

# *Regional EPA Act Fleet and Stakeholder Workshops*



**Clean Cities Retreat**

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**November 5, 2009**

# The Real Title.....

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***Fueling Your Alternative Fuel Vehicle  
Fleet;***

***Bringing Together EPA Act-Mandated  
Fleets and Clean Cities Stakeholders  
to Deploy More Alternative Fuel  
Infrastructure***

# Who Are We Bringing Together?

## Federal:

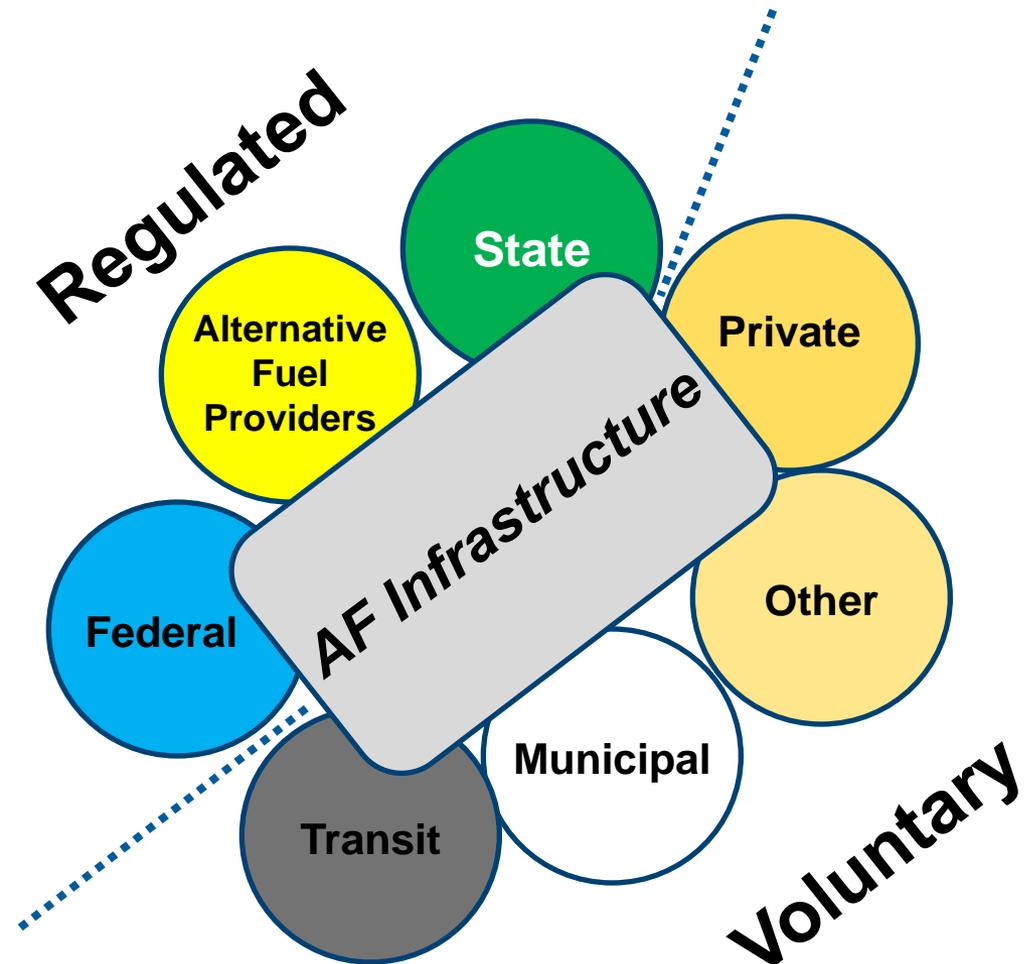
Civilian and military fleets, individual agencies as well as GSA

## State Fleets:

Agencies, DOTs, and universities/colleges

## Alternative Fuel Providers:

Gas, electric, and gas & electric utilities; municipal power generators; and electric cooperatives



# Why?

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- Many regulated fleets lack access to the alternative fuels needed for EPA Act compliance (and/or state/local mandates)
- Many voluntary fleets suffer the same fate
- Fuel providers, marketers, and distributors are willing given sufficient demand
- Under-use of existing alternative fuel infrastructure

# What Workshops?

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- U.S. Department of Energy (DOE)-sponsored
- National Renewable Energy Laboratory (NREL)- and Clean Cities Coalition (CCC)-hosted series of four regional workshops
- Crossing DOE program/activity boundaries involving the Energy Policy Act (EPAAct)
  - Federal Fleets
  - State and Fuel Provider (SFP) Fleets
  - Clean Cities Stakeholders

# EPAct Workshops Goals

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- Solve the infrastructure issue on a local basis
- Single fleets typically insufficient to support infrastructure. Workshops foster links
  - Bring entities to same room and table
  - Facilitate the necessary cooperation
  - Educate about existing infrastructure

# EPAct Workshops – Approach

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- Explicitly bring in the fleets in the region of each workshop to identify:
  - Anchor fleets
  - Specific needs
  - Willingness to use specific infrastructure
  - Appropriate infrastructure location
  - Willingness to share infrastructure

# EPAct Workshops – Approach

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- Background
  - EPAct SFP Fleet Requirements
  - EPAct Fed Fleet Requirements
  - Clean Cities Program

# Fleet Requirements – SFP

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- **Standard Compliance (SC)**
  - State Fleets
    - 75% of new LDV acquisitions must be AFVs
  - Fuel Provider Fleets
    - 90% of new LDV acquisitions must be AFVs
    - Must use alternative fuel
  - Biodiesel Credits
    - Up to 50% of requirement can be met for B20 or higher
  - Credit Transfers
- **Alternative Compliance (AC)**
  - Petroleum Reduction in lieu of AFV acquisitions  
EPAAct 2005

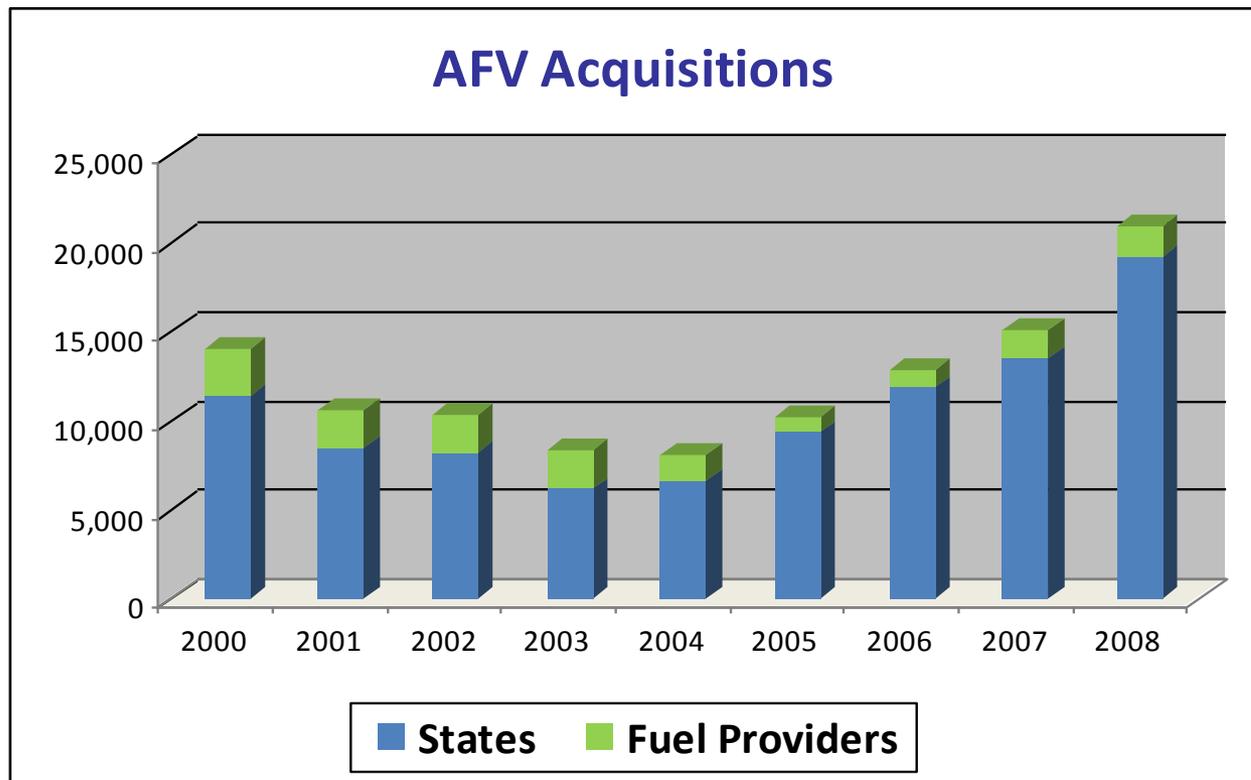
# SFP Fleet Overall Status

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- ~300 SFP fleets covered nationally
- Virtually 100% fleet compliance
- Most fleets operate under SC
  - AFV acquisitions/biodiesel use
- A few fleets (~10) are in AC
  - Petroleum reduction in lieu of AFV acquisitions
  - MY 2008 was first AC year

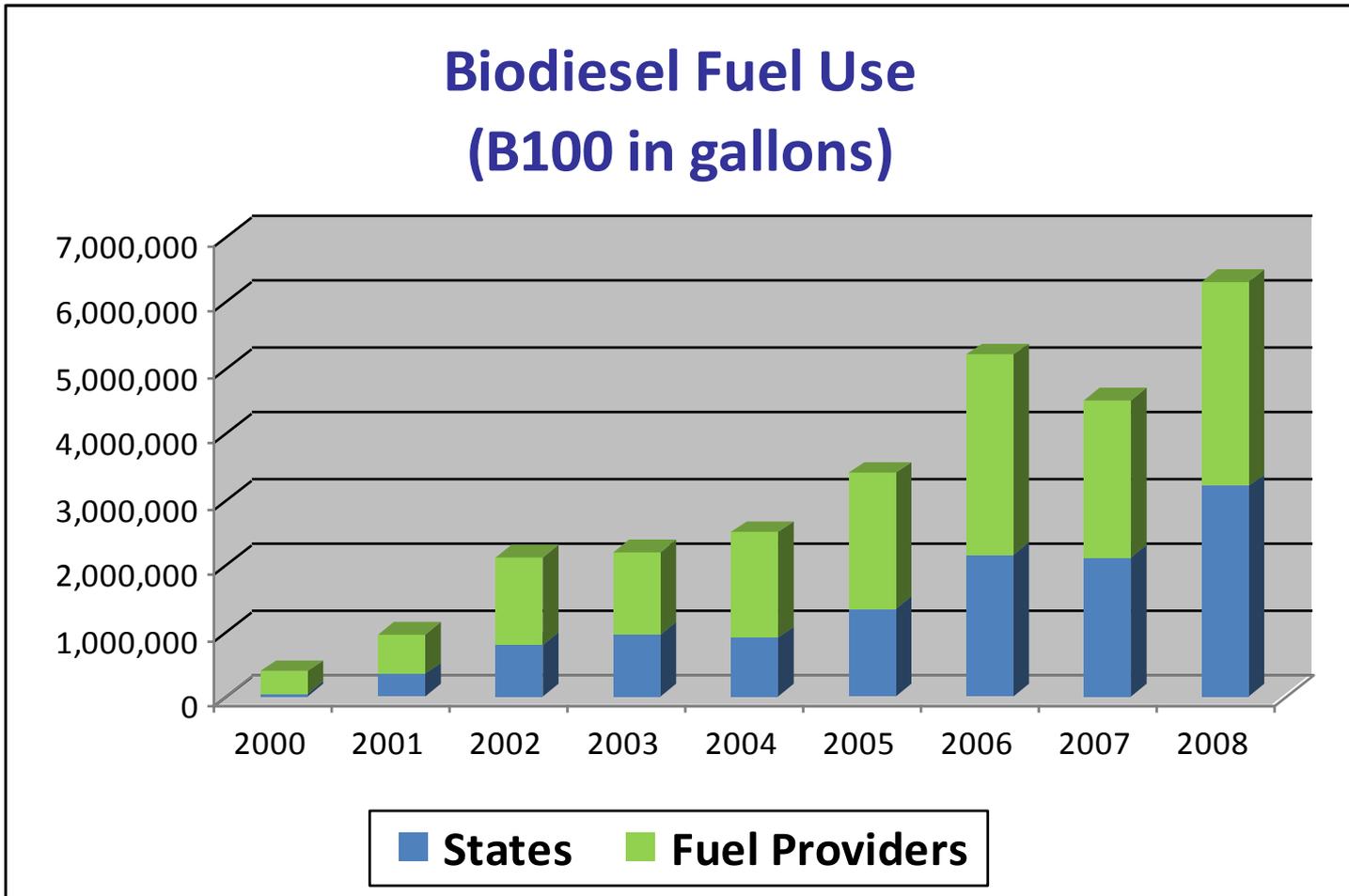
# SFP AFV Acquisitions

- 10-20,000 AFVs acquired annually. Nearly all E85 flexible fuel vehicles (FFVs)—and a few hundred natural gas vehicles (NGVs) per year
- Since MY1997, 60% FFVs, ~25% NGVs, ~10% liquefied petroleum gas vehicles (LPGVs)



# SFP Biodiesel Use

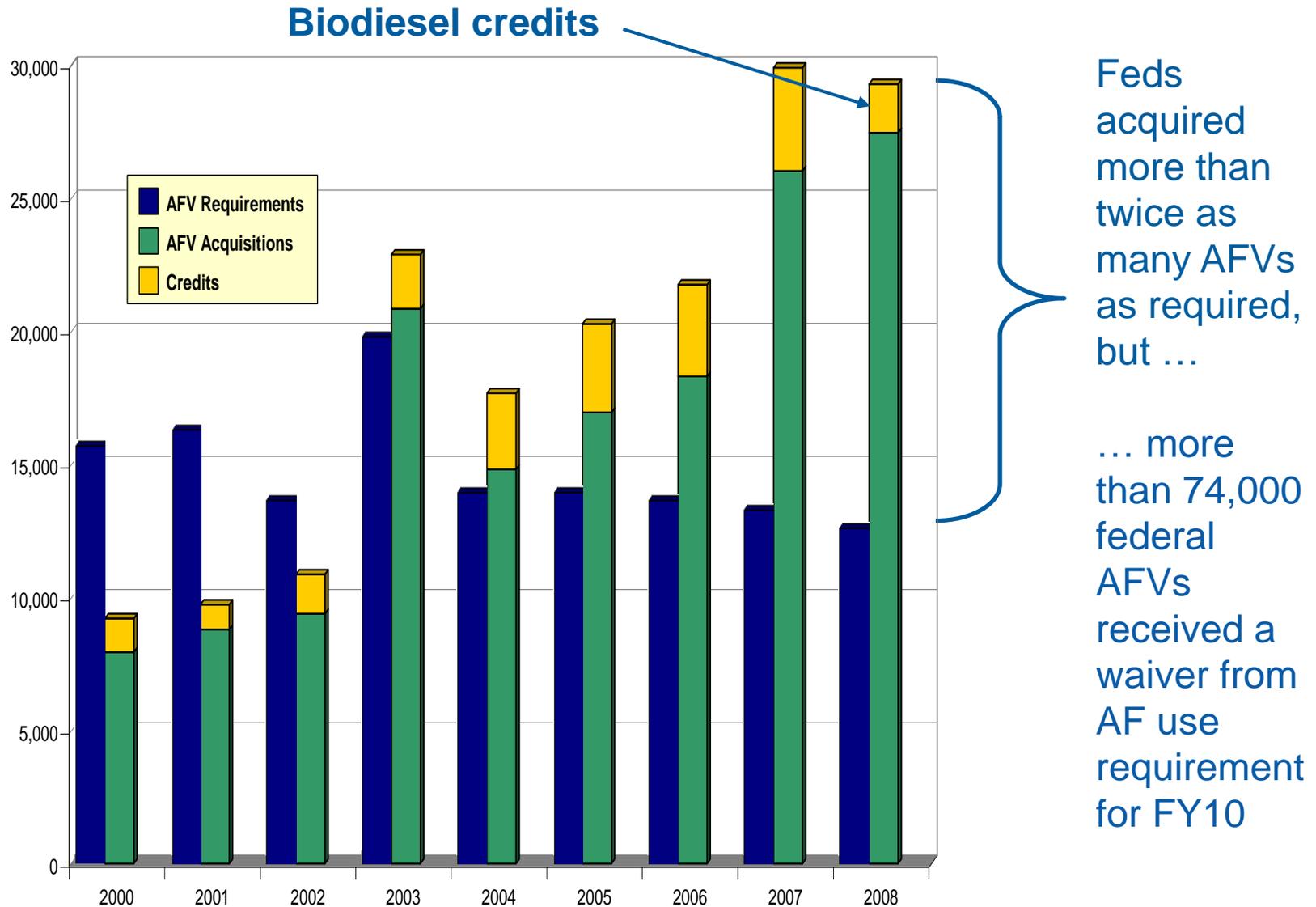
- 3-6 M gallons of B100 each year (over past 5 years)



# Fleet Requirements – Federal

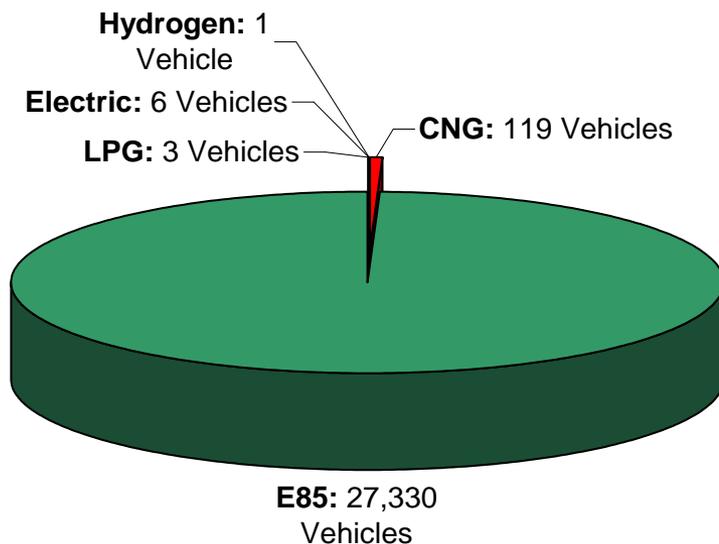
- **EPAct 1992:** Federal fleets must acquire AFVs
  - AFVs; Credits for Biodiesel Use
- **EPAct 2005:** AFVs must use AF unless they receive a waiver from DOE (AF unavailable or too expensive)
  - 53% of federal dual-fueled AFVs waived in FY2009
  - **OMB:** Reduce the number of waivers received annually from DOE
- **EISA 2007:** Agency petroleum reduction plans; only acquire low-GHG emitting vehicles; installing renewable fuel pumps at Federal fueling centers
- **E.O. 13423:** 2% annual petroleum reduction and 10% annual AF use increase requirements
- **E.O. 13514:** Signed October 2009; Extends petroleum use reduction requirement to 2020; DOE to develop master fleet management guidance

# Federal Fleet Overall Status – Acquisitions

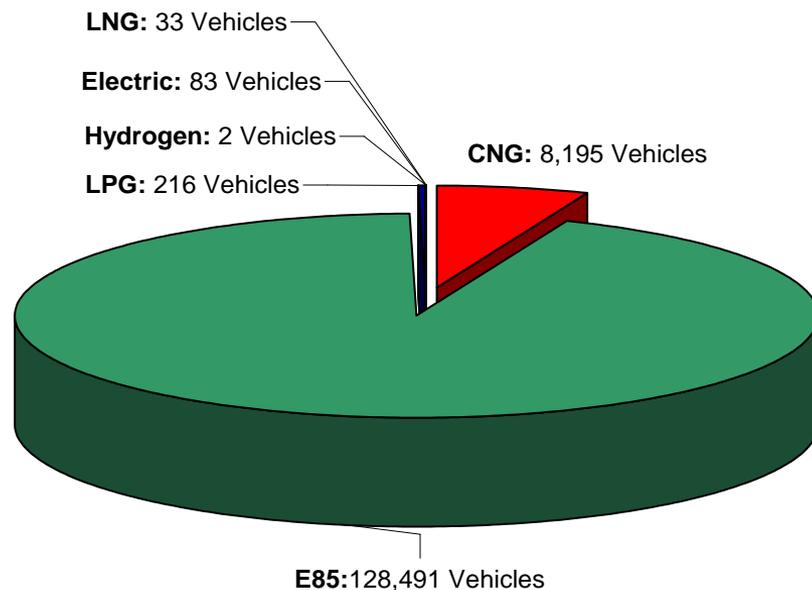


# Federal Fleet Overall Status – Acquisitions & Inventory

## Total FY2008 AFV Acquisitions by Covered Federal Agencies

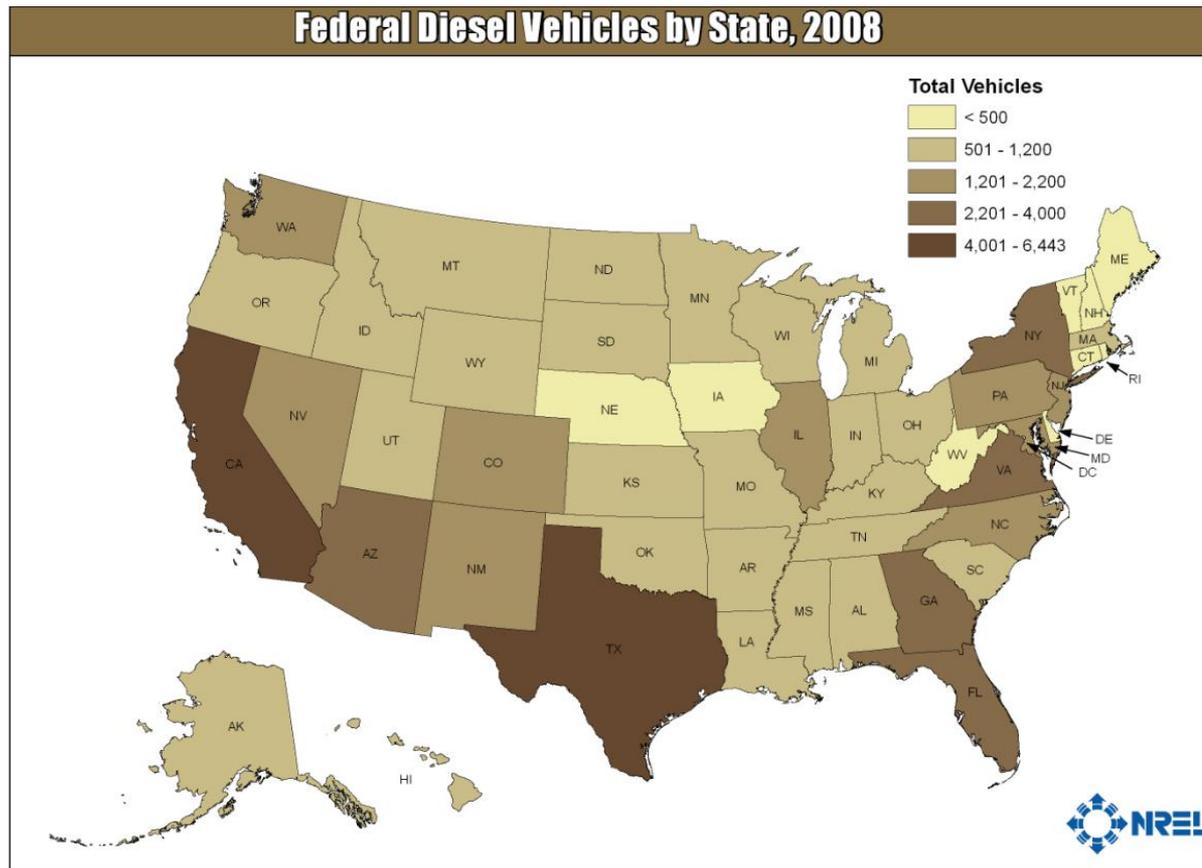


## Total FY2008 AFV Inventory of Covered Federal Agencies



# Federal Fleet Overall Status – Acquisitions & Inventory

More than 66,000 Federal Diesel Vehicles Nationwide

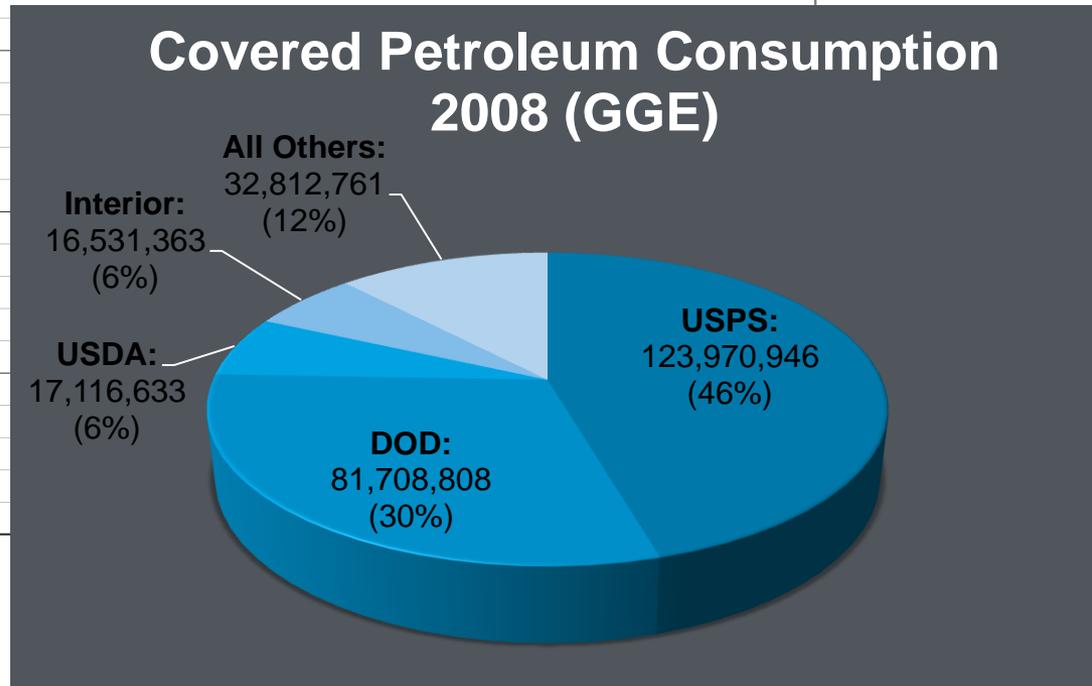
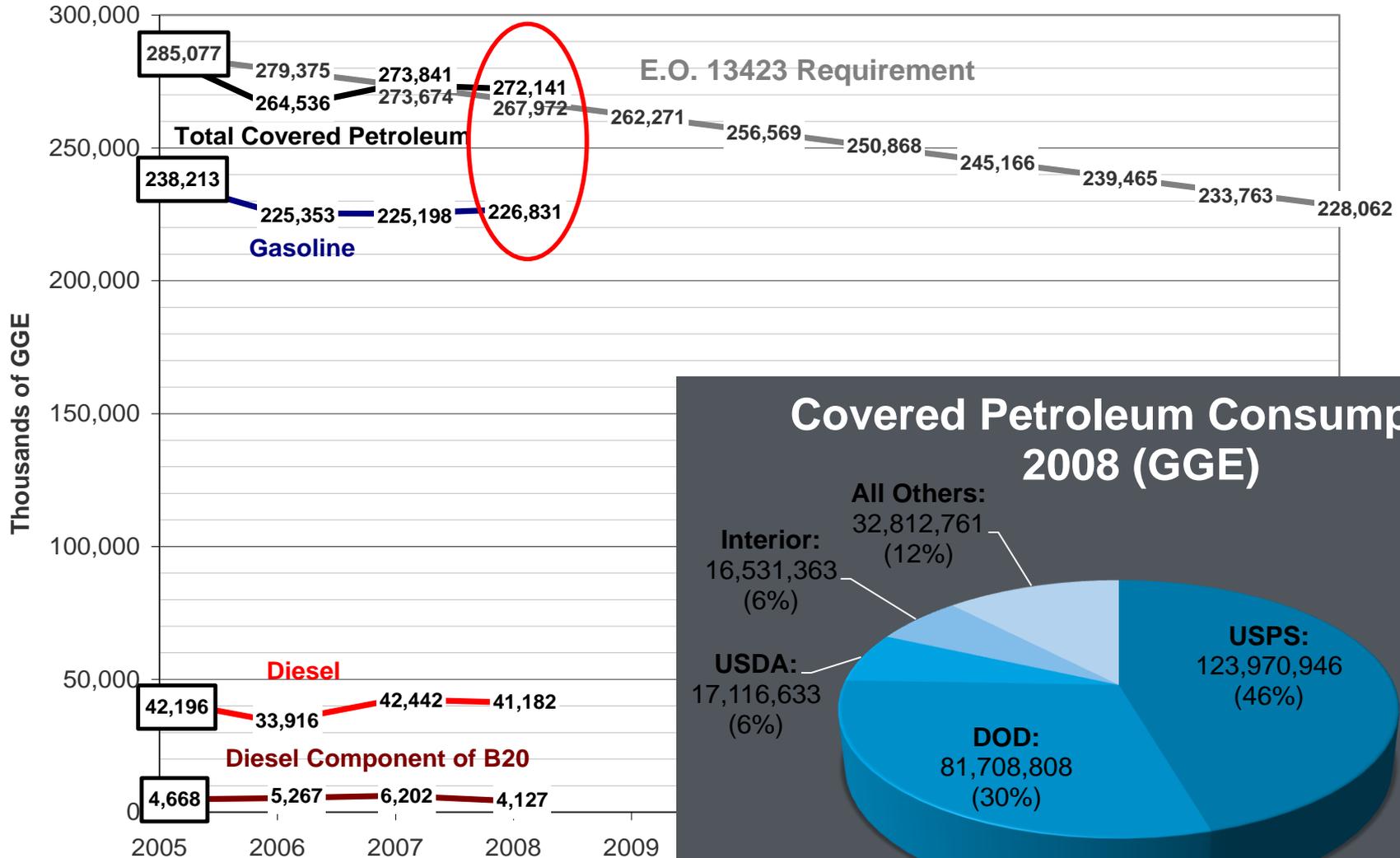


2008 Diesel Use:

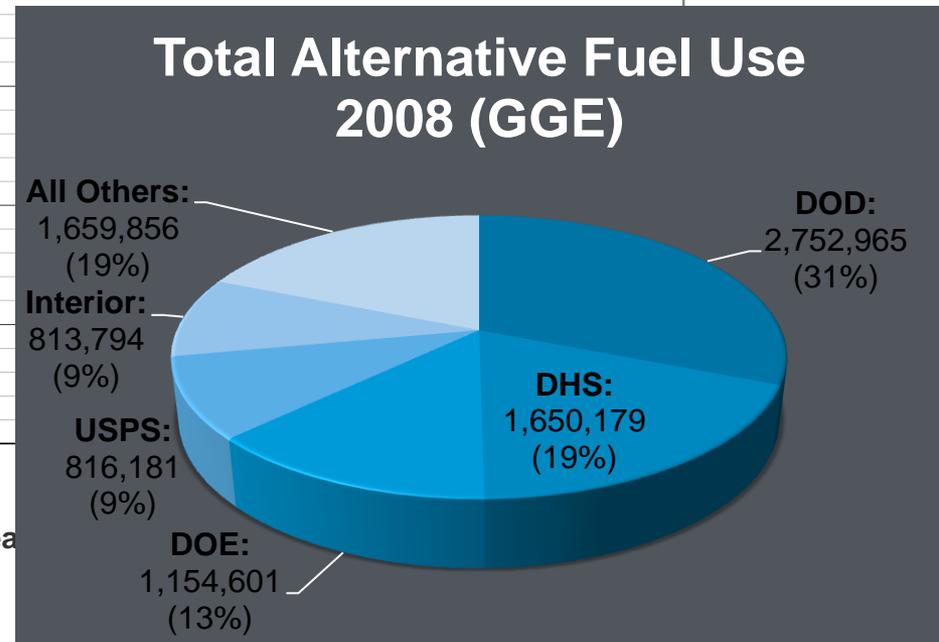
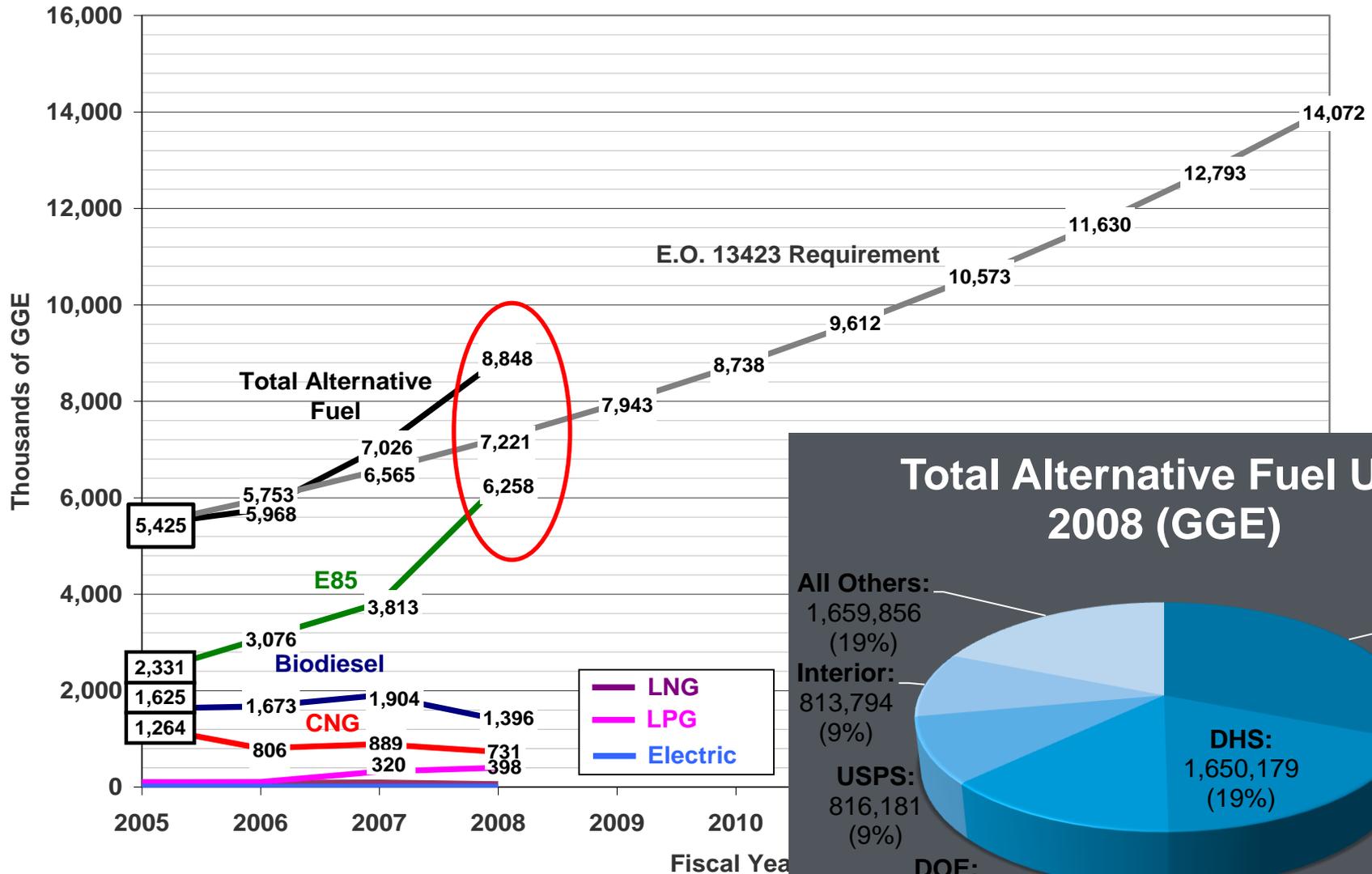
- More than 41 M GGE diesel
- Less than 7 M GGE biodiesel

Use of biodiesel (B20 and up) can be a cheap alternative for acquisition credits.

# Federal Fleet Petroleum Use



# Federal Fleet Alternative Fuel Use



# EPAct Workshops – Approach

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- EPAct Fleet Requirements
- Available Tools and Clean Cities Program
  - Vehicles and locations, station locator, and more
- Fuel Presentations
  - Individual fuels
- Breakout Sessions
  - Host region broken into distinct geographic areas

# EPAct Workshops – Approach

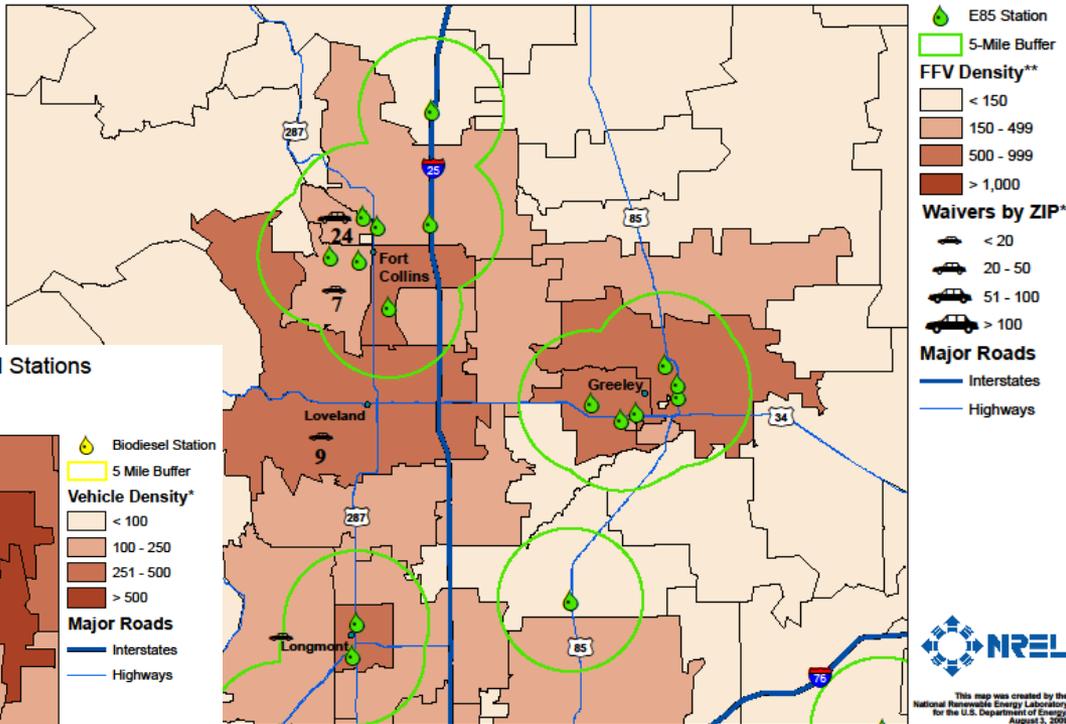
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- Breakout Session Discussions Stimulated by:
  - Waivered Vehicle Data for Federal Fleet
  - Info on SFP Fleets concerning local POCs/fleet locations
  - Station locator information
- Combined provides for instructive and conversation-starting maps

# Fleets and Fueling Locations by Region

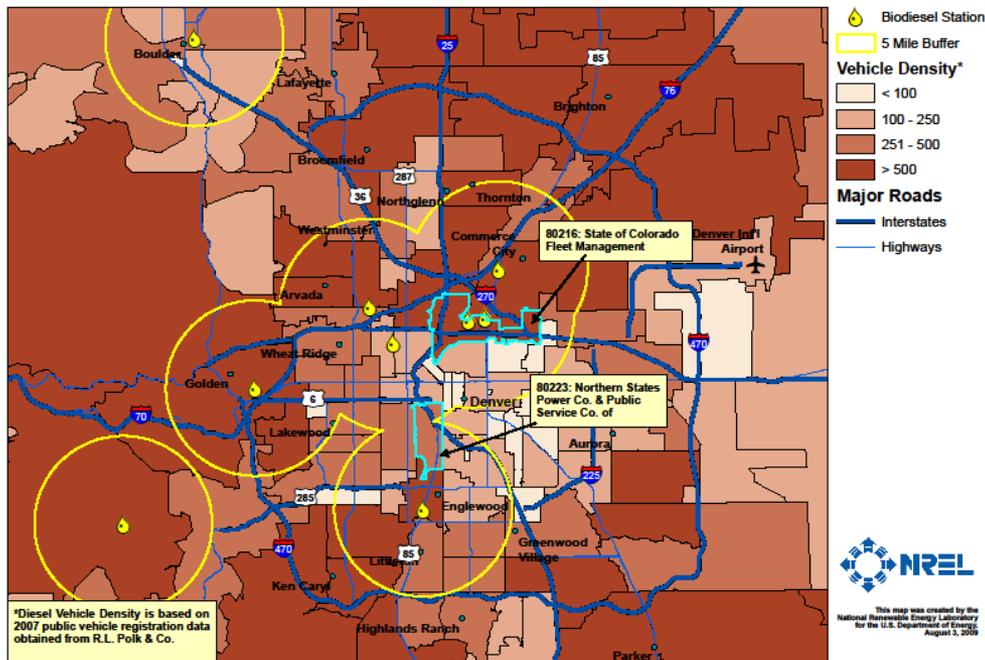
## GIS Analyses

Waivered Federal Fleet FFVs, Public FFV Density (by ZIP) & Existing E85 Stations  
Northern Colorado



**NREL**  
This map was created by the National Renewable Energy Laboratory for the U.S. Department of Energy, August 1, 2009

Public Diesel Vehicle Density by ZIP code and Existing Biodiesel Stations  
Denver Metro Area, Colorado



**NREL**  
This map was created by the National Renewable Energy Laboratory for the U.S. Department of Energy, August 1, 2009

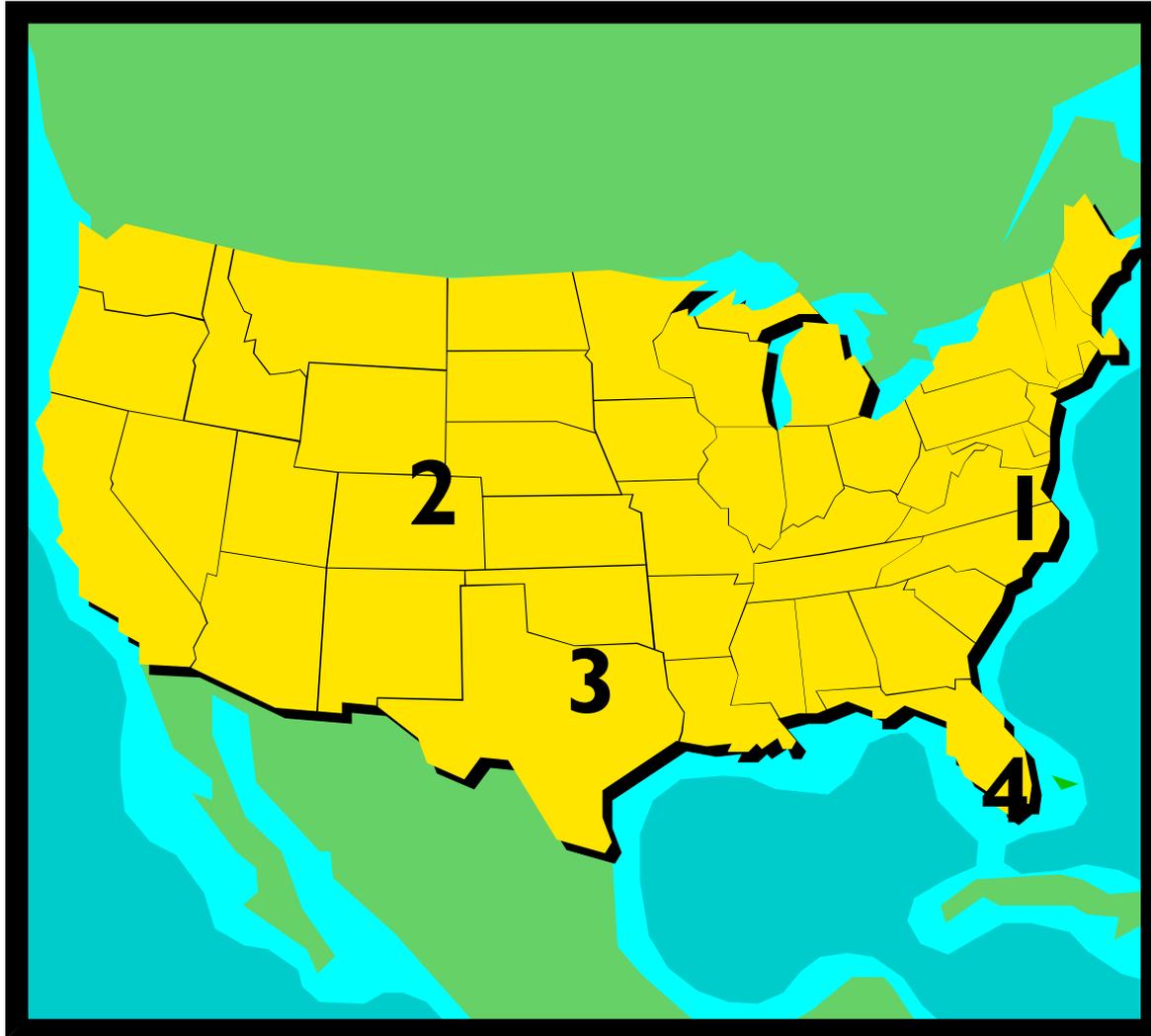
\*Diesel Vehicle Density is based on 2007 public vehicle registration data obtained from R.L. Polk & Co.

# So Where Does This Leave Us?

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- Fleets need help either to meet regulatory requirements, fleet initiatives, or voluntary commitments
  - Teaming can create sufficient demand
  - Fuel providers willing
- Breakouts provide opportunity to discuss needs and next steps
- The beginning of an ongoing dialogue!

# Where/When Were They Held?



1. Williamsburg, VA:  
June 16
2. Denver, CO: Aug. 5
3. Dallas/Ft. Worth, TX:  
Aug. 18
4. Miami, FL: Sept. 17

# Workshop Results

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- Attendance averaged 50 stakeholders
- Questionnaires
- Team-led breakout sessions by **REGIONS** with MAPS – floating fuel providers
- Lessons learned
  - Region Selection is Key
  - Fuel demand
  - Active participation

# Results

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## **Williamsburg (6/16):**

- Fuel Provider contracting with Navy for station near Norfolk Navy base (1000+ waived FFVs) -- publicly accessible and used by Norfolk and state universities
- City with fleet commitments for fuel use is executing privatization agreement with retailer buying stations
- Richmond area, multiple local/state/university govt, and private fleets willing to share infrastructure

## **Dallas (8/17):**

- Many local/state fleets willing to share infrastructure – interested agencies identified # of vehicles/ownership in sub-regions
- TXDOT is key to demand (anchor fleet) in many areas throughout the state. Very large fleet with extremely motivated leader concerning alternative fuel use

# Results

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## **Miami (9/17):**

- County willing to do a pilot demo with skid-mounted system. 700+ FFVs, at 3 sites
- Clean Cities outreach to Federal Fleets near Miami with rejected waiver requests (existing E85 refueling)
- CNG provider met with State after workshop to discuss CNG infrastructure and vehicle conversions

## **Denver (8/5):**

- City willing to share existing E85 station with local/state fleets (City and CDOT worked out a deal at the workshop)
- State agency willing to put B20 into existing outer ring of diesel stations and share with local/state governments, if it can solve fuel code issues
- GSA believes E85 coverage is adequate, but needs help with outreach to fleet managers and vehicle operators to use stations

# Next Steps for Workshops

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- Follow-ups
- Six EPAAct Workshops in Next Round
- Two Fuel Retailer Workshops
- EPAAct Workshop Toolkit

# Tools and Links

**TransAtlas:** <http://rpm.nrel.gov/transatlas/launch/>

**PREP:** <https://www.afdc.energy.gov/afdc/prep/index.php>

**Alt Fuel Station locator:** <http://www.afdc.energy.gov/afdc/locator/stations/>

**Mobile Locator:** [www.afdc.energy.gov/stations/m/](http://www.afdc.energy.gov/stations/m/)

(accessible from internet-capable mobile devices)

**State Specific info:** <http://www.afdc.energy.gov/afdc/states/>

**Laws & Incentives:** [http://www.afdc.energy.gov/afdc/incentives\\_laws.html](http://www.afdc.energy.gov/afdc/incentives_laws.html)

**Light Duty Vehicle Search:** <http://www.afdc.energy.gov/afdc/vehicles/light>

**Heavy Duty Vehicle Search:**

<http://www.afdc.energy.gov/afdc/vehicles/heavy>

**State Assessment for biomass resources:**

<http://www.afdc.energy.gov/afdc/sabre/index.php>

**Data, Analysis & Trends:**

<http://www.afdc.energy.gov/afdc/data/index.html>

**Fuels Page:** <http://www.afdc.energy.gov/afdc/fuels/index.html>

**Vehicles Page:** <http://www.afdc.energy.gov/afdc/vehicles/index.html>

**AFDC RSS Feed:** [http://www.afdc.energy.gov/afdc/rss\\_feed.html](http://www.afdc.energy.gov/afdc/rss_feed.html)