

**LEGISLATIVE OPTIONS TO IMPROVE
TRANSPORTATION EFFICIENCY FOR THE
STATE OF HAWAII**



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1. Overview of State Policy Alternatives to Improve Vehicle Efficiency

The focus of this white paper is to provide the Hawaii State Legislature with information on the options at its disposal to improve *vehicle* transportation efficiency within the state. Rocky Mountain Institute (RMI) realizes that it is important to first consider alternatives to vehicular transportation, such as mass transportation, ferries, bicycle lanes, affordable housing, and better land use planning because these options reduce the demand for vehicular transportation. Further, the substitution of cost effective biofuels will reduce the importation of foreign oil, and several biofuels technologies hold the promise of providing oil for less than the crude equivalent of \$25/bbl. The Hawaii Department of Business, Economic Development and Tourism (DBEDT) recently conducted studies on biofuels and mass transportation that contain several critical recommendations to further these initiatives.¹ RMI and the Hawaii Energy Policy Forum (HEPF) support these recommendations, thus, we will confine our discussion to how to improve vehicle transportation efficiency within the state.

Two studies by RMI offer options to improve vehicle transportation efficiency in Hawaii and include recommendations on how to implement those options. The first study, entitled "*Hawaii's \$3 Billion Efficiency Prize: Transportation And Electrical Efficiency Potential In The State Of Hawaii Using Existing Technologies* (<http://www.hawaiienergypolicy.hawaii.edu/pages/reports.html>), was written in 2003 for HEPF. The study discusses Hawaii's transportation and electrical efficiency options and provides policy makers with a clearly defined set of options to capture the energy efficiency prize. RMI's most recent study, *Winning the Oil Endgame: Innovation for Profits, Jobs, and Security* (<http://www.oilendgame.org/>) is a national blueprint for eliminating United States oil-dependence and revitalizing the U.S. economy. The 2004 study, which was co-funded by the Pentagon, outlines how American industry can restore competitiveness and boost profits by mobilizing modern technologies and smart business strategies to displace oil more cheaply than buying it.

As *Winning the Oil Endgame: Innovation for Profits, Jobs, and Security* explains, policy makers need to focus on improving vehicle efficiency. Vehicles account for the majority of oil use in the U.S. Traditional policy prescriptions that rely on prices, taxes, or quotas are well known but politically fraught, and have led to gridlock at the federal level. Many analysts and policy makers are less familiar with a powerful new portfolio of policies to accelerate energy efficiency and renewable options that give states, including Hawaii, the opportunity to back out entire barrels of oil and improve their energy security. Policy makers should

¹ *Mass transportation options were analyzed in the Hawaii Energy Strategy 2000 report published by the State of Hawaii Department of Business, Economic Development & Tourism - Energy, Resources and Technology Division.*

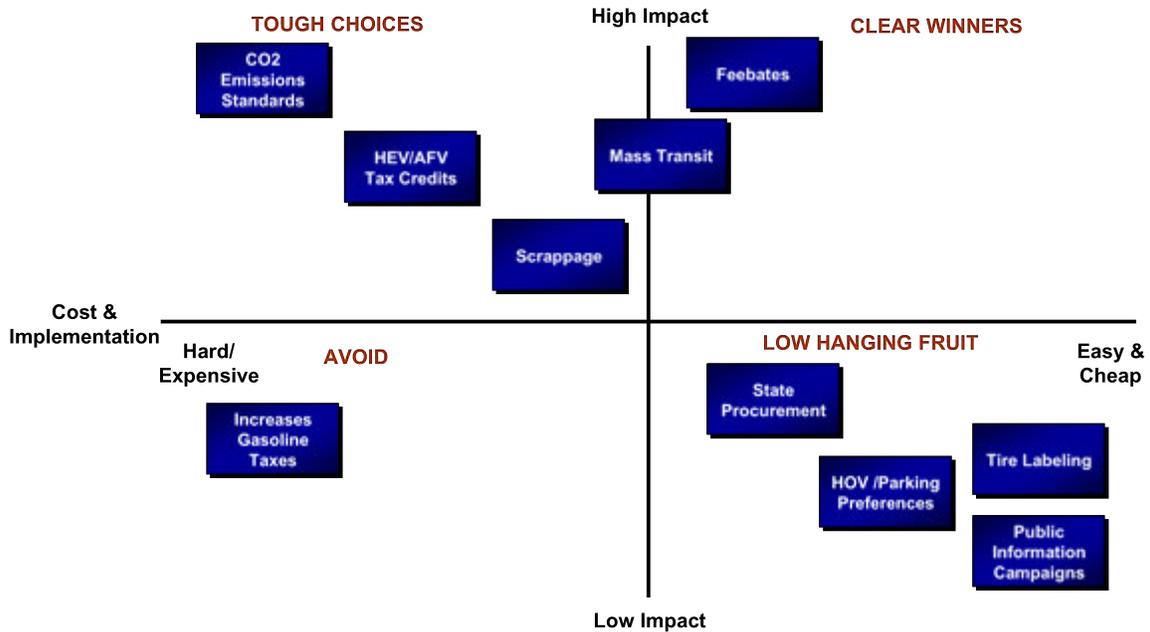
focus on the points of greatest leverage by encouraging a shift in the market adoption of more efficient vehicles.

States have the capability to be incubators and accelerators of change even when faced with federal resistance. It is Constitutionally axiomatic, but often forgotten, that under federalism, powers not specifically reserved to the national government are reserved to the states. Although federal law setting the Corporate Average Fuel Economy (CAFE) standards (Title 49 United States Code § 32902-32919) preempts states from setting their own fuel efficiency standards, there is a range of policy options at each state's disposal to improve vehicle transportation efficiency. States face their own challenges, but their vast diversity and grassroots vitality often make their governments more creative, dynamic, accountable, and responsive than the oft gridlocked federal government. Moreover, states can interact more directly with communities—an even more accountable and often effective level of action than federal government.

The range of vehicle efficiency transportation options available to states include:

- Alternative Fuel Vehicle (AFV) and Hybrid Electric Vehicle (HEV) access to High Occupancy Vehicle (HOV) lanes
- AFV and HEV designated parking areas
- Labeling programs for low rolling resistance tires
- State procurement of efficient vehicles
- State funded tax incentives to encourage the purchase and use of AFVs and HEVs
- State funded direct auto-dealer incentives for sale of AFVs and HEVs. The sales associate who pockets a \$100 special state bonus for selling an efficient car, on top of normal commission, will push such sales more enthusiastically.
- Realignment of light vehicles' registration fees with the vehicles' *lifecycle* values—market value plus present-valued lifetime fuel consumption—so that the public-goods value of efficient vehicles is re-signaled annually.ⁱ The current *ad valorem* system encourages drivers to hang onto old, inefficient cars rather than buying new, efficient ones.
- State feebates, assuming federal exemption of preemption
- Scrappage of older vehicles
- Pay at the Pump (PATP) insurance

The degree of overall impact compared to the difficulty and cost of implementing these measures is portrayed below. While it is not surprising that many of these measures trade off impact with the challenges of implementation, some do not, and these deserve more careful attention.



2. Why Hawaii Should Act Now

There are three reasons why Hawaii's government should act now to reduce transportation costs: 1) economic burden from high oil prices, 2) concerns of security of supply, and 3) the environmental impact of cars and vehicle infrastructure.

Economic: Hawaii has the highest gasoline prices in the nation.² The state gasoline price is, on average, sixty-three cents higher per gallon than the national average.³ In 2003, motor fuel cost the citizens, visitors and businesses of Hawaii around \$962 million dollars. *In just one year*, rising oil prices increased the transportation fuel bill in Hawaii \$170 million dollars, bringing the grand total to \$1.13 billion dollars. Unfortunately, the situation could become worse because Hawaii is extremely vulnerable to crude oil increases as evidenced by prior DBEDT studies of gasoline prices suggest that high gasoline prices create a drag on the state's economy.⁴ Clearly, measures that result in increased efficiency of the vehicle fleet coupled with the adoption of mass transportation initiatives and smart land use planning will benefit the Hawaii consumer directly by reducing its outlay for transportation. Reducing expenditures for transportation - without sacrificing transportation services - would free up significant amounts of funds that will otherwise be available for injection into the local economy.

² AAA Daily Fuel Gauge Report as of 21 January 2005. Available at <http://www.fuelgaugereport.com>

³ <http://www.fuelgaugereport.com/HIavg.asp> - 12 month average as of December 2004

⁴ Available at <http://www.hawaii.gov/dbedt/ert/act77/hearing030128.html>

A major concern regarding effective vehicle efficiency programs is the corresponding reduction in gas tax receipts at the federal and state level. Motor fuel tax rates in Hawaii are the highest in the country. Hawaii consumers pay 53.5 cents per gallon in federal and state taxes, while the national average is 42 cents per gallon. The state collects 16 cents per gallon in motor fuel taxes, and an additional 19.1 cents per gallon in other taxes (includes state sales taxes, gross receipts taxes, and underground storage tank taxes) for a total of 35.1 cents per gallon of revenue to the state.⁵ The state and county governments use these tax revenues to manage and improve the roads and support the general fund. Revenues must be used for transportation-related purposes, including both highways and transit, although each county uses the revenue differently.⁶ Nonetheless, Hawaii's policy makers should consider the following insight: *The increase in income tax revenues from the greater available disposable income available from not purchasing unnecessary oil almost entirely offsets the decline in gas tax receipts.*

Security: The United States faces serious security risks from its increasing dependence on oil. Although oil is a global commodity, the majority of the future supplies and nearly all of the swing capacity come from the volatile Middle East region, particularly Saudi Arabia, and potentially Iraq. Hawaii's oil supplies come primarily from areas other than the Middle East; yet, the same security threat affects the state and is intensified by Hawaii's lack of domestic fossil fuels or alternative fuels. While increasing inventories can address short-term disruptions, it is an expensive proposition that does not improve the state's long-term security as effectively as reducing the absolute level of demand for oil through efficiency and biofuels.

Environmental: Hawaii is particularly sensitive to environmental problems. Increased levels of carbon dioxide and associated global climate changes such as rising sea levels, habitat changes, and more frequent and extreme weather events are especially damaging to a state dependent on tourism as the primary driver of economic growth. The transportation sector generates approximately 46% of Hawaii's total carbon dioxide emissions. The proposed changes to transportation efficiency could reduce Hawaii's carbon dioxide emissions by about 26 million tons over the twenty-year period from 2003 to 2023. Hawaii's total carbon dioxide emissions from all sectors in 1990 totaled 16 million tons.⁷

3. Recommendations for Legislative Action

⁵ http://www.energy.ca.gov/gasoline/statistics/gas_taxes_by_state_2002.html

⁶ H.R.S. § 243-5

⁷ http://www.hawaii.gov/dbedt/ert/ghg/ghg_t201.html

RMI recommends that the Hawaii State Legislature take the following actions during this legislative session:

1. Pick Up the Low Hanging Fruit: Take simple actions that provide immediate benefits at zero or low cost:
 - Allow Alternative Fuel Vehicle (AFV) and Hybrid Electric Vehicle (HEV) access to High Occupancy Vehicle (HOV) lanes.
 - Establish AFV and HEV designated parking areas.
 - Mandate state procurement of efficient vehicles.
2. Leverage the actions of larger states:
 - Adopt labeling programs for low rolling resistance tires after California completes their standards. Join the West Coast Governors' plan to use the states' combined purchasing power to obtain low rolling resistance tires at lower costs and impact the market for replacement parts now.
 - Join other states in requesting an exemption of federal preemption from NHTSA and other federal agencies to allow the state adoption of feebates.
3. Provide near term support for HEV purchase by individuals and businesses.
 - Provide state funded tax incentives to encourage the purchase and use of AFVs and HEVs for the 2006-2009 period.
 - Establish a tax credit to supplant declining federal credit for individuals.
 - Provide a 35% tax credit for businesses.
 - Sunset the law once 10% of new car, light truck, and heavy truck sales are HEVs.
 - Replace the law with a feebate program upon receiving federal exemption.
4. **Alternative Fuel Vehicle And Hybrid Electric Vehicle Access To High Occupancy Vehicle Lanes And Special Parking Privileges**

Expanding the existing High Occupancy Vehicle lane law to allow AFVs and HEVs access to the HOV lane, regardless of the amount of people in the vehicle, is the most basic change that the state can make to improve its vehicle transportation efficiency. This change would be easy to implement because

Hawaii already has HOV lanes in place and the legislature would simply have to make a few changes to existing law.

It is important to note that not all states have the authority to allow vehicles with less than two people to drive in the HOV lane due to federal restrictions. The current Federal Highway Administration policy on HOV lanes allows for Inherently Low Emission Vehicles (ILEV) to use the lane regardless of the number of people in the vehicle. ILEV classification does include some AFVs, but does not include HEVs in the definition. Virginia already has HEV access to HOV lanes, but does not plan to continue to enforce it after July 1, 2006. Other states, such as Florida and Georgia have adopted similar laws or made them provisional, contingent on changes in the federal definition. A solution to the HEV access could be resolved soon, with Representative Brad Sherman (D-CA) planning to reintroduce his "Hybrid HOV Access Act" to grant an exemption for solo drivers of hybrid vehicles in the 109th Congress.

In Hawaii, H.R.S. § 291C codifies the current HOV law. To allow AFVs and HEVs to access the HOV lane, a few changes would need to be made.

- The Hawaii definition of alternative fuel should be added to the HOV definitions, as codified in H.R.S. § 243-1
- "Alternative fuel vehicle" and "hybrid electric vehicle" definitions should be added to the definitions of HOV law (H.R.S. § 291C-221). An example of a hybrid electric vehicle definition is:

"Hybrid Electric Vehicle" means a factory-manufactured vehicle that satisfies all of the following:

- (1) Combines two or more power train technologies to produce a vehicle with significantly lower fuel consumption than the average of its class.
- (2) Exhibits the storage of kinetic energy by use of regenerative braking and batteries or capacitors, and the stored energy is used to assist or provide full acceleration of the vehicle.
- (3) Allows a portion of the energy to be supplied from an internal combustion engine or fuel cell for vehicle acceleration and to store electrical energy on board.
- (4) Obtains all energy required to operate from storage fuel tanks placed on board the vehicles.

- (5) Has been approved by the United States Environmental Protection Agency as meeting, at a minimum, the United States Environmental Protection Agency ultralow emission vehicle standard pursuant to 40 Code of Federal Regulations § 88.104-94.

Also, a way of designating AFVs and HEVs from other motor vehicles would need to be added to the Hawaii HOV statute. Other states, such as Virginia, issue a special license plate. Another option would be to issue a special sticker to be placed on the vehicle as California does. An example of language that designates a special license plate follows, which would easily be incorporated into the HOV lane statute.

- a. The owner of any alternative fuel vehicle or hybrid electric vehicle may purchase, at no additional charge, special license plates indicating it is an alternative fuel vehicle or hybrid electric vehicle. Upon receipt of an application, the County shall issue special license plates to the owners of such vehicles.
- b. For the purposes of implementing this section, the County shall design a special license plate to be issued for an alternative fuel vehicle or hybrid electric vehicle for which the license plate shall be similar in design to the license plate issued to all other residents of the state except that the County shall place a distinctive logo or emblem immediately to the left of the letters and numbers on the license plate which shall distinguish the vehicle as an alternative fuel vehicle or hybrid electric vehicle eligible to travel in travels lanes designated for such vehicles under H.R.S. § 291C-221. The County shall make these special alternative fuel vehicle and hybrid vehicle license plates available for issuance, beginning January 1, 2006.
- c. For those motor vehicles required by law to display official government-use license plates, the County shall provide by for the issuance and display of an alternative device indicating that the vehicle displaying the device is an alternative fuel vehicle or a hybrid electric vehicle.

After H.R.S. § 291C is changed to allow for AFV and HEV access to HOV lanes, a provision to the current parking law could be added to allow for the designation of specific AFV or HEV parking spots. Also, County governments could allow free parking at city meters for vehicles displaying a sticker or license plate indicating it is a valid alternative fuel vehicle or hybrid electric vehicle, as in California cities such as Los Angeles, Hermosa Beach, San Jose, and Santa Monica. The language that follows could be incorporated into H.R.S. § 291C along with the AFV and HEV HOV access.

- a. Any local authority, by ordinance or resolution, and any person in lawful possession of an off-street parking facility may designate stalls or spaces in an off-street parking facility owned or operated by that local authority or person for the exclusive purpose of fueling and parking a vehicle that displays a valid alternative fuel vehicle or valid hybrid electric vehicle license plate issued by the County pursuant to this section. The designation shall be made by posting a sign in compliance with subdivision (d) or (e).
- b. If posted in accordance with subdivision (d) or (e), the owner or person in lawful possession of a privately owned or operated offstreet parking facility, after notifying the police or sheriff's department, may cause the removal of a vehicle from a stall or space designated pursuant to subdivision (a) in the facility to the nearest public garage if a valid alternative fuel vehicle or valid hybrid electric vehicle license plate issued by the County is not displayed on the vehicle.
- c. If posted in accordance with subdivision (d), the local authority owning or operating an offstreet parking facility, after notifying the police or sheriff's department, may cause the removal of a vehicle from a stall or space designated pursuant to subdivision (a) in the facility to the nearest garage that is owned, leased, or approved for use by a public agency if a valid alternative fuel vehicle or hybrid electric vehicle license plate issued by the Department of Transportation is not displayed on the vehicle.
- d. The posting required for an off-street parking facility owned or operated either privately or by a local authority shall consist of a sign not less than 17 by 22 inches in size with lettering not less than one inch in height which clearly and conspicuously states the following: "Unauthorized vehicles not displaying a valid alternative fuel vehicle or hybrid electric vehicle license plate will be towed away at owner's expense. Towed vehicles may be reclaimed at _____ or by telephoning (Address) _____." (Telephone number of local law enforcement agency). The sign shall be posted in either of the following locations: Immediately adjacent to, and visible from, the stall or space. In a conspicuous place at each entrance to the off-street parking facility.
- e. If the parking facility is privately owned and public parking is prohibited by the posting of a sign meeting the requirements of

subdivision (a) may be met by the posting of a sign immediately adjacent to, and visible from, each stall or space indicating that a vehicle not meeting the requirements of subdivision (a) will be removed at the owner's expense and containing the telephone number of the local traffic law enforcement agency.

- f. Nothing in this section is intended to interfere with existing law governing the ability of local authorities to adopt ordinances related to parking programs within their jurisdictions, such as programs that provide free parking in metered areas or municipal garages for electric vehicles.

5. State Procurement of Alternative Fuel Vehicle and Hybrid Electric Vehicle

The State government can lead by example through its procurement of efficient vehicles. This does not require legislative action because the Governor and the Counties can accomplish it through administrative actions. The economic benefits to the State are compelling. The net present value of the fuel savings over the vehicles' 14 year lifetimes at the government discount rate of 3%, (~\$8,200), far exceeds the incremental costs of *State of the Art* advanced efficiency vehicles (~\$3,200), so the government saves ~\$5,000 for every vehicle it buys. The same holds true for existing off the shelf hybrid electric vehicles, particularly with the high oil prices in Hawaii. The issue is recognizing the lifecycle costs benefits in government procurement policies and finding the funding to pay for the higher initial costs.

Many states have implemented some type of procurement policy to promote the purchase of AFVs and HEVs. The Hawaii legislature could also consider setting up a revolving fund for the counties to purchase more efficient vehicles, which would be paid back from the fuel savings. Appendix 2 provides details of state vehicle procurement policies. The language that follows could fit into Hawaii's government purchasing laws.

- a. Ten percent of vehicles acquired in fiscal year 2005, thirty percent of vehicles purchased in fiscal year 2006, fifty percent of vehicles purchased in fiscal year 2007, seventy-five percent of vehicles purchased in 2008 and one hundred percent of vehicles purchased in 2009 and each fiscal year thereafter by the agencies and departments of the state and county government and educational institutions shall be an alternative fuel vehicle (AFV) or hybrid electric vehicle (HEV).
- b. Certified law enforcement pursuit vehicles and emergency vehicles are exempt from the provisions of this act. The department may exempt

additional vehicles from the requirements of subsection (a) of this section upon demonstration by the acquiring entity that:

- The total lifecycle cost of owning and operating the AFV or HEV is over fifteen percent of the conventional vehicle.
 - An AFV or HEV that is suitable for its intended use is not available from an original equipment manufacturer.
- c. Equipment and installation procedures shall conform to all applicable state and federal safety and environmental regulations and standards.
 - d. The agencies and departments of state and county government, political subdivisions and educational institutions may submit loan applications to the department to acquire loans to facilitate the acquisition of their vehicles.
 - e. Agencies and departments of state government and educational institutions shall provide to the department by September 1, 2005 and by September 1 of each year thereafter the total number of vehicles acquired in the preceding fiscal year, the number of those vehicles that are AFVs or HEVs and the make, model and fuel type of each of the AFV or HEV.

6. Tax Incentives for Hybrid Electric Vehicles

Hawaii's legislature has already provided generous tax incentives for alternative fuels and renewable energy. However, it has not addressed vehicle efficiency. While RMI prefers revenue neutral feebates since they are more effective in shifting consumer choice and do not impact the state's treasury, tax incentives are also viable. Currently, Hawaii provides an ethanol tax credit for investments in a qualified ethanol production facility, alcohol fuels are exempt from the 4% state excise tax on retail sales, and tax deductions are available for the installation of clean fuel refueling property.

There are several alternative mechanisms for state tax incentives to encourage the taxpayers of Hawaii to purchase and use AFVs and HEVs. Hawaii could offer a one-time exemption from its annual vehicle tax when an AFV or HEV is put into use during fiscal year 2006-2009. An exemption under the General Excise Tax Law could be made for AFVs or HEVs for the year of purchase.

Hawaii could create an income tax credit for taxpayers who purchase an AFV or HEV during fiscal year 2006-2009 to replace the federal income tax credit that is being phased out. Currently, a consumer that purchases an AFV or a HEV will

receive a \$2,000 income tax credit from the federal government. In 2006, this tax credit will drop to \$500, and 2007, no federal credit will be offered. Hawaii could step in to supplement the income tax credit in 2006 and offer a \$1000 income tax credit to continue to offset the price of purchase an AFV or HEV, and continue to offer this credit until 2009. Many other states offer tax incentives of one kind or another. See below for what other states are doing to encourage AFV and HEV purchase, and Chart 1 for details.

States with Financial Incentives for Efficient Vehicles⁸

	Tax Credits			Rebates, Vehicles/Equipment	Grants	Loans
	Personal	Corporate	OEM			
Arkansas			X	X		
Arizona	X					
California					X	
Colorado	X	X		X		
Connecticut	X	X				X
District of Columbia					X	
Georgia	X	X				
Illinois	X			X		
Indiana					X	
Kansas	X	X			X	
Kentucky				X		
Louisiana	X	X				
Maryland	X			X		
Maine	X					
Michigan			X			
Montana	X	X				
North Carolina					X	
Nebraska						X
New Jersey				X		
New Mexico	X				X	
New York	X				X	
Oklahoma	X					X
Oregon	X	X				
Pennsylvania					X	
Rhode Island	X					X
Texas				X	X	
Utah	X	X	X		X	X
Virginia	X	X	X			X
Vermont			X			
Wisconsin	X					
West Virginia	X					

The language that follows could be inserted into H.R.S. Title 14, Taxation.

- a. During the 2006-2009 tax years, the Director shall be authorized to grant a tax credit to a person who places an alternative fuel vehicle (AFV) or hybrid electric vehicle (HEV) in service that is titled and registered in the state of Hawaii.

⁸ Information taken from www.dsireusa.org and <http://www.eere.energy.gov/cleancities/obg/progs/laws.cgi>.

- b. A taxpayer shall be allowed a credit, to be credited against the taxes imposed under this chapter. Such credit shall be allowed for AFVs and HEVs placed in service during the 2006-2009 taxable years.
- c. The credit for this section for AFVs or HEVs is:
 - (1) \$1000 per vehicle for an AFV or a HEV placed into service during the 2006-2009 tax years.

7. Feebates

Finally, the most complex incentive that Hawaii could offer to encourage AFV and HEV purchase is the feebate. Feebates provide a rebate for or levy a fee on each new vehicle depending on its efficiency. Buyers of new light vehicles that exceed a certain annually defined fuel economy benchmark, called the “pivot point,” would receive a rebate to be subtracted from the purchase price. The amount of the rebate would depend on how much the vehicle’s fuel economy exceeds the pivot point for vehicles of that size. Conversely, buyers of new vehicles with fuel economies lower than the pivot point for vehicles of that size would pay a corresponding surcharge on their purchase price. Properly designed feebates are revenue-neutral, with no net flow of dollars into or out of the Treasury. Instead, the fees paid by buyers of less efficient vehicles would be used to pay the rebates to buyers of more efficient vehicles with a tiny bit left over to pay the feebates’ administrative costs.

Feebates should be described as a dollar value for every *gallon per mile* (gpm) difference from the *mile per gallon* (mpg) pivot point – not *mile per gallon*, since the goal is to save gallons in a linearly proportional manner (i.e., all gallons saved are equally valuable). As the fleet becomes more efficient, the pivot point would gradually shift toward lower fuel intensity (higher mpg).

Feebates should be structured to be revenue-neutral, technology-neutral, and neutral as to vehicle size so as to enhance and not distort customer choice. For this reason, the feebate system should apply the same slope (\$/gpm) to each and every new light vehicle without exception, but with a separate pivot point for each size class (measured by interior volume or a real footprint as the best metric of customer utility – not by weight).

To ensure that feebates do not restrict customer choice, feebates should apply to each and every new vehicle, not to certain types of vehicles or the average of all sales by each manufacturer. Size-class-based feebates should preserve the competitive position of each automaker regardless of where in the market it concentrates its offerings, and thus put no U.S. automaker at any disadvantage.ⁱⁱ Feebates apply to each vehicle, not to the average of all sales by each

manufacturer to ensure that vehicle manufacturers are creating vehicles that are more efficient in each class, thus helping maintain customer choice. Also, treating feebates by size class also avoids any potential for shifting customer choice between classes. Whatever size of vehicle you prefer, you have a choice whether to get one that's more or less efficient, with the corresponding rebate or fee attached.

In vehicle efficiency transportation groups such as the Northeast Advanced Vehicle Consortium in New England (www.navc.org), and the network of sophisticated California agencies illustrate strong state leadership and provide a framework for implementing innovative policies, such as feebates. A feebate could be implemented with careful legislative drafting by these strong state leaders at a regional or state level, even if the National Highway Safety Transportation Administration refused to waive its CAFE authority.ⁱⁱⁱ

Maryland and Washington D.C, are the only states that have feebate laws. Maryland passed its feebate law in 1992, but the state has never enforced the law due to a labeling provision that is preempted. Washington D.C. passed a series of changes to the tax law in December 2004 that require cars weighing over 5,000 pounds to pay a higher excise tax and registration fee, while eliminating the excise tax for clean air hybrid vehicles and cutting their registration fee in half. This is not a true feebate, but it also not preempted by federal law.

We recommend a few changes from the law that Maryland passed, mainly that we use a gpm standard, not a mpg standard. Also, we would apply the feebate to all vehicles, with all vehicles defined by their interior volume into a size class so as not to distort consumer preference. The full text of the law (MD TRANS § 13-818) is available online at: <http://government.westlaw.com/mdcode/>

The National Highway Transportation Safety Administration (NHTSA) is responsible for establishing and amending CAFE regulations, thus NHTSA is the agency that could grant exemption from CAFE standards so that states may implement a true feebate system. Hawaii has the opportunity to join with other states in requesting that NHTSA provide them with an administrative exemption to the federal preemption in Title 49. Alternatively, Hawaii can carefully draft a law using combinations of registration fees and excise tax exemptions similar to the law the Washington D.C. council recently passed.

CHART 1.

	State Incentive ⁹	Expiration Date
Arkansas	<ul style="list-style-type: none"> • The Arkansas Department of Economic Development offers a 50% rebate is available for the incremental cost of purchasing an Original Equipment Manufacturer (OEM) Alternative Fuel Vehicle (AFV), with a maximum of \$2,000 per rebate. • A rebate for the conversion of vehicles to operate on alternative fuels is also available. • The Arkansas Emerging Energy Technology Development Act of 1999 allows manufacturers of advanced technologies to receive a credit against their income tax. This credit applies to any Arkansas taxpayer with a facility located in Arkansas which designs, develops or produces EV equipment or fuel cells. • Arkansas also offers an advanced biofuels income tax credit to manufacturers of advance biofuels. 	No expiration
Arizona	<ul style="list-style-type: none"> • AFVs displaying special license plates may access the HOV lane regardless of the amount of people in the vehicle.¹⁰ • AFVs may park in parking areas designated for carpool operators without penalty. ¹¹ • Also, a Diesel Incentive Program for diesel vehicles to operate on alternative fuel is being developed by the Arizona Department of Environmental Quality.¹² 	No expiration
California	<ul style="list-style-type: none"> • Carl Moyer Memorial Air Quality Standards Attainment Program provides funds on an incentive basis for the incremental cost of cleaner than required engines and equipment. • Qualified AFVs can use HOV lane, regardless of the number of people in the vehicle. The State is trying to include all Hybrid Electric Vehicles (HEV) in the exception, but currently only Inherently Low Emissions Vehicles qualify (ILEV). • The incremental cost of an AFV is exempt from the license fee when the AFV cost more than the comparable conventional fuel vehicle, as determined by the CEC. The reduction applies to new light duty AFVs that meet ULEV standards. The program expires 1 January 2009. 	No expiration

⁹ Unless otherwise noted, all information taken from the U.S. Department of Energy Efficiency and Renewable Energy, "Vehicle Buyer's Guide for Consumers, State and Federal Laws and Incentives," available at: <http://www.eere.energy.gov/cleancities/vbg/progs/laws.cgi>

¹⁰ A.R.S. 28-2511 and A.R.S. 38-538.03B.

¹¹ A.R.S. 28-877

¹² A.R.S. 49-551.01

	State Incentive ¹³	Expiration Date
California (Continued)	<ul style="list-style-type: none"> • South Coast AQMD funds projects that improve air quality through emissions reduction, including AFV projects. • The Bay Area AQMD offers incentives for clean fuel vehicles through 2004/05 Vehicle Incentive Program (VIP) in which public agencies in the BAAQMD jurisdiction can apply for VIP for alternative fuel vehicles in Bay Area, CA, if not subject to EPACT requirements. The program offers up to \$4000 for natural gas vehicles, up to \$2000 for HEVs and up to \$5000 for electric vehicles. • The BAAQMD also offers incentives to cover the incremental cost of AD heavy-duty vehicles under the Transportation Fund for Clean Air (TFCA). • Sacramento's AQMD's Heavy Duty Low Emission VIP offers incentives including the purchase of AFV and retrofitting older diesel vehicles to lower NOx emissions on heavy duty vehicles with a gross vehicle weight over 14,000 pounds. • The City of Sacramento offers free parking to individuals that own or lease EVs. Free charging stations are also available. • The San Joaquin Valley Unified Air Pollution Control District offers a Heavy Duty Engine Incentive Program. The program provides incentive funds for the differential cost associated with the reduced emission technology as compared with the cost of heavy-duty vehicles with a gross vehicle weight (GVW) over 14,000 pounds. • Los Angeles Airport offers free parking and charging for EVs in the arrival level of Parking Structures. 	No expiration
Colorado	<ul style="list-style-type: none"> • Qualified AFVs may receive an incremental income tax credit depending on year of purchase and the certification level of the vehicle. • The Colorado Department of Revenue also offers an income tax credit for the actual cost of construction, reconstruction or acquisition of AF refueling facilities that is directly attributable to the storage, compression, charging or dispensing of AFs to motor vehicles. 	

¹³ Unless otherwise noted, all information taken from the U.S. Department of Energy Efficiency and Renewable Energy, "Vehicle Buyer's Guide for Consumers, State and Federal Laws and Incentives," available at: <http://www.eere.energy.gov/cleancities/vbg/progs/laws.cgi>

	State Incentive	Expiration Date
Connecticut	<ul style="list-style-type: none"> • A Corporate Business Tax is available for 10% of the incremental cost of purchasing a qualified AFV. • A Corporate Business Tax is available for 50% of the construction of any refueling station or improvements to an existing refueling station that allows that station to provide compressed natural gas (CNG), liquefied natural gas (LNG) liquefied petroleum gas (LPG) or electric recharging, as well as for the cost of converting a vehicle to operate on CNG, LNG, LPG or electricity. • The Business Environmental Clean-up Revolving Fund offers loans to qualified businesses that convert gas and diesel powered vehicles to run on AF. • The purchase of new vehicles that are exclusively fueled by CNG, LNG, LPG, hydrogen or electricity, as well as the storage, use or other consumption of such a vehicle are exempt from sales tax. • CNG, LPG, LNG not subject to the motor fuels tax. • Natural gas or propane sold as motor fuel is exempt from gross earnings tax on the sale of petroleum products. 	July 1, 2008
District of Columbia	<ul style="list-style-type: none"> • The Metropolitan Washington Council on Government's administers the Advanced Technology Vehicle Program, which offers incentives to cover the incremental cost of clean fuel vehicles that reduce nitrogen oxides. Qualifying private companies and local governments must meet multiple criteria. 	No expiration
Delaware	<ul style="list-style-type: none"> • Delaware Soybean Board offers rebates for biodiesel on a case- by- case basis. • Taxes on alternative fuels used in state vehicles are waived. 	No expiration
Florida	<ul style="list-style-type: none"> • ILEV and HEV that are certified and labeled in accordance with federal regulation may drive in HOV lanes, regardless of the number of passengers in the vehicle. 	No expiration
Georgia	<ul style="list-style-type: none"> • HEV are authorized to use the HOV lane, regardless of the number of passengers in the vehicle, if the U.S. Congress or the U.S. DoT approves such authorization. • The Alternative Fuel Vehicle Incremental Cost Incentive Program available to local businesses, governments and authorities offers funds to offset the incremental costs of purchase of qualified AFV. • An income tax credit of 20%, or \$5,000 (which ever is less), is available for purchasing or leasing a ZEV. • An income tax credit of 10% or \$2,500 (which ever is less) is available for purchasing, leasing, or converting a vehicle to operate solely on an AF and is LEV certified by EPA 	No expiration

	State Incentive	Expiration Date
Hawaii	<ul style="list-style-type: none"> • Qualified high technology business investments (non fossil fuel energy related technology) are eligible for tax credits. • Income tax deductions are available for installments of clean fuel refueling property. • A tax credit is available for investment in qualified ethanol production facilities. • Alcohol fuels are exempt from the 4% state excise tax on retail sales. 	December 31, 2005
Iowa	<ul style="list-style-type: none"> • Iowa Department of Natural Resources awards demonstration grants for research connected with AFVs. • Iowa's Alternate Energy Revolving Loan Program for alternative energy projects offers zero-percent interest loans for up to half the cost of biomass and AF technologies. 	No expiration
Illinois	<ul style="list-style-type: none"> • Illinois Alternative Fuel Rebate Program provides rebates for 80% of the incremental cost of purchasing an AFV or converting a vehicle to operate on alternative fuel. Maximum amount of the rebate is \$4,000. • A \$1500 tax credit is available to each taxpayer who purchases a new E85 vehicle over the course of three years provided that the taxpayer verifies that 1,000 gallons of E85 fuel were purchased for each vehicle. • A \$10,000 tax credit is available to each motor fuel retailer who installs one or more E85 fuel pumps. 	No expiration
Indiana	<ul style="list-style-type: none"> • Entities required to purchase AFV under the Energy Policy Act of 1992 may receive grant monies from the Alternative Fuel Transportation Grant Program for projects that involve the purchase of AFVs, conversion of vehicles to AFVs, alternative fuels, and installation of alternative fuels vehicle refueling facilities. 	No expiration
Kansas	<ul style="list-style-type: none"> • An income tax credit for 50% of the incremental or conversion cost of qualified AFVs is available. • An income tax credit of 5% or \$750 (which ever is less) is available for the purchase of an original equipment manufacturer AFV (does not expire in 2005). • An income tax credit equal to 50% is available for the construction or for establishing a qualified AF refueling station 	January 1, 2005
Kentucky	<ul style="list-style-type: none"> • Organizations or individuals located in non-attainment areas are eligible for the Congestion Mitigation and Air Quality Improvement Program vehicle rebates for Original Equipment Manufactured AFVs. • A rebate for the incremental cost of a Hybrid Electric Vehicle operating in a fleet. • LPG is exempt from excise tax when it is used to propel motor vehicles on public highways. 	No expiration

	State Incentive	Expiration Date
Louisiana	<ul style="list-style-type: none"> An income tax credit of 20% is available for converting a vehicle to an AFV or for the incremental cost of purchasing an OEM AFV. An income tax credit of 20% is available for the cost of constructing an AF refueling station. 	No expiration
Maine	<ul style="list-style-type: none"> A partial sales tax credit of 30-50% of the sale or lease price is available for clean fuel cars the do not have a comparable vehicle model¹⁴ (about \$500), or a partial sales tax credit on the portion of the sale or lease price of a clean fuel vehicle sold by an original equipment manufacturer that exceeds the price of an identical vehicle powered by gasoline (about \$300). A tax credit is available for the construction, installment, or improvement to any clean refueling station or electric vehicle charging station. 	January 1, 2006
Maryland	<ul style="list-style-type: none"> The Metropolitan Washing Council of Government's administers the Advanced Technology Vehicle Program, which is funded by the Maryland Department of Transportation and offers incentives to cover the incremental cost of clean fuel vehicles that reduce NOx. Qualifying private companies and local governments must meet multiple criteria. Maryland Energy Administration offers limited monies to offset the purchase of AF shuttle and school buses. The Maryland Energy Administration has limited funds to pay for the incremental cost of purchasing an alternative fuel shuttle bus. This rebate does not apply to fleets mandated to comply with the Energy Policy Act of 1992. 	No expiration
Michigan	<ul style="list-style-type: none"> Property tax exemptions apply to industrial property that is used for high technology activities or the creation of synthesis of biodiesel fuel. High technology activities include those related to advanced vehicle technologies such as EV, Hybrid Electric Vehicles, or AFVs and their components. 	No expiration
Mississippi	<ul style="list-style-type: none"> Currently, there are no incentives for AFVs, but policy language is included in state energy plan. 	No expiration
Montana	<ul style="list-style-type: none"> An income tax credit of up to 50% of the cost of converting vehicles to operate on alternative fuels is available to businesses or individuals. 	No expiration
North Carolina	<ul style="list-style-type: none"> The Department of Environment and Natural Resource Division of Air Quality has grants available for the incremental cost of purchasing OEM AFV, or vehicle conversions. 	No expiration
North Dakota	<ul style="list-style-type: none"> A five-year corporate income tax credit is available for biodiesel production equipment costs. Ethanol produced and sold in North Dakota is eligible for a \$0.40/gallon incentive. 	No expiration

¹⁴ M.R.S.A. Title 36 §1760.79

	State Incentive	Expiration Date
Nebraska	<ul style="list-style-type: none"> Dollar and Energy Saving Loans Programs makes low-cost loans available for a variety of alternative fuel projects, including replacement of conventional vehicles with AFVs, and the purchase of AFVs. 	
New Jersey	<ul style="list-style-type: none"> The AFV Rebate Program offers rebates to local government entities for the conversion of a vehicle to operate on AF or the purchase of an OEM AFVs. The Local Government Biodiesel Rebate Program offers rebates to eligible local governments, state colleges and universities, and governmental authorities for the use of biodiesel in lieu of petroleum diesel. The Local Government AF Infrastructure Program offers rebates to eligible local governments, state colleges and universities and governmental authorities for 50% of the cost of purchasing and installing refueling infrastructure. ZEVs sold after May 1, 2004 are exempt from state sales and use tax. 	Until funding is depleted
New Mexico	<ul style="list-style-type: none"> Hybrids with a U.S. EPA rating of at least 27.5 mpg are eligible for a one- time exemption from the motor vehicle excise tax.¹⁵ 	June 30, 2009
New York	<ul style="list-style-type: none"> New York Alternative Fuel (Clean Fuel) Vehicle Program offers tax credits for the purchase of new HEVs, EVs, AFVs, and the installation of clean fuel vehicle refueling property. The New York City Clean Fuel Taxi Program provides up to \$6,000 towards the purchase of new CNG taxis or the conversion of CNG gasoline taxis to operate on CNG. The New York City Private Fleet AF/EV Program helps private companies operating vehicles in New York City acquire AFVs. The Clean Fueled Bus Program provides funds to state and local transit authorities, municipalities, and schools for up to 100% of the incremental cost of purchasing a new AFV buses and associated infrastructure. 	Tax credits available for vehicles purchased before December 31, 2004.
Oklahoma	<ul style="list-style-type: none"> A one-time income tax credit for 50% of the cost of converting a vehicle to operate on an alternative fuel or for 50% of the incremental cost of a new OEM AFV up to \$2,000. A tax credit for 10% of the total vehicle cost, up to \$1,500 is available when an AFV is resold. The Alternative Fuels Loan Program helps convert public fleets to operate on AFs. The program provides 0% loans for converting vehicles to operate on an AF, construction of refueling infrastructure and for the incremental cost of purchasing an OEM AFV. 	July 1, 2009

¹⁵ N.M.S.A. 1978 § 7-14-6 (F)

	State Incentive	Expiration Date
Oregon	<ul style="list-style-type: none"> • A Business Energy Tax Credit is available for the incremental cost of purchasing a Hybrid Electric Vehicle. The tax credit is 35% of the incremental cost of the system or equipment, and is taken over five years. • A Residential Tax Credit is available for up to \$1,500 of the incremental cost of a Hybrid Electric Vehicle, dual-fuel vehicle, OEM AFV, and the cost of converting a vehicle to operate on an AF. 	No expiration
Pennsylvania	<ul style="list-style-type: none"> • The Alternative Fuels Incentive Grant Fund is available qualifying state entities for 20% of the expenses to retrofit vehicles to operate on alternative fuels, including the incremental cost of purchase of vehicles. The program began in 1993, with the state paying 60% of the retrofit charge.¹⁶ 	Until economic or other conditions warrant change.
Rhode Island	<ul style="list-style-type: none"> • Taxpayers entitled to the federally qualified EV tax credit are also eligible for tax credits equal to 25% of the federally qualified EV tax credit. • The Alternative Fueled Vehicle and Filling Station Tax Credit entitles taxpayers to a tax credit equal to 50% of the capital, labor, and equipment costs incurred for the construction of, or improvement to, any AF refueling or recharging station providing domestically produced AF. • Corporations that sell AF are allowed a deduction from the gross earnings from the sales reported in the corporations' tax returns. 	No expiration
Texas	<ul style="list-style-type: none"> • North Central Texas Council of Governments operates a Clean Vehicle Loaner Program that loans advanced technology and AFVs to local public fleets for a test period of several weeks to allow time to assess if vehicles meet fleet's needs. • Texas Emissions Reduction Production Plan provides rebates and grants for acquisition of new on-road heavy-duty AFVs. • A competitive grant program offers grants for new or converted on-road and non-road AFVs and engines. • The Texas Economic Development and Tourism Office administers a grant program for ethanol and biodiesel fuel demonstration and infrastructure projects. • Biodiesel is exempt from the diesel fuel tax. 	No expiration

¹⁶ 75 Pa.C.S.A. §7202 (b)

	State Incentive	Expiration Date
Utah	<ul style="list-style-type: none"> • Vehicles with clean-fuel group license plates have HOV access regardless of their number of occupants. • The Utah Clean Fuels Grant Program provides grants up to 50% of the cost of converting a vehicle to an AFV and/or up to 50% of the incremental cost of purchasing an OEM AFV minus the cost of any tax credit. • The Utah Clean Fuels Grant Program also provides loans for the cost of converting a vehicle to operate on clean fuel, for the purchase of OEM vehicles, and for the purchase of refueling equipment for public/private sector. • The state provides an income tax credit for 50% of the incremental cost of a clean-fuel vehicle built by an OED and/or an income tax credit for 50% of the after market conversion of vehicle to a clean fuel vehicle. 	No expiration
Vermont	<p>Businesses in Vermont that are involved exclusively in design, development and manufacture of electric vehicles, AFVs, or HEVs, are eligible for up to three income tax credits for:</p> <ul style="list-style-type: none"> • A percentage of increased payroll costs; • 10% of qualified research and development expenditure; • A credit against export taxes; • 5%-10% of total investments in machinery and equipment (\$100,000 per year maximum); • Up to 6% of investments in machinery and equipment (\$100,000 per year maximum); • Up to 6% of investments for renovation of existing facilities to provide cable, fiber or telecommunication access; • 20% of qualified training, education and workforce development; • Sales and use tax exemption for approved personal computers and software. 	No expiration
Virginia	<ul style="list-style-type: none"> • AFVs displaying special license plates can use Virginia HOV lanes, regardless of the number of occupants. • A job creation tax credit of \$700 per full time employee for business involved in alternative fuels is available. • A tax credit for 10% of the amount allowed as a federal tax deduction for clean-fuel vehicles and related refueling property is available. 	July 1, 2006

	State Incentive	Expiration Date
Washington	<ul style="list-style-type: none"> • Tax deductions are available for the sale or distribution of biodiesel or alcohol fuel. • Fuel delivery vehicles, machinery, equipment and related services that are used for the retail sale of a biodiesel or alcohol fuel are exempt from state retail fuel sales and use taxes. • A state highway fuel tax exemption is available for liquefied petroleum gas and compressed natural gas vehicles. Owners are required to pay an annual fee, based on vehicle weight instead of motor fuel excise tax. • Qualifying high technology businesses including developers of alternative energy are exempt from state sales and use tax. 	No expiration
Wisconsin	<ul style="list-style-type: none"> • The Department of Revenue offers a state AFV tax deduction similar to the federal AFV deduction. • Taxpayers who put vehicles into service in 2002/3 receive a full deduction (\$2,000) with a 25% reduction each year thereafter, with taxpayers putting vehicles into service in 2007 receiving no deduction. 	No expiration
West Virginia	<ul style="list-style-type: none"> • An income tax credit is available for OEM AFV purchase, or conversion of a vehicle to an AFV, with the amount depending on the gross vehicle weight rating. The tax credit is not to exceed the incremental cost of the AFV or the conversion cost. 	June 30, 2006

CHART 2

State Procurement Policy	
Alaska	The state Department of Transportation is required to consider using natural gas for automotive purposes whenever practicable and may participate in joint ventures with public or private partners that will foster the availability of natural gas for all automotive fuel consumers.
California	By January 1, 2005, the Department of General Services, CEC and ARB are directed to develop and adopt specifications and standards for all passenger cars and light duty cars that are purchased or leased by the state, including procurement policies enabling evaluation of emissions and fuel economy and maximizing procurement of HEVs or substantially fuel efficient vehicles and vehicles that meet or exceed SULEV standards.
Colorado	By July 10, 2010, the Executive Director of the Department of Personnel must adopt a policy that at least 10% of all state owned bi-fuel vehicles are to be fueled exclusively with an alternative fuel. ¹⁷
Connecticut	<p>The fleet average for cars or light-duty trucks purchased by the state must:</p> <ul style="list-style-type: none"> • Have a USEPA estimated fuel economy of at least 40 mpg • Comply with state fleet acquisition requirements set forth under the Energy Policy Act of 1992 • Obtain the best achievable fuel economy per pound of carbon dioxide emitted in its vehicle class. • AFVs purchased by state to comply with these requirements must be capable of operating on an alternative fuel that is available in the state. <p>Prior to January 1, 2005, the Commissioner of Environmental Protection must adopt regulations to implement the light-duty motor vehicle emission standards of the state of California for vehicles with a model year of 2008 or later.</p>
Delaware	The Delaware Energy Task Force is working on developing the Delaware Energy Plan to recommend to the Governor courses of action to address the State's long and short-term energy challenges.
Florida	The Clean Fuel Florida Advisory Board under the Department of Community Affairs is directed to study the implementation of AFVs in the state.
Iowa	10% of new light duty vehicles purchased by institutions under control of the state must be capable of using alternative fuels.
Illinois	The Director of the Department of Central Management Services was instructed to prepare a comprehensive motor vehicle fleet management study including a proposal or recommendation for the promotion of cost effective use of alternative fuels in state owned motor vehicles.
Kansas	75% of new light duty vehicles acquired by the state fleet that are used primarily within a metropolitan statistical area or a consolidated metropolitan statistical area must be AFV. ¹⁸ (More than the 1992 EPAct requires.)
Massachusetts	A 1996 Executive Order requires the state fleets to acquire AFVs according to the requirements of the 1992 Energy Policy Act. In fiscal year 2001 and beyond, at least 10% of eligible vehicles purchased by the state shall be ZEV.
Maryland	The state shall revise fleet policy and purchasing guidelines to offer more flexibility in purchasing, when it is practical LEVs and AFVs for will be purchased for its fleet.

¹⁷ C.R.S. § 24-39-1104

¹⁸ K.S. § 75-4616

State Procurement Policy	
Maine	A 2002 Executive Order requires state agencies to promote the procurement of dedicated AFVs and continued improvement to the overall fuel economy of the state fleet.
Minnesota	The state agency shall use clean fuels in motor vehicles owned or leased if the fuel is reasonably available. Also, when a state agency purchases a motor vehicle for use by the agency, it shall purchase a motor vehicle that is capable of being powered by electricity or by a combination of electricity and liquid fuel.
Missouri	Missouri Department of Transportation shall develop a program that provides for the opportunity to use B20 or higher biodiesel blends in its vehicle fleet and heavy equipment that use diesel fuel. By July 1, 2004, at least 50% and by July 1, 2005, at least 75% of Missouri Department of Transportation vehicle fleet and heavy equipment using diesel fuel must be fueled with B20 or higher biodiesel fuel.
Mississippi	When possible, any vehicle purchased or leased by a state university shall be AFV.
Montana	The Montana Hydrogen Energy Plan aims to have 100% of state vehicles powered by alternative fuels by 2020.
North Carolina	On and after January 1, 2004, it is the state goal that at least 75% of the new or replacement light duty cars and trucks purchased by the state will be AFVs or LEVs.
New Jersey	In 2001 and afterwards, New Jersey is committed to exceeding the 1992 EPA Act acquisition mandate for state fleets by 5%. In model year 2001 and thereafter, vehicles acquired to fulfill this enhanced commitment must meet or exceed CARB's ULEV standard.
New Mexico	The Alternative Fuel Acquisition Act of 1992 requires 75% of state government and education institution fleet vehicles acquired in 2003 and thereafter are bi-fuel or dedicated AFVs or gas electric hybrids. Effective July 1, 2002, state agencies can meet AFV acquisition requirements by purchasing foreign-made gas-electric hybrid vehicles until these vehicles are assembled in North America.
Nevada	State fleets are mandated to acquire AFVs or USEPA ULEVs. Beginning in 2000, 90% of new vehicles obtained by covered fleets must be AFVs or certified ULEVs. AFVs must operate solely on alternative fuel, including buses and heavy-duty vehicles, unless the appropriate alternative fuel is unavailable.
New York	State agencies must procure increasing percentages of AFVs as part of their annual vehicle acquisition plans, with Hybrid Electric Vehicles qualifying under the requirements. By 2005, at least 50% of new light duty vehicles acquired by each agency must be AFVs. New York City Council requires the purchase of AFVs or conversion to AFVs for city government use.
Oklahoma	The Alternative Fuel Conversion Act requires all school and government vehicles capable of operating on alternative fuel to use the fuel whenever a refueling station is in operation within a five-mile radius of the respective department or district and the cost of alternative fuel is cost competitive.
Oregon	State law requires that state agencies purchase AFVs to the maximum extent possible, except when it is not economically or logistically possible to purchase or refuel an AFV.
South Carolina	Whenever practical and economically feasible, all state agencies operating AFVs are required to use alternative fuels in those vehicles.
Texas	Fleets in non-attainment areas must ensure that 70% of light duty purchases and 50% of heavy duty purchases meet LEV standards. Mass transit authorities are required to convert 50% of their fleet to run on alternative fuels.

State Procurement Policy	
Vermont	The commissioner of buildings and general services shall consider AFVs when purchasing vehicles for state use, when the alternative fuel is suitable for the vehicle's operation, if the fuel is available in the region where the vehicle will be used, and if the fuel is competitively priced with traditional fuels. All state government agencies, offices and departments are directed to purchase the most fuel-efficient vehicles available in each vehicle class.
Washington	All state agencies are encouraged to use a B20 biodiesel blend for diesel vehicles and prepare a biennial Sustainability Plan to modify its practices regarding vehicle use. At least 30% of all new vehicles purchased through a state contract must be clean fuel vehicles, increasing 5% each year. It is preferred that dedicated clean fuel vehicles are purchased.
Wisconsin	The Department of Administration shall require all state employees to utilize HEVs or AFVs for all state-owned or state-leased motor vehicles whenever such utilization is feasible. The DoA also encourages employees who use personal motor vehicles on state business and residents of Wisconsin to use alternative fuels.
West Virginia	The Secretary of Administration requires that 75% of state government fleet acquisitions are AFVs.

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- i* Implementing the OECD "Polluter Pays Principle" (which the U.S. officially accepts in principle), most European car ownership taxes depend on some combination of engine type and displacement, fuel type, vehicle age, and gross vehicle weight (in Sweden and The Netherlands). British and French ownership taxes depend on CO₂ emissions. Denmark's move from a weight- to an inefficiency-based tax in 1997 has cut fuel intensity by 0.5 km/L (1.2 mpg), but by 2.3 km/L (5.4 mpg) for diesel vehicles. Emissions may also be considered, as in Tokyo and some other Japanese prefectures, to correct the current perverse incentives that clean new vehicles are taxed far higher than dirty old ones: Hirota, K. & K. Minato 2002, "Comparison of vehicle related taxes by cross-section," Better Air Quality in Asian and Pacific Rim Cities (BAQ2002), 16-18 Dec., Hong Kong, www.cse.polyu.edu.hk/~activi/BAQ2002/BAQ2002_files/Proceedings/PosterSession/48.pdf.
 - ii* Japan's "Top Runner" system of improving light-vehicle efficiency (note TK) also permits trading between classes.
 - iii* However, some further state actions remain ensnared. Many states have long wanted to offer hybrid cars free access to HOV lanes, but most have concluded this is illegal until EPA corrects a regulatory mistake that makes such discretionary access – meant to save oil – depend not on the vehicles' fuel economy but solely on whether they burn an approved alternative fuel.