

Advanced Vehicle Incentives

Description:

One of the most important barriers to increased adoption of alternative-fueled vehicles (AFVs) is their sometimes higher up-front cost as compared to a similar conventionally fueled vehicle. Also, because they are new and operate differently from conventional vehicles, many consumers are hesitant to spend the substantial upfront money required to purchase one when they can stay with something they know and are used to.

Consumer anxiety about these costs can be ameliorated through a range of state policies that provide financial incentives for the purchase of AFVs. Incentives can also be employed to support the conversion of existing vehicles to alternative fuels.

Increasing AFV adoption may also be spurred by ensuring that the use of an AFV is as or more convenient than the use of a conventional vehicle. State programs that provide other types of incentives aim to make AFV ownership more attractive. Typically, states adopt at least a few of the incentives discussed below.

Discussion of the Policy:

1. **Tax Credits** - Sales and income tax credits are one of the simplest methods for addressing higher up-front costs. While sales tax credits are typically applied at the time of purchase, income tax credits may do less to address the upfront cost barrier as receipt of the credit is typically removed in time from the purchase. However, a recent [study](#) by the Congressional Budget Office suggests that tax credits are important tools for ensuring increased adoption of AFVs. States may also choose to reduce licensing or registration taxes or fees for AFVs.

The Federal Government has a federal tax credit for alternative fueled vehicles. For electric vehicles, this is \$7,500. Because the credit is transferable, dealers will often monetize this tax credit in the form of a reduced purchase or lease price for the consumer - immediately lowering the customer's up front cost. States may offer the same feature of a transferrable tax credit, however, the credit could only be claimed by dealerships operating and paying tax in the state and the value of the credit would only be redeemable up to the state tax burden of the dealership.

2. **Loans** - Low-interest loans for the purchase of AFVs or conversion to alternative fuels are typically aimed at local governments and school districts. In some states, loans are available to support private fleets and individual consumers.
3. **Grants, Rebates, and Vouchers** - Grants, rebates, and vouchers are the most direct method for addressing the up-front cost barrier. While grants and vouchers are typically provided for local government fleets, rebates are typically available for all consumers. Rebates have the following benefits: Consumers do not need to wait to receive the incentive, and are available to entities and individuals with little to no tax burden.
4. **Weight Limit Exemptions** - Because they are equipped with natural gas tanks, natural gas-fueled heavy-duty vehicles carry additional weight. Weight limits on intrastate roads may reduce the amount of freight these vehicles can carry, as compared to traditionally fueled vehicles. One method to avoid this disincentive and level the playing field for natural gas is to allow natural gas-fueled vehicles to exceed weight limits.
5. **HOV, HOT, and Parking Incentives** - Allowing AFVs to use high-occupancy vehicle (HOV) or high-occupancy toll (HOT) lanes regardless of number of passengers and without paying the toll may make AFV ownership more attractive. Most states require that AFVs using these lanes display a decal or particular license plate; others limit eligibility to certain types of vehicles or to a certain number of vehicles. States can also implement programs to provide parking incentives for owners of AFVs.

Typically, these programs provide access to carpool parking, preferential spaces, reduced fees, and / or access to charging or fueling stations.

Example State Programs:

All states and the District of Columbia offer at least one incentive for AFVs.

- California Incentive Programs for Alternative Fuels and Vehicles
<http://www.arb.ca.gov/fuels/altfuels/incentives/incentives.htm>
- Greater Portland Council of Governments
<http://www.gpcog.org/energy/maine-clean-communities/incentives/>
- Louisiana Alternative Fuel Incentives and Laws
<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=321>
- Refuel Colorado
<http://www.refuelcolorado.com/incentives>

Established in response to the Energy Policy Act of 1992, the U.S. Department of Energy's (DOE) [Clean Cities](#) program supports efforts to reduce the transportation sector's reliance on petroleum. Among other activities, the program provides technical support, information resources, and infrastructure and vehicle acquisition support.

Key Components:

- Programs can be targeted to one, some, or all of the following: Individuals, businesses, or units of government.
- Programs can be directed toward incentivizing the use of one, some, or all of the following alternative fuels: Electricity, hydrogen, natural gas, biofuels, or propane.
- Loan, grant, rebate, and voucher programs must have a dedicated funding source.

More Information:

- Alternative Fuels Data Center (AFDC) Fuels and Vehicles page:
<http://www.afdc.energy.gov/>
- Clean Energy Coalition, Alternative Fuels: A State Policy Analysis paper:
<http://cec-mi.org/wp-content/uploads/2014/08/Policy-Paper-Final-v2.pdf>
- ZEV Program Implementation Task Force, Multi-State Zero Emission Vehicle Action Plan:
www.nescaum.org/documents/multi-state-zev-action-plan.pdf/
- National Renewable Energy Laboratory, Geography of Existing and Potential Alternative Fuel Markets in the United States:
http://www.afdc.energy.gov/uploads/publication/geography_alt_fuel_markets.pdf
- Southwest Energy Efficiency Project, Policies to Promote Electric Vehicles in the Southwest: A State Government Report Card(2014 Edition):
<http://www.swenergy.org/data/sites/1/media/documents/publications/documents/EV%20Report%20Card%20-%202014%20UpdateFNLBody.pdf>