



# HYZON

# Revitalized

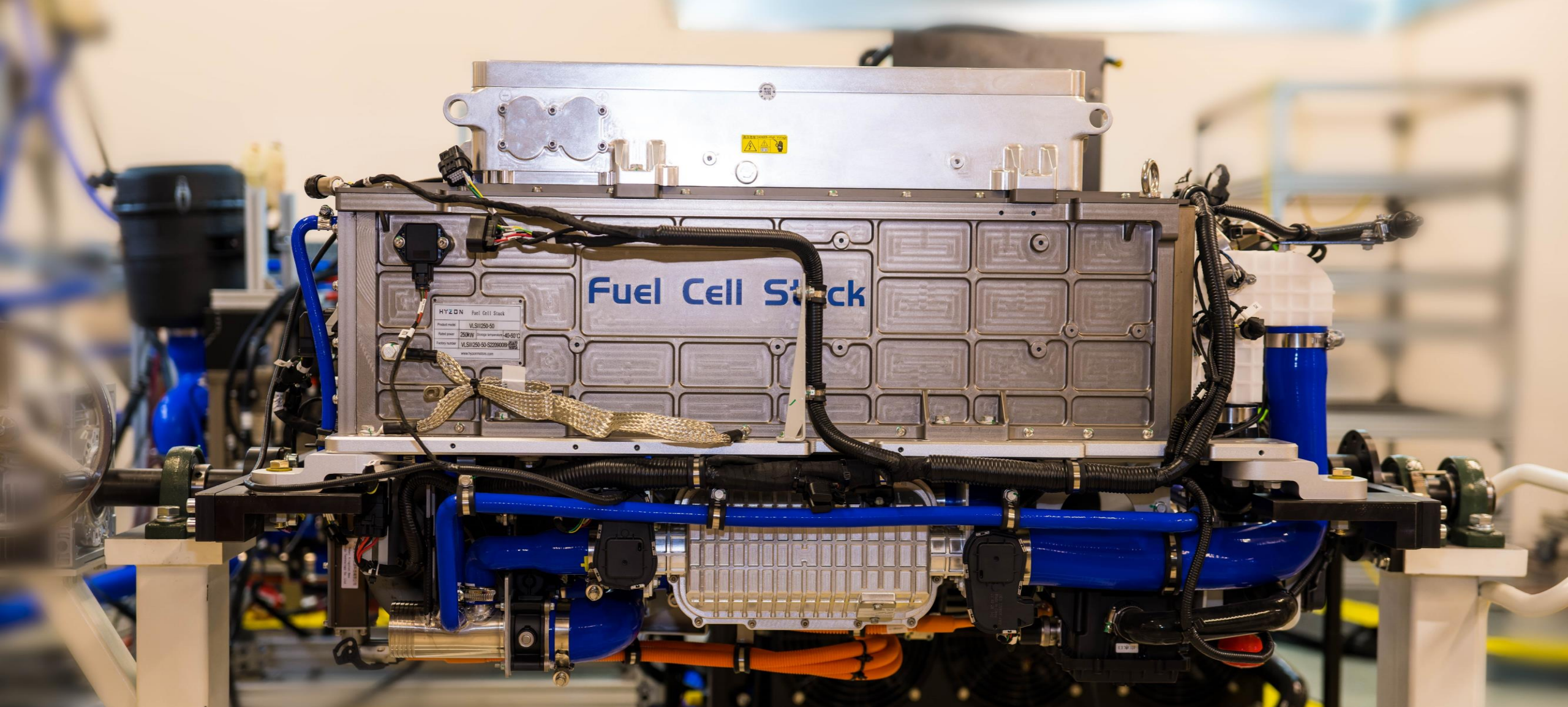
May 2023

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# Forward Looking Statements

This presentation includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of present or historical fact included in this presentation, are forward-looking statements. When used herein, the words “aims”, “could,” “should,” “will,” “may,” “believe,” “anticipate,” “intend,” “estimate,” “expect,” “project,” the negative of such terms and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. Forward-looking statements are based on management’s current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. Except as otherwise required by applicable law, Hyzon disclaims any duty to update any forward-looking statements, all of which are expressly qualified by events or circumstances after the date of this presentation. Hyzon cautions you that forward-looking statements are subject to numerous risks and uncertainties, most of which are difficult to predict and many of which are beyond the control of Hyzon, including risks and uncertainties described in the “Risk Factors” section of Hyzon’s Annual Report on Form 10-K/A for the year ended December 31, 2021 filed with the U.S. Securities and Exchange Commission (the “SEC”) on March 14, 2023, and other documents filed by Hyzon from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Hyzon gives no assurances that Hyzon will achieve its expectations.





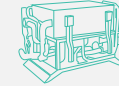
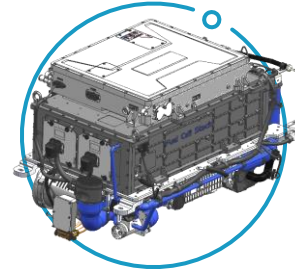
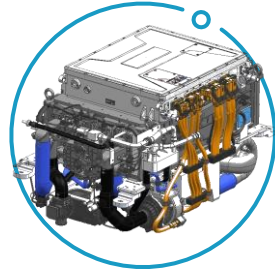
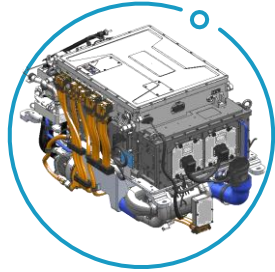
## HYZON : INNOVATING HYDROGEN MOBILITY

Hyzon is enabling its customers to meet their business and decarbonization goals by delivering leading fuel cell technology, starting with heavy duty truck applications

# Hyzon Motors at a Glance

## Fuel Cell Technology Leader, Driving “Early Mover” Commercialization of Heavy-Duty FCEV Trucks

Proprietary fuel cell technology and 200 kW fuel cell system (FCS)



**200 kW**

Net fuel cell single stack system in on-road testing

Repowered fuel cell trucks



**4.5 kW/L**

Current generation power-density of PEM fuel cell stacks

Hydrogen relationships and investments

RAVEN

TC Energy

Woodside



**124**

Total patents granted and filed/pending<sup>1</sup>

TRANSFORM MATERIALS

RECARBON, INC.



**U.S.**

Based

Note: Company logos are trademarked images of the respective firms.

1. Patent counts are totals of exclusively and jointly owned, both granted and filed / pending



# Hyzon Motors Revitalized: Technology-led, Commercially Scalable Focused Strategy Already well Along in Execution

## Hyzon Motors Revitalized



01

**Highly focused,** restructured strategy & operations led by **strengthened management team**



04

**Increased industry tailwinds** driven by favorable government policies & larger investments into the sector



02

**Market leading fuel cell technology** with a proprietary 200kW fuel cell system

05

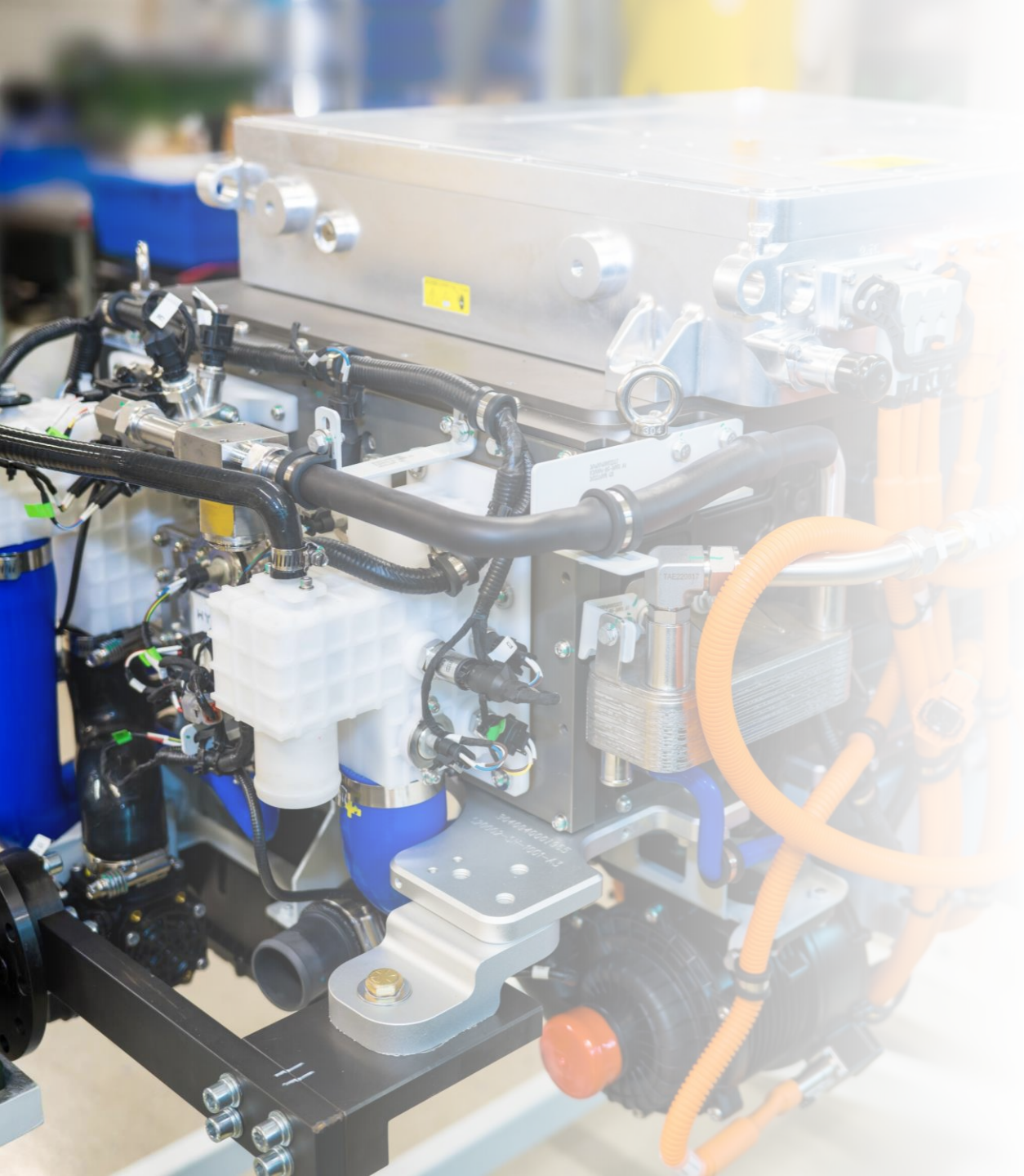
**Economically attractive collaborations** enabling customer economics and value creation

03

**Advantaged cost structure** achieved through in-house fuel cell production and a capital light model

06

**Path Forward** focused on 2023-2024 commercialization milestones, with several already completed






01

**Highly focused,**  
restructured strategy &  
operations led by  
**strengthened**  
**management team**

# Highly Focused, Restructured Strategy & Operations

Focus on Hyzon's proprietary technology to produce 200 kW fuel cells for heavy-duty trucks

	Prior Hyzon challenges	Actions taken / underway	Resulting focused strategy
 <b>Product</b>	<ul style="list-style-type: none"> <li>Decentralized product and powertrain development (over 25 truck variants in development globally)</li> </ul>	<ul style="list-style-type: none"> <li>Centrally driven powertrain development</li> <li>Rationalized product portfolio</li> <li>Renegotiate customer contract terms</li> </ul>	<ul style="list-style-type: none"> <li>Single 200 kW drivetrain developed centrally in US-based global engineering</li> <li>Focused product development, based on market research and scalability</li> <li>Three focused truck platforms – single platform per region enabling scale</li> </ul>
 <b>Technology</b>	<ul style="list-style-type: none"> <li>R&amp;D activities covering both immediate critical needs and long-term vehicle R&amp;D opportunities, with over 45 distinct vehicle R&amp;D projects</li> </ul>	<ul style="list-style-type: none"> <li>Refocused on fuel cell and fuel cell manufacturing</li> <li>Prioritized remaining vehicle R&amp;D spend on highest criticality R&amp;D projects for immediate commercialization</li> </ul>	<ul style="list-style-type: none"> <li>Focus on 200kW fuel cell development</li> <li>Drive R&amp;D towards commercialization and scalable manufacturing</li> <li>Rationalized down to 16 R&amp;D projects</li> </ul>
 <b>Geography</b>	<ul style="list-style-type: none"> <li>Operations decentralized across multiple countries</li> <li>Under-developed process for evaluating new country entry opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Re-evaluated market and customer contracts for each country</li> <li>Focused operating subsidiaries - sold Hyzon Guandong (China) as we start exiting China commercial truck market</li> </ul>	<ul style="list-style-type: none"> <li>Targeting high-growth markets with strong government support (US, Netherlands / Germany / Austria, and Australia / New Zealand)</li> <li>Rationalized footprint - exiting China and delaying non-priority markets</li> </ul>

# Experienced and Reinvigorated Management Team



## PARKER MEEKS

Chief Executive Officer,  
Board Member

### Experience and Qualifications

- Partner – McKinsey & Company
- 17+ year history advising energy, infrastructure and transportation sectors
- President, Infrastructure at TRC



McKinsey  
& Company

### Biography

- **Parker Meeks** is the Chief Executive Officer (CEO) and a member of the Board of Directors of Hyzon Motors Inc., and brings deep strategic, analytical and performance-driven expertise across energy, transportation and infrastructure to the company, along with extensive experience driving transformational change via strategic growth, operating performance, acquisition strategy & integration and culture formation in field services-oriented businesses across design & construction end markets, including infrastructure, industrials, electric power, energy transition and oil, gas & chemicals. Parker has a combination of strategic, analytical and performance-driven pedigree with strong tactical operating & organization leadership experience
- Before Hyzon, he was President, Infrastructure Sector, at TRC, leading its P&L efforts, and was Managing Partner of McKinsey's Houston office, and a founding leader of McKinsey's global Capital Productivity & Infrastructure practice



# Experienced and Reinvigorated Management Team: Operations & Technical



**Dr. BAPPA BANERJEE**  
Chief Operating Officer



## Experience and Qualifications

- 20+ years of operations, engineering, and commercial functions for global companies including GE Transportation and Caterpillar



**SHINICHI HIRANO**  
Chief Technical Officer



## Experience and Qualifications

- 30-year career in automotive fuel cell technology
- 17 years in leadership roles at Ford Motor Co.



**PAT GRIFFIN**  
President North America



## Experience and Qualifications

- Multiple executive roles in the Truck OEM industry
- Proven success in start-up, turnaround, growth and profitability
- Executed turnaround and sale as CEO - Crane Carrier Corporation



**Dr. GEORGE HE**  
VP, Fuel Cell Systems



## Experience and Qualifications

- Technical specialist with 25 years of experience with GM and General Dynamics in fuel cell system and powertrain



**JOHN EDGLEY**  
President International Operations



## Experience and Qualifications

- Veteran of operating complex organizations and advising private equity on investments and portfolio companies



**Dr. RAJESH BASHYAM**  
VP, Membrane Electrode Assembly



## Experience and Qualifications

- Inventor with 25 years of experience in PEM fuel cells, MEA and advanced materials engineering

# Experienced and Reinvigorated Management Team: Finance & Legal



**JIAJIA WU**

Interim Chief Financial Officer



**SAYANTA DUTTA**

SVP, Corporate Development



**JOHN ZAVOLI**

General Counsel & Chief Legal Officer

Experience and Qualifications



Deep experience in public accounting and finance, leading global teams at UL and Ernst & Young



Management consultant and investment banker advising energy and energy technology companies for 14 years across U.S., Europe, SE Asia and Australia

Senior Finance Executive -- Amazon Flex



Public company CFO & GC

Partner -- PwC

General Counsel, Karma Automotive



# 02

## Market Leading Fuel Cell Technology

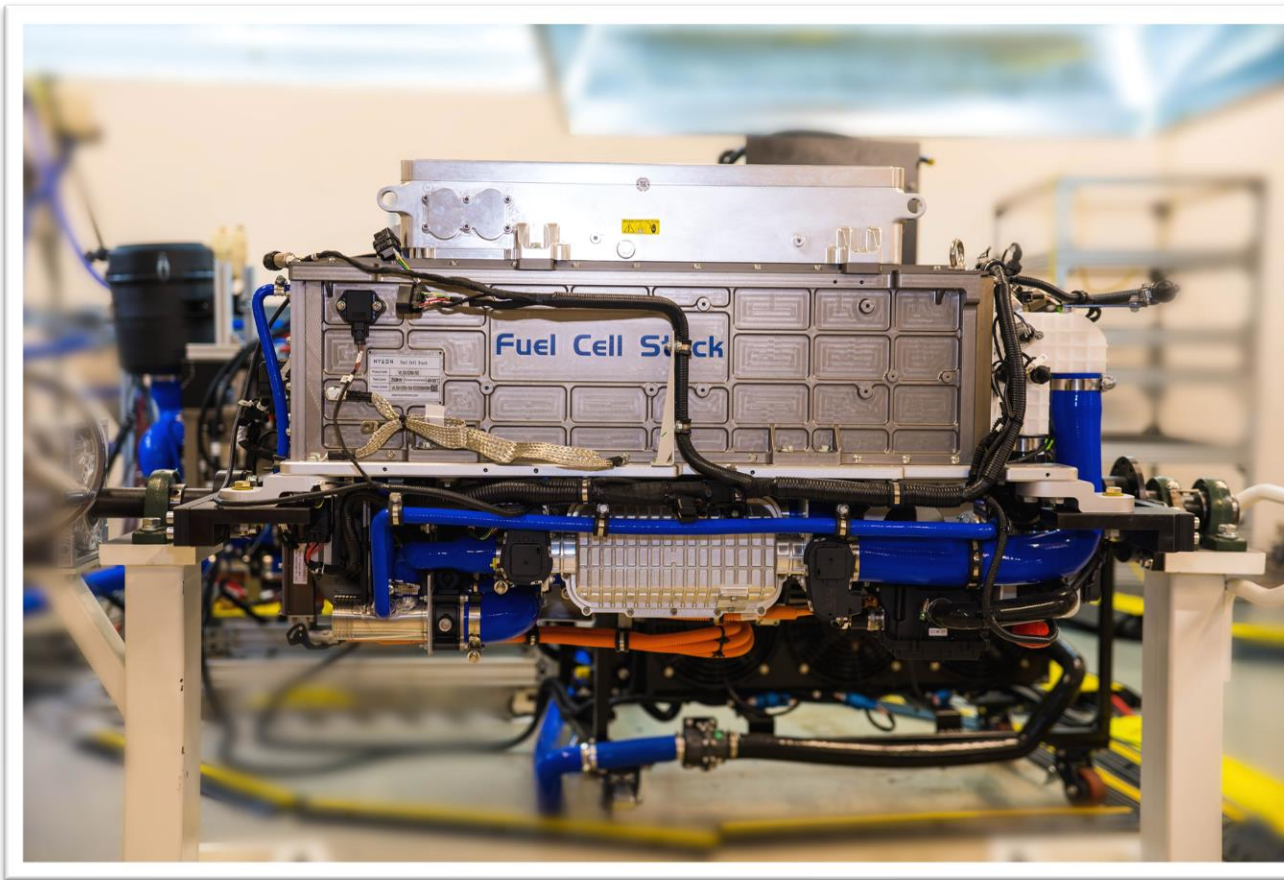
A proprietary 200kW fuel cell system driving **25% lower fuel cell cost at same total power, 30% lower weight, 30% lower volume and an estimated 20% increase<sup>1</sup> in miles per kg H<sub>2</sub>**

1. 200 vs. 120kW at 120kW; Estimated based on early 200 kW truck testing at test track in similar simulated routes on flat road vs. similar use case performance with single 120 kW FCS



# Hyzon's Technology Advantages is Based on Proprietary Fuel Cell IP

Leveraging IP to produce and commercialize 200kW FC system

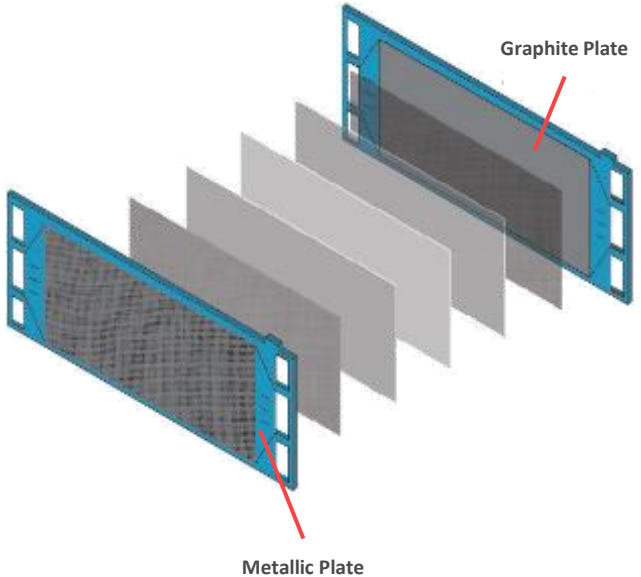


Category	# of patents	Significant areas
Membrane Electrode Assembly (MEA)	20	Covers, electrode design, membrane catalyst, gas diffusion layer
Bipolar Plate (BPP)	6	Flow field design, durability improvement
Unit Cell	6	Sealing, bonding
FC Stack	4	Stack design, assembly
Balance of Plant (BOP)	4	Humidifier
Fuel Cell System	2	Modular boost converter

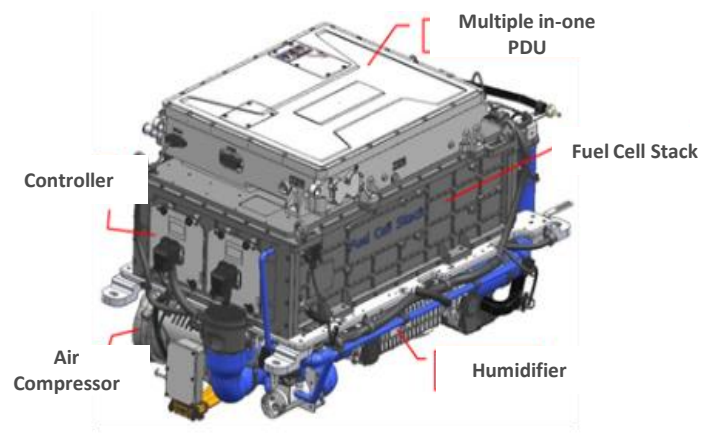
Note: These are exclusively filed by Hyzon Motors. Numbers include patent applications filed/published

# Highlights of Proprietary Technology Enabling our 200kW Fuel Cell...

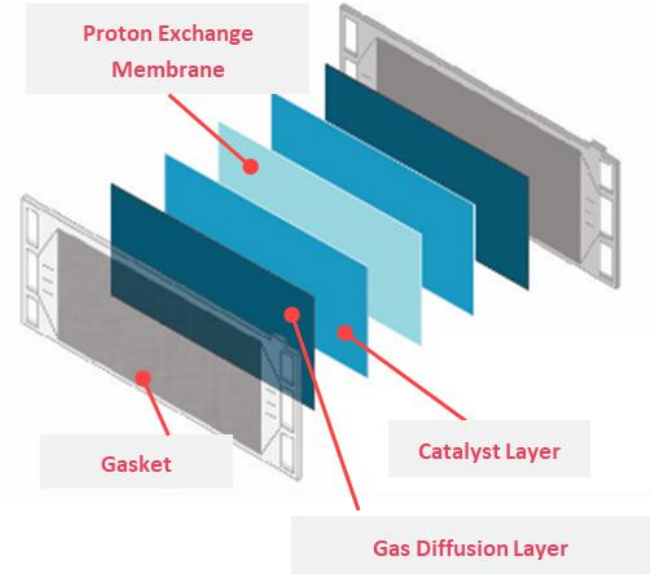
## Hybrid Bipolar Plates



## Single Stack Design



## 7-layer Membrane Electrode Assembly (MEA)



1. Includes eDrive and power electronics

# ...Providing Significant Advantages Over Two ~100 kW FCS Deployments Due to Hyzon's Advantaged IP and Design

## Advantages of Hyzon's 200 kW single fuel cell system IP and benefits vs. two ~100 kW fuel cell systems

- 1**  
**7-layer MEA**
  - Innovative MEA design increase the robustness, performance and durability
  - Exclusively own 20 US and international patent applications on MEA
- 2**  
**Hybrid BPP**
  - Patented hybrid bipolar plate (graphite and metallic)
  - Combined advantages of graphite and metallic plates
  - Enables much larger cell size
  - Improved heat distribution & water management
  - Suitable for heavy-duty applications
- 3**  
**Single stack**
  - More individual fuel cells than typical industry fuel cell stacks
  - Integrated design eliminating external connectors and cables
- 4**  
**Roadmap**
  - Adhering to robust engineering testing and standards
  - DVP&R ongoing
  - 25 200kW fuel cells are being made
  - Continuous manufacturing upgrade



Hyzon's 200 kW single FCS shows significant benefits vs. traditional approach of two ~100 kW fuel cells

**-30%**

Total Volume

**-25%**

Total FCS cost in truck BOM (200 kW vs. 2x~100 kW)

**-30%**

Total FCS weight vs. 2 systems

**+20%**

Miles per kg H2 vs. 120 kW FC truck<sup>1</sup>

1. 200 vs. 120kW at 120kW; Estimated based on early 200 kW truck testing at test track in similar simulated routes on flat road vs. similar use case performance with single 120 kW FCS



# Hybrid Bipolar Plates

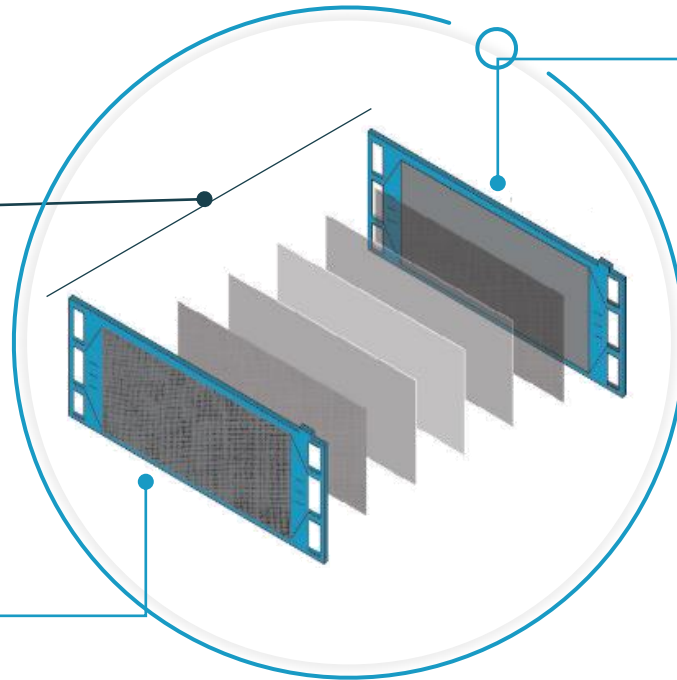
## Key Features

### Active Area (AA)

- Much larger active area
- Improved heat distribution & water management

### Metallic Plate Advantages

- Thinner – higher power density
- Little H<sub>2</sub> leak
- Easier to start in cold temperatures (e.g. -30 degrees C)



### Graphite Plate Advantages

- More uniform distribution of contact points
- Improved thermal conductivity
- High tolerance to cell-to-cell voltage variation
- Heat distribution more uniform
- Corrosion Resistant

### High Power Operation

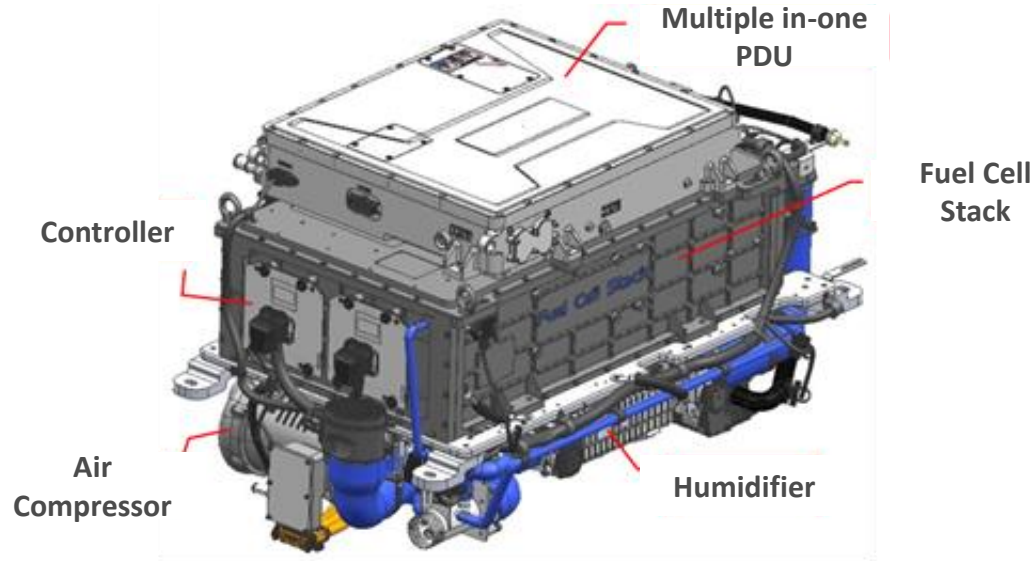
- Hybrid BPP operates at the rated power continuously while metallic plate fuel cells usually operate at low-medium level of rated power

### Lower Manufacturing Cost

- No welding required
- Welded area may overheat causing premature failure

# Single Stack Design

More individual fuel cells enclosed in a housing



## Integrated module

Multiple-in-one power distribution (PDU), anode module, cathode module

## Advantages vs. Multi-stack

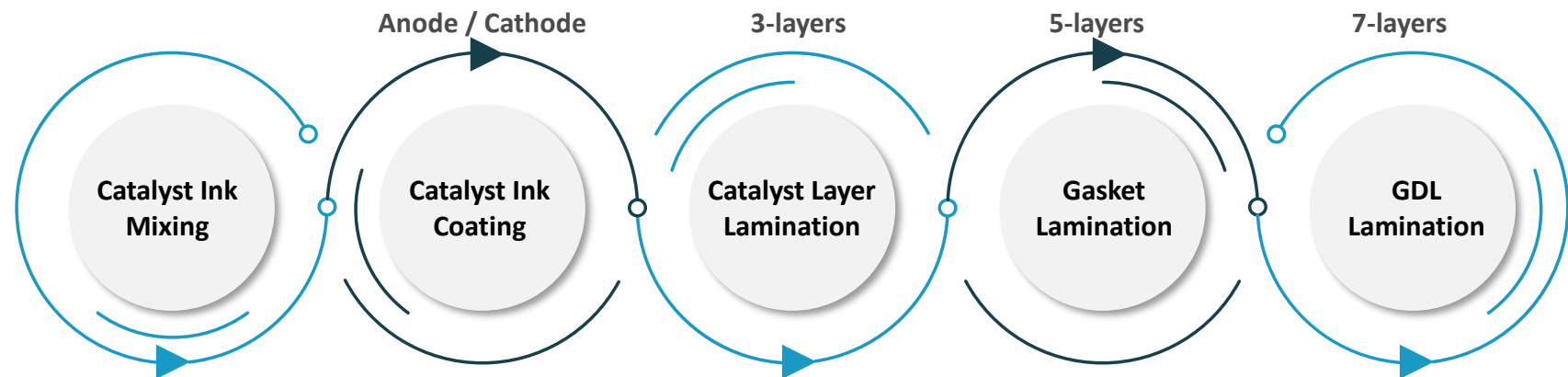
- 1 No interoperability issues
- 2 More compact – 30% less space required
- 3 Lighter
- 4 Fewer parts
- 5 Lower Cost
- 6 Scalable mass production

# Hyzon has an Innovative MEA Manufacturing Process

## 7-Layer Membrane Electrode Assembly (MEA)

- 1 Cathode catalyst layer is coated on the membrane (this is the layer where oxygen reduction reaction happen at the cathode in the final MEA)
- 2 Coating anode catalyst layer on a substrate film (this is where hydrogen oxidation happen at the anode in the final MEA)
- 3 The anode catalyst layer on the substrate is transferred to the non-coated side of the membrane in a roll-to-roll lamination equipment (anode catalyst layer / membrane / cathode catalyst layer constitute the 3-layers)
- 4 In the next step, the 3-layer roll is integrated into sub-gasket in a roll-to-roll equipment (two sub gaskets: one for anode side and one for cathode side) to form the 5-layers
- 5 Finally, gas diffusion layers are integrated in a roll-to-roll equipment (one for anode and one for cathode) to form 7-layers and this is referred to as MEA (MEA has 7-layers in total)

**Proprietary  
roll-to-roll MEA  
manufacturing  
process**



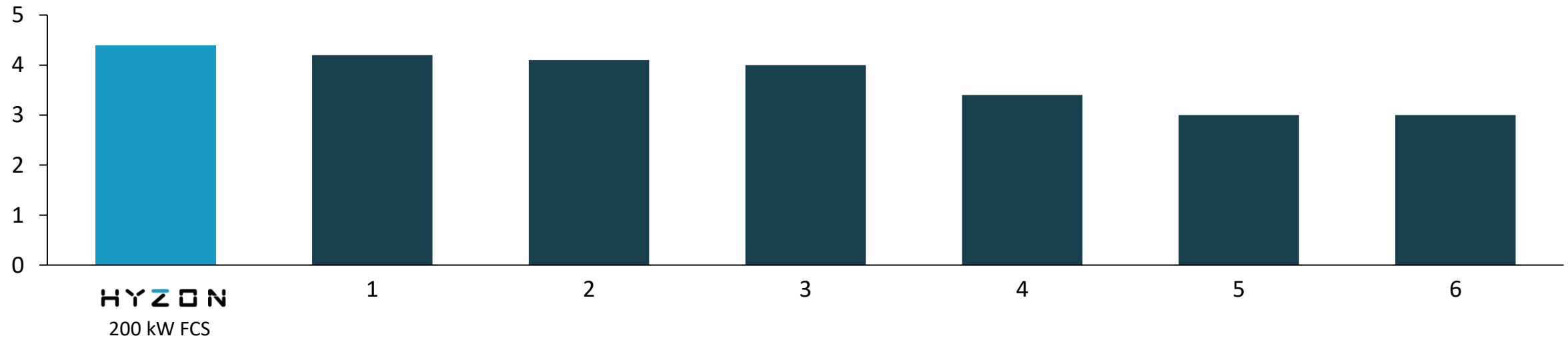


# Hyzon's Technology Advantage: Power Density Among the Leaders in Mobility Fuel Cells, Which Enables More Power in a Smaller Package

## Proprietary 200kW Fuel Cell Technology Power Density Performance vs. Peers

### Fuel Cell Stack Power Density Comparison<sup>1,2</sup>

Volumetric Power Density (kW/L)



**Volumetric Power Density:** important for space allocation in vehicle, specifically engine compartment, critical for mobile high power requirement solutions with tight space requirements such as HD trucks

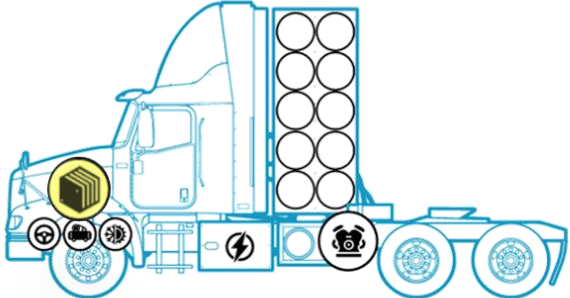
- Based on available information, Hyzon is one of the leaders in fuel cell stack volumetric power density versus our peer set

Source: Ballard Investor Presentation (2022), filings and company websites of Bosch, Cellcentric, Hyundai, Hydrogenics, and Toyota press releases.

1. As of March 11, 2022; 2. Peers included: Ballard (Fgen-HPS), Horizon (VLS-II150), Hyundai NEXO, Plug (ProGen— P125kW), Powercell (Pstack – 125kW), Sinohytech,, Toyota Mirai (new 128kW stack)

# Hyzon's 200kW Fuel Cell Offers Significant Advantages vs. Competitors Typical Approach of Two ~100kW Dual Fuel Cell Systems

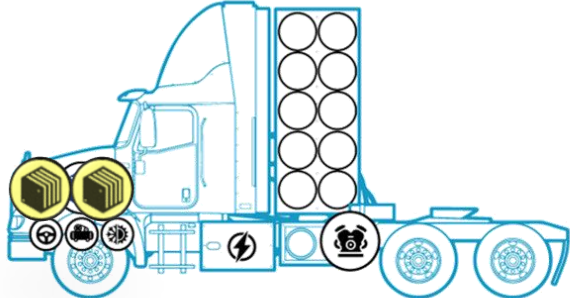
**HYZON**



**Single 200kW system**

**Typical Approach by Competitors**

*(Approximated by 2x Hyzon 110kW FCS's)*



**Two systems**

- 1 Fuel Cell
- 2 Weight
- 3 Balance of plant
- 4 Efficiency
- 5 Cost

**~360 kg**  
~30% lighter than two systems

**~520 kg**  
Each system weights ~260 kg

**Single**

**Double**  
Two each of air compressors, water pumps, humidifiers, HV cables, valves, sensors etc.

**~20% more efficient<sup>1</sup>**  
(initial vehicle testing)

**Single ~110 kW system ranges 5-7 mi/kg**  
Depends on use case

**~25% Lower total fuel cell system cost + Lower FCS unit cost (\$/kW) and est. maintenance + service cost**

**Higher total fuel cell systems cost, FCS unit cost (\$/kW, 3<sup>rd</sup> party sourced) and est. maintenance + service cost**

1. 200 vs. 120kW at 120kW; Estimated based on early 200 kW truck testing at test track in similar simulated routes on flat road vs. similar use case performance with single 120 kW FCS

# First 200 kW Fuel Cell Prototypes in Production & Testing, along with On-road Testing in Development Trucks

Validates our proprietary intellectual property and manufacturing capabilities of heavy-duty fuel cells

First 200kW fuel cell<sup>1</sup>...



1. Horizon produced and Hyzon validated

...In prototype testing on truck





# Hyzon's Proprietary Fuel Cell Production Facility

Bolingbrook Facility, IL

1 Membrane Electrode Assembly (MEA) production line commissioned and in production

2 Fuel cell system assembly ramping, with ability to scale as needed



# Driving Hyzon's 200 kW Single FCS Technology to Commercialization

## 200 kW FCS Major Milestones: Start-of-Production and Durability

- ✓ 200 kW FCS A-Samples produced and tested
- ✓ 3x 200 kW FCS B1 Samples produced and tested
- ✓ Design Verification Plan (DVP)
  - 6x 200 kW FCS B2 Samples produced and tested

1H 2023

2H 2023

- 16x 200 kW FCS B2 and C samples produced and tested
- Design Verification Plan and Report (DVP&R)
- Short stack durability (Accelerated Stress Testing – AST & Load Cycle Testing – LCT)

- 200 kW FCS durability with simulated vehicle drive cycles
- In-vehicle on-road 200 kW FCS validation tests

1H 2024

2H 2024

- Pre-production declared
- Process Verification Plan and Report (PVP&R)
- Start of Production (SOP)





03

## Advantaged Cost Structure

achieved through in-house fuel cell production and a capital light model, yielding ***positive truck-level contribution margin*** today & ***projected diesel parity TCO w/o truck subsidy estimated by 2027***



# Three Streamlined and Region-Specific Core Platforms

Region-specific product platforms minimize asset requirements and maximize standardization

- 1 One platform developed per region
- 2 Standardized fuel cell powertrain
- 3 Modularized balance of plant / electrified components
- 4 Agile 3rd party contractor assembly strategy<sup>1</sup>
- 5 Customer deployments in 2023 in all three regions

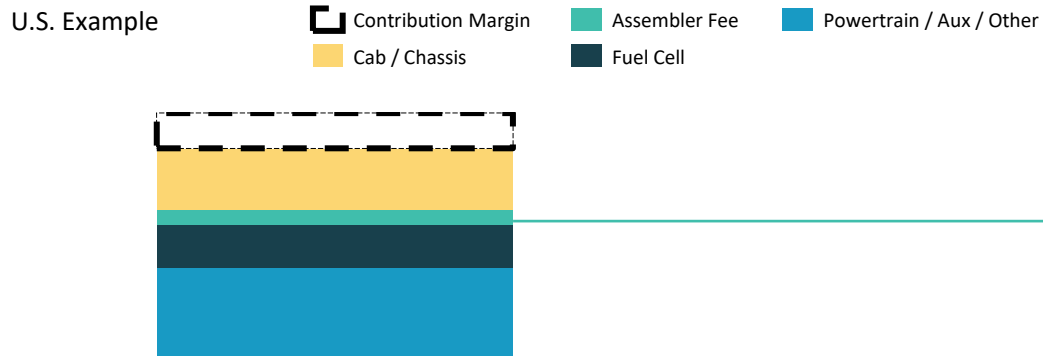


1. Hyzon Motors US and Hzyon Motors Europe to leverage third party contract assembly for FCEV truck assembly; Hyzon Australia planned to assemble its own vehicles in scale-up of production

# Capital-Light Model Leveraging Third-Party Contract Assemblers Drives Both Cost and Partial Working Capital Advantages vs. Full Vehicle Manufacturing

## Overview of Capital Light Third Party Assembly Model Benefits to FCEV Cost Structure and Cash: US Example

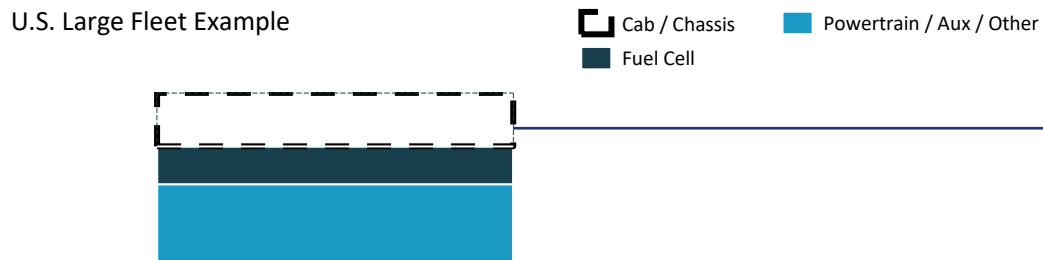
### Illustrative Component / Assembler Cost of Hyzon's Class 8 Truck



### 3rd Party Contract Assembler Fee

- FCEV truck assembled by third party contract assemblers (US and EU)
- Smallest share of cost stack and incurred only on a unit-by-unit basis (no large capital outlay for truck plant)
- Significant cost reduction per unit particularly at scale-up trajectory volumes

### Illustrative Working Capital Burden of Hyzon's Class 8 FCEV Truck Under US Large Fleet Dealer Model



### Working Capital Requirement: Cab & Chassis (US Large Fleet)

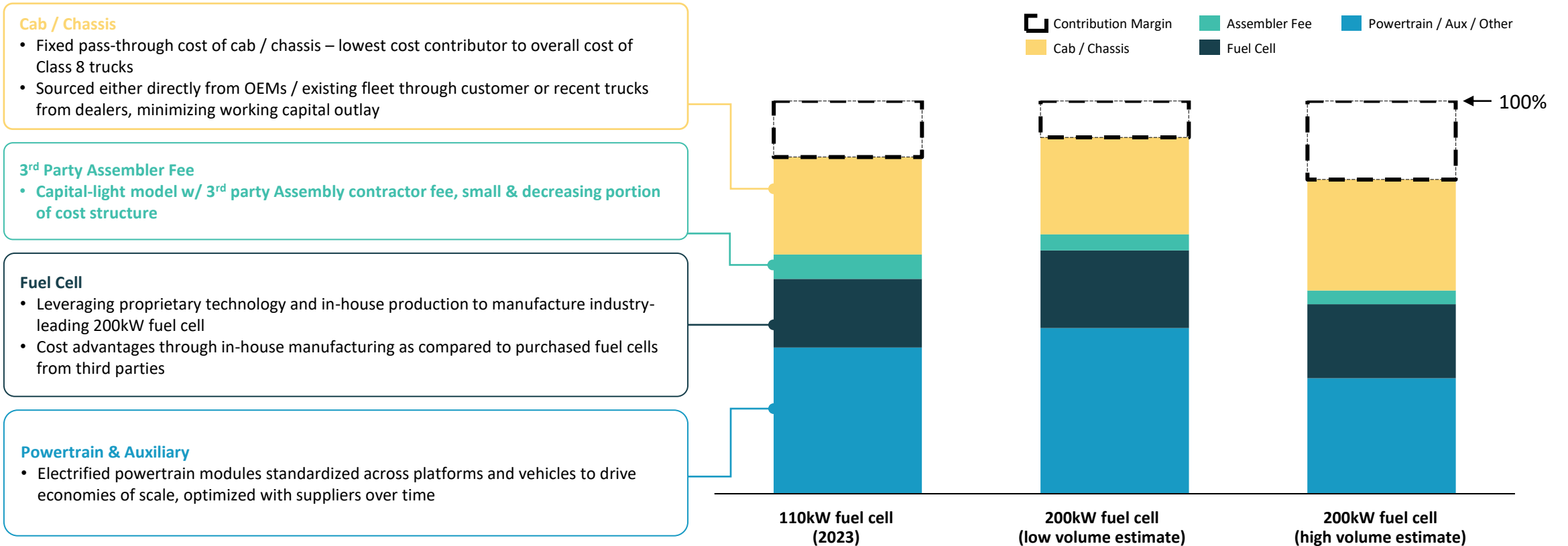
- In the U.S., customer driven base truck order (through dealer) sent directly from OEM to assembler
- In that model, Hyzon does not carry working capital for the base truck cab & chassis
- Materially lowers working capital cash burden of the overall FCEV truck

# Positive Contribution Margin at Truck-Level Today, with Specific Cost Reduction and Fuel Efficiency Improvement Initiatives to Expand...

Illustrative unit economics of Hyzon's Class 8 fuel cell electric vehicle; U.S. example

## Illustrative Cost Breakdown of Hyzon's US Class 8 Truck<sup>1</sup>

100% = Total Price (Actual or Estimated) Excluding Taxes & Delivery

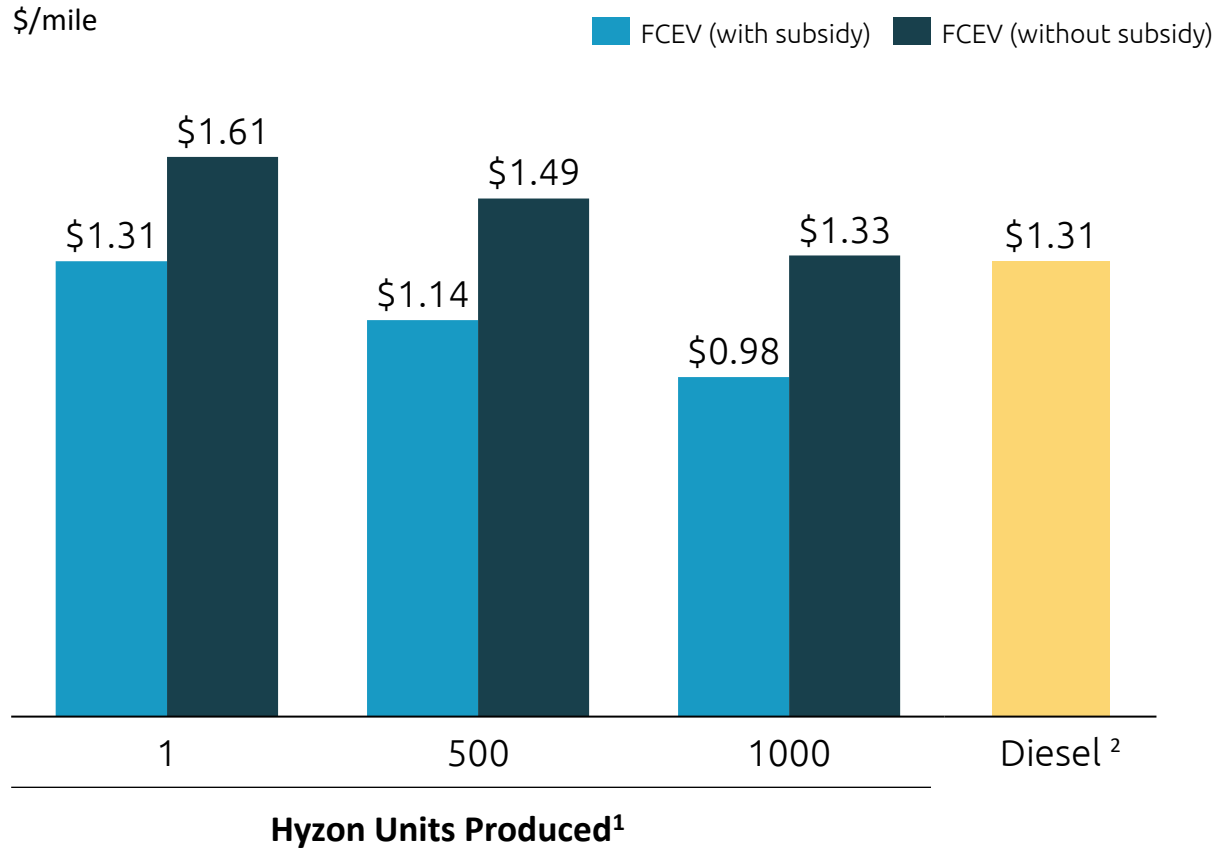


1. Illustrative graph is drawn to scale; unit level contribution margins (direct costs plus warranty reserve) – Based on Hyzon Motors Internal estimates



# ...Enabling Diesel Parity Without Relying on Truck Subsidies at Volume of 1,000 Trucks Annually

## Illustrative Total Cost of Ownership Comparison


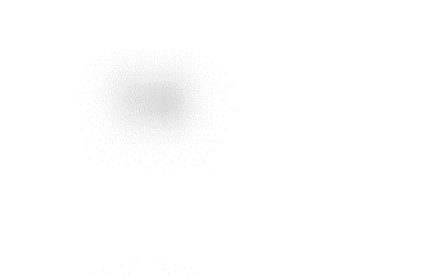

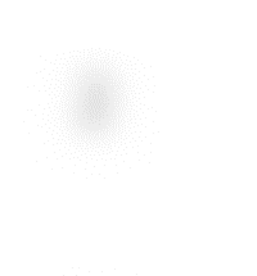

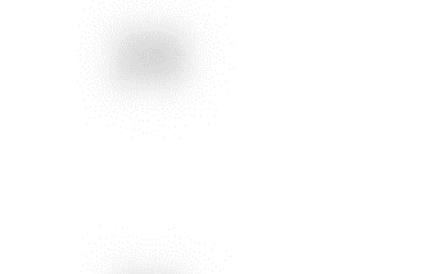
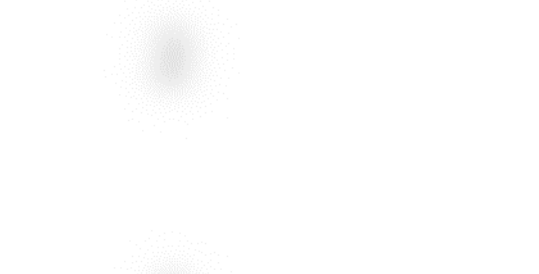


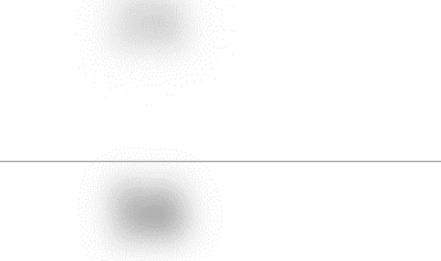

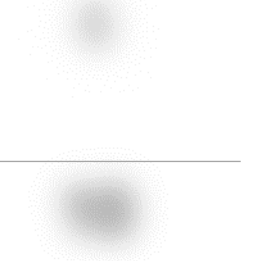


- 1 Manufacturing 200 kW fuel cells in house offers significant cost advantages through scale impact
- 2 Vehicle production currently transitioning to at-scale production via modularization & standards
- 3 Detailed R&D pathway identified to drive fuel efficiency improvement on Class 8 Cascadia, including 200 kW benefits

1. Based on fuel cell electric Class 8 truck illustrative sales price of \$500k, for analysis purposes reduced to \$425k @ 1,000 units (with and without purchase subsidies of \$240k), 100k miles per year for 8 years, \$5.0 / kg H2 cost, vehicle maintenance of \$0.17 / mile and fuel economy of 6.0 (1), 7.0 (500), 8.0 mi/kg (1,000); 2. Assumed acquisition cost of \$139k. Diesel fuel economy assumed 5.4 mpg @ \$4.80 / Gal with maintenance costs of \$0.20 / mile.

# Active and Progressing Pipeline with Initial Anchor Customers Contracted in Each Region

Number of fleets active at each Pipeline Stage by region

Region	Pipeline Stage		
	Early Engagement	Trial Planning / Contract Negotiations	Contracted <sup>1</sup>
			
			
			

- 1 Traction in all three regions primarily focused on California, Netherlands, Germany / Austria, and ANZ
- 2 Anchor customer agreements in place in each region, commercially activated in 2023
- 3 Priority back to base use cases including drayage, food & beverage, short haul freight

# Large Fleet Focus with Three-Step Ramp-up, Enabling 1,000 Trucks per Year with just 10 Large Fleet Customers

## Example Large Fleet Customer Order Intention Ramp-Up Schedule w/ Hydrogen Fuel Requirements

	Pilot	Milestone	Ramp-up
<b>Number of Class 8 FCEV trucks</b>	5	50	100
<b>Cumulative Class 8 FCEV trucks in fleet</b>	5	55	155
<b>Cumulative hydrogen consumption (tons/day)<sup>1</sup></b>	~0.15 – 0.20	~1.75 – 2.25	~4.5 – 6.0
<b>Hydrogen Fueling Solutions</b>	Mobile refueler or existing public access	Public access or behind the fence based on interest and operational needs	

- 1 Hyzon’s commercial model collaborates with customers through the FCEV ramp-up, starting with pilot orders attached to confirmed milestone orders
- 2 Post-trial fleet ramp-up to 100 trucks per year over 3 - 4-year period
- 3 10 customers per region leads to 1,000 trucks per year over multiple phases
- 4 Active trial and customer pipeline with anchor customers under agreements in US, Europe and Australia / New Zealand

1. Based on 40 – 50 kg of hydrogen consumption per day per FCEV Class 8 truck.





04

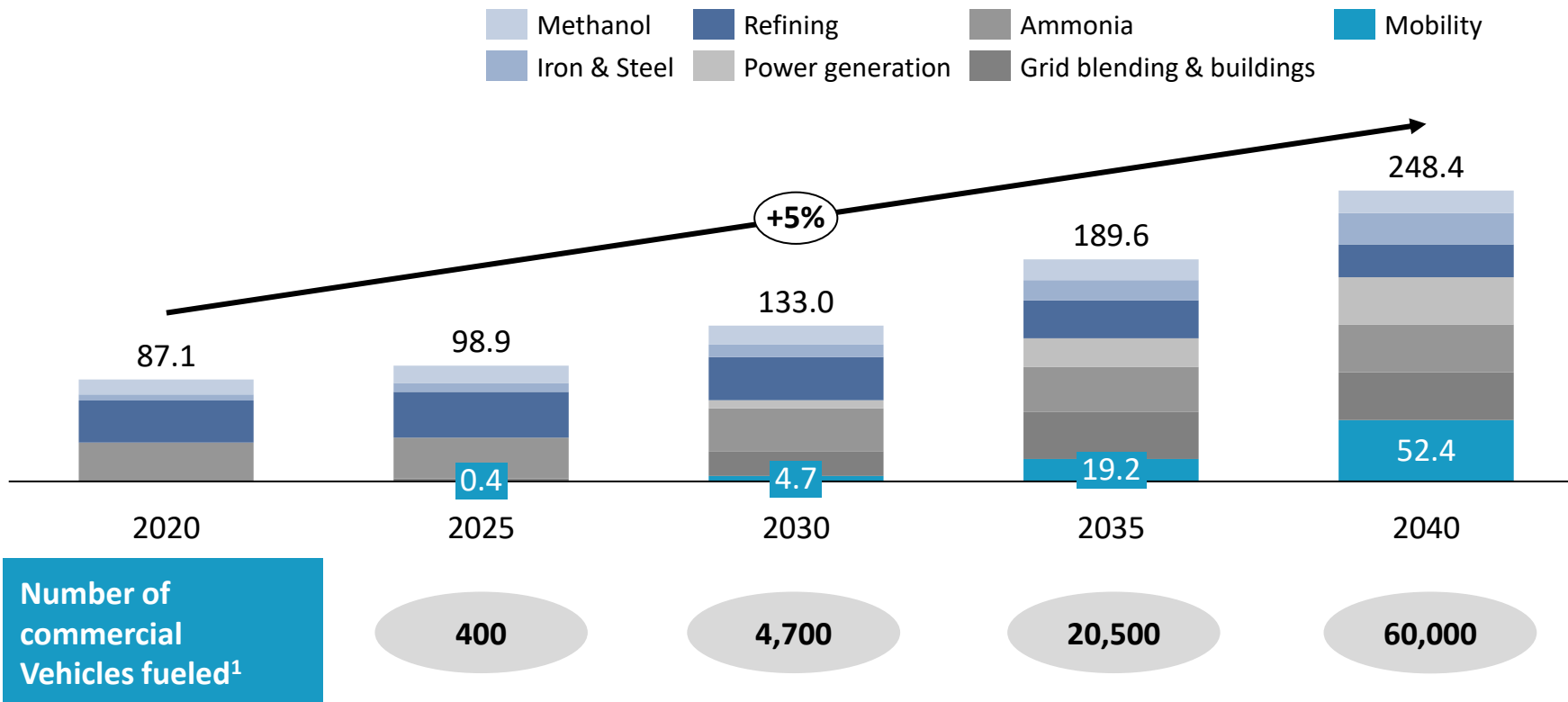
## Increased Industry Tailwinds

driven by favorable  
government policies & larger investments into  
the sector, ***with subsidies enabling over 10,000  
HD ZEV trucks in near-term***

# Hydrogen Market is Large, but it is still in its Infancy

Huge upside opportunity as hydrogen end-use demand is expected to grow

Hydrogen end-use demand by segment, MT hydrogen p.a.

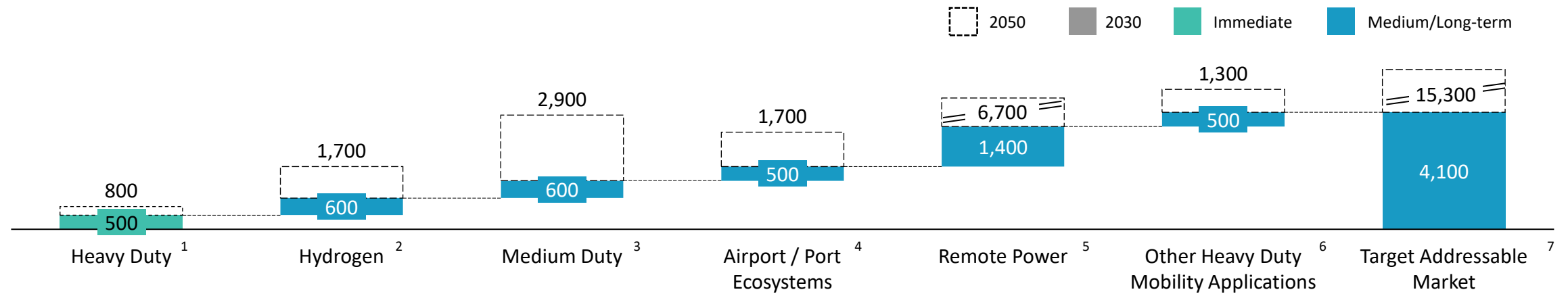


**~20%**  
of global H2 demand will be for mobility applications by 2040

1. Based on each vehicle operating 75,000 miles annually with 7.0 miles/kg fuel efficiency in 2025, and improving by 0.5 miles/kg every 5 years  
Source: Equity research, Hyzon analysis

# Significant Global Market Opportunity in HD Trucking Alone, with Multiple Layers of Upside Optionality through 2030 and Beyond

## Target Addressable Global Market Across Hydrogen Ecosystems, \$ Billions

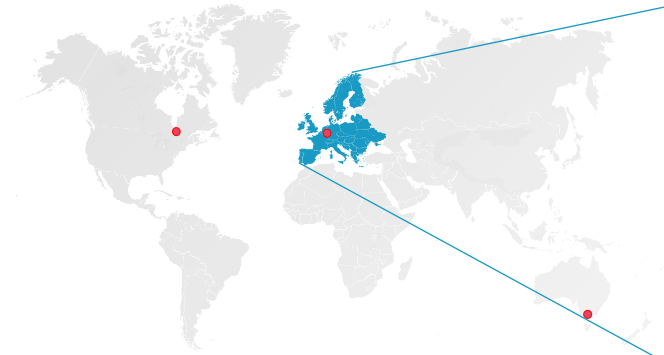


Hyzon Focus	Heavy Duty	Hydrogen	Medium Duty	Airport / Port Ecosystems	Remote Power	Other Heavy Duty Mobility Applications	Target Addressable Market
	<b>Today:</b> 3 core platforms - Conventional (US), Rigid (EU & ANZ) and Cabover (EU & ANZ)	Portfolio of hydrogen investment rights; Raven initial hub investment active	Additional mobility products requiring high-powered and durable fuel cell systems		Schlumberger collaboration to sell FCs into mobile power applications	Collaboration-based fuel cell technology deployment	

1. Statista HD Truck Projections (2019). 2030 and 2050 TAM based on extrapolation of 2019 – 2026 CAGR of 2.57%.  
 2. Goldman Sachs Global Demand & Supply Model (2022); 2050 TAM based on extrapolation of 2020 – 2040 CAGR of 5.38%.  
 3. Mordor Intelligence MD and HD Commercial Vehicles Market Research Report (2022). 2030 and 2050 TAM based on extrapolation of 2018 – 2028 CAGR of 8%.  
 4. Airport: The Business Research Company Commercial Aircraft Market Research Report (2023). 2030 and 2050 TAM based on extrapolation of 2023 – 2027 CAGR of 7.9%. Port: Skyquest Tech Consulting Marine Vessel Market Research Report (2022). 2030 and 2050 TAM based on extrapolation of 2022 – 2028 CAGR of 1.61%.  
 5. Markets and Markets Hybrid Power Solutions Market Research Report (2015). 2030 and 2050 TAM based on extrapolation of 2016 – 2021 CAGR of 8.13%.  
 6. Other Heavy Duty Mobility Applications consists of Locomotive, Agricultural Machinery, Construction Machinery, ATV markets. Locomotive: Statista Locomotive Projections (2021). 2030 and 2050 TAM based on extrapolation of 2020 – 2027 CAGR of 3.0%. Agricultural Machinery: TechNavio Agricultural Machinery Market Research Report (2022). 2030 and 2050 TAM based on extrapolation of 2021 – 2026 CAGR of 5.87%. Construction Machinery: TechNavio Construction Machinery Market Research Report (2022). 2030 and 2050 TAM based on extrapolation of 2022 – 2027 CAGR of 4.3%. ATV: TechNavio All-Terrain Vehicle Market Research Report (2022). 2030 and 2050 TAM based on extrapolation of 2022 – 2027 CAGR of 7.59%.

# Subsidy Availability Drives Thousands Of Zero Emission Trucks With Diesel Parity Conversion Potential in Near-Term

● Hyzon locations



	Already Active Up to 2023			2024 and Beyond			
<b>Program</b>	HVIP	Carl Moyer	VW Settlement	DOE Hubs	IRA	IRA Clean Ports	Other upcoming legislation
<b>Funding Available</b>	\$430MM in 2023	\$45MM in 2023	\$2Bn until 2026	\$8Bn	\$1Bn	~\$2.3Bn through 2027	Hydrogen Infrastructure Initiative (inclusive of Hydrogen for Trucks Act)
<b>Est. Potential ZE Class 8 Trucks</b>	~2,000 in 2023	~180 in 2023	Typically 20-50 trucks per state (e.g. TX, NY, MI)	~6,000-7,000	~4,200	In comment period ~2,000 trucks	

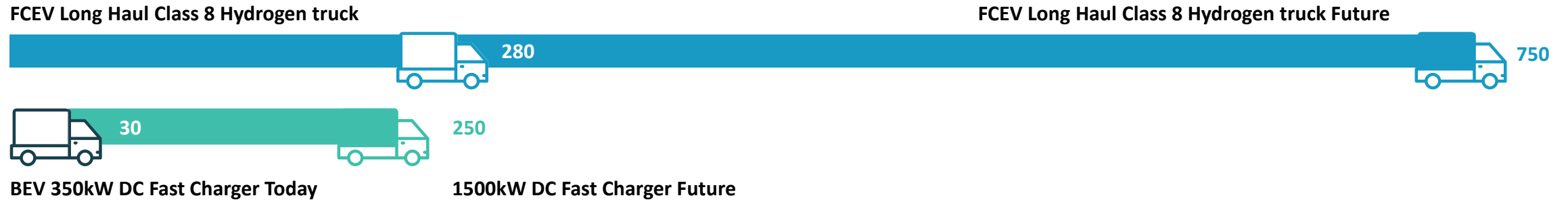
	Already Active Up to 2023					2024 and Beyond			
<b>Program</b>	Horizons	Innovation Fund	Germany	France	Spain	IPCEI Project Hy2Use	UK ZERFT	Netherlands	Other upcoming legislation
<b>Funding Available</b>	€15.1Bn through 2027	€1Bn through 2023	€900MM through 2024	€340MM through 2022	€400MM through 2023	Up to €5.2Bn	£20 -£90MM (annual)	€40MM through 2024	Green Deal Industrial Plan
<b>Est. Class 8 Trucks</b>	~5,000 through 2027	~250 through 2023	~3,000 through 2024	~1,200 through 2022	~1,500 through 2023	Up to ~19,000	~100-200 (annual)	~200 through 2024	

Source: California Air Resources Board, New York State Truck Voucher Incentive Program, Rocky Mountain Institute, U.S. EPA, U.S. Senate Energy and Natural Resources Committee, U.S. Senate Initiatives, EU Research & Innovation Programme, UK Innovation Funding Service, European Federation for Transport and Environment, Hydrogen Europe, The International Council on Clean Transportation, press releases.



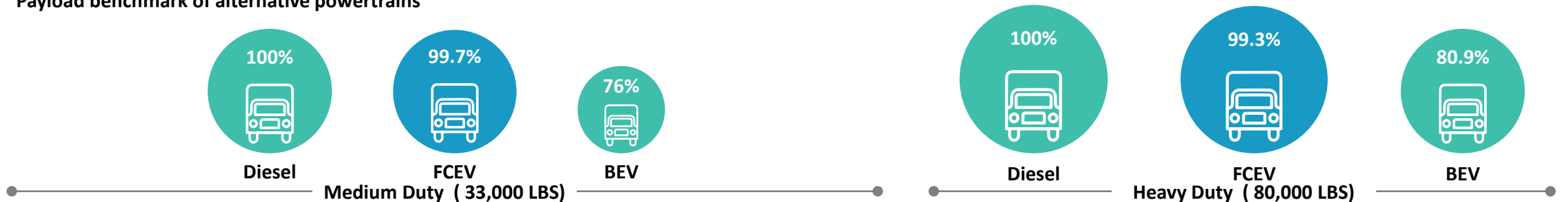
# FCEV Heavy-Duty Trucks Expected to Out-Compete BEV when Heavy Loads, Long Distances and/or Short Fueling Times are Needed – Majority of Class 8 in US

## Mileage Comparison 10 Mins Of Refueling/Recharging: Real time lost waiting for charging durations vs. hydrogen refueling expectations



## Payload Performance: Real potential revenue loss and / or operational cost increases for fleets who maximize weight up to allowed limits

### Payload benchmark of alternative powertrains



Sources: Assumptions: Diesel: (1) Typical HD vehicles achieve 6.5 mpg (Davis and Boundy 2019; Schoettle, Sivak, and Tunnell 2016). (2) Fueling rates for diesel truck dispensers are commonly 15 gpm or faster; BEV: (1) Tesla and Daimler advertise vehicle efficiencies of ~2 kWh/mile (Tesla 2020; Daimler Trucks North America LLC 2020). Therefore, setting case today at 2 kWh/mile and future case at 1 kWh/mile, 50% reduction in energy use. (2) Charge rates for today will be 350kW fast charger and future case 1,500kW fast charger; FCET: (1) Nikola Motor predicting 600-mile range with 80kg of hydrogen, which equates to 7.5 mi/kg, so at 100kg of hydrogen total capacity provides 750- mile total range. In context of FCEBS showing efficiency around 4-6 mi/kg for on-road efficiency and bus drive cycles being tougher than drive cycles for trucks, so 7.5 mi/kg estimate reasonable, and use this for both today and future case. (2) Fill rates for today and the future case will be 3.6 kg/min and 10 kg/min, respectively

Sources: Fuel Cells and Hydrogen 2 Joint Undertaking. (2017, August). Development of Business Cases for Fuel Cells and Hydrogen Applications for Regions and Cities: FCH Heavy-duty trucks. [https://www.fch.europa.eu/sites/default/files/171121\\_FCH2JU\\_Application-Package\\_WG1\\_Heavy duty trucks \(ID 2910560\) \(ID 2911646\). pdf](https://www.fch.europa.eu/sites/default/files/171121_FCH2JU_Application-Package_WG1_Heavy%20duty%20trucks%20%28ID%202910560%29%20%28ID%202911646%29.pdf)








05

## **Economically attractive relationships & agreements**

enabling customer economics and  
value creation

# Hydrogen Production Relationships & Investment Rights Provide Access to Fuel at Diesel Parity

	Applicability by Feedstock					Hyzon Location Focus
	MSW <sup>1</sup>	RNG	Ind. gas	Biomass	Solar/Wind	
	✓	✓	✓	✓		CA, Europe
		✓	✓			Midwestern U.S.
		✓	✓	✓		Western U.S.
		✓	✓			Western U.S.
					✓	OK

1. Includes unrecyclable plastics Note: Raven SR, Transform Materials, TC Energy, ReCarbon and Woodside logos are owned by their respective owners

# Collaboration Press Releases

HYZON

## HYZON MOTORS AND WOODSIDE ANNOUNCE COLLABORATION FOR COMMERCIAL HYDROGEN PRODUCTION AND DEMAND CREATION OPPORTUNITIES



ROCHESTER, NY – News Direct – Hyzon Motors Inc. (NASDAQ: HYZN), a leading supplier of hydrogen-powered fuel cell electric vehicles, and Woodside Energy (ASX: WPL), today announced an agreement to collaborate on developing supply of zero carbon intensity hydrogen and building demand from medium- and heavy-duty commercial vehicle customers in the United States and Australia.

Under the agreement, the companies will evaluate opportunities to develop green hydrogen production facilities (hubs). Initially, the project will focus on liquid hydrogen supply projects to support Hyzon's future liquid hydrogen onboard mobility use cases – including ultra-long range trucks already under development, and aviation, marine and rail applications.

HYZON

## HYZON ANNOUNCES COLLABORATION WITH HYLIION



Hyzon Motors has announced a collaboration with Hyliion, a leading provider of electrified powertrain solutions, to jointly develop a heavy-duty fuel cell vehicle. Hyzon and Hyliion share the goal of reducing carbon emissions in heavy-duty mobility, and this collaboration serves to accelerate that transition.

The companies will combine Hyzon's fuel cell technology and Hyliion's electric powertrain solution in a prototype vehicle, built on a Ford F-Series chassis. This prototype will have a maximum range of 100 miles and a long-haul heavy-duty trucking performance. Under the technology development agreement, commercialization of the prototype vehicle is expected by early 2024.

Full-scale commercialization of Hyzon and Hyliion's integrated powertrain will allow for a complete redesign for development of a fuel cell class commercial vehicle, while also enabling dual-fuel capabilities and improving vehicle performance and reliability.

HYZON

## HYZON MOTORS AND TC ENERGY ANNOUNCE MODULAR HYDROGEN PRODUCTION HUB DEVELOPMENT AGREEMENT

Nov 10, 2023

- Each production hub will produce up to 20 tonnes of low-to-negative carbon intensity hydrogen per day, close to Hyzon fleet deployment

ROCHESTER, N.Y. and HOUSTON, Nov. 10, 2023 (PRNewswire) — Hyzon Motors Inc. (NASDAQ: HYZN) (Hyzon), a leading supplier of hydrogen-powered fuel cell electric vehicles, and TC Energy Corporation (TSXNYSE: TSE) (TC Energy), today announced an agreement to collaborate on development, construction, operation, and ownership of hydrogen production facilities (hubs) across North America.

The hydrogen production facilities will be used to meet hydrogen fuel cell electric vehicle demand by focusing on low-to-negative carbon intensity hydrogen from renewable natural gas, biogas and other sustainable sources. The facilities will be located close to demand, supporting Hyzon's back-to-base vehicle deployment.

"Through this agreement, we are combining the expertise of TC Energy in natural gas and renewables with that of Hyzon's world-class technology in fuel cell electric vehicles being delivered around the world today," said Corey Hesson, TC Energy's Senior Vice President and President, Power and Storage. "TC Energy is committed to exploring and developing energy solutions in North America for our own assets as well as those of customers to meet their energy transition needs. We believe we are well-positioned to execute on the development of hydrogen and CO2 pipelines."

HYZON

## HYZON MOTORS TO COLLABORATE WITH TRANSFORM MATERIALS ON RENEWABLE HYDROGEN PRODUCTION

ROCHESTER, NY – January 10, 2023 – Hyzon Motors Inc. (NASDAQ: HYZN), a leading supplier of hydrogen-powered fuel cell electric vehicles, today announced a non-binding memorandum of understanding (MOU) with Transform Materials, a provider of renewable hydrogen through its proprietary microwave reactor technology. Together, Hyzon and Transform Materials will evaluate proposals to develop facilities to produce low-to-negative carbon intensity hydrogen from various forms of methane, paraffin, biogas, and renewable ammonia.

Through Transform Materials' hydrogen technology, these facilities (referred to as hubs) can be built to produce hydrogen efficiently – even at small scales of 1 to 10 tpd – offering modular construction that allows capacity to grow as customer demand increases. Transform's technology to be employed in these projects produces hydrogen as a co-product with ammonia, providing significantly advantaged hydrogen cost structures.

"Hyzon believes the key to decarbonizing transport in the near-term requires overcoming the hydrogen infrastructure challenges," said Bruce Kleeve, Hyzon's Chief Energy Officer. "Our solution lies not only in facilities that produce fuel cell hydrogen at small capacities, and which can be built in a matter of months, but also in producing these facilities with leading and developing customer interest, so we can accelerate the deployment of our zero-emission, hydrogen-powered vehicles."

Additionally, Transform's technology can generate carbon solids such as acetylene black or graphite, providing for useful carbon capture while shifting hydrogen's negative carbon intensity to zero net-purity when utilizing biogas as the feedstock. Hyzon will evaluate opportunities to utilize the carbon solids for other products in Hyzon trucks, materials, such as battery and carbon fiber production, offering further circular economy opportunities in Hyzon's operations.

HYZON

## HYZON MOTORS AND RECARBON TO PUSH GREEN HYDROGEN-POWERED HEAVY TRUCKS

Sep 04, 2020

**Hyzon Motors, who offer comprehensive clean transport solutions, is the world-leading fuel-cell mobility commercialization spin-off of Horizon Fuel Cell Technologies.**

The company is focused on rapidly accelerating the adoption of zero-emission commercial vehicles.

Last month, the company opened Europe's first dedicated Hydrogen Truck Production Facility in Craningen, the Netherlands. With this new European facility, the company expect to ship hundreds of fuel cell heavy vehicles by the end of 2021.

For this new Hydrogen Truck Production Facility, US-headquartered Hyzon Motors have teamed up with Holthausen Clean Technology BV, to offer high quality, locally built zero-emission commercial vehicles. These vehicles will meet European standards, reduce supply chain interdependencies, and create new local jobs in environmentally sensitive industries.

This is particularly exciting as the European Union member states and European companies are actively seeking solutions to climate change. Heavy trucking has been at the forefront of the minds of many, especially as they are a significant contributor to carbon emissions.

HYZON

## RAVEN SR, CHEVRON AND HYZON MOTORS COLLABORATE TO PRODUCE HYDROGEN FROM GREEN WASTE IN NORTHERN CALIFORNIA

PINEDALE, Wyo. and HOUSTON, Jan. 9, 2023 (PRNewswire) — Raven SR Inc. (Raven SR), a renewable fuels company, Chevron New Energies, a division of Chevron U.S.A. Inc., a subsidiary of Chevron Corporation (NYSE: CVX), and Hyzon Motors Inc. (NASDAQ: HYZN) today announced they are collaborating to commercialize operations of a green waste-to-hydrogen production facility in Redwood (intended to supply hydrogen fuel to transportation markets in Northern California).

The facility will be owned by a newly formed company, Raven SR LLC (Raven SR LLC). Raven SR will be the operator of the facility, which is targeted to come online in the first quarter of 2024. Chevron holds a 50% equity stake in Raven SR LLC. Raven SR holds a 30% stake and Hyzon owns the remaining 20%.

To produce the hydrogen, the project is expected to divert up to 69,000 tons of green and food waste per day from Republic Services' West Contra Costa Sanitary Landfill into its non-combustion Steam/CO2 Reforming process, producing up to 2,400 metric tons per year of renewable hydrogen. Operation of this operation will help build California's 101,000 megawatts, and will potentially avoid up to 2,200 metric tons per year of CO2 emissions from the landfill. In addition, Raven's technology uses no fresh water, an important element given drought risks in California, and uses less electricity to power its units than competing processes. The project is expected to produce at least 80% of its own electricity by upgrading the currently permitted and zoned landfill gas electric generators at the landfill, further reducing both the carbon emissions and the need for grid power for its non-combustion process.





06

## Path Forward

focused on 2023-2024 commercialization milestones, with several already completed

# Hyzon's Focus in 2023-2024: Execution, Which is Well Underway

## Priority Milestones to achieve in 2023-2024



Organization



Fuel cell



Vehicle

Category	Timing	Priority Milestones (Subset)	Status
	2H 2022	Restructure Hyzon Europe & China Ops	✓
	2H 2022	Rigid Platform ISO Certification & Launch	✓
	1H 2023	Europe Cabover Gen 1 4x2 Customer Launch with Anchor Customers	✓
	1H 2023	First 200kW B-sample fuel cell produced and tested	✓
	1H 2023	First U.S. customer order contracted	✓
	1H 2023	First 200kW FCEV truck in testing	
	2H 2023	200kW fuel cell C-sample declaration	
	2H 2023	Deliver first commercial Class 8 Hyzon FCEV to U.S. customer	
	2H 2023	25 200kW fuel cell prototypes produced / validated and 200kW C-Sample Declared	
	1H 2024	200kW FCEV Truck Commercial Launch	
	2H 2024	200kW production facility SOP declared	

# Hyzon Motors Revitalized: Technology-led, Commercially Scalable Focused Strategy Already well Along in Execution

## Hyzon Motors Revitalized



01

**Highly focused**, restructured strategy & operations led by **strengthened management team**



04

**Significant market size and greater decarbonization momentum** driven by more favorable government policies unlocking thousands of zero emissions trucks through subsidies in near-term



02

Market leading proprietary **200kW single stack** fuel cell system driving **25% lower total fuel cell system cost at same power** and an estimated **20% increase<sup>1</sup> in miles per kg H2**

05

**Economically attractive partnerships** enabling customer economics and value creation

03

**Positive contribution margin at the truck level** achieved through in-house fuel cell production, capital light vehicle production model, H2 partnerships enabling customer adoption, **accelerating truck subsidy-free TCO diesel parity by 2027**

06

**Path Forward** focused on 2023-2024 commercialization milestones, with several already completed

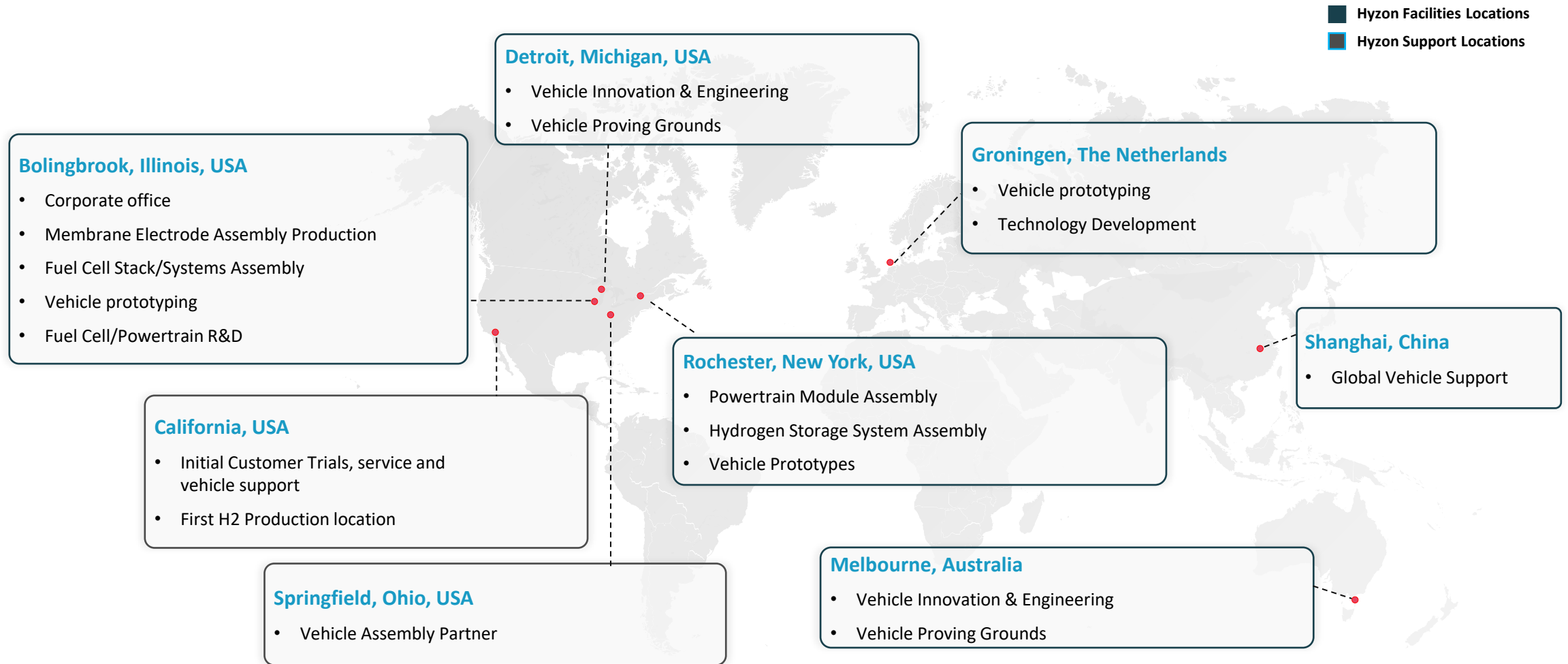
1. 200 vs. 120kW at 120kW; Estimated based on early 200 kW truck testing at test track in similar simulated routes on flat road vs. similar use case performance with single 120 kW FCS

# APPENDIX



# Global Footprint to Drive Zero Emissions Adoption

## Hyzon's Current Facilities



Note: US facilities are under different levels of construction

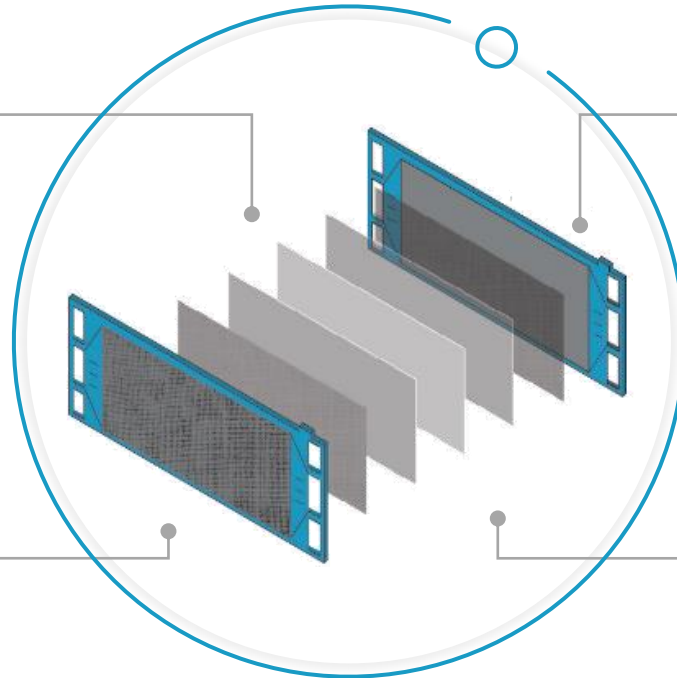
# Hybrid Bipolar Plates (BPP)

## Key features of Hyzon's Design

**45%** of the stack material cost, **60%** volume, **70%** weight

Graphite plate for cathode and titanium plate for anode

BPP are corrosion-resistant, thin, and high resistance to reactant gas leakage, significantly contributing to the fuel cell stack's durability, power density, and efficiency



Unique flow-field plate designs on both cathode and anode plates enable uniform flow distribution of reactants (H<sub>2</sub> and O<sub>2</sub>) effective removal of water for high performance and durability

Each side of the plate is independently designed to create a durable, highly conductive flow field, tailored to the specific requirements and environment with which it interacts. Through a unique combination of graphite and metallic surface engineering

# Patent Overview

## List of Patent applications Protecting Hyzon's 200kW

Category	#	Description
MEA	20	Covers, electrode design, membrane catalyst, gas diffusion later
BPP (Bipolar plate)	6	Flow field design, durability improvement
Unit cell	6	Sealing, bonding
FC Stack	4	Stack design, assembly
Balance of plant (BOP)	4	Humidifier
Fuel Cell System	2	Modular boost converter
Hydrogen Storage System	1	Modular storage system
Vehicle	7	Semi-truck body, styling, e drive, headlight
Battery	18	Battery SOC management, usability in FCEV

Note: These are exclusively filed by Hyzon Motors. Numbers include patent granted, published and filed

# Patent Overview

Patent Control Summary as of April 19, 2023

	Patents Awarded	Patents Applied	Patents Pending	Non- Provisional Applied	Provisional Applied	Totals
Exclusively Owned <sup>1</sup>	0	68	68	63	5	68
Jointly Owned <sup>2</sup>	39	56	17	56	0	56
<b>Totals</b>	<b>39</b>	<b>124</b>	<b>85</b>	<b>119</b>	<b>5</b>	<b>124</b>

1. All Patents Applied are Pending (not Awarded); 2. Jointly owned with one or more Horizon entities (per IP Agreement) except three unrelated parties (in discovery)