

Illinois Climate Change Advisory Group

Subgroup: Transportation
Policy Name: Incentives for Fuel Efficient Vehicles
Policy Type: Financial
Estimated 2020 Reductions: 1.5 to 4.5 MMtons
5/11/07

Affected sectors, subsectors or entities

Sector: Transportation
Subsector: Passenger Vehicles
Entities: Vehicle owners.

Description

A variety of financial incentives could be used to encourage the purchase of more fuel-efficient vehicles.

- **Feebates:** Under this approach, vehicles with fuel economy below a certain threshold pay an additional fee, and those with fuel economy above a threshold receive a rebate. Research indicates that 90 to 95 percent of the fuel economy benefits of a feebate program (which has not been adopted anywhere in the U.S.), would come from manufacturers making more fuel efficient vehicles, rather than the consumer response, in which consumers change the mix of purchasing decisions within the current for-sale fleet. Manufacturers are unlikely to substantially change their technology mix in response to a single state feebate program.

Greene, Patterson, Singh, and Li, *Feebates, Rebates and GasGuzzler Taxes: A Study of Incentives for Increased Fuel Economy* (Oakridge National Laboratory, 2004)

Connecticut estimated relatively low emissions benefits even with a high fee component (\$5000 for the lowest fuel economy vehicles).
http://ctclimatechange.com/documents/TransportationSector_CCCAP_2005.pdf

- **Rebates, tax breaks, decreased registration fees or tolls:** As long as supply can keep up with demand, one would expect rebates and tax breaks, like the federal tax credit for hybrid vehicle purchases, to increase sales of the targeted fuel efficient vehicles. There is anecdotal evidence that the federal hybrid vehicle tax credit has increased sales of hybrids, and Toyota is urging states to extend tax credits as well in order to increase sales. However, we have been unable to find research to verify this. The same can be said for lower registration fees and tolls. It's not clear what, if any, affect these incentives have on sales of fuel-efficient vehicles.
- **Preferential treatment for fuel efficient vehicles:** Examples include permission to drive in HOV lanes.

- Gas-Guzzler Fee/Tax: The fee/tax would need to be high to persuade manufacturers to make more fuel-efficient vehicles and to significantly effect vehicle sales. A federal gas-guzzler tax is currently applied to some passenger cars but not trucks like SUVs and pick up trucks.

Straw man proposal

This proposal would increase the annual state vehicle registration fee for vehicles between 6001 and 8000 pounds (gross vehicle weight) by \$50/year. The fee is a revenue source to pay for the incentive described below. Research suggests a \$50 annual increase would have little or no effect on what vehicles consumers buy.

Currently all cars and trucks under 8000 pounds – from the smallest compact cars to the largest SUVs - pay the same \$78/year state registration fee. Commercial trucks with a gross vehicle weight (GVW) between 8,001-12,000 pounds pay an annual registration fee of \$414. The heaviest trucks pay increasingly higher fees based on GVW, up to \$7995 per year.

There are more than 450,000 passenger vehicles registered in Illinois with GVWs between 6,001-8,000 pounds – what USEPA calls “heavy light trucks.” If the annual registration fee for passenger vehicles and “B” trucks with GVWs between 6001-8000 pounds were increased by \$50, the annual revenue would be approximately \$22.5 million. To view the schedule of vehicle registration fees:

http://www.cyberdriveillinois.com/publications/pdf_publications/vsd52212.pdf.

The subgroup may want to consider exemptions for vehicles required for business purposes, e.g., farm trucks. At the same time, the federal tax code favors SUVs and pickups used by businesses compared to passenger vehicles under 6000 pounds GVW, according to the Congressional Research Service (CRS). “Tax Preferences for Sport Utility Vehicles (SUVs): Current Law and Legislative Initiatives in the 109th Congress.” April 2006.

<http://www.cnie.org/nle/crsreports/06may/RL32173.pdf>

According to CRS: “Under current tax law, the depreciation of passenger cars is treated less generously than that of light trucks (including many SUVs). Passenger cars, which are defined as motor vehicles weighing 6,000 pounds or less, are considered so-called listed property — and thus subject to annual limits on depreciation allowances. By contrast, light trucks, which are defined as motor vehicles weighing more than 6,000 pounds (with some exceptions), are generally depreciated under a different and more favorable set of rules. For example, SUVs considered light trucks are eligible for a maximum expensing allowance of \$25,000 in the 2005 tax year, but the maximum first-year depreciation allowance in the same year for a passenger car under IRC section 280F is \$2,960. As a result, a business taxpayer can realize a greater reduction in the after-tax cost of a vehicle by purchasing a heavy-duty SUV instead of a passenger car of comparable value. The federal tax code also encourages the purchase of heavy-duty

SUVs by excluding them from the gas guzzler excise tax. The tax is levied on domestic sales of new automobiles with relatively poor fuel economy ratings. It is paid by manufacturers and importers. All light trucks, including all SUVs, are exempt from the tax.”

The money would be used to provide a \$750 rebate for the purchase of the most fuel-efficient vehicles available. Eligible vehicles would have a USEPA average fuel efficiency rating of at least 35 mpg or would use advanced technologies (e.g., hybrid electric) that increase fuel economy by at least 30% compared to the comparable internal combustion engine model. The mpg criterion should be designed to increase as CAFÉ increases.

\$22.5 million would provide roughly 30,000 rebates. The Transportation Subgroup should consider whether these funds should also be used for other transportation projects that reduce GHG emissions, e.g., transit, bicycling and pedestrian projects.

Rough estimate of reductions from BAU in 2020

We will attempt to model this policy with the Energy 2020 model. In the meantime, assume that one metric ton of GHGs can be reduced for between \$5 and \$15.

\$22.5 million @ \$5/ton = 4.5 MMtons CO₂e reduced.

\$22.5 million @ \$15/ton = 1.5 MM tons CO₂e reduced

Timetables, duration and stringency

Institute fee increase 2009.
Spend funds beginning 2010.

Written Comments

Ford Motor Company

- Ford supports incentives for fuel efficient vehicles. Feebates however, penalize and disadvantage certain vehicles and customers. For example, IL farmers, large families, and other small business owners who use pick up trucks and larger vehicles during their day to day operations would be disadvantaged by this kind of policy.
- As an alternative, the state could place a fee bate on non-low carbon fuels and set up a fund with the money collected to offset the higher cost of E85. Increasing the use of E85 could have a larger impact on GHG reductions.