# Welcome!



**Elizabeth Munger, Director Lone Star Clean Fuels Alliance** 



Dave Miller,
National Accounts Manager
ONE Gas



Josh Linton,
Strategic Planning Analyst
ONE Gas



Matt Gold, Director of Sales Hyliion



Colin Messer, Director
Land of Enchantment Clean Cities

## Sponsored by:



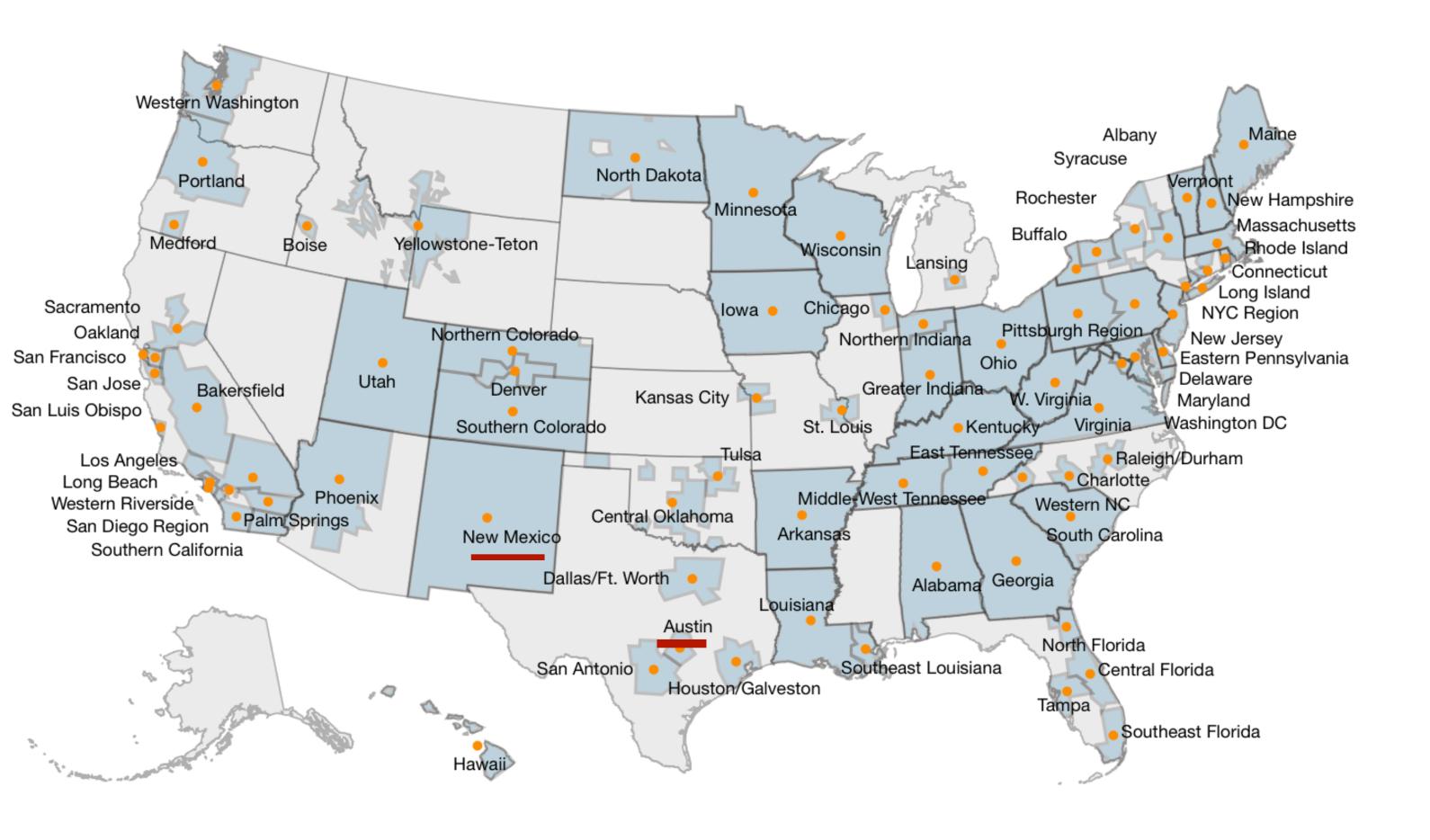








## Clean Cities Nationwide Network



- The national network of ~ 100
   Clean Cities coalitions brings
   together stakeholders to
   support:
- Alternative and renewable fuels: biodiesel, ethanol, electricity, hydrogen, natural gas, propane
- Idle-reduction measures
- Fuel economy improvements
- Energy Efficient Mobility Systems:
  - Connected vehicles
  - Ride-hailing & ride share services

#### **ONE** Gas Today

#### Overview

ONE Gas, Inc. is a natural gas distribution company and the successor to the company founded in 1906 as Oklahoma Natural Gas Company, which became ONEOK, Inc. in 1980.

On January 31, 2014, ONE Gas officially separated from ONEOK into a stand-alone, 100-percent regulated, publicly traded natural gas utility.

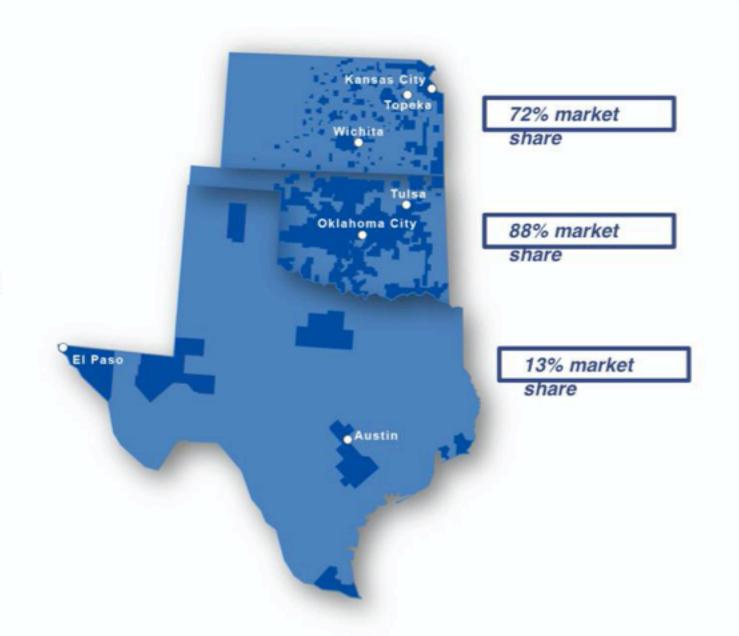
ONE Gas provides natural gas distribution services to more than 2 million customers in Oklahoma, Kansas and Texas. ONE Gas is headquartered in Tulsa, Okla., and its divisions include Oklahoma Natural Gas, the largest natural gas distributor in Oklahoma; Kansas Gas Service, the largest in Kansas, and Texas Gas Service, the third largest in Texas, in terms of customers.

Its largest natural gas distribution markets by customer count are Oklahoma City and Tulsa, Okla.; Kansas City, Wichita and Topeka, Kan.; and Austin and El Paso, Texas. TGS, also serves the RGV, Galveston, Port Arthur, Weatherford, and Borger areas. ONE Gas serves residential, commercial, industrial, transportation and wholesale customers in all three states.

#### Company Overview

#### **Key Statistics**

- One of the largest publicly traded natural gas distribution companies
  - 2.2 million customers
  - ~3,500 employees
  - ~61,400 miles of distribution mains, services and transmission pipelines
- Texas Gas Service is the third largest natural gas distribution company in Texas, providing clean, reliable natural gas to more than 663,000 customers in 100 communities. Our business is supplying energy that improves the quality of life for our customers and helps communities thrive and grow.



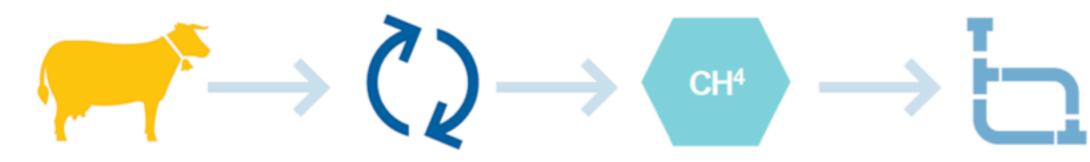


Renewable Natural Gas



#### What is RNG?

## The basics of Renewable Natural Gas



Capture biowaste from dairies, farms, landfills and waste water treatment plants Convert into biogas (anaerobic digestion, etc.)

Process the biogas to make it pipelineready (biomethane) Inject the biomethane into the pipeline for future use



#### **Definitions to Know**

# Key terms defined

## Renewable Natural Gas

methane produced from renewable sources like digested organic waste and gasified biomass

#### Renewable Gas

can be renewable natural gas or hydrogen gas produced from Powerto-Gas.

#### Biogas

a biofuel that is naturally produced from the decomposition of organic waste.

#### **Biomethane**

biogas that has been cleaned to pipeline standards and converted to biomethane, which is renewable gas.



## **American Gas Foundation: 2019 RNG Study**

The American Gas Foundation sponsored a study in 2019 assessing feedstock availability, production potential, and emission reduction impact of processing and deploying renewable natural gas.

- More than enough renewable resources to produce RNG in years to come: The study's high resource potential scenario estimates that 4,450 trillion BTU of RNG will be available by 2040. (based on three RNG production technologies: anaerobic digestion, thermal gasification, and power-to-gas).
- RNG deployment could achieve 110 to 260 MMT of CO2e emission reductions by 2040; under the high resource scenario this equates to 95% reduction of emissions associated with natural gas consumption in the residential energy sector.
- Cheaper decarbonization option: study estimates that the cost of emission reductions referenced would be between \$65/ton to \$200/ton of carbon for a majority of the RNG deployed.



#### RNG and CNG

#### Put into Perspective, RNG as a Transportation Fuel is ...



Lowering greenhouse gas emissions equivalent to removing

1,539,565 gasoline passenger cars from our roads for one year



Reducing CO<sub>2</sub> emissions equivalent to

815,950,377 gallons of gasoline or

712,313,458 gallons of diesel consumed.



That's equal to the total energy used by

> 868,321 U.S. homes for one year



Avoiding greenhouse gas emissions equivalent to running

1,537 wind turbines for one year



or replacing

275,434,003 traditional lightbulbs with LEDs



Sequestering carbon equal to growing

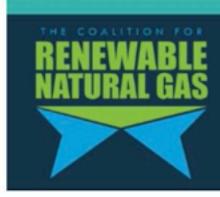
119,902,624 tree seedlings for ten years



or 34

8,534,274 acres of U.S. forests for one year

Note: Assumes 7,251,351 metric tons of CO2e reduced over last five years through increased RNG usage calculated using CARB's LCFS carbon intensity numbers. GHG equivalency results calculated using the U.S. EPA's calculator.



This 2018 on-road RNG use report was issued by NGVAmerica and the Coalition for Renewable Natural Gas, April 2019. Find out more at RNGCoalition.com or NGVAmerica.org.



Natural Gas Vehicles for America



### **RNG Challenges**

# If RNG is so great what is standing in our way?



## Underestimating supply.

AGA study indicates the potential to replace over 80% of all residential natural gas consumption with RNG by 2040



## Gas quality assumptions.

Technology is available to clean up RNG and make it interchangeable with the geologic natural gas in our pipelines



## Infrastructure challenges.

Allowing utility investment is needed to take advantage of RNG benefits for OK customers and communities



## Few legislative incentives.

Legislation is needed to help drive RNG market and highlight it as a viable option for GHG emission reduction goals



## Questions?











### MISSION

Be the leading powertrain provider of electrified solutions for the commercial vehicle industry





NET-NEGATIVE EMISSIONS



EXISTING INFRASTRUCTURE



SUPERIOR VEHICLE PERFORMANCE



FASTEST PATH TO MARKET

#### HYLIION INTRODUCTION

#### **HYLIION OVERVIEW**





- Electric powertrain, battery systems, and software solution provider focusing on Class 8 market
- Founded 2015
- Over 2,000,000 miles proven over the road with the hybrid solution

#### HYLIION RECENT FINANCING

- Hyliion will merge with Tortoise Acquisition Corp. in Q3-2020 (NYSE: SHLL → HYLN)
- Capital available to Hyliion through merger: \$560M
- Post-funding expected Enterprise Value: ~\$1.1B
- Hyliion retains majority ownership





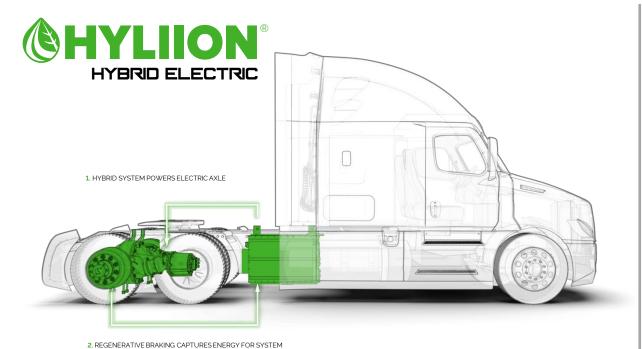
#### **AGILITY PARTNERSHIP**

- Agility will act as Hyliion's Hypertruck ERX launch partner based on their 1,000-unit pre-order
- Agility is global leader in logistics solutions





#### HYLIION'S LEADING TECHNOLOGY PLATFORMS



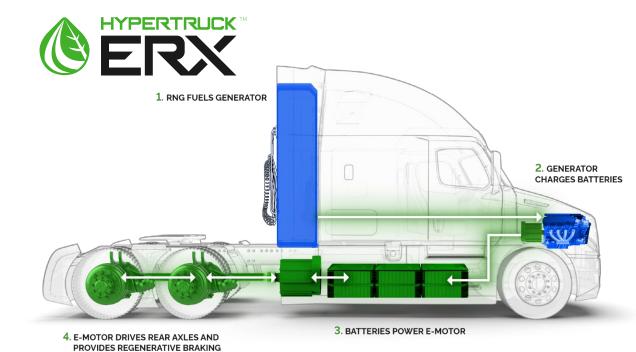
#### **HYBRID POWERTRAIN OVERVIEW**

- 5-10% fuel savings in hilly terrain
- 12+ hours in-cab climate control
- 120HP and 1,500 ft-lb of torque from e-axle

Hybrid MRSP: \$29,000

New Truck:: +\$14,000

(over base spec)



#### **ERX POWERTRAIN OVERVIEW**

- 35% reduction in lifetime TCO
- Net-negative GHG emissions
- Over 1,000-mile range
- Up to 25 miles of EV range or 34+ hr. APU time

Powertrain MRSP: TBD

New Truck: ~\$220,000











**OEM COMPATIBLE** 





#### HYBRID ELECTRIC THE TECH SOLUTION OF TODAY































**FUEL SAVINGS** 

**APU - NO IDLING** 

**POWER ASSIST** 

**ADVANCED ALGORITHMS** 

DATA ANALYTICS





HYBRID DIESEL

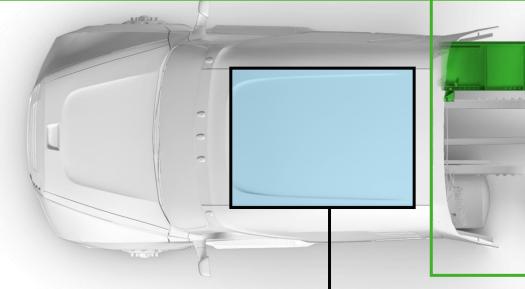
#### REDUCES DIESEL FUEL USE

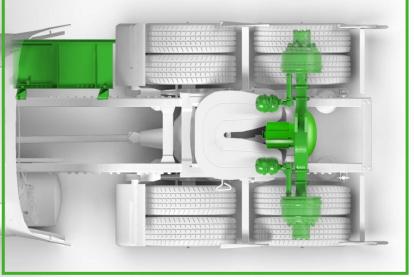
- 5-10% fuel savings based on terrain conditions
- 120HP and up to 1,500 foot-lbs of torque
- Provides torque to reduce diesel fuel usage



#### POWER ASSIST FOR HILLS

- Adds 120HP to 400HP 12L Cummins
- Faster climbs, diesel-like performance
- Safer and improved driving experience





#### AUXILIARY POWER UNIT

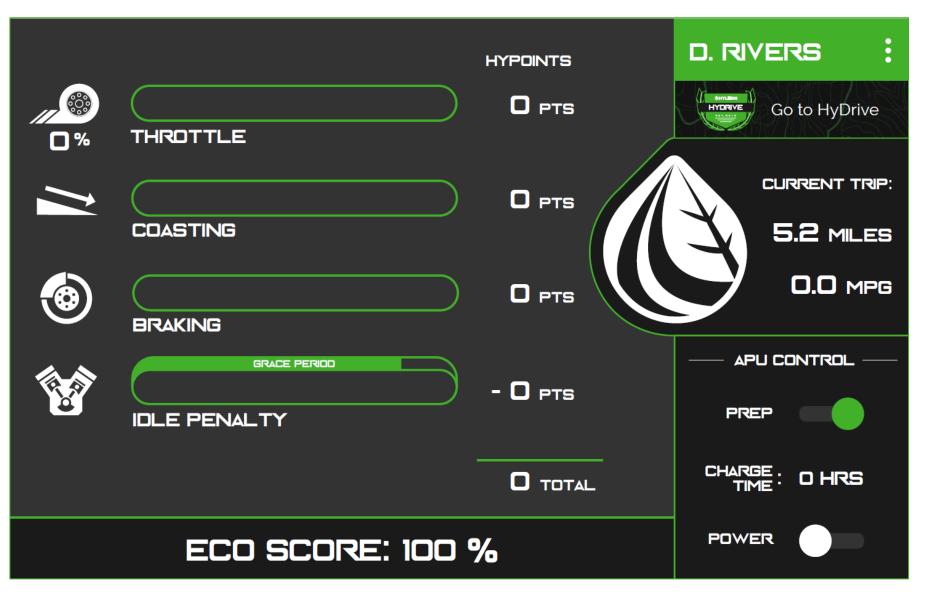
#### Eliminate Engine Idling

- 12+ hours of run time
- A/C with over 10.000 BTU
- In-Cab control unit
- 400-pound weight exemption

#### BENEFIT

Provides climate control and 'hotel' power for the entire mandatory rest period, eliminating engine idling





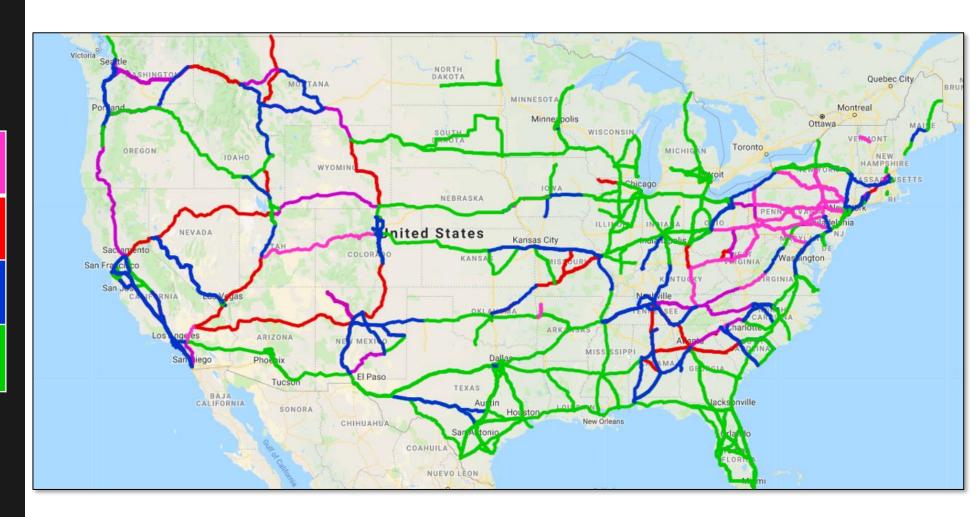


**Best Fuel Savings** 

**Good Fuel Savings** 

**Moderate Fuel Savings** 

Not Optimal For Long Haul Fuel Savings



The Hyliion fuel-savings algorithm performs best in hilly terrain.



#### **MORE POWERFUL CNG**

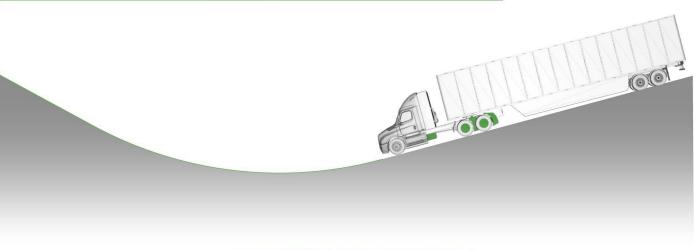
CNG trucks are underpowered compared to diesel equivalents.

The Hyliion CNG algorithm intelligently stores energy on flats and downhills and deploys up to 120HP boost when needed for key climbs and heavy loads.

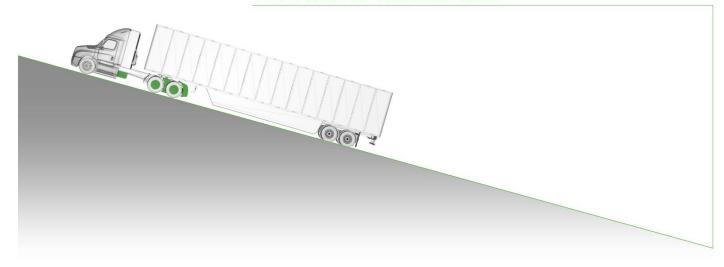
Brand and engine agnostic, the Hyliion CNG system can be installed on any Class 8 CNG vehicle from any manufacturer.

Volvo has developed a Hyliionready chassis spec to accommodate the Hyliion system.

#### STORE ENERGY GOING DOWN HILL



#### TO POWER UP THE NEXT HILL



## CUSTOMER CNG CASE STUDY



#### **Volvo New Truck Order**



#### FLEET DVERVIEW:

Privately owned, premium grocery chain operating the Northeastern United States. With an initiative to dramatically reduce their diesel fuel dependency.

#### UNIQUE APPLICATION:

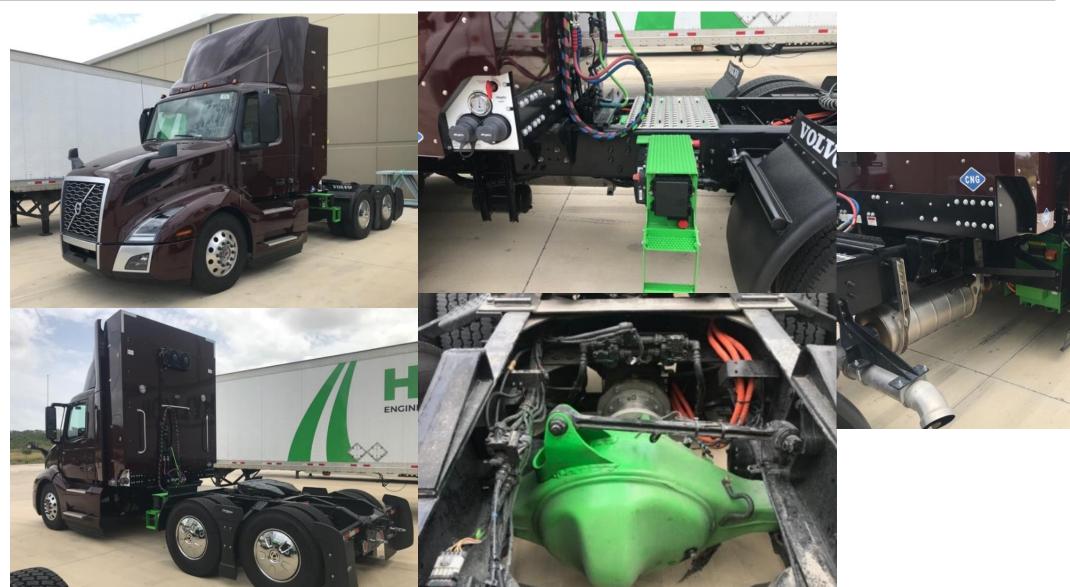
Typical delivery hauls tandem trailers traveling along I-90 in upstate New York. Standard spec CNG tractors have historically been limited to single trailer spec trucks.

#### HYLIION VALUE:

The Hyliion power assist algorithm allowed the customer to replace their tandem spec diesel tractors with CNG tractors, pulling tandem loads with CNG for the first time and cutting their fuel expense in half. Hyliion worked collaboratively with Volvo for a Hyliion chassis spec after this success.

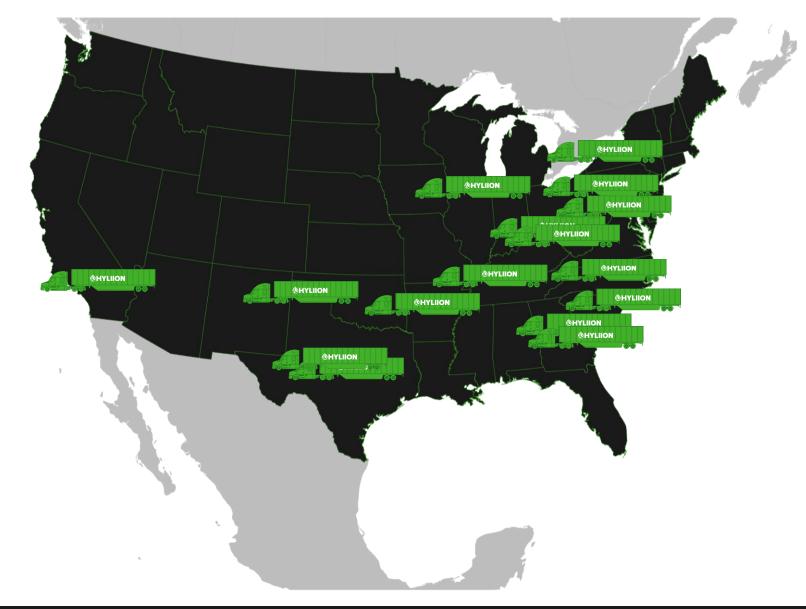






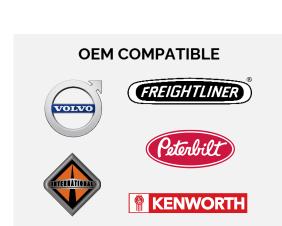


Truck #	Location	6X4HE
70000	Smithfield, VA	ı
70001	Abilene, TX	16
70002	Stafford, CT	ı <b>.</b>
70003	New Boston, TX	16
70004	Cedar Park, TX	ı
70005	Linglestown, PA	ı
9001	Selma, NC	ı <b>.</b>
9002	Selma, NC	16
2936	Catoosa, OK	16
55163	Kyle, TX	B <b>6</b>
668413	Seymour, TN	ıé
C500	Rochester, NY	16
2800	Rochester, NY	ıé
101	Cedar Park, TX	ıé
102	Cedar Park, TX	ıé
103	Cedar Park, TX	16
104	Penn Hills, PA	<b>1</b>
105	Florence, TX	16





#### HYPERTRUCK ERX





#### LAUNCH PARTNER



Agility, a global logistics leader, has placed a binding pre-order for 1,000 trucks

335 Hypertruck ERX's eliminate 1 Million Metric Tons of CO2 Emissions



LOWEST TCO



CARBON NEGATIVE & ZERO EMISSIONS POTENTIAL



INCREASED PAYLOAD CAPACITY



DATA ANALYTICS & ADVANCED ALGORITHMS



**FUEL AGNOSTIC** 

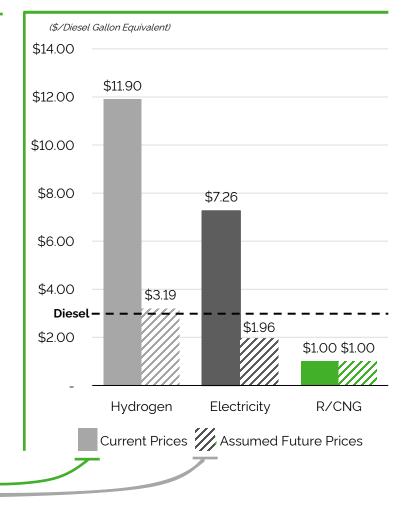


#### HYLIION OFFERS THE LOWEST TOTAL COST OF OWNERSHIP

#### **CLASS 8 SOLUTIONS**

#### **FUEL-CELL BATTERY-HYPERTRUCK DIESEL ELECTRIC (FCEV) ELECTRIC (BEV) ERX** ERX HYPERTRUCK FREIGHTLINER NIKOLA TESLA PACCAR 2023+ 2021 **TODAY** 2021+ \$132,600 \$235,000 \$200,000 \$220,000 \$283.393 \$300,000 \$84,000 \$81.191 N/A \$37,500 \$100,000 (\$25,000)\$384,000 \$276,191 \$415,993 \$572,500 -38% 8% 34%

#### **FUEL PRICES**





AVAILABILITY

5-YEAR TOTAL

**5-YEAR TOTAL** 

**FUEL COST** 

UPFRONT VEHICLE COST

5-YEAR TOTAL PAYLOAD

REVENUE LOST/(GAINED)

**COST OF OWNERSHIP** 

**SAVINGS VS. DIESEL** 

#### EMISSION LEVELS OF FUEL SOURCES

#### **FUELING INFRASTRUCTURE**

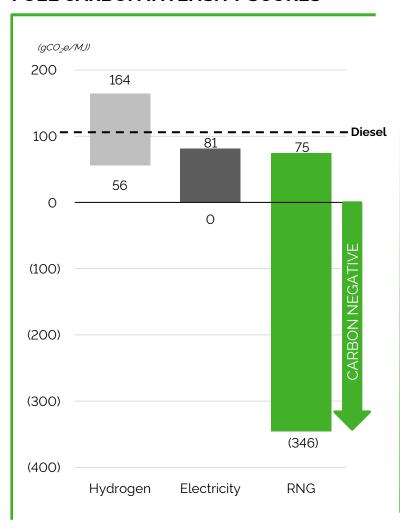
## Existing Infrastructure (# of Class 6-8 fast fueling stations in North America) Hydrogen Electricity R/CNG <10 <10 729



## Estimated Total Cost to Establish 729 Stations (Equivalent to current R/CNG Class 6-8 established stations) Hydrogen ~\$12 Billion

~\$7 Billion

#### **FUEL CARBON INTENSITY SCORES**



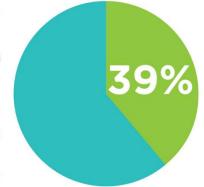
#### **RNG AVAILABILITY**

#### 2019 NGV Fuel Use

#### 717 Million GGE Total In 2019, **39%**, of all on-road fuel used in natural gas vehicles was RNG

Conventional Natural Gas 440 Million GGE

Renewable Natural Gas 277 Million GGE











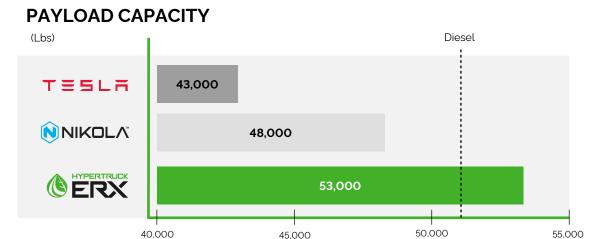




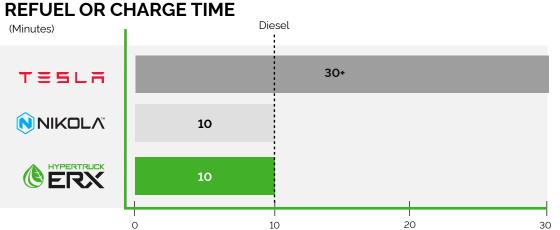
Electricity

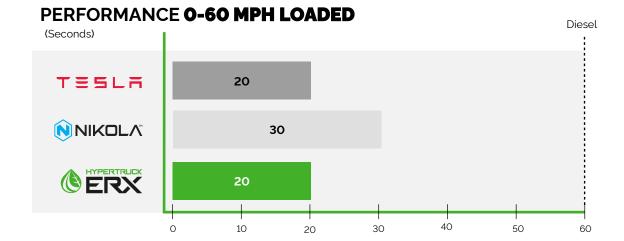
#### HYPERTRUCK PERFORMANCE





#### Diesel (Minutes) 30+ TESLA NIKOLA 10









#### **60 kWh or More Battery Power Available**



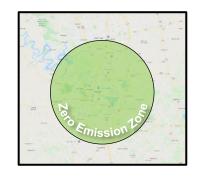
Provides Power for External Systems



Eliminates need for traditional APU



25 miles or more of EV range in zero emission zones



#### PATH TO MARKET

#### PRODUCT MANUFACTURING **INSTALL CHANNELS SUPPORT NETWORKS** • Hyliion and Dana collaborate on TRUCK MOD CENTERS **REFUELING NETWORK** supply chain and full system assembly ANG - American Natural Gas Leverage modification centers for Hyliion truck installations Stations installed at local DC's Fuel contacts w/ volume discounts • Completed solutions ready to ship to truck modification centers or OEM assembly lines SERVICE NETWORK • Hyliion is utilizing tier 1 suppliers • OEM dealer networks to ensure product quality **TRUCK OEMs** • 3<sup>rd</sup> party service providers TOSHIBA OEM assembly line install of Hyliion system Leading Innovation >>> • Hyliion training program for technicians FREIGHTLINER KENWORTH









