

LNK ENERGIES

Decarbonizing transportation at diesel prices today

WHAT IS THE FUTURE OF THE ENERGY LANDSCAPE?

THE HYDROGEN SUPPLY CHAIN



Gaseous H₂ production
(Green / Blue / Gray)



80%
of the cost of hydrogen
is just delivery



End-Use



WHAT IF IT LOOKED LIKE THIS?



Gaseous H₂ production
(Green / Blue / Gray)

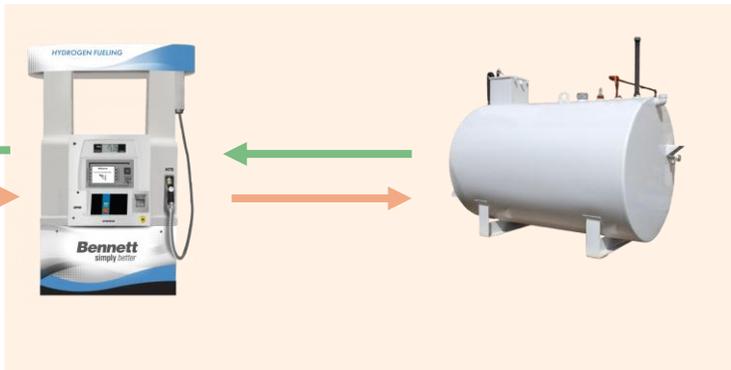


6%

of the final cost is for delivery



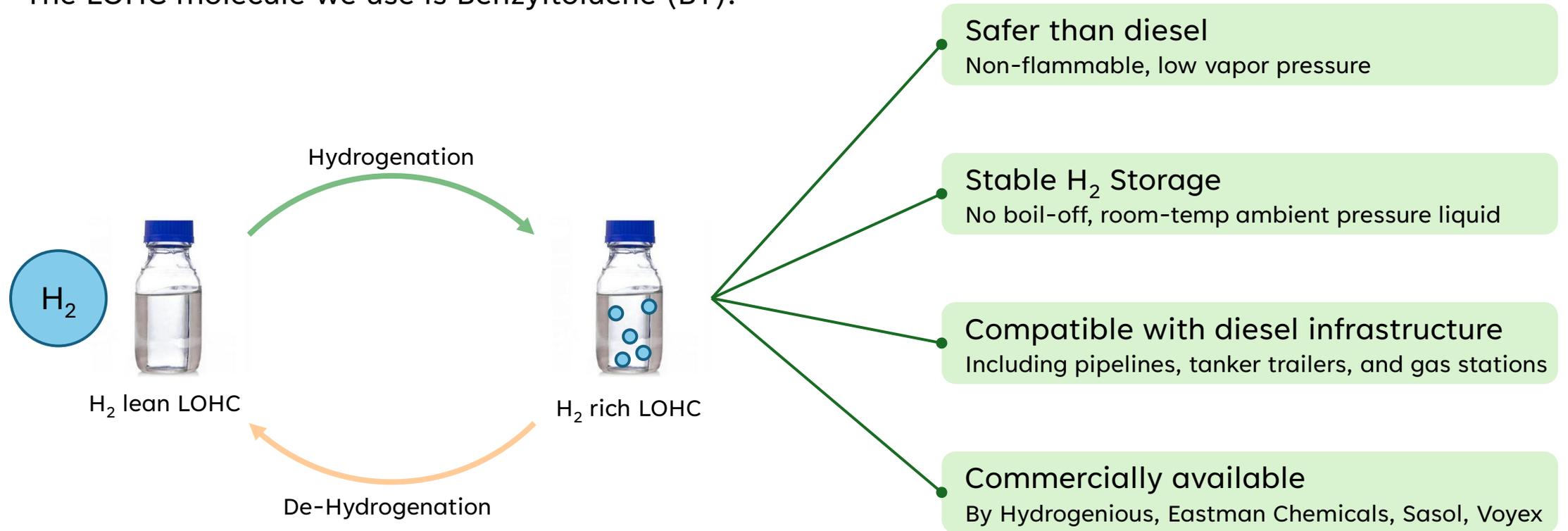
End-Use



LOHC IS THE FUTURE OF HYDROGEN

Liquid Organic Hydrogen Carriers– liquids that can store and release hydrogen in their chemical bonds

The LOHC molecule we use is Benzyltoluene (BT):



THE LOHC SUPPLY CHAIN IS GROWING, BUT...

US & Canada



Europe



Asia

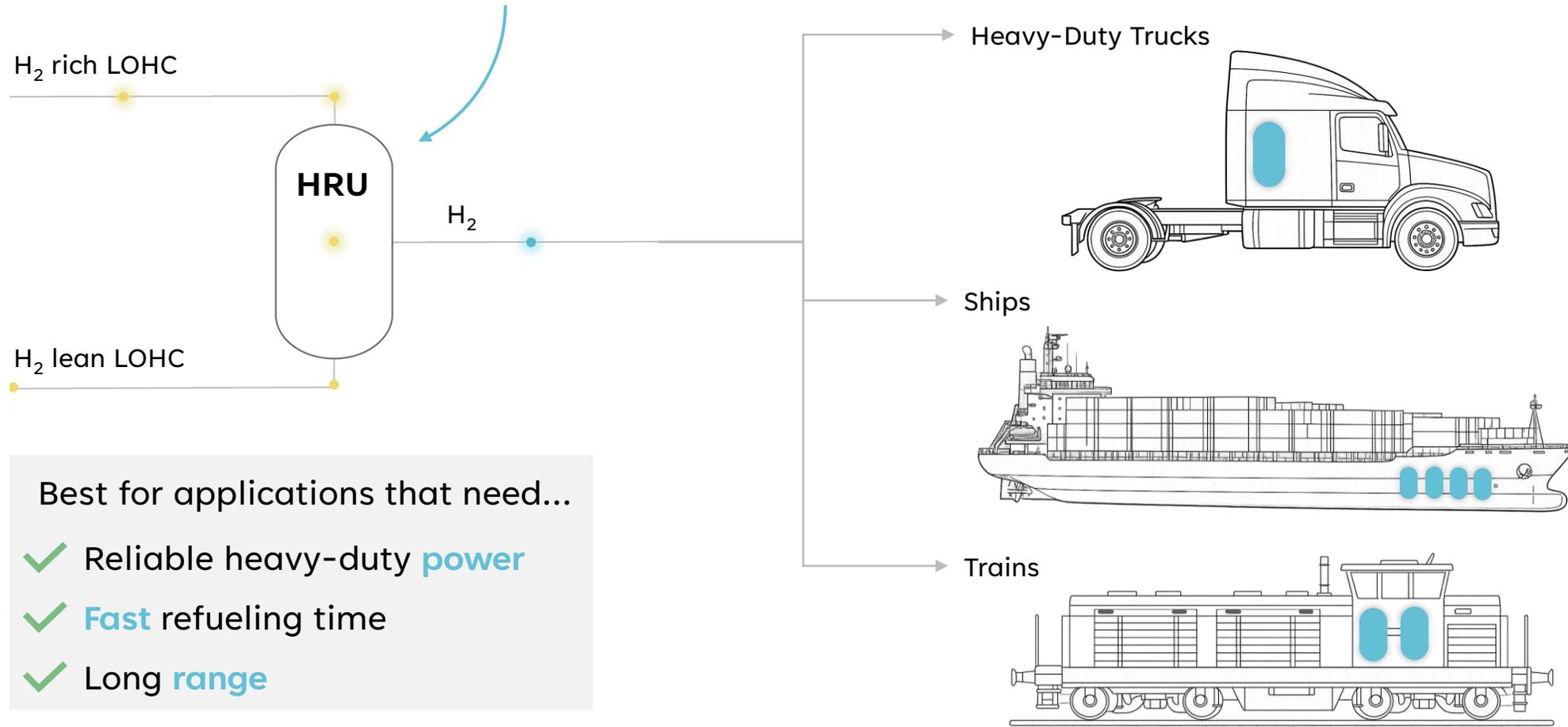


-  Active LOHC Plant or Power Generation Site
-  In Progress

it is limited to **markets that don't fully utilize the benefits** of an LOHC supply chain

OUR TECHNOLOGY UNLOCKS MOBILITY FOR LOHC

Our MIT patented **Hydrogen Release Unit** (HRU) efficiently extracts H₂ from LOHC to get power



Best for applications that need...

- ✓ Reliable heavy-duty **power**
- ✓ **Fast** refueling time
- ✓ Long **range**

WHO HAS THE MOST URGENT PAIN POINT?



Heavy-Duty Trucks



More emissions than ships, trains, and airplanes combined, yet...

No solution exists today



PAIN POINTS IN THE TRUCKING SPACE

“there’s a great deal of customers... that are **looking for sustainable solutions** with transportation”

Payload

“Battery-electric [trucks] have energy density and **restricted payload concerns**...[we] just haven’t been able to make it work”

“EVs take a lot of energy from the grid... you can’t bring it to places where electricity is **not available**”

Cost

“**fuel cost** is the big drawback for hydrogen”

TCO

Scalability

Range

“[We] want the **TCO** to be comparable to diesel”

“In electric trials, truckers love driving the truck, but they can’t do a full day of driving—that **operational hiccup is not acceptable**”

OUR TRUCKS ARE COMPETITIVE WITH DIESEL TODAY

Diesel TCO:
\$1.3/mi

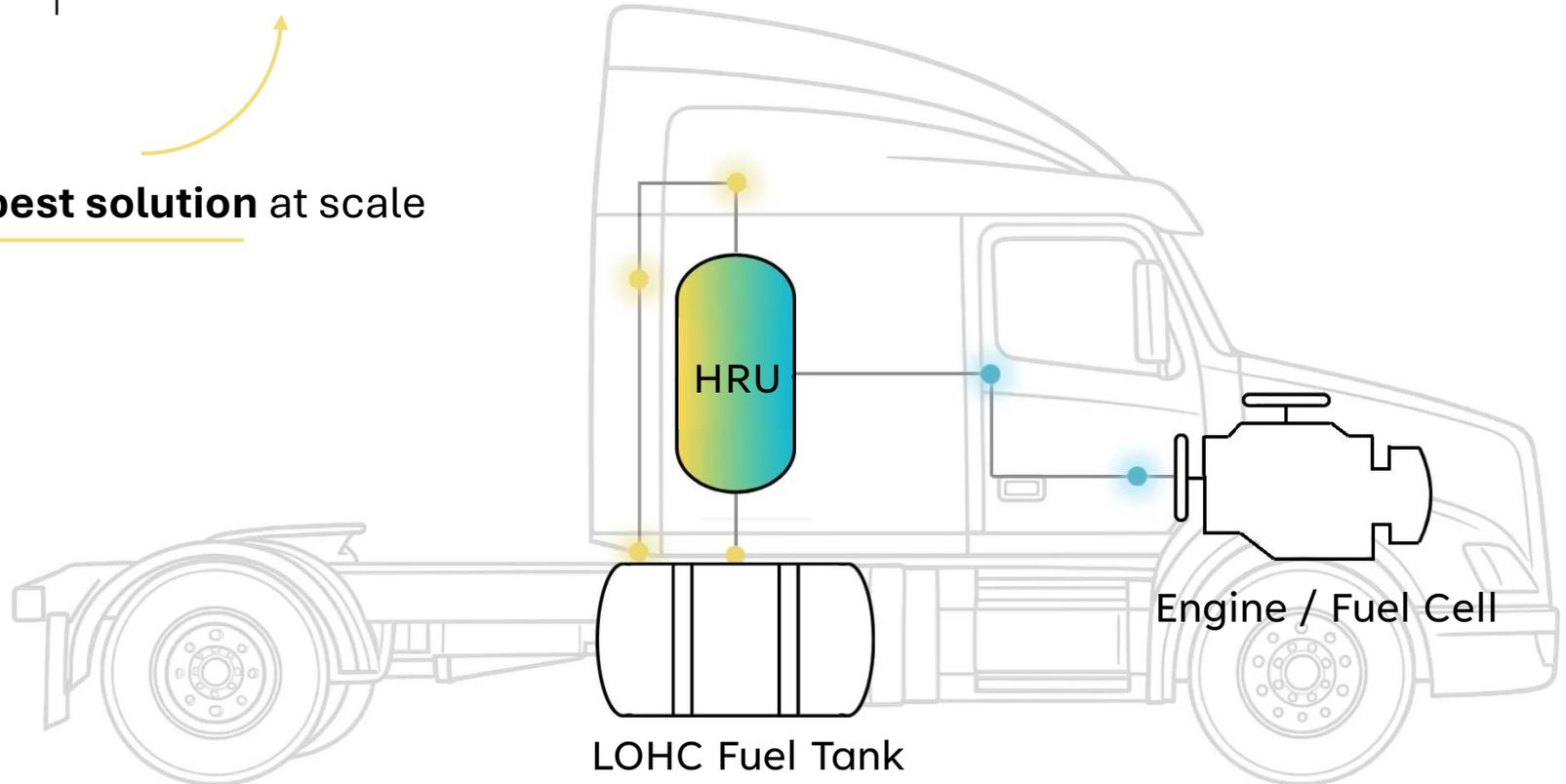
LOHC Today:
\$1.3/mi

LOHC At Scale:
\$1.1/mi

on par with diesel today

we become the cheapest solution at scale

- ✓ 600 mi/day range
- ✓ No payload penalty
- ✓ Infrastructure already exists
- ✓ Reduce GHG emissions by 71%



WE PROVIDE AN END-TO-END SOLUTION



H₂ Production

For our 1st pilot, we will be making 25 tonnes LOHC/day



Hydrogenation



Delivery

Deliver LOHC via tanker trailers for pilot



Fueling

Pilot with fleets with localized depots



Truck

We build the truck

LOHC INFRASTRUCTURE IN THE U.S. JUST NEEDS EXECUTION

We can deploy hydrogenation units **faster** and **cheaper** in the U.S. than incumbents

hydrogenious
LOHC TECHNOLOGIES

Scale: 25 tonnes
LOHC/day

Deployment: 3 years

Cost: ~\$10 M



- ✗ Long lead times
- ✗ Imported through customs
- ✗ No customization
- ✗ No U.S. employees

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Scale: 25 tonnes
LOHC/day

Deployment: 1.6 years

Cost: \$6 M



- ✓ U.S. Made
- ✓ Heat integration with H₂ production site
- ✓ Fully customizable
- ✓ Deployable today

WE HAVE TRACTION TO GET STARTED



Partnership

Business Milestone

Give us a H₂ truck to retrofit



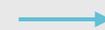
Demonstrate economics in a real pilot

Buy LOHC plant



First **revenue** & produce LOHC for fueling stations along a major freight corridor

Purchase 10 more retrofitted trucks



First profit & establish market traction

These business milestones will enable us to begin pilots with municipalities and private fleets

The logo for Elemental Trucks consists of a blue circular icon with a white dot in the center, followed by the text 'Elemental Trucks' in a bold, blue, sans-serif font.

Elemental Trucks

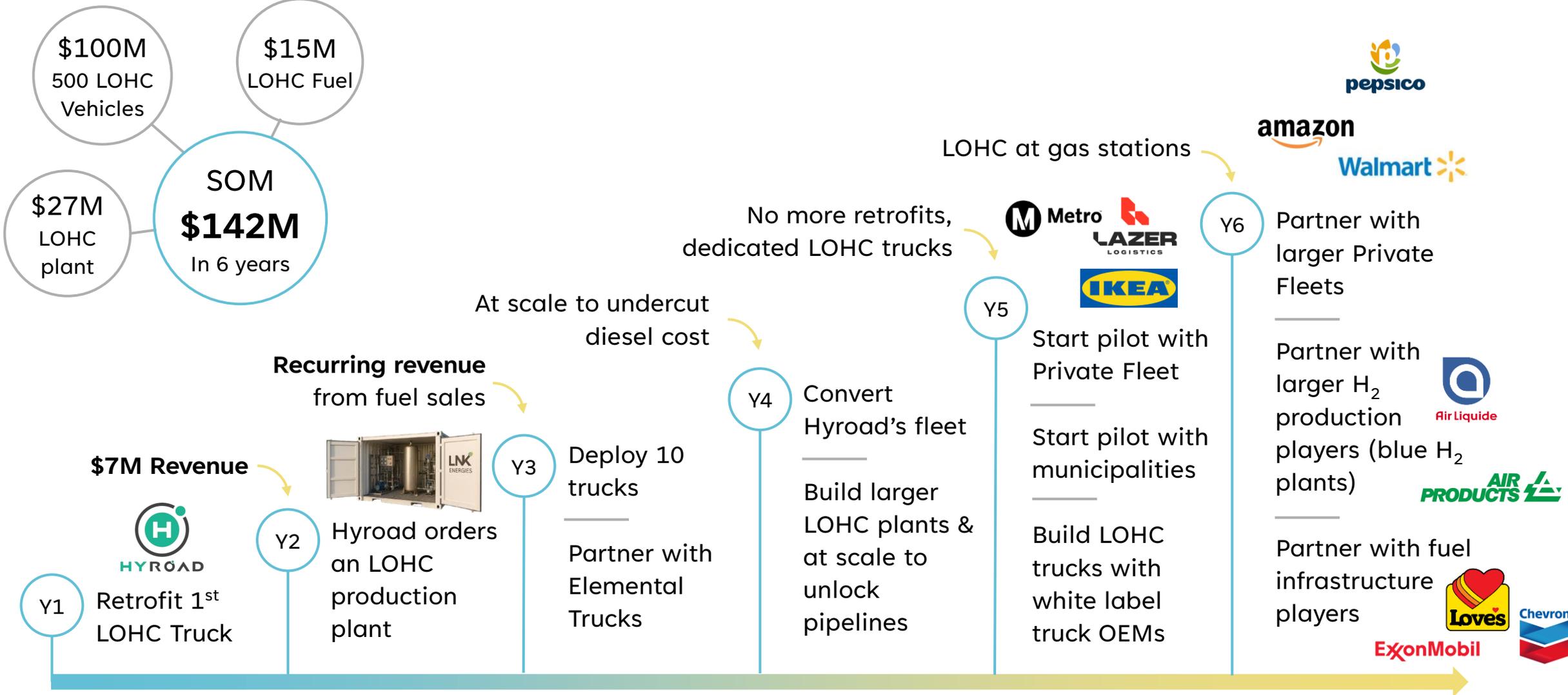
H₂ Truck Manufacturers

LOI to make LOHC trucks once pilot is finished

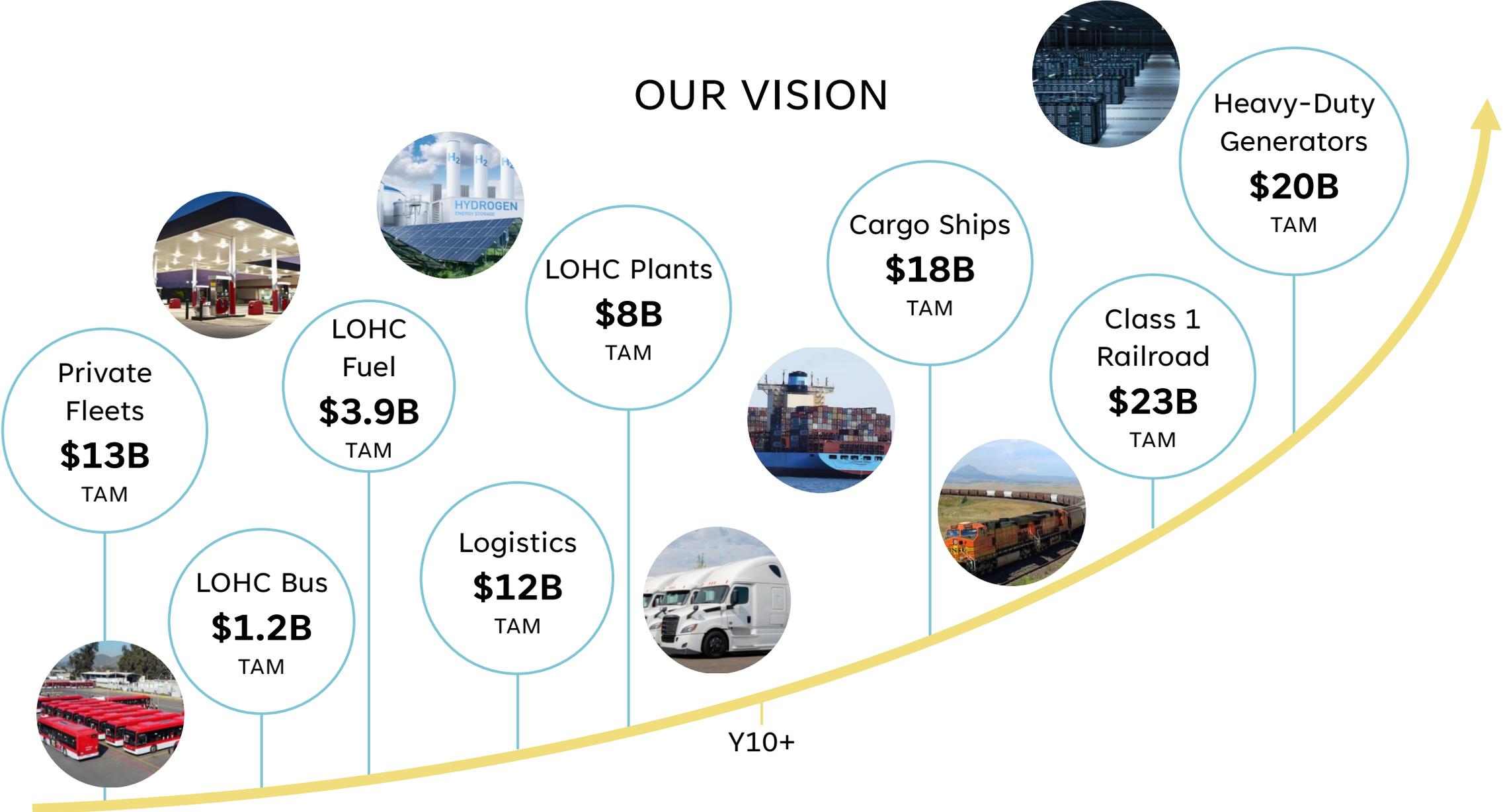


Interested in a pilot once we retrofit Hyroad's truck

GO TO MARKET STRATEGY



OUR VISION



Y6

Y10+

MEET THE TEAM



CEO - SAYANDEEP BISWAS | *MIT PhD ChemE*

- Co-inventor of the core technology (HRU system)
- Raised ~\$500K of grants to develop the lab prototype
- Led the research team to develop the lab prototype
- Developed business model



CTO – ALEXIS HUYNH | *MIT B.S. MechE*

- Engineered the integrated HRU powertrain system
 - Converted a gasoline engine to run on hydrogen
 - Integrated HRU with H₂ engine
- Has experience developing electrical powertrain systems in MIT Motorsports



Advisor – PROF. WILLIAM GREEN

- Hoyt Hottel Professor of Chemical Engineering at MIT
- Director of MIT's Energy Initiative (MITEI) program
- Co-founder of Thiozen, a startup spun-out of research at MIT
- Co-inventor of the core technology (HRU system)



FUNDING TO CATALYZE OUR GROWTH

Seed Round

\$3.5 M

Commercial truck to demonstrate economics IRL
&
\$7M Revenue
for building an LOHC production plant



Unlocked milestones

Make **\$1.8 M** in revenue & **\$800 K** in profit from retrofitting more Hyroad trucks

Establish 1st LOHC fuel stations along a major freight corridor

Start pilots with private fleets and municipalities

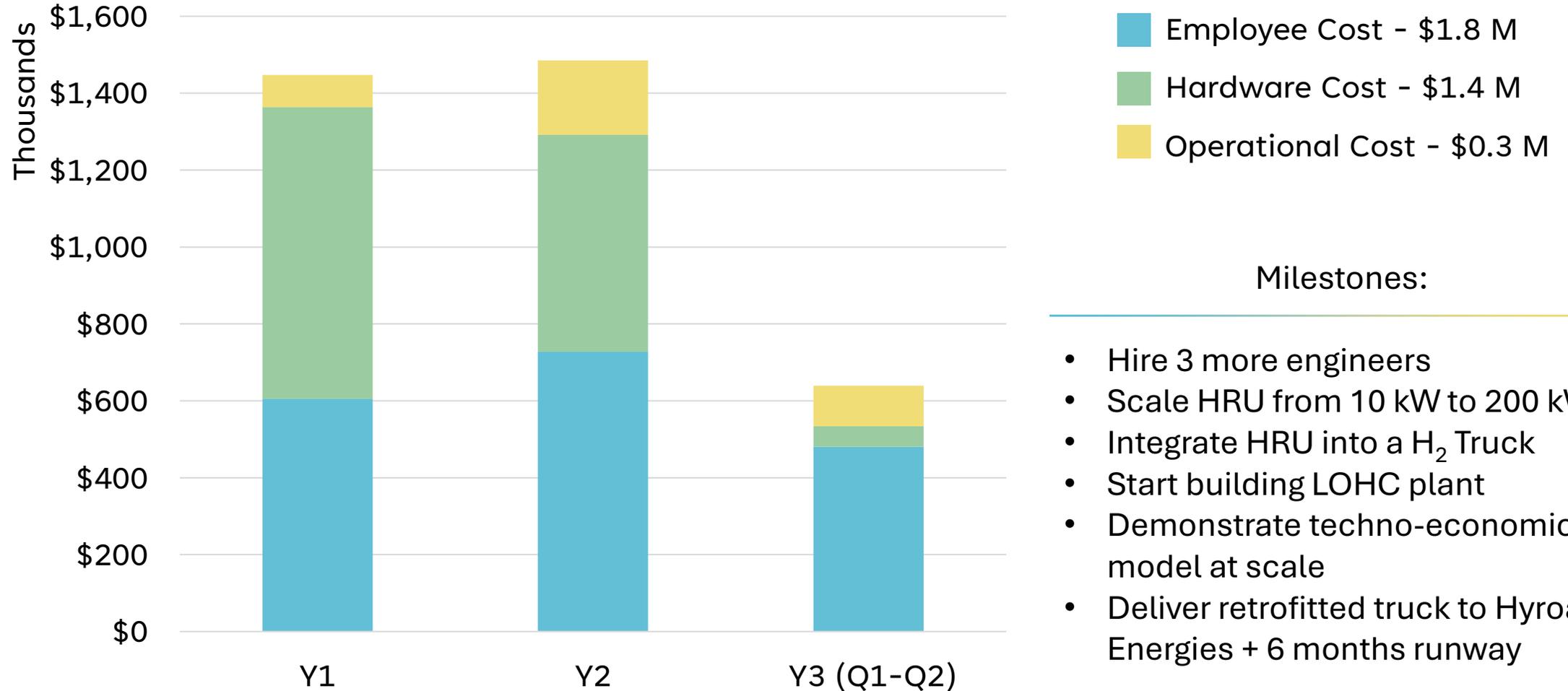




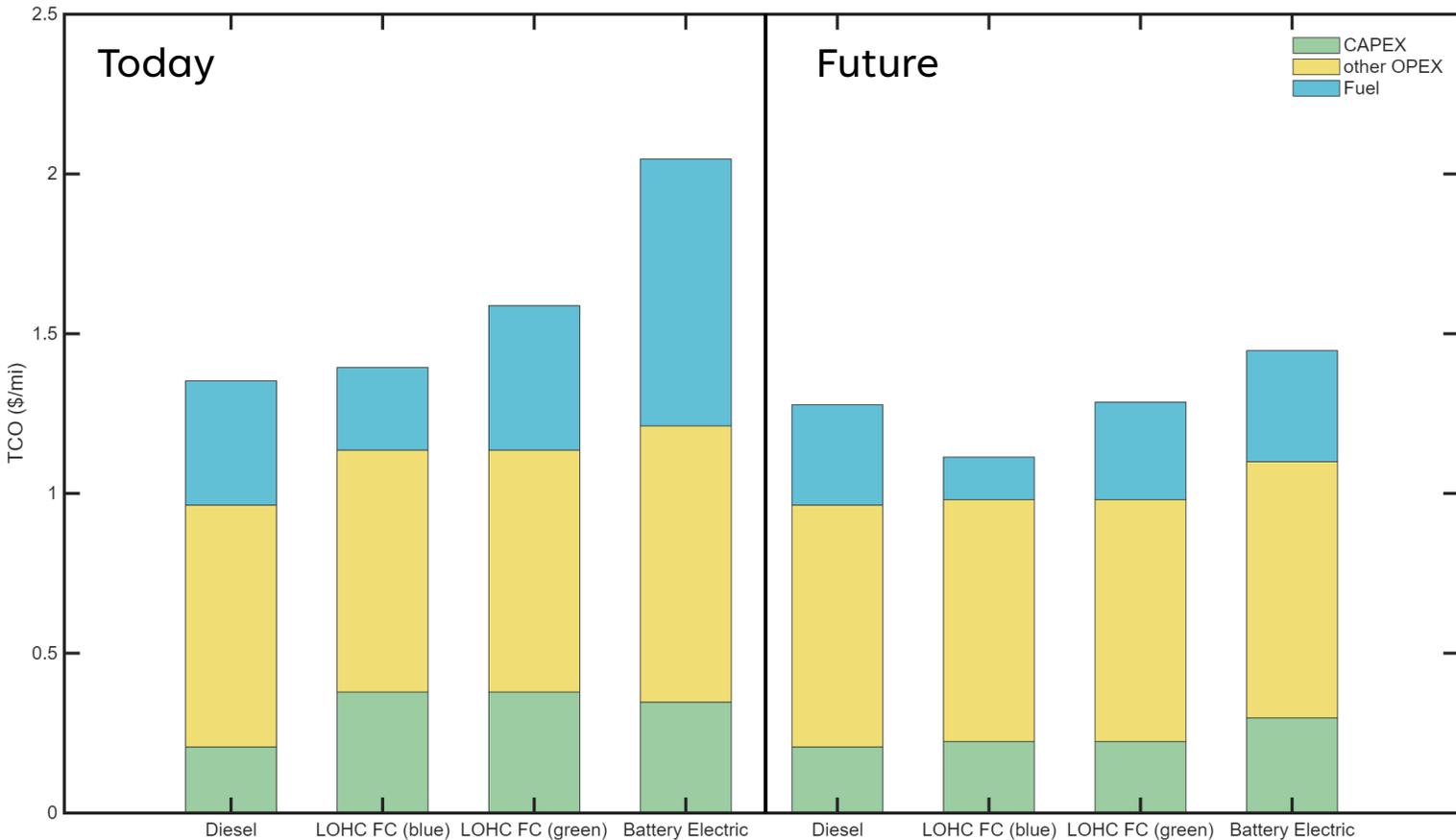
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Decarbonizing heavy-duty trucks,
at diesel prices today

APPENDIX: \$3.5 M SEED ROUND USE OF FUNDS



APPENDIX: TCO TODAY AND IN THE FUTURE



Assumptions:

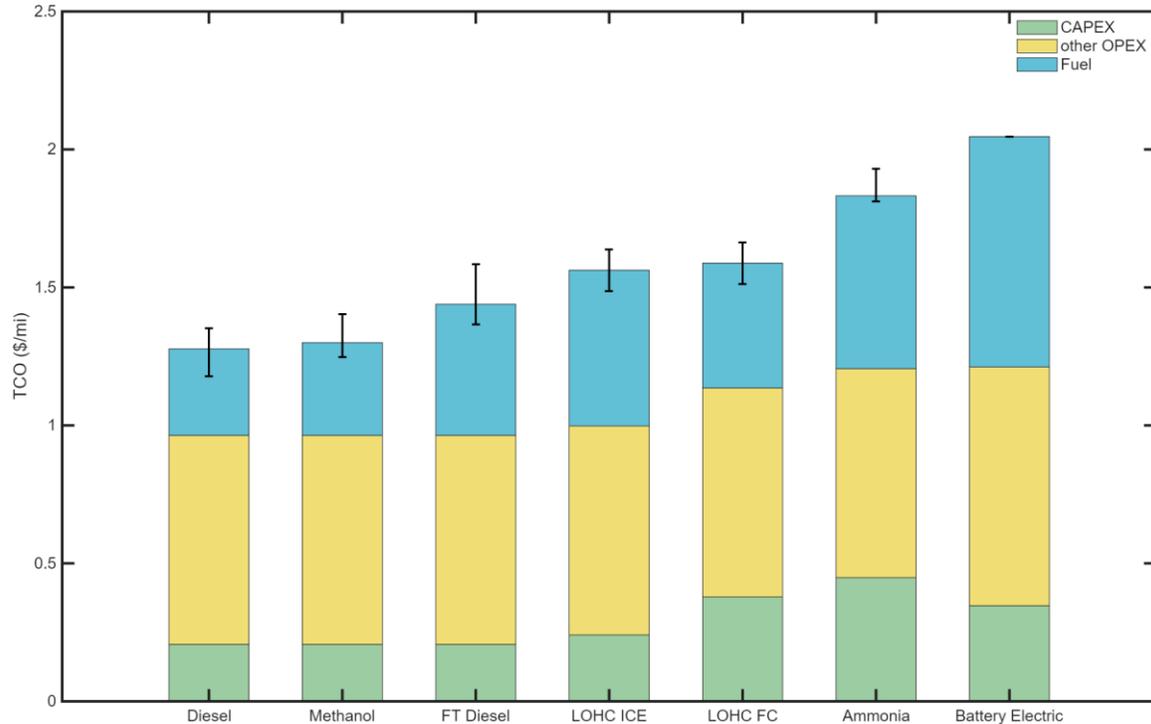
- Fuel Cost:
 - Diesel: \$4.60/gal today, \$3.77/gal future
 - Green H₂ production: \$5.34/kg today, \$3/kg future
 - Blue H₂ production: \$2/kg today, \$1/kg future
 - Electricity: \$0.32/kWh today, \$0.15/kWh future

LOHC FC with **blue** H₂ TCO is **13% less** than diesel in the future

LOHC FC with **green** H₂ TCO is **on par** with diesel in the future

LOHC FC with blue H₂ is on par with diesel today

APPENDIX: TCO TODAY WITH GREEN H₂



Assumptions:

- Range: 600 mi/day
- Fuel Cost:
 - Diesel: \$2.50/gal - \$4.6/gal
 - Green H₂ production: \$3.72/kg – 5.05/kg
 - Based on grid prices of \$41.45/MWh - \$65.06/MWh
 - Delivered Electricity at charger: \$0.32/kWh
 - Costs include production, distribution, and storage
- CAPEX is the price of a class 8 truck with the necessary powertrain to utilize the fuel
- Doesn't include any gov't subsidies or taxes
- LOHC is based off our pilot scale today (10 trucks)
- OPEX is the same

With **green** H₂:

LOHC Engine (ICE)
22% more than diesel

LOHC Fuel Cell (FC)
24% more than diesel

APPENDIX: LOHC SUPPLY CHAIN WITH LNK

