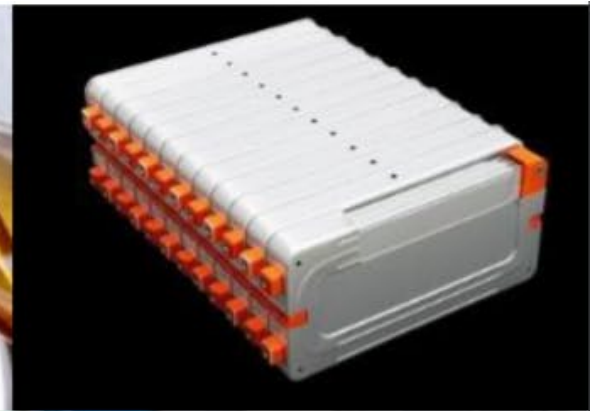


# OVERVIEW | TECHNOLOGY INTEGRATION

MARK SMITH

Program Manager, Vehicle Technologies Office

June 23, 2021



# Technology Integration Program

**Provide objective/unbiased data and real-world lessons learned that inform future research needs and support local decision-making**



**Clean Cities  
Coalitions**



**Information  
and Tools**



**Technical  
Assistance**



**Training,  
Outreach,  
Partnerships**



**Financial  
Assistance**



**Regulatory Activities /  
State and Alt Fuel  
Provider Fleets**



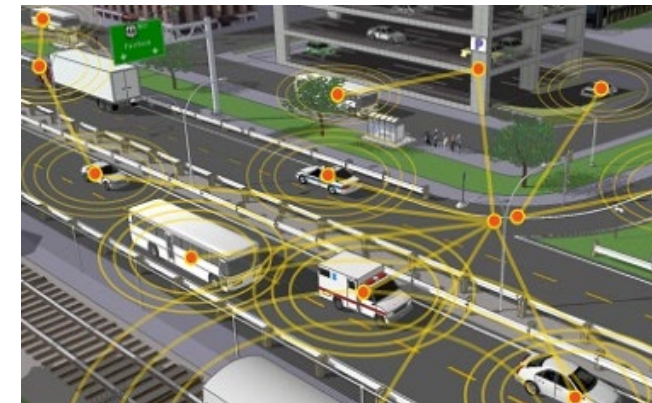
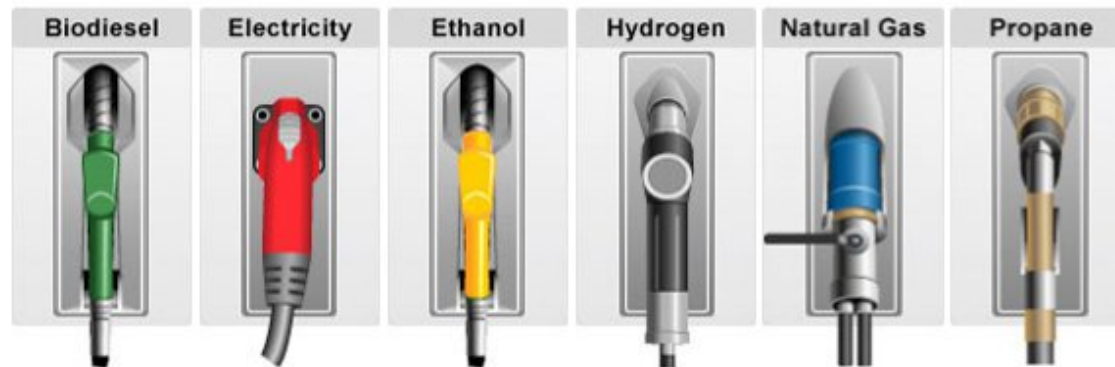
**Advanced Vehicle  
Technology  
Competitions**

# Technology Integration Focus Areas

## Light, medium and heavy-duty vehicles



## Alternative Fuel Infrastructure



## Energy Efficient Mobility Systems and Technologies

# Alternative Fuels Data Center (AFDC)

afdc.energy.gov

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

EERE Home | Programs & Offices | Consumer Information






## Alternative Fuels Data Center

Search the AFDC  [SEARCH](#)

[FUELS & VEHICLES](#) [CONSERVE FUEL](#) [LOCATE STATIONS](#) [LAWS & INCENTIVES](#) [Maps & Data](#) [Case Studies](#) [Publications](#) [Tools](#) [About](#) [Home](#)

EERE » [AFDC](#) [Printable Version](#)

### Fuels & Vehicles

<b>Biodiesel</b> 	<b>Electricity</b> 	<b>Ethanol</b> 	<b>Hydrogen</b> 	<b>Natural Gas</b> 	<b>Propane</b> 
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**Would a battery electric bus be cost effective for your transit fleet?**  
Check out a new financial analysis tool to find out.




### The Information Source for Alternative Fuels and Advanced Vehicles

The Alternative Fuels Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decision makers find ways to reach their energy and economic goals through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

### Information by State




### Information by Fleet Application

-  Delivery Services
-  Refuse Collection
-  Public Transit
-  School Transportation

### Maps & Data

- U.S. Alternative Fueling Stations by Fuel Type
- U.S. Hybrid Electric Vehicle Sales by Model
- Light-Duty Alternative Fuel Vehicle Registrations



### Tools

- Laws & Incentives
- Electricity Sources & Emissions
- Vehicle Cost Calculator
- Vehicle Search



Download [iPhone app](#) or [Android app](#)

**Fuels & Vehicles**  
Biodiesel

**Conserve Fuel**  
Idle Reduction

**Locate Stations**  
Search by Location

**Laws & Incentives**  
Search

**Data & Tools**  
Widgets

**About**  
Newsletters

# Fuel Economy

FuelEconomy.gov



The screenshot shows the homepage of the FuelEconomy.gov website. At the top, it features the U.S. Department of Energy logo and the EPA logo. The main header includes the website URL and the tagline "the official U.S. government source for fuel economy information". A navigation menu contains links for "Find a Car", "Save Money & Fuel", "Benefits", "My MPG", "Advanced Cars & Fuels", "About EPA Ratings", and "More". A search bar is also present. The main content area is dominated by a large banner for "2020 Fuel Economy Estimates Now Available!", which includes subtext about plug-in hybrid and electric vehicles, fuel economy leaders, and weekly updates. Below the banner are four columns of featured content: "Find & Compare Cars" (with a photo of a couple looking at a car), "My MPG" (with a photo of gas pumps), "Save Money" (with a photo of a gas nozzle and money), and "Hybrids & Electric" (with a photo of an electric vehicle charging station). At the bottom, there are four sections: "Calculators and Other Tools" (Fuel Savings Calculator, Trip Calculator), "New on fueleconomy.gov..." (2020 Fuel Economy Guide, 2020 Fuel Economy Data), "Quick Picks" (Find a Car App for Apple and Android), and "Related Links" (VW, Bentley, Audi and Porsche MPG Estimates Revised).

U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

EPA United States Environmental Protection Agency

**www.fueleconomy.gov**  
the official U.S. government source for fuel economy information

Mobile Español Site Map Links FAQ Videos

Find a Car Save Money & Fuel Benefits My MPG Advanced Cars & Fuels About EPA Ratings More Q

## 2020 Fuel Economy Estimates Now Available!

Includes plug-in hybrid and electric vehicles  
Fuel economy leaders for each vehicle class  
More vehicles added weekly

### Find & Compare Cars

Compare Side-by-Side  
Power Search  
Find-a-Car App

### My MPG

Calculate or Share Your MPG  
Estimates from Drivers Like You  
Enter Your MPG at the Pump

### Save Money

Gas Mileage Tips  
Fuel Cost Calculator  
Find the Cheapest Gas

### Hybrids & Electric

Hybrids  
Plug-in Hybrids  
All-Electric Vehicles

### Calculators and Other Tools

Fuel Savings Calculator  
Trip Calculator

### New on fueleconomy.gov...

2020 Fuel Economy Guide  
2020 Fuel Economy Data

### Quick Picks

Find a Car App for Apple and Android

### Related Links

VW, Bentley, Audi and Porsche  
MPG Estimates Revised

# Training, Outreach & Partnerships

- Propane Education & Research Council
- NGV America
- National Biodiesel Board
- Renewable Fuels Association
- California Fuel Cell Partnership
- NTEA



## Clean Cities University Workforce Development (Intern) Program



# Technical & Problem Solving Assistance



## Technical Response Service

- **First-level** resource for stakeholders, consumers, and others
- Research and response to general inquiries
- Help with challenging questions
- Education for legislators and government officials.

*TechnicalResponse@icf.com, 800-254-6735*



## Tiger Teams

- **Second-level** resource for coordinators, stakeholders, and others
- Expert technical problem-solving to overcome obstacles
- Assistance on barriers that challenge local resources
- Help at any point in the project/product life cycle (concept, development, execution, operation/maintenance, closure)



# VTO Technology Integration Competitive Project Funding

VTO has funded over 600 Technology Integration projects and distributed nearly \$500 million since 1993



**Living Labs for  
Energy Efficient  
Transportation**



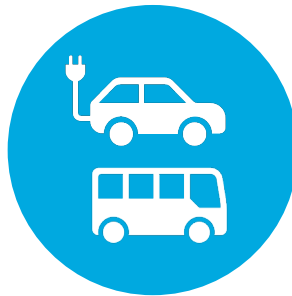
**AFV Adoption  
Through  
Partnerships**



**AFV Safety  
Training**



**Rural New  
Mobility  
Solutions**



**EV Community  
Partner Projects**

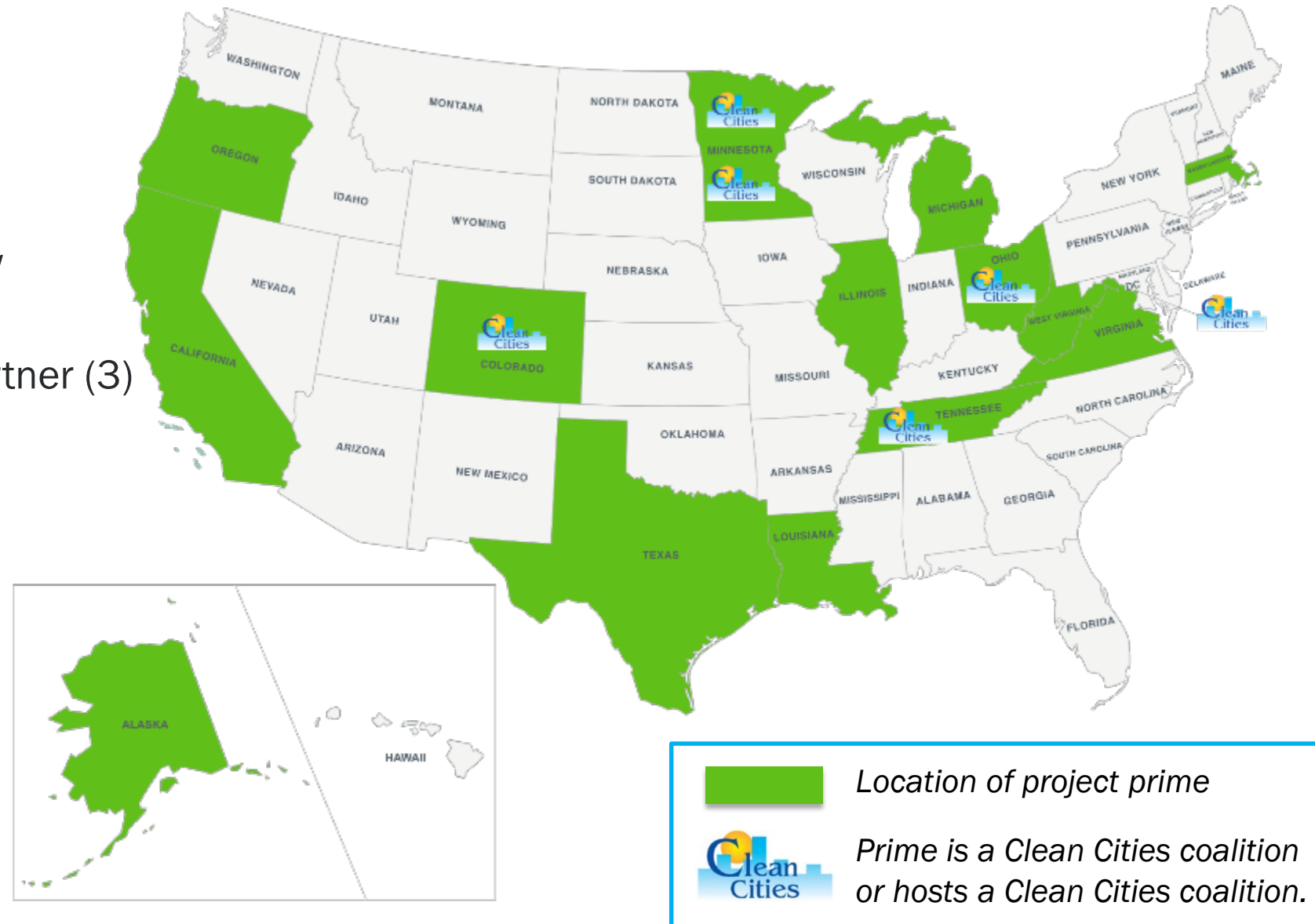


**AFV Data  
Collection  
and Analysis**

# FY20 TI Awards: \$37M for 18 Projects

## Topic Areas and # of Projects

- Gaseous Fuels Technology Demonstration (2)
- Alt. Fuel Proof-of-Concept in New Communities and Fleets (8)
- EV and Charging Community Partner (3)
- TI Open Topic Projects (5)



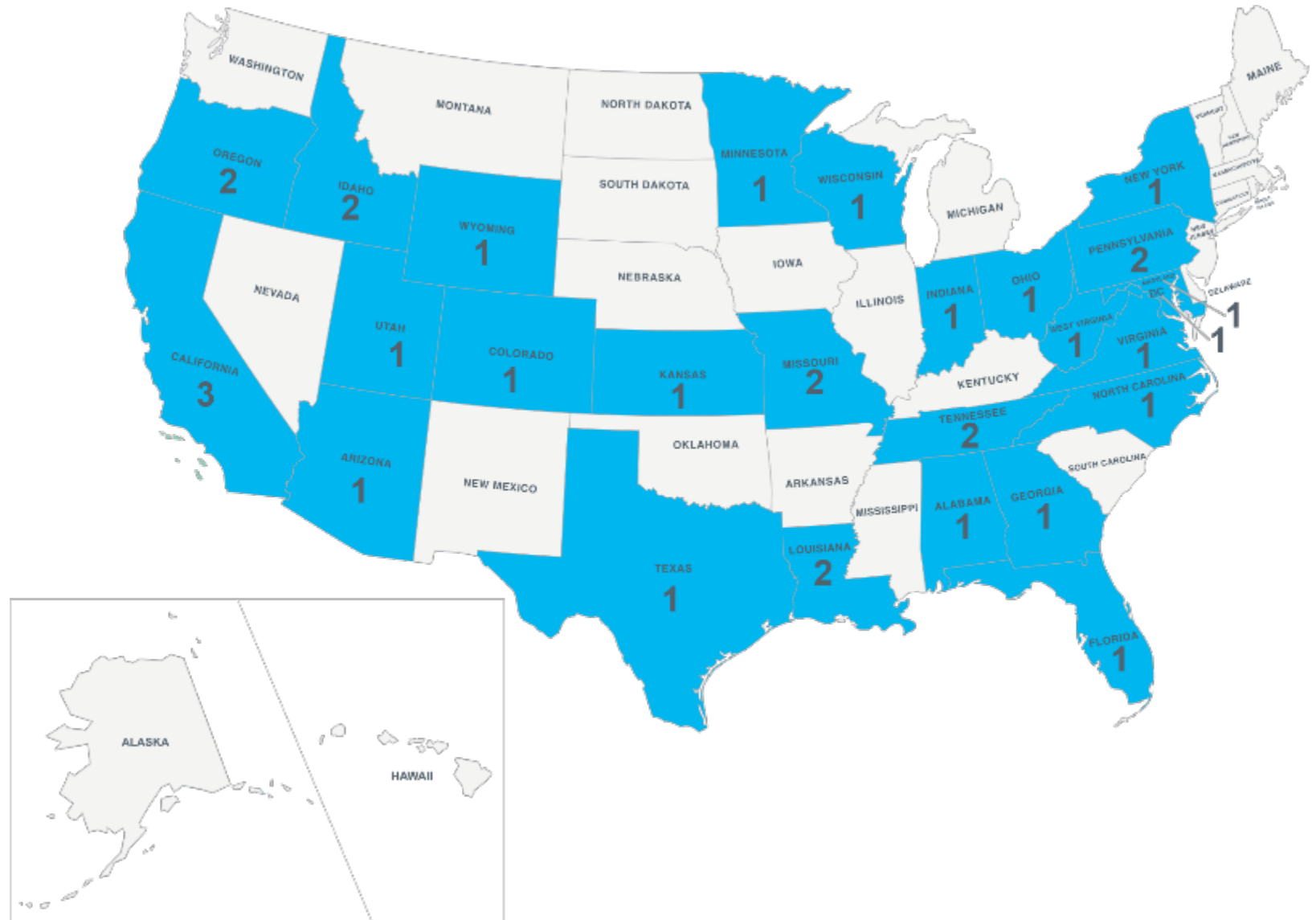
# Clean Cities Coalitions Involved in FY20 TI Awards



U. S. Department of Energy

Clean Cities coalitions will play a key role in the success of these awards.

- 32 Clean Cities Coalitions involved in projects\*
- Representing 26 States



\*Based on pre-negotiated project information. Project partners may change.

# For more info, attend our track sessions

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**June 22: Vehicle Analysis – 10:00am – 4:30pm**

**June 23: Technology Integration – 10:00am – 6:20pm**

**June 24: Technology Integration – 10:00am – 2:10pm**

**June 24: EcoCar Mobility Challenge– 3:45pm – 4:30pm**