

Drivers would pay extra to cut carbon emissions

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Most drivers are willing to pay for onboard technology that will reduce carbon emissions, as well as sacrifice some fuel economy and storage space, in order to cut greenhouse gases resulting from combustion engines, say University of Michigan researchers.

In a new online survey of driver opinion about carbon capture in vehicles, researchers at the U-M Transportation Research Institute found that respondents were willing to pay about \$100 for a 20-percent reduction in carbon dioxide emissions and \$250 for an 80-percent reduction.

Further, drivers seem willing to accept a 5-percent reduction in [gas mileage](#) and a 10-percent loss in storage space for a 20-percent cut in [carbon emissions](#), and a 10-percent drop in fuel economy and a 16-percent loss in storage for an 80-percent reduction in emissions.

"While most efforts at containing [carbon dioxide emissions](#) are directed at large-scale stationary producers like coal-fired power plants or other industrial sources, there has also been interest in considering the feasibility of carbon capture from small distributed power plants, like gasoline-fueled internal-combustion engines ubiquitous in transportation," said John Sullivan, an assistant research scientist in UMTRI's Human Factors Group. "Various methods are under development to capture and store these gases before they enter the atmosphere."

One such method is equipping light vehicles with carbon capture and [storage technologies](#), which would require additional space (possibly in the trunk) and costs (for initial installation and reduced fuel economy).

Sullivan and UMTRI colleagues Michael Sivak and Brandon Schoettle say that the acceptability of carbon-capture technology depends on driver belief that human activity is associated with global warming.

"Drivers that reported agreement were found to be more accepting of in-vehicle carbon-capture technology and generally more willing to pay more for this technology or to trade storage space and [fuel economy](#) for such technology," said Sivak, a research professor in UMTRI's Human Factors Group and director of Sustainable Worldwide Transportation, a research consortium that addresses major road transportation issues worldwide.

Provided by University of Michigan

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