Our Time is Now

Corporate Presentation

April 10, 2023

The Engine Driving Zero Emissions

LOOP™ ENERGY

TSX:LPEN

Disclaimer

Cautionary Note Regarding Forward-Looking Information

This presentation contains certain "forward-looking statements" within the meaning of Canadian securities legislation that involve risks, uncertainties and assumptions and relate to the Company's current expectations and views of future events. In certain cases, these forward-looking statements can be identified by words or phrases such as "forecast", "target", "goal", "may", "might", "will", "expect", "anticipate", "estimate", "intend", "plan", "indicate", "seek", "believe", "project", "predict", or "likely", or the negative of these terms, or other similar expressions intended to identify forward-looking statements. The Company has based these forward-looking statements on its current expectations and projections about future events and financial trends that it believes might affect its financial condition, results of operations, business strategy and financial needs. These forward-looking statements include, among other things, statements relating to the Company's financial position, business strategy, growth strategies, addressable markets, budgets, operations, financial results, taxes, plans and objectives. Particularly, statements regarding the Company's expectations of future results, performance, achievements, prospects or opportunities or the markets in which we operate is forward-looking information, including:

our future growth prospects, business outlook, the expected demand for our products and the planned growth of our customer base; our ability to secure future firm order commitments or develop further market opportunities under existing and future customer and/or partner agreements, including without limitation, collaboration agreements, joint market development agreements, strategic cooperation agreements, memorandums of understanding and supply agreements; the timing of expected integration, testing and commissioning of our products in customer vehicles or other customer applications; our ability to assist customers with access to convenient and cost effective hydrogen solutions; our expected manufacturing capacity and production capability; the timing of the completion, commissioning and start-up of our new production facility in Shanghai, China; the expected rollout and timing of our planned field deployment of our next generation 120 kW to 240 kW fuel cell stacks and the belief that the larger e-flow plate will result in significant cost reductions; the potential for in-house manufacturing of certain components used in the production of our products; our belief that zero emission vehicles are one of the only viable options for a sustainable future and that fuel cell systems (combined with Lithium ion batteries) will meet the requirements of the majority of fuel cell operators; the expected growth in demand for hydrogen fuel cells; our belief that the Company has superior fuel cell systems when compared to those of our competitors and that we will become a market leader in the commercial vehicle sector over time; our view that our systems have leading fuel efficiency, higher durability, and increased power capabilities; our expectation that we will be granted all patents we have applied for and our ability to adequately protect our intellectual property now and in the future; our ability meet manufacturing cost reduction targets; the realization of electrification of transportation, elimination of diesel fuel and ongoing government support of such developments; our belief that zero emission vehicles are one of the only viable options for a sustainable future; and the extent of the disruption to and/or adverse impact on our business, operation results and financial condition as a result of unanticipated global events, including without limitation the COVID-19 pandemic or the war between Russia and the Ukraine.

Forward-looking statements are based on certain assumptions and analyses made by the Company based upon management's experience and perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate. Although the Company believes that the assumptions underlying these statements are reasonable, if any of the assumptions underlying the forward-looking statements prove incorrect, actual results may vary materially from those anticipated in those forward-looking statements and there can be no assurance that actual results will be consistent with these forward-looking statements. Material assumptions underlying forward-looking statements in this AIF include future expectations and assumptions regarding:

the demand for, and supply of, hydrogen fuel cells for the commercial mobility and stationary power markets; the realization of electrification of transportation, elimination of diesel fuel and ongoing government support of such developments; our ability to manufacture and deliver our products on time to meet customer requirements; the timely availability of key equipment and components required in the manufacture of our products; the availability of sufficient skilled human resources and financial capital required to meet our sales, product development and production growth aspirations; our ability to meet manufacturing cost reduction targets and potential synergies and economies of scale that will drive such reductions; our ability to build a diversified customer base and progress customers through our Customer Adoption Cycle (defined below) in a timely manner; the fuel efficiency, higher durability, and increased power capabilities of our products; our expectation that eFlow™-equipped fuel cells will continue to offer performance improvements over time; the sound basis for all of our current patent applications; and the extent of the disruption to and/or adverse impact on our business, operation results and financial condition as a result of existing and unforeseen future global events, including without limitation the COVID-19 pandemic and the current war between Russia and the Ukraine.

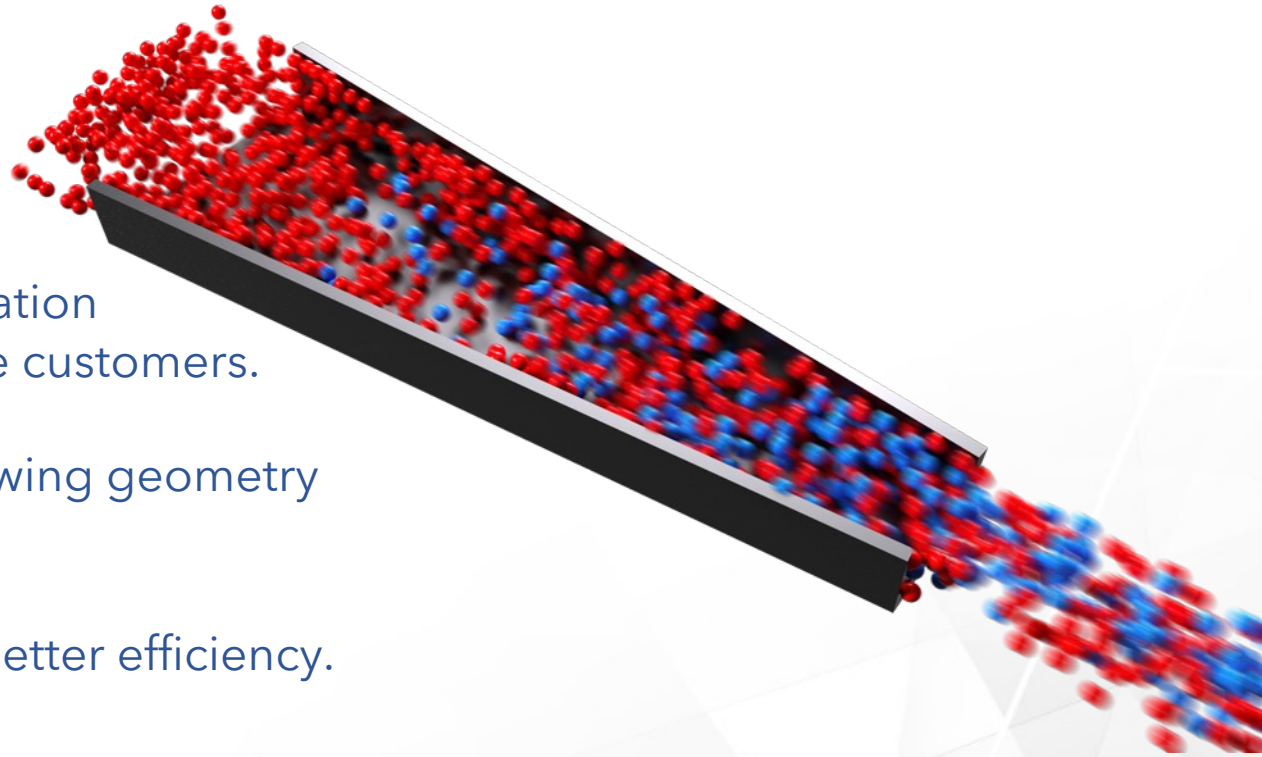
In addition, forward-looking-statements, by their nature, involve risks and uncertainties. Certain of these risks are described under the heading "Risk Factors" in our Annual Information Form dated March 28, 2023 (which can be found on SEDAR), which factors should not be considered exhaustive and should be read together with other cautionary statements in this presentation. Given these risks, uncertainties and assumptions, readers should not place undue reliance on forward-looking statements and the Company cautions readers that forward-looking statements are not guarantees of future performance and that its actual results of operations, financial condition and liquidity and the development of the industry in which it operates may differ materially from those made in or suggested by forward-looking statements contained in this presentation. In addition, even if the Company's results of operations, financial condition and liquidity and the development of the industry in which it operates are consistent with the forward-looking statements contained in this presentation, those results or developments may not be indicative of results or developments in subsequent periods. Any forward-looking statement that is made in this presentation speaks only as of the date of such statement, and the Company undertakes no obligation to update any forward-looking statements or to publicly announce the results of any revisions to any of those statements to reflect future events or developments, except as required by applicable securities laws. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data.

Our Time is Now

Hydrogen fuel cells have **come of age.**

Loop Energy™ adds **Next Generation hydrogen systems** to existing EV platforms.

Our technology **leapfrogs the competition**,
enabling **disruptors** in commercial e-mobility.



Loop delivers better performance, faster integration
and lower cost of ownership for its cutting-edge customers.

Strong portfolio of patents, including our narrowing geometry
technology.

Next Generation fuel cell disruption driven by better efficiency.

Loop Energy™ at a Glance

PEM Fuel Cell Stacks and Modules

Fuel Cell Stacks Fuel Cell Modules

Wide Range of Targeted Segments


Transit buses


LCVs


MDTs


Material handling


HDTs

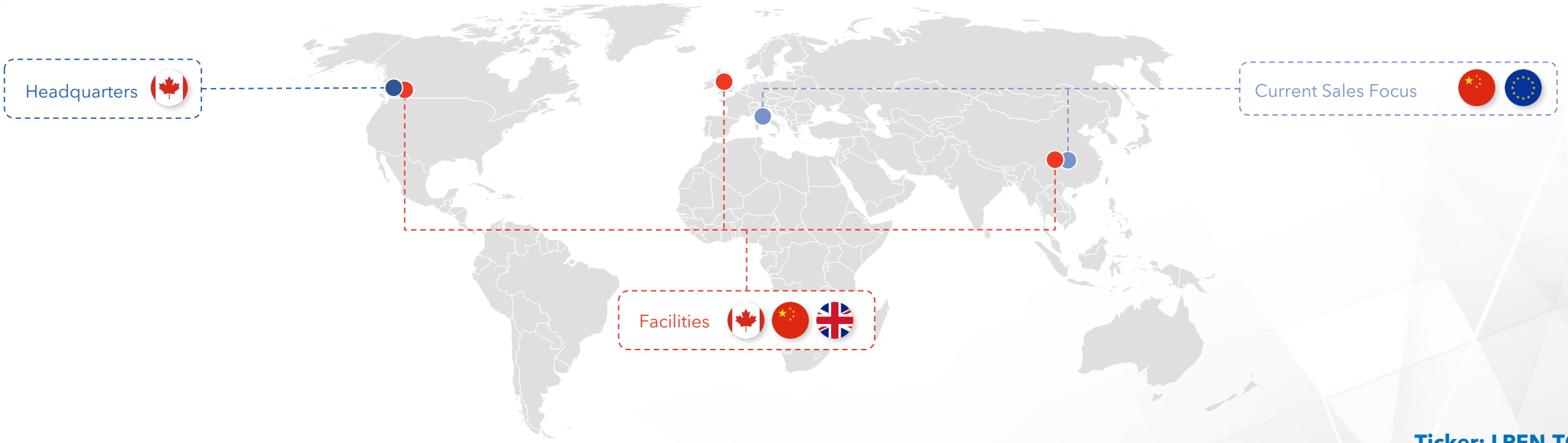

Coach buses

Typical Competition

REFIRE BALLARD®

NUVERA®

亿华通 SinoHytec SYMBIO



The Hydrogen Economy is Here

Global Agreement Around Decarbonization[1][2]

- 20% by 2025
- 55% by 2030
- Net zero by 2050

28 Major Economies with Hydrogen Strategies

Energy Security is becoming a Dominant National Interest

Canada's Hydrogen Strategy[3]

- $500 million new and $1.5 billion existing funding to the Strategic Innovation Fund to support development and application of clean technologies in Canada
- Clean Hydrogen Investment Tax Credit (15-40% of eligible project costs)
- Reduced tax rates for zero-emission technology manufacturers

RePowerEU[4]

- 4x Increase in hydrogen production (5 MT to 20 MT) with a strong push to reduce reliance on Russian gas (2/3 before FY2022 and 100% by FY2030)

China's Hydrogen Strategy[5][6]

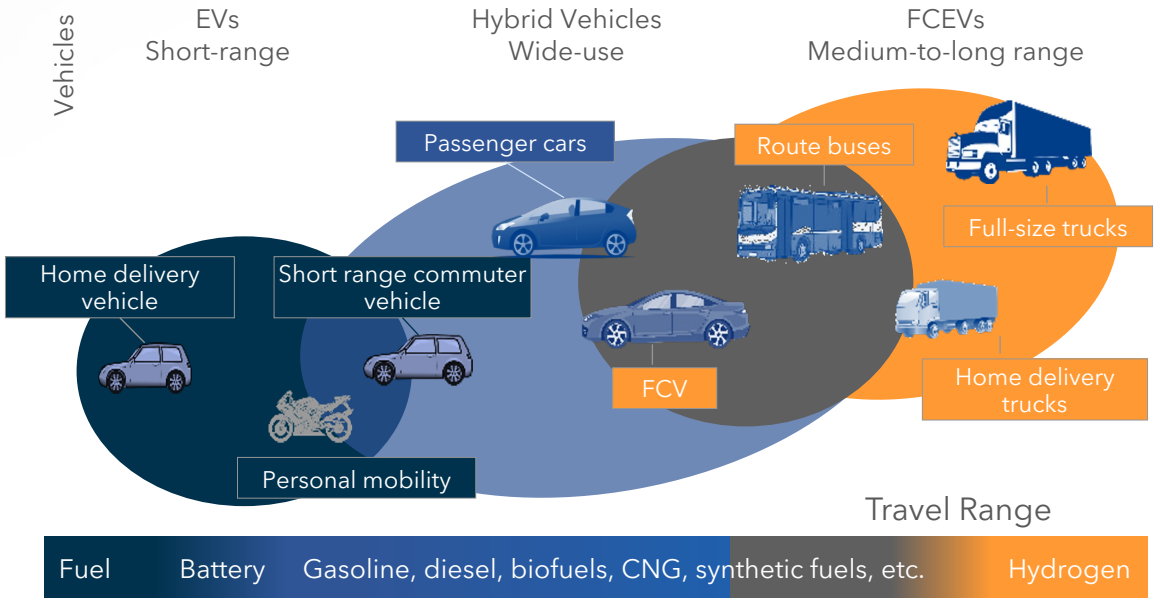
- Major hydrogen cities, have set out ambitious hydrogen plans and investments and invest billions
- China has committed to become carbon-neutral by 2060

Massive US Fed Support for Clean Hydrogen[7]

- US$1 trillion Bipartisan Infrastructure Framework, US$9.5 billion allocated to hydrogen
- $369 billion IRA 2022 invested in energy security and climate change

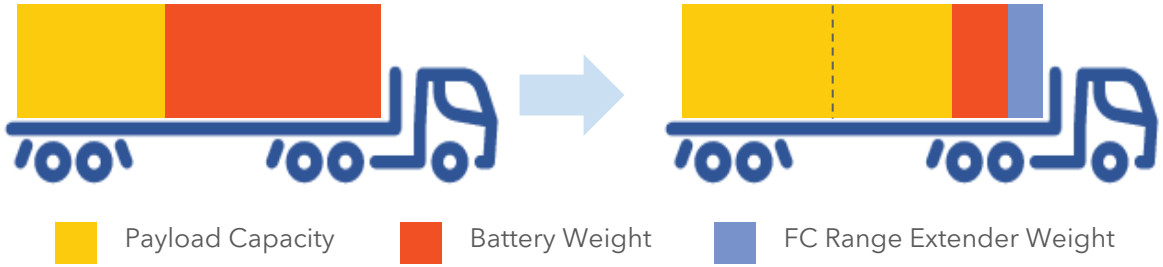
1. Source: European Union, Climate Action 100+, UNFCC - Paris Agreement Status of Ratification, and publicly available information.
2. Source: United Nations Climate Change and publicly available information.
3. Source: Canada Gov 2023 Budget
4. Source: European Commission.
5. Source: S&P Global: Sinopec aims Yuan 30 billion investment through 2025 to boost hydrogen strategy.
6. Source: China Macro Economy
7. Source: The White House.

Hydrogen: It's Time is Now



Battery Electric Vehicle

BEV with a Hydrogen Fuel Cell



Benefits of BEVs Coupled with a Fuel Cell Range Extender

- Reduced curb weight
- Higher payload capacity
- Increases range by 2.5x – 3.0x[1]
- Faster refueling time vs. batteries

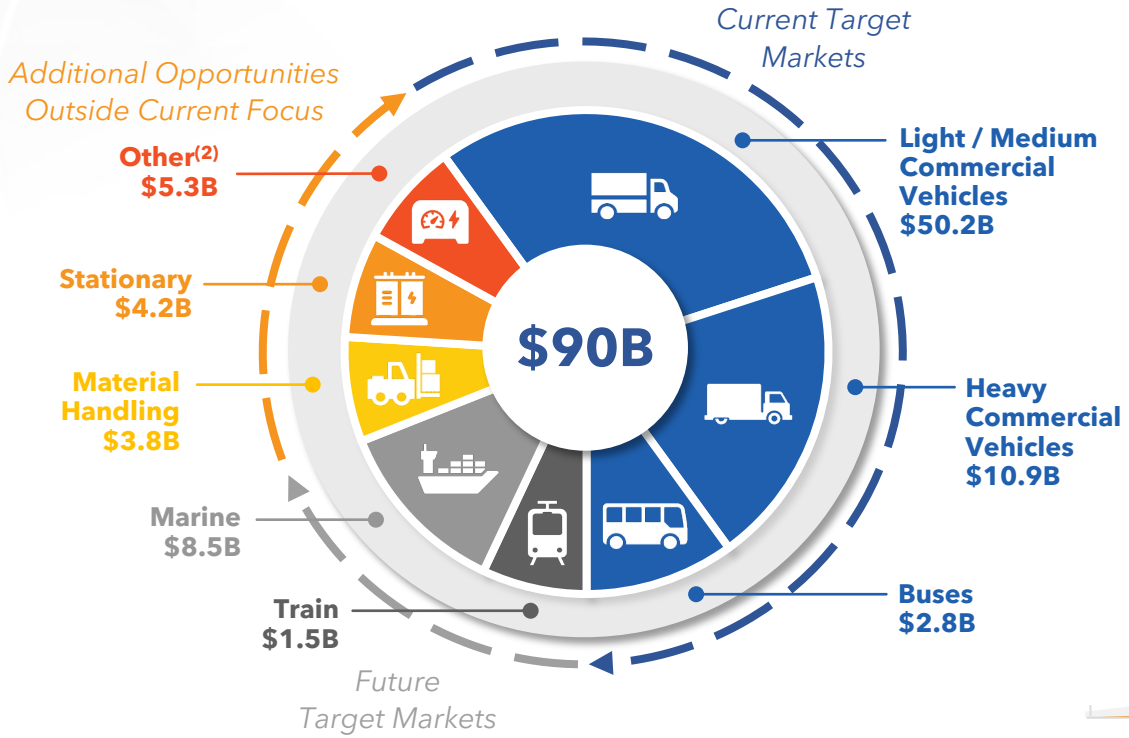
Source: Fueling the Future of Mobility, Hydrogen Council reports, Center for Transportation and Environment, and publicly available information.
Based on multiple test runs utilizing Loop's fuel cell modules as range extenders in battery electric trucks compared against fully battery electric trucks.

Gaining Access to a Large TAM

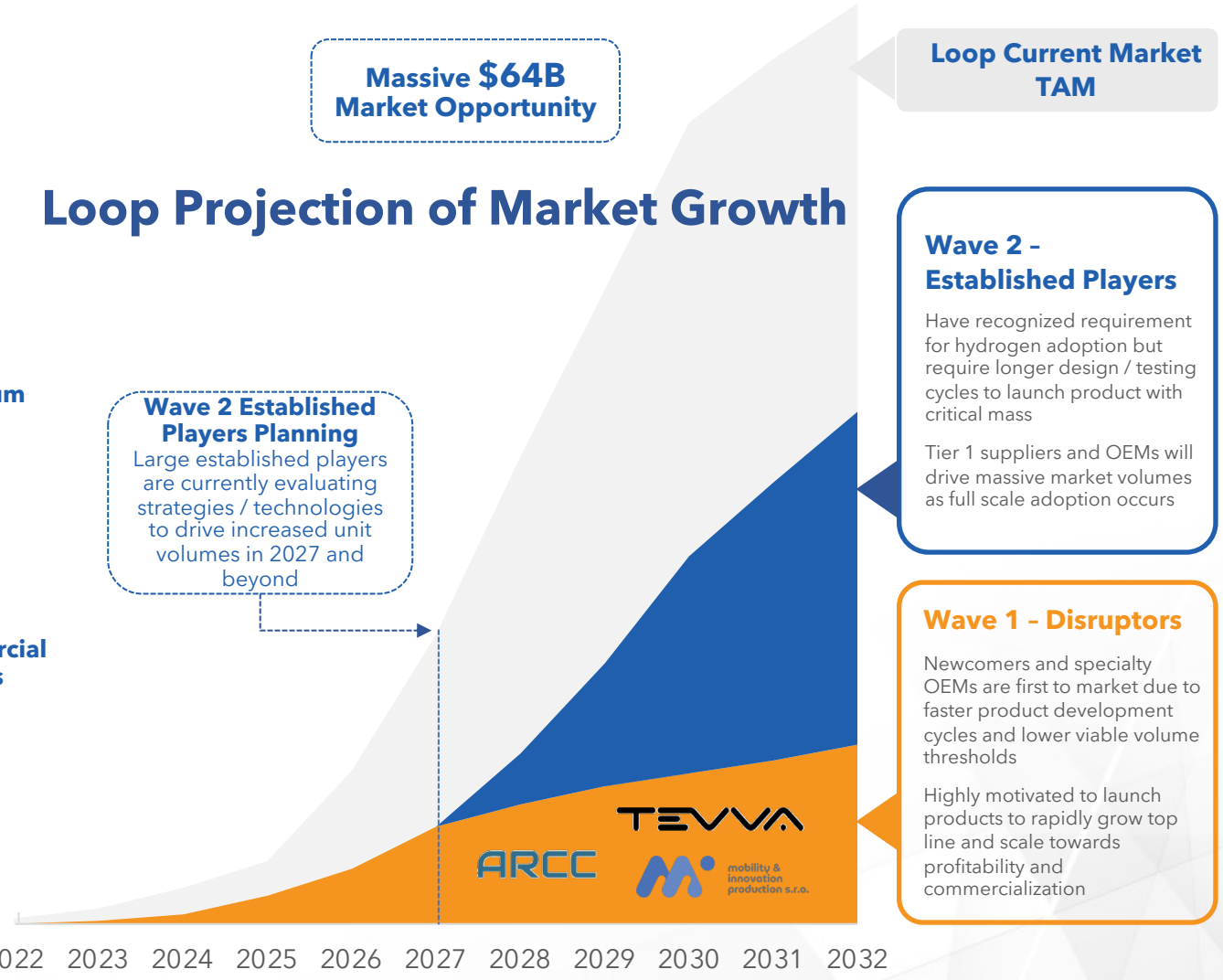
9-Year CAGR 54.8%

Current Addressable Market(1) $1.2B

2032 Total Addressable Market



Loop Projection of Market Growth



Wave 2 – Established Players

Have recognized requirement for hydrogen adoption but require longer design / testing cycles to launch product with critical mass

Tier 1 suppliers and OEMs will drive massive market volumes as full scale adoption occurs

Wave 1 – Disruptors

Newcomers and specialty OEMs are first to market due to faster product development cycles and lower viable volume thresholds

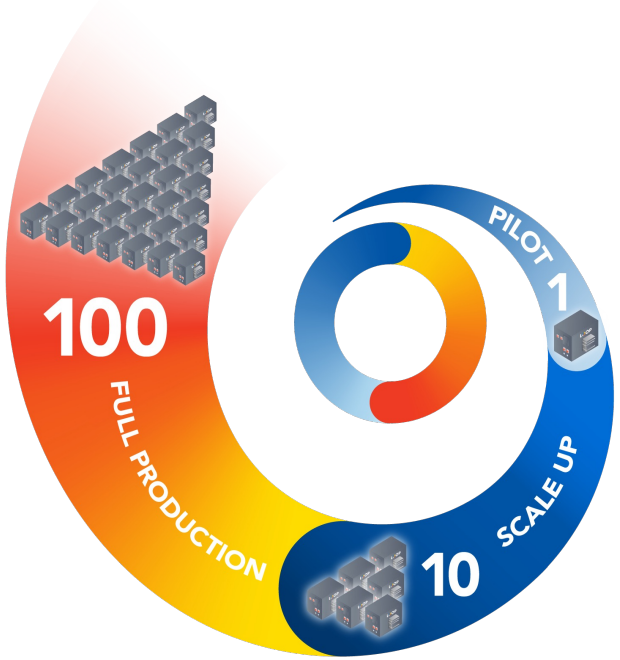
Highly motivated to launch products to rapidly grow top line and scale towards profitability and commercialization

Source: Company estimates, Bloomberg NEF, H2FC SUPERGEN, Global Market Insights, Fueling the Future of Mobility, Hydrogen Council reports, and publicly available information. Note: All figures in C$ billions, unless otherwise noted.

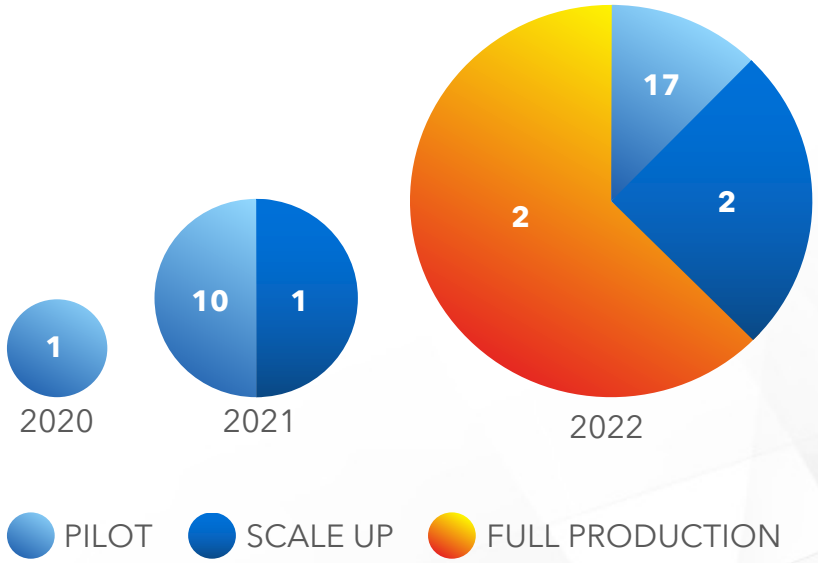
1. Represents 2023 TAM, and only includes current focus of light/medium commercial vehicles, heavy commercial vehicles, and buses.
2. Other markets include portable power and mining trucks.

Focused and Achievable Revenue Guidance

Focused and Growing Customer Adoption Cycle ("CAC") is enabling us to deliver into the growth projections

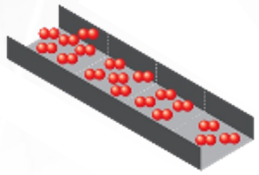


Our growing Customer Adoption Cycle now contains 21 customers

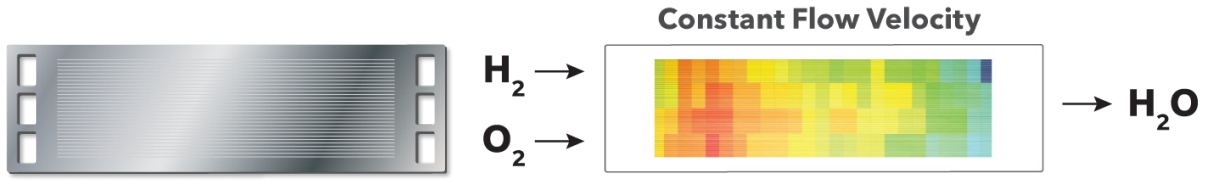


Our Technology Leapfrogs the Competition

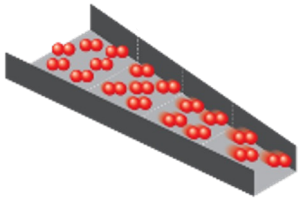
Typical Fuel Cell Channel



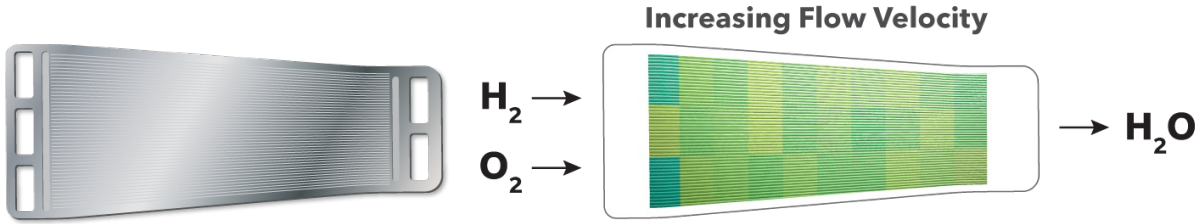
Conventional Fuel Cell Bipolar Plate



eFlow™ Cell Channel



eFlow™ Fuel Cell Bipolar Plate



16% **Up to 16% less fuel consumed versus industry equivalent**

US $300,000 in fuel savings over lifetime (1)

90% **Up to 90% higher peak power versus industry equivalent**

Higher payload capacity and range

Wider range of operating parameters

10x **Reliable & durable with up to 10x better current density uniformity**

Lower service and maintenance costs (3)

1. Estimating ~7.7kg/100km for transit bus, hydrogen cost of US$5.5 per kg, 16% fuel savings vs. baseline FCEV TCO, and a 17-year lifespan.
2. Based on Loop's internal testing and comparisons of published studies of the performance of fuel cells from other manufacturers and competitors. In order to quantify the benefit of eFlow™ technology directly, Loop purchased commercially available catalyst coated membrane materials from a top competitor, built them into Loop eFlow™ fuel cell stack, and then operated this stack at Loop's best estimate of the top competitor's operating conditions using publicly available information.
3. Based on Loop's internal testing and comparisons of published studies of the performance of fuel cells from other manufacturers and competitors. In order to quantify the benefit of eFlow™ technology directly, Loop purchased commercially available CCM materials from a top competitor, built them into Loop eFlow™ fuel cell stack, and then operated this stack at Loop's best estimate of the top competitor's operating conditions using publicly available information.

Patented Next Generation Products

PROTECTED BY PATENTS THROUGH 2041[2]

eFlow™ Fuel Cell Plate

Loop's core technology is based on its proprietary eFlow™ fuel cell design

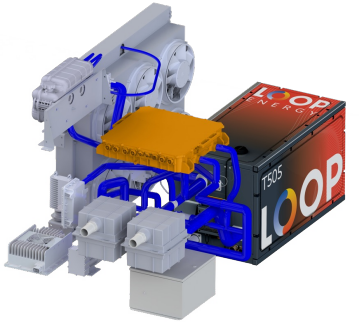
eFlow™ Fuel Cell Stack

Loop Fuel Cell Module

Includes balance of plant (BoP) components

EASING IMPLEMENTATION

Loop Fuel Cell System



eFlow™, with its patented narrowing geometry, was designed to enable commercial customers to achieve performance maximization and cost minimization

Increased Speed of Implementation

Simplifying the Adoption Process

1. Based on Loop's internal testing and comparisons of published studies of the performance of fuel cells from other manufacturers and competitors. In order to quantify the benefit of eFlow™ technology directly, Loop purchased commercially available catalyst coated membrane materials from a top competitor, built them into Loop eFlow™ fuel cell stack, and then operated this stack at Loop's best estimate of the top competitor's operating conditions using publicly available information.
2. 3 new pending patents extend runway to 2041, applications were filed in 2021

Industry Leading Products Focused on Key Markets

Product Offerings

1st Generation Products

30 kW Module

50 kW Module

60 kW Module

Target Applications

Urban Delivery

Buses

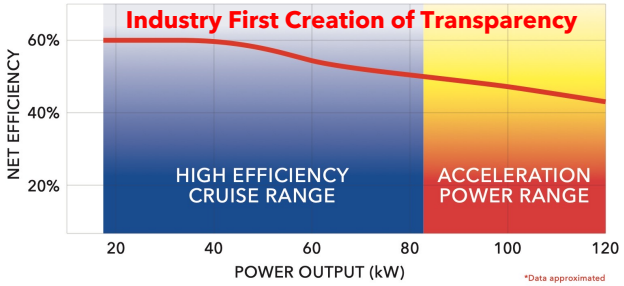
Material Handling

Stationary

Next Generation Products

Based on a new Larger Plate. Launched September 2022. Available to Customers in 2023

120 kW Module



Next generation bipolar plates significantly reduces the time frame to achieving operating cost parity with diesel engines

Target Applications

Loop is also currently researching next generation MEA and bipolar plate technologies for use in eFlow™

Manufacturing Capability

Current Capacity

Burnaby, British Columbia

- 37,000 ft^2 of manufacturing space and engineering/administrative offices
- Current production capacity of over 100 fuel cell modules per year
- Production capacity to assemble 3,000 fuel cell stacks per year[1] and 1,000 fuel cell modules per year
- Serving customers in North America and Europe

Plan to bring in-house the production of two key components for vertical integration

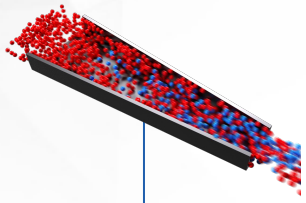
Capacity Expansion

Shanghai, China

- 35,250 ft^2 of production space[2]
- Received EPB[3] approval to manufacture both fuel cell stacks and modules
- Production capacity to assemble 3,000 fuel cell stacks per year and 1,000 fuel cell modules per year
- ISO 9001 certification
- Serving customers in China and Asia Pacific

1. Based on three shifts per business day.
2. Loop has the option to expand the lease space to a total of 8,673 m^2 ~(93,355 ft^2).
3. Environment Protection Bureau

A Brief History of Loop Energy



2000
Worked with National Research Council Canada to improve research fuel cells

Founded 2000

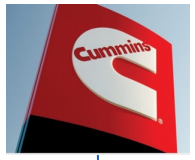
Discovery of eFlow™
Narrowing geometry of bi-polar plates brings performance improvements

2005 - 2010
Filed and Granted Patents for eFlow™

2012 - 2015
Technology Commercialization Phase

2015
SDTC provide $7.5m to fund a project with Peterbilt

Jul 2017
T500 POC deployed in truck yard in China



Sept 2019 & Mar 2020
Cummins invests $5m followed by $10m

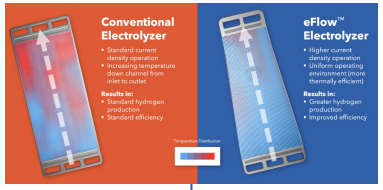
2021
Skywell entered Scale-Up Phase with 10 buses put into service with Loop Energy Fuel Cells

TSX

Feb 2021
Raised $100m on IPO

July 2022
Tevva Motors Supply Agreement signed enters Production "100" Phase

Feb 2023
Selected by Wiggins Lift to provide fuel cell system for eBull February 2023



Mar 2023
3rd party validation of eFlow technology in PEM electrolyzers

Continuing to Execute

Delivering & Executing Against Our Objectives

Capacity Expansion
Loop Energy Shanghai received Environment Protection Bureau approval to manufacture stacks and modules

January 2022

Mobility & Innovation
Launched Loop powered (S300) in Slovakia

March 2022

Tevva
Selected as fuel cell supplier for Tevva's 7.5 tonne truck platform and entered Scale-Up Phase of the CAC

April 2022

ARCC
T600 (60 kW) selected for ARCC's 12.5-metre city bus in Australia

June 2022

Tevva
Supply Agreement signed and entered Production Phase of the CAC

July 2022

Mobility & Innovation
Entered Scale-Up Phase of the CAC with 10 additional POs

July 2022

UK Facility
Increased European footprint with opening of service facility in UK

August 2022

S1200
Launched landmark S1200 fuel cell system, cutting hydrogen cost-parity with diesel by up to eight years

September 2022

Rampini
Launched hydrogen-electric bus with Loop's S300 fuel cell

October 2022

Opex / Hevolucion & Avia
Entered Pilot Phase of the CAC, expanding Loop's presence in Europe and South America

October 2022

Record Revenues
Record annual revenues & units shipped

March 2023

Shanghai Facility
~35,250 ft² facility
First article inspection complete (July 2022) and ISO 9001 certification (Jan 2023)

Ticker: LPEN.TO

Leadership

Ben Nyland
President, CEO & Director

25+ years experience in organizational leadership, delivering growth across technology and engineering companies

Paul Cataford
CFO & Director

30+ years experience in high tech companies as a business leader and finance executive, as well as extensive board leadership experience

Dr. Daryl D. Musselman
Chief Operating Officer

30+ years experience in renewable energy and automotive sectors, leading engineering, manufacturing and operations through various phases of growth

George Rubin
Chief Commercial Officer

20+ years experience as a technology industry executive with a proven record in building sales, product management, marketing, and global market entry

Loop has the Fast Second Advantage

Hydrogen Has Come of Age

Our TAM is expected to reach $64B by 2030.

Proven Execution

We are delivering the numbers.
We are delivering the products.

Our Tech is Next Gen

Loop's product superiority, faster integration and lower cost of ownership is what disruptive mobility players need.

Value

Recent market conditions coupled with us exceeding expectations have created an opportunity for investors.

Thank You

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