



**Crossroads, Clean Energy
& Transportation Forum**



January Webinar

Alternative Fuels in Long Haul Trucking

Featuring:

Dave Schaller (NACFE)

September 2025

Austin Laber (CMD Alternative Energy Solutions)



"Driving the Future of Clean Transportation in Indiana"

With over 25 years of steadfast commitment to the decarbonization of the transportation sector, Drive Clean Indiana lives its mission through:

- Education & Outreach
- Training
- Grant Writing & Funding Acquisition
- Project Management
- Development of Stakeholder Partnerships

Drive Clean Indiana is Indiana's only U.S. Department of Energy-appointed Clean Cities & Communities coalition.

Drive Clean Indiana is a 501(c)(3) nonprofit organization managed by Legacy Environmental Services, Inc., an Indiana Certified Women's Business Enterprise.



Clean Cities and Communities

Run on Less 2025 & Long Haul Alternatives



January 15, 2026

Dave Schaller: Director, Special Projects



North American Council for Freight Efficiency



- Unbiased, fuel agnostic, non-profit
- Mission to double freight efficiency
- All stakeholders
- Scale available technologies, guide emerging change and Run on Less demonstrations.

www.NACFE.org

www.RunonLess.com



Run on Less by NACFE

2017



Long Haul

7 Fleets
10.1 MPG

2019



Regional Haul

10 Fleets
8.3 MPG

2021



All BEVs

13 Fleets
EV Truck
Pilots

2023



BEV Depots

10 Depots
Infrastructure

2025



Long Distance

Many Alternative
Fuels

RoL-E DEPOT 2023

AMAZING!

Electric Vans, Trucks, and Heavy-Duty Tractors are **on the road today** and are performing well in many duty cycles.

INFRASTRUCTURE

both at the **depots** and strategically placed along **freight corridors** is needed

NOW!

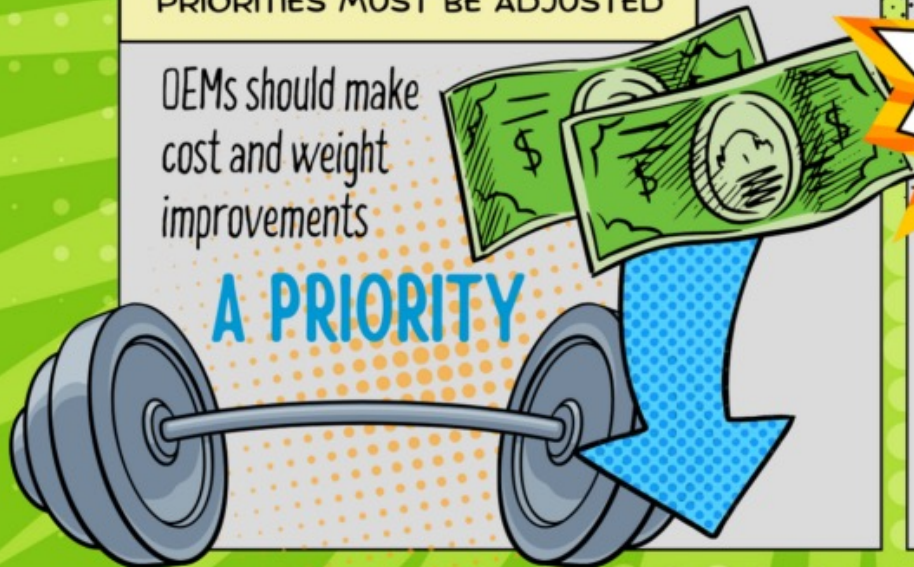
PRIORITIES MUST BE ADJUSTED

OEMs should make cost and weight improvements

A PRIORITY

MORE REALISTIC DATA

on **ALL** key performance metrics is needed.



NACFE

<https://runonless.com/run-on-less-electric-depot-reports/>

Run on Less – Messy Middle





COMING SEPTEMBER 2025

RUN ON LESS — MESSY MIDDLE



Run on Less – Messy Middle: Will bring clarity to long-haul decarbonization by focusing on heavy-duty Class 8 sleepers and day cabs in long-haul return-to-base and over-the-road duty cycles.

Freight Vehicle Segmentation

Vehicle Class	Market Segment
Class 2b-6	Vans & Step Vans 
Class 6	Medium-Duty Box Trucks 
Class 7 & 8	Regional Haul Return-to-Base <i>Short • Medium • Long</i> 
	Long Haul Over-the-Road 

What is "The Messy Middle"?

PRESENT

- Technology immature
- Many unknowns & challenges



"MESSY MIDDLE"

- Many optimization solutions
- Growing infrastructure
- Multi-fuel choices
- Innovation & maturation
- Facts replacing estimates
- Learning curves

Messy Middle Report



FUTURE 2050

- Fast charging
- Hydrogen everywhere
- Long-life, low-cost batteries
- Acceptable weights & costs

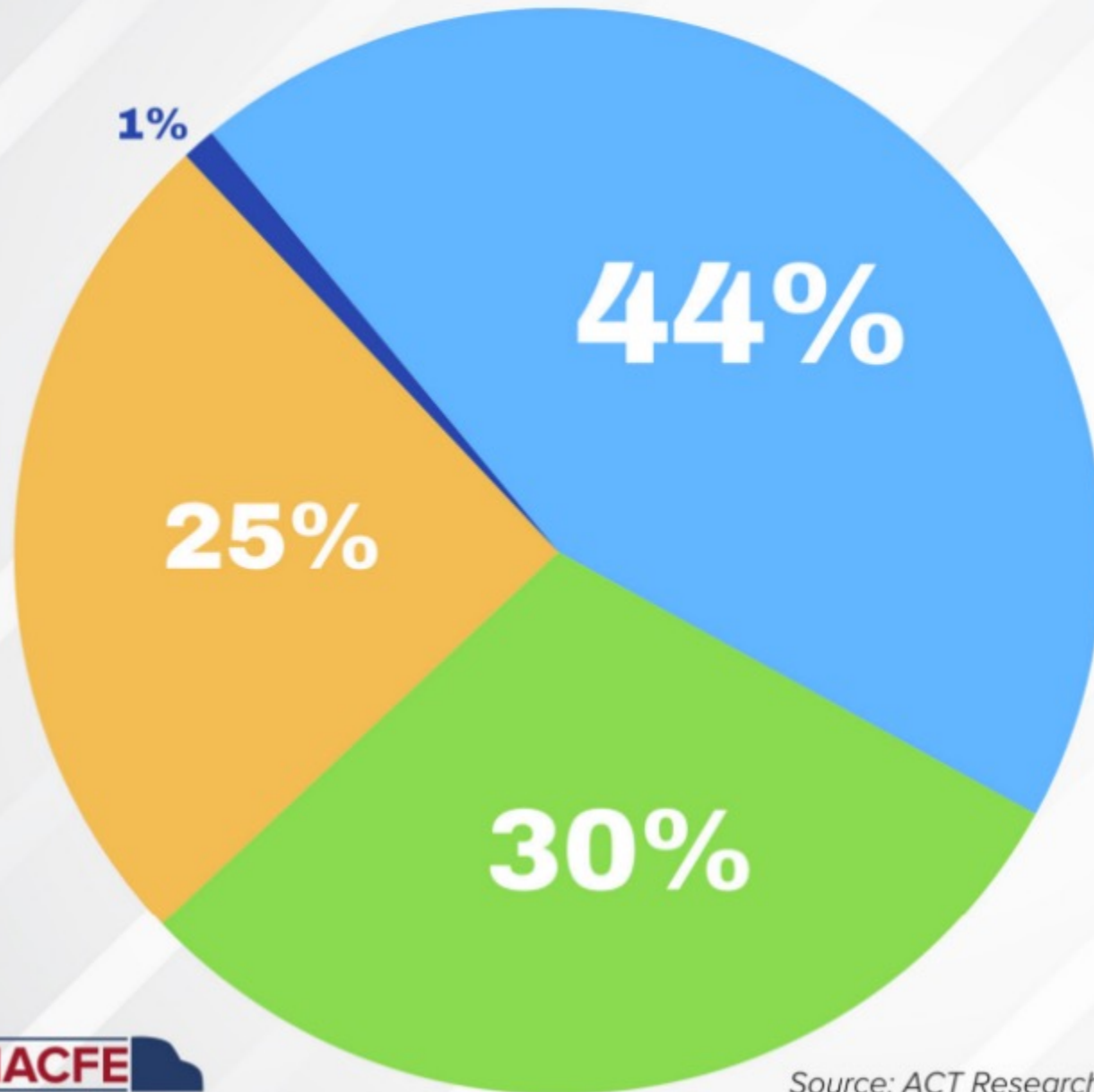
- Legacy Diesels
- Natural Gas

- Diesel Advancements
- Natural Gas
- Hybrids
- Hydrogen ICE

- Battery Electric
- Hydrogen Fuel Cells
- Renewable Natural Gas & Diesel
- More

- CBEV & HFCEV from Clean Energy

Class 8 HD Production by Type



Sleeper Tractor

Long Haul Over-the-Road • some Long Haul Return-to-Base

Day Cab Tractor

Long Haul Return-to-Base

Day Cab Work Truck

Dump Truck • Mixer • Refuse • Terminal Tractor • Other Duty-Specific Applications

Sleeper Work Truck

Expeditor Truck • Logging

Run on Less – Messy Middle



[Video Recordings Here](#)

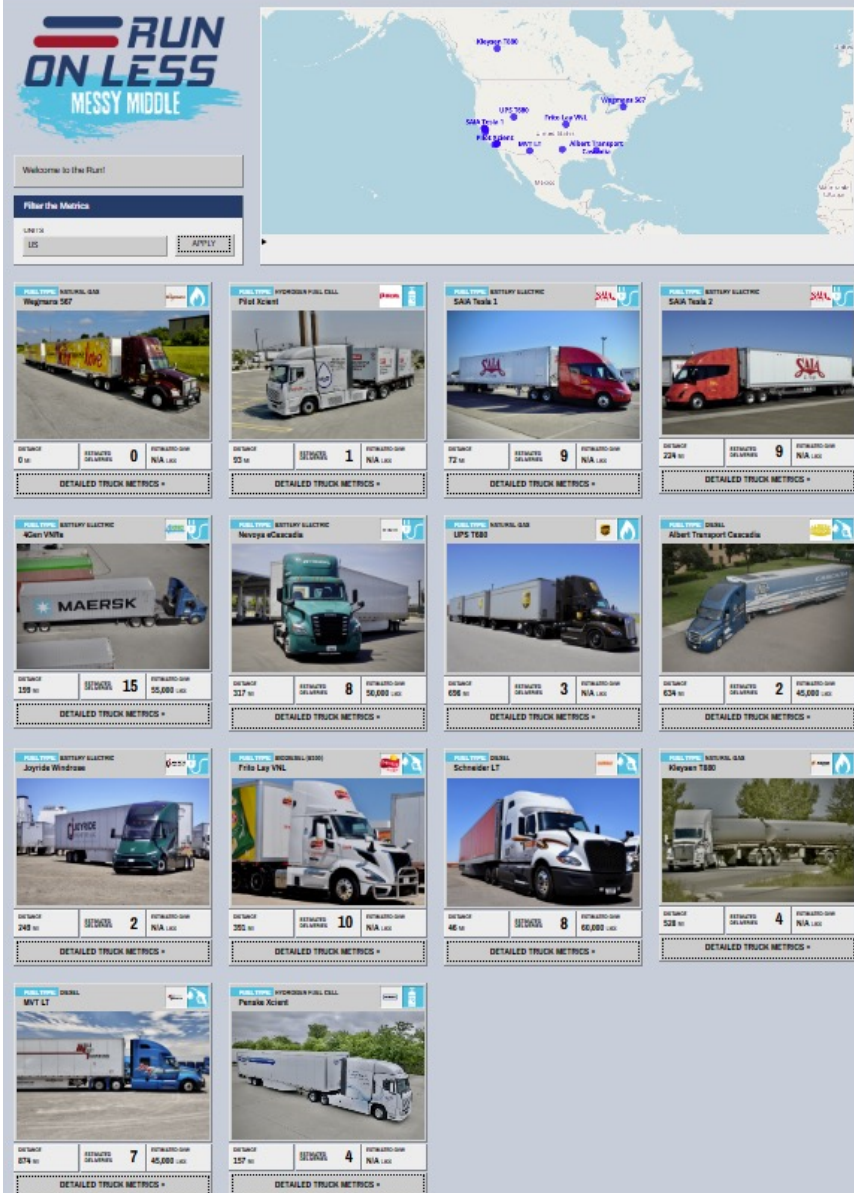
- Feb to July 2025
- Content still available; Recordings, presentations and support materials.
- 12 sessions and 3 workshops = 18 hours
- 35 speakers + 9 NACFE
- 797 registrants and 220 attendees on average.

Site Visits – Profiles' Development



[Profile Videos Here](#)

September 2025 Data



- 18 Days ended Sept 25th
- 14 Trucks
- Similar metrics for all four solutions alternatives
- Select any fleet, units of measure & time period

[Truck Metrics Here](#)

Diesel Fleets (ULSD, RD & B99)

Diesel

ALBERT TRANSPORT
DIESEL

RUN
ON LESS
VEGETABLE

RUN
ON LESS
VEGETABLE

SCHNEIDER
RENEWABLE DIESEL

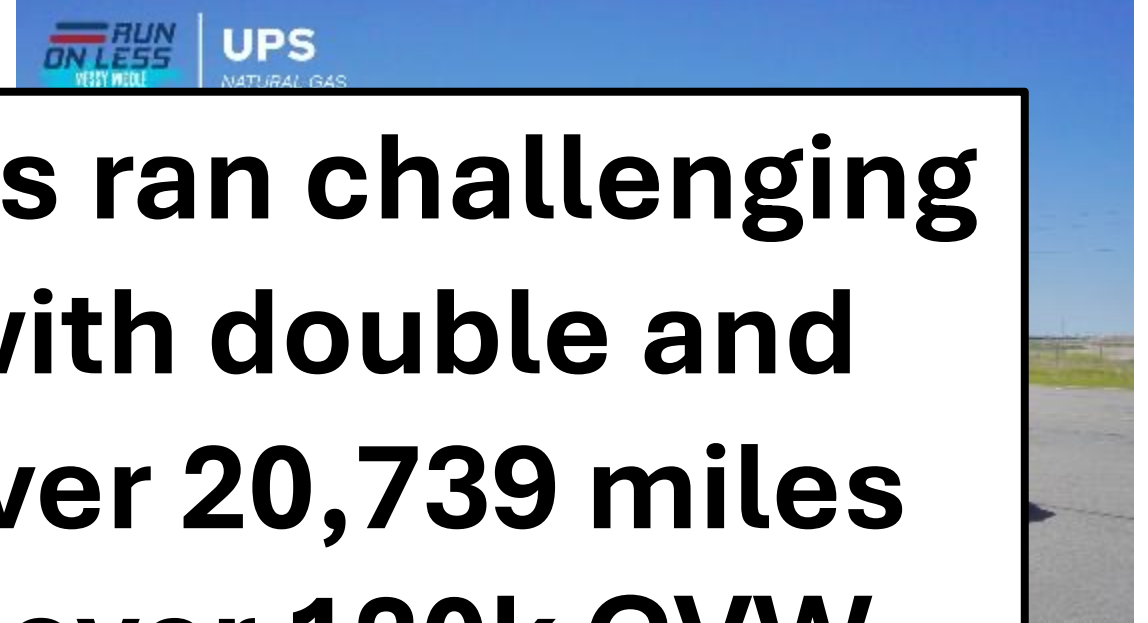
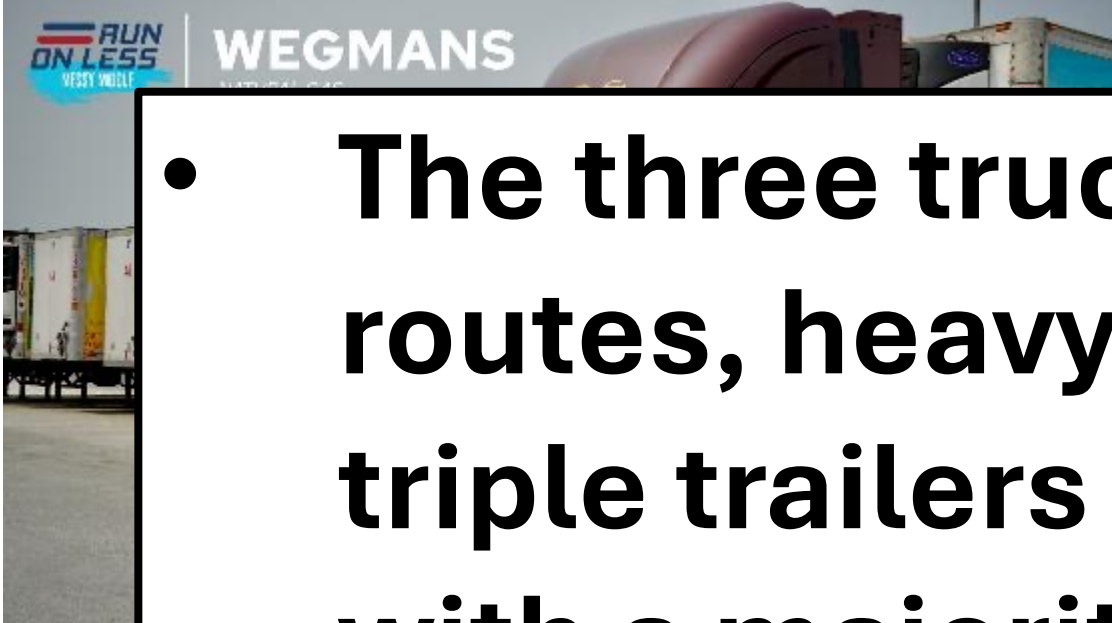
Renewable
Diesel

- **Two travelled 22,550 miles at an average of 11.6 MPG.**
- **One truck equipped to run on 99% biodiesel ran 5,418 miles at 9.5 MPG.**

Diesel

Pure
Biodiesel

Natural Gas Fleets (CNG/RNG)



- **The three trucks ran challenging routes, heavy with double and triple trailers over 20,739 miles with a majority over 120k GVW.**
- **Fleets used RNG with a reduced carbon intensity.**



RUN ON LESS MESSY MIDDLE

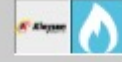
Filter the Metrics

FROM	TO	UNITS	
Day 1	Day 18	US	APPLY

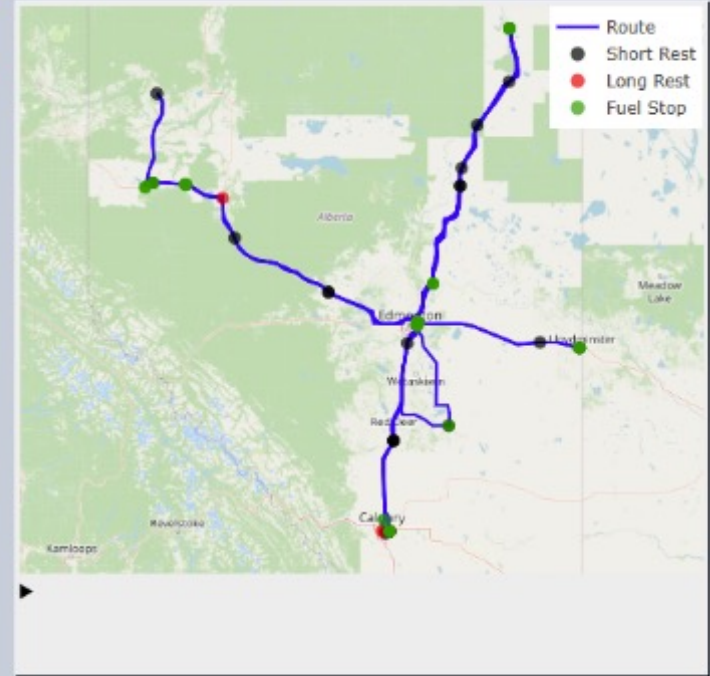
« RETURN TO INDEX

LINK TO THIS

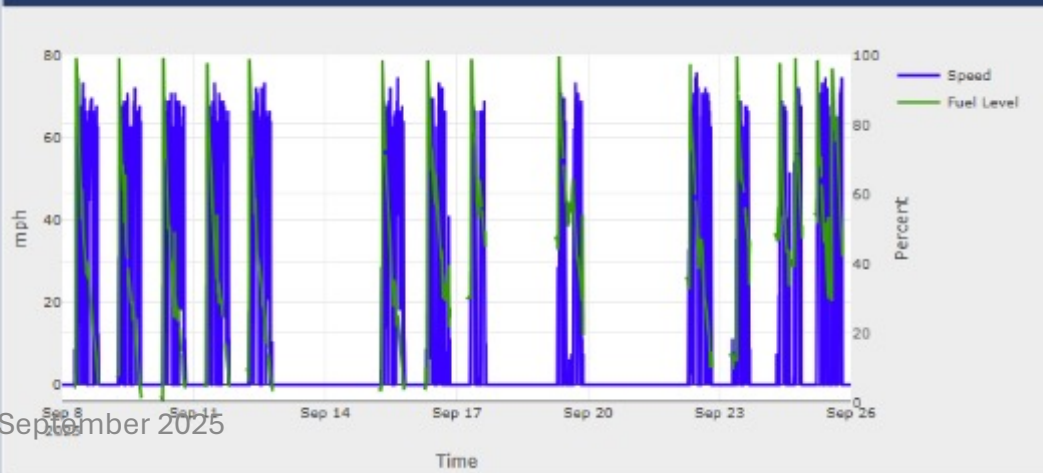
FUEL TYPE: NATURAL GAS
Kleysen T880



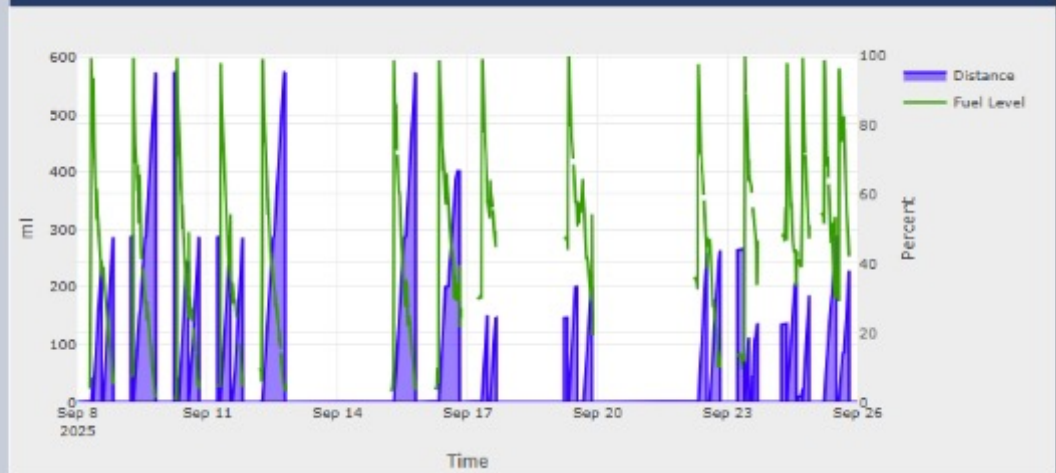
DISTANCE	6,277 MI	ESTIMATED DELIVERIES	65	ESTIMATED GVW	N/A
TEMPERATURE	53 F	WIND	10 MPH W	CONDITIONS	CLOUDS



Fuel Level and Speed



Fuel Level and Distance



September 2025

Battery Fleets

- **One 465 miles on a single charge.**
- **A slip seated truck covered 3,676 over the 18 days driving 52% and charging only 13% of the time.**
- **One covered 875 miles in a single day and 5,740 over the 18 days only using public charging.**



RUN ON LESS MESSY MIDDLE

Filter the Metrics

FROM	TO	UNITS	
Day 8	Day 11	US	<input type="button" value="APPLY"/>

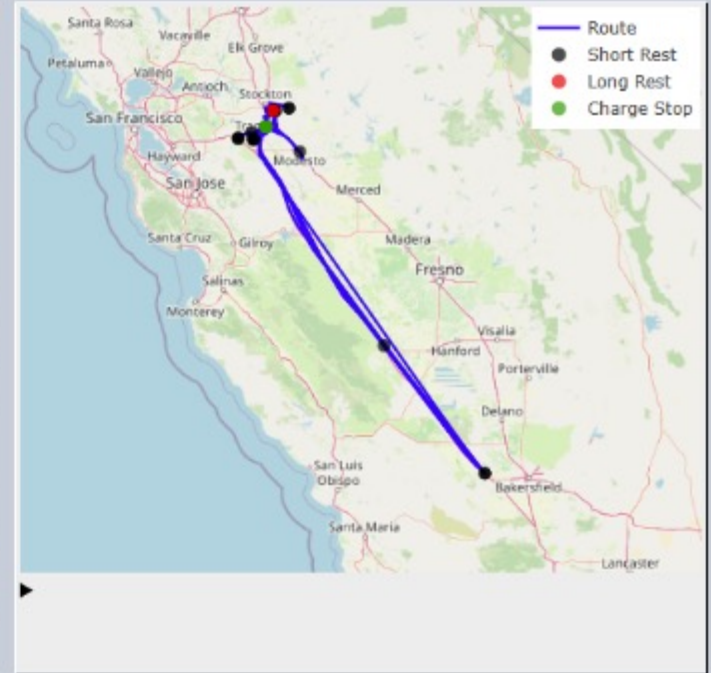
[« RETURN TO INDEX](#)

[LINK TO THIS](#)

FUEL TYPE: BATTERY ELECTRIC
SAIA Tesla 2



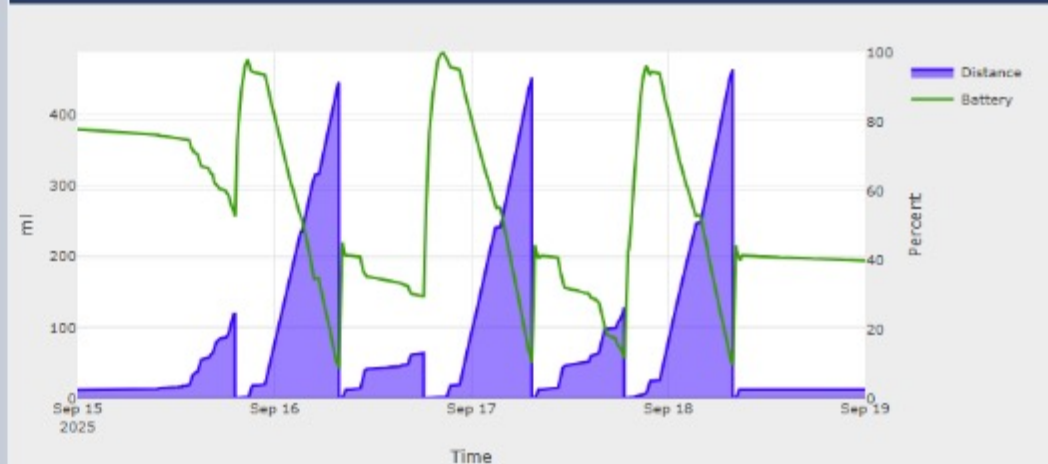
DISTANCE	1,676 MI	ESTIMATED DELIVERIES	35	ESTIMATED GVW	N/A
TEMPERATURE	79 F	WIND	13 MPH W	CONDITIONS	CLEAR



Battery Charge and Speed



Battery Charge and Distance



JoyRide Logistics

RUN ON LESS MESSY MIDDLE

Filter the Metrics

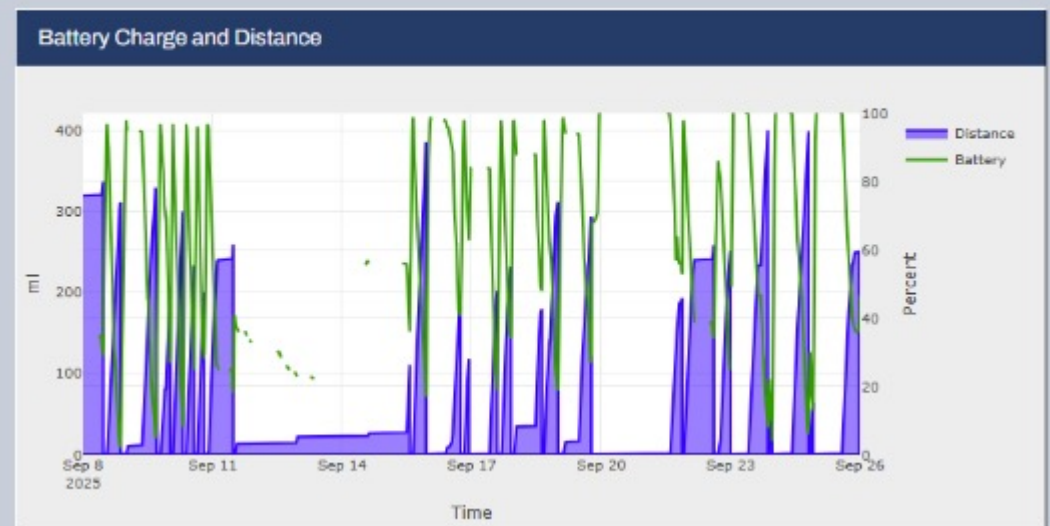
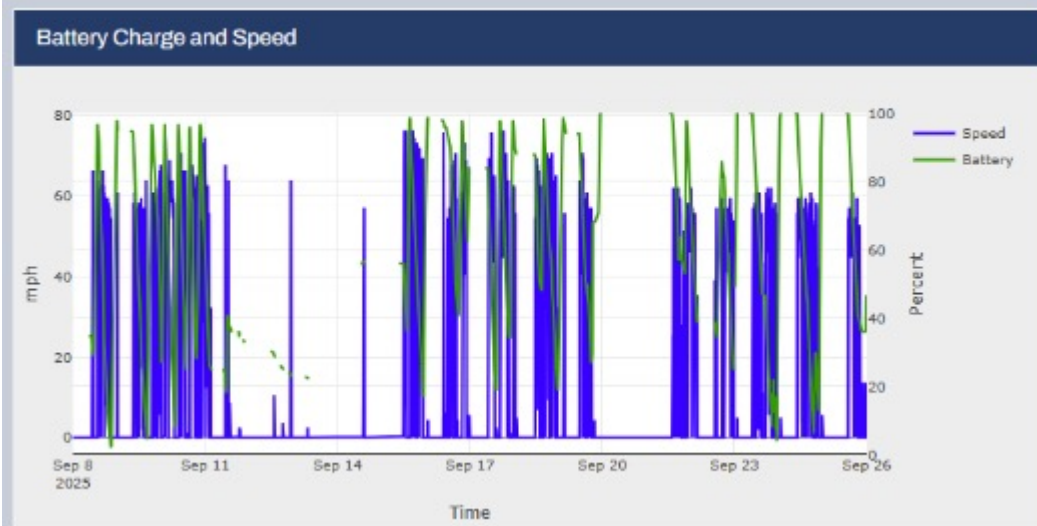
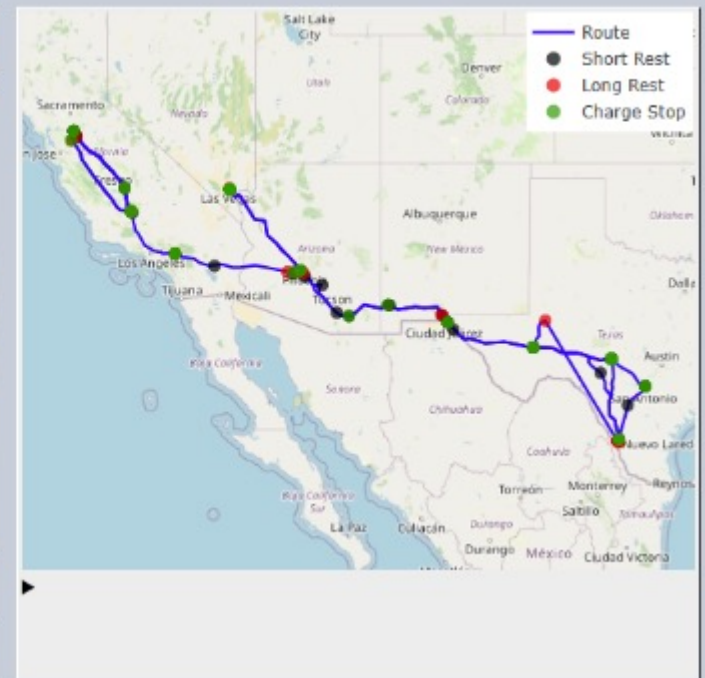
FROM Day 1 TO Day 18 UNITS US APPLY

« RETURN TO INDEX LINK TO THIS

FUEL TYPE: BATTERY ELECTRIC
Joyride Windrose



DISTANCE	5,740 mi	ESTIMATED DELIVERIES	43	ESTIMATED GVW	N/A
TEMPERATURE	75 F	WIND	5 MPH W	CONDITIONS	CLOUDS



Hydrogen Fuel Cell Fleets

- **High intensity urban routes with a lot of miles.**
- **One completed 4,076 miles, one day at 411, at 7.8 miles per kg H₂.**

Initial Findings PR Oct 23, 2025



- Powertrain technologies in the trucking industry are constantly evolving yet must compete directly on cost and performance in an environment of shifting regulations and incentives.
- Fleet owners, their customers, and the public continue to value sustainability efforts while still looking for good returns on their investments.

Initial Findings PR Oct 23, 2025

- Fleets have more powertrain choices from OEMs, which is creating challenges given the increasing segmentation of the truck market.
- Recent significant powertrain advancements include a 15L natural gas engine, 400+ mile battery electric vehicles, high power fast charging stations, increased availability of renewable natural gas and bio and renewable diesel, and new high-volume OEM entrants.



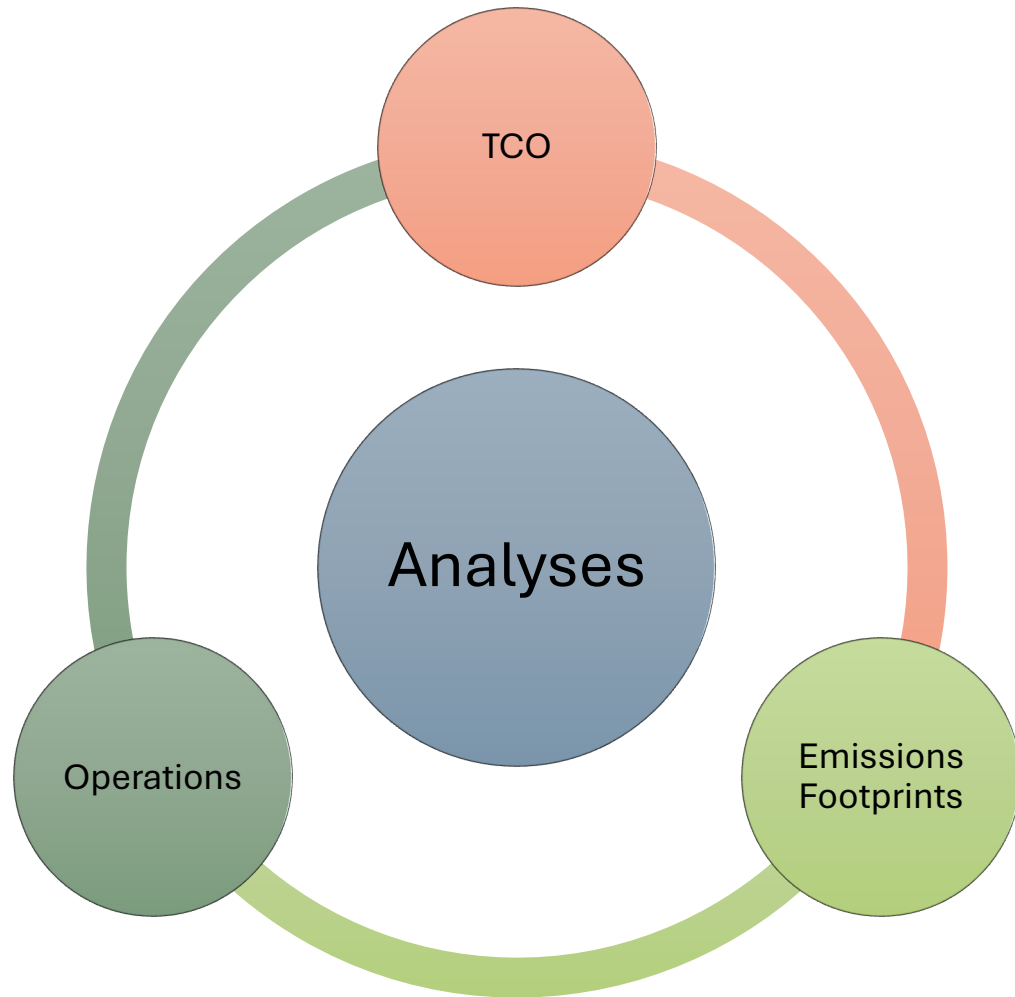
Initial Findings PR Oct 23, 2025

- All the powertrain technologies are improving and revealing new benefits. However, challenges persist, especially with fueling/charging infrastructure, weight, and cost.
 - Natural gas trucks are satisfying the needs of diesel with more power, torque, range and quick fill times.
 - Battery electric truck range, weight and costs are becoming more competitive with diesel trucks in similar duty cycles.
 - While production of renewable fuels is increasing, it remains well below what is needed for wide scale adoption by fleets.
 - Hydrogen in freight movement is still a nascent technology but is showing promise in certain use cases.



October 2025

Post Run Analyses



- Released a dataset for all 14 trucks on November 3, 2025.
- “Mechanics” of Run on Less – Messy Middle report in January.
- “Potluck-Style” data analysis workshop in February.
 - Over 24 analysts/presenters
 - 10 fleet reviewers
- Publish detailed findings reports in mid-2026.

Info is FREE: Thank You Sponsors

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SUPPORTER SPONSORS



BAE SYSTEMS



THERMO KING



October 2025

EVENT SPONSORS



Terawatt

ExxonMobil



GEOTAB



ABB



Framework for Powertrain Decision Making

Start Here

Start with battery electric trucks. If they meet your needs and the cost and timing is right, this can be the simplest path forward.

BEV

- Financial Benefit ✓
 - Sustainability ✓
 - Availability ✓
- No to any of these ✗

Choose BEV

If BEVs don't work, the next consideration might be hydrogen fuel cell vehicles, given another zero-emissions pathway with probably a better solution for long haul.

Natural Gas

H₂ ICE

- Financial Benefit ✓
 - Sustainability ✓
 - Availability ✓
- No to any of these ✗

Choose H₂ ICE

Diesel

- Financial Benefit ✓
- Sustainability ✓
- Availability ✓

Choose Diesel

Financial Benefit ✓

Sustainability ✓

Availability ✓

Natural gas, hydrogen fuel cell vehicles and hydrogen internal combustion engines are options that fleets might deploy if their strategies to decarbonize cannot be supported in a timely manner by zero-emissions solutions.

Choose Renewables/Hybrids

In some cases, it may make sense to stay with a diesel strategy to make the equipment and operations as efficient as possible, leading to a later decision to move to zero-emission vehicles.

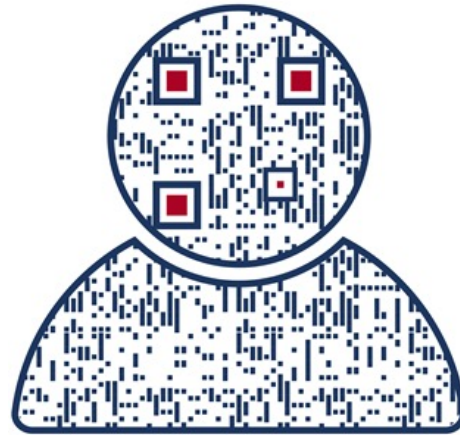


NORTH AMERICAN COUNCIL FOR FREIGHT EFFICIENCY

NACFE.org



RunOnLess.com



 [NACFE](#)



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[@NACFE Freight & @RunOnLess](#)



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Questions

COMING SEPTEMBER 2025

RUN ON LESS — MESSY MIDDLE



Run on Less – Messy Middle: Will bring clarity to long-haul decarbonization by focusing on heavy-duty Class 8 sleepers and day cabs in long-haul return-to-base and over-the-road duty cycles.

Alternative Fuels in Long-Haul Trucking

Austin Laber, Business Development Manager

January 15th, 2026





Who We Are

- 🔥 A gas compressor packager, specializing on system lifelong service and wrap-around support.
- 🔥 Not just an alternative energy company
- 🔥 U.S. Designed, U.S. Made

What We Do

- 🔥 Turnkey CNG equipment
- 🔥 Timefill applications
- 🔥 RNG blowers, feed, and product gas compressor Packages
- 🔥 Site supervisory and BoP controls for RNG facilities
- 🔥 Decant Panels for RNG Offtake



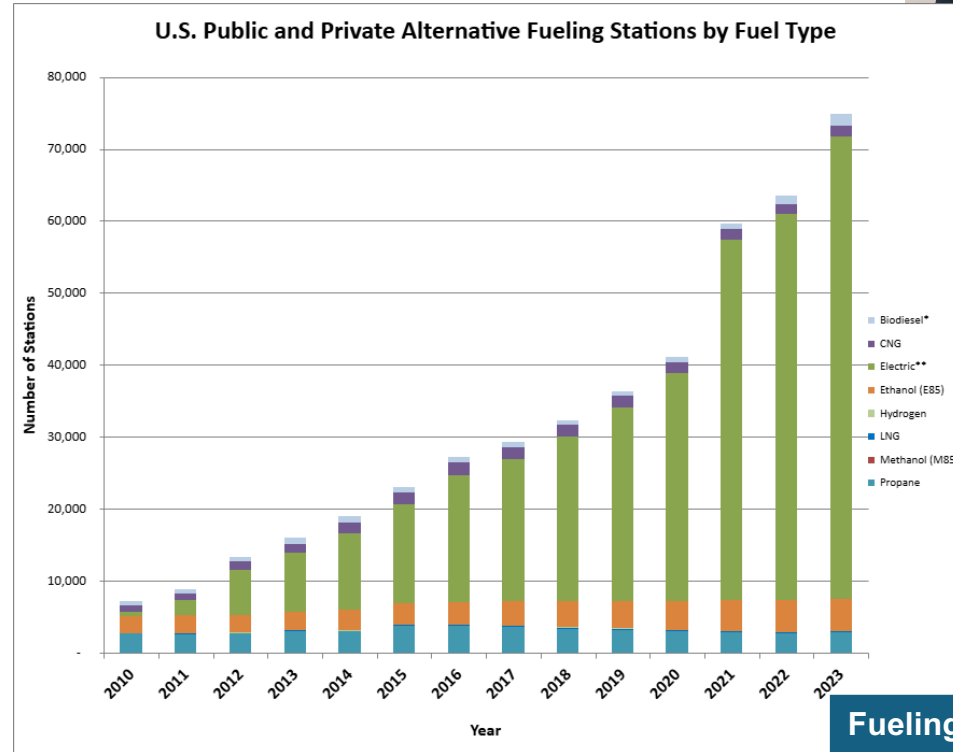
What We Also Do

- 🔥 U.S. based 24/7 technical support center
- 🔥 Real time remote access
- 🔥 Active site monitoring
- 🔥 Data and analytics tracking
- 🔥 Regional technical service

Benefits of CNG Fueling



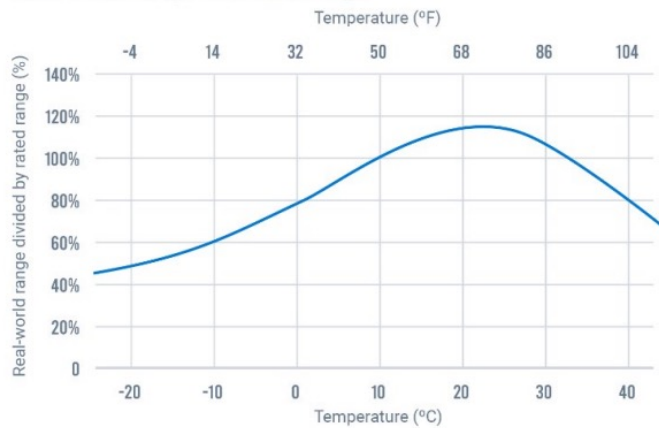
- The Driver Experience
 - Familiarity – Looks like a gasoline pump, feels like a gasoline pump....
- Fueling Times
 - Industry standard these days is expected to be about 8 gges/minute, meaning about 10-15 minute fills (80-120 gge capacity)
- Infrastructure
 - Grid capacity and availability of gas



Source: [Alternative Fuels Data Center: Maps and Data](#)

Fueling Type	Refuel/Charge Time
EV (Level 2)	4–10 hours
EV (DC Fast)	20–60 minutes (10%→80%)
CNG (fast-fill)	10-15 minute
Diesel	2-3 minutes

Real-world range vs. rated range



Source: Geotab [Top EV Range Factors Impacting Fleet Efficiency | Geotab](#)

Benefits Running of CNG vs EV



- Weather
 - Impacts different fuel types. For instance, (NACFE) conducted tests on EVs ranging from cargo vans to regional haulers and found that, for every 10 degrees Fahrenheit lost below 30 degrees, range decreased by 10 percent.¹
- Battery Degradation
 - Max range of BEVs will decrease over, though normal battery warranties state that this will not decrease below 80% in an 8-10 year period.²
- Availability/Reliability

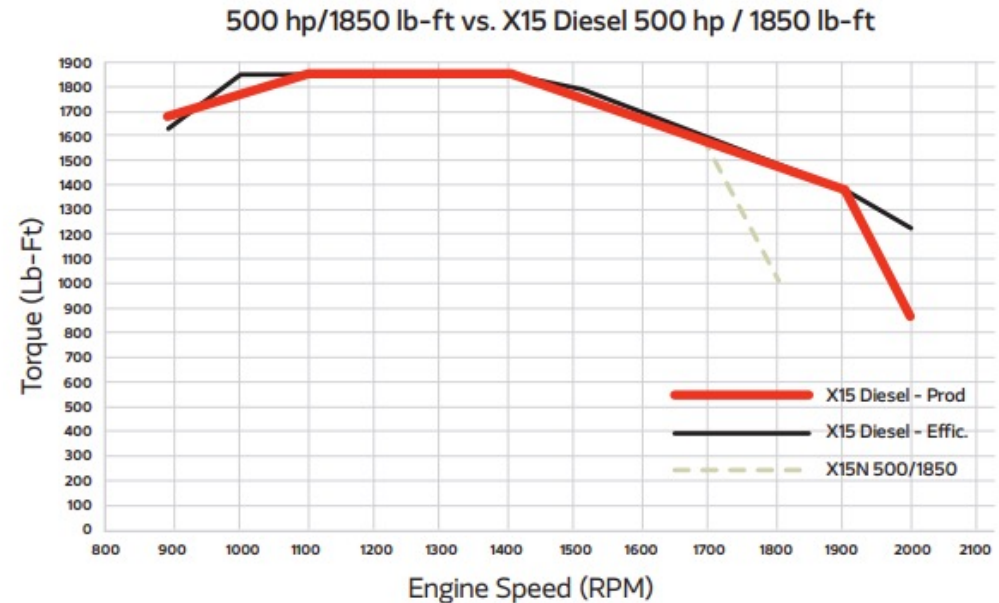
Fuel Type	Reported Uptime	Actual Uptime (Field-Based)
Gasoline	>99%	High, but no formal data
CNG	>99%	99%, varies regionally
EV Charging	95–98% (NEVI guideline was 97%)	Varies, with claims of 95-98%, but actuals seem to be closer to 80% depending on region
Hydrogen	Varies	~33% fueling failures noted in field testing (Source: HydrogenFuelFinder.com)

1 Source: NACFE [Scaling-BEVs-Report-2024.pdf](#), page 55

2 Source: NACFE [Scaling-BEVs-Report-2024.pdf](#), page 48

Cummins 15L NG Engine

- Performance that closely resembles its diesel equivalent.
- Newer to U.S. but has run over 2.5B miles in Asia and Australia already. (Source: trucknews.com)
- Readily Available



Source: Cummins.com

Looking at the Numbers

Powertrain	Representative Platform	Capex / Truck	Fuel Price Used	Energy Efficiency	10-yr Energy / Truck	10-yr Maint. / Truck	10-yr OpEx / Truck	10-yr TCO / Truck
Diesel (Cummins X15 15 L)	Modern Class 8	\$172,500 (median new Class 8, 2025)]	\$3.459/gal (EIA, Jan 13 2026)	7.0 mpg long-haul baseline	\$494,143	\$120,000	\$614,143	\$786,643
Biodiesel (B20)	Same diesel tractor	\$172,500	\$3.459/gal (assumed equal to ULSD)]	~6.86 mpg (≈2% below diesel)	\$504,227	\$120,000	\$624,227	\$796,727
CNG/RNG (Cummins X15N 15 L)	Long-haul CNG	\$192,500–\$242,500	\$3.289/DGE	~6.3 mpg (DGE) (≈10% below diesel)	\$522,063	\$130,000	\$652,063	\$844,563–\$894,563
BEV (battery-electric Class 8)	Long-haul BEV using public DCFC	\$400,000+	\$0.25/kWh (public DCFC)	2.1 kWh/mi (long-haul)	\$525,000	\$80,000	\$605,000	\$1,005,000+
FCEV (fuel-cell Class 8)	Heavy-duty FCEV	\$500k–\$700k (project-quoted)	\$12/kg H ₂ (station-scale LCOH)	0.15 kg/mi	\$1,800,000	\$100,000	\$1,900,000	\$2.40M–\$2.60M
H ₂ -ICE (hydrogen ICE)	Pilot Class 8	TBD	\$12/kg H ₂ (station LCOH)	0.20 kg/mi	\$2,400,000	\$130,000	\$2,530,000	OpEx + capex TBD

- Add Shameless DCI Plug Here!
- Talk about how incredible Drive Clean Indiana is. How their network of companies and people are continuing to help grow this industry.
- Mention how DCI can help to bridge these TCO gaps through helping to find available grants and options that fit your particular circumstances.
- Finally, talk up their crack team of professionals that make webinars like this possible. Ask attendees to reach out to Jessica and Elise after this to see what it takes to join DCI.



Sources:

EIA Diesel Prices (Jan 2026)

"National average on-highway diesel price dropped to \$3.459 per gallon (Jan 13, 2026)."

[\[fleetowner.com\]](#), [\[fleetowner.com\]](#)

AFDC Alternative Fuel Price Report (April 2025)

"CNG averaged \$0.17/DGE less than diesel; includes biodiesel blend pricing."

[\[afdc.energy.gov\]](#), [\[cwcleancities.org\]](#)

NREL ATB – Electricity for Transportation (2024)

"Levelized depot charging infrastructure adder included in M/HD electricity price."

[\[atb.nrel.gov\]](#), [\[nrel.gov\]](#)

NREL – Levelized Cost of Charging EVs Dataset (2020)

"Provides national levelized cost of public DCFC and depot scenarios."

[\[data.nrel.gov\]](#), [\[osti.gov\]](#)

ICCT – Battery-Electric Class 8 Pricing (Sept 2025)

"Median U.S. Class 8 BEV tractor price rose 27% since 2020, exceeding \$400k."

[\[theicct.org\]](#), [\[ccdigital.com\]](#)

NREL – Levelized Cost of Dispensed Hydrogen for Heavy-Duty Vehicles (March 2024)

"Technical report modeling hydrogen LCOH at scale for HD stations."

[\[docs.nrel.gov\]](#), [\[research-h...b.nrel.gov\]](#)

AFDC – CNG Fueling Infrastructure Costs

"Time-fill vs. fast-fill cost ranges and station sizing considerations."

[\[afdc.energy.gov\]](#), [\[afdc.energy.gov\]](#)

Cummins X15 Maintenance Quick Reference Guide (2021)

"Oil/filter, DPF, DEF, valve, brake intervals for X15 diesel engine."

[\[mart.cummins.com\]](#), [\[manuals.plus\]](#)

NREL – Heavy-Duty Hydrogen Fueling Station Corridors (May 2024)

"LCOH sensitivity to station size, utilization, liquid vs on-site supply."

[\[docs.nrel.gov\]](#), [\[nrel.gov\]](#)

NREL – H2A / Hydrogen Production Modeling

"Transparent methods for calculating centralized and station hydrogen cost."

[\[nrel.gov\]](#), [\[nrel.gov\]](#)



RNG at a Glance

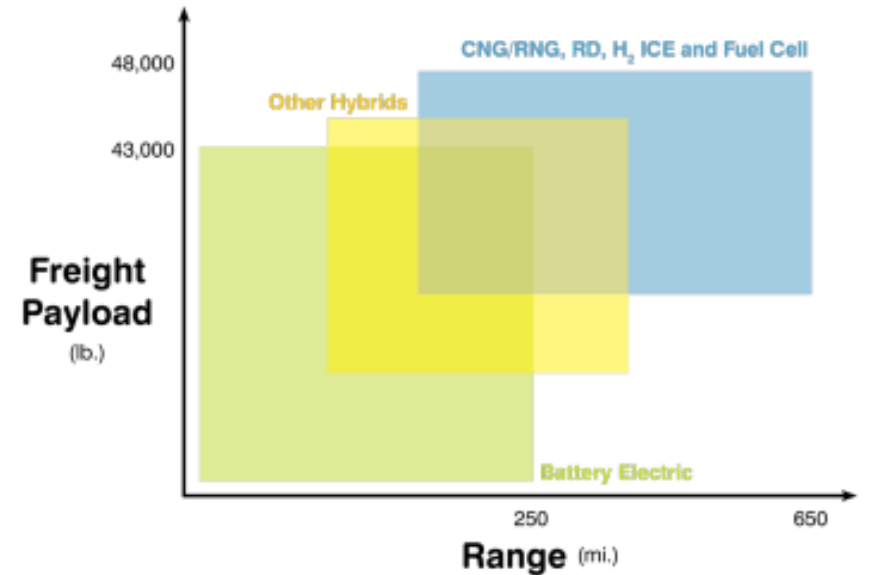
- The only fuel with a zero or negative Carbon Intensity score.
- Rebounding demand for RNG Offtake.

Fuel Type	CI Score (g CO ₂ -eq/km)	Notes
Diesel ICE	~2,330	Baseline
CNG (fossil)	~1,910–2,230 (-4% to -18%)	4–18%
RNG (carbon-negative)	< 0 (e.g., ~-330)	>100% reduction
BEV	~1,330	≥43% reduction
FCEV (fossil H ₂ / SMR)	~1,240	~47% reduction
FCEV (green H ₂)	~255 (-89%)	Up to 89% reduction

Source: theicct.org

A Polyfuel Future

- Technology Sweet Spots
 - EV for Hub and Spoke
 - CNG and Hydrogen for Long-Haul/Class 8
- Polyfuel hubs, a stop for all
- State of Sustainable Fleets Report (<https://www.stateofsustainablefleets.com/>)



Source: NACFE [Scaling-BEVs-Report-2024.pdf](https://www.nacfe.org/research/Scaling-BEVs-Report-2024.pdf)

FLEET TYPES LEADING BEV ADOPTION:

Fleets leading adoption of MD and HD BEV vehicles and approximate vehicles in operation.



Estimated Medium- and Heavy-Duty Vehicles in Operation

TENS OF THOUSANDS

LOW-THOUSANDS

FLEET TYPES LEADING FCEV ADOPTION:

Fleets leading adoption of MD and HD FCEVs and approximate vehicles in operation.



Estimated Medium- and Heavy-Duty Vehicles in Operation

EARLY COMMERCIAL (AROUND A HUNDRED)

DEMONSTRATION (DOZENS)

FLEET TYPES LEADING CNG VEHICLE ADOPTION

Fleets leading adoption of MD and HD CNG vehicles and approximate vehicles in operation.



Estimated Medium- and Heavy-Duty Vehicles in Operation

TENS OF THOUSANDS

THOUSANDS

Source: TRC Companies, Inc. (TRC), "State of Sustainable Fleets 2025 Market Brief", April 2025, Santa Monica, CA.

The messy middle may be here for quite some time, so grab your PPE.



Contact Info

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(920)851-1105





VALUES



Collaborate for Excellence

Empowering and trusting employees to take initiative and make decisions that will drive the company forward. Commit to clarity of communications and to getting goals and projects done on time while holding performance to the highest standard.



Make a Difference

Our culture allows our employees to pursue their passions and make a positive impact on coworkers, our families, our customers, and our community. We strive to make a positive impact on the world around us by treating all those we interact with with respect, compassion, and trust.



Deliver Customer Success

Our commitment to our customers goes beyond simply providing robust, high-performance equipment. We believe in building lifelong partnerships based on unwavering support, trust, and delivering value added solutions.



DRIVE CLEAN INDIANA 2026 BREAKFAST OF CHAMPIONS

MARCH 11, 2026
JW MARRIOTT INDIANAPOLIS

Our Keynote Speaker is...



HÉLIO
CASTRONEVES



Breakfast of Champions

March 11, 2026 | JW MARRIOTT
INDIANAPOLIS

Accelerating Hoosier Fuels!



Sponsorship Opportunities

Date: Wednesday, March 11, 2026

Time: 7:30 - 10:00 a.m. EST

Location: JW Marriott Indianapolis -
Griffin Hall; 10 S. West St.,
Indianapolis, IN 46204



Cost: \$100 per guest

Breakfast Sponsor - \$7,500

- Exhibit table at event
- 4 breakfast tickets
- Logo included on all event signage
- Logo included in all event digital marketing assets
- Full list of attendees, including contact info
- Opportunity to advertise your brand in up to 4 DCI newsletters

Event Sponsor - \$5,000

- Exhibit table at event
- 2 breakfast tickets
- Logo included on all event digital marketing materials
- Opportunity to advertise in up to 2 DCI newsletters

Team Sponsor - \$1,000

Sponsor a table of ten for your company OR sponsor a table of ten for a Purdue Grand Prix-competing high school team.

Welcome Wall Sponsor - \$500

Have your company's logo displayed on our digital welcome wall at the event.

Scholarship Sponsor - \$300

Sponsor general admission breakfast tickets (3) for organizations that do not have the budget to attend.



Featuring Four-Time
Indy 500 Winner
Hélio Castroneves

Date: Wednesday, March 11, 2026

Location: JW Marriott Indianapolis -
Griffin Hall; 10 S. West St., Indianapolis, IN

Time: 7:30 – 10:00 a.m. EST

[Register/Sponsor Here!](#)





February Webinar

PROJECT 

Featuring: Dr. Mark Manera



February 18, 2026; 1-2 p.m. CT

Join Drive Clean Indiana and Dr. Mark Manera as he introduces and discusses Project 61, a 501(c)(3) nonprofit dedicated to improving the health and longevity of truck drivers across North America. Project 61 provides free health tools, challenges, and resources designed specifically for life on the road. By meeting drivers where they are and empowering fleets to take action, Project 61 is rewriting the story of health in trucking - one driver, one habit, and one mile at a time.

**Register
Here!**



Upcoming DCI Events

- January 21, 2026 - EV Ride & Drive at Tire Rack - South Bend
- February 6, 2026 - Indiana Sustainability and Resilience Conference
- February 18, 2026 - February Forum - Project 61 Webinar
- March 10-13, 2026 - NTEA's Work Truck Week
- March 11, 2026 - DCI's 2026 Breakfast of Champions
- March 17-18, 2026 - Purdue Road School Transportation Conference & Expo

Visit

DriveCleanIndiana.org/events
for more information



Thank
you

Battery Electric: Saia



RUN ON LESS
MESSY MIDDLE

Saia LTL Freight
BATTERY ELECTRIC



TRACTOR

CAB TYPE

MOTOR

ADVERTISED RANGE

CONFIGURATION

ROUTE TYPE

ELEVATION CHANGE

TRAILERS

OPERATIONS

Tesla Semi

Day cab

3 independent electric motors

500 miles

6×4

Regional and urban

Flat Modesto region and Donner Pass – 7,056 feet

Singles, usually 28' and 48'

Slip seating, two-shift operation

DEPOT OR PUBLIC CHARGING Uses nearby Tesla charging facility

PARKING CONFIGURATION Bobtail or married accessibility

UTILITY Pacific Gas & Electric

CHARGING HARDWARE Tesla Semi chargers

CHARGING HARDWARE Four 750 kW Semi chargers

TYPICAL CHARGE SPEED Up to 750 kW

[Watch Saia Video](#)

Battery Electric: 4Gen Logistics

TRACTOR	2024 Volvo VNR
CAB TYPE	Day cab
POWERTRAIN	BEV 6-battery configuration
ADVERTISED RANGE	185 to 220 miles
TRANSMISSION	2-speed I-shift automatic
BATTERY SIZE	6 battery pack/565 kW
ROUTE TYPE	Drayage from LA/LB Ports to Inland Empire 150 to 325 miles per day
TRAILERS	Containers and singles
OPERATIONS	2-shift slip seating



DEPOT OR PUBLIC CHARGING	Private and public charging
PARKING CONFIGURATION	Bobtail charging stalls
UTILITY	Southern California Edison Co.
CHARGING HARDWARE	Electrify America Hyper-Fast Chargers
# CHARGING HARDWARE	14 dispensers
TYPICAL CHARGE SPEED	350 kW

[Watch 4Gen Video](#)

Battery Electric: JoyRide

TRACTOR	Windrose Technologies
CAB TYPE	Single bunk sleeper
MOTOR	800V Permanent magnet synchronous motor rated 510 kW with 780 kW peak
ADVERTISED RANGE	420 miles
BATTERY SIZE	Li Iron Phosphate battery pack 705 kWh/420 mi (also available 486kWh/295mi)
ROUTE TYPE	Regional and long haul – California, Nevada and Arizona
TRAILERS	Singles
OPERATIONS	Single Shift



DEPOT OR PUBLIC CHARGING	Public charging
PARKING CONFIGURATION	Various
UTILITY	Various
TYPE OF CHARGING HARDWARE	Various
# CHARGING HARDWARE	Various
TYPICAL CHARGE SPEED	Dual CCS ports capable of up to 772 kW

[Watch JoyRide Video](#)

Battery Electric: Nevoya

**TRACTOR
CAB TYPE
MOTOR**

Freightliner eCascadia
Day cab
425 HP (317 kW) or 470 HP
(350 kW), Battery + eAxle

**ADVERTISED RANGE
BATTERY SIZE**

220 to 270 miles
438 kWh useable capacity
w/dual CCS Charging Ports

**ROUTE TYPE
TRAILERS
OPERATIONS**

Regional and drayage
Singles or containers
Slip seating two shift

**DEPOT OR PUBLIC CHARGING
PARKING CONFIGURATION
UTILITY**

Greenlane public charging and others
Pull through and stall parking
Colton Electric Utility

**# CHARGING STATIONS
TYPICAL CHARGE SPEED**

29 bobtail chargers and 12 with pull through lanes
Up to 180 kW with single port charging / up to 270 kW, with dual port
charging

CHARGING HARDWARE

ABB charging hardware



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