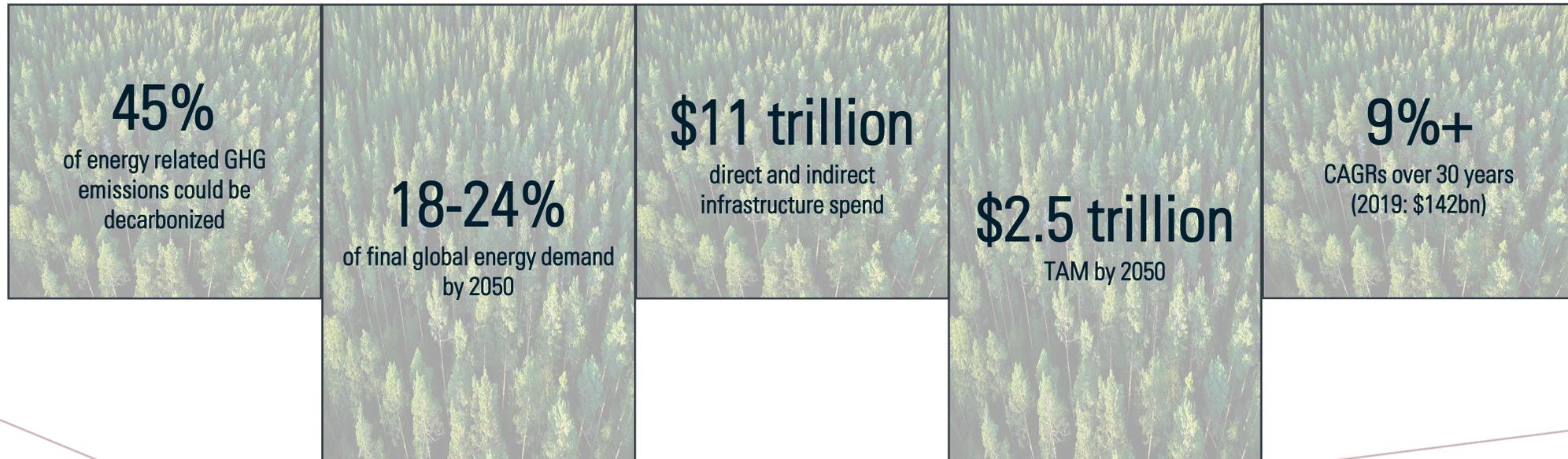
WHY HYDROGEN

Hydrogen is a clean molecule set to decarbonize our energy needs...

Hydrogen (H₂) – An Advantaged Molecule:

- Most abundant and simple element in the universe, colorless and odorless
- Clean-burning, zero emission fuel for storing and releasing energy and to be used as a feedstock always available
 - >2.5x the energy content per unit mass of gasoline and >2x that of natural gas
- Largely found in compound forms: water and hydrocarbons (water = H₂O, methane=CH₄)
- Occurs as a gas under ambient pressure and temperature and liquid at low temperatures

...with a Large and Growing Global Addressable Market¹



¹ Source: Wall Street Equity Research; Raymond James (2020), BAML (2020)

THE ENERGY TRANSITION: RESILIENT AND LOW-CARBON

Government and Public Policy

197 Countries that have adopted the Paris Climate Accord

4 Largest Economies have announced Net Zero Carbon Emissions targets (U.S. China, Japan, EU)

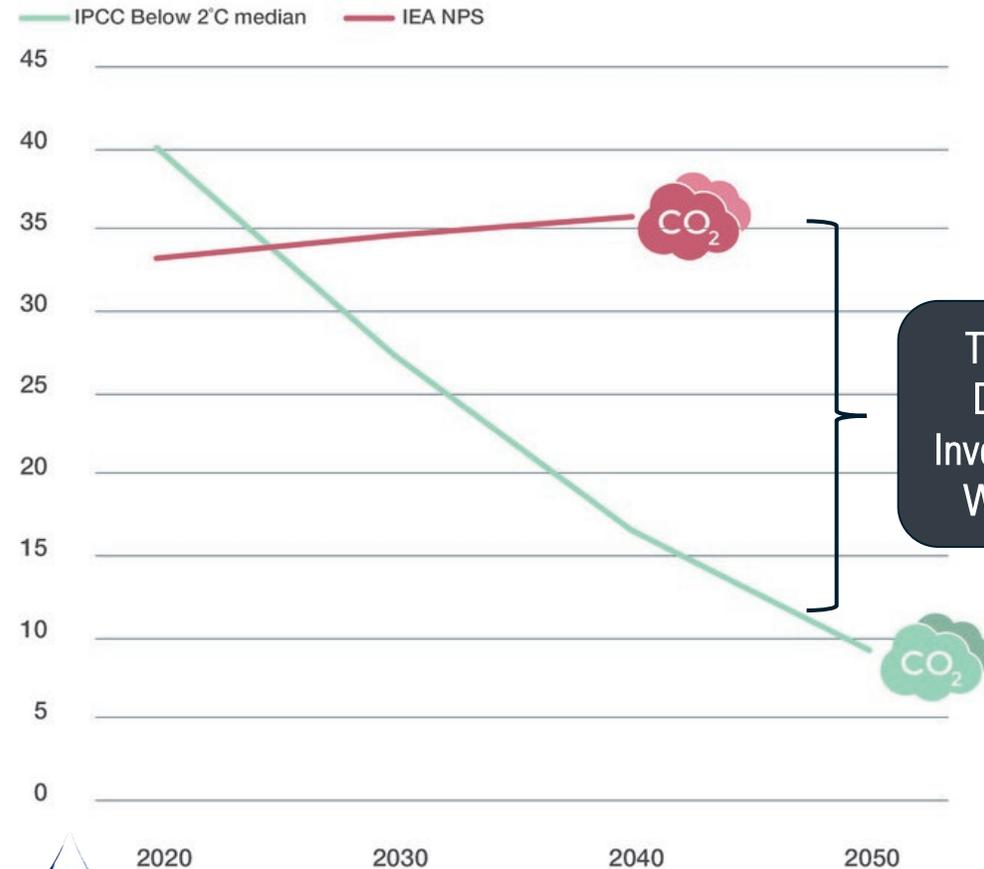
1.5 Degree Limit on Global Temperature Increase (vs. pre-industrial)

Corporate Investment with Ambitious Net-Zero Carbon Pledges



Investor & Societal Demands¹

- 30 global institutional investors representing >\$5trn assets formed the Net-Zero Asset Owner Alliance, aligning portfolios with the Paris Agreement
- Blackrock, the largest asset manager, and other global funds holding \$18trn in assets have announced reallocating capital towards sustainable and purposeful investments
- ESG ETF assets have increased more than 700% from just \$6.6bn in 2018 to nearly \$50bn in 2020



Triumvirate of forces present a New Energy Reality – rapidly shifting towards sustainable practices, assets and businesses with an aim towards a Low-Carbon Economy

¹ Source: Wall Street Equity Research; Raymond James (2020), BAML (2020)

JERICHO ENERGY VENTURES

Macro tailwinds, driving trillions in capital flows...

- Jericho Energy Ventures envisions a transition towards affordable, accessible and resilient clean energy
- With the ability to identify and scale advantaged technologies with strategic partners
- Triumvirate of forces present a New Energy Reality – rapidly shifting towards sustainable practices, assets and businesses with an aim towards a Low-Carbon Economy
- Divestment commitments from largest asset managers are leading to a divergence in the cost of capital for fossil and renewables driving investment decisions and capital allocation
- Global jurisdictions are pushing the price of carbon up handing current energy providers and consumers a clear signal
- The energy transition will not be an 'all or nothing' solution – the investment wedge will be multi-faceted and backed by tens of trillions in investment

...Encouraging Investment in Decarbonization Solutions

- H2 is an advantaged clean molecule with a large and growing global addressable market
- Energy density and versatility of H2 allows for multiple fuel and feedstock applications
- Certain renewable energy generation technologies have an LCOE that is competitive with marginal cost of existing generation – crucial for green hydrogen generation
- Policy makers are setting investment goals that align with driving the cost of H2 below \$2 / kg – competing with fossil alternatives in large-scale deployment across our energy systems
- Jericho Energy Ventures will look to invest throughout the H2 value chain focusing primarily on production and end use markets
- Current Platform: Hydrogen-based DCC Steam Boiler, High Throughput Catalyst Discovery Process and a Low-Cost PEM Electrolyser utilizing earth-abundant catalysts



HYDROGEN TECHNOLOGIES

ADVANCING THE LOW-CARBON ENERGY TRANSITION

DISRUPTING THE C&I BOILER MARKET

Problem with Traditional Commercial & Industrial Boiler Systems¹



Price Volatility

Average Monthly Historical Price Volatility in Natural Gas prices during Winter Months



Carbon Intensive

Percentage of Industrial Boilers still powered by coal in 2019¹



GHG Emissions

Percentage of Industrial Boilers that emit harmful GHG (CO₂ and NO_x)¹

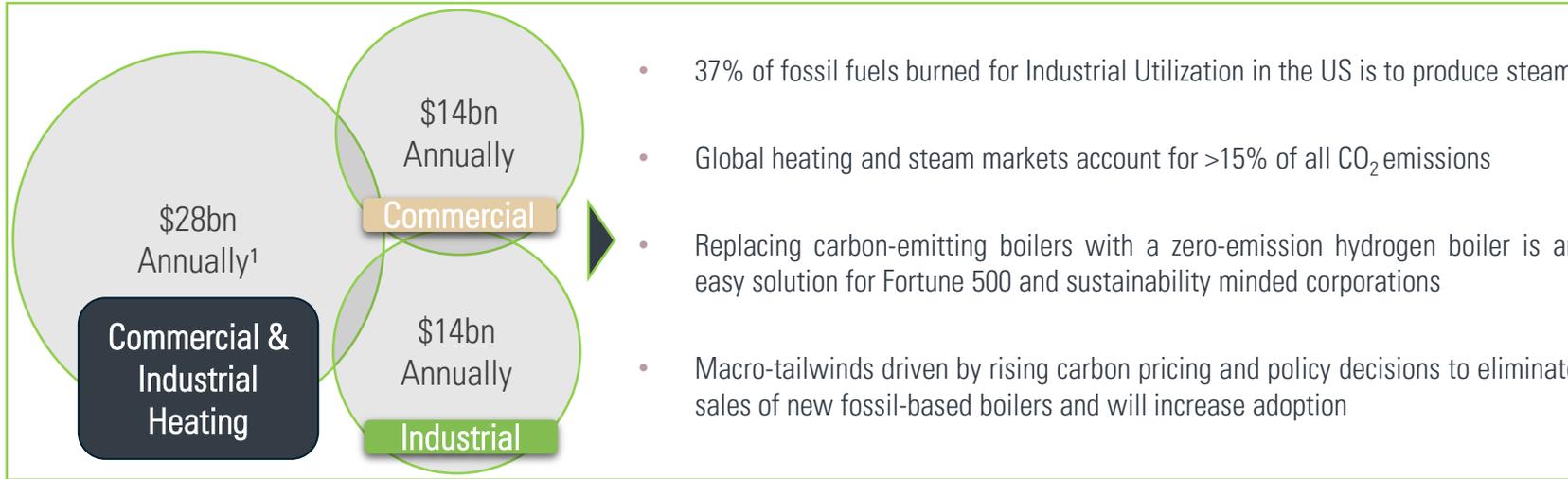


Aged & Inefficient

Efficiencies across traditional boiler systems that reach 40+years old

¹ Source: Grand View Market Research, 2020

INDUSTRIAL BOILER MARKET



- 37% of fossil fuels burned for Industrial Utilization in the US is to produce steam
- Global heating and steam markets account for >15% of all CO₂ emissions
- Replacing carbon-emitting boilers with a zero-emission hydrogen boiler is an easy solution for Fortune 500 and sustainability minded corporations
- Macro-tailwinds driven by rising carbon pricing and policy decisions to eliminate sales of new fossil-based boilers and will increase adoption

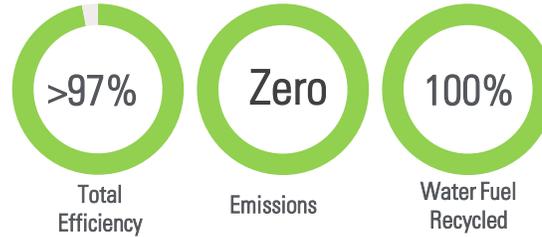


Industries that consume the highest % of fossil fuel to generate steam:		% of Total Fossil Fuel Usage for Steam Generation
Pulp and Paper	<ul style="list-style-type: none"> • Steam is the key component in refining and treating wood chips before they are pulped • High fossil fuel emissions from steam generation 	81%
Food and Beverage	<ul style="list-style-type: none"> • Steam heat used for sterilization, disinfecting, cooking, curing, and drying • Hot water and steam for boiling and pasteurization 	57%
Chemical / Petrochemical	<ul style="list-style-type: none"> • Steam is utilized to heat and cool reactors that operate in a cyclical fashion • Steam is used to produce various by-products (jet fuel, ammonia, chlorine, etc.) 	42%
Oil Refineries and Production	<ul style="list-style-type: none"> • High-pressure condensate return systems conserve energy by pumping hot water directly from the process into steam boilers • Utilize steam as a key component in enhanced recovery operations (i.e. SAGD) 	30%
Commercial Properties	<ul style="list-style-type: none"> • Commercial properties typically use a boiler as part of a district energy system • Utilize steam as the major input for space heating and hot water 	28%

¹ Source: Grand View Market Research, 2020

² Source: "Steam Systems in Industry, Energy Use and Energy Efficiency Improvement Potentials", Lawrence Berkeley National Laboratory.

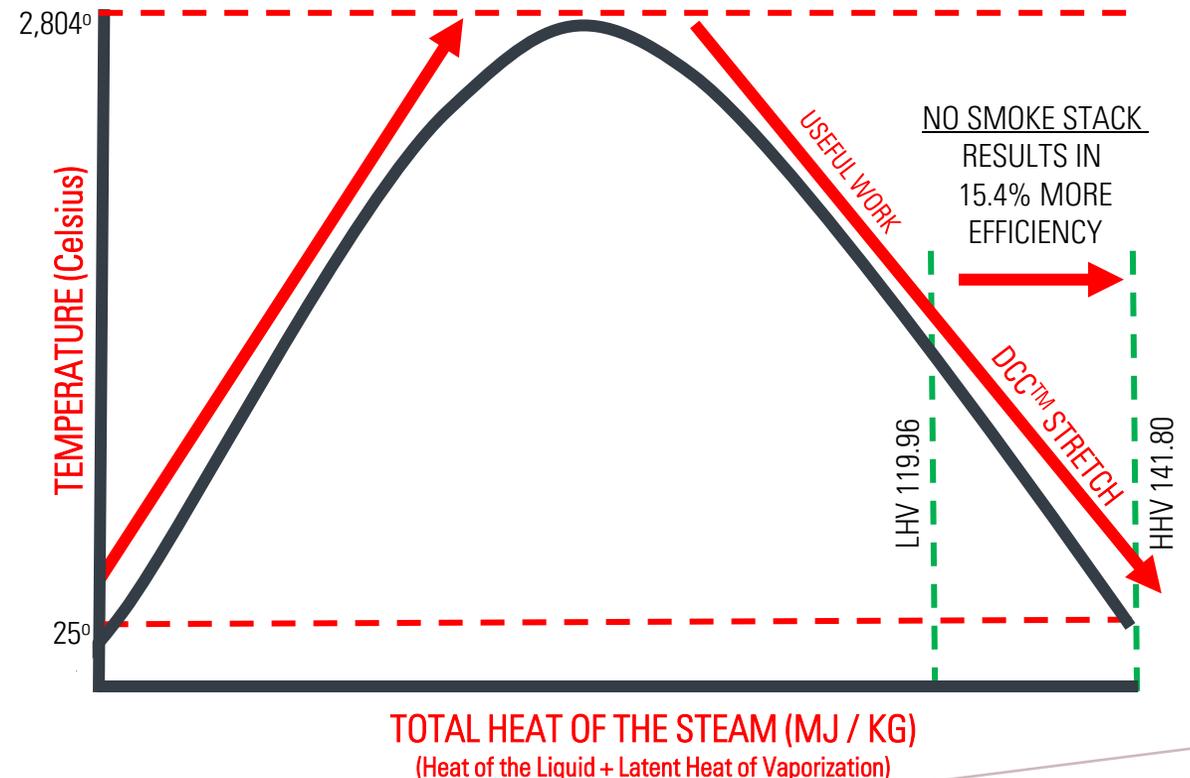
THE DCC™ - A BOLD STEP IN THE EVOLUTION OF HYDROGEN TECHNOLOGY



Chemical Reaction Solution

First principles: the most efficient way to convert H₂ and O₂ into high-temperature steam

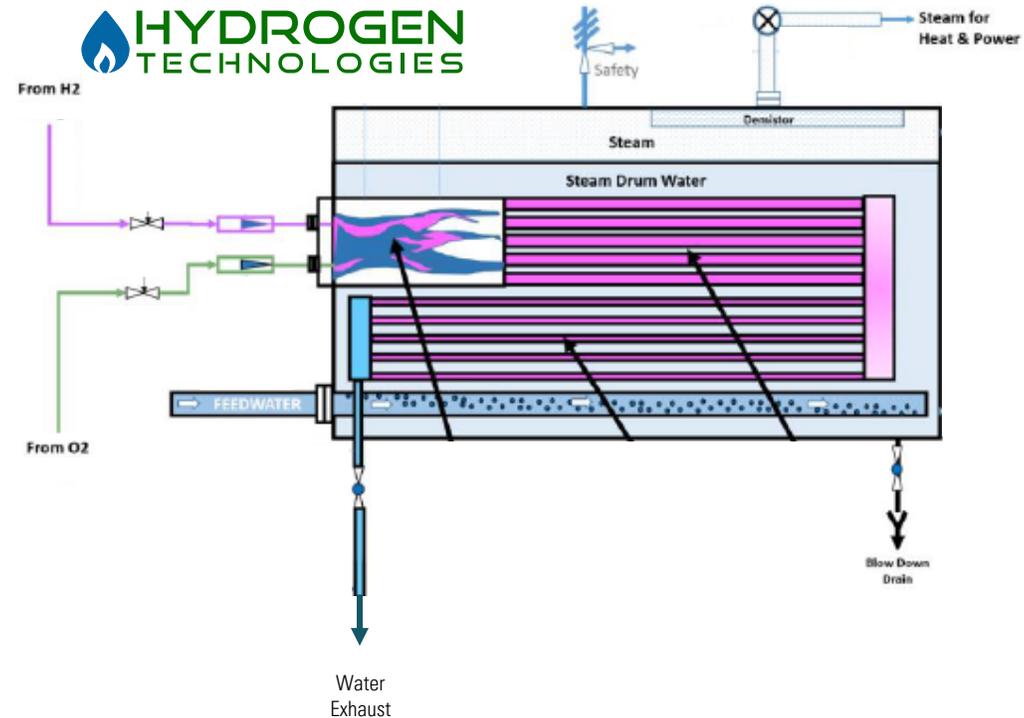
- cleanH2steam DCC™ boiler is HT's proprietary hydrogen-based boiler
- The scalable process is based on combining pure hydrogen and pure oxygen to form water molecules – this reaction releases 61,000 BTUs (heat index) per pound of hydrogen
- Pure hydrogen and pure oxygen combine (in the presence of a spark) which exothermically converts back to water (think: steam) in a high-temperature reaction, creating a mild vacuum owing to the condensing characteristic of the chemical reaction
- Critically, hydrogen burns in the ultraviolet (with little to no radiant heat) compared to typical fossil-based combustion processes where radiant heat (energy) is released and lost
- The chemical reaction fully captures the total heat of steam, allowing for the greatest amount of heat retained in the combustion reaction of hydrogen and oxygen (GRAPH ⇒ "DCC™ Stretch")
- The boiler system was designed based on the chemical reaction to function as a closed-loop system, eliminating all need for typical combustion exhaust



PATENTED TECHNOLOGY MOAT

- Water immediately flashes to superheated steam in this 5,080°F / 2,804°C environment, encountering the boiler tubes, effectively transferring heat to the boiler shell to create cycle steam for heat and power
- Conventional systems utilize the flame (burning in the infrared) and hot gasses to transfer the energy to cycle steam and then exit back to the atmosphere via a smokestack, losing valuable energy and emitting CO₂, NO_x and SO_x
- This fundamental condensing characteristic of the DCC™ process and natural vacuum formed from steam condensation within the exchanger tubes:
 - Captures virtually all the reaction heat (accounting for >97% efficiency)
 - Acts as a natural process barrier to hydrogen and the effects of embrittlement
 - Requires no smokestack and thus no need for FD or ID fans, lowering parasitic load (increasing efficiency) and O&M costs

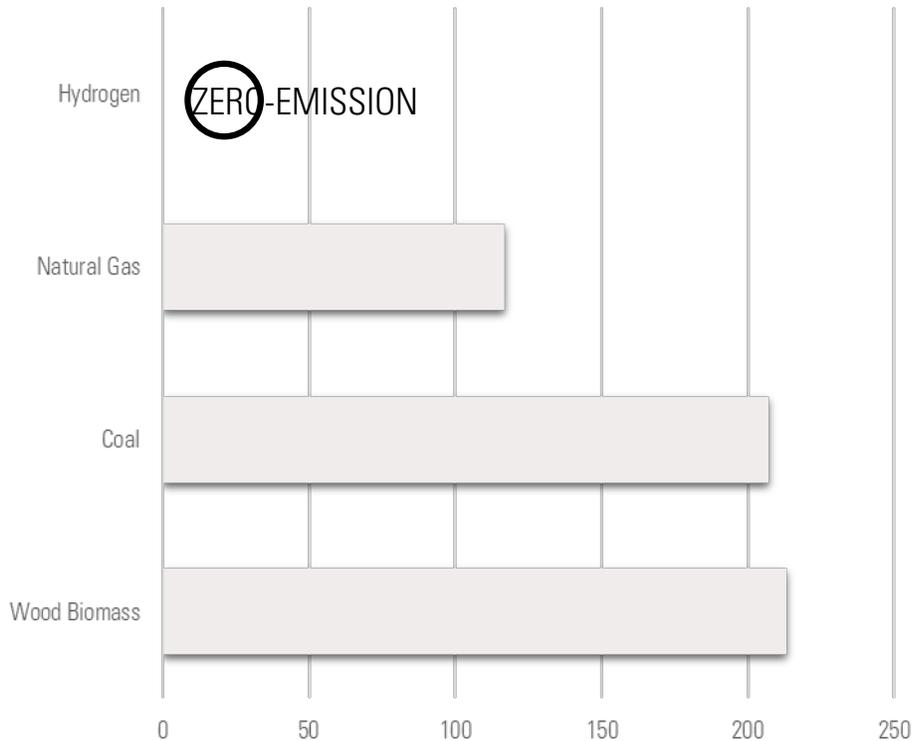
HTI Dynamic Combustion Chamber™ – Thermal Condensing Hydrogen Steam Boiler



Marquee patent related to the broad method of combusting pure hydrogen and pure oxygen in a vacuum for the purpose of heating or power

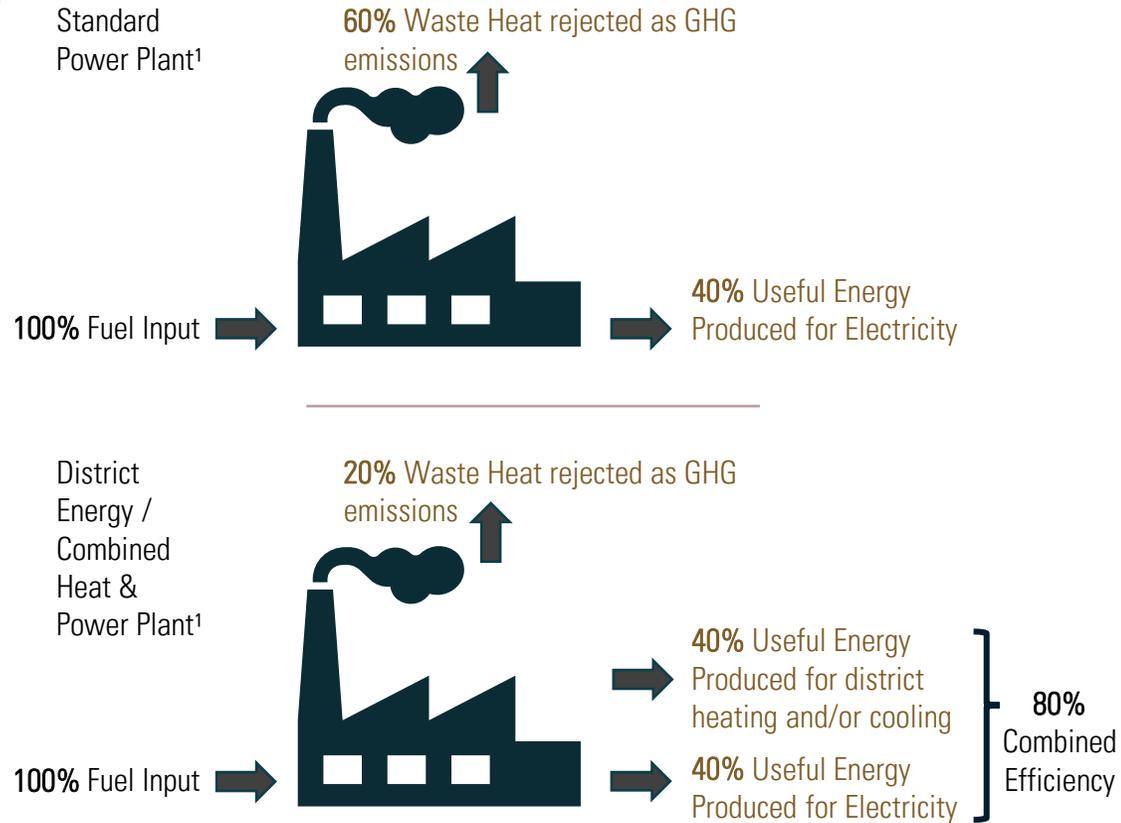
ZERO EMISSIONS ENERGY SOLUTION

CO2 Emissions (lbs / MMBtu)



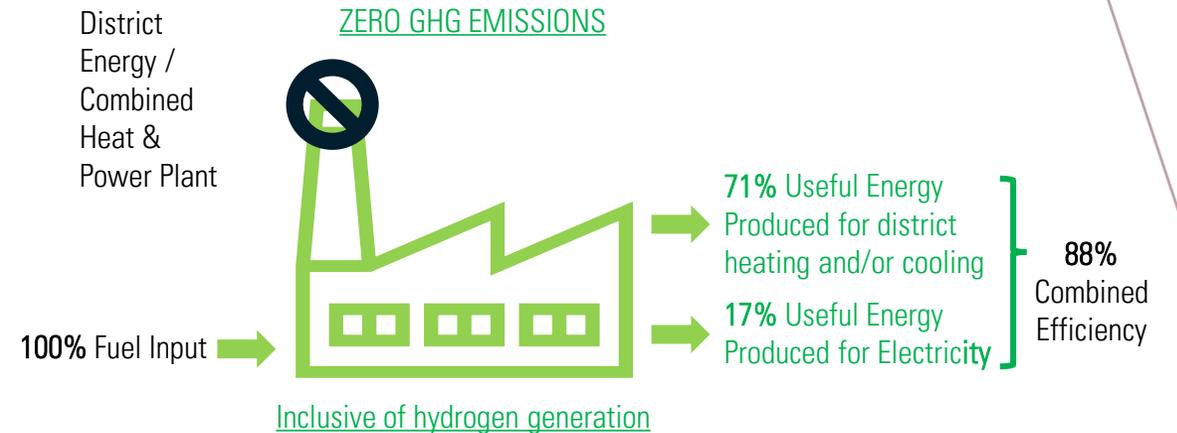
- Breakthrough high-temperature boiler that enables **zero-emissions hydrogen to generate heat, steam and Combined Heat & Power ("CHP")**
 - Water is the only by-product
 - No air permit required
- 30% greater efficiency than traditional hydrocarbon boilers with 97% boiler thermal efficiency
- Eliminates all NO_x and CO₂ emissions through a closed-loop combustion process
- Total Cost of Production (\$ / lb steam) competitive to current industrial boiler market

ENERGY EFFICIENCY ILLUSTRATION



- ~58% of all energy we produce is wasted resulting in > \$1.2 trillion dollars lost every year

Hydrogen-Based ZERO Emissions Solution...



- Emits only useful heat and water
- Only 12% Energy Losses in Equipment
- 10% more efficient than traditional CHP systems
- 30% more efficient than traditional heating systems

...with higher energy efficiencies

¹ Source: International District Energy Association; www.districtenergy.org

GROWTH DRIVERS – ESG & PUBLIC POLICY

Net Zero Goals

Governments and corporates are driving to reach their Net Zero objectives by 2030 and 2050

- Fossil fuel-fired boilers are extremely carbon intensive and are ubiquitous in commercial and industrial markets
- Steam production represents >25% of many heavy industries' carbon emissions
- Corporations looking to meet net zero goals are increasingly turning to lower and zero emissions boiler systems

Carbon Pricing

Over 64 carbon pricing initiatives have been implemented or scheduled

- Boilers are 20-30 year + investment decisions
- Current and future carbon pricing schemes are included in our customer's economic analysis, driving increased competitiveness
- EU: \$50 / CO₂e tonne
- Canada: \$133 / CO₂e tonne by 2030

Stringent Policy

Many countries and local jurisdictions are outright banning the sale of new fossil fuel-based boilers

- The United Kingdom and many localities in California have already banned sales of new fossil fuel boilers
- Growing our zero emissions solution into a mandated environment will drive heavy adoption

BUSINESS MODEL

Current and Future Business Lines Meeting Our Customer's Needs

Technology Sales

Manufacturer and Provider of hydrogen boiler solutions

- Sell and install cleanH2steam DCC™ hydrogen boilers to customers seeking to own and operate their infrastructure
- Develop thermal solutions and CHP plants with global energy service companies
- Future: Full Suite of Engineering Support during feasibility, design and installation stages
- Future: IoT diagnostics and remote monitoring for on-going service & maintenance contracts

Steam Sales

Seller of Steam as a Service

- Future: Develop, finance and own Thermal plants to sell steam to customers across our target markets
- Future: Sale of steam based on long-term contracts, creating visible and secure cash flow

MANAGED PIPELINE ACROSS MARKETS

14+

Clients Engaged

40MWe

Sales Pipeline

Food &
Beverage

Consumer
Products

Chemicals

Global EPC

Agriculture

¹ Pipeline Data as of 3/31/2021; Sales Pipeline includes client engagement with technical exchanges and non-binding quotes; there is no guarantee pipeline clients turn into revenue generating orders



ADVANCING THE LOW-CARBON ENERGY TRANSITION

H2U: STRATEGIC RATIONALE

Catalysts Underpin the Hydrogen Economy

- Electrolysers and fuel cells rely on expensive and supply-constrained precious metal catalysts, primarily Platinum Group Metals (PGMs) like Platinum and Iridium
- Catalysts are materials used in small quantities to initiate and accelerate the chemical process of splitting water into hydrogen (electrolysers) and oxygen and hydrogen into protons and electrons (fuel cells)
- PEM electrolysers and fuel cells are slated to grow exponentially over the next 20 years, creating an ever-larger demand pull on PGM catalysts, driving up the cost of green hydrogen
 - Replacement of PGMs with new, low-cost, earth-abundant catalysts will be required to facilitate the increased uptake of hydrogen in energy applications
 - Green H₂ costs must come down 80% to be competitive with carbon fuels
 - The Henry Royce Institute (UK) identified the reduction of PGMs in PEM electrolysers and fuel cells as one of its Top 5 Priorities for materials research enabling the hydrogen economy (April 2021 Report)
- H2U's proprietary high-throughput catalyst discovery process is orders of magnitude beyond the current state-of-the-art and has already developed two potential catalysts that will be the focal point of commercialization efforts



Catalysts play an important role in:

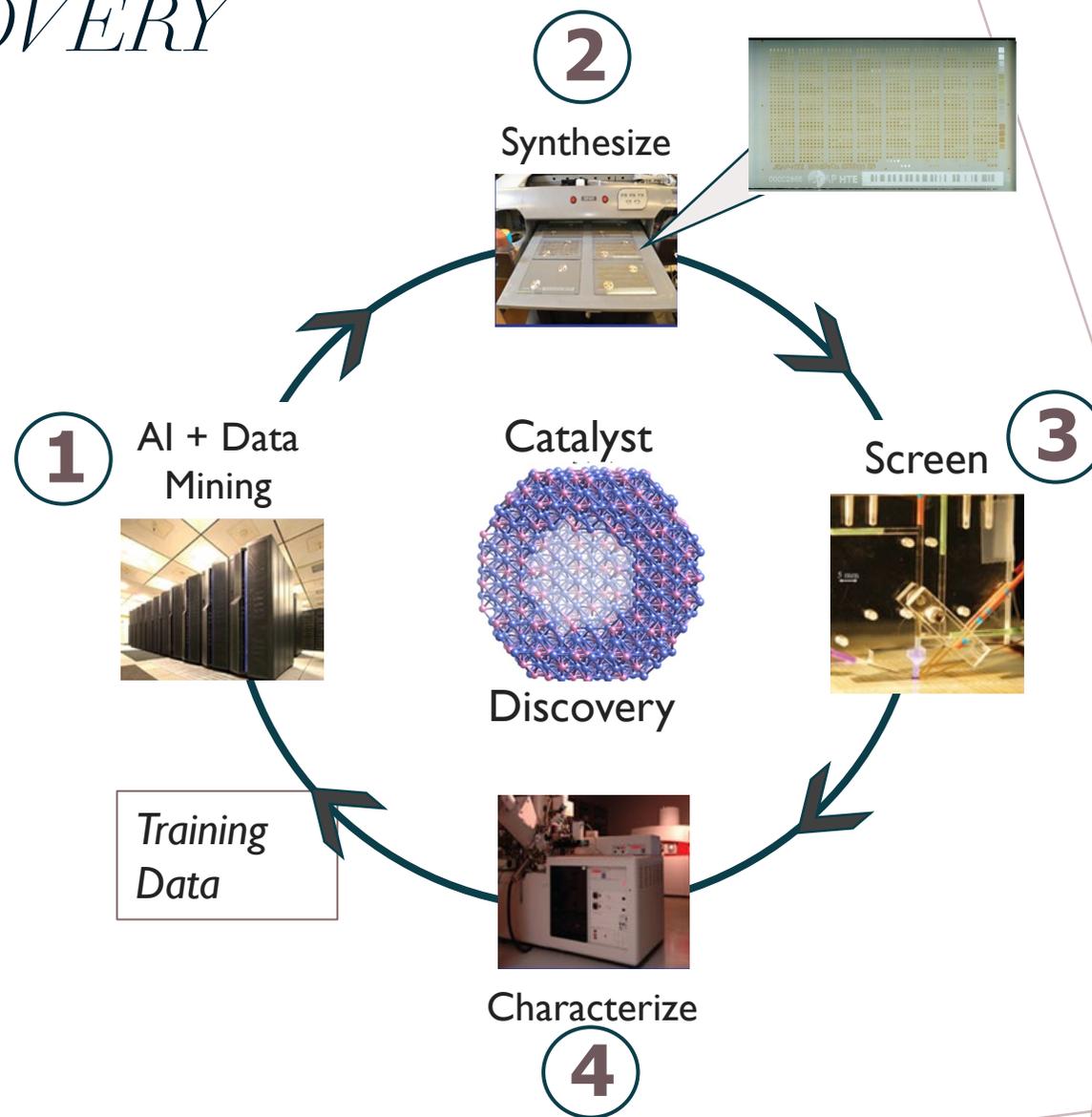
Making Hydrogen

Using Hydrogen

ELECTROCATALYST DISCOVERY

H2U Technologies: Catalyst Discovery

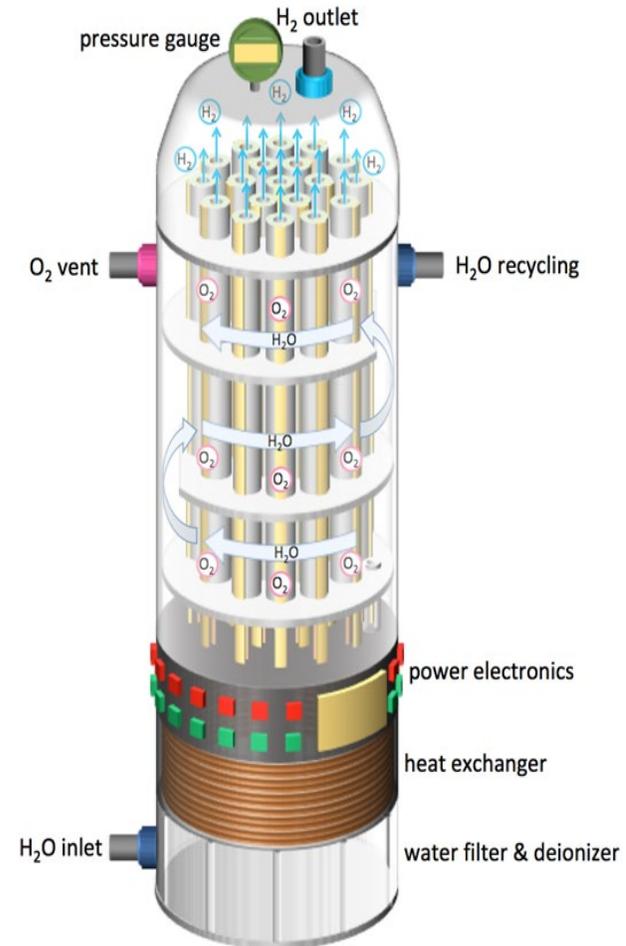
- Caltech spin-out startup using AI-driven chemistry to catalyze the Hydrogen Economy
 - Caltech scientists awarded \$122M from DOE - IP licensed exclusively to H2U
 - 30+ patents developed over 10 years – exclusive to H2U
- H2U has developed a proprietary electrocatalyst discovery platform:
 - The technology is an end-to-end ultrahigh throughput AI and data-driven process focused on discovery of new catalysts for generation of clean hydrogen and fuel cell power production
 - The process prepares, characterizes, and quantifies the catalytic activity of millions of compositions per month and then closes the loop with big data analysis and AI to refine/guide the search
 - **Advantaged Technology:** 1 million composition shots per day vs. competition doing hundreds per year
 - Low-Cost, non-rare earth metals (replacing PGMs – platinum and iridium)
 - **Initial Catalyst Discovery has found cheap, earth abundant OER and HER catalysts**
- Jericho Co-Led the Series A investment alongside Hess Corporation and Dolby Family Ventures



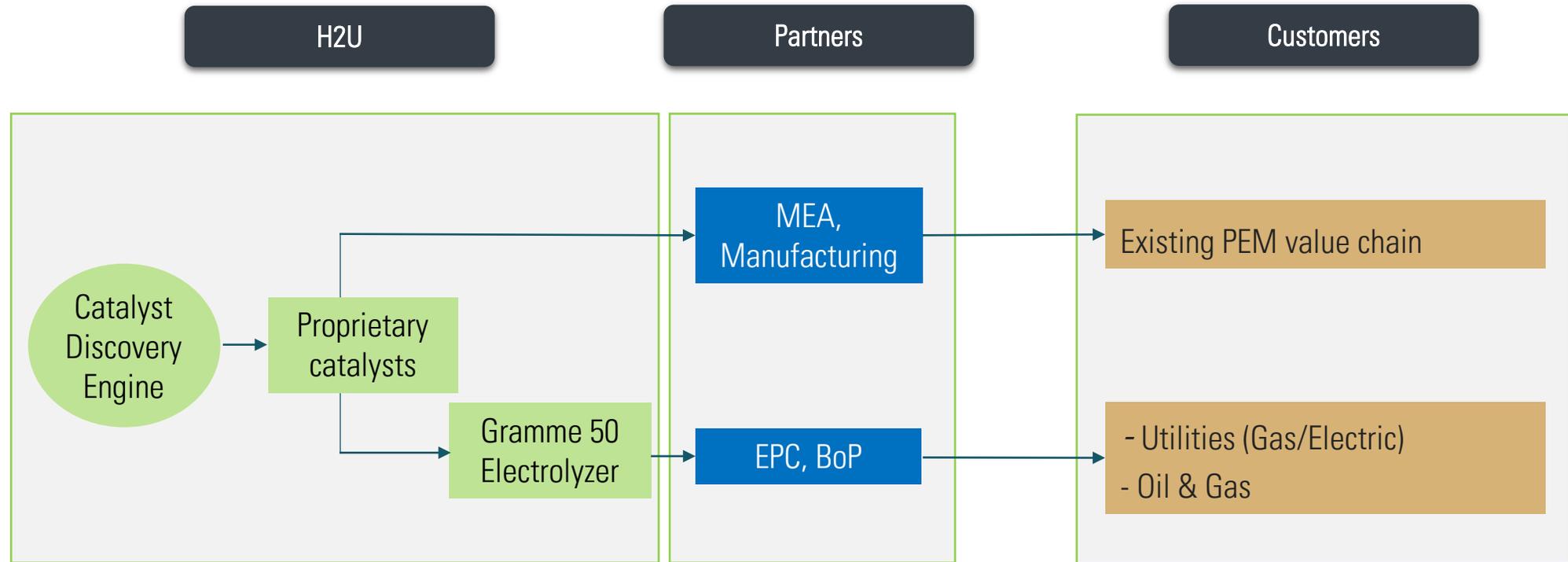
LOW-COST PEM ELECTROLYSER

H2U Technologies: Gramme 50 PEM Electrolyser

- Gramme 50 Gen 1.0 focuses on innovations in sub-components, DfM methods and processes including:
 - Automated catalyst coated membrane (CCM) coating
 - Integrated membrane electrode assembly (MEA) seal and frame
 - Plasma nitriding SS gas diffusion layers (GDLs) and bipolar plates
 - 3-D / Screen printed flow fields and conductive cathode elastomer current collector
- Proprietary Low-Cost Catalysts and Design resulting in:
 - Low Capital Expenditures, high scalability
 - Upgradeable
 - Automated assembly
 - Targeting \$0.50/W (vs. current market of > \$1.4/W)



H2U'S BUSINESS MODEL



Business Development Opportunities Already Signed Up with SoCalGas (Electrolyser Development) and DeNora (Catalyst Discovery)



APPENDIX

MANAGEMENT AND ADVISORS



Brian Williamson
CEO

- Spent 20+ years at various financial institutions and family offices in investment leadership roles (Arthur Anderson, The Harbor Group)
- Collectively managed \$1bn+ in assets focused on oil and gas and energy investments



Ben Holman
CFO

- Experienced financial leader with 18 years in financial management and accounting
- Held senior-level positions at Apco Oil & Gas, former subsidiary of The Williams Companies and WPX Energy



Ryan Breen
Head of Corporate Strategy

- Drives company-wide strategy focused on due diligence, deal structuring and execution for new investments
- Prior experience within J.P. Morgan's investment banking group advising Fortune 500 clients focused on Multi-Industrial, Aerospace & Defense and Transportation opportunities



Jourdan Urbach
Senior Technical Advisor

- Most recently worked at McKinsey & Co., where he helped build their internal venture capital group, serving as Product Manager or interim CTO of a portfolio of over 20 internal startups, called McKinsey Solutions
- Co-founded Mass Lab, Director of R&D at Mimedia, Neurogenomics researcher specializing in bioinformatics at Harvard and MIT



Janet Reiser
President – HTI

- Policy maker and senior executive over the last 35 years, previously heading up the governmental Alaska Energy Authority
- Chemical Engineer by education



Ed Stockton
CTO – HTI

- 30+ year career at Florida Power & Light (now NextEra Energy) focused on low-carbon technologies with direct power plant experience including commissioning, maintenance, due diligence, government regulations and regulation promulgation
- Co-inventor and patent holder for the DCC



Allen Wilson
Board Member

- Extensive junior capital markets experience with far reaching relationships across North America and Europe
- Based in the UK, Allen is also the Director of London Based Regents Park Securities



Tony Blancato
Director of Business Development & Marketing

- Spearheads new shareholder opportunities & maintain relations with current shareholders, the investment community, and other constituencies
- Overseas online & social media presence to maximize share price and create a positive image

MARKET HIGHLIGHTS

JEV by the Numbers

- TSX.V: JEV
- FRA: JLM0
- OTC PINK: JROOF
- Shares Issued & Outstanding – 220,400,000
- Warrants – 16,000,000
- Options – 16,700,000
- Market Cap (CDN) – \$147,668,000
- Closing Price as of September 1st, 2021 (CDN) – \$0.67

HOW THE DCC™ WORKS

Simplified Process Overview

