

the Energy to Lead

Lake Michigan Corridor Alternative Fuel Implementation Initiative

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Overview

Timeline

- Start date: February 2013
- Completion date: January 2015
- Status: 60% complete

Barriers Addressed

- Consumer reluctance to purchase new technologies
- Lack of technical experience with new fuels and vehicle technologies

Budget

- Total project funding: \$820,049
 - US DOE funding: \$764,266
 - Recipient share: \$55,783
- Funded with FY13 and FY14 funds
- 40% of funds spent to date

Partners

- Gas Technology Institute (GTI)
- Lake MI Clean Cities Consortium
 - South Shore Clean Cities Coalition
 - Wisconsin Clean Cities Coalition
 - Chicago Area Clean Cities Coalition
- Automotive Technician Trainer

Objectives

Main Project Objectives

- Target and remedy identified obstacles to AFV adoption and use in key regional area - Lake Michigan Corridor
 - 9.8 million people, 11 counties in EPA non-attainment
- Address four major initiatives:
 1. Policies
 2. Barrier Reduction
 3. Safety and Training
 4. Market Development and Outreach

VTP Deployment Goals Supported

- Provide technical and educational assistance to support local communities and partnerships that promote better understanding of the benefits of these new technologies
- Ease market introduction of alternative fuels and new electric drive vehicle technologies through voluntary efforts in partnership w/ local communities

Project Tasks

The tasks to be performed are:

1. Project Management and Administration
2. Policies
3. Barrier Reduction
4. Safety and Training
5. Market Development/Outreach

Each Task is broken down into specific Subtasks that have immediate impacts towards reducing barriers

- Past VTP Funding focused attention on the critical local issues

Project Subtasks

Task 2: Policy Initiatives
2.1: Shared/Public Access of Municipal Stations
2.2: Inspection Criterion for Alt. Fuel Vehicles
2.3: Creation of Green Fleet Program (Indiana)
2.4: Document Success and Quantify Impact
2.5: Generation of Smart Green Purchasing Policy
Task 3: Barrier Reduction Initiatives
3.1: Weights and Measures Education, Training
3.2: Vehicle Deployment Toolkit
3.3: Identify Local Regulatory Barriers (Survey)
Task 4: Safety and Training Initiatives
4.1: Establish Community College Courses
4.2: Certification/Training Centers at CC's
4.3: Fire Marshal/Code Official Station Workshops
4.4: Support Existing (1st Responder) Programs
4.5: Training Material for Conversion Compliance
4.6: Guidelines for Garage and Maintenance Shops
Task 5: Market Development and Outreach
5.1: Direct Ed. and Outreach to Industries
5.2: Direct Ed. and Outreach to Transit Agencies

Aggressive breadth and depth of scope (16 subtasks; 3 states; 3 alt. fuels) relies on the team's unique combination of experience affecting local policy change, technical expertise, and connections with key regional stakeholders

Project Subtasks – Specific Needs

- Each subtask was created to address a specific barrier or issue (list below highlights 11 of 16 subtasks):
 - 2.1 – **Shared access** – Lack of accessible, public CNG infrastructure however there are dozens of private municipal stations in the region
 - 2.2 – **Inspection of CNG and LPG vehicles** – Municipalities inspect licensed vehicles; lack of experience leads to concerns and delays
 - 2.3 – **NW Indiana Green Fleet Program** – Lack of recognition and awareness of local fleets using alt. fuels
 - 3.1 – **CNG Weights and Measures** – States regulate public fueling stations but lack of CNG experience leads to additional costs and delays
 - 3.2 – **Vehicle Deployment Toolkit** – Lack of understanding of alt. fuels and how they are deployed decreases opportunities and adoption
 - 3.3 – **Identifying Local Barriers** – Needs exist to gather local strengths and weakness to prioritize future efforts

Project Subtasks – Specific Needs

- Each subtask was created to address a specific barrier or issue (cont.):
- **4.2 – Training Local Fleets and Technicians** – Lack of automotive technicians with alt. fuel skills slows adoption, raises costs, adds downtime
- **4.3 – Fire/Code Official Fueling Station** – Lack of training of alt. fuel station codes increases costs and stops development before it begins
- **4.4 – CNG and LPG Maint. Garage Modifications** – Misconceptions of modification requirements slow adoption and increase costs
- **5.1 – Directed Education/Outreach to Industries** – Specific local industries are ripe for alt. fuel adoption but need support
- **5.2 – Directed Education/Outreach to Regional Transit Agencies** – High impact fleets in the region lack understanding/experience with CNG

Progress - Policy Initiatives

Opening Access to Private Stations

One Municipal Station Opened to Public

Ideal situation for gathering “Lessons Learned”

Survey Additional Potential Locations

Several surveys have been completed to gather key barriers, questions, and needs

Vehicle Inspection Criteria

Developed Safety Checklist

Vetted with industry experts

**Performed webinars for local CNG
and Propane stakeholders**

Create Green Fleet Program in NW Indiana

Program Developed and Commenced

Endorsed by both US Senators, local Congressman,
and supported by the local MPO -
Northern Indiana Regional Planning Commission



Progress – Barrier Reduction Initiatives

Weights and Measures Education

Developed Guidelines and Lessons Learned Document

Identified Audience for Regional Authorities
Each state is handling CNG W&Ms differently

Vehicle Deployment Toolkit

Performed webinars to local stakeholders

Topics Covered: Station and Vehicle Education, Safety, and Typical Uses for CNG, EV, Propane

Identify Local Regulatory Barriers

Developed Survey for Local Stakeholders
Emailed to all stakeholders; completion incentives

Survey Results Being Gathered and Evaluated

Progress – Safety and Training Initiatives

Auto Technician Training Courses

Providing Hybrid Training for Local Fleets

18 training sessions have been given to local fleets and technicians

Fueling Station Workshops– Code Officials

Workshop Material Generated

Vetted with industry experts

Performed AFV station webinars

Maintenance Garage Upgrade Guidelines

Developed Guidelines for Shop Compliance

CNG and LPG were main concentrations

Performed Webinar for Local Stakeholders

Progress – Market Development

Education and Outreach to Industries

Taxi Industry: Spoke on local NPR Affiliate

Heavy Industrial: Ready-Mix Cement

Provided Support for Grand Openings of Ozinga Station and reached out to another large Ready-Mix company

Webinar Series Educated Variety of Industries

NIPSCO (IN Utility) Provide EV Outreach

Community Events and Website Education

Education and Outreach to Transit Agencies

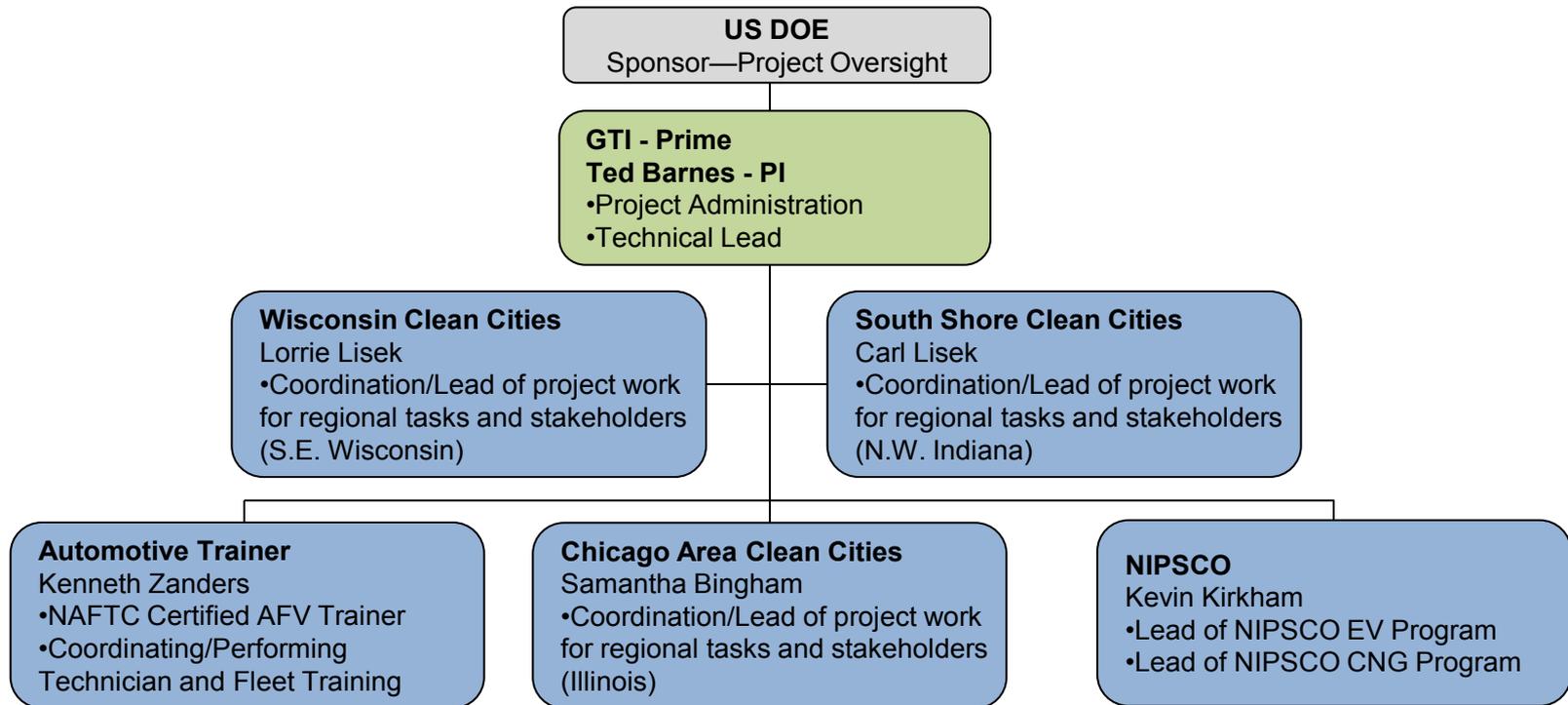
Significant Progress at PACE

Chicago Area: Meeting with RTA provided education on CNG transit buses

Significant Progress at Transpo

Northern Indiana: Transpo will be introducing CNG buses by the end of 2014

Team Members



- Other Stakeholders involved in project successes: Regional Transit Authority (RTA), CTA, PACE, Transpo, AT&T, Ozinga, Southeastern Wisconsin Regional Planning Commission, Northern Indiana Regional Planning Commission

Future Work / Ongoing Efforts

Outreach/Deployment of Materials

Materials have been generated on several tasks that will be distributed to appropriate audience in FY14/15

Document Success and Lessons Learned

Create resources based on surveys results and past successes

Expand Auto Technician Training Opportunities

Continue work with local institutions to expand opportunities for alt. fuel training

Support Existing 1st Responder Training

Work with local first responders to augment their existing alt. fuel courses

Summary / Key Impacts

- **Unique combination of closely-linked, successful coalitions/coordinators and technical expertise**
- **High-impact region that is experiencing growth in alt. fuel use but needs support/champions. Lake MI Corridor includes:**
 - 3 long standing coalitions; 500 member organizations
 - Serve geographic population of over 9.8 million people
 - 11 counties in non-attainment status for the U.S. EPA 2008 Ground Level Ozone standard
 - Alternative fuel corridors and hot spots
- **Efforts are based on real-world barriers that need solving**
 - Based on VTP deployment program successes
- **Documents generated will be applicable to fleets nationwide**
- **Progress to date has exceeded expectations and future tasks will finalize program successes**