

**2010 U.S. DOE HYDROGEN PROGRAM and VEHICLE TECHNOLOGIES PROGRAM
ANNUAL MERIT REVIEW AND PEER EVALUATION MEETING**

Midwest Region Alternative Fuels Project

**Metropolitan
ENERGY CENTER**

Kelly Gilbert

Ruth Redenbaugh

Metropolitan Energy Center

May 5, 2010



ARRAVT056

Midwest Region Alternative Fuels Project Overview

Timeline

- Start: Dec 28, 2009
- Finish: Dec 27, 2013
- 2% complete

Budget

- Total project \$31,744,788
 - \$14,999,905 federal
 - \$16,744,883 partner
- Funding received in FY10
 - \$305,644.02 Q1 & Q2

Barriers & Risks

- Research to confirm infrastructure locations
- Budget constraints of partners until FY2011
- Backlog in electric and CNG supply chain

Partners

Municipalities, Utilities, School Districts, Colleges, Taxi Fleet, Private Fuel Retailer, and Others

Midwest Region Alternative Fuels Project Objective

FY2010-FY2013 Project Objectives

- In the national alternative fuel and advanced technology vehicle sector, create new jobs while preserving existing ones
- In the four-state project region (MO, KS, NE, IA):
 - Spur economic activity and invest in long-term economic growth by creating a sustainable alternative fuel market
 - Demonstrate diversified approach to petroleum reduction through a targeted deployment of alternative fuel and advanced technology vehicles and infrastructure

Midwest Region Alternative Fuels Project Milestones

	Statement of Project Objectives Tasks	target	complete
Task 1:	Project Management and Planning		
	Kick-off meeting with all partners and DOE	Feb-10	100%
	Finalize agreements with partners	May-10	88%
Task 2:	Vehicle Deployment		
	Order vehicles (ordered 77 of 333)	May-11	23%
	Deploy vehicles	Dec-11	
Task 3:	Infrastructure Development		
	Design and begin site work (12 of 36 begun)		30%
	Complete Construction	Dec-11	
Task 4:	Training Development & Delivery		
	Begin training plans	May-10	
	Develop training	Jul-10	
	Deliver training (4 training complete)	Dec-13	
Task 5:	Outreach/Marketing		
	Begin marketing plans at kick-off meeting	Feb-10	100%
	Develop marketing tools (started 05/21/10)	Jun-10	30%
	Conduct marketing events (6 events with more than 3400 participants)	Dec-13	
Task 6:	Documentation and Reporting		
	Develop templates for invoice, progress, media approvals for partners to update actions	Mar-10	100%
	Monthly reporting (3 out of 48)	Dec-13	6%
	Quarterly reporting (2 out of 13)	Jan-14	15%

Midwest Region Alternative Fuels Project Technical Accomplishments

- Sub-recipient Agreements signed with 14 of 16 project partners
- NEPA Documentation Approved
 - 5% of vehicles at 14 of 333
 - 33% of 36 infrastructure locations at 12 with 142 dispensers:
 - 7 Bio-fuel stations with 94 dispensers of B20/E85
 - 4 CNG stations with 47 dispensers
 - 1 Bio-diesel station
- Vehicles: Orders placed for 23% at 77 of 333
 - 100% of electric vehicles at 6 of 6
 - 22% of CNG vehicles at 63 of 284
 - 22% of Hybrid at 8 of 36
- Infrastructure: 36 locations with 170 dispensers
 - Design and Site Work begun for 30% at 12 of 36 locations
 - Events scheduled for four locations

Midwest Region Alternative Fuels Project Partners

**American Energy Engineering
City of Kansas City, Missouri
City of Lawrence, Kansas
City of Lee's Summit, Missouri
City of Wichita, Kansas
Happy Cab Company
Kansas City Power & Light
Kansas City, Kansas School District USD500
Lee's Summit School District R-7
Lincoln Airport Authority
Margo Leasing - Wil Fischer
Metropolitan Community College
Metropolitan Utilities District
O' Daniel Honda
University of Missouri at Kansas City
Zarco 66 Earth Friendly Fuels**

Midwest Region Alternative Fuels Project Future Work

Technical Work

- Complete Remaining NEPA Actions
- Complete Vehicle Ordering
 - 100% completion May 2011
- Continue Infrastructure Installations
 - 85% complete Mar 2011
 - 100% completion Dec 2011

Midwest Region Alternative Fuels Project

Future Work

Outreach and Training

- Media and Grand Opening Events (Summer and Fall 2010)
 - Media Event and Ribbon Cutting: June 7, 2010 – First Kansas City Metro Public Charge Station Installation, at Project Living Proof, in Kansas City, MO.
 - Media Event: June 15, 2010 (estimated) – The Biodiesel Project in Springfield, MO, by Margo Leasing.
 - Groundbreaking and Outreach: July 2010 – Kansas City KS School District to demonstrate its first CNG school bus during and after fueling station groundbreaking.
 - Media Event: August 2010 – 80% Emission-Free Food Delivery at Lee's Summit MO School District
 - Groundbreaking: September 2010 for fueling sites in Omaha NE with 50 CNG vehicles.

Midwest Region Alternative Fuels Project Future Work

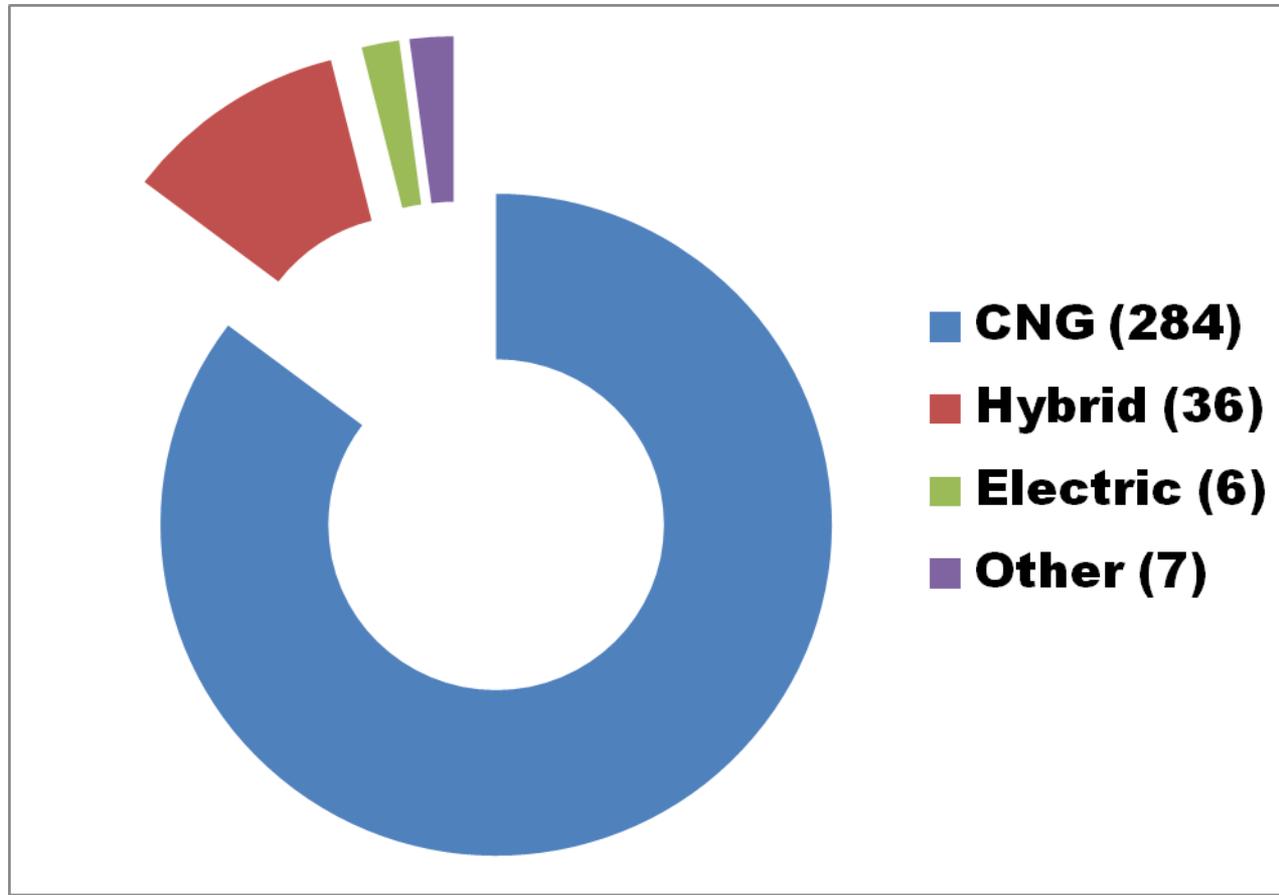
Outreach and Training, continued

- Complete Marketing Toolbox and Begin Outreach Campaign
- Develop and Deliver Training Curriculum
 - Operator and Technician Training
 - First Responder Training

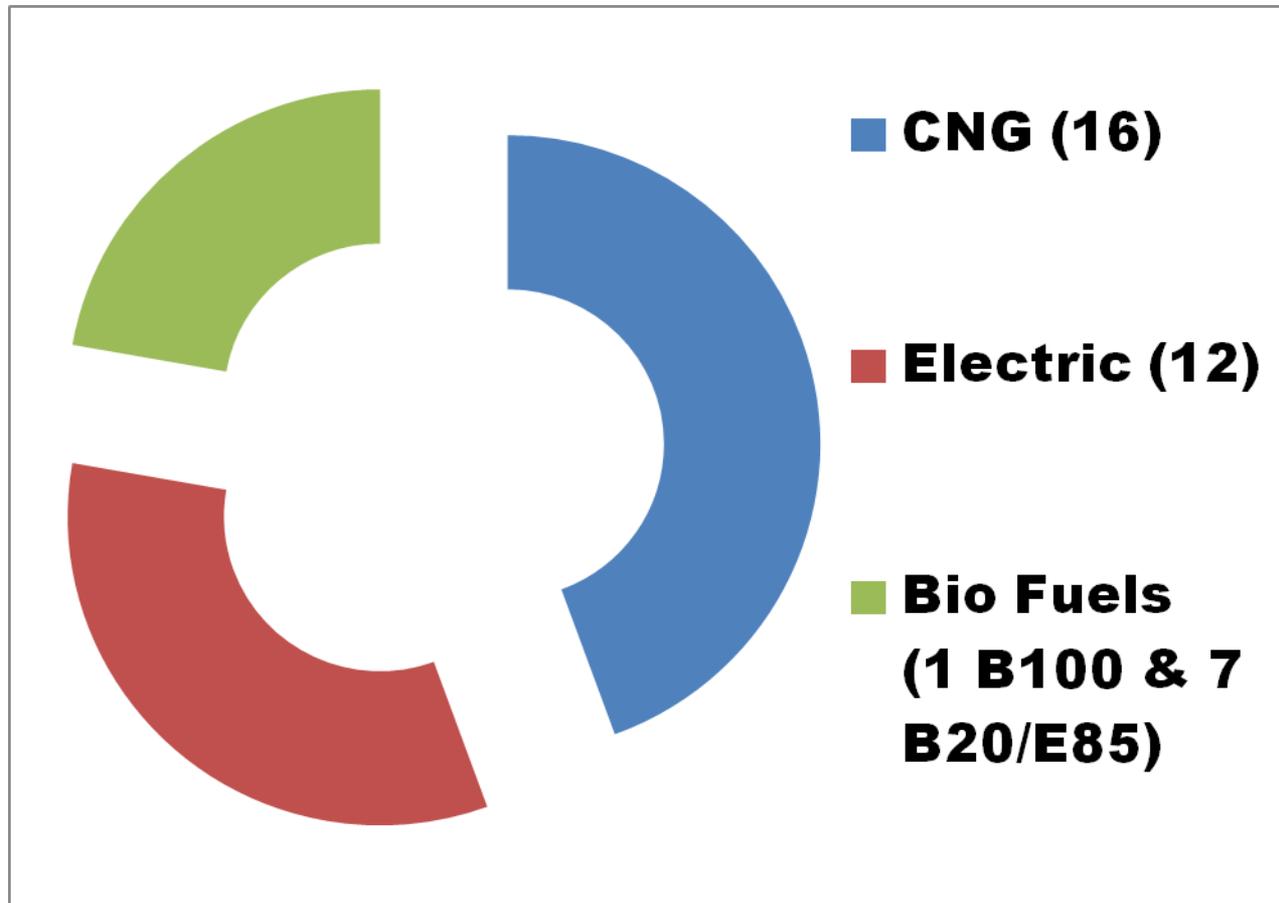
Project Administration

- Continue Project Management
- Continue Data Collection, Reporting and Monitoring

Midwest Region Alternative Fuels Project Summary: 333 Vehicles



Midwest Region Alternative Fuels Project Summary: 36 Infrastructure Locations



Midwest Region Alternative Fuels Project Summary

SUMMARY	type	vehicles		infrastructure	
		#	description (LD = light duty HD = heavy duty)	fueling positions	description
American Energy Engineering	CNG	6	LD vehicles	6	locations being determined some residential some public
City of Cape Girardeau, MO	hybrid	1	HD hybrid		
City of Kansas City, Missouri	mix	152	with a possible mix of 140 CNG, 10 hybrid, 2 propane	3	public, improvements to existing private locations
City of Lawrence, KS	electric	1	LD pick up truck for maintenance and mail		
City of Lee's Summit, MO	hybrid	4	LD police vehicles		
City of Wichita, KS	hybrid	18	HD trucks		
Happy Cab Company	CNG	50	LD taxi service		
Kansas City Power & Light	electric			10	currently 3 sites in planning stage with one charging each
Kansas City, KS, School District 500	CNG	56	HD school buses	44	with 1 private (42 slo-fill), 1 public (2 fast fill)
Lee's Summit School District	electric	4	HD food delivery trucks	4	modifications to existing private charging area
Lincoln Airport Authority	CNG	7	LD service and security vehicles	2	private fast fill
Margo Leasing - Wil Fischer	bio			1	private B100 station
Metropolitan Community College	CNG	1	LD vehicle	1	private vehicle refueling appliance
Metropolitan Utilities District	CNG	32	LD vehicles	3	with 1 public with 2 hoses and 1 public with 1 hose
O'Daniel Honda	CNG			1	private vehicle refueling appliance
UMKC	electric	1	M/HD truck	1	public charging station
Zarco 66 Earth Friendly Fuels	bio			94	E85/B20 in 7 public station up-fits
TOTALS		333		170	