

## Hybrid vehicle rebates produce scant environmental benefits, high cost: study

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Despite major costs to taxpayers in the U.S. and Canada, government programs that offer rebates to hybrid vehicle buyers are failing to produce environmental benefits, a new UBC study says.

The study finds that hybrid sales have come largely at the expense of small, relatively fuel-efficient, conventional cars, rather than large SUVs, trucks and vans, which produce substantially greater [carbon emissions](#).

"If the intention of rebate programs is to replace gas guzzlers with hybrids, they are failing," says Ambarish Chandra, a professor at UBC's Sauder School of Business and study co-author. He says large vehicle sales have risen steadily since the introduction of hybrid rebates.

"People are choosing hybrids over similarly priced small- and medium-sized conventional cars, which are not far behind hybrids for fuel efficiency and emissions," says Chandra. "The reductions in carbon emissions are therefore not great."

The study also finds that the majority of consumers who purchase hybrids were not motivated to do so by government rebates, says Chandra, whose co-authors include Sumeet Gulati, assistant professor in UBC's Dept. of Food and Resource Economics, and Milind Kandlikar of UBC's Liu Institute for Global Issues and Institute of Asian Research.

"Our estimates indicate that two-thirds of people who buy hybrids were

going to buy them anyway," says Chandra. "So for the majority, rebates are not changing behaviour - they are subsidizing planned purchases."

According to the study, the inefficiency of rebate programs rises disproportionately when governments increase rebate levels. "When B.C.'s rebate jumped from \$1,000 to \$2,000 in 2005, the actual cost of reducing carbon emissions more than doubled," he says, noting that Ontario recently increased its rebate to a maximum of \$10,000 per [hybrid vehicle](#).

The study finds that Canadian provinces that offer rebates have spent an average of \$195 per tonne of carbon saved or, equivalently, \$0.43 for every litre of gasoline that a vehicle consumes over its 15 year average life expectancy.

Chandra says that governments could garner greater environmental benefits by purchasing carbon offsets (currently priced between \$3 and \$40 per tonne on carbon markets) or investing in green jobs and technologies.

While hybrid rebates help governments to appear environmentally progressive, Chandra suggests that some programs may serve as de facto "bailouts" for the North American auto industry.

"The criteria for Ontario's recent rebate increase seem designed to benefit domestic manufacturers, especially General Motors," Chandra says. "The biggest rebates will be given to purchasers of the Chevy Volt, rather than other hybrids like the Toyota Prius."

Hybrid rebate programs are currently offered by the governments of the U.S. and 13 states, including Washington, Oregon, Illinois and Colorado, and five Canadian provinces, including B.C., Ontario, Quebec, PEI and Manitoba. The Canadian government offered hybrid rebates during

2007-2008.

Researchers used Canadian vehicle sales data over a 17-year period from 1989 to 2006. Results are believed to extend to the U.S. market, given the similarities between auto industries, in terms of vehicle buying patterns, pricing structures and [car](#) models.

Source: University of British Columbia ([news](#) : [web](#))

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