

The Effectiveness of Washington State's Clean Alternative Fuel Vehicle Initiatives and How They Impact Automobile Manufacturers

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Primary project stakeholders:

- State Legislators
- Manufacturers of clean alternative fuel vehicles (CAFVs)

Questions:

What impact have Washington state's tax exemptions had on CAFVs?

Where do most CAFV sales occur?

How do CAFV sales compare between republican and democrat legislative districts?

What is the average price Washington residents are willing to pay for a CAFV?

Is Washington state on track to meet its goal of 100% CAFV sales by 2035?

Are people more likely to buy CAFVs in the cities, suburbs, or rural areas?

What are CAFVs most likely to be used for (private, farm, commercial, taxi, etc.)?

What is the most commonly failed requirement for tax exemption eligibility?

Data

Electric Vehicle Title and Registration Activity: Data Source -

This is an external data source belonging to Washington State's Department of Licensing. As government data, this is a verifiably trustworthy data source.

Electric Vehicle Title and Registration Activity: Data Collection-

This is administrative data collected during the DOL's title transfer and registration process required for all vehicle purchases. In addition to standard title transfer and registration information, the DOL has also collected information about whether vehicles in this data set fulfill the requirements of two clean fuel vehicle initiatives passed in Washington state: the 2015 Exemption Eligibility bill for zero emission vehicles (HB 2778), and the 2019 Clean Alternative Fuel Vehicle bill (HB 2042). Although the data is manually recorded, it is vital for both the operations of the DOL and for tracking the success of the aforementioned initiatives. This makes the dataset as reliable as reasonably possible.

Electric Vehicle Title and Registration Activity: Data Contents-

This data set contains vehicle sales information for clean alternative fuel vehicles registered in Washington state from 2010 to 2022. It also contains information on the eligibility of these vehicles for tax exemptions under HB 2778 and HB 2042 as well as the legislative district that the sale occurred in.

Electric Vehicle Title and Registration Activity: Data Relevance-

The primary purpose of this project is to evaluate the success of Washington state's HB 2778 and HB 2042 in bringing it closer to its goal of 100% zero emission car sales by 2035. The secondary purpose is to derive insights which could help clean alternative fuel vehicle manufacturers understand how the state initiatives affect car sales and how they might improve their success in different markets. This data set provides the most accurate and up to date data from the past 12 years on all clean alternative fuel vehicles sold in Washington state, as well as eligibility information for state tax exemptions. This information is critical to addressing the project objectives.

Electric Vehicle Title and Registration Activity: Limitations and Ethics-

Limitations: The sale price column of this set has a number of records where the price listed is 0/unavailable which may present a limitation for this data set.

Ethics: All personally identifying information has already been stripped from the data set by the DOL