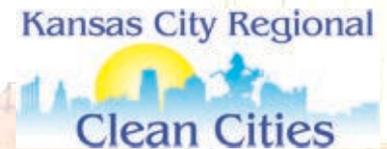


**2012 U.S. DOE VEHICLE TECHNOLOGIES PROGRAM ANNUAL MERIT REVIEW AND
PEER EVALUATION MEETING**

Midwest Region Alternative Fuels Project



**Kelly Gilbert, Transportation Director
Metropolitan Energy Center**

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ARRAVT056

Midwest Region Alternative Fuels Project Overview

Timeline

- **Start:** Dec 28, 2009
- **Finish:** Dec 27, 2013
- **% Complete:** 81% thru 1FQ2012

Budget

- Total project: \$31,744,788
 - \$14,999,905 DOE
 - \$16,744,883 contractor
- Budget expended thru 3/2012
 - \$12.2M DOE
 - \$18.5M Contractor

Targets: Alt Fuel Deployment

- 365 alternative fuel vehicles
- 36 alternative fuel stations

Barriers & Risks

- Annual budget constraints of partners with new or prolonged projects
- Backlog in electric and CNG supply chain
- Adding partners and new projects

Partners

19 public and private entities (see slide 4). Each procures alternative fuel vehicles and/or builds refueling stations. Fuel and technology types: compressed natural gas (CNG), electric, hybrid-electric, biofuels, propane.

Midwest Region Alternative Fuels Project Relevance

FY2010 - FY2013 Project Objectives

- In the national alternative fuel and advanced technology vehicle sector, create new jobs while preserving existing ones.
 - **Benefit to related barrier:** encourages increased production in established and new U.S.– based electric and CNG supply chains
 - **Benefit to related barrier:** provided basis for new sales and service jobs for alternative fuel vehicles within local private businesses
- In the three-state project region (MO, KS, NE):
 - Spur economic activity and invest in marketplace transformation by creating a sustainable alternative fuels market
 - **Benefit to related barrier:** outreach engendered interest in and knowledge of project and eased transition to new partners
 - Demonstrate diversified approach to petroleum reduction through a targeted deployment of alternative fuel and advanced technology vehicles and infrastructure

Midwest Region Alternative Fuels Project Approach

Project Partners

➤ Each partner has named a team lead, who manages progress of its part in the project, monitors and collects required data and reports to Metropolitan Energy Center.

➤ Metropolitan Energy Center provides management of total project objectives, holds partners to DOE requirements, hosts monthly best practice and project status calls, administers invoices and expenditures, and aggregates project partner data for reporting to DOE.

- Black Hills Energy
- City of Kansas City, Missouri
- City of Lawrence, Kansas
- City of Lee's Summit, Missouri
- City of Wichita, Kansas
- Government of Johnson County, Kansas
- Happy Cab Company
- Kansas City Power & Light
- Kansas City Kansas Public Schools USD500
- Kansas Gas Service
- Lee's Summit School District R-7
- Lincoln Airport Authority
- Margo Leasing / Wil Fischer
- Metropolitan Community College - Omaha
- Metropolitan Utilities District
- New Bern Transport Corporation / PepsiCo
- O' Daniel Honda
- University of Missouri at Kansas City
- Zarco 66, Inc.

Midwest Region Alternative Fuels Project Approach

Technical Barriers and NEPA Status

- Partner procurement processes and fiscal year planning times differ
 - In some cases, this delayed initiating orders and resulted in later deployment dates than originally anticipated.
 - Some partners shifted funding to other project emphases than originally intended.
- Backlog in electric and CNG supply chain
 - Partners chose different vendors and vendors chose different parts when the intended supply chain was too slow.
 - No insurmountable supply chain barriers have arisen.
- Added partners when projects came in under budget
 - Outreach during first year of project very effectively reached other agencies interested in alternative fuels. Resulted in easy transition to additional partners.
 - Chose new partners with accelerated project plans to meet overall project timelines.
- NEPA Status
 - NEPA Environmental Questionnaires are submitted according to requirements.
 - NEPA submittals by our staff and review by DOE staff are timely.
 - NEPA process is on track, with none overdue.

Midwest Region Alternative Fuels Project Approach

Milestones

Milestone	Target	Actual
25% of Vehicles Ordered	12/30/10	12/30/10
50% of Vehicles Ordered	03/30/11	03/30/11
75% of Vehicles Ordered	06/30/11	05/30/11
100% of Vehicles Ordered	12/31/11	03/30/12
25% of Vehicles Deployed	03/30/11	03/30/11
50% of Vehicles Deployed	06/30/11	07/30/11
75% of Vehicles Deployed	09/30/11	01/03/12
100% of Vehicles Deployed	06/31/12	
First Station Operational	01/30/10	11/30/09
50% of Stations Operational	06/30/11	08/30/11
Last Station Operational	06/30/12	
Marketing/Outreach Initiated	02/10/10	02/10/10
Marketing/Outreach Completed	12/31/13	
Training Initiated	02/10/10	02/10/10
Training Completed	12/31/13	

Midwest Region Alternative Fuels Project Technical Accomplishments

Target: 365 Alternative Fuel and Advanced Technology Vehicles

- Project objective was increased to **365** vehicles deployed from 333, as incremental cost for alternative fuel decreased, due to economies of scale
- Orders placed for 328 vehicles; or **90%** of project objective
 - Compare to last year, reported at 46%
- Deployed 301 vehicles; or **85%** of project objective
 - Compare to last year, reported at 13%
 - Of equipment expected to be deployed by 2011 year-end, we achieved 95% deployment by March 2012.
 - Cumulative gallons of alternative fuel used or petroleum fuel displaced: **215,000** (3427 last year)

Economies of scale made it possible for us to increase our vehicle deployments; we are still near 90% complete for this task.

Midwest Region Alternative Fuels Project Technical Accomplishments

- **Target: 36 Alternative Fuel Stations**

- Design and Site Work is begun at 31 locations (**86%**)
 - Compare to last year, reported at 80%
- Completed 19 locations; or **75%** of project objective
 - Compare to last year, reported at 16%
 - Gallons of alternative fuel dispensed: **85,000** (1066 in 1FQ11)
- One project with 7 biofuels stations was delayed substantially by a project revision

**We are 75%
complete for
alternative fuel
station installation.**

- **Target: American Jobs**

- Jobs created and saved is consistently between 3 and 4 per quarter, performing direct work on the project.
- This statistic does not include manufacturing jobs for station or vehicle equipment, which are positively impacted by this project, as evidenced by the lowering costs experienced during the project. These jobs were not directly paid for by the partners or vendors and are not reimbursed under this project nor recorded as cost share.

ARRA jobs reporting constraints make it impossible for our project to accurately portray its impact to the marketplace. Economies of scale achieved through volume, bringing prices down for the national marketplace, implies many more jobs behind the scenes.

Midwest Region Alternative Fuels Project Technical Accomplishments

Date		Outreach or Media Event
March 16, 2011	Media event	CNG buses and refueling for Kansas City Kansas School District
June 10, 2011	Media event	CNG vehicles and refueling for Metropolitan Utilities District
		Includes first public CNG refueling station in Nebraska.
June 24, 2011	Media event	Kansas City Power & Light announced EVSE locations
July 28, 2011	Station tour	Fleet managers toured 3 local CNG operations
July 30, August 13, August 27, 2011	Public event	Biodiesel Discount Days at Zarco 66, Inc.
September 14, 2011	Media event	Kansas City Police Department debuts CNG
November 4, 2011	Media event	Lincoln Airport Authority public CNG and program
Fall 2011	Public television	Motorweek segments aired and videos posted to web:
		Lee's Summit School District all-electric delivery trucks (project complete in 2010)
		Public CNG fueling in Omaha, Nebraska, serving Happy Cab taxi company
		Metropolitan Utilities District CNG program
		Kansas City Kansas Public Schools CNG program
Winter 2011-2012	Marketing campaign	Kansas Gas Service public stations
March 2, 2012	Media event	Kauffman Center for the Performing Arts EVSE grand opening

Midwest Region Alternative Fuels Project

Partnerships: Subrecipients

- 1. Black Hills Energy**
public and private refueling
- 2. City of Kansas City, Missouri**
vehicle deployment and public charging stations
- 3. City of Lawrence, Kansas**
vehicle deployment
- 4. City of Lee's Summit, Missouri**
vehicle deployment
- 5. City of Wichita, Kansas**
vehicle deployment
- 6. Government of Johnson County, KS**
vehicle deployment and private refueling
- 7. Happy Cab Company**
vehicle deployment
- 8. Kansas City Power & Light**
charging station installations
- 9. Kansas City Kansas Public Schools**
bus deployment and private refueling
- 10. Kansas Gas Service**
public refueling upgrade
- 11. Lee's Summit School District R-7**
vehicle deployment and private charging
- 12. Lincoln Airport Authority**
vehicle deployment and public refueling
- 13. Margo Leasing**
private refueling and vehicle deployment

Midwest Region Alternative Fuels Project Partnerships: Subrecipients

- 14. Metropolitan Community College – Omaha**
vehicle deployment and private refueling
- 15. Metropolitan Utilities District**
vehicle deployment and public refueling
- 16. New Bern Transport / PepsiCo**
vehicle deployment
- 17. O'Daniel Honda**
semi-public refueling
- 18. University of Missouri at Kansas City**
vehicle deployment and public charging
- 19. Zarco 66, Inc.**
public refueling

Midwest Region Alternative Fuels Project Future Work

Technical Work

Vehicle progress

- 90% ordered and 85% deployed as of 1FQ12
- 100% deployment by June 2012

Infrastructure progress

- 97% site work started and 75% deployed as of 1FQ12
- 100% completion Sept 2012

Project Administration

Continue Project Management

Continue Monitoring, Data Collection and Reporting

Midwest Region Alternative Fuels Project Future Work

Outreach and Training

Continue Outreach Campaign

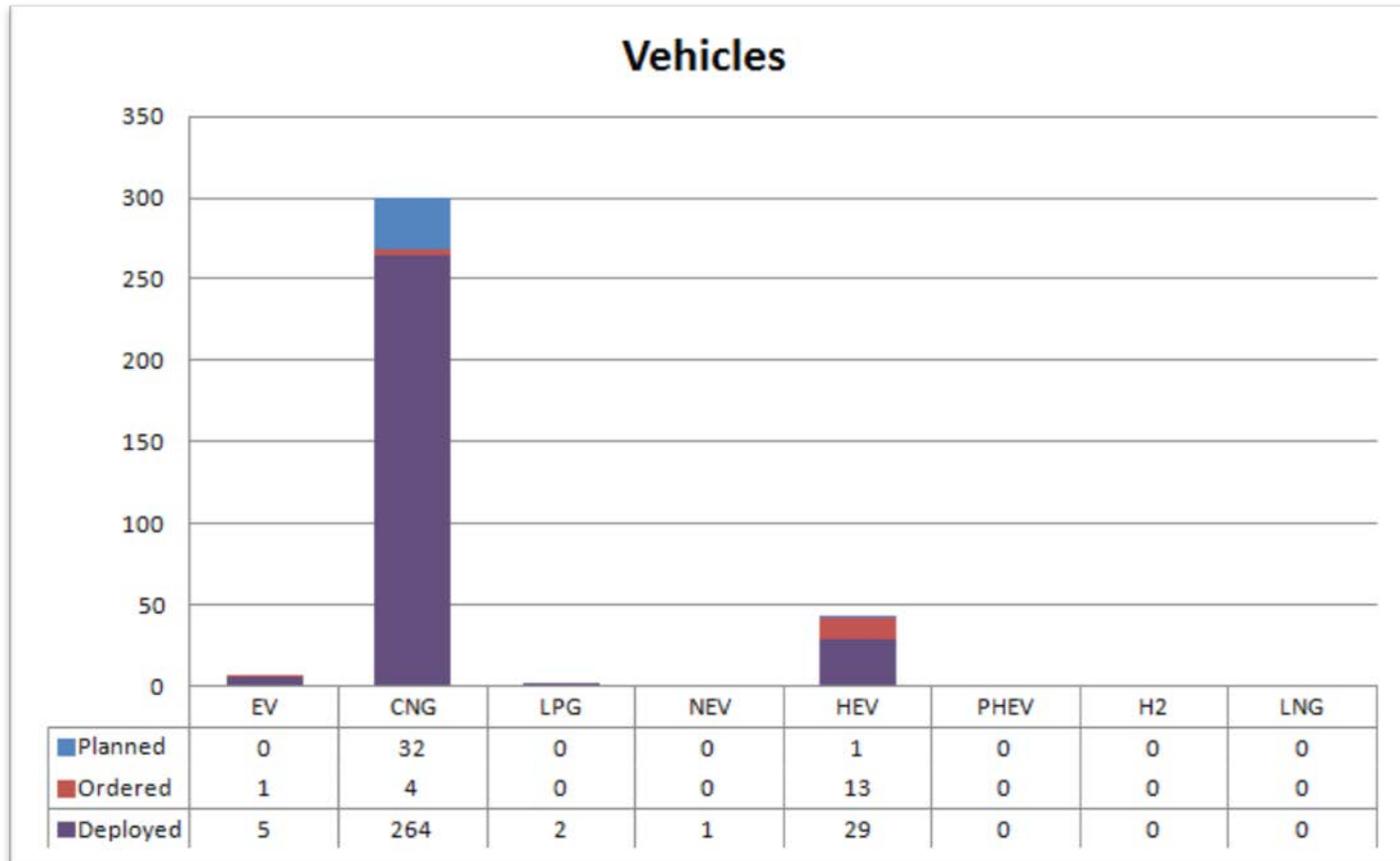
Media and Grand Opening Events

- Public CNG station in Lincoln, NE
- Private CNG station and program for Governments of Johnson County, Kansas
- Public bio-fuels station at 7 traditional fueling sites

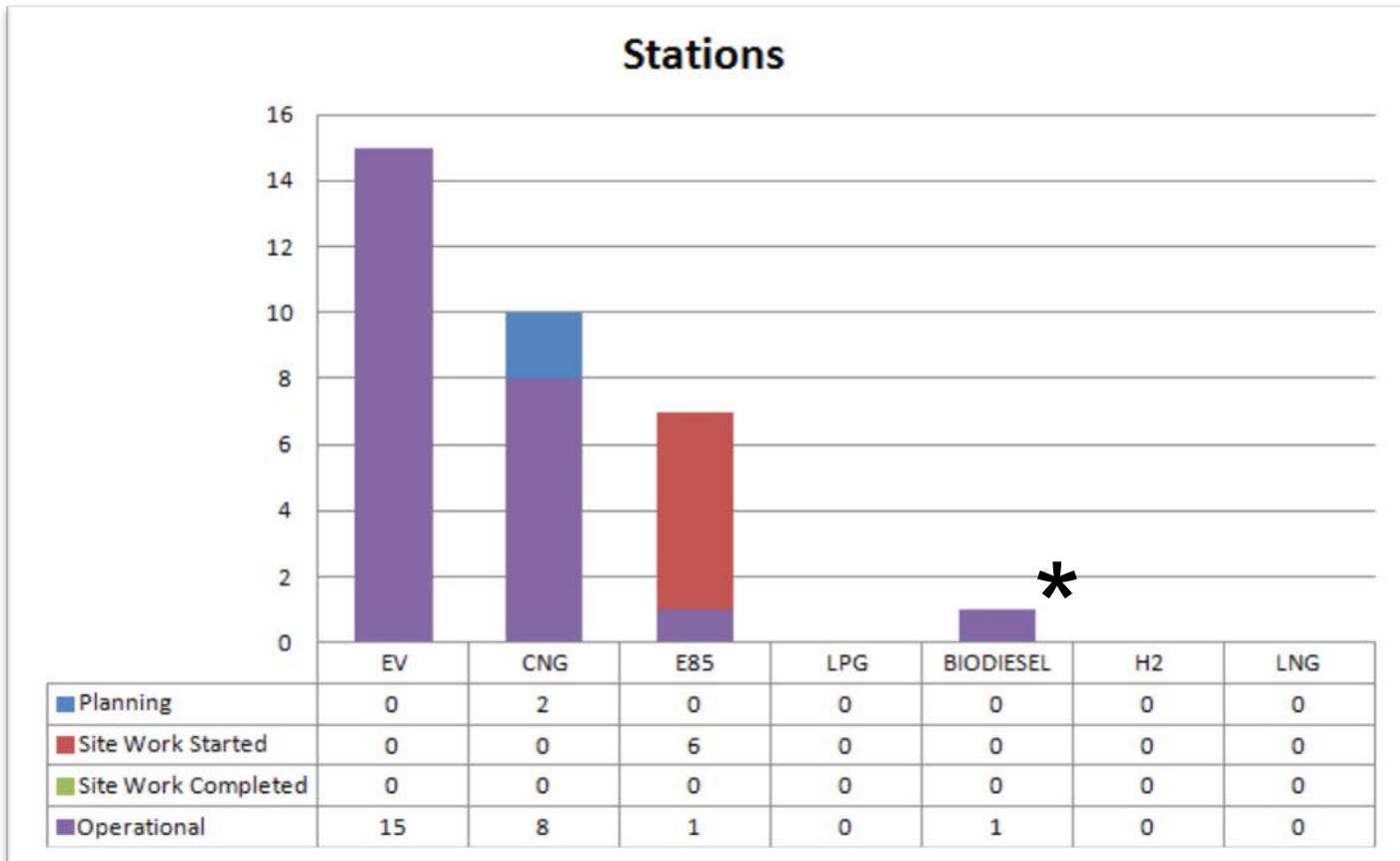
Develop and Deliver Training Curriculum

- Operator and Technician Training
- First Responder Training

Midwest Region Alternative Fuels Project Summary: 365 Vehicles



Midwest Region Alternative Fuels Project Summary: 36 Infrastructure Locations



* Does not reflect the 3 biodiesel installations planned for the same locations as 3 of the E85 stations

Midwest Region Alternative Fuels Project Summary

Project Partner	Vehicle	Infrastructure	Status
Black Hills Energy	0	1	Planning
City of Kansas City, Missouri	171	2	163 vehicles deployed; 8 others ordered. 2 EVSE installed
City of Lawrence, Kansas	1	0	complete
City of Lee's Summit, Missouri	4	0	complete
City of Wichita, Kansas	18	0	Deployed 15 HEVs; 3 planned
Happy Cab Company	50	0	13 deployed; 5 being converted
Government of Johnson County, Kansas	3	1	planning
Kansas City KS Public Schools USD 500	54	1	48 deployed; 6 ordered. 1 station complete
Kansas City Power & Light	0	10	complete
Kansas Gas Service	0	2	complete
Lee's Summit School District R-7	4	2	complete
Lincoln Airport Authority	7	1	complete
Margo Leasing	2	1	complete
Metropolitn Community College – Omaha	1	1	complete
Metropolitan Energy Center	1	1	1 ordered. 1 station site work started
Metropolitan Utilities District	42	2	complete
New Bern / PepsiCo	6	0	4 deployed; 2 ordered
O'Daniel Honda	0	1	complete
University of Missouri - Kansas City	1	1	complete
Zarco 66, Inc	0	7	1 complete; 6 under way
	365	34	