

# Deployment Tips for Biofuels Public Infrastructure



US DOE Biomass 2011  
July 27, 2011

Gaylord National Resort and Conf. Center  
National Harbor, MD

Kellie L. Walsh, Executive Director

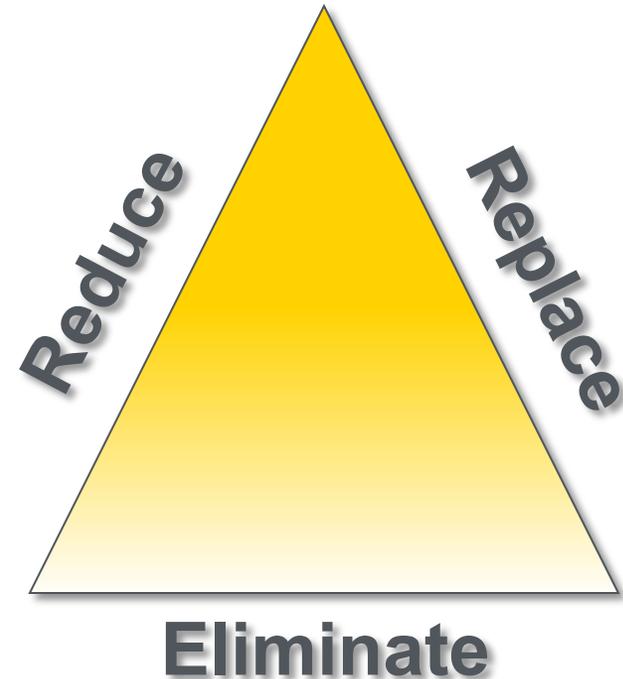


## Clean Cities' Mission

To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to adopt practices that contribute to the reduction of foreign oil consumption in the transportation sector.

- Sponsored by the US DOE's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Program
- Provides a forum where businesses and government (Federal, State and Local) to work together for the enhancement of AFV and Technology markets
- Coordinate interactive educational and networking events to match fleets of similar AFV/T interests for deployment project partnerships that aid in the development of "green" industry jobs, other economic opportunities and cleaner air

- **Replace** petroleum with alternative fuels and low-level blends.
- **Reduce** by promoting energy efficiency in vehicles through advanced technologies and more fuel efficient vehicles.
- **Eliminate** by promoting idle reduction, greater use of mass transit, trip elimination, and other congestion mitigation approaches.



- Nationally

- 87 active coalitions in 45 states
- 632,000 AFVs using alternative fuels
- 5,600 AFV stations
- 6,500+ stakeholders

- Fuel Neutral: No One Silver Bullet; But a lot of Silver BeeBees

- Coalition's Aide Fleets in making the right choice(s) for their fleet operations



## Clean Cities Coalitions



Map Date - 05/04/11

## Biodiesel

- BQ9000
  - NBB's Biodiesel Quality Program
- 2008 ASTM Fuel Standards
  - Feedstock neutral for; Neat, B5, B10, B20
- Higher petroleum fuel prices leading fleets back to biodiesel blended fuel
- USDOD, USDA, USDOE discuss partnership to aide in rapid and sustainable growth of the industry
  - New feedstock development
  - Faster production processes
  - Faster deployment to field than standard petroleum products

## Ethanol/E15/E85

- E15 US EPA allows limited use
  - 2005 model vehicles and newer can use
  - Prior model years risk engine failure if not Flex Fuel
  - E15 blends and above for FFVs only
- USDOA Rural Development Grant
  - Grant for Blender and E85 Pumps
  - Goal: 30,000 dispensers across US
- VEETC Update
  - likely to go away, redirected
  - to deficit and infrastructure grants
- Start your racing engines
  - Indy Racing League 100% fuel grade ethanol since 2007
  - NASCAR Series blending now too!
  - Should raise consumer awareness

## Biodiesel

- 2004, Jolietville, IN; CountryMark and IN Soybean Alliance partner to open Nation's first soy biodiesel blending terminal
- 2006 CountryMark opens three line-blended soy biodiesel terminals in IN
  - Noblesville, IN; Hamilton County Co-op opens first Soy-biodiesel blender pump
  - Have added over 15 retail locations since, offering various blended levels
  - All member cooperatives diesel fuel is blended with a minimum of 2% biodiesel year round
- Fuel Providers have adjusted with biodiesel industry/market;
  - Strive to provide customers the highest quality, diesel blended biodiesel per the ASTM and BQ9000 fuel specifications
  - Adjust fuel blends and biodiesel feed stock source, based on seasons and purchase price

## Ethanol/E15/E85

- 2005, January - IN miss-fueling protection legislation passes into law
- Retailers objection to miss-fueling threat
- May, Terre Haute, IN - Jiffy Mini-Mart first public E85 station
- 2005/06, Coalition Hosts Statewide Fuel Retailer E85 Workshops
  - Lt. Governor Skillman SEO; \$15,000
  - Develop training sessions that would educate fuel retailers related to E85;
  - Reached fuel retail store owners representing 250+ Indiana fueling sites from across the state
  - SEO grants for infrastructure deployment
- 2007, US DOE Clean Cities Funding
  - Awarded \$1.3 million for biofuels infrastructure Interstate Corridor
  - E85 for I65 and Beyond

# “Going Green“ = Clean Air; “Being Green” = Cool Doing Both While Making “Green”= Priceless



- As petroleum prices continues to climb and fall, fuel retailers are looking for innovative ways to increase their profit margins. The margins from lottery tickets, candy bars and cappuccinos have been the profit source for fuel retailers over the past several years
- For retailers to make the commitment to offer biofuels, the financial justifications must be there, as with any other business decision, for the retailer to commit.
- Ethanol pricing trends with petroleum based fuel, leaving it hostage to the ups and downs of that commodities pricing.
- This fact, coupled with the loss in fuel economy with FFVs, can make consistent, attractive pricing difficult
- Fuel retailers with the ability to buy biofuels in bulk, blend the product in house, and truck to stores direct, are positioned to manage the price at the pump, allowing for profit margins, not seen from foreign oil petroleum products, in ten plus years.
- Retailers have also started to market their biofuel products through loyalty card programs, Group- ons, Tweets, Blogs, etc.,
- Programs and rebates are proving valuable tools to drive FFV traffic to the station, and have resulted in increased biofuels sales and customers at those locations

## Opportunities

- Three N's
  - Near anchor fleet(s)
  - Near major interchange
  - Near ethanol supply
- Data on registered # of FFVs/County
- Fuel availability
- Locally owned chain stores
  - Many with ability to buy fuel-grade and blend own product
- Daniels Administration, under Lt. Gov. Skillman's leadership supported biofuels
- Opened up one million in competitive grants to assist with infrastructure cost defrayment
- Indiana Corn Growers rebated check-off to state DOR for administration of E85 fuel retailer credit
  - Some passed to pump price

## Challenges

- Fire Marshall
  - Codes, regulations, etc.
- Environmental Agencies
  - Permits, contaminants, etc.
- Insurance
- UL Certifications
  - UL certified Individual E85 components, thousands of dispenser have been retrofitted across the US since „03
  - UL had not certified a complete E85 dispenser package; process/testing 2+ years
  - Delayed entrance into the market by most of the “big oil” retail stores
- Consumer Awareness of Product
  - What is Ethanol?
  - Do I own an FFV?
  - What is E85?

# Nation's First Biofuels Corridor



- Indiana OED, Greater Indiana CC in partnership with
  - Kentucky Clean Fuels
  - Tennessee SEO
  - Alabama Clean Fuels
- and a dozen fuel retail store owners, lead the implementation of the Nation's first cross-country biofuels fueling corridor.
- The project deployed 35+ E85 and B20 public fuel sites along the 800+ miles of I65, from Gary, IN. to Mobile, AL.
- The partners total private sector match more than doubled the original federal award
- During the three-year project period, (2008 – 2010) 3+ million gallons of foreign oil was displaced
- Today the project serves as a road map to other AF corridor projects being announced across the country
  - Propel, San Diego to LA, E85 retail
  - Clean Energy, CNG across the US at Pilot/Fly J
  - Renewable Dairy Fuels, Bio methane, IN I65



Since 2005, the State of Indiana, biofuel Industry partners and retailers have worked to strategically locate E85 pumps based on regional consumer demographic information and fleet proximities.

- Lt. Governor Skillman stated “No FFV owner will be more than one-quarter of a tank away from their next E85 fuel stop” this goal set the stage
- Between 2005 and 2008, Indiana went from 12<sup>th</sup> in the US for most public E85 stations to 3<sup>rd</sup>
- Since 2006, Greater Indiana secured over \$2 million in federal and state funds for E85 deployment
- Today 140 E85 stations across Indiana
- Meeting Lt. Governor Skillman’s Goal of FFV owners being no more than one-quarter of a tank away from their next E85 station

## Indiana Partners in Biofuel Deployment Efforts

Lt. Governor Skillman

Indiana State Department of Ag  
CountryMark and Members

IN Petro. Retailers and C Store Assoc.

Indiana Dept. of Administration

Office of Energy Development

IN Corn Growers/IN Soybean Alliance  
Indiana Petroleum Contractors Assoc.

Indiana Underground Tank Manuf. Assoc.

Greater Indiana CC Board of Directors

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

## Clean Cities

[About the Program](#) | [Coalitions](#) | [Coordinator Toolbox](#) | [Financial Opportunities](#) | [Information Resources](#)

Search  
[Search Help](#) | [More Search Options](#)  
[EERE Information Center](#)  
[NEWS](#)

Clean Cities strives to advance the nation's economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities has a network of approximately 90 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and advanced vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

Clean Cities is part of the Office of Energy Efficiency and Renewable Energy's [Vehicle Technologies Program](#).



- Select Coalition-Related Information**
- [Starting Coalitions](#)
  - [Coalition Locations](#)
  - [Program Contacts](#)
  - [Coordinator Contacts](#)

What is Clean Cities? Fact Sheet (PDF 2 MB) >  
[Download Adobe Reader](#) >

[Printable Version](#)

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

## Alternative Fuels & Advanced Vehicles Data Center

[About the AFDC](#) | [Fuels](#) | [Vehicles](#) | [Fleets](#) | [Incentives & Laws](#) | [Data, Analysis & Trends](#) | [Information Resources](#)

Search  
[Search Help](#) | [More Search Options](#)  
[Site Map](#)  
[EERE Information Center](#)

The Alternative Fuels and Advanced Vehicles Data Center (AFDC, formerly known as the Alternative Fuels Data Center) provides a wide range of information and resources to enable the use of alternative fuels (as defined by the [Energy Policy Act of 1992](#)), in addition to other petroleum reduction options such as advanced vehicles, fuel blends, idle reduction, and fuel economy.

This site is sponsored by the U.S. Department of Energy's [Clean Cities](#) initiative.



**Data, Analysis, and Trends**  
 Our [Data, Analysis, and Trends](#) section provides industry trends and facts based on data analysis.

[Printable Version](#)

**www.fueleconomy.gov**

[Links](#) | [FAQ](#) | [Site Map](#) | [Search](#) | [Contacts](#)

United States Department of Energy  
 Energy Efficiency and Renewable Energy

United States  
 Environmental Protection Agency

### FIND AND COMPARE CARS...



Gas mileage (MPG), greenhouse gas emissions, air pollution ratings, and safety information for new and used cars and trucks

- [Compare Side-by-Side](#)
- [Advanced Search](#)

### YOUR MPG ...



### Why is fuel economy important?

Climate Change  
 Strengthen National Security

### Diesel Vehicles

Tax Incentives  
 Biodiesel

### Gas Mileage Tips

Driving More Efficiently  
 Drive \$martier Challenge

### Hybrid Vehicles

How Hybrids Work  
 Tax Incentives

### Videos

Extreme MPG  
 Motorweek Videos

### Alternative Fuel Vehicles

Flex-Fuel Vehicles

**CARS**  
 car allowance rebate system

Trade in your old, inefficient vehicle for a new, more efficient one.

Also known as the  
 "Cash for Clunkers" Program

### In the News...

[Electric Cars' MPG Conundrum - BusinessWeek](#)

[More Are Hired to Speed Up the Clunker Reimbursements - The New York Times](#)

[Scion dealers say tiny IQ is coming in 2010 - AutoWeek](#)

[Disclaimer](#)

[More News](#)

Clean Cities

AFDC

FuelEconomy.gov

Clean Cities Web site

[www.eere.energy.gov/ccities](http://www.eere.energy.gov/ccities)

Alternative Fuels & Advanced Vehicles Data Center Web site

[www.eere.energy.gov/afdc](http://www.eere.energy.gov/afdc)

DOE EERE Information Center and Technical Response Service

Web Site: <http://www.eere.energy.gov/afdc/informationcenter.html>

Phone: 1-800-EERE-INF (1-877-337-3463)

Email: [technicalresponse@icfi.com](mailto:technicalresponse@icfi.com)

Hours: 9:00 a.m. – 6:00 p.m. EST



*greater Indiana*  
clean cities coalition

**Kellie L. Walsh**  
**Executive Director**

**[Kellie@greaterindiana.com](mailto:Kellie@greaterindiana.com)**

317.985.4380

[greaterindiana.com](http://greaterindiana.com)