

GLOBAL WARMING: DOUBLE VEHICLE GAS MILEAGE NOW.

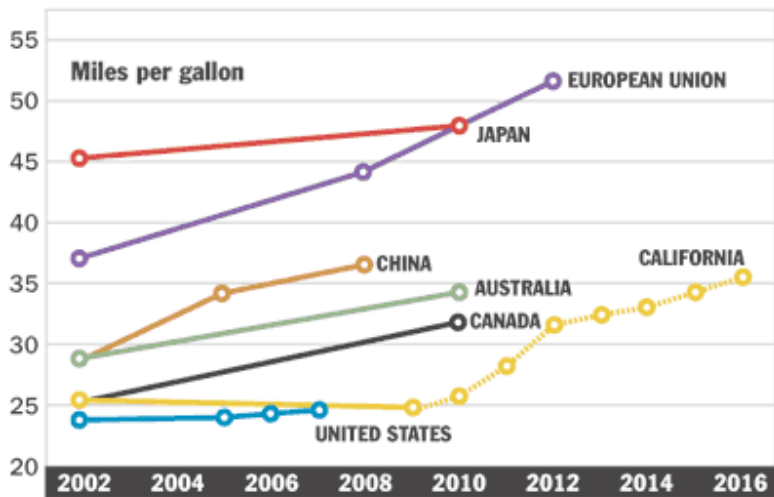
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Everyone's upset by gas and oil prices and the profit margins of the monopolistic oil industry. We're all seeing that it's time to change, and get efficient, and find better ways. So what can we do, how fast, and how effectively, about transportation?

There are now 800 million cars on the road in the world. One-quarter of all the oil consumed in history has been consumed in the last 10 years. Yes, we're running out, and yes, that's a major part of global warming, peak oil, and the plunging dollar.

U.S. transportation is a huge waster of energy. US vehicle fleet mileage average is 25mpg, and the standards for cars haven't changed for 18 years. The European Union standard is 44mpg, Japan's is 46mpg, and both are moving up. They design and manufacture most of our vehicles. There is no magic required, or new technology. I drove a 55mpg Honda Civic VX for 14 years, and before that a 40 mpg Toyota in 1980. There is no reason we can't double our efficiency standards – immediately, not at some distant date.

Fuel economy trend lines



Efficient cars are available NOW. Outside the U.S., there are 38 vehicles that get 50 mpg or better and 34 of them use "clean diesel" technology. Only two U.S. vehicles (the Toyota Prius and the Honda Civic Hybrid) are rated by the EPA as having 50 mpg or better combined fuel efficiency. Overall, at least 161 vehicles not sold in the U.S. achieve 35 mpg or better, up sharply from 129 in 2005. In the

US, the number of vehicles getting 35 mpg fell from 9 to 6.

Even before current prices, the Union of Concerned Scientists and the American Council for an Energy Efficient Economy stated that a combination of existing technologies, along with reduced sales of the heaviest vehicles, can produce a fleet of cars and trucks that average over 40 mpg. The result is an *increase* in fuel economy of over 70%, and a net savings to the average consumer of over \$2,000!

But people wonder if smaller, more efficient cars are less safe. No, say studies by Oakridge and Lawrence Berkeley National Labs. Fuel economy and lighter vehicles are not linked with increased fatalities. In fact, *increased* vehicle weight is actually associated with increased fatalities.

So how do we get there? The cars are available right now, and if Detroit is too lazy to produce efficient cars that let them compete in world markets, so be it. Higher gas taxes have been suggested as a way to encourage transition to more efficient vehicles. Higher

gas prices have reduced gas consumption in the Northwest by 11% since 1999, but mostly through fewer miles driven. So a tax alone would require a huge increase to be significant.

Feebates are a probably the fastest and most effective mechanism for encouraging and assisting shift to more efficient vehicles. A novel combination of fees and rebates, they place a fee on purchase of gas-guzzlers and use the revenues as rebates for people buying efficient vehicles. Those rebates are proportional to the efficiency of the vehicle, so super-efficient vehicles come with whopping big rebates. As average efficiency increases, the feebates reset themselves around the new average, manufacturers raise their wares' efficiency to compete, and consumers set their sights still higher. Efficiency snowballs. California almost implemented a feebate system this last year. Canada has had a feebate law in effect since 2007. Last year, several European countries adopted feebates. Finland and Ireland changed their automobile tax structure to vary based on greenhouse-gas emissions, and France just implemented what's being called the "bonus-malus" law in January. There is nothing other than politics as usual preventing Oregon from implementing feebates.

Feebates help new car buyers, but lower-income families most impacted rarely can afford new cars. One approach to extending the positive impact of feebates is to use some of the "fees" to assist development of local car-share programs in communities. Portland already has a good program in place, with different kinds of vehicles in reserved parking spaces around a neighborhood. Whatever you need today – a compact, a truck or van or hybrid, you check what is available where, and reserve it.

CarShare reduces transportation costs, and makes new and efficient vehicles of varied types available. Owning even a compact automobile costs \$5,000 per year for depreciation, insurance, taxes and finance charges. The average CarShare member, in contrast, spends \$540 and drives 435 miles per year. Car-sharing allows people to make necessary car trips such as taking a child to the doctor or interviewing for a job, without the burden of car payments, insurance, parking, and other and associated costs. They can make emergency cars available. Each car-sharing vehicle replaces as many as seven private cars or more, reducing the infrastructure needed for parking.

Amory Lovins promised us 200 mpg hybrids a number of years ago. So far, they haven't lived up to the promise. But more efficient vehicles are on the way. Teams are lining up for the \$10 million Automotive X Prize competition for +100 mpg cars.



One of the most interesting groups is a West Philly high school class with a 130mpg car!

West Philly Hybrid
EVX (Philadelphia,
Pa.) 130 mpg/
\$25,000
<EVXTeam.org>

Feebates and better-mileage cars can jump-start a shift to household transportation energy efficiency, but the real answers are more basic and satisfying. Living closer to

where we work and spending fewer hours in traffic jams. More compact communities with better transit, so we can sleep on the go and use carshare when we need something special. Vacations that aren't spent behind the wheel or on airplanes. Making where we live paradise!

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