

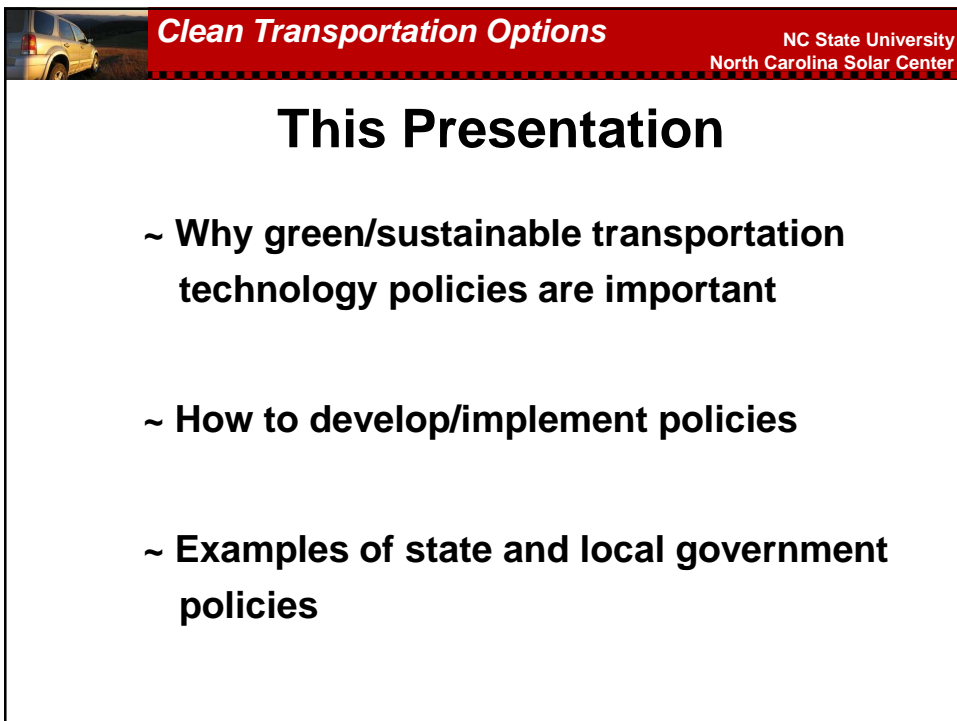


Clean Transportation Options NC State University
North Carolina Solar Center

Green/Sustainable Transportation Policy Options and Examples

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This Presentation

- ~ **Why green/sustainable transportation technology policies are important**
- ~ **How to develop/implement policies**
- ~ **Examples of state and local government policies**



Why this is important

Transportation is:

- responsible for over 30% of greenhouse gas emissions
- 90-95% dependent on petroleum with over 55% of petroleum being imported

Pollution affects are health- i.e. asthma is the #1 reason children miss school

Policies provide a focus point and path to put our priorities into action



Green Fleet Policies

What: Policy will identify the goals your organization hopes to accomplish, and lays out the mechanisms and metrics required to meet the desired goals.

How do we adopt a “green fleet” policy?

- **Option 1: (From the top)** Pass a City/County wide *ordinance*, or enact an executive order, that codifies the “green fleet” process and delegates specific responsibilities within local government to take action.
- **Option 2: (From the bottom)** Establish internal departmental or agency fleet policies, which are clear and carry sufficient weight with departmental or agency heads.
- **Option 3: (Hybrid of 1 & 2)** Pass a *resolution* that serves as enabling legislation for establishing a “green fleet” policy, and then work out the details of the policy at the departmental or agency level.

Sample Ordinance template at:

www.cleanaircounts.org/content/Green%20Fleet%20Policy%20Ordi



Fleet Assessment

- Identify the vehicles in your current fleet
- Analyze the purpose of those vehicles
- Chart the use of the vehicles (i.e. look at miles driven)
- Record fuel usage and engine idling
- Determine what environmental goals are you trying to achieve
 - for example: save money, reduce petroleum consumption, reduce criteria pollutants, reduce greenhouse gas emissions
- Review vehicle replacement and purchasing policy
 - predict how many vehicles will be replaced or added annually



Establish group and plan

Successful transportation assessments involve the:

Fleet manager
Maintenance manager
Vehicle Technicians
Purchasing director
Facility planner
Administrative leader
Vehicle users

- **Review** current fleet & maintenance procedures
- **Develop** option list to reduce fuel use and fleet-based emissions
- **Research** specific products and services
- **Explore** existing incentives and grants



Strategies

- **Developing a green fleet policy, setting clear goals and schedule to assess progress**

This may include:

- ~ Procurement specifications to encourage more efficient vehicles and full life cycle costing
- ~ Rightsizing of vehicles
- ~ Alternative fuels and advanced technology vehicles
- ~ Elimination of older vehicles or those that are used infrequently,
- ~ Implementation of driver training and idle-reduction program
- ~ Utilization of software programs and other tools to increase fleet efficiency,



State Petroleum Displacement Plan

A NC policy that is making a difference

- Session Law 2005-276: All State agencies, universities, and community colleges that have State-owned vehicle fleets shall develop and **implement plans to achieve a twenty percent (20%) reduction or displacement of the current petroleum products consumed by July, 2011.**
 - Specialty vehicles, that are used for educational or emergency purposes are subject to ten percent (10%) reductions.
 - Agencies report annually by September 1st to the State Energy Office on efforts undertaken to achieve the reductions with annual reporting by Nov 1 to the Joint Legislative Commission on Governmental Operations.



State Vehicles in the '08-'09 PDP count

- Current total = 28,995

- Fleet increases since FY 04-05
 - FFVs: 2,204
 - Diesels: 641
 - Elec: 148
 - Hybrid: 59

| Vehicle Types | FY 2004-05 | FY 2008-09 | |
|----------------------|---------------|--------------|-----------|
| | Baseline yr | # | % change |
| Gasoline | 10,816 | 10,229 | -6% |
| Hybrid | 78 | 137 | 75% |
| Flex-fueled Vehicles | 4,752 | 6,956 | 46% |
| Comp Natural Gas | 14 | 9 | -36% |
| Diesel | 4,498 | 5,139 | 14% |
| Propane | 192 | 145 | -24% |
| Emergency/Ed (10%) | 6,007 | 6,219 | 2% |
| Electric | 13 | 161 | 1238% |
| Total | 26,370 | 28995 | 6% |



Success

- Total petroleum use in FY 2007-08 was 21.4M gallons of petroleum compared to (adjusted baseline) 26.1M gallons displacing 4.76 M gallons of petroleum. Goal was -17.5%, achieved -18.2% displacement.
- ✓ Fleet size is up 6% yet mileage is down by 2.7%
- ✓ 3.5 % was displaced through E10 use
- ✓ 4.3 % was displaced through biodiesel use
- ✓ 7.7% *may* have been through conservation and efficiency (reduced idling, observing speed limits, properly maintained tire pressure, use of more efficient vehicles)
- **Critical components: tracking and accountability**
- **What's missing: no penalties for non compliance or recognition for accomplishments**



Alternative Fuel Incentives: NC

- Clean Fuel Advanced Technology grants
 - From NC Solar Center
- Biofuels Industry Development
 - From NC Green Business Fund
- Biofuel Production Facility Tax Credit
 - 25% of the cost of constructing and equipping the facility
- Renewable Energy Property Tax Credit
 - 35% of the cost of the property
- Biofuel Fueling Infrastructure Tax Credit
 - 15% of the cost of construction and installation of the dispensing facility
- Alternative Fuel and Idle Reduction Grants
 - from State Energy Office & Division of Air Quality

**NORTH CAROLINA-39
stations**

- 27 biodiesel stations
- 12 ethanol stations
- Production facilities:**
- * 6 biodiesel, 1 ethanol under construction



Alternative Fuel Incentives: SC

- **Biofuels Retail Incentive**
 - E70+ fuel: \$0.05 incentive payment per gallon sold; B100: \$0.25 incentive payment for each gallon sold (resulting in at least a B2 blend)
- Alternative Fuel and Advanced Vehicle Tax Credit
 - 20% income tax credit
- **Biofuels Production Tax Credit**
 - \$0.20-\$0.30 per gallon credit depending on feedstock
- Biofuels Research and Development Tax Credit
 - 25% of qualified research and development expenditures
- Biofuels Distribution Infrastructure Tax Credit
 - 25% of the purchase, construction and installation costs
- Biofuels Production Facility Tax Credit
 - 25% of the cost of constructing or renovating a building and equipping the facility
- Hydrogen Infrastructure Development Grants

**SOUTH CAROLINA-83
stations**

- 7 biodiesel stations
- 76 ethanol stations
- Production facilities:**
- * 4 biodiesel



Alternative Fuel Incentives: TN

- Biofuels Fueling Infrastructure Grants
- Alternative Fuel Innovations Grants
- Biodiesel Production Incentive
 - \$0.20 per gallon produced and sold to TN companies
- Infrastructure Development Program
 - Funds from the FastTrack Infrastructure Development Program can be used for alternative fueling infrastructure improvements
- High Occupancy Vehicle (HOV) Lane Exemption
 - Vehicles that are Inherently Low Emission Vehicles or Low Emission and Energy-Efficient Vehicles (determined by the EPA) and have a decal from the TN Department of Revenue are exempt from HOV lane restrictions

TENNESSEE-60 stations

- 35 biodiesel stations
- 25 ethanol stations

Production facilities:

- * 3 biodiesel, 2 ethanol



2010 General Assembly – Short Session Opportunity for Action

- **Senate Bill 1066 Tax Credit for Alternative Fuel Facilities/Vehicles** Sponsors: Senators Albertson; Atwater, Davis, Dorsett, Goss, Jenkins, Kinnaird, Purcell, Stein, and Weinstein. Referred to Finance
- **House Bill 906 Alternative Fuel Infrastructure & Vehicle Tax Credit** Sponsors: Representatives Bryant, Harrison, Tolson (Primary Sponsors); Faison, Fisher, Glazier, Insko, Martin, McLawhorn, and Wray. Status: Favorable report from Energy and Energy Efficiency; now assigned to [Finance Committee](#).
- **Summary: Provides a 30% tax credit for refueling infrastructure for biodiesel, ethanol (E85), propane, natural gas and electricity for motor vehicles.** Sellers to tax exempt entities may take credit and presumably pass on benefit to purchaser.
- **A \$2,000 tax credit is provided for vehicles that operate on natural gas, propane and electricity.** Electric vehicles must be less than 14,000 pounds, charged from an external source and have a battery capacity no less than 4 kWh. Sellers to tax exempt entities may take credit and presumably pass on benefit to purchaser.



Example incentives for NC

Mobile Source Emission Reduction Program Establishes variable motor vehicle registration fees based on vehicle’s pollution and fuel economy score to generate funds for public and private sector use of alternative fuel and advanced transportation technologies. Funds would be distributed through the State Energy Office or another state agency for transportation projects that support clean air renewable energy objectives.

Benefits:

- Funds raised in direct proportion to the effect on the environment - the “polluter pays principle”
- Source of revenue to support public and private projects that address transportation emissions
- Supports development of clean technology industries



Get involved with local Clean Cities Coalitions



Make a difference in your community...

~ Contact local elected officials about establishing a green fleet policy

~ Contact state elected officials about pending or potential legislation to support clean transportation alternatives



www.cleantransportation.org