MIDWEST DRIVES

Principal Investigator: Sam Spofforth, Executive Director
Presenter: Matt Stephens-Rich, Projects Manager
Clean Fuels Ohio
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Overview

Timeline

- Start: July 2015
- End: August 2017

Barriers Addressed

- Availability of alternative fuels and electric charging station infrastructure.
- Availability of AFVs and electric drive vehicles.
- Consumer reluctance to purchase new technologies.

Budget

- Total Project Funding:
- $1,011,264
- DOE: $500,000
- Cost Share: $511,264
- Funded with FY15, FY 16, and FY 17 Funds
- $358,546.94 spent (71%)
- (As of 4/10/17)

Partners

- Clean Energy Coalition
- Earth Day Coalition
- Greater Indiana Clean Cities Coalition
- South Shore Clean Cities

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Project Objectives

Overall Objectives

- Provide free vehicle demonstrations to public and private fleets across Indiana, Michigan, and Ohio.
- Incorporate data logging and case study generation based on vehicle demonstration.
- Educate fleets on real-world performance of various alternative fuels and fuel efficient technologies.

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Project Objectives

Supports DOE Vehicle Technologies Deployment Goals:

- Demonstrate and Evaluate Alternative Fuel and Fuel Efficiency Systems and Vehicles.
- Provide Data and Information to End-Users to Promote Alternative Fuels and Fuel Efficiency Systems.
- Reducing Consumer Reluctance to Purchase New Technologies.

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Project Objectives

Program Impact

- Clean Cities Coalitions connect with fleets on possible alternative fuel demonstration options through:
  - Events
  - In-Person Meetings
  - Webinars & Social Media
  - Direct Outreach
- Fleets receive multitude of benefits from participation, leading them towards adoption. This includes:
  - Detailed Case Study on Vehicle Demonstration
  - Connection with Industry for follow-up consultation
  - Follow-up from local Clean Cities Coalition on available grants, incentives, etc.

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Project Objectives

Participating Vehicle Manufacturers		
BYD	IMPCO	Palmer Trucks
Cardinal Bus	Lightning Hybrids	Roush CleanTech
Derive Technologies	NatGasCar	Stag USA
GreenTech Automotive	Nissan North America	Vanner
ICOM North America/Green Bridge Technologies	Optimus Technologies	

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Project Approach

Program Development & Program Set-Up Task 1 & 2	• Finalize contracting with vehicle providers and partners. • Purchase and install data loggers.
Program Implementation Task 3	• Enroll fleets for demonstration. • Deliver vehicles/conduct demonstration.
Data Analysis and Outreach/Education Task 4 & 5	• Aggregate data from demonstrations for case studies. • Use findings in educational material for fleets and stakeholders.

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Project Approach

Milestones and Go/No Go

Budget Period 1

- Fleet Selection Criteria Finalized.
- Vehicle Provider Subcontracts Completed.
- Fleet Agreements Complete.
- Subawardee Contracts Complete.

Demo Vehicles Delivered to Fleets

Go/No Go

Budget Period 2

- Complete Fleet Analyses for 50 General Demonstrations.
- Complete 15 In-Depth Fleet Analyses for 15 larger Demonstrations.
- Generate 12 One Page Profiles.
- Produce 12 Video Success Stories.

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Project Approach

Other Program Details

- Includes partnership with National Truck Equipment Association (NTEA) and NREL for expert insight to fleet outreach and data analysis.
- Sharing of best practices with Triangle Clean Cities Fleet Demonstration program.
- Vehicle demonstrations used as segue to other services/opportunities provided by local Clean Cities Coalitions.
- Three Week Vehicle Demonstrations Allowed Longer User Experience.

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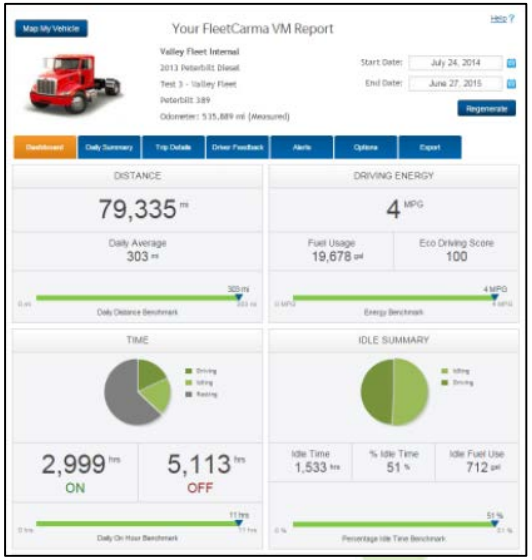
Project Approach

Data Loggers

- Loggers installed on demonstration vehicles to capture data on vehicle operations during demo period.
  - Collects: Vehicle Speed, MPG, RPM, etc.
- After demo, customized case study made available to fleet.
- Compares routes and driver performance on alternative fuel vehicles vs. conventional vehicle.
- Access to FleetCarma Dashboard during Demonstration.
- Apples to Apples Comparison



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Project Accomplishments and Progress

- Over 40 Vehicle Demonstrations Completed.
  - At least one demonstration with each vehicle technology provider.
  - Case studies generated for each respective fleet.
- 30+ Vehicles and Technologies Available for Demonstration through Providers.
- 12,000+ miles driven by Vehicle Demonstrations.
  - 2,000+ kWh of Usage by EVs
  - 2,200+ Driving Events Logged

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Project Accomplishments and Progress

https://www.youtube.com/watch?v=vOi7Hj-2HjY

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Collaboration and Coordination Among Project Team

- Required close coordination of Clean Fuels Ohio and Clean Cities Coalition Partners. Including:
  - Individual Fleet Contracting
  - Vehicle Scheduling Logistics
  - Data Logger Installation/Management
  - Case Study Generation
  - Sharing Findings and Next Steps with Fleets
- Google Drive, Monthly Group Discussions, and Weekly Communiques allow tracking of fleet and coalition progress.

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Market Impact and Sustainability

- Fleet Participants have varied from public to private, big and small.
  - Shown opportunity for AFVs, with some adoptions leading directly from Midwest Drives demonstrations.
- Clean Fuels Ohio and Clean Cities Coalition Partners plan to continue offering vehicle demonstration past Midwest Drives as part of Industry Collaboration.
  - Replicable to other Clean Cities Coalitions as part of Fleet Outreach.
- SmartColumbus (USDOT Smart Cities) Incorporates EV Fleet Demonstrations.
- Any proposed future work is subject to change based on funding levels.

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Summary

- First multi-state AFV demonstration in the Midwest.
- 40+ Vehicle Demonstrations spanning 12,000+ Miles of Data.
- Data Collected to be shared with Fleet DNA and other DOE Initiatives.
- Engages Industry with Multiple Clean Cities Coalitions, with Plans for Continuation.

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