

WELCOME TO

CLEAN FOR COOL FUELS TRUCKS

2nd Annual Clean Fuels Truck Showcase & Seminar



IACT
ILLINOIS ALLIANCE FOR
CLEAN TRANSPORTATION



Your Emcee,

Lynn Stafford

SAVE THE DATE

FUELING ILLINOIS'
**FREIGHT
FUTURE**

A MULTI-FUEL POLICY, PLANNING, AND
STAKEHOLDER ENGAGEMENT SUMMIT

THE NEW RULES OF THE ROAD

**AUTOBAHN
COUNTRY CLUB**

JOLIET, ILLINOIS

**FEB 25
2027**



SAVE THE DATE

GREEN DRIVES

MAY 6, 2027



IACT

**ILLINOIS ALLIANCE FOR
CLEAN TRANSPORTATION**




Forest Preserve District
of DuPage County

Fall Festival at Danada Oct. 10 & 11



**Forest Preserve District
of DuPage County**

“AFLEET TOOL” TO EXAMINE VEHICLE COST OF OWNERSHIP



ANDY BURNHAM
Argonne National Laboratory
aburnham@anl.gov

September 24, 2026

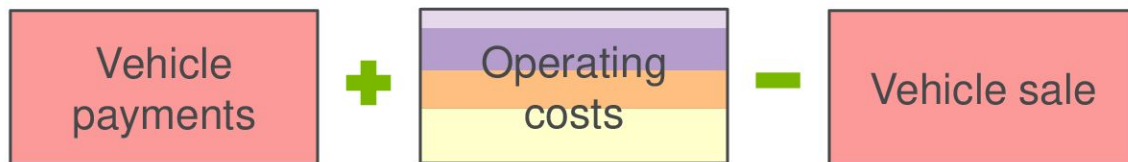
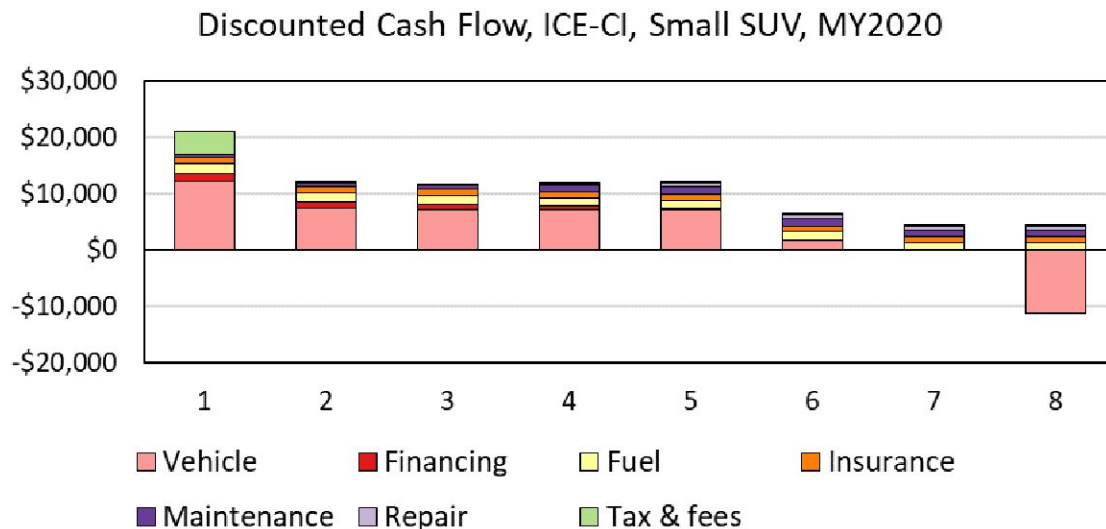
OUTLINE OF PRESENTATION

- **Total Cost of Ownership (TCO) Introduction**
- **Argonne Cost Models**
 - HEVISAM & NGSAM
 - AFLEET
- **AFLEET Online TCO Demo**

TCO INTRODUCTION

WHAT IS THE 'TOTAL COST OF OWNERSHIP'

- Discounted cash flow analysis, summing every cost (or return) for vehicle ownership across entire period of ownership
- Can be expressed in:
 - aggregate
 - \$100,000 over 15-yr life
 - annual terms
 - \$8,000/year
 - levelized cost of driving
 - \$0.57/mi

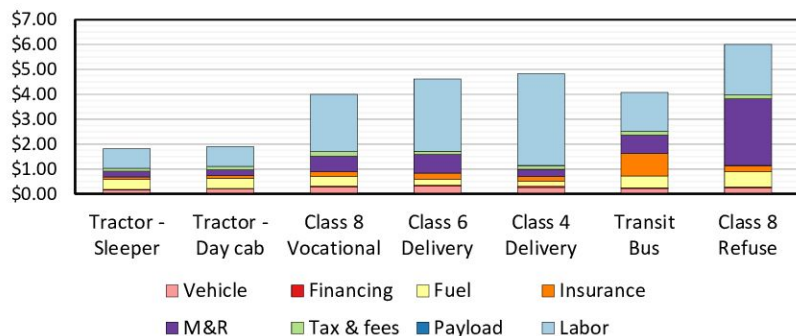


NATIONAL LABS RECENTLY ANALYZED LDV AND HDV TCO

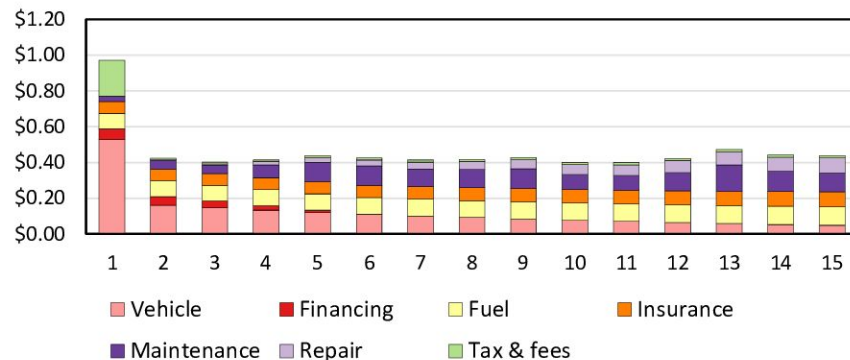
■ We addressed:

- Changes in costs thru vehicle lifetime
- Comparison of powertrains & use cases
- Variations in VMT and ownership time
- Change of cost components in future

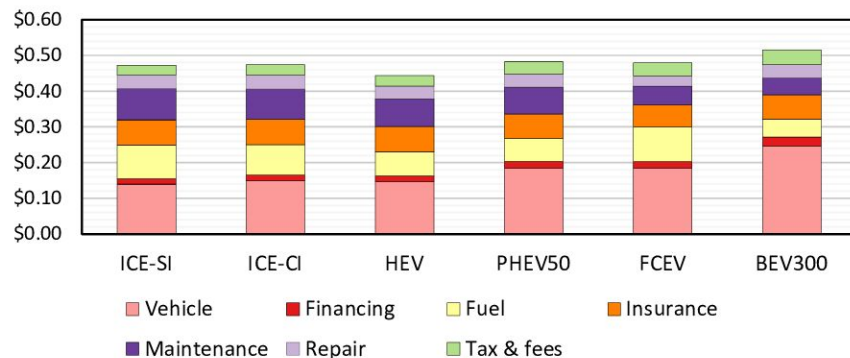
Average 10-year per-Mile Cost of Driving - 2025, Diesel Trucks



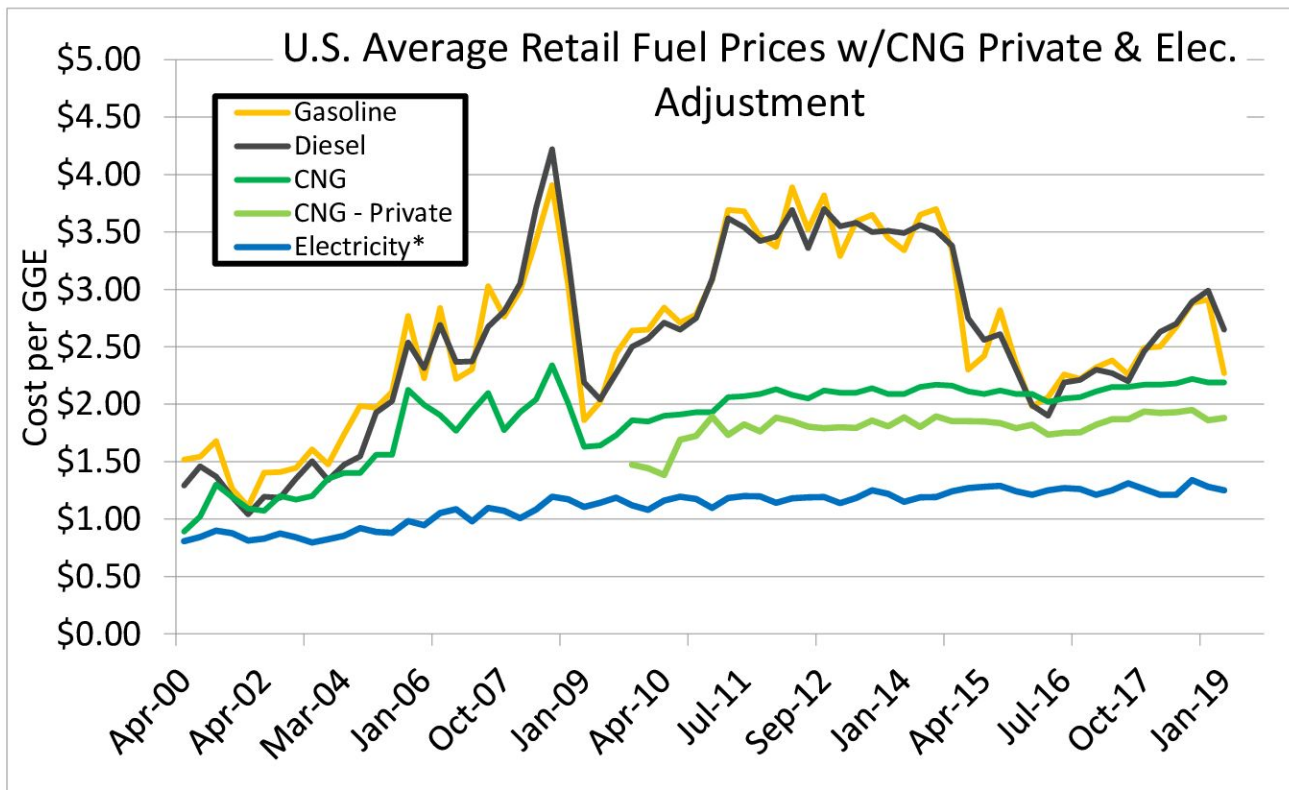
Per-Mile Cost of Ownership, ICE-SI, Small SUV, MY2025



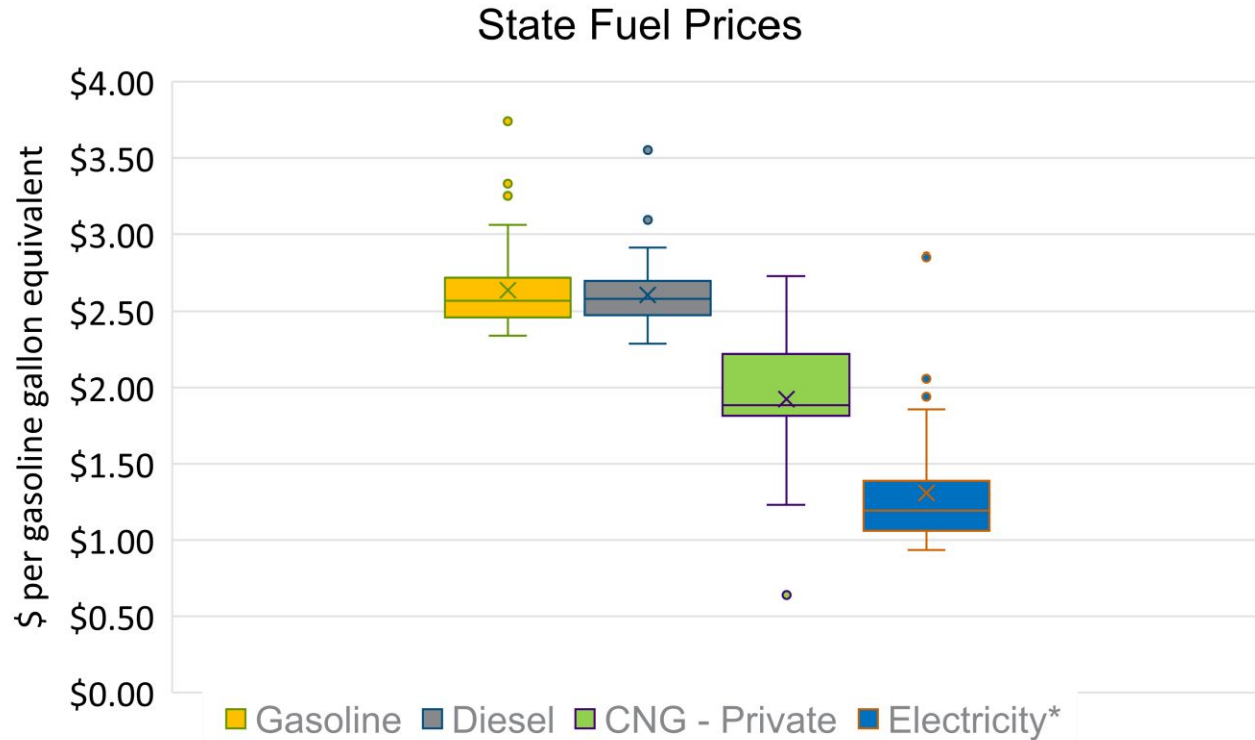
Avg. 15-year per-Mile Cost of Driving - 2025, Small SUV



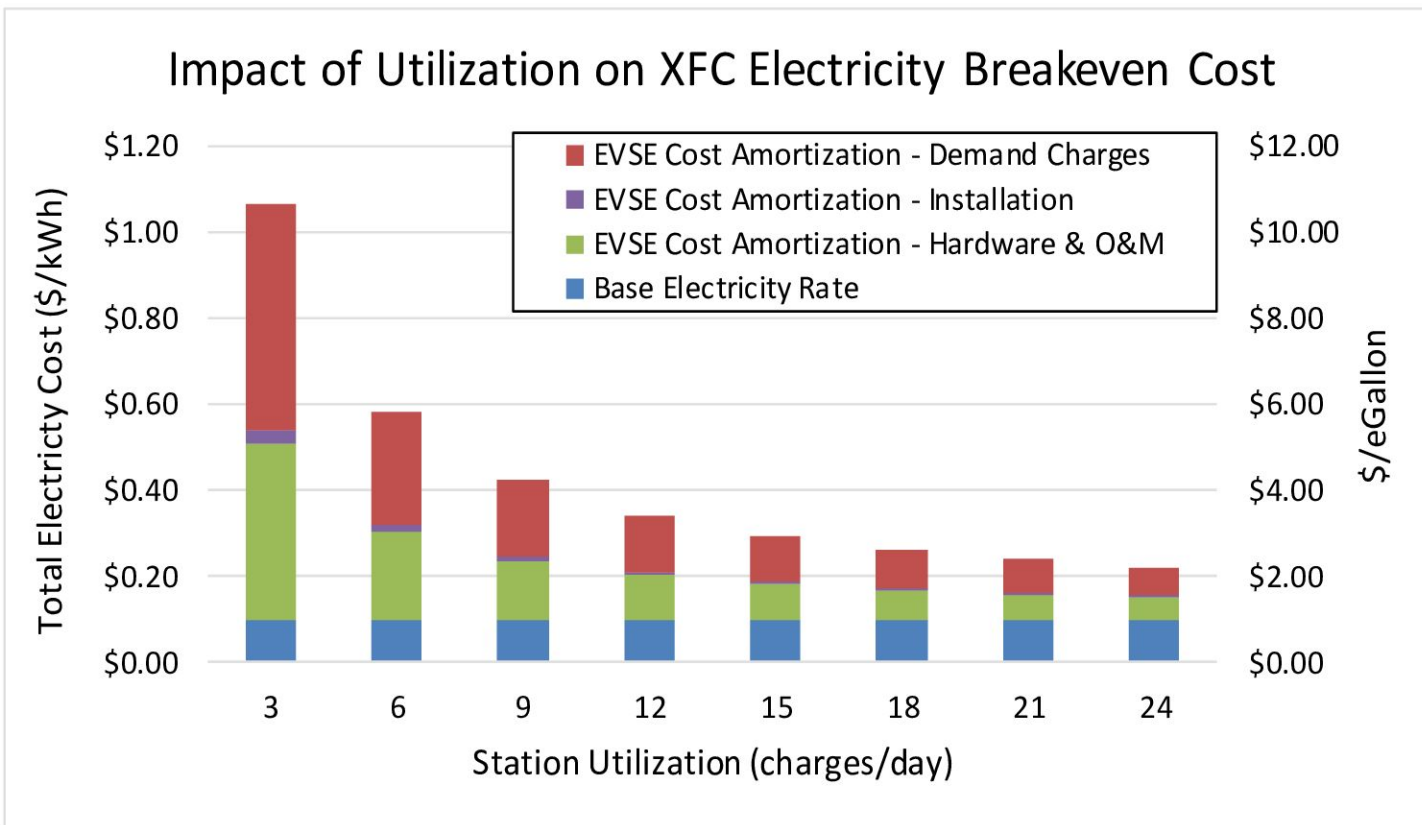
FUEL PRICES HAVE DRIVEN INTEREST IN ALTERNATIVE FUELS



STATE FUEL PRICES CAN VARY SIGNIFICANTLY

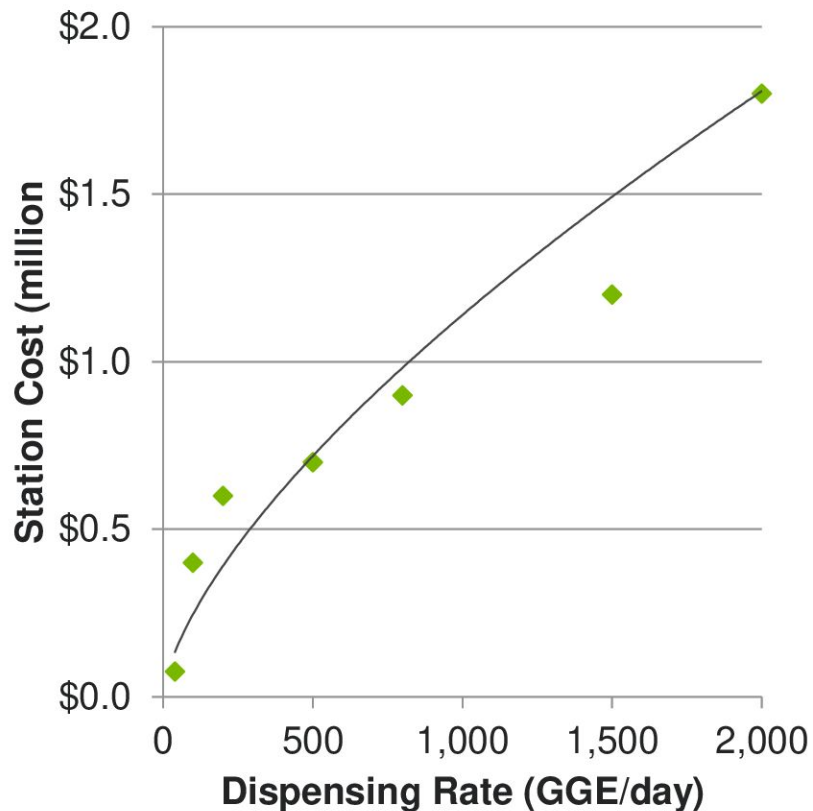


DCFC DEMAND CHARGES LARGE W/ LOW UTILIZATION

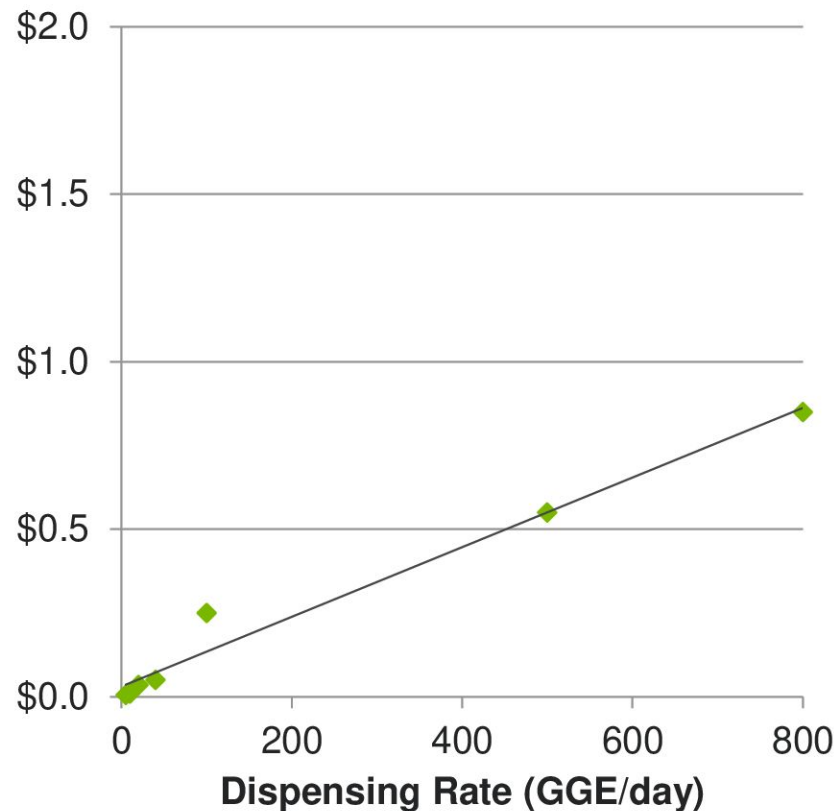


CAPITAL COSTS FOR FUELING STATIONS CAN BE SIGNIFICANT

CNG Fast Fill Station



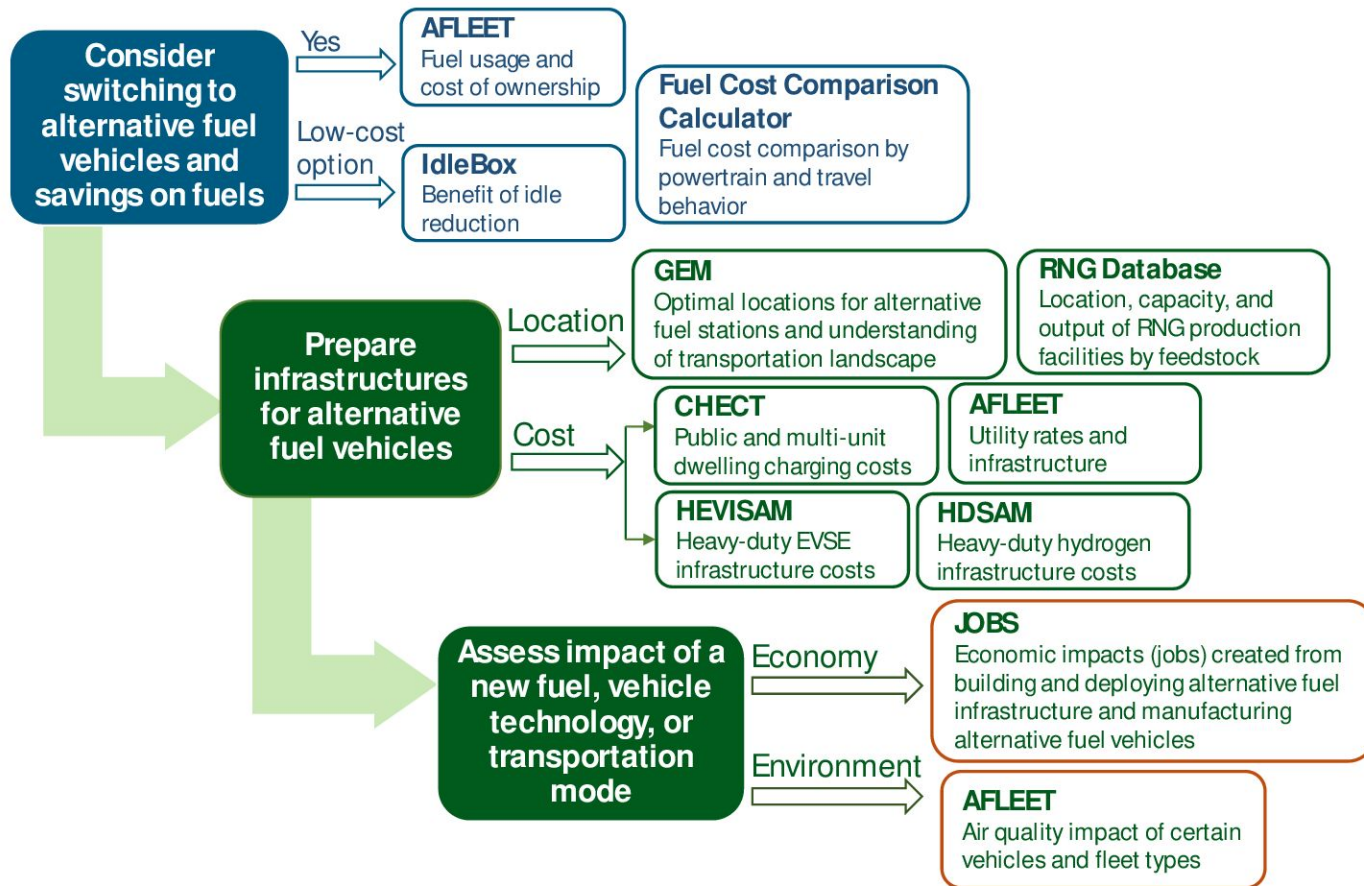
CNG Time Fill Station



ARGONNE COST MODELS

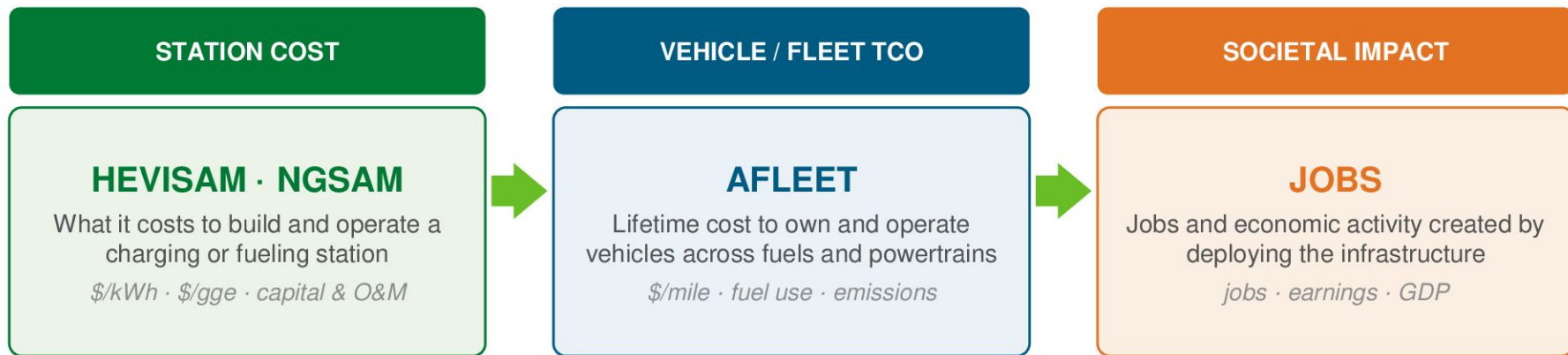
DRIVING UNBIASED DECISION-MAKING FORWARD

Argonne tools aim for user friendliness on consistent platforms



ARGONNE MODELS FOLLOW AN ENERGY-INFRASTRUCTURE DECISION END TO END

From station costs, to a fleet's TCO, to economic impact across society



Each stage builds on the one before — station economics feed fleet TCO, which drives regional and national economic impact.

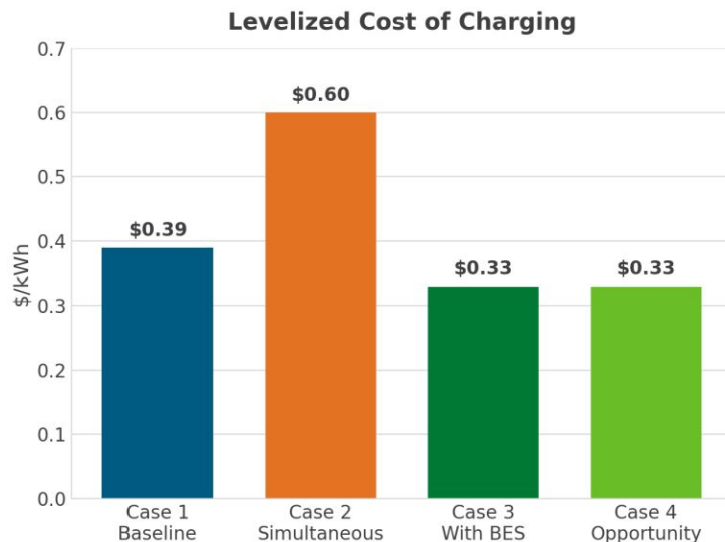
HEVISAM - HEAVY-DUTY EV INFRASTRUCTURE SCENARIO ANALYSIS MODEL

Estimates the **levelized cost of charging (\$/kWh)** for DC fast-charging depots serving heavy-duty BEVs

INPUTS fleet & charging demand,
station design, costs & rates

HEVISAM

OUTPUTS \$/kWh cost, capital, O&M &
energy, cash flows



hdsam.es.anl.gov/index.php?content=hevisam

NGSAM - NATURAL GAS STATION ANALYSIS MODEL

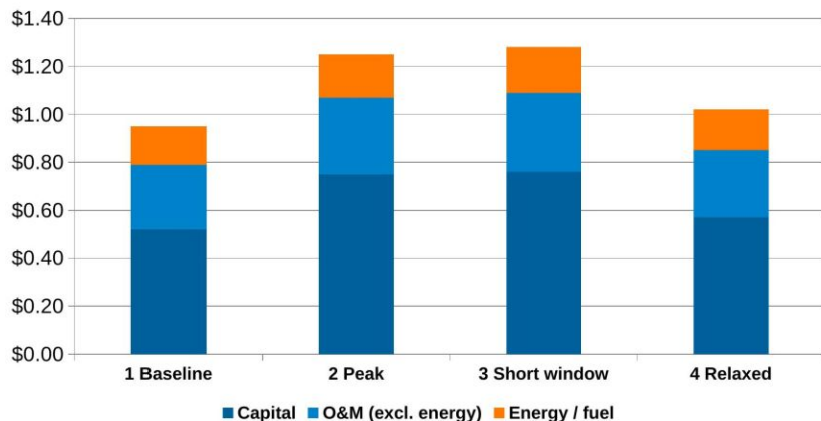
IN DEVELOPMENT

Estimates the **levelized cost (\$/gge)** of building and operating a CNG station for a fleet.

INPUTS fleet & fuel demand, fueling window & peaks, gas & power prices

NGSAM

OUTPUTS \$/gge refueling cost, equipment sizing, capital & O&M



Levelized station cost by scenario (\$/gge)

\$0.96 /gge

Baseline station refueling cost

\$2.57 /gge

Delivered CNG (station + supply gas cost)

~\$7.8M

Total capital — 100-vehicle depot

AFLEET TOOL

- **Examines light-duty, heavy-duty, & off-road vehicle:**
 - Petroleum use
 - GHGs
 - Air pollutants
 - Cost of ownership
- **Contains 18 fuel/vehicle technologies**
 - Conventional
 - Hybrids
 - Plug-in electrics
 - Alternative fuels: CNG, LNG, LPG, H₂, ethanol, biodiesel, renewable diesel
- **AFLEET Spreadsheet and Online; HDVEC: afleet.es.anl.gov**
 - Annual data and feature updates



AFLEET CALCULATION METHODS

1. **Simple Payback Calculator***
 - On-Road*
 - Off-Road*
2. **Total Cost of Ownership Calculator***
3. **Idle Reduction Calculator**
4. **On-Road Fleet Footprint Calculator**
5. **Off-Road Fleet Footprint Calculator**
6. **Rail Fleet Footprint Calculator**
7. **Marine Fleet Footprint Calculator**
8. **EV Utility Rate Calculator***
9. **EV Charger TCO Calculator***
10. **Charging and Fueling Infrastructure Calculator**

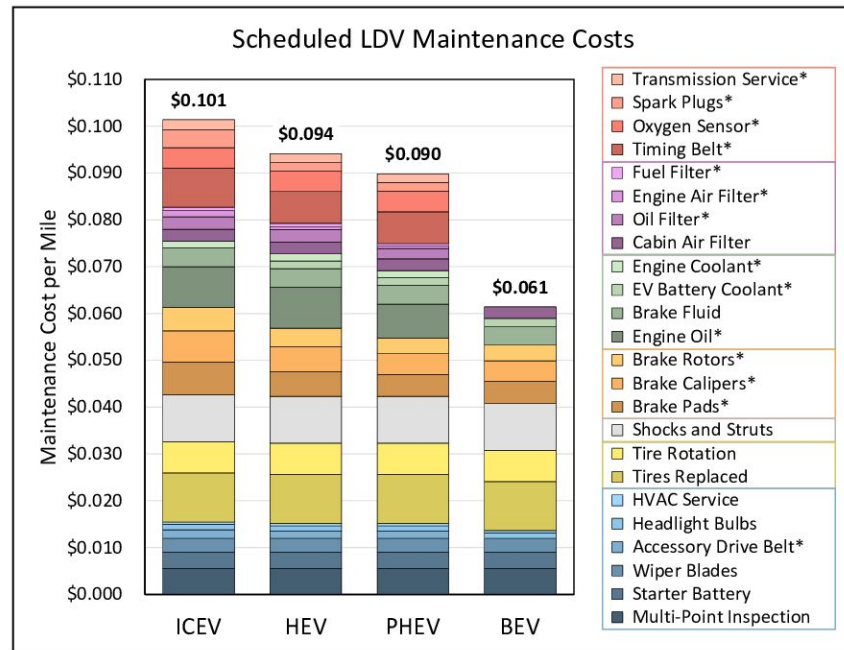
red = cost calculator

* = online version



KEY COST FEATURES

- Fuel prices using Clean Cities Alternative Fuel Price Reports
- Fueling infrastructure construction, operation, and maintenance costs for Payback/TCO
- EV Utility Rate and EV Charger TCO calculators to examine EVSE charging/infrastructure costs
- Depreciation, maintenance & repair, and insurance using multi-lab DOE TCO study



AFLEET SHOWS IMPACT OF FUEL AND VEHICLE PRICE SCENARIOS

Total Cost of Ownership - School Bus Fleet



AFLEET ONLINE TCO DEMO

COMPARE POTENTIAL ACQUISITIONS

AFLEET ONLINE DEMO

AFLEET ONLINE

The Department of Energy has enlisted the expertise at Argonne to develop the Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool for Clean Cities Coalition stakeholders. This online version of AFLEET compares new alternative fuel vehicles to gasoline (light-duty) and diesel (heavy-duty) vehicles.

Below are the calculators implemented by the online version from the [AFLEET Tool 2024 spreadsheet](#). Select one of the options below to get started:

SELECT A TOOL TO GET STARTED

PAYBACK ON-ROAD CALCULATOR

Enter vehicle type, powertrain types, mileage, fuel economy, purchase price, maintenance, fuel price, and other options to calculate:

- Annual petroleum use
- Annual greenhouse gas emissions
- Annual air pollutant emissions
- Simple payback

PAYBACK OFF-ROAD CALCULATOR

Enter equipment type, powertrain types, usage, fuel consumption, purchase price, maintenance, fuel price, and other options to calculate:

- Annual petroleum use
- Annual greenhouse gas emissions
- Annual air pollutant emissions
- Simple payback

TCO CALCULATOR

Enter vehicle type, powertrain types, mileage, planned ownership, fuel economy, purchase price, maintenance, insurance, fuel price, and other options to calculate:

- Lifetime petroleum use
- Lifetime greenhouse gas emissions
- Lifetime air pollutant emissions
- Total cost of ownership

EV RATE CALCULATOR

Enter number of EVs, daily EV mileage, EV electricity use, charger rating, charging strategy, charging period, up to 3 utility rates, and other options to calculate:

- Annual energy, demand, and fixed costs
- Cost per kWh dispensed

CHARGER TCO CALCULATOR

Enter number of EVs, daily EV mileage, EV electricity use, charger rating, charging strategy, charging period, up to 3 utility rates, and other options to calculate:

- Annual energy, demand, and fixed costs
- Cost per kWh dispensed

For any questions please contact: afleet@anl.gov

[Copyright Statement](#)

AFLEET ONLINE TUTORIAL - TCO

- **1st step: select vehicle type**
 - LDV (compare to gasoline)
 - HDV (compare to diesel)

AFLEET Online

Home Playback On-road Playback Off-road TCO

Vehicle Info Fuel Prices Other Costs Fuel Options

Vehicle Type: School Bus

State: LIGHT DUTY - GASOLINE COMPARISON

Quantity: Passenger Car

Vehicle Mileage: Passenger Truck

Planned Ownership: Light Commercial Truck

HEAVY DUTY - DIESEL COMPARISON

Powertrains to Compare

Powertrain	Fuel (MPG)	Total Cost	Cost per Gallon
☐ Gasoline			
☒ Diesel			
☒ EV			
☐ FCV	11.23	\$0	\$0.56
☐ Diesel HEV	11.03	\$160,000	\$0.81
☐ Diesel HHV	10.54	\$0	\$0.81
☒ B20	8.17	\$100,000	\$0.93
☐ B100	8.17	\$100,000	\$0.93
☐ RD20	8.17	\$100,000	\$0.93
☐ RD100	8.17	\$100,000	\$0.93
☐ E85	6.81	\$0	\$0.61
☒ LPG	6.81	\$108,000	\$0.61
☒ CNG	6.94	\$130,000	\$0.93
☐ LNG	6.94	\$120,000	\$0.93
☐ LNG/D	7.76	\$0	\$0.97

Save Load

AFLEET ONLINE TUTORIAL - TCO

- **2nd step:**
 - state
 - # of vehicles
 - mileage
 - years of ownership

- **3rd step: select alternative fuels/powertrains**

- **4th step:**
 - fuel economy
 - purchase price
 - maintenance

AFLEET Online

Home Playback On-road Playback Off-road TCO

Vehicle Info Fuel Prices Other Costs Fuel Options

Vehicle Type: School Bus

State: Illinois

Quantity: 1 vehicle(s)

Vehicle Mileage: 15,000 mi/year

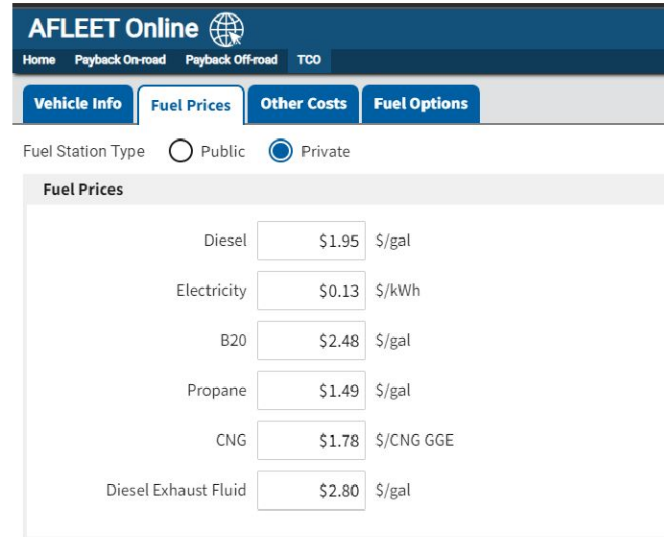
Planned Ownership: 15 years

Powertrains to Compare

☐ Powertrain	Fuel Economy (MPDGE)	Purchase Price (\$/vehicle)	Maintenance (\$/mi)
☐ Gasoline	6.81	\$0	\$0.61
☒ Diesel	8.17	\$100,000	\$0.93
☒ EV	23.96	\$300,000	\$0.56
☐ FCV	11.28	\$0	\$0.56
☐ Diesel HEV	11.03	\$160,000	\$0.81
☐ Diesel HHV	10.54	\$0	\$0.81
☒ B20	8.17	\$100,000	\$0.93
☐ B100	8.17	\$100,000	\$0.93
☐ RD20	8.17	\$100,000	\$0.93
☐ RD100	8.17	\$100,000	\$0.93
☐ E85	6.81	\$0	\$0.61
☒ LPG	6.81	\$108,000	\$0.61
☒ CNG	6.94	\$130,000	\$0.93
☐ LNG	6.94	\$120,000	\$0.93
☐ LNG/D	7.76	\$0	\$0.97

AFLEET ONLINE TUTORIAL - TCO

- 5th step: fuel prices



The screenshot shows the AFLEET Online interface. At the top, there's a navigation bar with 'Home', 'Payback On-road', 'Payback Off-road', and 'TCO'. Below this is a tabbed interface with 'Vehicle Info', 'Fuel Prices' (selected), 'Other Costs', and 'Fuel Options'. Under the 'Fuel Prices' tab, there's a 'Fuel Station Type' section with radio buttons for 'Public' and 'Private' (selected). The main area is titled 'Fuel Prices' and contains a list of fuel types with input fields for their prices:

Fuel Type	Price	Unit
Diesel	\$1.95	\$/gal
Electricity	\$0.13	\$/kWh
B20	\$2.48	\$/gal
Propane	\$1.49	\$/gal
CNG	\$1.78	\$/CNG GGE
Diesel Exhaust Fluid	\$2.80	\$/gal

AFLEET ONLINE TUTORIAL - TCO

- **6th step:**
 - fuel production sources
 - petroleum use, GHGs, and air pollutants options

The screenshot shows the AFLEET Online TCO calculator interface. The top navigation bar includes links for Home, Payback On-road, Payback Off-road, and TCO. Below this is a tabbed interface with four tabs: Vehicle Info, Fuel Prices, Other Costs, and Fuel Options. The Fuel Options tab is currently selected.

The main content area is divided into two sections:

Fuel Production Sources

This section contains several input fields for selecting fuel sources:

- Biodiesel Feedstock:** A dropdown menu with "Soy" selected.
- CNG Feedstock:** A dropdown menu with "North American NG" selected.
- North American NG Feedstock Source:** Two input fields for "Conventional" (66%) and "Shale" (34%).
- LPG Feedstock Source:** Two input fields for "NG" (69%) and "Petroleum" (31%).
- Electricity:** A dropdown menu with "Average U.S. Mix" selected.

Below these fields is a link: [View Electricity Source Map](#).

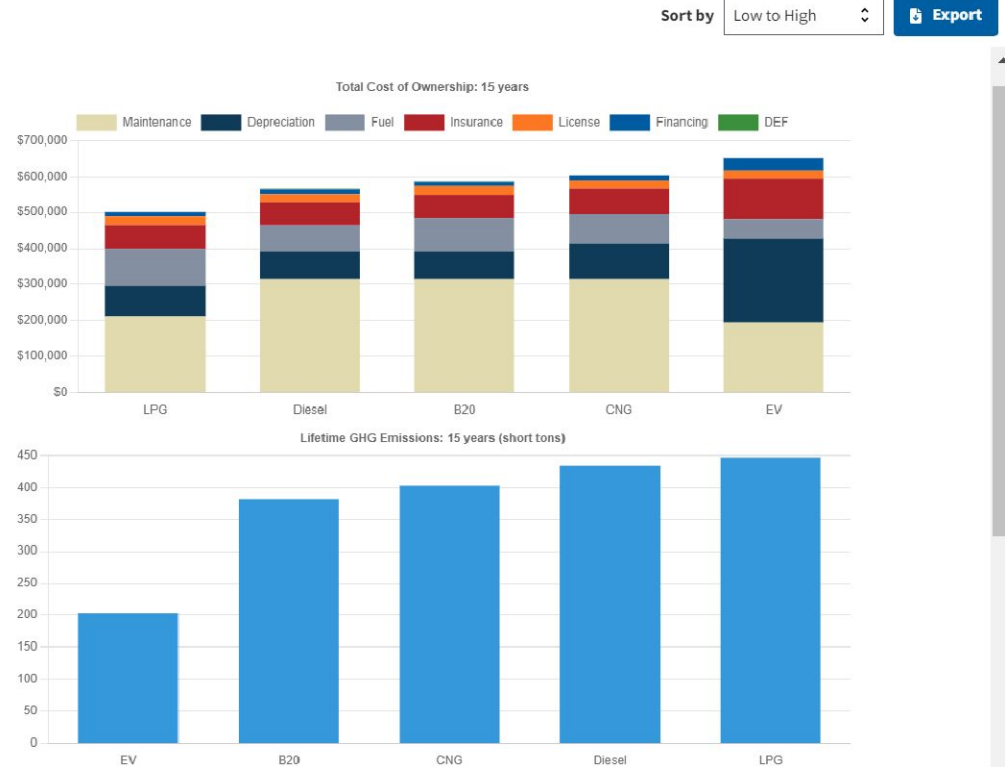
Calculation Options

This section contains options for GHG calculations:

- GHG Calculations:** A dropdown menu with "Well-to-Wheels Petroleum Use and GHGs & Vehicle Operation Air Pollutants" selected.
- ☐ Use Diesel-In-Use Multiplier?
- ☒ Use Low NOx Engines?

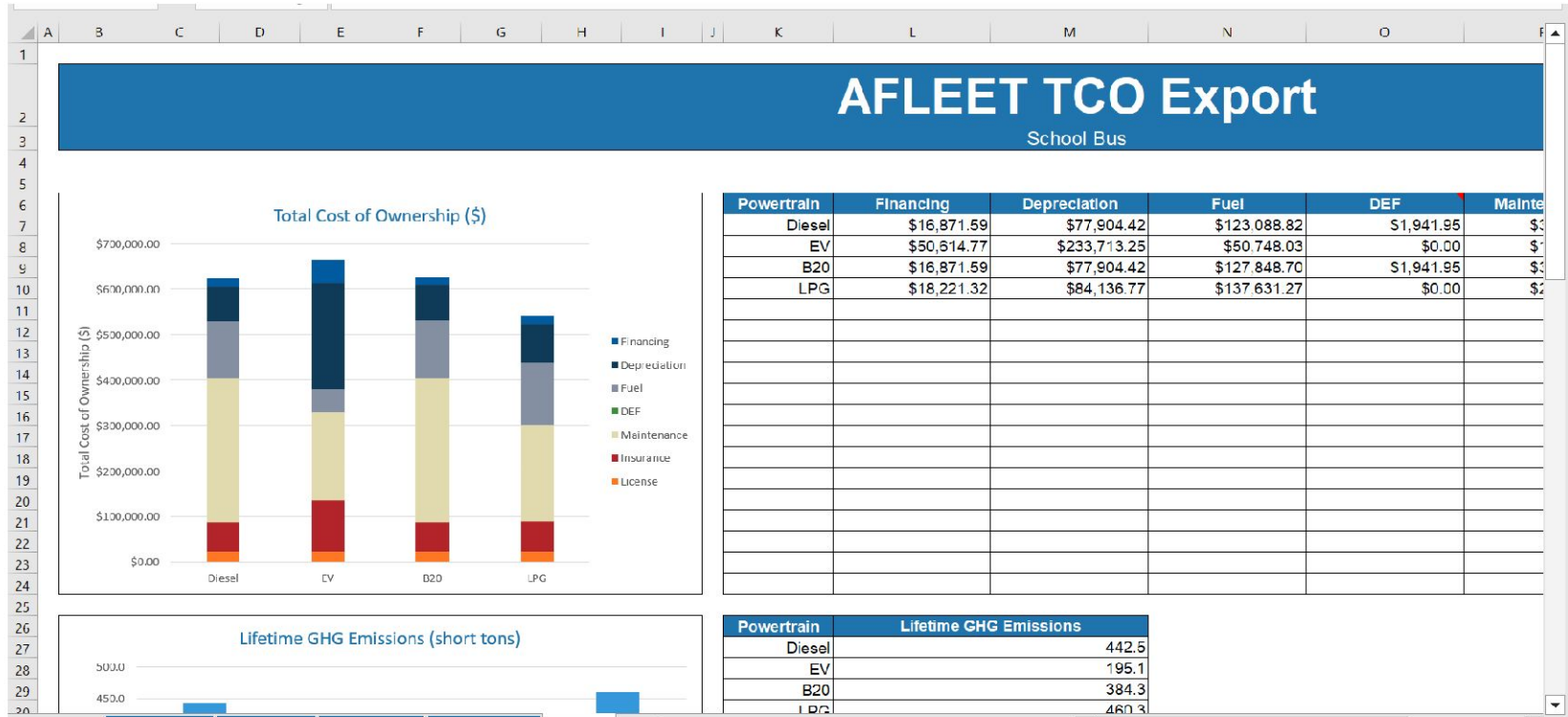
AFLEET ONLINE TUTORIAL - TCO

- 7th step: view TCO, GHG, petroleum, air pollutant results



AFLEET ONLINE TUTORIAL - TCO

8th step: export and view results



THANK YOU!!!

**Argonne National Laboratory's work is supported by the U.S.
Department of Energy, Office of Energy Efficiency and Renewable
Energy**

This work has been supported and assisted by:

Margaret Smith: U.S. DOE

Marcy Rood: Argonne

Joann Zhou: Argonne

Noah Song, David Sandoval, Eric Pfister, Arijus Trakymas, Andy Ayers,
Pam Richmond, Victoria Olatunbosun, Natalie Torres, Lisette Ruano, Zack
Edds, Kyle Pfister, Omar Yousufi, Tyler Posch



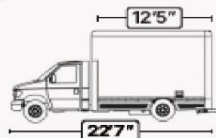
MORE CARGO IN A SHORTER TRUCK

Harbinger's HC Series Cab design maximizes box length within a shorter overall footprint compared to traditional cab configurations.

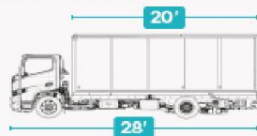
Harbinger HC Series Cab



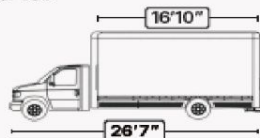
Traditional Cab



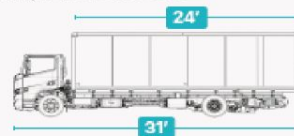
Harbinger HC Series Cab



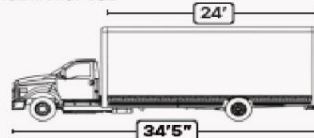
Traditional Cab



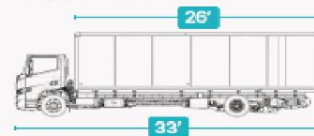
Harbinger HC Series Cab



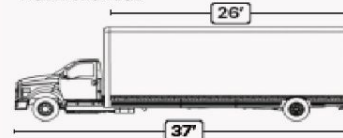
Traditional Cab



Harbinger HC Series Cab



Traditional Cab



158" Wheelbase

Cab Axle: 129.6"

16,000–22,000 GVWR
(Class 4, 5 & 6)

Overall Length: 23'

Cargo Vol: Upto 990 cu ft
(97" box height)

Turning Diameter: 42'

Available box size: 16–18'

178" Wheelbase

Cab Axle: 149.6"

19,500–26,000 GVWR
(Class 5 & 6)

Overall Length: 27'

Cargo Vol: Upto 1,240 cu ft
(97" box height)

Turning Diameter: 50'

Available box size: 20–22'

208" Wheelbase

Cab Axle: 179.6"

19,500–26,000 GVWR
(Class 5 & 6)

Overall Length: 29'

Cargo Vol: Upto 1,490 cu ft
(97" box height)

Turning Diameter: 56'

Available box size: 20–26'

235" Wheelbase

Cab Axle: 206.6"

26,000 Lb GVWR
(Class 6)

Overall Length: 31'3"

Cargo Vol: Upto 1,800 cu ft
(97" box height)

Turning Diameter: 60'

Available box size: 24–26'

GREATER MANEUVERABILITY.



BEST IN CLASS TURNING DIAMETER.

158" HC Series Cab 42.0 ft

158" Ford F650 46.5 ft

150" Isuzu N-Series 46.5 ft

Warranty

Complete Stripped Chassis:

5 YEARS /
60,000 MILES*

Drivetrain:

10 YEARS /
200,000 MILES*

Frame:

10 YEARS /
UNLIMITED MILES*

Propulsion Battery Pack:

10 YEARS / UNLIMITED
MILES / 2000 CYCLES*

* Whichever comes first

TOTAL COST OF OWNERSHIP

What does it really cost to own?

Harbinger HC Series Cab box truck with liftgate vs. diesel — Class 4, 5 and 6

\$54k–\$93k

lower energy cost over 10 years

\$10k–\$15k

lower maintenance & tire cost

\$60k–\$94k

higher up-front cost: truck + charger

100-mile route · 10-year ownership · U.S. national-average fuel, power and policy · Sept 2026



How we compared them

One HC Series Cab box truck vs. a comparable diesel — same route, same body, same driver

The basis



100-mile day, 260 days a year

26,000 mi/yr, with 1.5 hr/day of liftgate & curbside dwell



Same box + liftgate on both

HC priced at Harbinger MSRP; diesel at market pricing



10 years, 8% discount rate

Future savings valued in today's dollars (NPV)



U.S. national average

Fuel, electricity and policy as of Sept 2026

Key assumptions

Diesel

\$5.07/gal

EIA 2026 annual average

Electricity

\$0.135/kWh

U.S. average commercial rate

Demand charge

\$15/kW-month

Mid-point of an \$8–\$25 range

Charging

19.2 kW Level 2

HC high-power onboard charger — required with liftgate prep

Incentives

\$0

Federal 45W and 30C expired; no state or utility programs

Counted: chassis, box & liftgate, chargers, fuel & DEF vs. electricity and demand charges, maintenance, tires, insurance, fees, downtime and residual value.

Class 4: HC Series Cab 158" with 16 ft box + liftgate

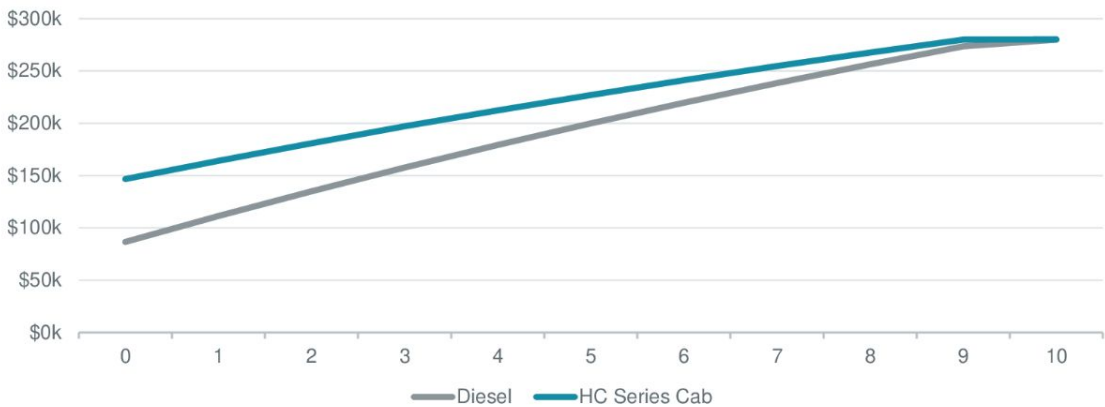
HC4-24 · 16,000 lb GVWR · 140 kWh · 100 mi/day × 260 days = 26,000 mi/yr

The comparison

	Diesel	HC Series
Chassis price	\$58,000	\$109,299
Box + liftgate	\$28,500	\$28,500
Charger, per truck	—	\$8,800 · Level 2
Efficiency	11.0 mpg	0.95 kWh/mi
Maintenance & repair	\$0.14/mi	\$0.09/mi
Battery used per day	—	70% of 140 kWh

10-yr operating savings	Up-front premium
\$64.6k	\$60.1k
Energy + maintenance, NPV · Truck + charger	

Cumulative cost of ownership, discounted (\$k) — year 0 to 10



10-year cost (NPV)
\$280k / \$280k
diesel / HC

Cost per mile
\$1.08 / \$1.08
diesel / HC

Break-even today
Within \$485 of diesel over 10 years. At today's \$5.97 pump price the HC is \$16.8k cheaper, with an 8-year payback.

HC: Harbinger MSRP (Aug 2026) incl. 19.2 kW onboard charger + liftgate prep. Diesel: representative market pricing. TCO model re-run, Sept 2026; national average, 10-yr NPV at 8%.

Class 5: HC Series Cab 178" with 20 ft box + liftgate

HC5-34 · 19,500 lb GVWR · 140 kWh · 100 mi/day × 260 days = 26,000 mi/yr

The comparison

	Diesel	HC Series
Chassis price	\$75,000	\$126,299
Box + liftgate	\$31,500	\$31,500
Charger, per truck	—	\$8,800 · Level 2
Efficiency	9.0 mpg	1.05 kWh/mi
Maintenance & repair	\$0.17/mi	\$0.11/mi
Battery used per day	—	78% of 140 kWh

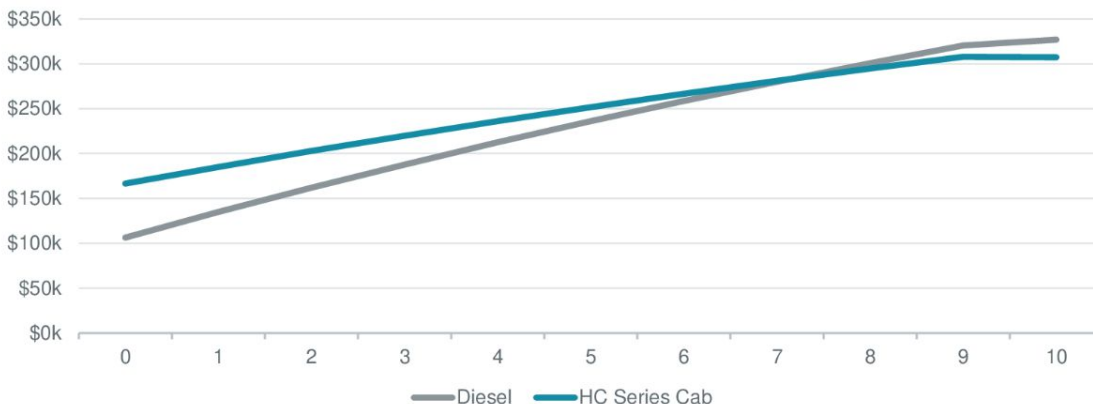
10-yr operating savings Up-front premium

\$85.1k

\$60.1k

Energy + maintenance, NPV · Truck + charger

Cumulative cost of ownership, discounted (\$k) — year 0 to 10



10-year cost (NPV)

\$327k / \$307k

diesel / HC

Cost per mile

\$1.26 / \$1.18

diesel / HC

HC wins: \$19.4k over 10 yrs

Pays back in year 8 with no incentives. At today's pump price: \$40.4k cheaper, year-6 payback.

Class 6: HC Series Cab 208" with 24 ft box + liftgate

HC6-55HD · 26,000 lb GVWR · 175 kWh · 100 mi/day × 260 days = 26,000 mi/yr

The comparison

	Diesel	HC Series
Chassis price	\$85,000	\$170,299
Box + liftgate	\$36,500	\$36,500
Charger, per truck	—	\$8,800 · Level 2
Efficiency	7.5 mpg	1.15 kWh/mi
Maintenance & repair	\$0.20/mi	\$0.13/mi
Battery used per day	—	68% of 175 kWh

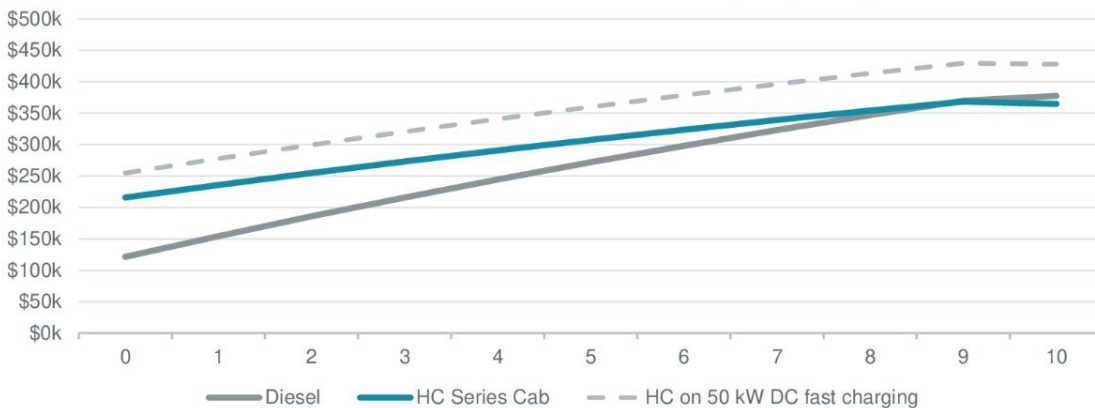
10-yr operating savings Up-front premium

\$107.7k

\$94.1k

Energy + maintenance, NPV · Truck + charger

Cumulative cost of ownership, discounted (\$k) — year 0 to 10



10-year cost (NPV)

\$378k / \$365k

diesel / HC

Cost per mile

\$1.45 / \$1.40

diesel / HC

HC wins: \$12.9k over 10 yrs

Pays back in year 9. Level 2 is key: the same truck on 50 kW DC fast charging would cost \$50.2k more than diesel.

More capacity from one platform

Maximum GVWR offered, by weight class — the HC Series Cab covers Class 4 through 6

	Harbinger HC Series Cab	Isuzu N-Series diesel	Isuzu NRR EV	Ford F-650
Class 4 14,001–16,000 lb	16,000 lb · 158"	16,000 lb (NPR-XD)	Not offered	Not offered
Class 5 16,001–19,500 lb	19,500 lb · 158" / 178" / 208"	19,500 lb (NRR)	19,500 lb	Not offered
Class 6 19,501–26,000 lb	22,000 or 26,000 lb · 158"—235"	Not offered	Not offered	26,000 lb (up to 29,000)

Actual payload = GVWR – chassis curb weight – body. HC Series Cab curb weights are not yet published, so this slide compares rated capacity, not payload.

Why it matters for payload



26,000 lb, no CDL

The most GVWR a driver can run without a CDL — 6,500 lb above the N-Series max



29" frame height

Low load floor for liftgate and curbside work (F-650: 39.4" chassis height)

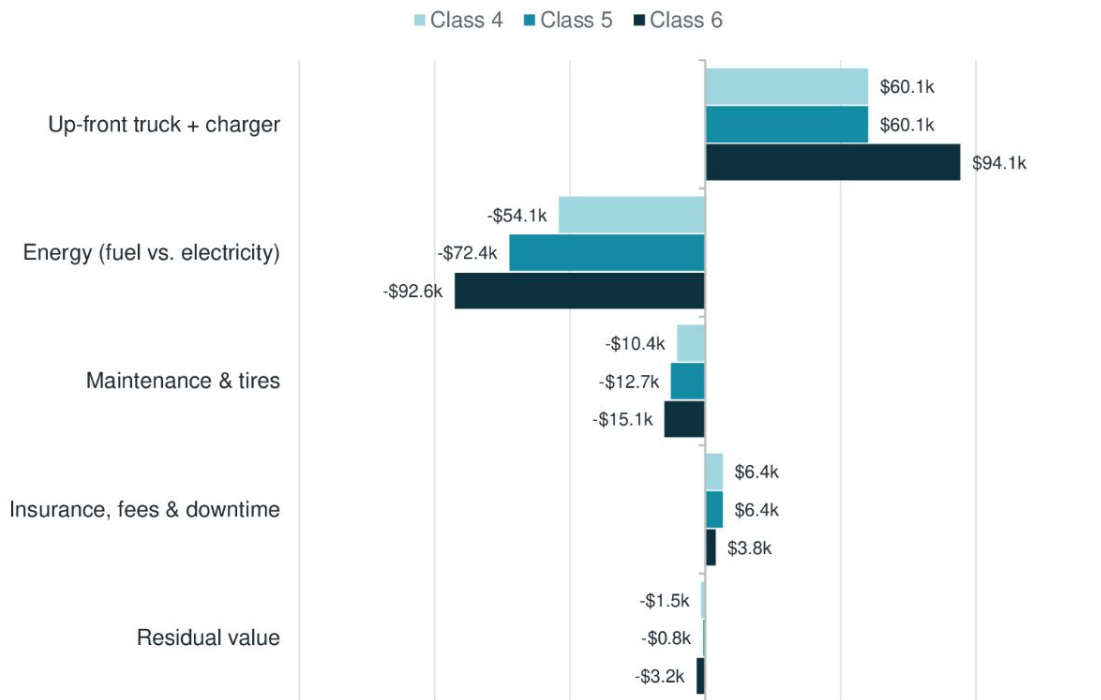


Right-size the battery

35 kWh packs at 462 lb each — the 4-pack is 462 lb lighter than the 5-pack

On a 100-mile day, the savings cover the premium

HC Series Cab minus diesel, 10-year NPV (\$k). Bars left of zero favor the HC.



Demand charges: the other part of the power bill



Year-1 electricity bill per truck

29%–33% of the bill is a fixed monthly charge for peak kW. Level 2 and sequenced overnight charging keep that peak low.

What moves the answer

HC Series Cab vs. diesel, 10-year NPV. Teal = HC costs less (discounted payback year shown).

Scenario	Class 4	Class 5	Class 6
Base case (national average, no incentives)	+\$0.5k	-\$19.4k yr 8	-\$12.9k yr 9
Diesel at today's pump price (\$5.97/gal)	-\$16.8k yr 8	-\$40.4k yr 6	-\$38.0k yr 7
No demand charge (EV tariff / holiday)	-\$14.4k yr 8	-\$34.3k yr 6	-\$27.8k yr 8
Utility funds 100% of charger make-ready	-\$8.3k yr 9	-\$28.2k yr 6	-\$21.7k yr 8
Federal 45W (\$40k) + 30C (30%) restored	-\$42.2k yr 3	-\$62.1k yr 2	-\$55.5k yr 5
\$60k state voucher per truck	-\$59.5k yr 1	-\$79.4k yr 1	-\$72.9k yr 3
Today's diesel + \$60k state voucher	-\$76.8k yr 1	-\$100.4k yr 1	-\$98.0k yr 3
Caution: 50 kW DC fast charging instead of Level 2	+\$63.6k	+\$43.7k	+\$50.2k

Levers a fleet controls



Charger spec

Level 2 at 19.2 kW fits a 100-mile day overnight



Charge scheduling

Lower peak kW, lower demand charge



Route assignment

Put the HC on the high-mile routes

Outside the fleet's control: diesel prices and incentives — each worth tens of thousands per truck.

Three questions before you electrify

These three answers decide the outcome more than anything on a spec sheet.

1

How many miles a day?

Electric trades a fixed up-front cost for lower running cost, so utilization wins. At 100 miles a day, the HC pays for itself.

2

How long does it sit overnight?

A 100-mile day needs about 7 hours on the HC's 19.2 kW onboard charger. Don't pay for DC fast charging the route doesn't need.

3

What does the site's utility bill look like?

Demand charges are a fixed monthly cost. Ask about EV tariffs, make-ready programs and managed charging.

Bottom line: on a 100-mile day with Level 2 charging, the HC Series Cab matches or beats diesel over 10 years — with no incentives. Let's run the numbers on your routes.

BOB HATHAWAY

Southeast | Southwest | West

Director, Dealer Development
321.301.0239
bob.hathaway@harbingermotors.com

STEVE SAGE

Central | Midwest | Canada

Director, Dealer Development
248.856.8432
steve.sage@harbingermotors.com

ROB JACKSON

Northeast | Mid-Atlantic

Director, Dealer Development
646.275.9902
rob.jackson@harbingermotors.com



HARBINGER



**COFFEE
BREAK**



ILPGA AutoGas

September 24, 2026

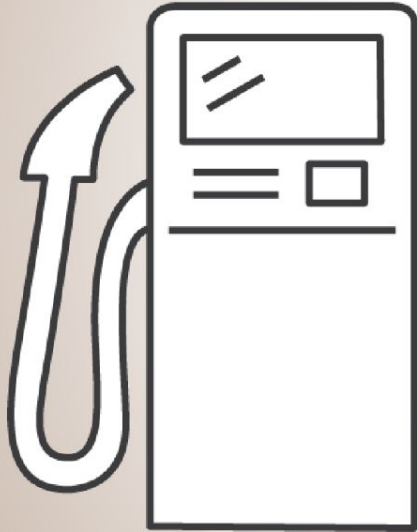
Matt Schmitt

Territory Manager

AmeriGas Propane



Why Fleets Choose Propane Autogas



Total Cost-of-Ownership

Lower Emissions

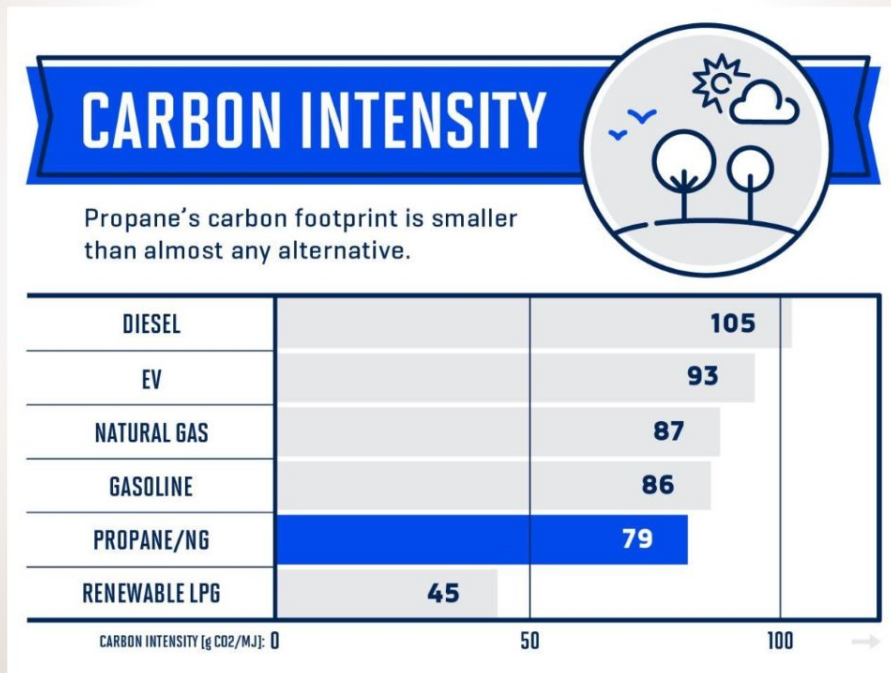
Reduced Noise

Less Maintenance – Increased Uptime

Improve Corporate Image

Employee Morale / Driver Retention

Well to Wheel Emissions



School Buses



AmeriGas®

Paratransit



Beverage



Power Generation



What's New?



Scalable Infrastructure



TANK AND THERMO WELDED DETAIL

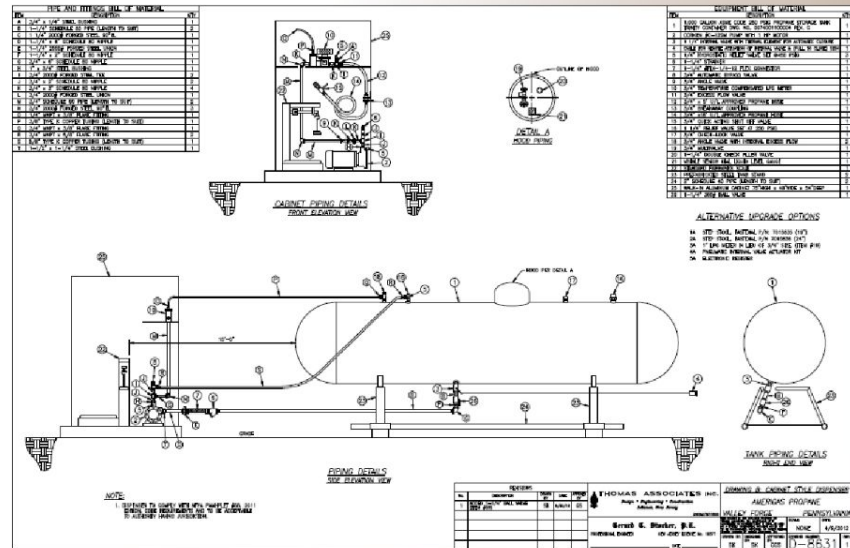
COMPONENT BILL OF MATERIALS

ITEM	DESCRIPTION	QUANTITY
1	1/2" SCH 40S PIPE, 10' LONG	1
2	1/2" SCH 40S PIPE, 10' LONG	1
3	1/2" SCH 40S PIPE, 10' LONG	1
4	1/2" SCH 40S PIPE, 10' LONG	1
5	1/2" SCH 40S PIPE, 10' LONG	1
6	1/2" SCH 40S PIPE, 10' LONG	1
7	1/2" SCH 40S PIPE, 10' LONG	1
8	1/2" SCH 40S PIPE, 10' LONG	1
9	1/2" SCH 40S PIPE, 10' LONG	1
10	1/2" SCH 40S PIPE, 10' LONG	1
11	1/2" SCH 40S PIPE, 10' LONG	1
12	1/2" SCH 40S PIPE, 10' LONG	1
13	1/2" SCH 40S PIPE, 10' LONG	1
14	1/2" SCH 40S PIPE, 10' LONG	1
15	1/2" SCH 40S PIPE, 10' LONG	1
16	1/2" SCH 40S PIPE, 10' LONG	1
17	1/2" SCH 40S PIPE, 10' LONG	1
18	1/2" SCH 40S PIPE, 10' LONG	1
19	1/2" SCH 40S PIPE, 10' LONG	1
20	1/2" SCH 40S PIPE, 10' LONG	1
21	1/2" SCH 40S PIPE, 10' LONG	1
22	1/2" SCH 40S PIPE, 10' LONG	1
23	1/2" SCH 40S PIPE, 10' LONG	1
24	1/2" SCH 40S PIPE, 10' LONG	1
25	1/2" SCH 40S PIPE, 10' LONG	1

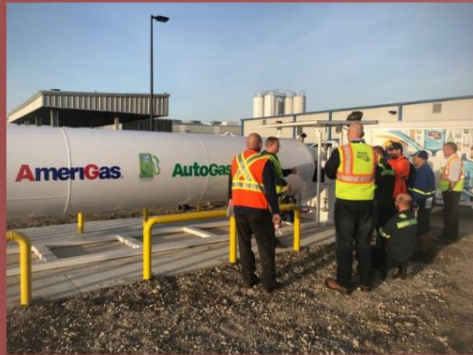
TANK PIPING DETAIL

SUPPLIER

ITEM	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
1	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
2	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
3	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
4	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
5	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
6	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
7	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
8	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
9	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
10	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
11	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
12	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
13	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
14	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
15	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
16	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
17	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
18	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
19	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
20	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
21	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
22	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
23	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
24	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00
25	1/2" SCH 40S PIPE, 10' LONG	1	10'	10.00	10.00



...to Commission



AmeriGas®

Clearest Path Forward

	Diesel	Gasoline	Propane Autogas	CNG	Electric
					
Ease of Adoption	✓	✓	✓		
Energy Independence			✓	✓	✓
Reduced NOx Emissions			✓	✓	✓
Affordable Fuel Infrastructure	✓	✓	✓		
Reduced Range Anxiety	✓	✓	✓		
Ease of Maintenance		✓	✓		
Scalable	✓	✓	✓		
Reliable Cold Weather Operation		✓	✓		
Low Total Cost-of-Ownership			✓		



Thank You

Matt Schmitt | Territory Manager

AmeriGas Propane

AmeriGas®

True Alternative Fuel Systems

Adam Goldstein

Director of Engineering

phone 317-985-3244

email goldstein@stagusa.us









True Alternative Fuel Systems

Adam Goldstein

Director of Engineering

phone 317-985-3244

email goldstein@stagusa.us

A close-up, first-person perspective shot from the driver's seat of a car. The driver's hands, wearing a blue long-sleeved shirt, are on the black steering wheel. The dashboard and center console are visible in the background, featuring a digital display screen and various control buttons. The text "LUNCH" is overlaid in large, white, sans-serif capital letters across the upper half of the image, with a small horizontal line centered below it.

LUNCH

—
RIDE AND DRIVE



Our Mission

To acquire and hold lands for the purpose of preserving the flora, fauna and scenic beauty for the education, pleasure and recreation of DuPage County citizens.

26,000
Acres

175
Miles of Trails

60
Forest Preserves

5.9 Million
Annual Visitors

Fleet Management

2018, moved into a new 29,000 square-foot fleet maintenance facility, equipped with 19 bays and all new equipment.

- Shop designed to LEED standards
- All LED lighting
- Dormers and Bay Door windows for natural lighting
- Exterior lighting Dark Sky Compliant
- Rain Gardens
- Recycled and Low-VOC materials
- Building, pavement, and stormwater BMPs used
- Timers and Motion Sensors for lighting

Solar Arrays designed to provide 110% of power



324,000 kWh annually



Fleet Management

Summary of Fleet Assets:

Established Alternative Fuel Policy in 2001 and started using B20

Alternative Fuels used: LPG, E85, B20, EV, and Hybrid

Currently have 12 EV Charging Stations

Over 1600 Assets maintained

97% On-Road Vehicles use alternative fuel (out of 180 vehicles)

Reduced CO2 Emissions by 243 metric tons

Switching over to battery power on small equipment – chainsaws, trimmers, blowers

100% Off-Road Diesel Equipment runs on B20
Including 1976 JD Grader

B99 pilot program run at St. James Farm using approximately 500 gallons



Biobased Academy – Sustainably Soy

All Fleet Technicians received ASE certified training on use and benefits of Biodiesel; trained on benefits of using Soybased products.

Fleet Shop is Sustainably Soy Certified by the IL Soybean Association



Benefits of Certifications

- Increased understanding of the operational, health, and safety best practices of biobased products
- Highlights your agency's commitment to Sustainability and GHG reductions
- Shows you value the health and wellbeing of staff by reducing exposure to harmful chemicals
- Shows Leadership in the Fleet community and contributes to state and national awards and certifications (great PR for your agency)
- Great First-Step for agencies wanting to kick start their Sustainability program
- Education o



IACT
ILLINOIS ALLIANCE FOR
CLEAN TRANSPORTATION



**American
Lung Association™
Biobased Academy**

- Don't be afraid to try new products – ***“can't make an omelet without breaking eggs”***
- Start with a small Pilot Program
- Get employees onboard through education
- Educate Board Members/Directors
- Have a written Sustainability Policy
- Start with Low Hanging Fruit

Thank you.



State of Illinois EV Funding

Jo Borrás

Sr. Policy Advisor; EV / Electrification

Illinois Environmental Protection Agency



Overview of EV Funding

▶ EV Chargers

- ▶ Climate Equitable Jobs Act (CEJA)
- ▶ Climate Pollution Reduction Grant (CPRG)
- ▶ National Electric Vehicle Infrastructure (NEVI)

▶ Class 1-2 Light-duty Vehicles

- ▶ EV Rebates for residents

▶ Class 4-8 Medium and Heavy-Duty Vehicles

- ▶ Volkswagen Settlement (VW)
- ▶ IL Clean Ports
- ▶ Diesel Emission Reduction Grant (DERA)
- ▶ Climate Pollution Reduction Grant (CPRG)





Public Charger Funding

► Funded To Date

- FIRST NEVI-funded public DCFC site recently completed near Casey, IL
- 596 public charging sites funded by the State of Illinois to date
- 219 of these are currently online

► Upcoming Funding (Confirmed)

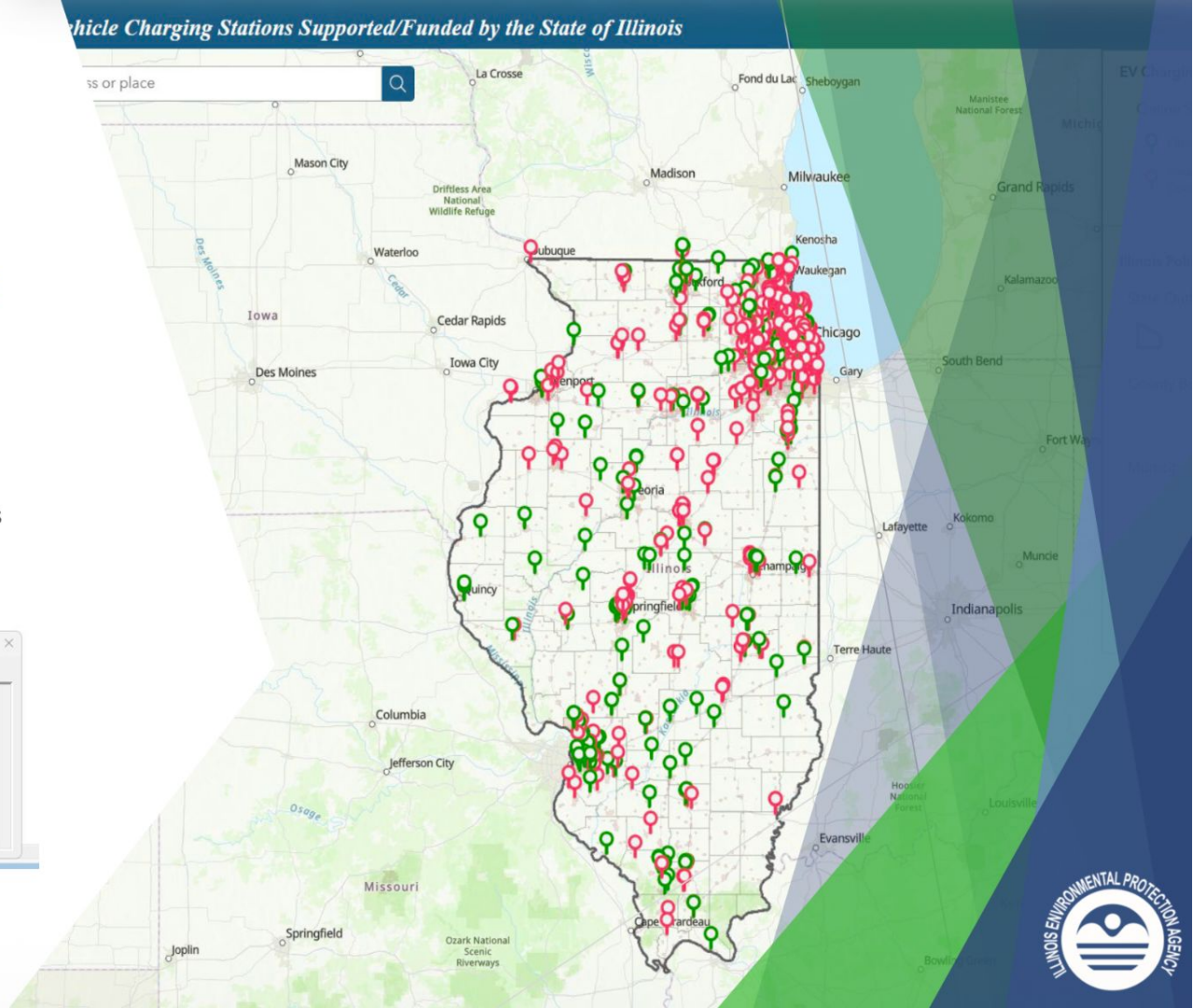
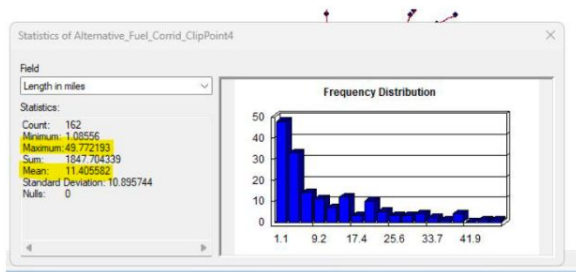
- NEVI round 4 from IDOT (covers 80% eligible costs)
 - Expanded eligibility due to Illinois' "fully built-out" status
- CEJA round 4 from IEPA (covers up to 80% eligible costs)
- CPRG (\$30 million total, up to \$60k per DCFC)
 - Focus on chargers for medium- and heavy-duty EVs
 - High-speed, "pull-thru" designs, ety.



Interactive Illinois EV Charging Map

Easily to visualize public charging

- ▶ On average, 11.5 miles between chargers
- ▶ Max distance less than 50 miles



LDEV Rebate

- ▶ **Last Round Funded**
 - ▶ 12,983 rebates issued
 - ▶ 3,133 of these were to LI applicants
- ▶ **Available for Illinois residents (not businesses) who had purchased an EV in the last 180 days**
 - ▶ \$4,000 rebate for low-income applicants
 - ▶ \$2,000 rebate for other applicants
 - ▶ \$1,500 rebate for motorcycles





LDEV Rebate 2026

The Illinois EPA has been appropriated \$14 million for the current fiscal year, which ends on June 30, 2027. Actual funding amounts will be determined by the amount of fund available in the Electric Vehicle Rebate Funding is not to exceed \$14 million.

► Current Round

- Opened 01AUG2026
- Closes 31DEC2026

► Available for Illinois residents (not businesses) who had purchased an EV in the last 180 days

- \$4,000 rebate for low-income applicants
- \$2,000 rebate for other applicants
- \$1,500 rebate for motorcycles



VW Settlement Truck Grants

- ▶ **Nearly depleted**
- ▶ **\$~3 million dollars**
 - ▶ Class 4-8 local electric freight trucks and Class 8 electric drayage trucks (aka terminal trucks, yard tractors, yard dogs, etc.)
 - ▶ Covers 75% of costs for government applicants, 50% for non-government applicants
 - ▶ Applicants **MUST** scrap an eligible 1992-2009 vehicle to qualify
 - ▶ First come, first served

IL Clean Ports Program

\$92 million to fund zero-emission equipment and infrastructure at four public water port districts across Illinois.

► **Includes funding for**

- Port equipment (cranes, forklifts)
 - Vehicles (trucks, locomotives)
 - Energy efficiency and management (solar panels, battery energy storage, etc.)
- \$3 million to fund the planning of future decarbonization efforts at seven inland and river water ports across Illinois





DERA Funding

UPCOMING CONFIRMED

Illinois EPA receives Diesel Emission Reduction Act (DERA) funding from the US EPA for implementing electric vehicle projects that reduce diesel emissions. Grants are awarded to selected applicants through the Driving a Cleaner Illinois – DERA Program.

- ▶ \$935k for Class 5-8 electric trucks
- ▶ Applicants must scrap an equivalent vehicle of any model year to be eligible
- ▶ Covers up to 45% of eligible costs, Incl.:
 - ▶ Up to one (1) charging system
 - ▶ Upfit and utility body costs

DERA Funding

UNCONFIRMED

Last week, the US House of Representatives voted overwhelmingly in a bipartisan vote to renew more than \$100M in annual funding for the Diesel Emissions Reduction Act (DERA), passing the measure 343-79 and extending federal funding for cleaner MD- and HDEVs through 2029.

- ▶ Nothing yet finalized (must pass Senate)
- ▶ Undetermined funding amounts





CPRG Funding

UPCOMING CONFIRMED

IEPA has been awarded federal funding under the US EPA Climate Pollution Reduction Grant (“CPRG”) Program, which will, among other things, support the deployment of zero-emission medium- and heavy-duty vehicles and associated charging infrastructure across Illinois.

► **Over \$20M in direct EV funding**

- \$10M for heavy-duty trucks (\$100k/truck)
- \$10M for medium-duty trucks (\$50k)
- \$2.5M for forklifts (est. \$2,790 ea.)

► **Additional funding for**

- Clean fleet planning
- Fleet assessment tools



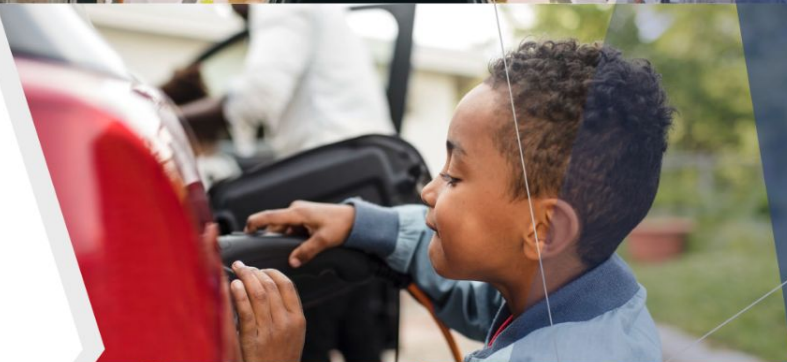
2028 and Beyond

Clean and Reliable Grid Affordability Act (CRGA) is a comprehensive Illinois energy law (Public Act 104-0458) signed into law by Governor J.B. Pritzker this January 8th and made effective June 1st, 2026. Under CRGA, Illinois will see:

- ▶ Nearly \$85 million annually from ComEd and Ameren to support EV and Make-Ready infrastructure rebates
- ▶ IEPA will publish a draft Transportation Electrification Plan in Q1 2028
- ▶ The Plan will support transportation and freight electrification efforts, which incl. passenger vehicles, school buses, transit buses, MHDEVs, and chargers



Illinois will continue
to be a good place to
live, to do business,
AND to electrify.



IEPA are Here to Help

Illinois EPA's "**Driving a Cleaner Illinois**" webpage to learn more and apply to open opportunities. The ListServ form, which is accessible there, is the best way to be alerted when new state funding opportunities are released.

epa.illinois.gov/topics/air-quality/driving-a-cleaner-illinois.html

Jo Borrás

Sr. Policy Advisor; EV / Electrification

Illinois Environmental Protection Agency

jo.borras@illinois.gov

Esmeralda Venegas

EV Program Grant Liaison

Illinois Environmental Protection Agency

esmeralda.venegas2@illinois.gov





IACT

**ILLINOIS ALLIANCE FOR
CLEAN TRANSPORTATION**