

2021 Winter Webinar Series

Hosted by Chicago Area Clean Cities, Greater Lansing Area Clean Cities,
South Shore Clean Cities & Wisconsin Clean Cities

The Importance of the Clean Cities Annual Report



U. S. Department of Energy



Lorrie Lisek, Executive Director

The Importance of the Clean Cities Annual Report

Importance of Clean Cities Annual Reporting

Caley Johnson, Senior Transportation Market Analyst
Center for Integrated Mobility Sciences
Clean Cities 2020 Winter Webinar Series

Track it to reduce it

- Energy Use Impact
- Lifecycle GHG Emissions
- Criteria Pollutants

Clean Cities Annual Report Query Tool

1. Select a year

2019 ▼

2. Select a report

Summary Reports

- Alternative Fuel Vehicles & Electrics by Fuel and Market
- Alternative Fuel Vehicles & Electrics by Fuel and Vehicle Type
- Alternative Fuel Vehicles & Electrics by Fuel, Market, and Vehicle Type
- Coordinator & Staff Time
- Criteria Pollutants by Fuel Type
- Data Check
- Data Quality and Sources
- Default Value Factors
- Fuel Blends by Type
- Fuel Economy & Hybrids

- GGEs/GHG by Technology
- Idle Reduction by Type
- New Fuel Stations by Fuel
- Off-Road Vehicles by Application
- Off-Road Vehicles by Application and Fuel
- Off-Road Vehicles by Fuel
- Outreach Activities by Activity Type
- Outreach Activities by Activity Type and Technology
- Outreach Activities by Audience
- Outreach Activities by Technology

Reports by Coalition

- Alternative Fuel Vehicles
- Alternative Fuel Vehicles & Electrics by Market
- Coordinator Information and Displacement
- Criteria Pollutants
- Data Quality and Sources
- Electric, Hybrid & Plug-in Vehicles
- Fuel Blends Totals
- Funding

- New Fuel Stations
- Off-Road Vehicles by Application
- Outreach Activity Totals
- Report Completion
- Stakeholder Meetings
- Stakeholders & Host Organizations
- Total GGEs/GHG by Technology

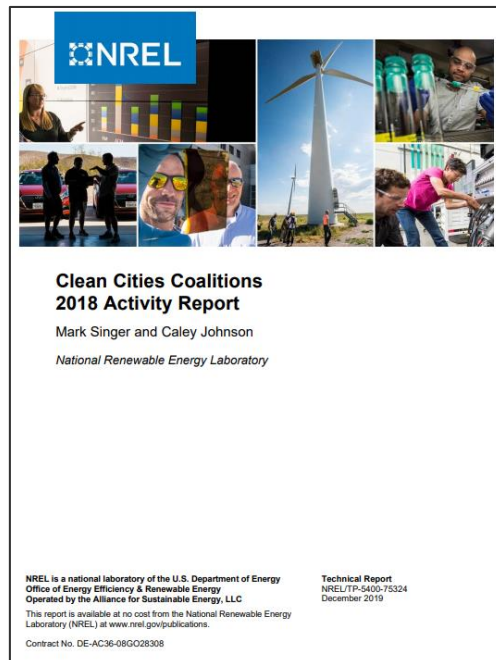
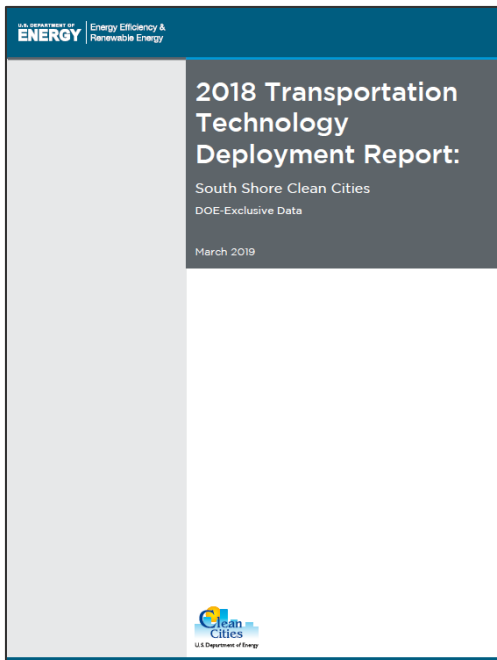
Individual Projects

- All Projects - Large & Unusual
- All Projects - National Clean Fleet Partners
- All Projects - National Parks
- All Projects - Percent Contribution
- Alternative Fuel & Vehicles
- Alternative Fuel Vehicles with Real VMT
- Electric, Hybrid & Plug-in Vehicles
- Electric, Hybrid & Plug-in Vehicles with Real VMT

- Fuel Economy Improvements
- Grants
- Off-Road Vehicles
- Onboard Idle Reduction Projects
- Other Idle Reduction Projects
- Outreach Activities
- Truck Stop Electrification Projects
- Vehicle Miles Traveled Reduction Projects

Reports

- National level
- Regional level
- Coalition level
- Project level



NREL uses of Clean Cities data

- Annual Activity [Metrics] Report
- Coalition Re-designations
- Briefings to DOE (multi-level) and Congress
- Goal tracking
- Track technology experts
 - Connecting coalitions and fleets
- Market Analysis
 - How are technologies being used?
 - Under what conditions?
 - How are they performing?
- Share with outside analysts (mostly at other labs and universities)
 - Only at programmatic and coalition level, for privacy reasons

National Level Data

AFV Insights

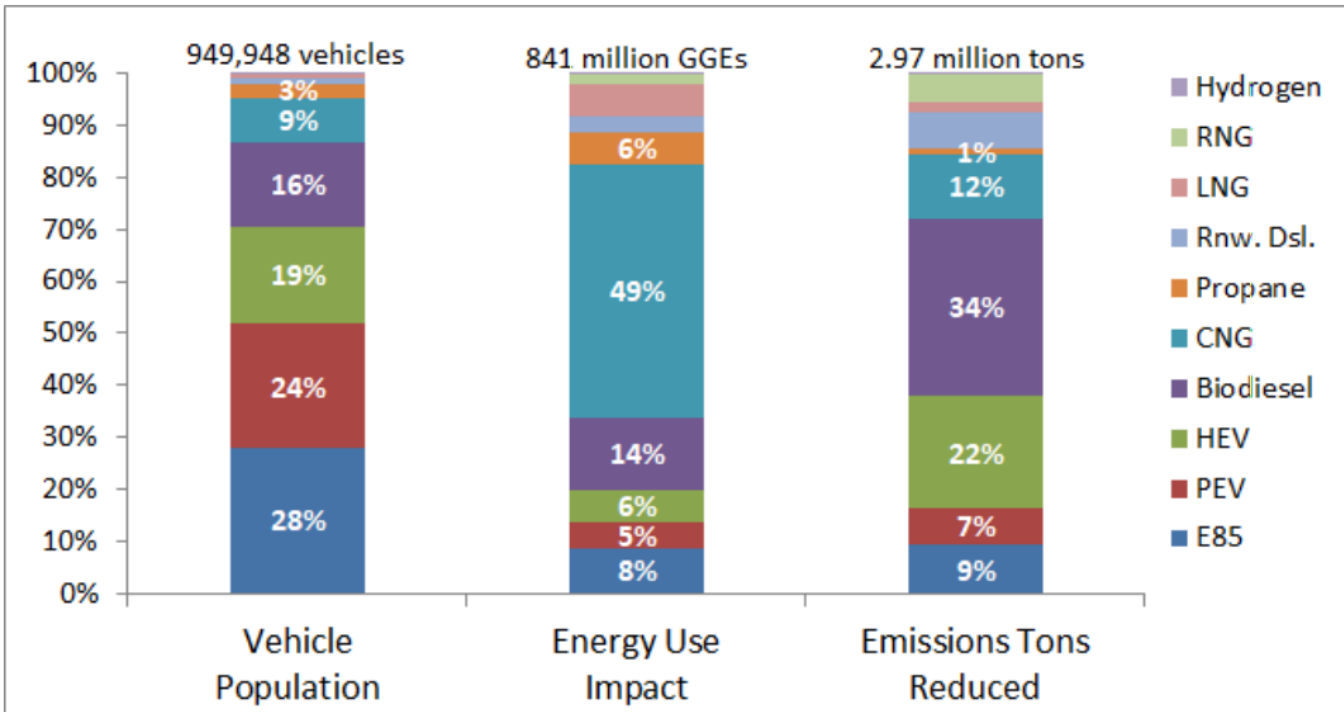


Figure 1. 2018 percentage of AFVs, EUI, and emissions reductions by fuel type

GHG Reduction Tracking

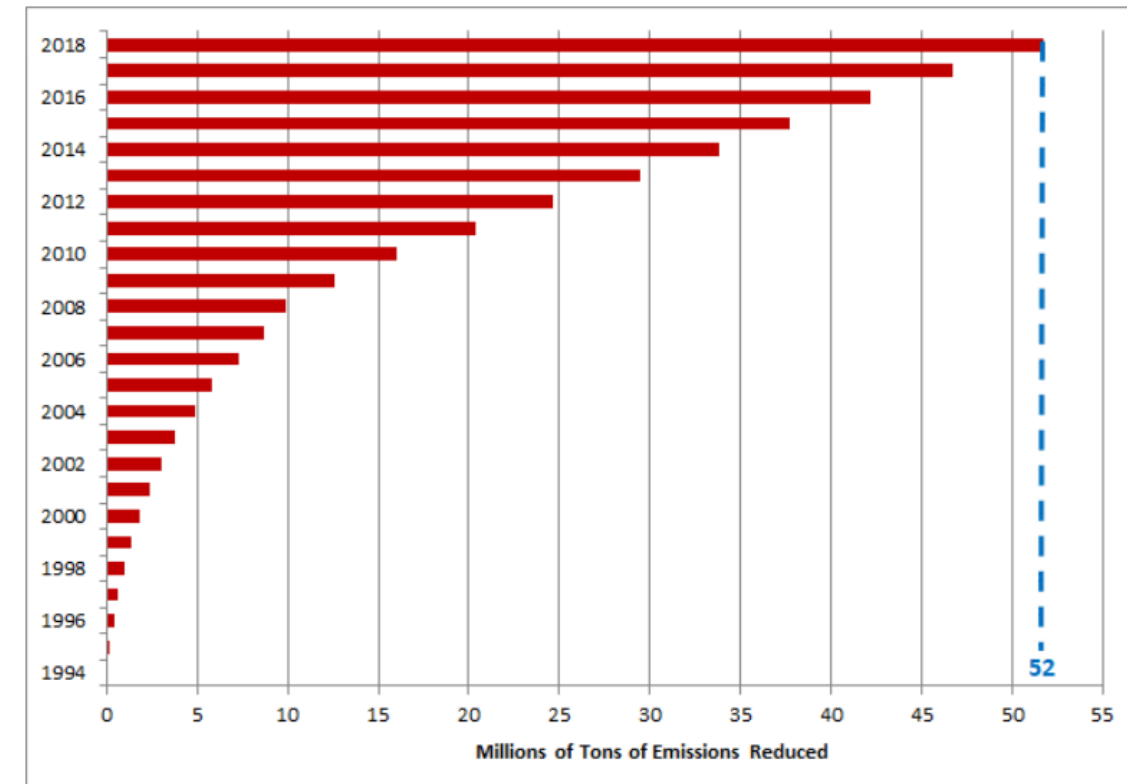


Figure 8. Cumulative emissions reductions from all Clean Cities coalition activities

Source: 2018 Clean Cities Annual Activity Report

www.nrel.gov/docs/fy20osti/75324.pdf

National Level Data, continued

Idle Reduction Technology Trends

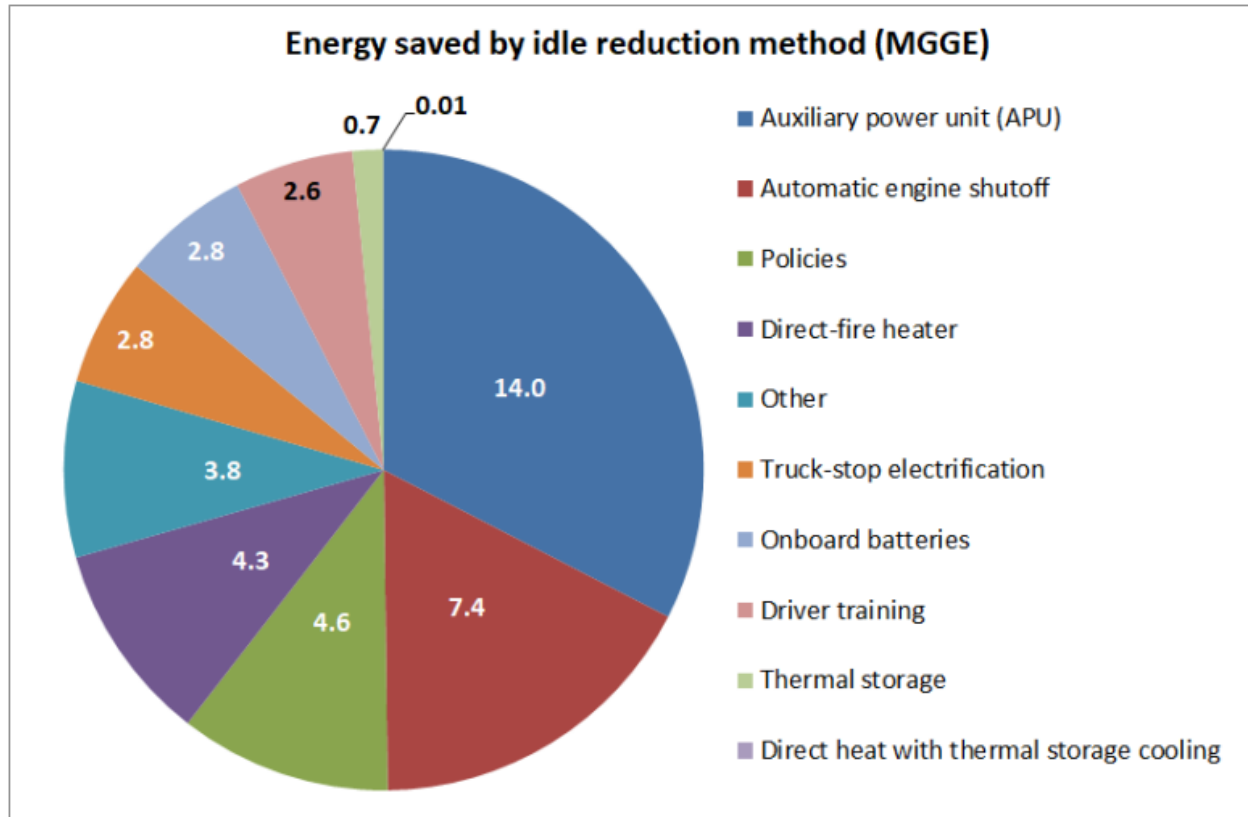


Figure 3. Energy savings measured in MGGE from IR projects, 2018

Fuel Economy Technology Efficacy

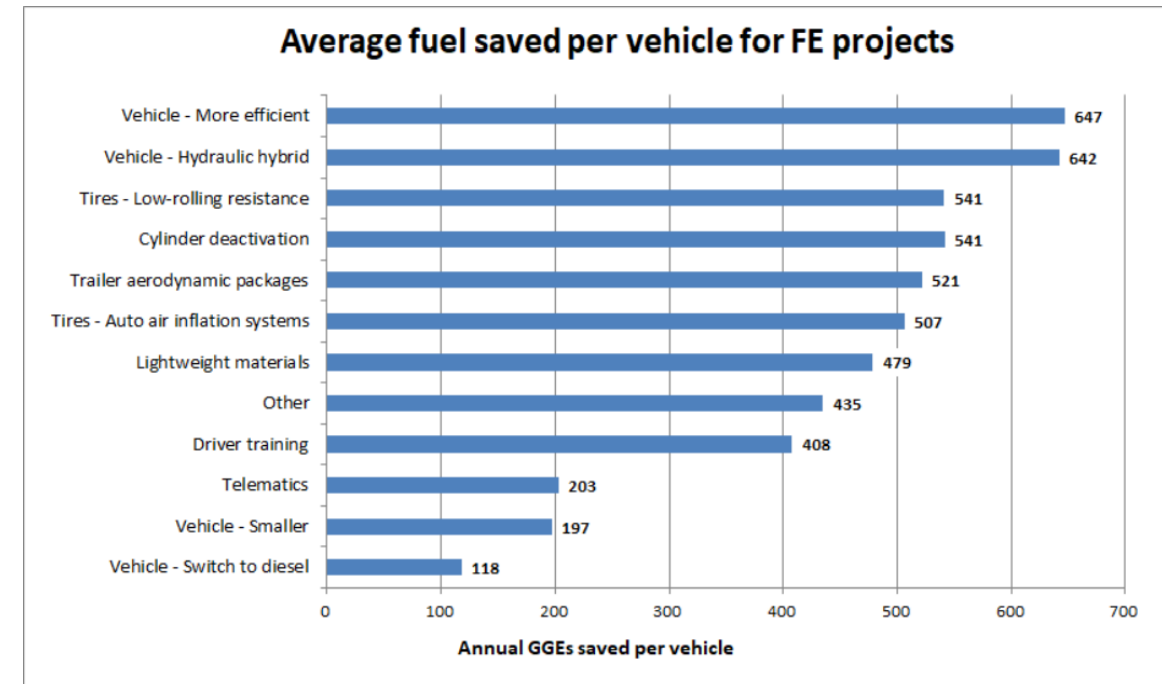


Figure 2. Average energy saved per vehicle for 2018 Clean Cities coalition fuel economy projects

Source: 2018 Clean Cities Annual Activity Report

www.nrel.gov/docs/fy20osti/75324.pdf

National Level Data, continued

Technology Interest Trends

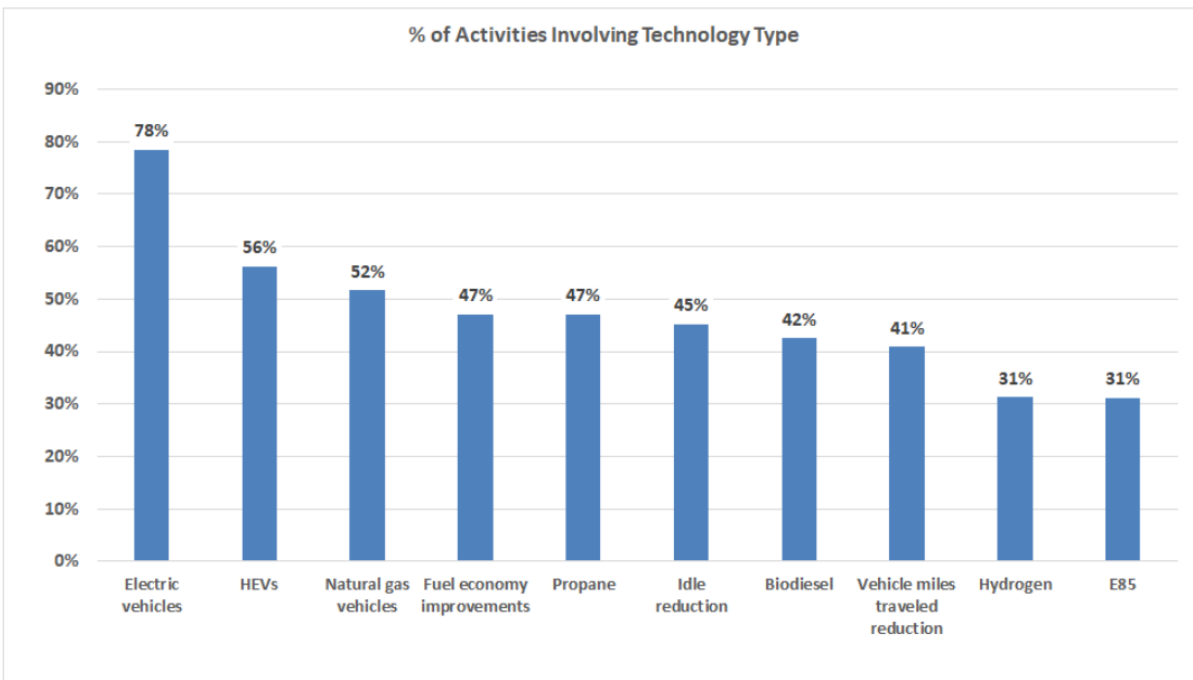


Figure 5. Percentage of outreach activities by technology type

Fleet Fuel Matching

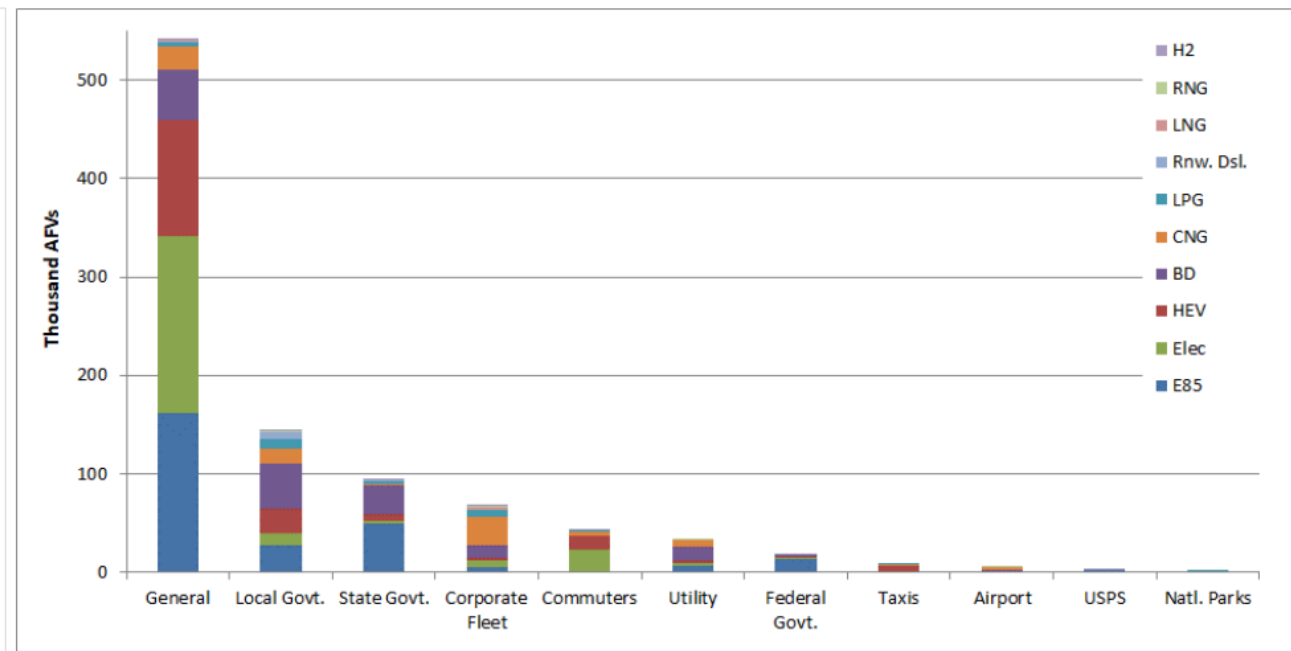


Figure 10. AFVs by application and fuel type

National Level Data, continued

Structural Success Patterns

Table 12. Coalition Metrics by Coalition Type

Coalition Type ^a	Total # of Coalitions	Average # of Stakeholders	Average Funds Raised	Average Program Impact (GGE)	Average Persons Reached
Nonprofit - Standalone	33	229	\$1,642,739	14,007,605	47,563
Regional Governing Coalition	17	146	\$1,614,160	8,149,714	95,561
Nonprofit - Hosted	11	111	\$13,297,286	6,037,612	2,953,768
Government - State	10	184	\$3,233,980	8,621,964	19,462
Government - City or County	6	83	\$24,258,010	13,105,080	4,495
University	4	603	\$978,126	8,690,562	7,220
Total/Overall Weighted Average	81	198	\$5,058,292	10,701,509	443,655

^a Coalition types are defined in Appendix B.

Source: 2018 Clean Cities Annual Activity Report
www.nrel.gov/docs/fy20osti/75324.pdf

Reporting tool helps estimate what you don't know

- Alternative fuel use (if quantity not known)
 - Estimated by using default fuel economy and VMT by vehicle type
- Energy use impact
 - Estimated from alternative fuel used, in agreement with AFLEET and GREET tools
 - Default values for benefits from Idle Reduction, Fuel Economy, and VMT reduction technologies
- Lifecycle GHG reduction
 - Estimated from alternative fuel used, and fuel reduced, in agreement with AFLEET and GREET tools

Questions?

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The Annual Report

CLEAN CITIES COALITION ANNUAL METRICS REPORT

*Clean Cities 2020 Winter Webinar Series
David Kirschner, Project Manager
US DOE National Energy Technology Laboratory*

Annual Clean Cities Report

- ▶ DOE-designated Clean Cities Coalitions reported successes and achievements
- ▶ 80+ Coalitions across the U.S.
- ▶ Over 12,000 stakeholders
- ▶ The report demonstrates supports our mission to **advance affordable, domestic transportation fuels and energy-saving technologies.**

How is it used?

- ▶ Results are posted and shared at DOE
- ▶ Supports continued funding
- ▶ To identify funding needs
- ▶ To further market development
- ▶ As a planning tool by Coalitions

Why is it important to DOE, the public?

- ▶ Key indicator of our program's work
- ▶ Helps DOE understand the alternative fuel market, and niche markets
- ▶ Documents Energy Use Impact
- ▶ Supports ongoing funding from Congress and is reflected in the Federal Budget
- ▶ Demonstrates activities and fleets across the U.S. are implementing new and existing technologies and fuels into their fleets

2018 at a Glance

- ▶ Stations increased: 4,639 New Stations reported
- ▶ Energy Use Impact over 1 Billion / year
- ▶ AFVs: Over 500,000 vehicles total
- ▶ Overall GHGs: Up 19%
- ▶ Outreach: Over 3,800 Outreach Activities
- ▶ Funding raised (includes grants): \$200 M
- ▶ Coordinators spent 2,400 hours on Clean Cities efforts

2018 North Central Stats

Fuel/tech	North Central New Stations	National	North Central Vehicles	National
Biodiesel	40	73	26,471	153,380
CNG - Compressed Natural Gas	5	62	7,193	82,266
E85	76	182	110,123	263,967
Electric	260	4,241	10,924	406,587
Renewable NG and Renewable Diesel	n/a	n/a	399	12,851
LNG - Liquefied Natural Gas	0	6	345	5,100
Propane	10	69	1,861	25,395
Totals	391	4,639	146,392	949,546



Lorrie Lisek, Executive Director

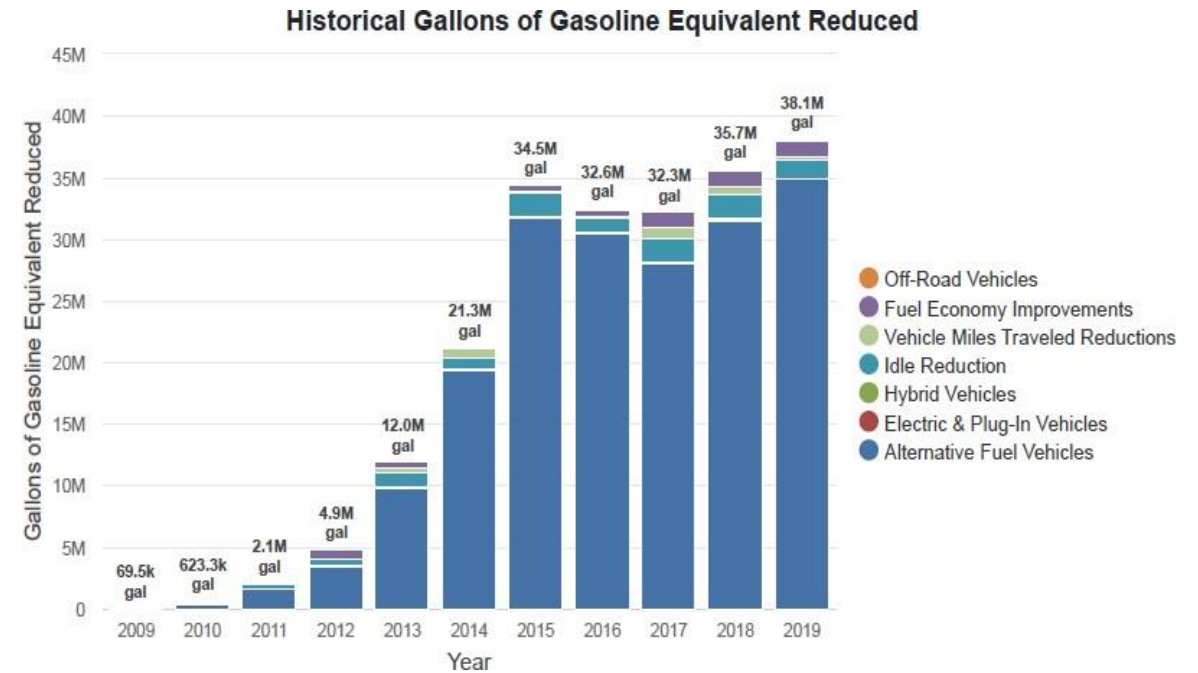
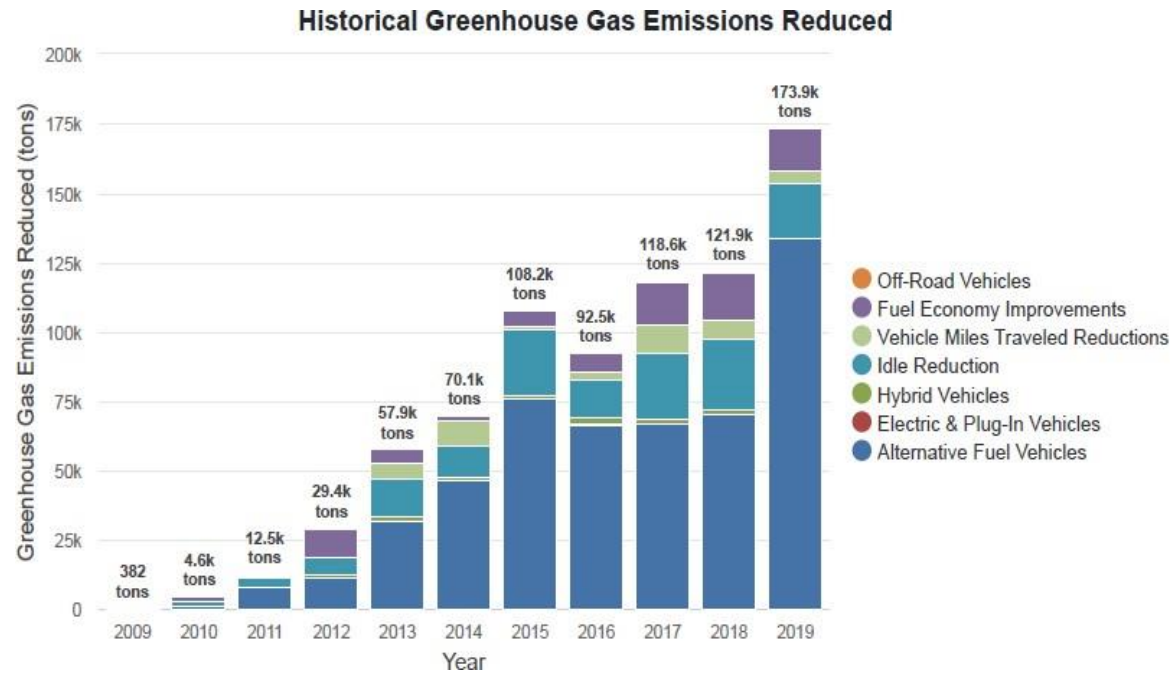
Top 4 Reasons to Complete the Clean Cities Annual Report

1. Organization Results!



2. Coalition Success!

You Make a Difference!



3. Recognition!



4. Grant Readiness!



Contact Us



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