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16. Abstract

This study was designed to examine the variation across the individual U.S. states in the relative fuel cost of driving battery electric vehicles (BEVs) and gasoline vehicles. Also of interest was the state-by-state variation in the fuel economy that gasoline vehicles would have to exceed to make driving them less expensive than driving BEVs.

The following are the main findings:

- (1) The current average annual cost of driving a typical new gasoline vehicle in the United States is \$1,117, with a maximum of \$1,509 in Hawaii and a minimum of \$993 in Alabama.
- (2) The current average annual cost of driving a typical new BEV in the United States is \$485, with a maximum of \$1,106 in Hawaii and a minimum of \$367 in Louisiana.
- (3) The ratio of the current average costs of driving a typical gasoline vehicle and a typical BEV in the United States is 2.3, with a maximum of 3.6 in Washington and a minimum of 1.4 in Hawaii.
- (4) The required fuel economy that gasoline vehicles would need to exceed for driving them to be less expensive than driving BEVs is 57.6 mpg in the United States, with a maximum of 90.0 mpg in Washington and a minimum of 34.1 mpg in Hawaii.

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