

U.S. Department of Energy-Supported Resources for CC&C Coalitions

Recorded October 2026

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Agenda and Learning Objectives

- **Key Websites and Resources**

  Navigate and utilize key websites to access up-to-date program information, publications, and other resources: Clean Cities and Communities (CC&C) website, Alternative Fuels Data Center (AFDC), and FuelEconomy.gov.

- **AFDC Tools Overview**

  Use AFDC tools to locate stations, compare vehicles, and analyze alternative fuel data relevant to your work.

- **Technical Assistance from National Labs**

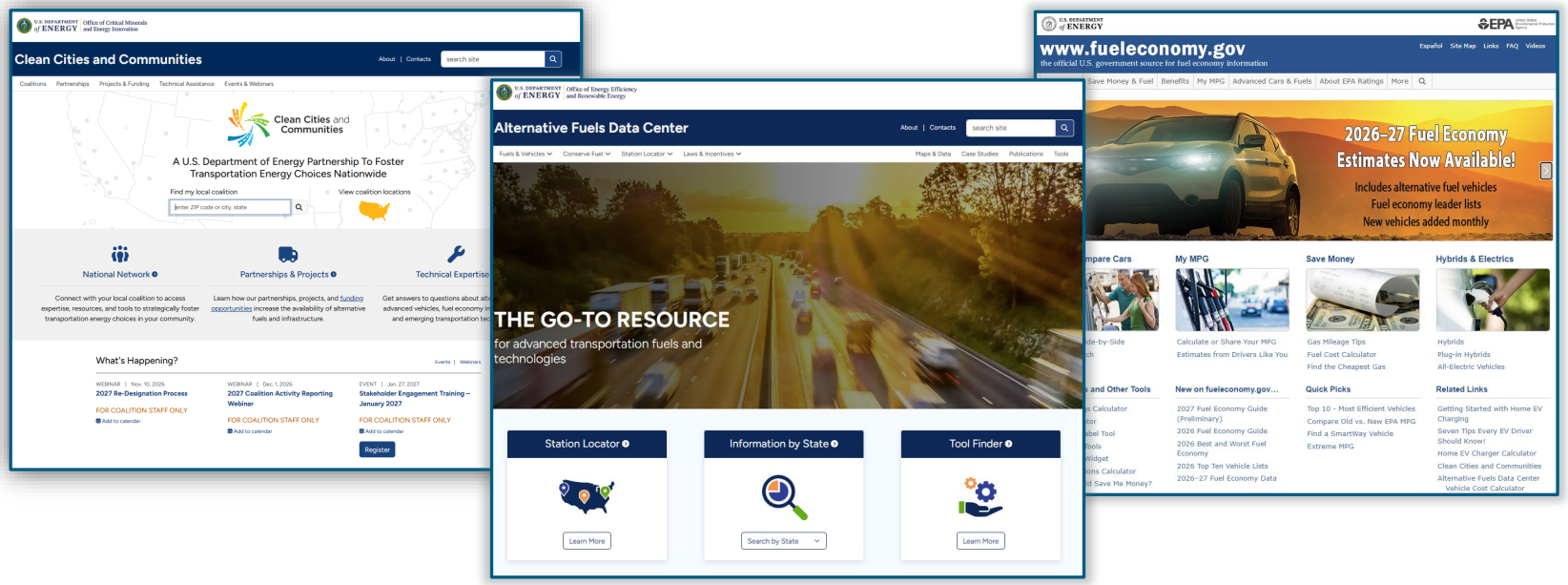
  Learn about the Technical Assistance team, their expertise, and how they support coalitions.

- **Technical Assistance Key Topic Areas**

  Learn about the Technical Response Service and in-depth assistance for coalitions, including how to access these support services.

Key Websites and Resources

Websites with Resources for CC&C



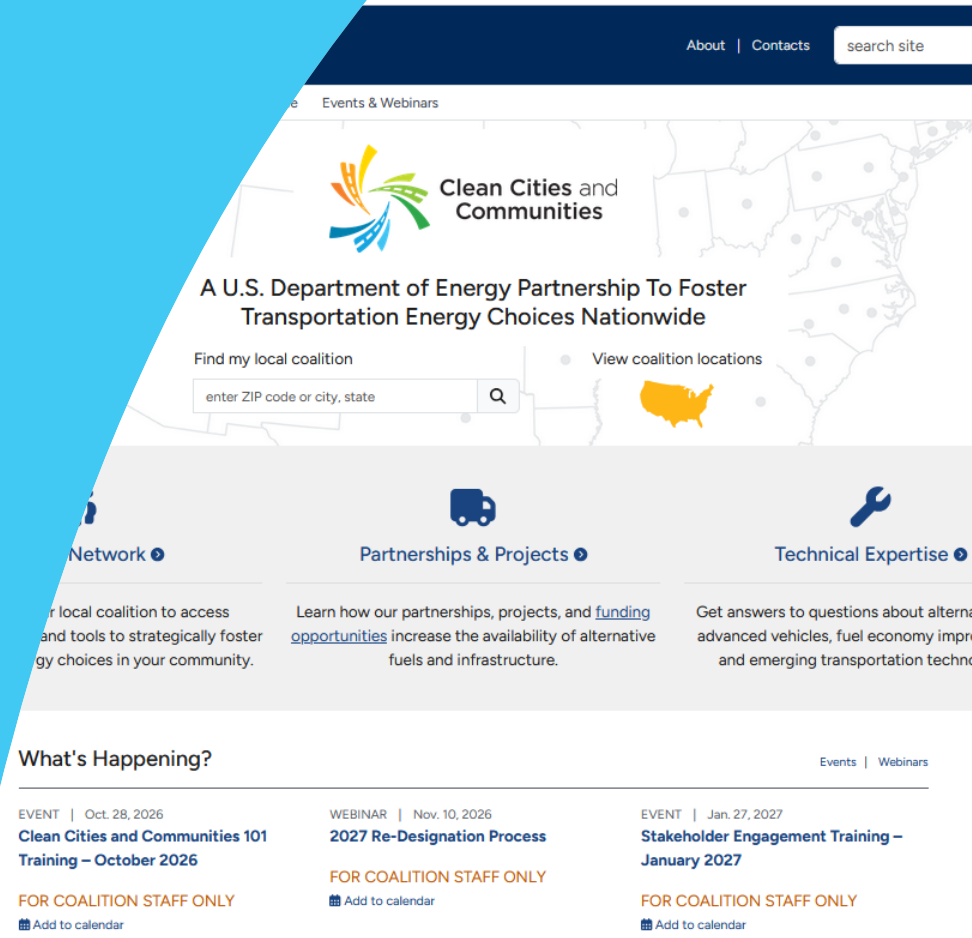
cleancities.energy.gov

afdc.energy.gov

www.fueleconomy.gov

CC&C Website

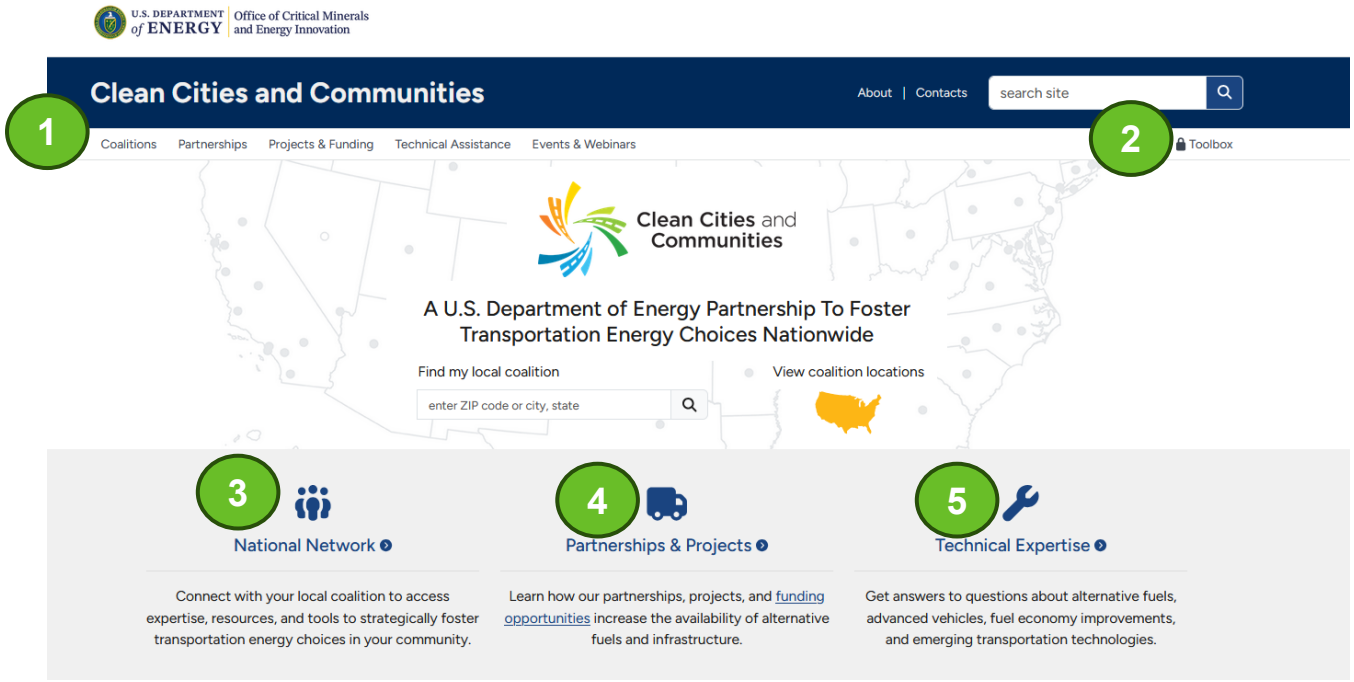
- CC&C contacts and partnership information
- Coalition Toolbox
- Upcoming and recorded webinars
- Fact sheets.



cleancities.energy.gov

CC&C Website

1. Navigation menu
2. Toolbox (password protected)
3. CC&C contacts
4. Partnerships, projects, and funding opportunities information
5. Technical expertise.



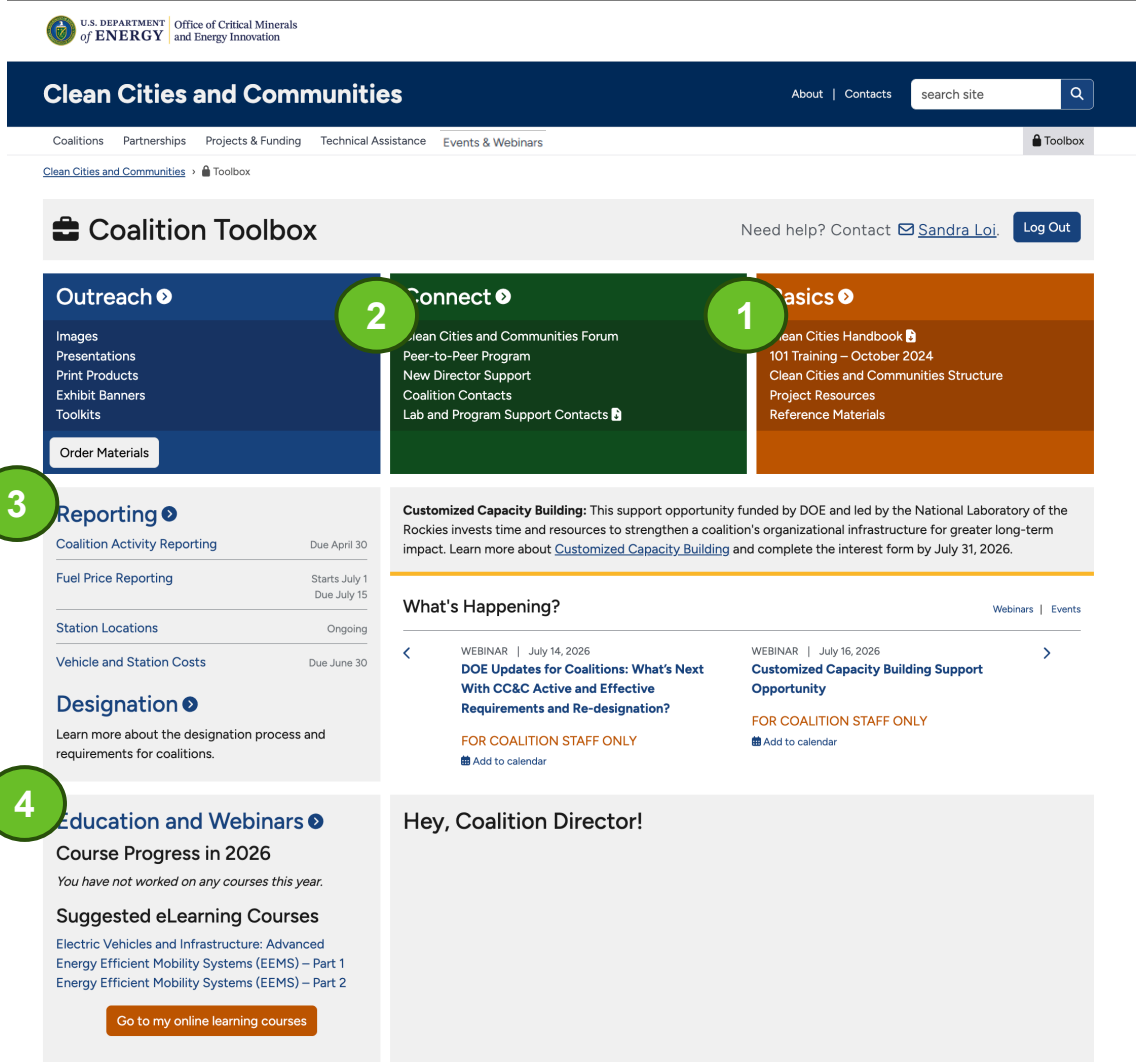
cleancities.energy.gov

Coalition Toolbox

1. CC&C Handbook
2. CC&C Forum
3. Annual report, alternative fuel price report, and station reporting
4. CC&C eLearning.

For Toolbox login and to be added to the CC&C Partnership Update newsletter list, contact Mandy Bongiovanni: ccc-access@nlr.gov

cleancities.energy.gov/toolbox



Upcoming and Recorded Webinars

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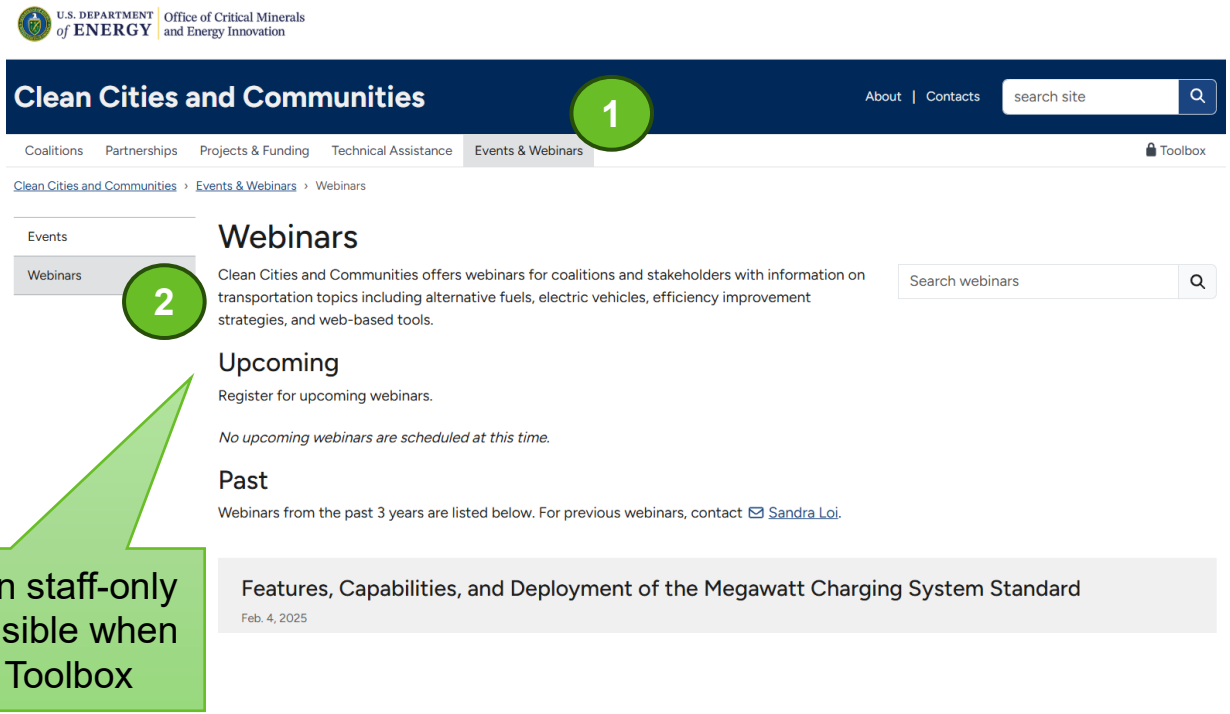
2. Select “Webinars.”



Note: Coalition staff-only content only visible when in Coalition Toolbox

cleancities.energy.gov/webinars

Publications Order Form

U.S. DEPARTMENT of ENERGY | Office of Critical Minerals and Energy Innovation

Clean Cities and Communities | About | Contacts | search site

Coalitions | Partnerships | Projects & Funding | Technical Assistance | Events & Webinars | Toolbox

Clean Cities and Communities › Toolbox › Outreach

- Outreach
- Logos, Graphics, & Photographs
- Print Products & Templates
- Exhibit Banners
- Presentations
- Videos
- Tips
- Education & Webinars
- Reporting
- Designation
- Connect
- Reference Materials
- Project Resources
- Project Lessons

Publication, Education, and Outreach Material Order Form

Use this form to request print copies of Clean Cities and Communities (CC&C) publications, education, and outreach materials. For questions about orders, contact Mollie Putzig. **Please allow 10 business days for delivery.** The National Laboratory of the Rockies (NLR) is in the process of updating outreach materials to reflect the new CC&C rebrand that launched in February 2024. This process will take some time given the large quantity of CC&C outreach materials. If a rebranded product is not yet available, please continue to use the currently available version. Be sure to watch the coalition newsletter and Forum for announcements about updated materials.

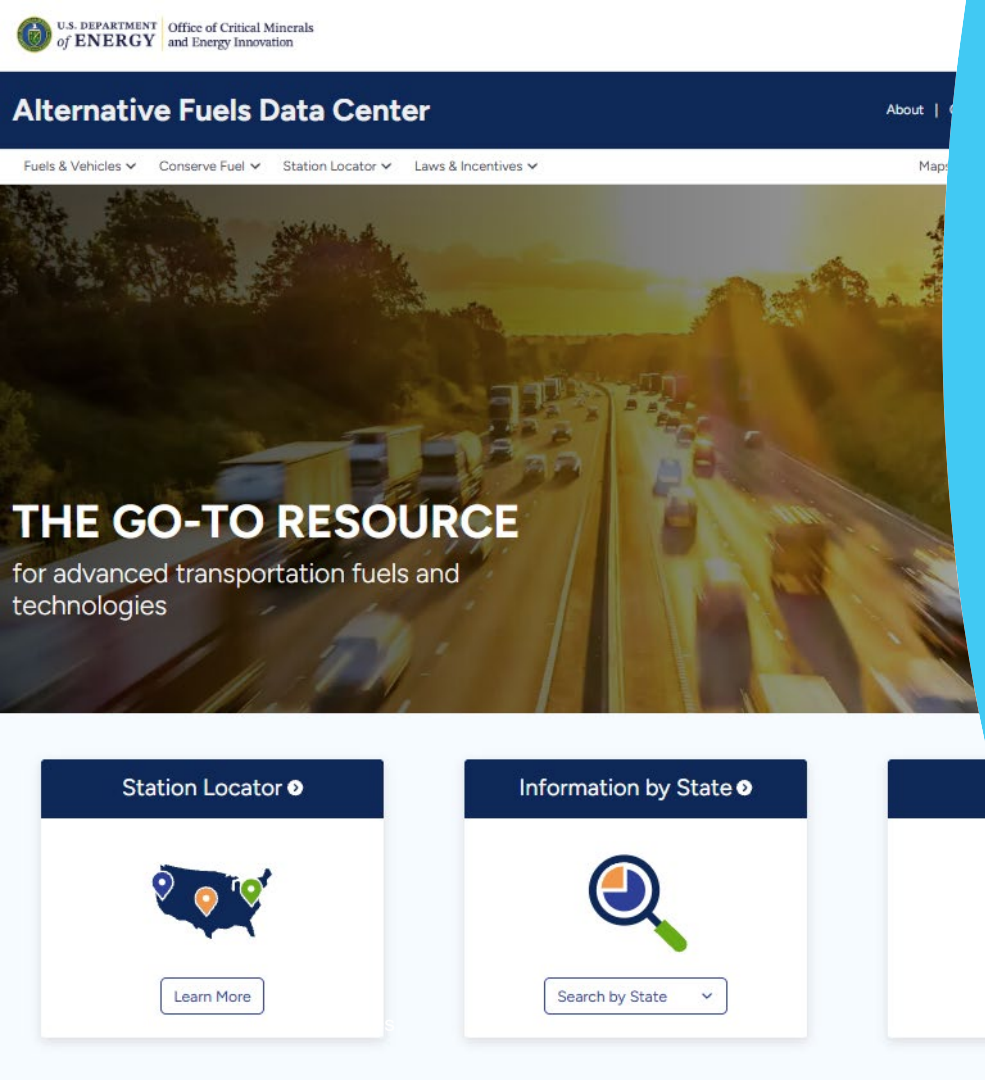
Checkout

– Clean Cities and Communities

Publication Title	Publication Date	Order Limit	Quantity Requested
Advance Local Mobility Through Energy Efficient Mobility Systems Technologies (15756) (4 pp)	March 2024	None	
Alternative Fuels Data Center (8152) (2 pp)	December 2019	25	
Alternative Fuels Data Center and Related Technology Integration Tools (8317) (4 pp)	September 2020	None	
Alternative Fuels Data Center Homepage Postcard (2 pp)	February 2026	None	
Clean Cities and Communities: New Name, New Look! Postcard (15741) (2 pp)	April 2024	None	



To order publications, go to cleancities.energy.gov/toolbox/publications/orders



Alternative Fuels Data Center

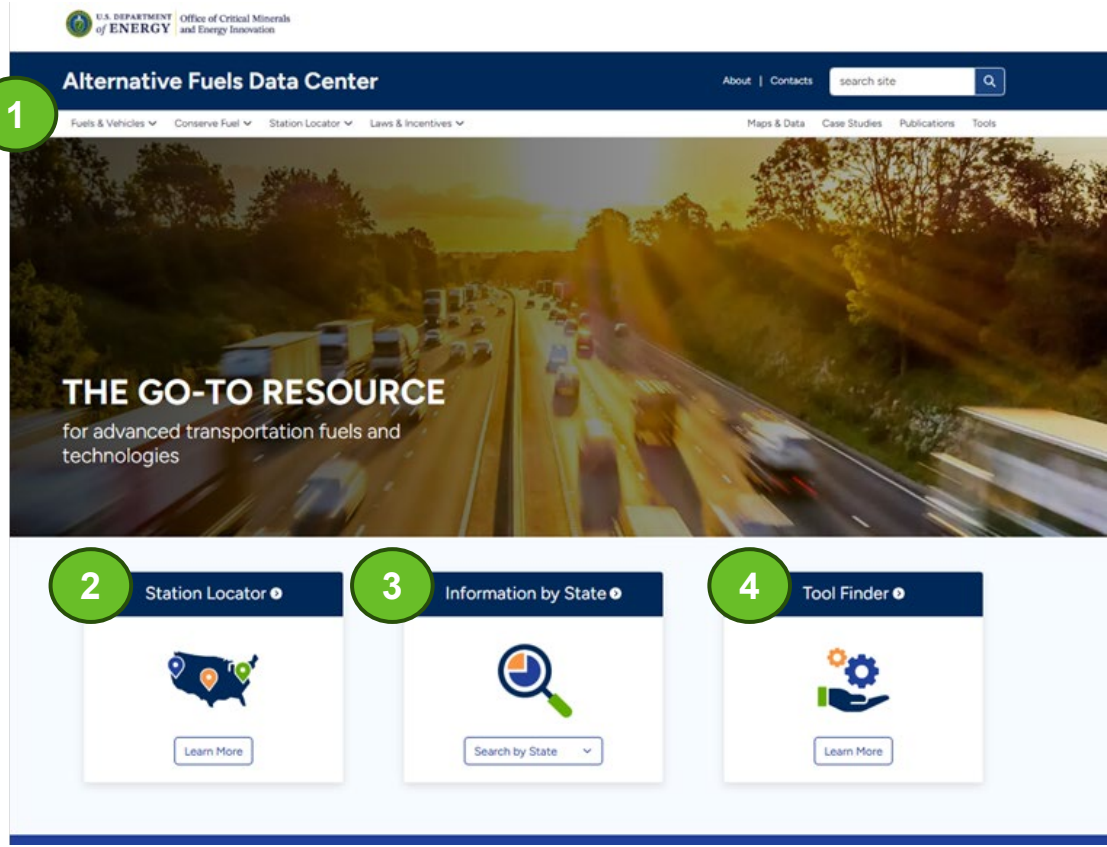
- Resources and information on fuels, vehicles, technologies, and strategies.
- Tools to help understand and choose the right alternative fuel.
- Case studies.
- Publications.

afdc.energy.gov

Alternative Fuels Data Center

1. Navigation menu: Find specific information on fuels, vehicles, technologies, and strategies.
2. Alternative fuel vehicle station locator.
3. State-specific information.
4. Tools.

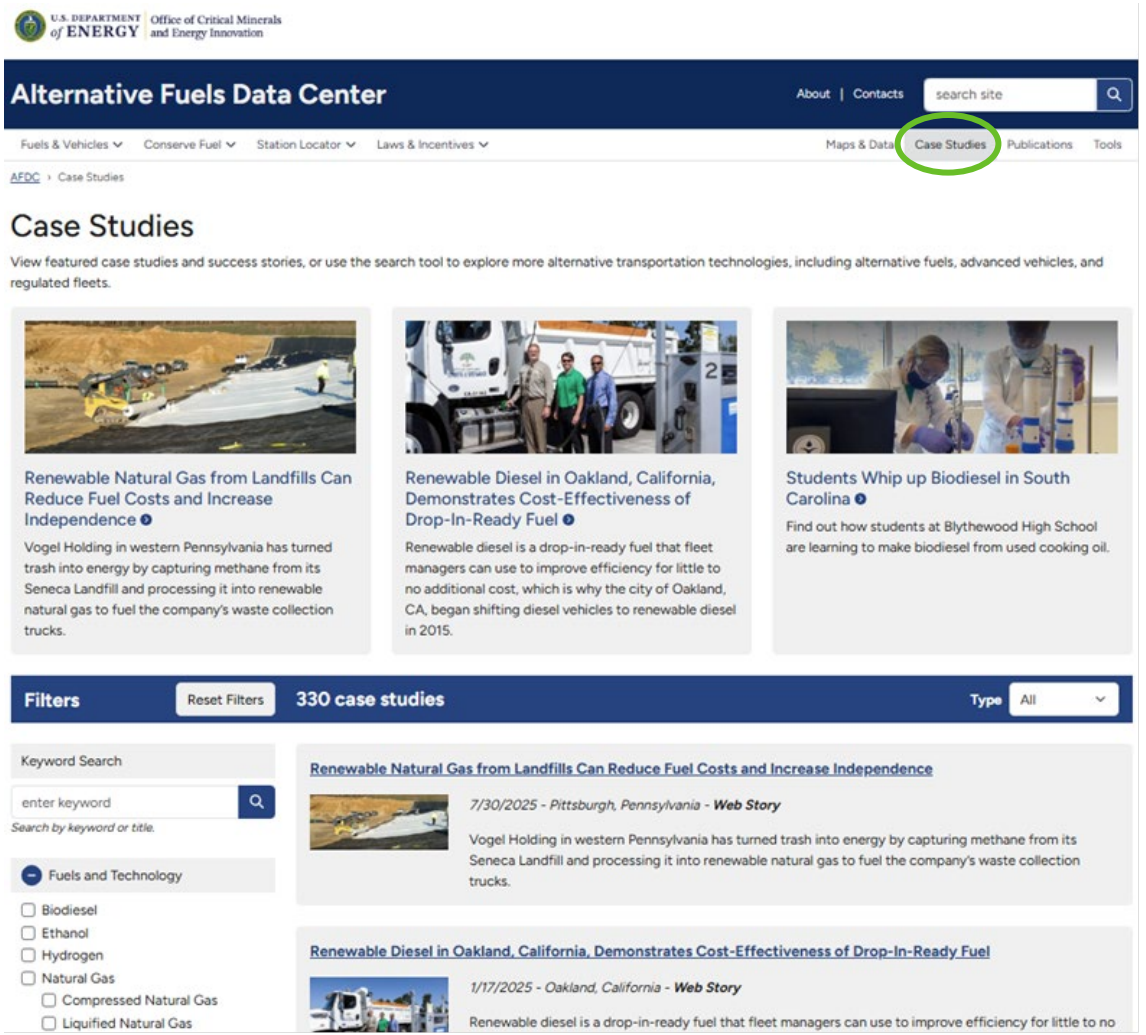
afdc.energy.gov



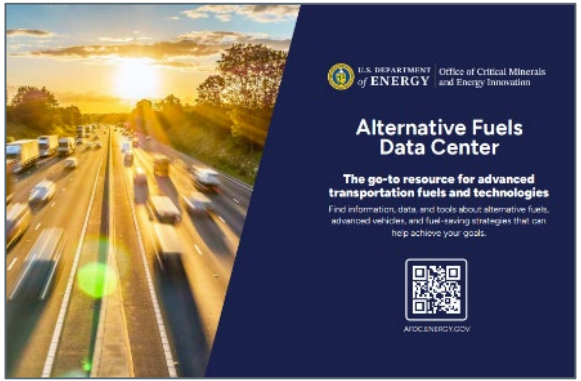
AFDC Case Studies

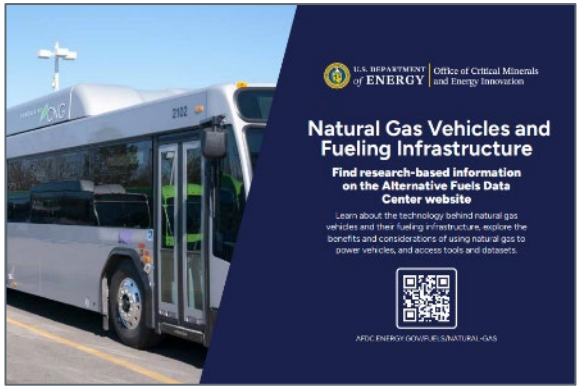
- Searchable
- Web stories
- MotorWeek videos
- Documents.

afdc.energy.gov/case



AFDC Publications







afdc.energy.gov/publications



FuelEconomy.gov

- Information on advanced vehicles.
- Fuel economy and cost-saving information for light-duty vehicles.

FuelEconomy.gov

1. Explore advanced vehicle information.
2. Find and compare cars.
3. Track your miles per gallon.
4. Calculate cost savings and get driving and vehicle maintenance tips.
5. Learn about the ratings.



FuelEconomy.gov

FuelEconomy.gov Advanced Vehicles and Fuels Information

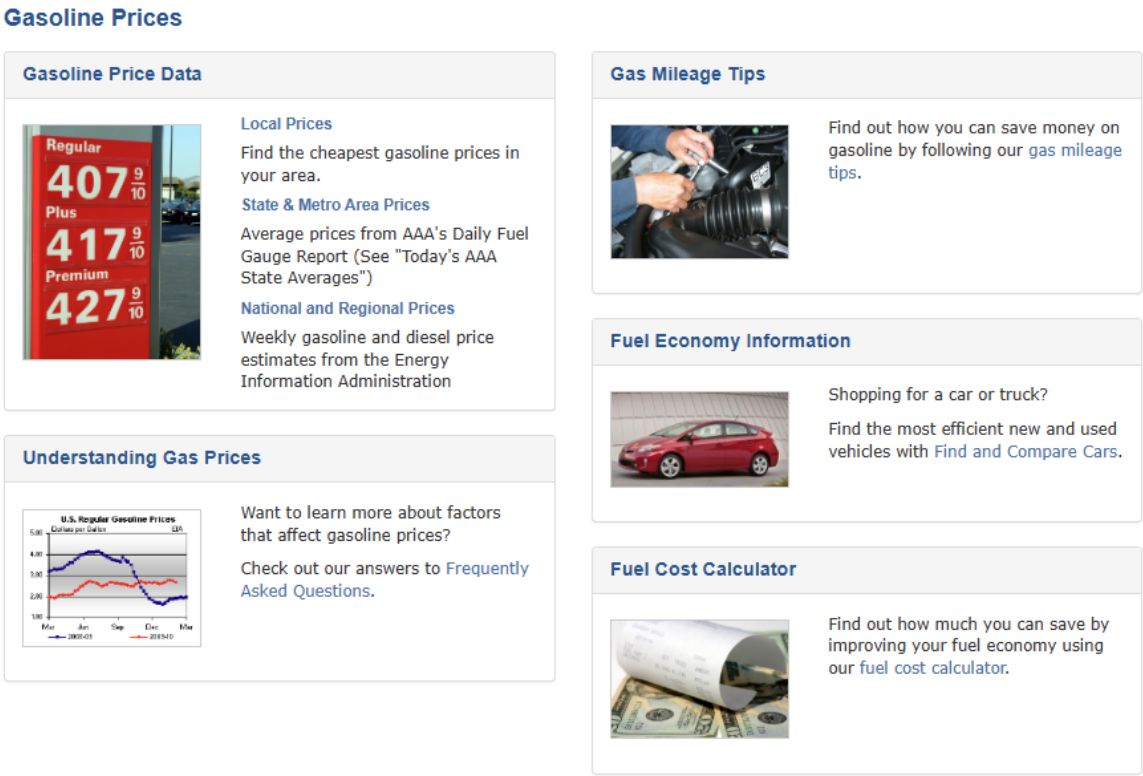
- Compare advanced vehicle makes and models.
- Current vehicle tax incentives.
- Information on alternative fuel types.



FuelEconomy.gov Fuel Prices and Fuel Cost Calculator

- Local fuel price data, updated weekly.
- Fuel cost calculator tool.

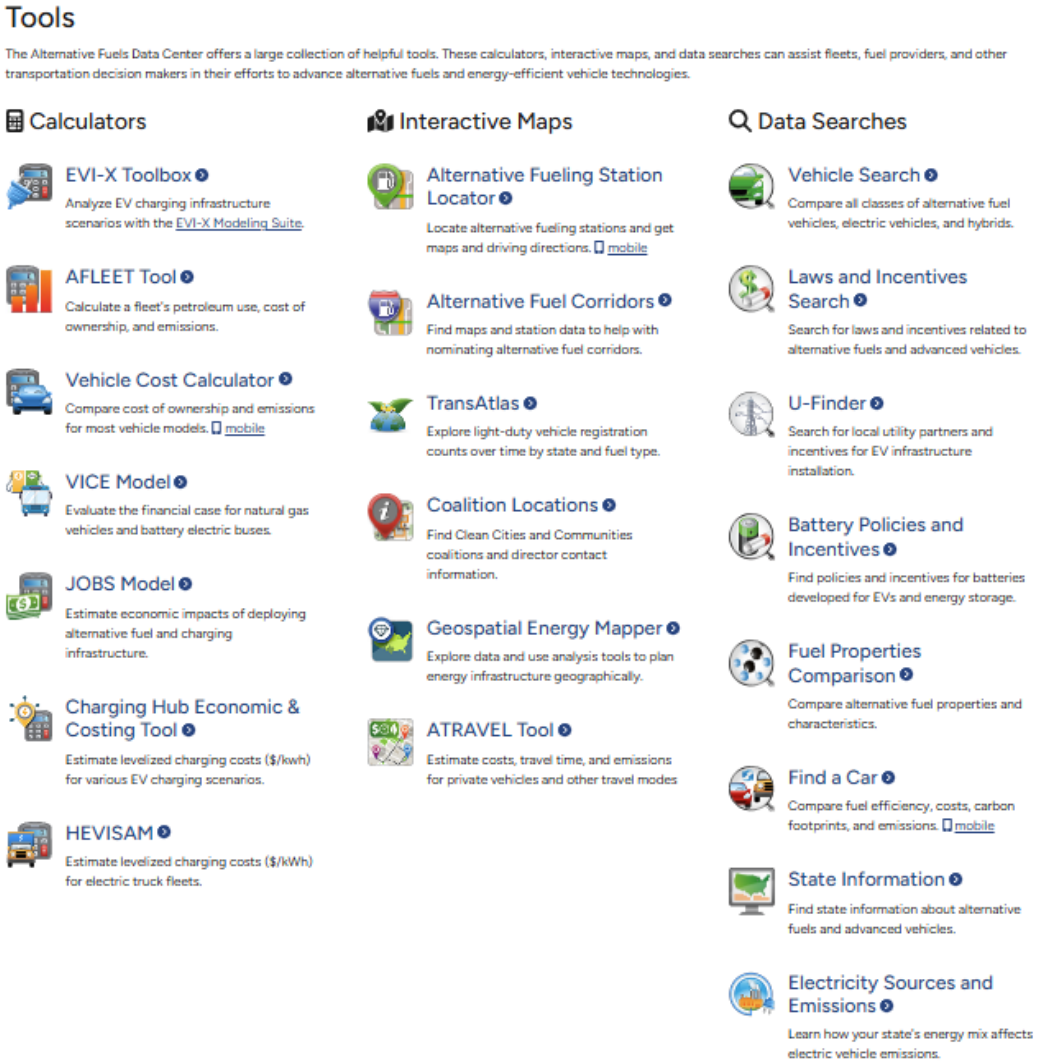
fueleconomy.gov/feg/gasprices/



AFDC Tools

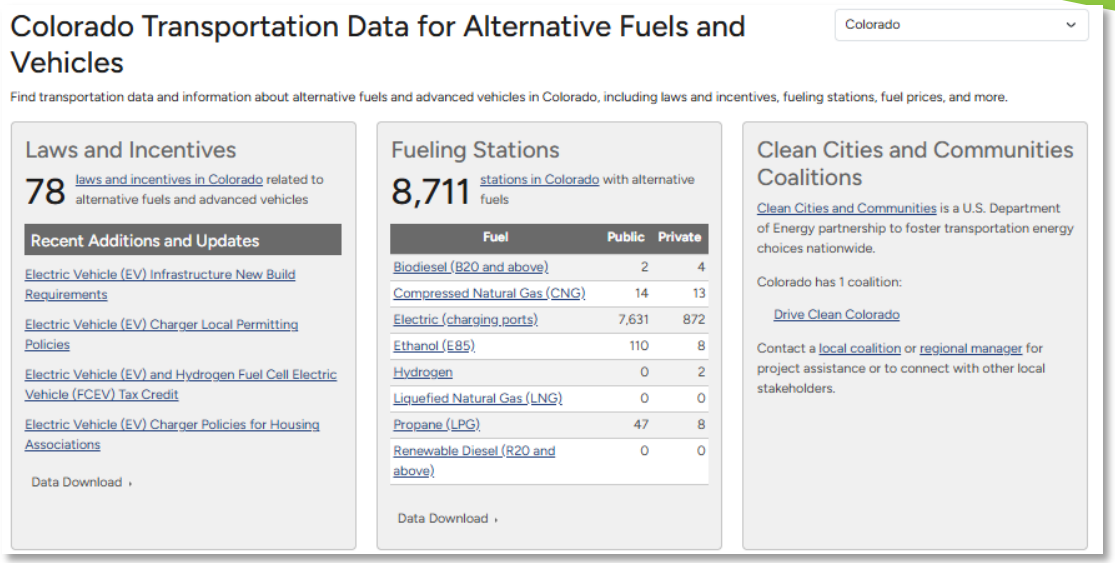
AFDC Tools

afdc.energy.gov/tools

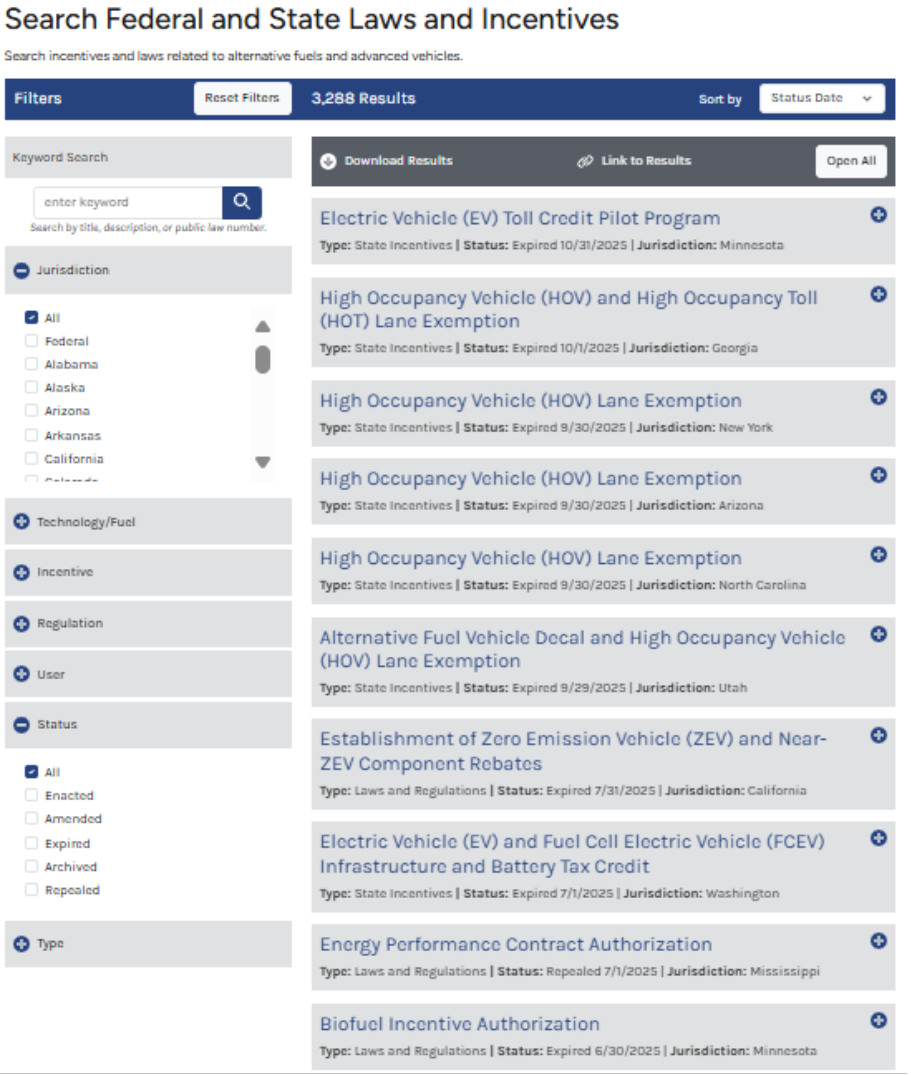


Information by State

- Select a state to find state-specific information about alternative fuels and advanced vehicles, including laws and incentives, fueling stations, fuel prices, and more.
- Draw quick alternative fuel facts about your state to include in presentations or meetings.



afdc.energy.gov/states

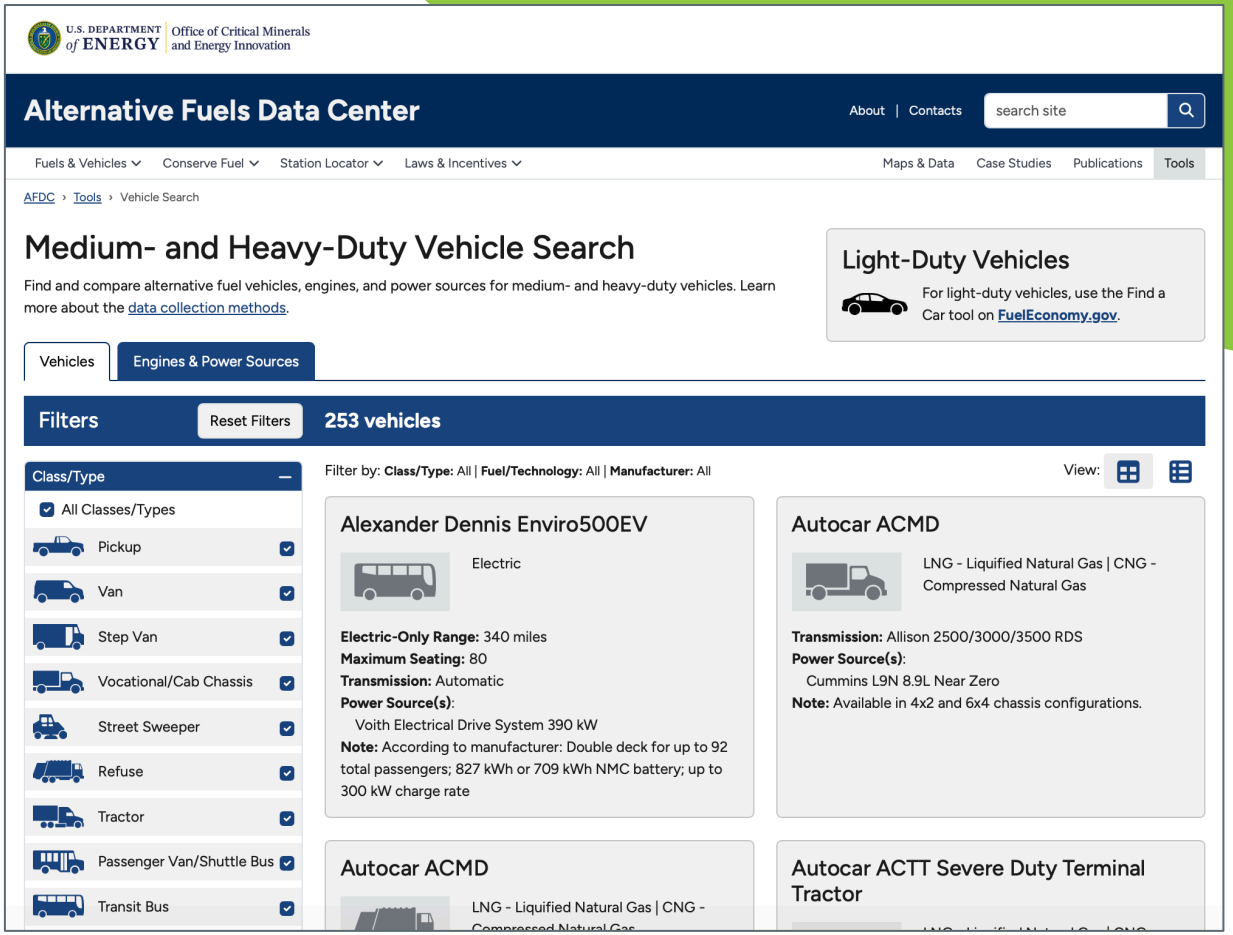


Federal and State Laws and Incentives Database

- Prepare for legislative sessions by browsing through existing laws and incentives.
- Easily identify laws and incentives relevant to CC&C stakeholders.
- Learn about federal tax credits for electric vehicles (EVs) and charging infrastructure.
- Stay up to date on federal and state legislative action with reliable and key resources.

afdc.energy.gov/laws

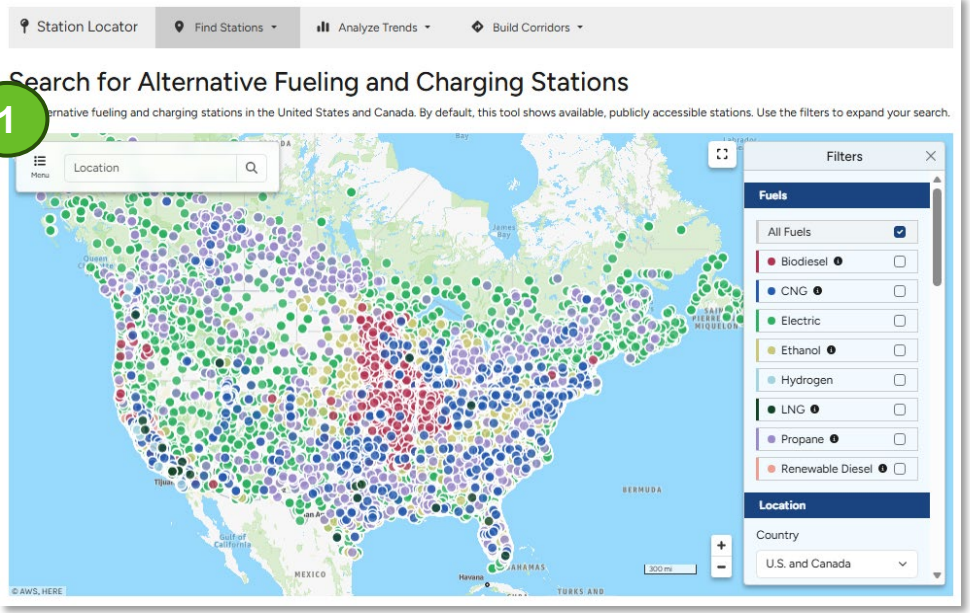
Vehicle Search



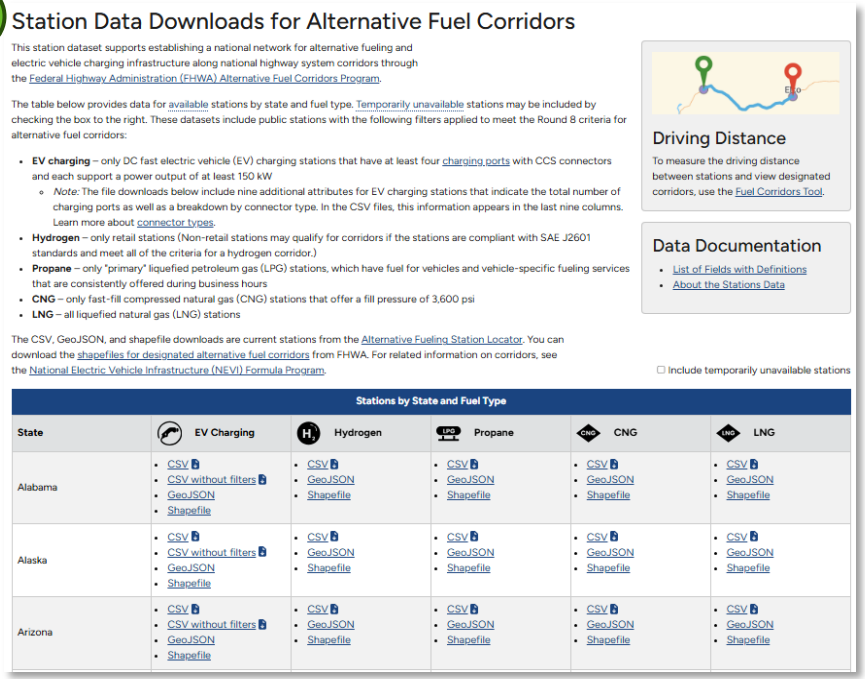
afdc.energy.gov/vehicles/search

Alternative Fueling Station Locator and Corridors

1



2

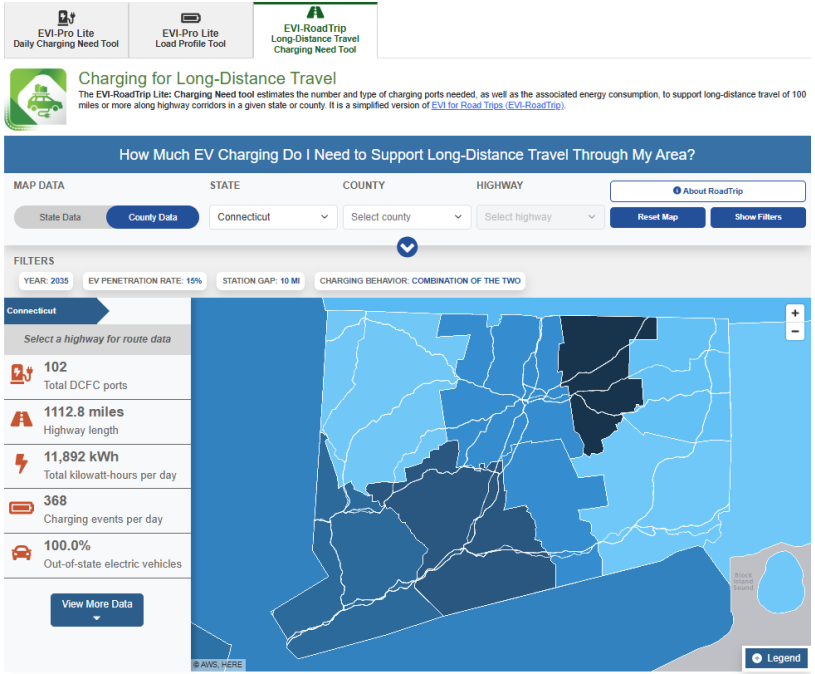


afdc.energy.gov/stations

1. Locate stations.
2. Download station data.

afdc.energy.gov/corridors

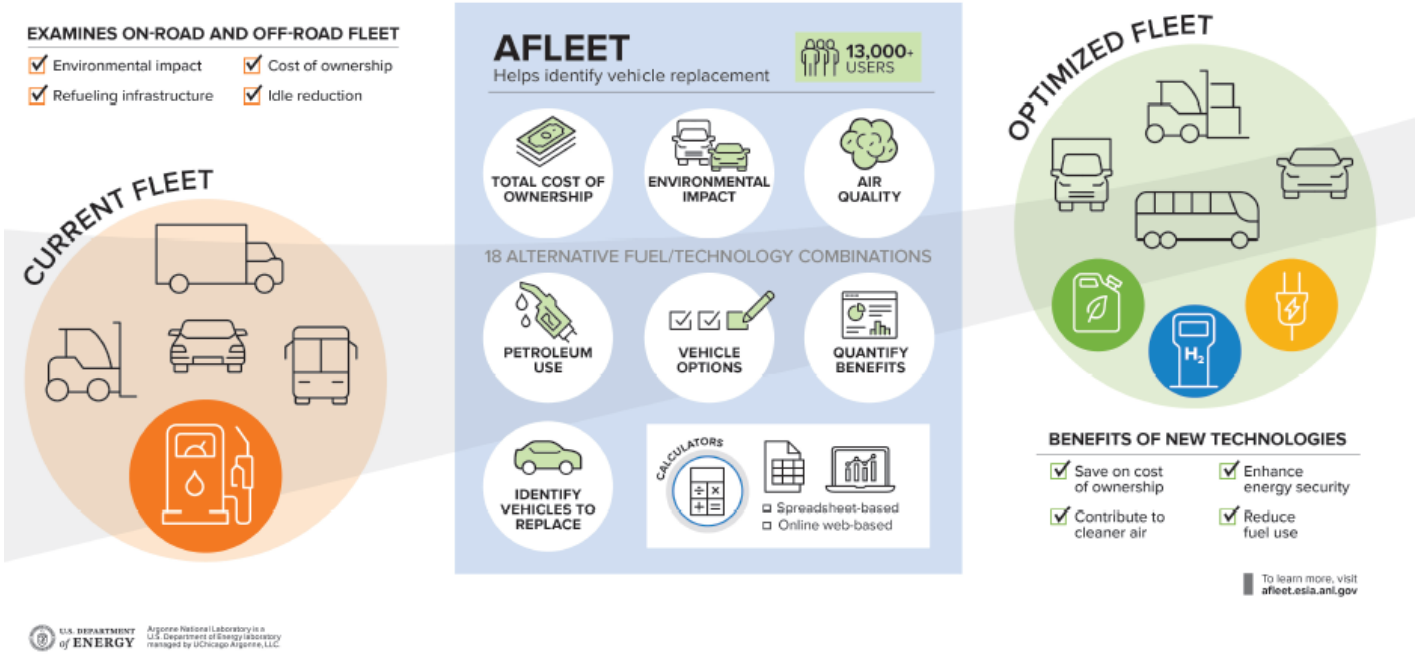
EVI-X: Electric Vehicle Infrastructure Toolbox



- Estimate EV charging infrastructure needs.
- Analyze and assess electric demand based on EV adoption scenarios.

afdc.energy.gov/evi-x-toolbox

Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool



AFLEET's Suite of Tools

Examines light-, medium-, and heavy-duty and off-road vehicles:

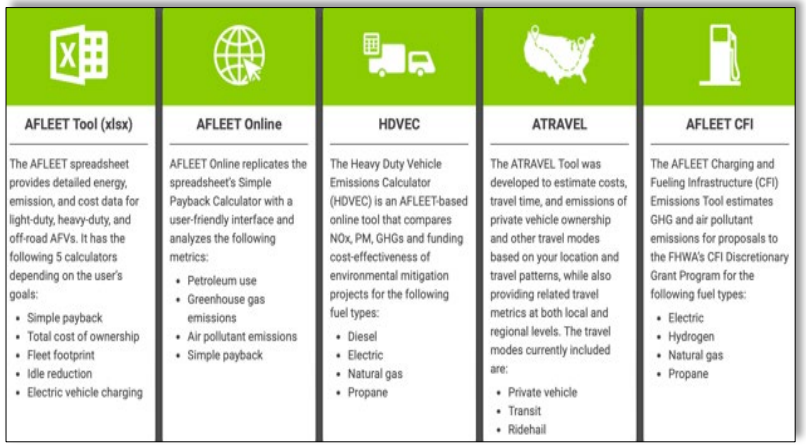
- Petroleum use
- Greenhouse gases
- Air pollutants
- Cost of ownership.

Covers 18 fuel/vehicle technologies and infrastructure:

- Conventional vehicles
- Hybrid
- Plug-in electric
- Alternative fuels: Compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, ethanol, biodiesel, and renewable diesel.

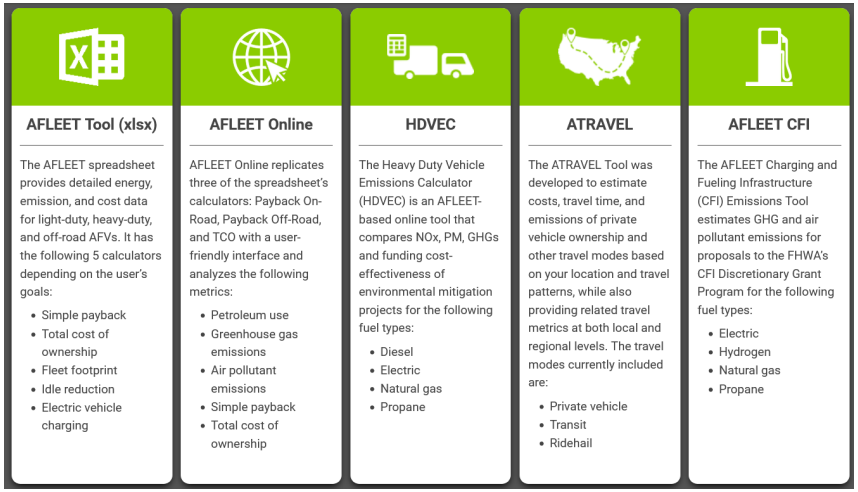
Off-road covers 21 equipment categories and 45 equipment subtypes:

- Includes port cargo handling equipment (terminal tracker and top handler).



afleet.es.anl.gov/home

AFLEET 2023 Update webinar available on YouTube:
www.youtube.com/watch?v=1088VsUjY5Y&t=2s



AFLEET Tool (xlsx)

The AFLEET spreadsheet provides detailed energy, emission, and cost data for light-duty, heavy-duty, and off-road AFVs. It has the following 5 calculators depending on the user's goals:

- Simple payback
- Total cost of ownership
- Fleet footprint
- Idle reduction
- Electric vehicle charging

AFLEET Online

AFLEET Online replicates three of the spreadsheet's calculators: Payback On-Road, Payback Off-Road, and TCO with a user-friendly interface and analyzes the following metrics:

- Petroleum use
- Greenhouse gas emissions
- Air pollutant emissions
- Simple payback
- Total cost of ownership

HDVEC

The Heavy Duty Vehicle Emissions Calculator (HDVEC) is an AFLEET-based online tool that compares NOx, PM, GHGs and funding cost-effectiveness of environmental mitigation projects for the following fuel types:

- Diesel
- Electric
- Natural gas
- Propane

ATRAVEL

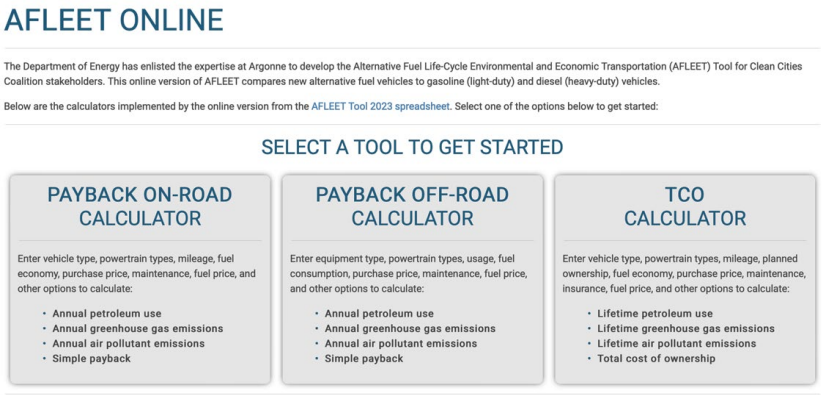
The ATRAVEL Tool was developed to estimate costs, travel time, and emissions of private vehicle ownership and other travel modes based on your location and travel patterns, while also providing related travel metrics at both local and regional levels. The travel modes currently included are:

- Private vehicle
- Transit
- Ridehail

AFLEET CFI

The AFLEET Charging and Fueling Infrastructure (CFI) Emissions Tool estimates GHG and air pollutant emissions for proposals to the FHWA's CFI Discretionary Grant Program for the following fuel types:

- Electric
- Hydrogen
- Natural gas
- Propane



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 2023 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

AFLEET's Suite of Tools

Recent Enhancements

AFLEET Spreadsheet

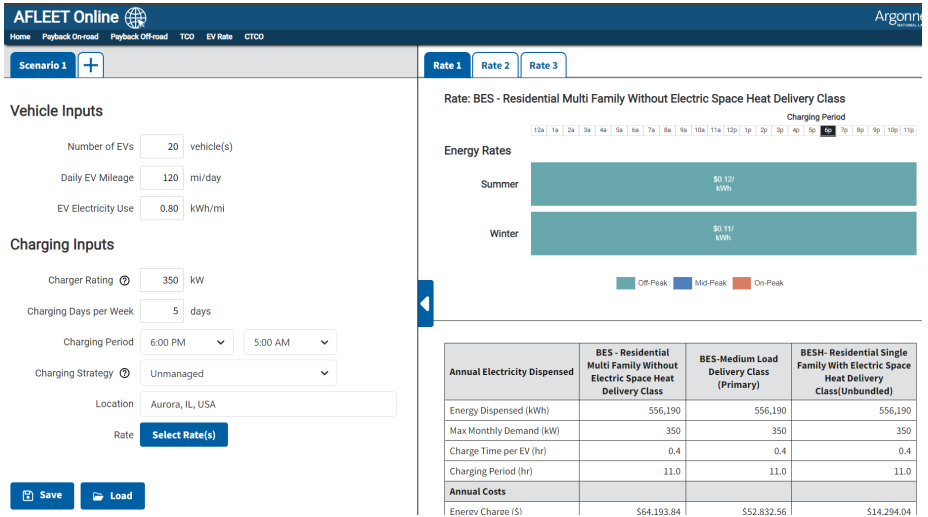
- EV charger total cost of ownership (TCO) calculator
- EV utility rate calculator
- Marine and rail footprint calculators
- Charging and fueling infrastructure (CFI) tool.

AFLEET Online

- Payback on- and off-road
- TCO
- EV utility rate and charger TCO.

AFLEET EV Utility Rate Calculator

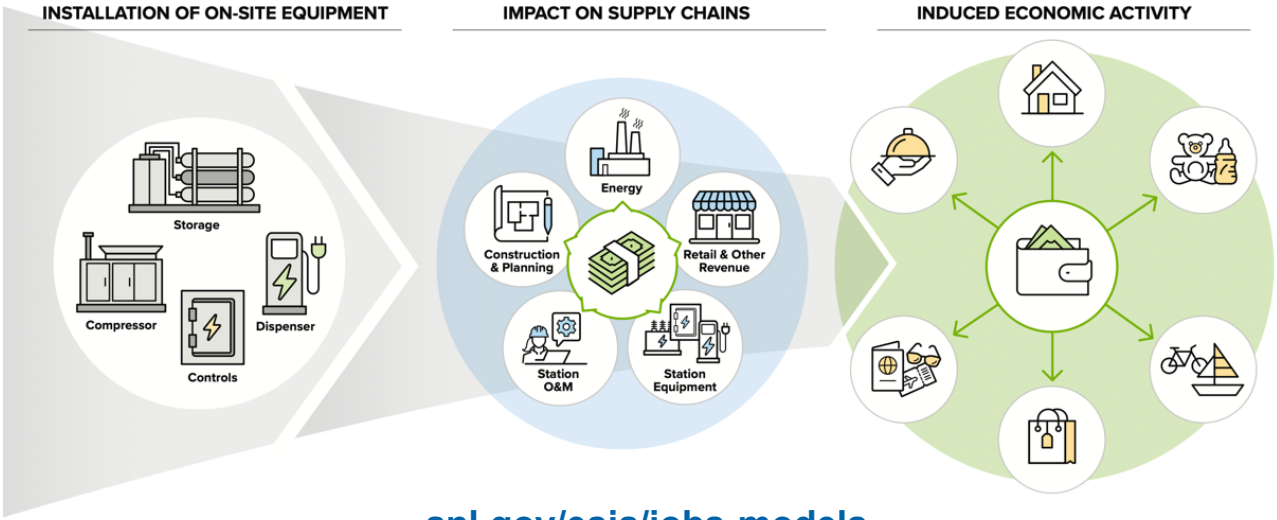
- Regional utility electricity rates for EV residential, public, and fleet charging.
- Energy, demand, and fixed charges.



Annual Electricity Dispensed	BES - Residential Multi Family Without Electric Space Heat Delivery Class	BES-Medium Load Delivery Class (Primary)	BESH- Residential Single Family With Electric Space Heat Delivery Class(Unbundled)
Energy Dispensed (kWh)	556,190	556,190	556,190
Max Monthly Demand (kW)	350	350	350
Charge Time per EV (hr)	0.4	0.4	0.4
Charging Period (hr)	11.0	11.0	11.0
Annual Costs			
Energy Charge ($)	$64,193.84	$52,832.56	$14,294.04

JOBS Tools

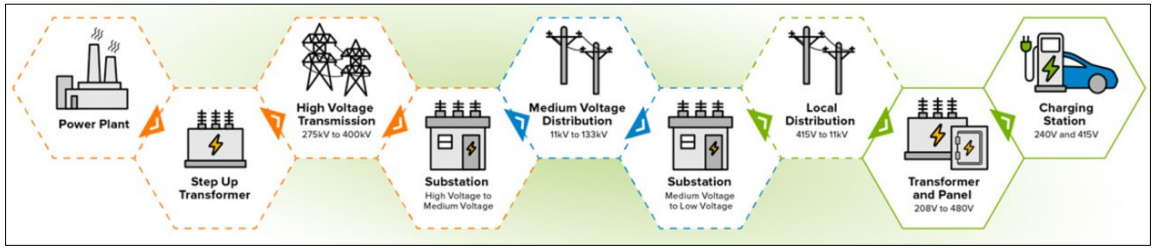
Quantify how deploying transportation energy infrastructure creates jobs and “ripple effect” economic activity.



anl.gov/esia/jobs-models

JOBS Tools

Users define scenarios for individual states, regions, or the entire United States



Models include:

- EV production and use (EV)
- EV charging stations (EVSE)
- Natural gas fueling stations (NG)
- Hydrogen fueling stations (H2)
- Fuel cells in forklifts, backup power, and prime power applications (FC).

Electric vehicle supply equipment (EVSE) analyses:

- **United States:** 500,000 chargers → 1.1 million jobs (deployment plus operations over 10 years)
- **Region/multi-region:** Mid-Atlantic Electrification Partnership (MAEP), Forth Affordability Mobility Platform (AMP)
- **State:** Virginia, West Virginia, California, Texas
- **County:** Will County, IL
- Industry/occupational breakdowns; skill requirements/gap analyses.

Tools for Fleets and EV Charging Hub Owners and Operators

CHECT (Charging Hub Economic and Costing Tool)

Estimate the levelized cost of charging ($/kWh) for EV charging hubs.



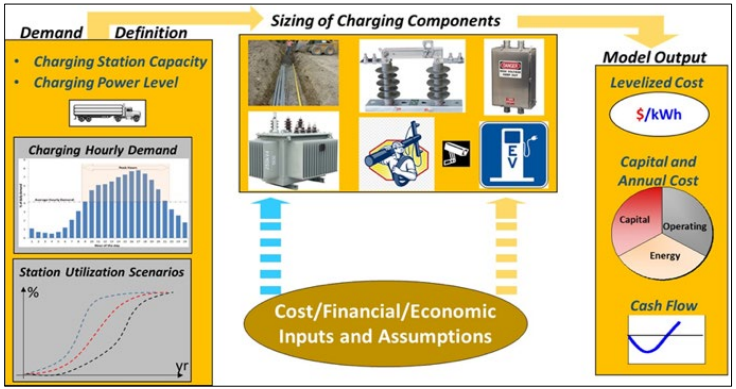
Resident owned | Utility owned | Private company owned

AFLEET's Utility Electricity Rate Calculator

Determine consumer, public, or fleet annual charging-related electricity costs.

HEVISAM (Heavy-duty Electric Vehicle Infrastructure Scenario Analysis Model)

Estimate the levelized charging cost ($/kWh) for a direct-current fast charging station designed for a medium- and/or heavy-duty electric fleet.



anl.gov/esia/decision-support-for-ev-charging-cost-analysis

CHECT

Supporting public infrastructure development for light-duty EVs.

For property owners, private companies, or utilities considering the installation of EV charging hubs. CHECT enables users to estimate charging costs ($/kWh) at potential charging hubs for various scenarios.

CHECT includes:

- Location: 50 states and utilities
- Rate type: Commercial or residential
- Microgrid options
- Number of chargers
- Charging technologies
- Charging schedule
- Ownership models (residential, utility, and private company)
- Venues (multiunit dwellings and public).

anl.gov/esia/charging-hub-economic-and-costing-tool



Photo from Shutterstock.

Geospatial Energy Mapper (GEM)

For Infrastructure Planning



Nine energy-resource categories:

- Biomass
- Coal
- Geothermal
- Natural gas
- Nuclear
- Solar
- Storage
- Water
- Wind

[gem.anl.gov](gem.anl.gov)

- Large mapping library (>230 layers including alternative fuel stations and EVSE).
- Suitability modeling tool with more than 100 available siting factors.
- Reports generated using *Analyze an Area or Corridor Tool.*
- Doesn't require registration or license.
- ***Recently added or updated!*** New data useful for EVSE siting (level/type/capacity), EV/alternative fuel vehicle registrations, EV/alternative fuel vehicle corridor designation, broadband coverage, and others based on identified opportunities.

Technical Assistance from National Labs

Who We Are



Team of transportation experts with more than 30 years of experience tackling transportation challenges through customized problem-solving and lasting partnerships.



Knowledge that encompasses all alternative fuels, advanced transportation technologies, and associated infrastructure.



Support that ranges from light touch (e.g., email or phone calls) to heavy touch (e.g., site visits, ongoing analysis, fleet planning).



Experience as technical assistance lead for partners, including DOE's Transportation Technologies Office, CC&C coalitions, Joint Office of Energy and Transportation, U.S. Environmental Protection Agency, and Federal Transit Administration.

What We Provide



Research and analysis to address technical barriers, increase efficiency, and reduce costs.



Tailored solutions to overcome transportation fuel, infrastructure, and technology challenges.



Unbiased support to evaluate, plan for, and integrate alternative fuel vehicles and infrastructure.



Technical resources and data to help decision makers develop informed choices that align with their goals.

Areas of Expertise



Fueling infrastructure siting needs and support



Optimizing vehicle and fuel purchase decisions



Vehicle battery safety, use, and end of life



Planning for alternative fueling and EV charging deployment



Vehicle maintenance facility design and guidelines



Power needs analysis and working with utilities



Training, safety, and workforce development



Distributed energy resource and backup power solutions

How We Support Coalitions

- Come alongside as a trusted resource as you assist your stakeholders
- Navigate utilizing tools and resources
- Connect to industry and other subject matter experts
- Provide hands on, in-depth assistance with navigating complex challenges

Technical Assistance Key Topic Areas

Technical Response Service

TechnicalResponse@icf.com

800-254-6735



- Reach out to receive a quick email response from technical experts.
- Anyone can submit a question.
- Ask about alternative fuels, fuel economy improvements, advanced vehicles, and more.



In-Depth Assistance

transportTA@nlr.gov

- Reach out to receive high-touch support.
- Available for guidance, troubleshooting, research, analysis, and other problem-solving assistance.
- Anyone can ask for help at any point in a project or product life cycle.
- Examples include addressing vehicle performance issues, designing and siting fueling infrastructure, and navigating maintenance challenges.

Photo by Kendall Septon, National Laboratory of the Rockies 044953

Contact Us!

transportTA@nlr.gov



Example Technical Response Service Inquiries

How can a customized analysis help a fleet reduce costs?



Photo from NACFE's Run on Less – Electric DEPOT, NLR 092880

Process

- Conducted a fleet profile to understand the fuel costs associated by vehicle class.
- Assessed utility costs to determine whether electrification could reduce costs.
- Evaluated other cost reduction measures, such as idle reduction and rightsizing.

Solution

- Identified vehicle classes where EVs or hybrids could reduce costs using low-powered charging.
- Recommended using telematics to improve efficiency, such as by reducing idling and improving fuel economy.

How can a compressed natural gas refuse fueling station operate more effectively?



Process

- Examined a compressed natural gas fueling ecosystem with a fleet manager and identified areas for improvement.
- Shared expertise that will increase the fleet manager's capacity to support the fleet.

Solution

- Implemented a new system that will require less maintenance, provide greater redundancy, reduce electrical costs, and allow long-term flexibility.
- Advised on buffer storage options to enhance operations.

Photo by Dennis Schroeder, National Laboratory of the Rockies 048726

Is direct-current fast charging feasible at a rural, grid-constrained location?



Photo from Getty Images 1437331153

Process

- Met with state department of transportation to understand grid constraints.
- Developed a method to estimate minimum energy storage capacity needed.
- Provided data-driven options.

Solution

Implementing battery-buffered DC fast charging to increase capacity instead of building a new substation could:

- Reduce capital costs by 65%.
- Shorten construction time by 2–5 years.
- Increase return on investment for implementation costs.

How can a school district use high-resolution data to determine future vehicle purchases?



Process

- Installed data loggers to monitor electric, propane, and diesel school buses in operation.
- Evaluated the performance of each bus type to identify opportunities.

Solution

Developed customized recommendations for future vehicle acquisitions and cost justifications for the types of buses and other technologies fleets could operate to improve efficiency or save money.

Photo from NLR 057389

Resource Rundown

- **Websites with Resources for CC&C**
  - Clean Cities and Communities
    - Coalition Toolbox (password protected)
    - Publications
  - Alternative Fuels Data Center
    - Case Studies
    - Publications
  - FuelEconomy.gov
- **Technical Assistance**
  - Technical Assistance from National Labs
    - In-depth assistance: transportTA@nlr.gov
  - Technical Response Service: technicalresponse@icf.com

- **Alternative Fuels Data Center: Tools**
  - State Information
  - Federal and State Laws and Incentives
  - Vehicle Search
  - Alternative Fueling Station Locator
  - Electric Vehicle Infrastructure Toolbox (EVI-X Toolbox)
  - AFLEET Tool
  - JOBS Models
  - Charging Hub Economic and Costing Tool (CHECT)
  - Heavy-Duty Battery Electric Vehicle Infrastructure Scenario Analysis Model (HEVISAM)
  - Geospatial Energy Mapper (GEM)

Clean Cities and Communities



Thank You