Overview

Timeline
- Start date: February 2010
- Completion date: December 2013
- Status: 77% complete

Barriers
- Barriers and risks
  - Unforeseen permitting issues
  - Construction delays
  - Availability of equipment

Budgets
- Total project funding: $39,624,980
  - US DOE funding: $14,999,658
  - Recipient share: $24,635,322

Partners
- Gas Technology Institute (GTI)
- Chicago Area Clean Cities Coalition
- State of Illinois, municipalities, and private companies
Chicago Climate Action Plan

25% Reduction by 2020

Calls for a 10% increase in alternative fuel use in Chicago by 2020
$15 million in USDOE ARRA funding received by City and partners

$24.6 million leveraged in additional project investments
Project Objectives

Increase alternative fuel vehicles & hybrids
- 310 CNG Vehicles (129 Medium & Heavy Duty), 83 Gasoline Hybrids, 10 Heavy Duty Diesel Hybrids and PHEVs

Develop fueling & charging infrastructure
- 316 Electric Charging stations (73 DC Fast Charging), 17 CNG stations, 1 LPG station, 11 E-85 stations

Relevance
- 400 metric tons/yr in reduced criteria pollutants
- 7,500 metric tons/yr in reduced CO2 (eq. to removing almost 1,400 cars/yr)
- 3 million gallons of petroleum/yr displaced
- 77 full time equivalent jobs
16 Project Partners

US DOE
Sponsor—Project Oversight

City of Chicago DOT
Samantha Bingham
Prime
• Coordination of Project Partners
• Project Reports

GTI
Ted Barnes – PM
• Coordination with Subawardees
• Project reporting and invoicing support
• Technical support

City of Chicago
Dept of Fleet and Facilities Mngt
Matt Stewart
• Subawardee

350 Green
Hali Sittig-PM
• Subawardee
• Electric Charging station infrastructure developer

Foodliner Vehicles

Patson-Exel-Diageo
Vehicles

Commonwealth Edison
Vehicles and Infrastructure

Peoples Gas
Vehicles and Infrastructure

Doreen’s Pizza
Infrastructure

Clean Energy / Yellow Cab
Vehicles and Infrastructure

DuPage County DOT
Vehicles and Infrastructure

Village of Downers Grove
Infrastructure

Groot
Vehicles and Infrastructure

Waste Management
Vehicles and Infrastructure

I-GO Infrastructure

Approach—Partnerships
Municipal Partners — Shared Fueling

City of Chicago- Dept. of Fleet Management
50 NGVs, 6 CNG Stations, 11 E-85 Stations

Village of Downers Grove
Upgrading CNG station for public use

DuPage County DOT
15 NGVs, 1 CNG station

DuPage County Forest Preserve
15 NGVs, 3 Hybrids, 1 CNG/LPG station
Waste Haulers — Time-Fill and Public Fueling

Waste Management
15 Waste Haulers, 1 CNG station

Groot Industries
20 Waste Haulers, 2 CNG stations
Taxis — Public Infrastructure Dependent

Clean Energy
2 Public Fueling Stations

Yellow Cab
89 NGV Taxis

Green Taxi Program
70 NGVs, 50 Hybrids, 55 Companies
Private Industry—Public Fueling

Foodliner
6 Long-haul Heavy-Duty CNG Trucks

Ozinga Brothers
14 CNG Cement Mixers

Approach-Technical Accomplishments
Private Industry—Public Fueling

- Patson-Exel Diageo: 2 Heavy-Duty CNG Delivery Trucks
- SCR Medical Transportation: 6 Wheelchair Accessible NGVs
- GO Airport Express: 2 NGV Shuttle Vans
- Doreen’s Pizza: 1 CNG station for existing fleet
Electric Vehicle Supply Equipment

Car Sharing Companies I-Go and Zipcar Using 350Green EVSE

350Green
207 Level 2, 73 DC Fast Chargers
Utilities/Non-Profits

ComEd
35 Hybrids, 8 Hybrid Bucket Trucks, 1 PHEV Digger, 36 Level 2 EVSE

GTI
1 CNG Station

Peoples Gas
12 NGVs, 1 CNG Station
Snowball Effect — US DOE Funds Lead to Outside Investments/Improvements

Technical Accomplishments

### Green Taxi Program
- **55 CNG taxis**
  - $750,000 in private funds

**City Policy Changes**
- 2 major changes to incent green taxis
  - Released RFP for “Green” O’Hare fueling station

### WM and Groot Projects
- **3 More Waste Haulers**
  - > 75 CNG Trucks, 3 Stations
  - $5,000,000 in private funds

- **Additional WM Public station**
  - Near Midway Airport

### New Alternative Fuel Infrastructure

- **Early Nissan Leaf Release**
- **City Flex Fuel Vehicles**
  - “Locked out” of gasoline

- **AT&T CNG Vehicles**
  - >50 NGVs; >$500,000 private funds
### Technical Accomplishments

#### Accomplishments to Date

<table>
<thead>
<tr>
<th>352 Vehicles Deployed</th>
<th>223 Stations Operational</th>
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<tbody>
<tr>
<td>259 CNG Vehicles (87 Heavy Duty),</td>
<td>198 Electric Charging stations (26 DC Fast Charging), 15 CNG stations, 1 LPG station, 9 E-85 stations,</td>
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<tr>
<td>83 Gasoline Hybrids, 10 Heavy Duty</td>
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<tr>
<td>Diesel Hybrids and PHEVs</td>
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- $11.6 million in USDOE costs incurred
- $20.6 million in Recipient share incurred
- 1,650,000 gallons of petroleum displaced
- 3700 tons of GHG emissions reduced

Equivalent to removing 726 cars off the road
Federal Fiscal Year 2012

**Vehicles**
Deploy final 51 vehicles; ordered awaiting arrival or admin. tasks

**Stations**
Complete final 2 CNG and E-85
Install final EVSE

**Ongoing Efforts**

**Data / Reporting**
Continue data collection and reporting on all vehicles, stations, and activities

**Marketing**
Plan additional events, further develop strategy, and continue current efforts
Summary

– Project will increase the number of alt fuel vehicles & hybrids (403 vehicles)

– Project will develop fueling & charging infrastructure to support growth of alternative fuel use (345 Stations)

– Combined Benefits of the Project
  • Over 400 metric tons/yr in reduced criteria pollutants
  • Over 7,500 metric tons/yr in reduced CO₂ (eq. to removing almost 1,400 cars/yr)
  • Over 3 million gallons of petroleum/yr displaced
  • 77 full time equivalent jobs