



Transportation Success Stories

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Jane S McKimmon Center
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This Presentation

- Four NC Alt Fuel Success Stories
- Clean Transportation Tool Box
- Keys to Developing a Success Story



Carolina Blue Skies & Green Jobs



Project funding

\$31,513,885

- Clean Cities: \$12 million
- Matching Funds: \$19.5 million

Project Lead

Triangle Clean Cities Coalition/
Triangle J Council of Governments

Primary Investigators

- Triangle Clean Cities
- North Carolina Solar Center
- Land of Sky Clean Vehicles Coalition
- Centralina Clean Fuels Coalition
- Palmetto State Clean Fuel Coalition

Infrastructure

- 6 propane fueling stations
- 11 CNG fueling stations
- 15 biodiesel fueling stations
- 21 E85 fueling stations
- 112 electric vehicle charging stations

Vehicles

- 26 neighborhood electric vehicles (NEVs)
- 43 Compressed Natural Gas (CNG)
- 66 hybrid electric vehicles
- 357 propane vehicles





Alt Fuel /Advanced Tech Project

\$500,000 in Recovery Act funding
from State Energy Office to NC Solar Center for:

- E85 and B20 refueling at new Sparky's Market Place Bus 85 Lexington (open end of May)
- CNG refueling at Greenville Utilities that will be open to the public/other entities
- Hybrid transit bus for East Carolina University
- 2 idle reduction technology pilot projects on police vehicles for Towns of Cary & Chapel Hill





Clean Fuel Advanced Tech Project (CFAT) 2006-12

A total of 45 sub-award projects were funded...

What was purchased?

19 refueling stations (biodiesel (B99), ethanol (E85), natural gas, electric vehicle charging station)

24 (Light & Heavy Duty) **Hybrid Electric Vehicles**

58 Alternative Fuel Vehicles (natural gas, propane, segway, electric vehicle & neighborhood electric vehicles)

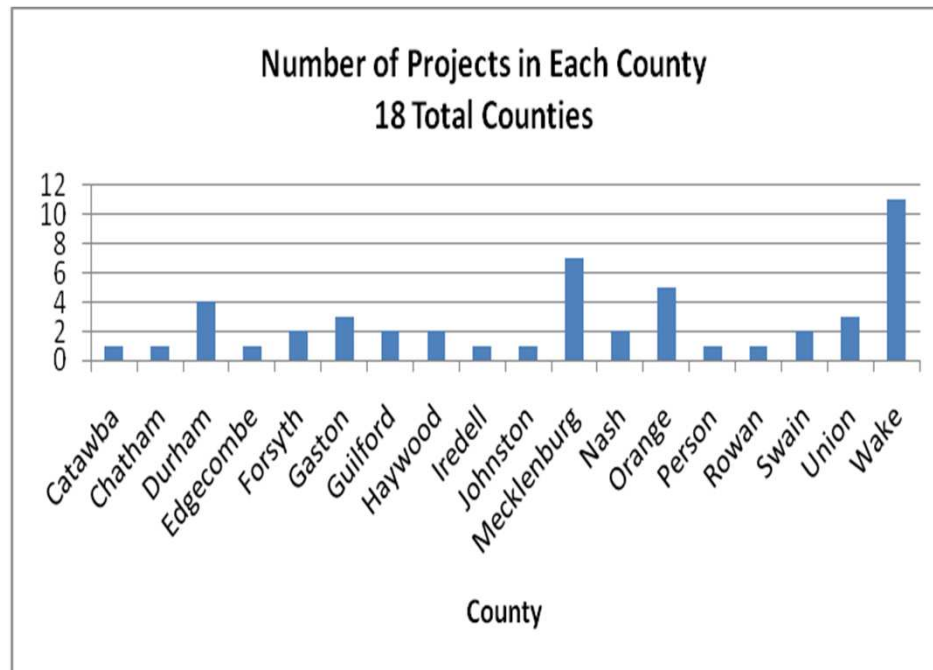
72 Diesel Retrofits (oxidation catalysts, particulate filters, multi stage filters)

24 Electrified truck stop parking spaces

In 2006 and 2009 the **NC Solar Center at NC State University** was awarded a total of \$2.6M in federal Congestion Mitigation Air Quality funding from the **NC Department of Transportation** to reduce transportation related emissions in NC counties that do not meet national air quality standards. The NC Division of Air Quality and State Energy Office also contributed \$200,000 each.



CFAT Success



Through the CFAT project over \$2.1M is being distributed for emission reduction projects. In addition over \$1.7M in local funding is being contributed by sub-award recipients.

Eligible counties include Cabarrus, **Catawba**, *Chatham, Davidson, Davie, Durham, Edgecombe, Forsyth, Franklin, **Gaston**, Granville, **Guilford**, *Haywood, *Iredell, Johnston, Lincoln, Mecklenburg, Nash, **Orange**, Person, Rowan, *Swain, Union, **Wake**. (*Represents partial counties)



Clean Fuel Advanced Technology ~ 2013-2015

- \$6.2 M recommended funding by NCDOT (pending BOT approval) to continue and expanded education, out reach and emission reduction sub awards
- \$1.5 M will be used annually to implement projects to reduce transportation emissions in NC counties that do not meet national air quality standards

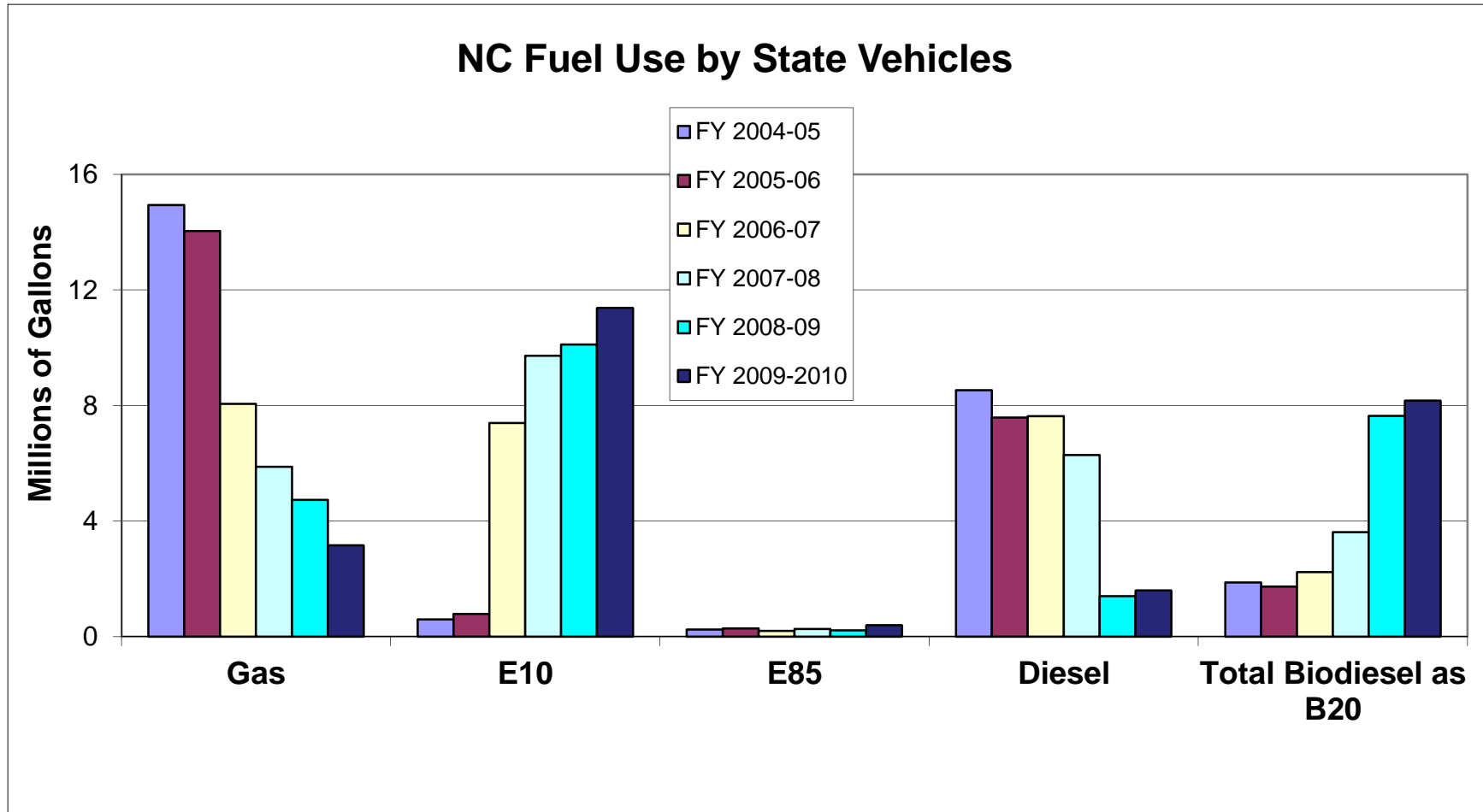


NC State Fleet Petroleum Displacement Plan Requirement

- PDP requires 17.5 % displacement by June 30,2011 as compared to FY 04-05 baseline
- In FY '09-10 38 fleets with 27,874 vehicles used 24,760,000 gallons of fuel a17.26% reduction
- NC Solar Center aggregates data provided by participating state agencies and SEO reports annually to Legislature.



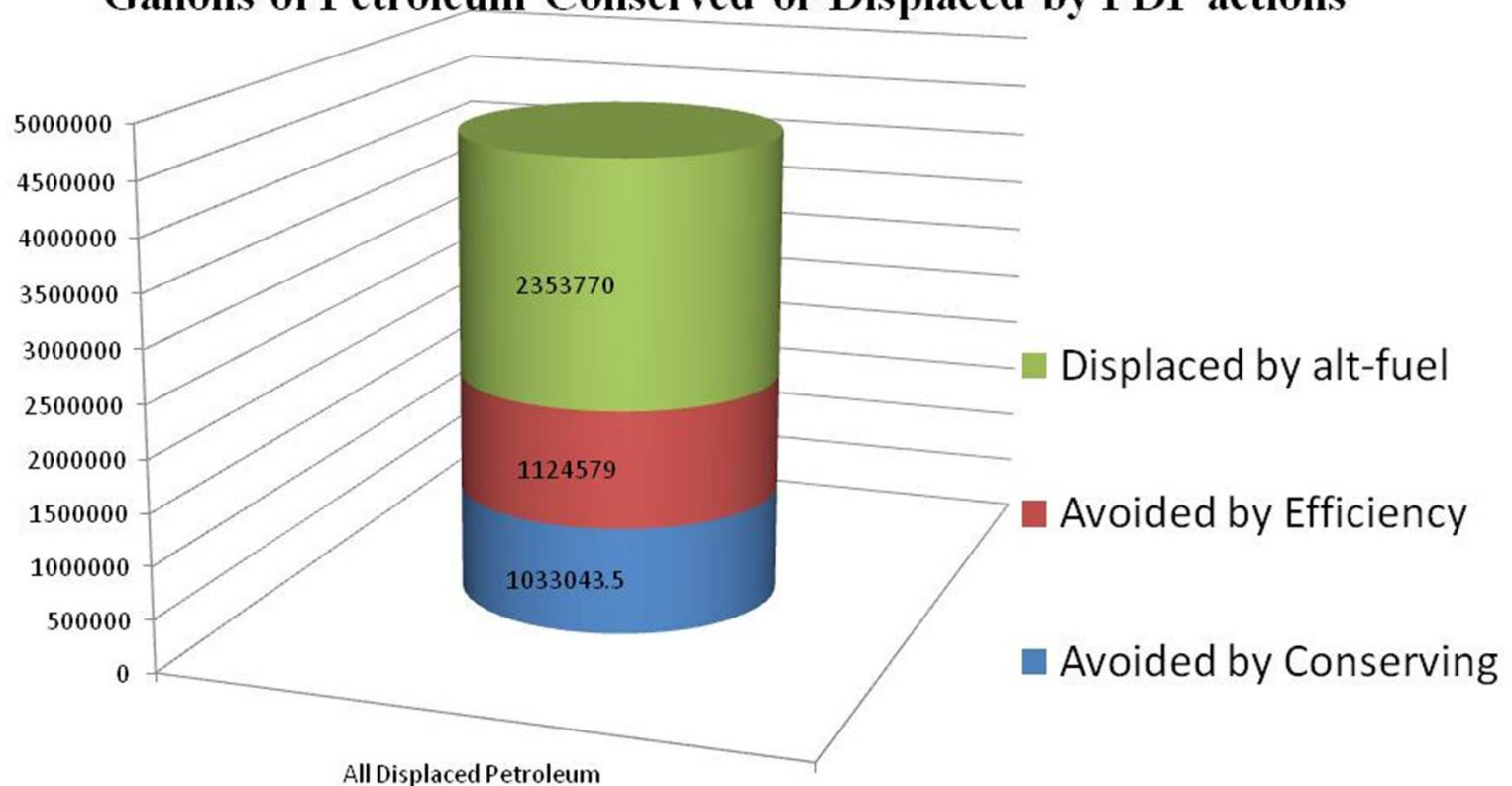
Alternative -Fuel Increases





PDP Success: Efficiency

Gallons of Petroleum Conserved or Displaced by PDP actions



Of the 4.5 millions of petroleum displaced, 1.1 million was displaced through increased efficiency [FY 2009-2010, NC State fleet vehicles]



Clean Transportation Tool Box

- Eliminate / reduce vehicle use: walk, bike or ride
- Incorporate alternative fuels/ advanced technology vehicles
- Incorporate idle reduction and diesel retrofit technologies





Clean Transportation Roadmap

- Develop and implement a “Green Fleets” policy
- Plan to incorporate clean transportation technologies
- Make the most of what you have: select the most efficient vehicle for the job and track and monitor fuel use / MPG
- Train drivers to improve MPG through eco-driving practices



Evaluate Driver Behavior



- You can invest in a ScanGauge or similar tool,
- Keep good records on paper or a simple spread sheet.
- Measure your baseline economy/ hold yourself accountable for change.
- Implementing eco driving practices can yield a 10%-30% reduction in fuel use!

Drive Green Save Green workshop
April 28, 8:00-12:30 Greensboro
May 25, Mount Holly

Registration and agenda at:
www.cleantransportation.org



Partnerships & Planning Benefits

- Funding opportunities often have short timeframe to apply and often award points for collaborations.
- Get involved with your local Clean Cities coalition in Triangle, Charlotte and Asheville Regions.
- NC Solar Center is forming a 4th coalition to serve areas not currently represented by Triangle, Centralina and Land of Sky coalitions Informal partnerships with other COGs and regional Air Awareness programs
- Fleet evaluation and green fleet planning assistance is available





Conclusions

- There is no 'one size fits all' to implementing a clean transportation success story.
- Key elements to insure success are: commitment, planning, education, research, relationship building,
- In concert with developing plans for alternative fuel/ adv tech, using what you already have more efficiently is key.
- Training NC fleet drivers to improve MPG has great potential to save fuel/ save money. Once trained, drivers should be held accountable and rewarded for results
- Share your success! NC Solar Center is collecting NC Success Stories

Learn more at www.cleantransportation.org