

Z E T A 

# ***ELECTRIC VEHICLES***

**ARE FAR CHEAPER TO DRIVE  
THAN GAS-POWERED CARS**

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**By passing clean energy tax incentives, Congress can ensure that the United States wins the clean transportation race, saving Americans money and creating millions of jobs.**

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## Overview

This analysis compares the operating costs of gas-powered vehicles and electric vehicles (EVs) nationally and in various states. The three gas-powered cars featured in the analysis represent the most popular vehicles in the pickup truck, SUV, and sedan vehicle segments in the United States. The EVs included in this analysis are approximate analogues to the highlighted gas-powered vehicles. While they are imperfect corollaries to the gas-powered vehicles, these electric models nevertheless illustrate the substantial cost savings.

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## Key Takeaways on Cost to Drive an EV vs. a Gas-Powered Vehicle

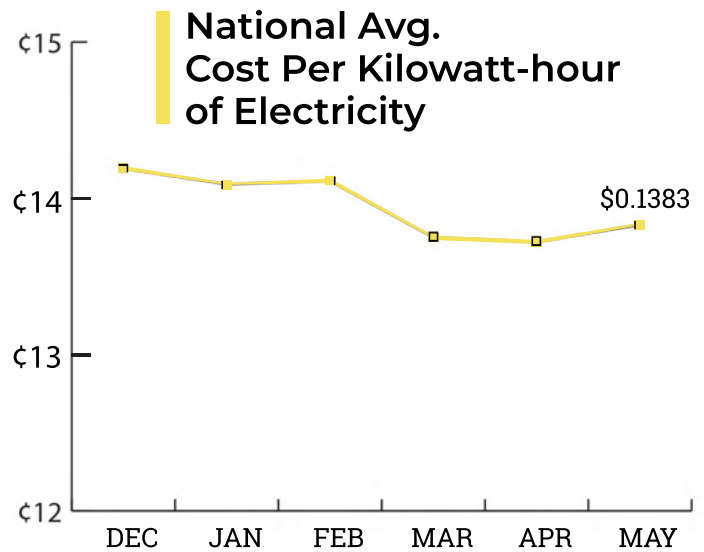
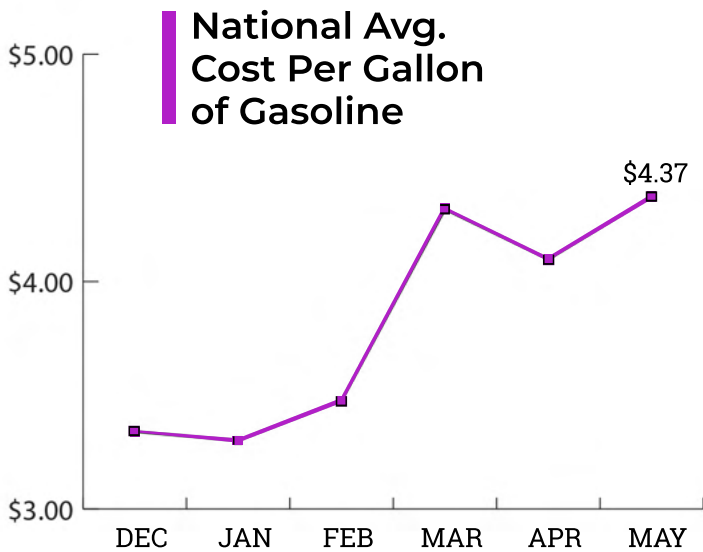
**Gas prices are inherently volatile—and they always will be.** EVs, on the other hand, are not dependent on global oil and gas markets, so their operating costs are not subject to price shocks, disruptions, and supply shortages. Instead, EVs run on electricity, which is cheaper than gasoline and is domestically produced from increasingly renewable and local resources.

**EVs are far cheaper to drive than gas-powered vehicles.** Nationally, gas-powered vehicles are 3-5 times more expensive to drive per mile than EVs. In several states (including Arizona, Nevada, North Carolina, Tennessee, Virginia, and West Virginia), EVs can be driven at just 15-20% of the cost of gas-powered cars per mile. In addition to examining this month's data, this ZETA report also looks back at the past six months, and the data confirms that over time, EVs are markedly cheaper to drive per mile—and experience far greater price stability—than gas-powered vehicles.

**The total cost of EVs is lower than that of gas-powered vehicles.** In many cases, EVs are already comparable in price to similar new gas-powered models. And in addition to their fuel cost savings, EVs require less maintenance than gas-powered vehicles, too. EVs can save drivers between \$1,800 and \$2,600 on operating and maintenance costs per year, according to Consumer Reports.

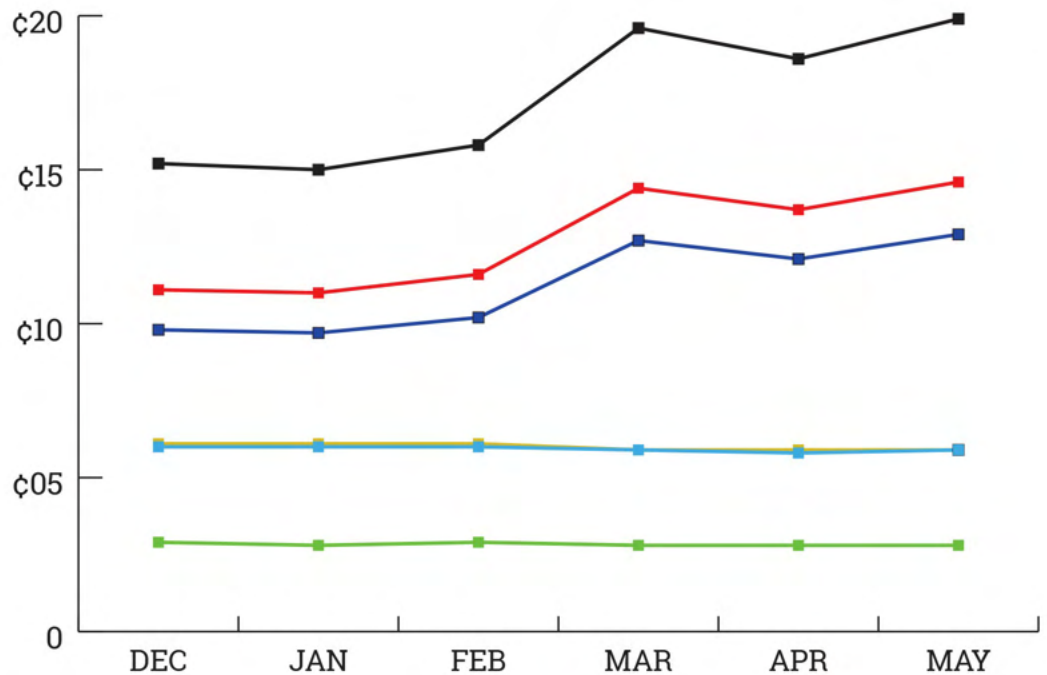
**EVs will cost less to buy if Congress passes clean energy tax incentives.** The proposed EV tax credit expansion in the clean energy tax plan will further reduce EV sticker prices, making it cost less to both buy and drive an EV. Furthermore, EV tax credits will help ensure that Americans can buy American-made EVs (rather than imports produced by our foreign competitors), which will create millions of good-paying American jobs and help the United States win the global clean transportation race. If we don't invest now, the U.S. will concede this race to our foreign competitors, hurting all Americans.

# Comparing The Operating Costs of **Electric** and **Gas-Powered** Vehicles Over The Past Six Months



## Cost Per Mile\* To Drive electric and gas vehicles

\*Gasoline prices are based on that month's data, and residential end-use sector electricity prices are backdated by three months. In both cases, these are the most recent available data. Even with inflationary pressures, the effect of electricity price changes on the operating costs of EVs has been minimal, as demonstrated in the data.



**Gas** ■ Ford F150 ■ Toyota RAV4 ■ Honda Civic  
**Electric** ■ F150 Lightning ■ Rivian R1S ■ Tesla Model 3

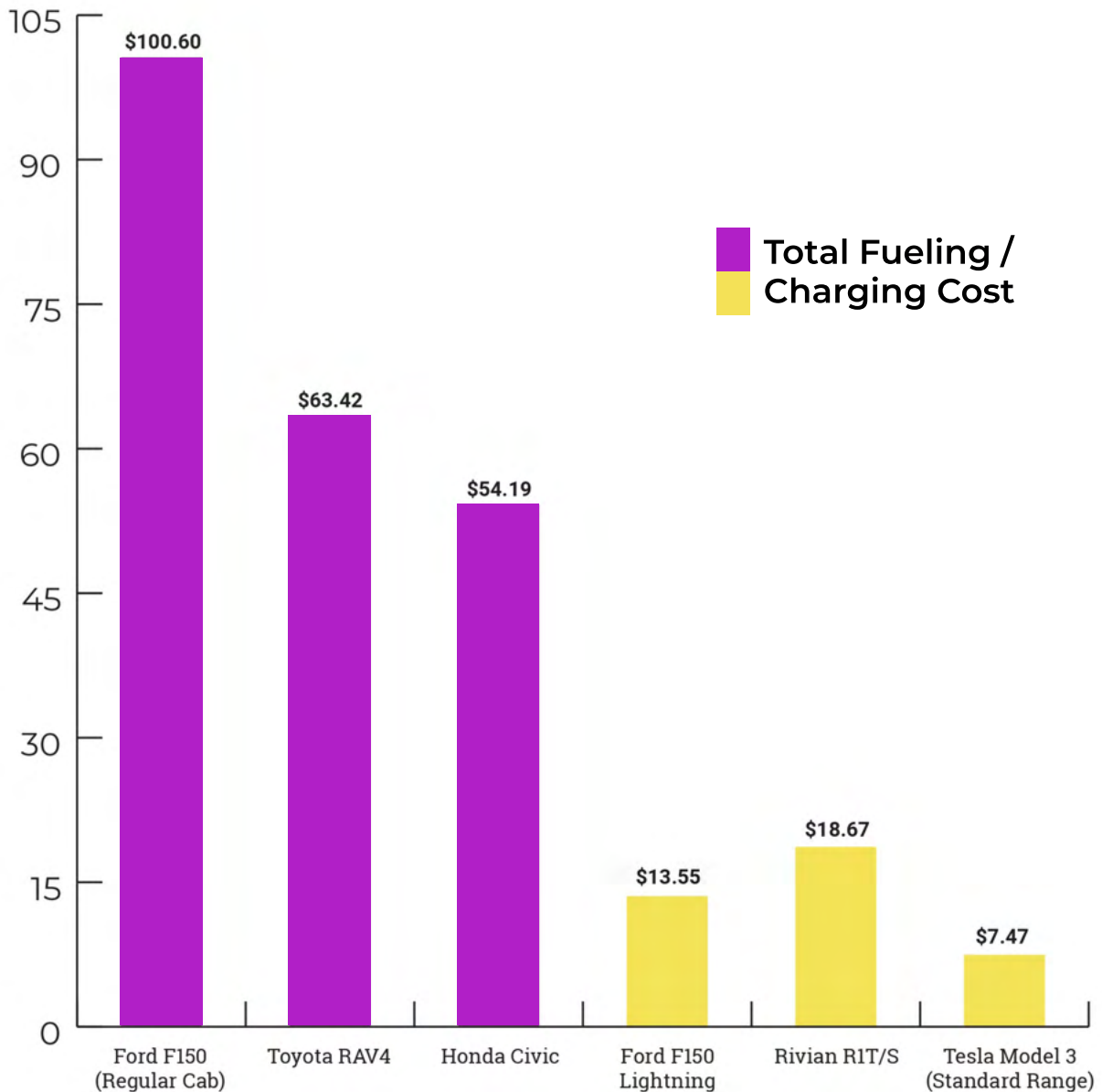
# Comparing the Fueling/Charging costs of Gas-Powered and Electric Vehicles

National Average Gas Price Per Gallon  
(As of May 10)

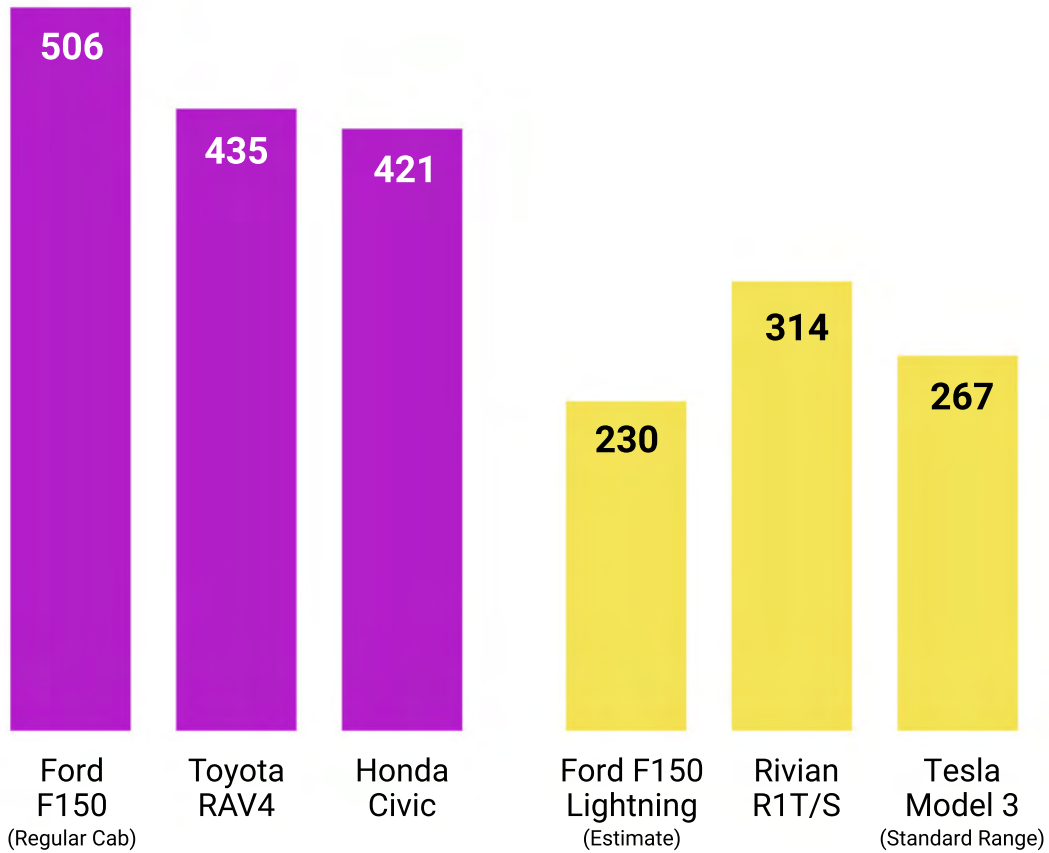
**\$4.37**

National Average Electricity Price Per Kilowatt-hour  
(As of February 2022)

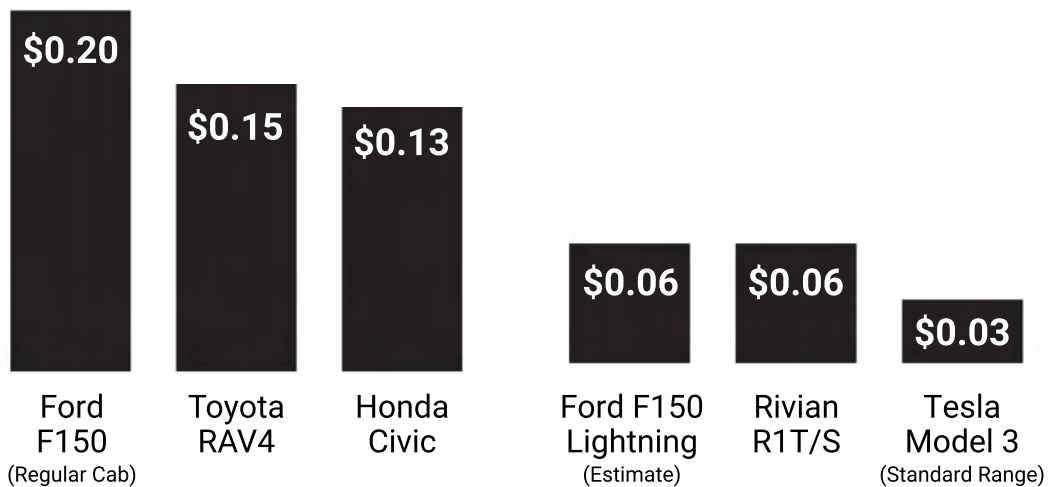
**\$0.14**



## Comparing The Operating Costs of Gas-Powered And Electric Vehicles



### Estimated Mileage



### Total Cost Per Mile

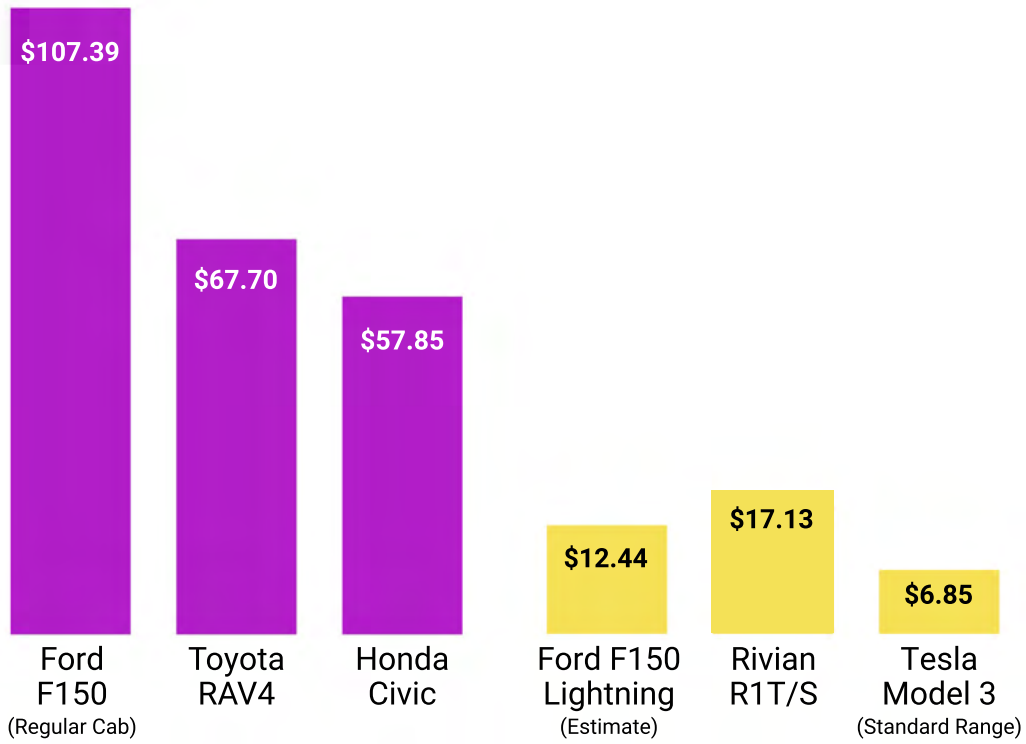
# Arizona

Average Energy price  
for Gallon of Gasoline

**\$4.67**

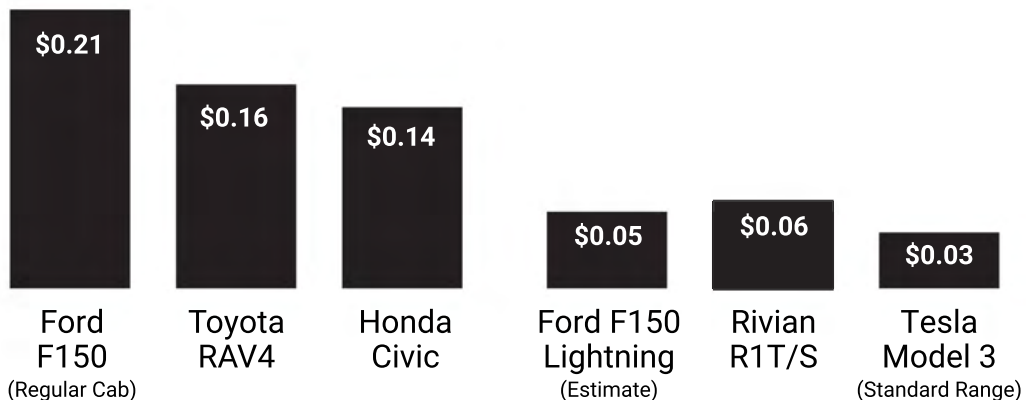
Average Energy price  
for kWh in Electricity

**\$0.13**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

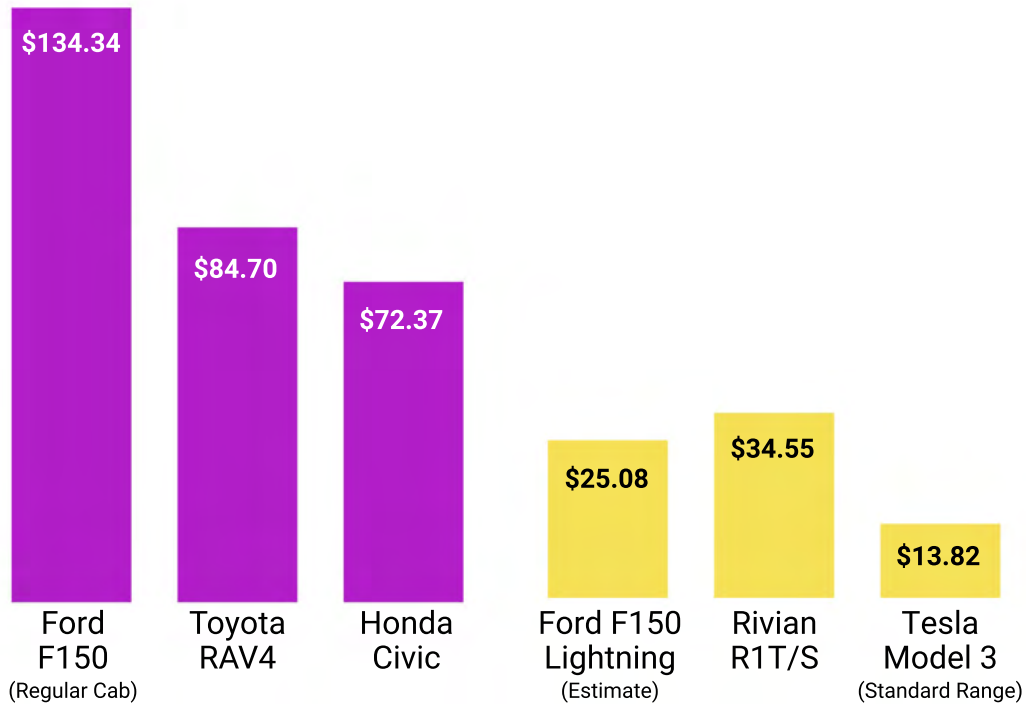
# California

Average Energy price  
for Gallon of Gasoline

**\$5.84**

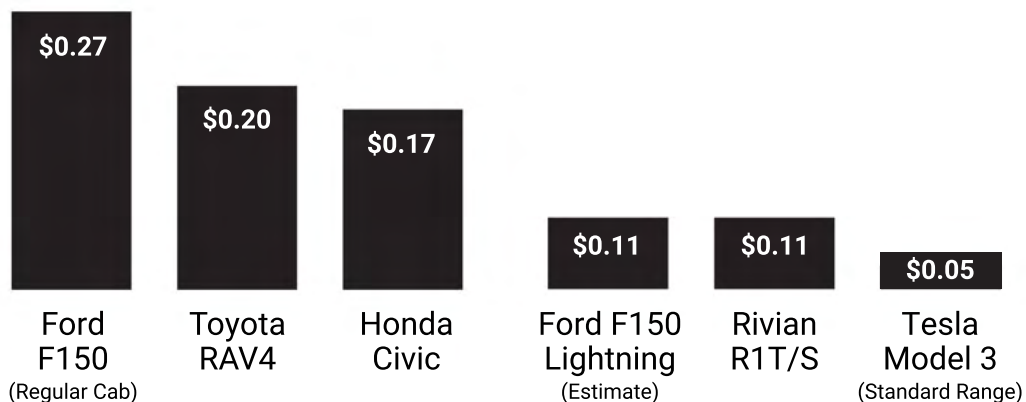
Average Energy price  
for kWh in Electricity

**\$0.26**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**



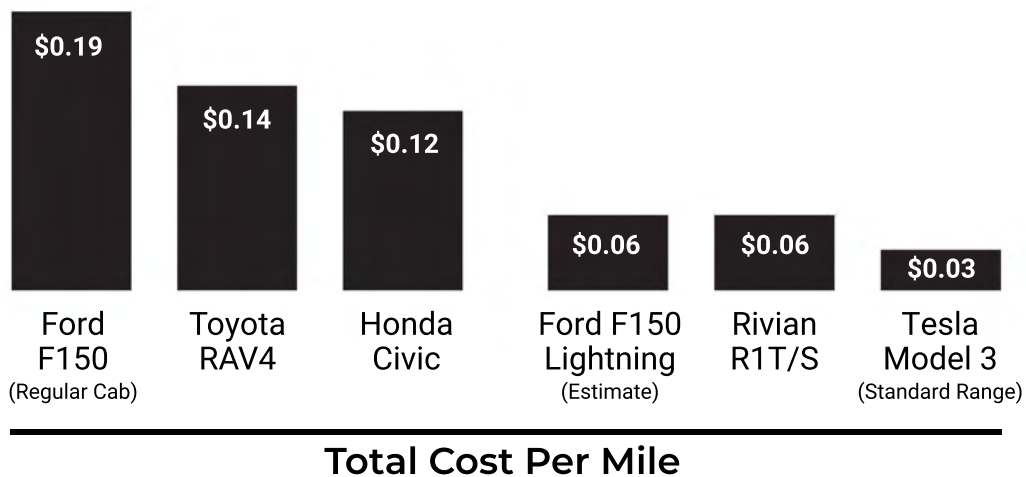
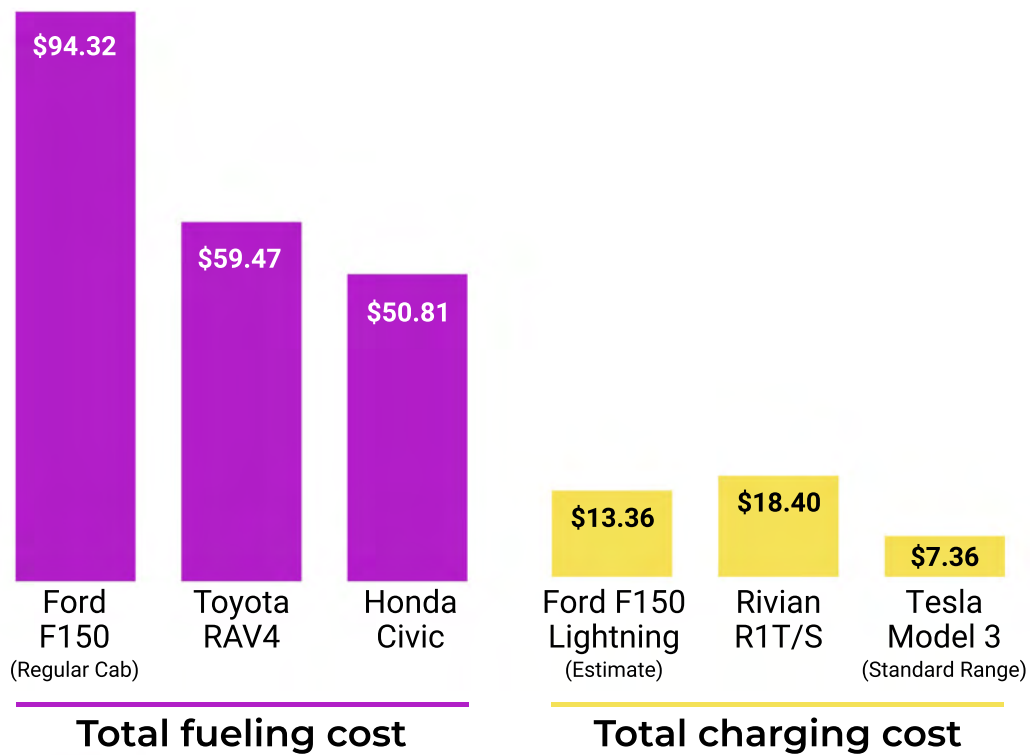
# Colorado

Average Energy price  
for Gallon of Gasoline

**\$4.10**

Average Energy price  
for kWh in Electricity

**\$0.14**



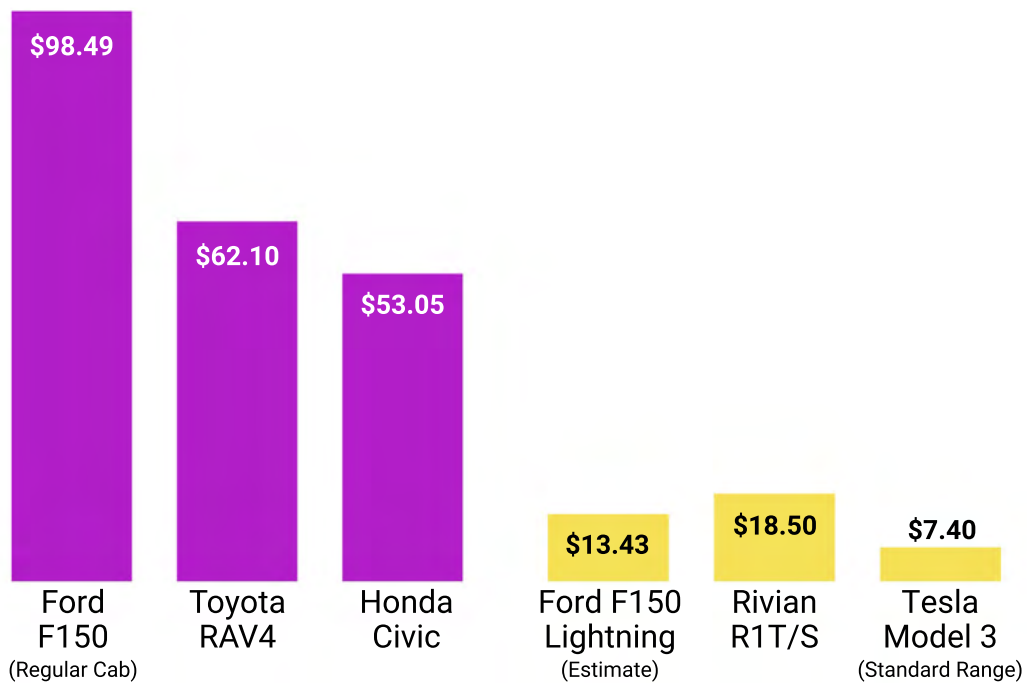
# Florida

Average Energy price  
for Gallon of Gasoline

**\$4.28**

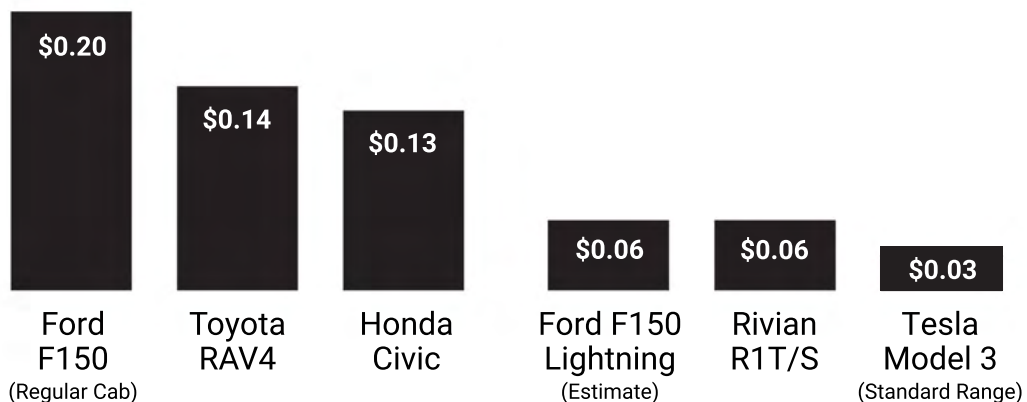
Average Energy price  
for kWh in Electricity

**\$0.14**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

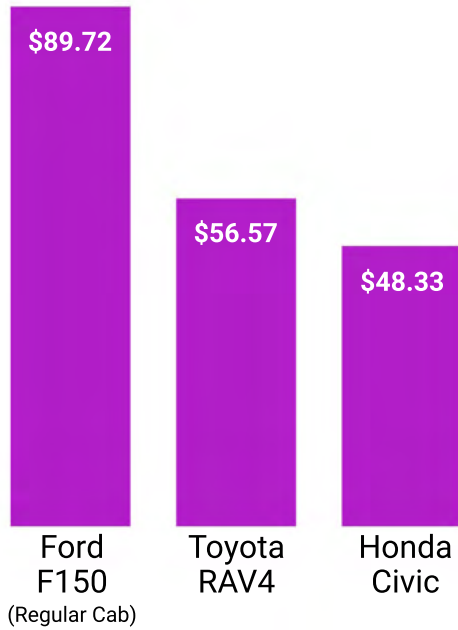
# Georgia

Average Energy price  
for Gallon of Gasoline

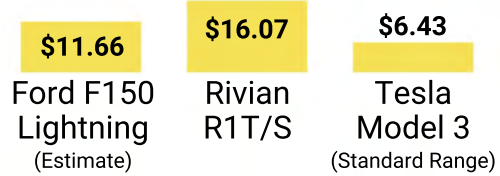
**\$3.90**

Average Energy price  
for kWh in Electricity

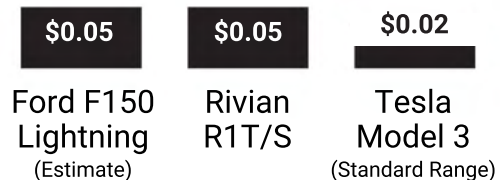
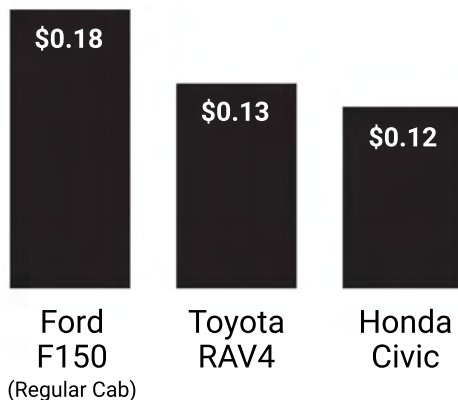
**\$0.12**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

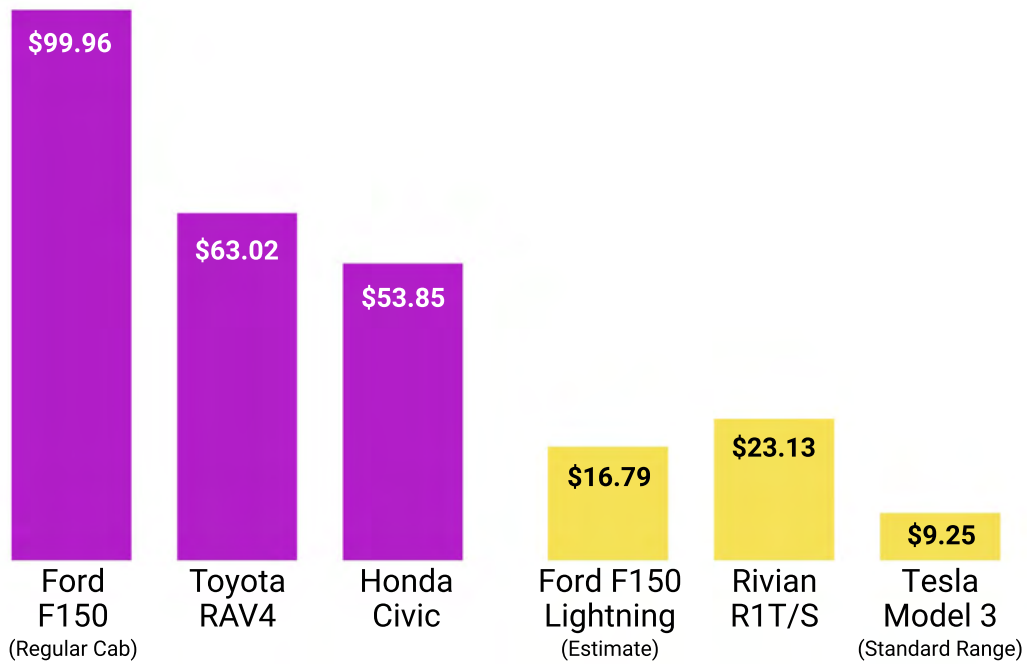
# Michigan

Average Energy price  
for Gallon of Gasoline

**\$4.35**

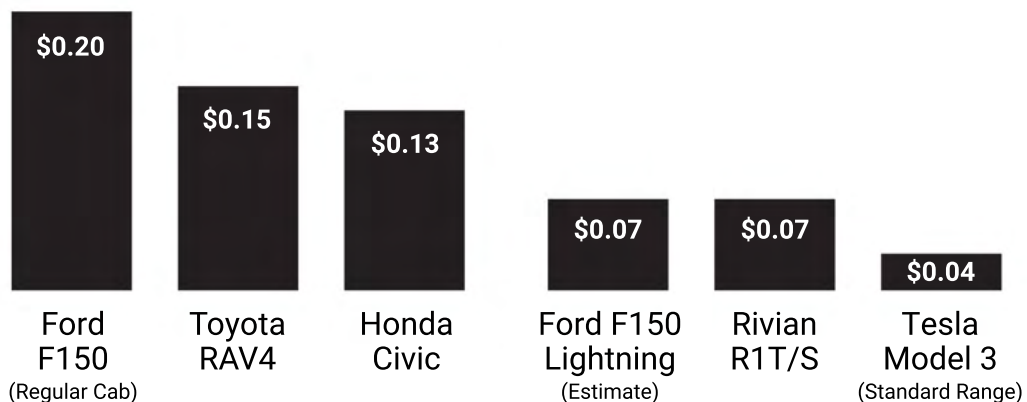
Average Energy price  
for kWh in Electricity

**\$0.17**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

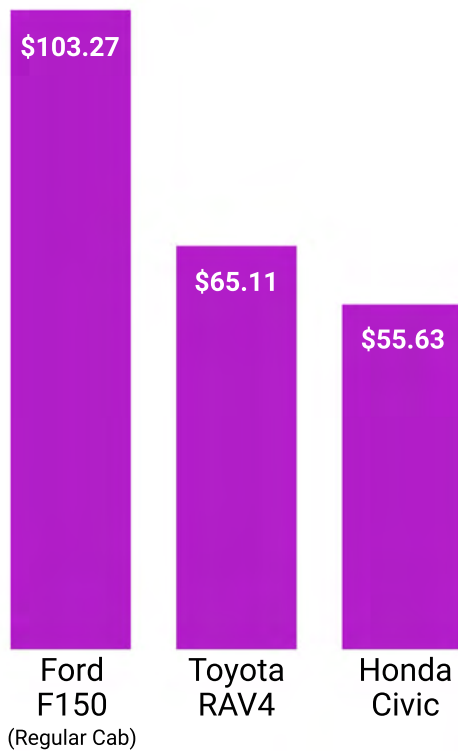
# New Jersey

Average Energy price  
for Gallon of Gasoline

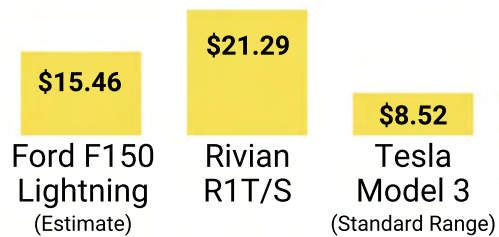
**\$4.49**

Average Energy price  
for kWh in Electricity

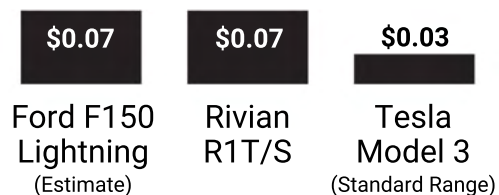
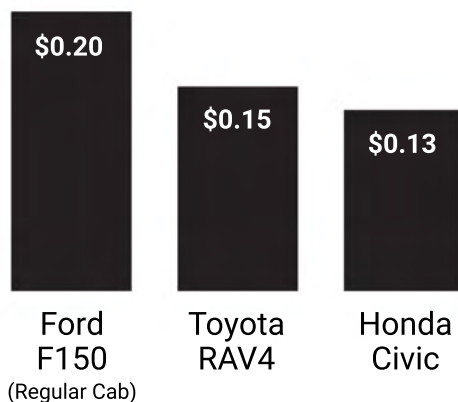
**\$0.16**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

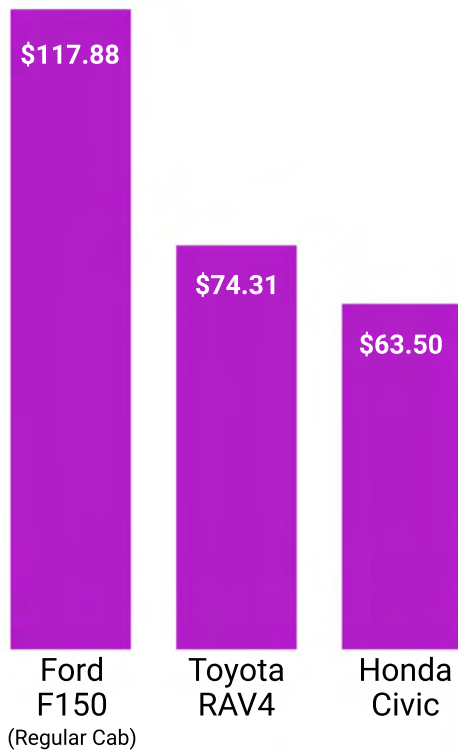
# Nevada

Average Energy price  
for Gallon of Gasoline

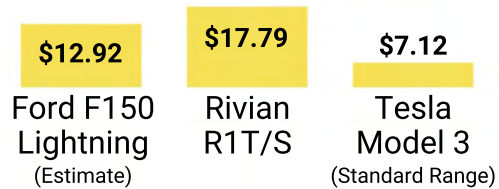
**\$5.13**

Average Energy price  
for kWh in Electricity

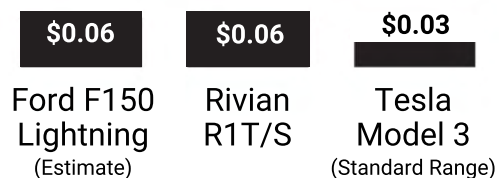
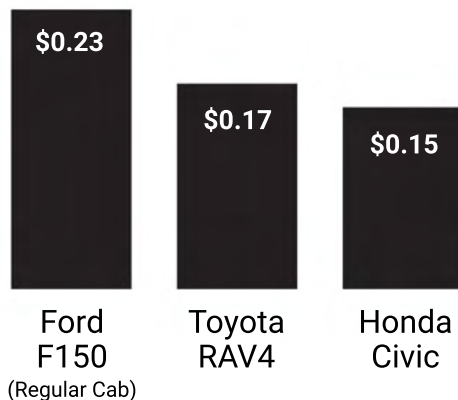
**\$0.13**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

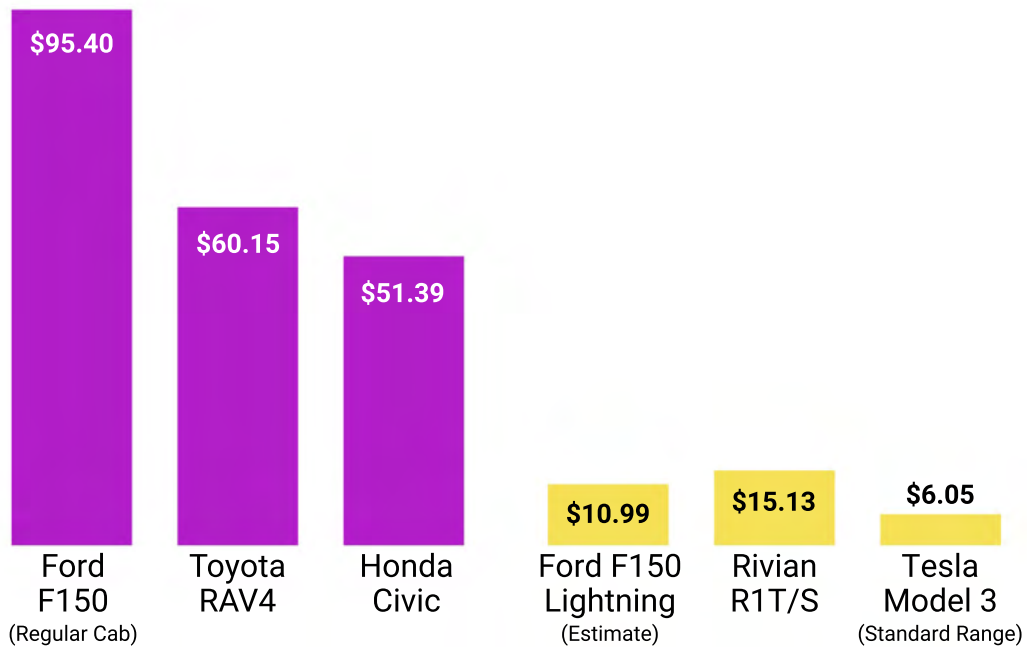
# North Carolina

Average Energy price  
for Gallon of Gasoline

**\$4.15**

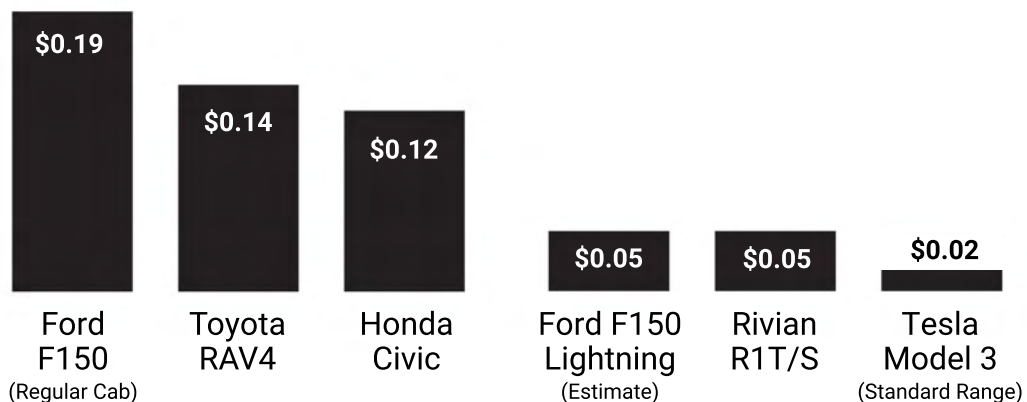
Average Energy price  
for kWh in Electricity

**\$0.11**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

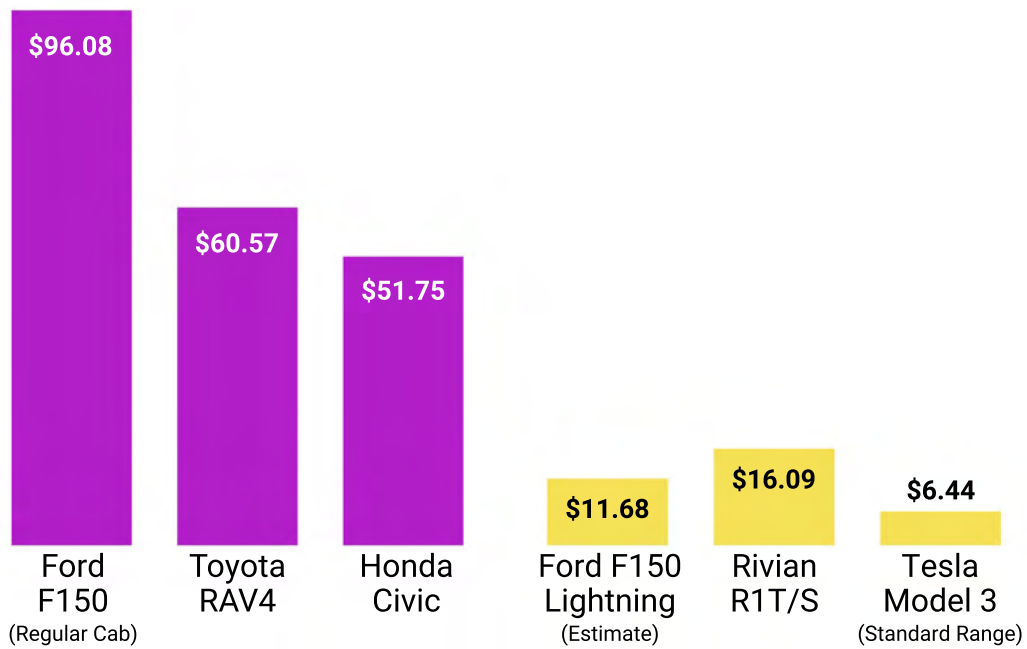
# Ohio

Average Energy price  
for Gallon of Gasoline

**\$4.18**

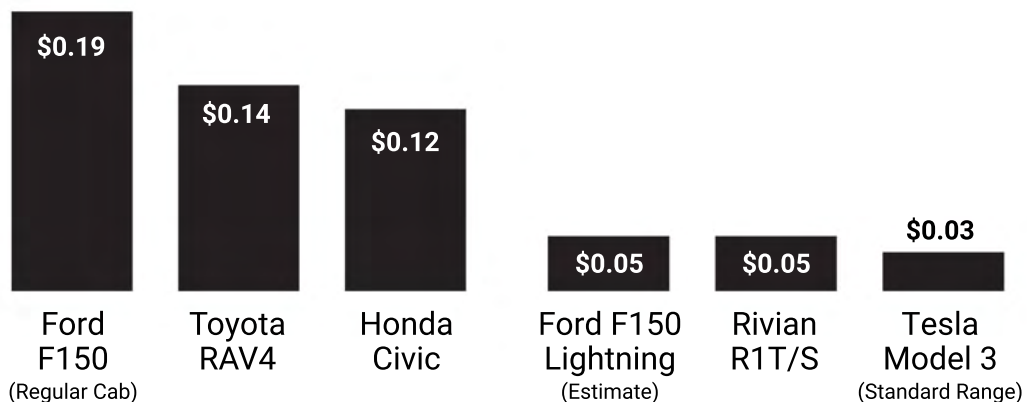
Average Energy price  
for kWh in Electricity

**\$0.13**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**



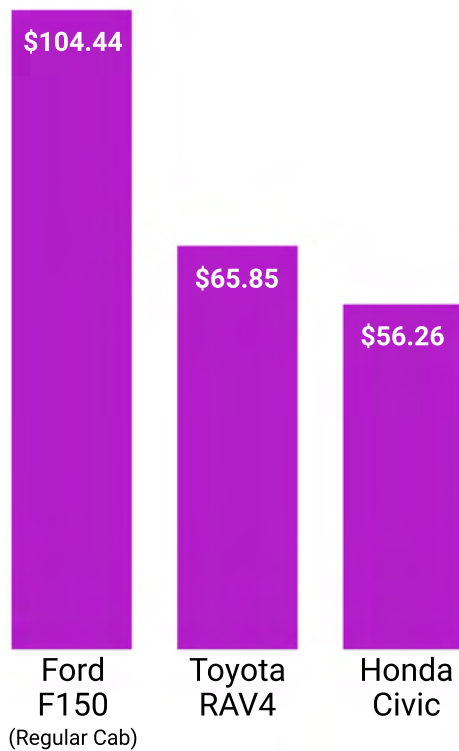
# Pennsylvania

Average Energy price  
for Gallon of Gasoline

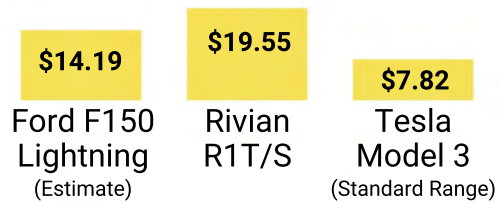
**\$4.54**

Average Energy price  
for kWh in Electricity

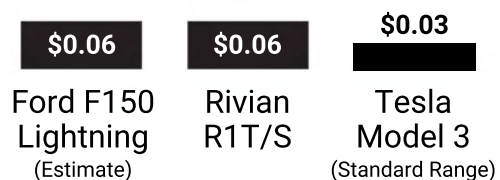
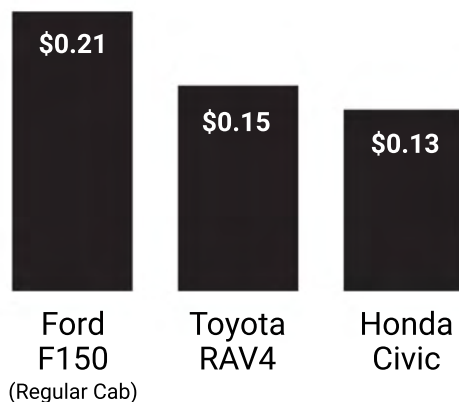
**\$0.15**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

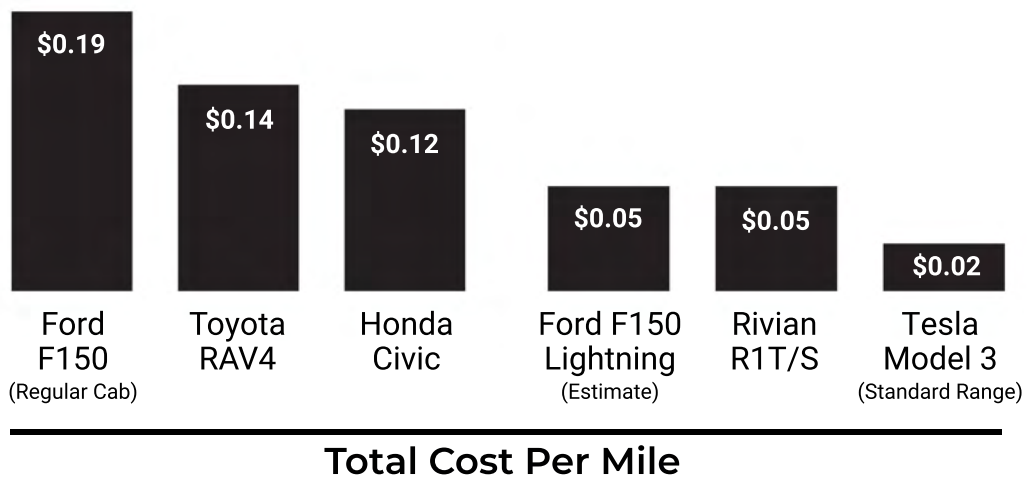
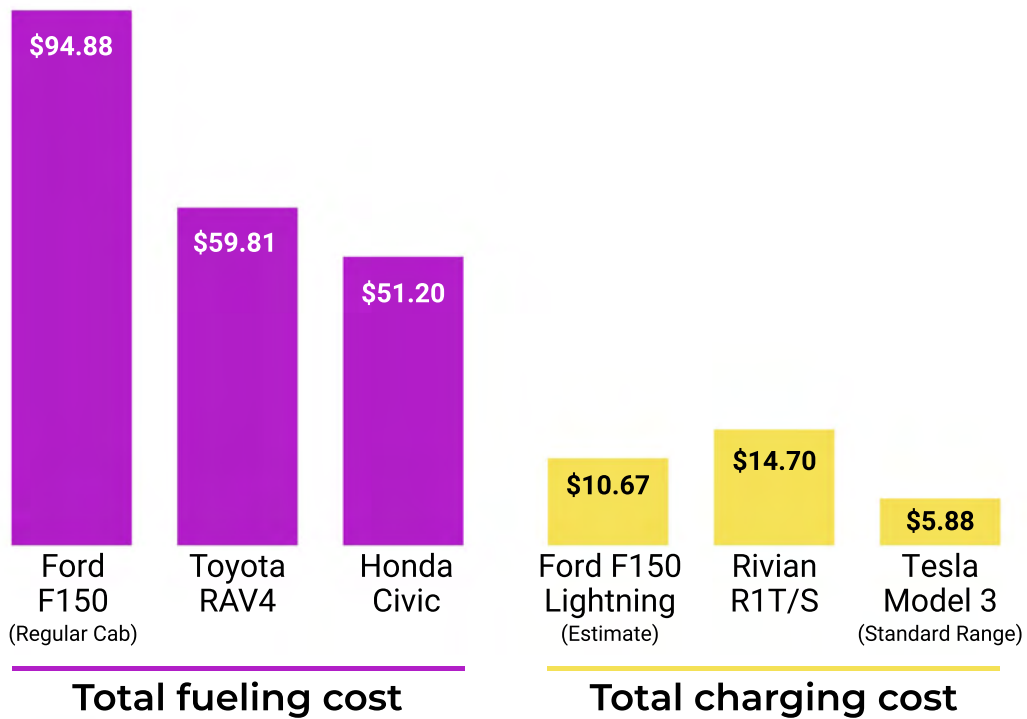
# Tennessee

Average Energy price  
for Gallon of Gasoline

**\$4.13**

Average Energy price  
for kWh in Electricity

**\$0.11**



# Texas

Average Energy price  
for Gallon of Gasoline

**\$4.07**

Average Energy price  
for kWh in Electricity

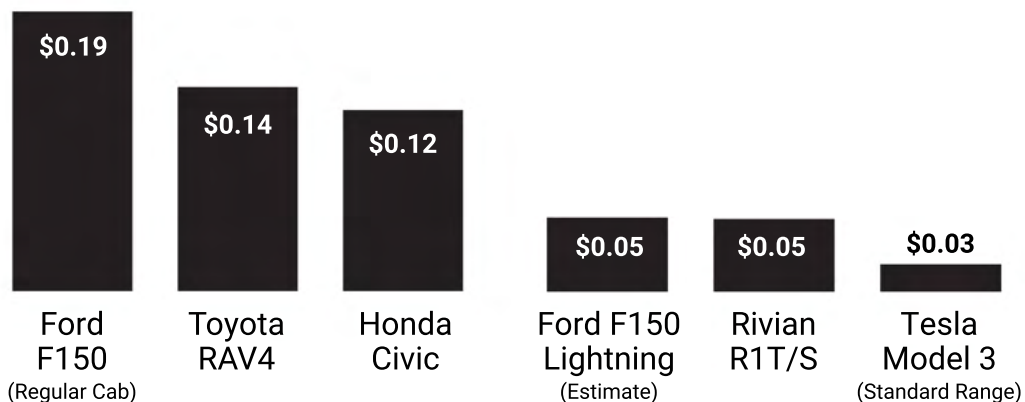
**\$0.12**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

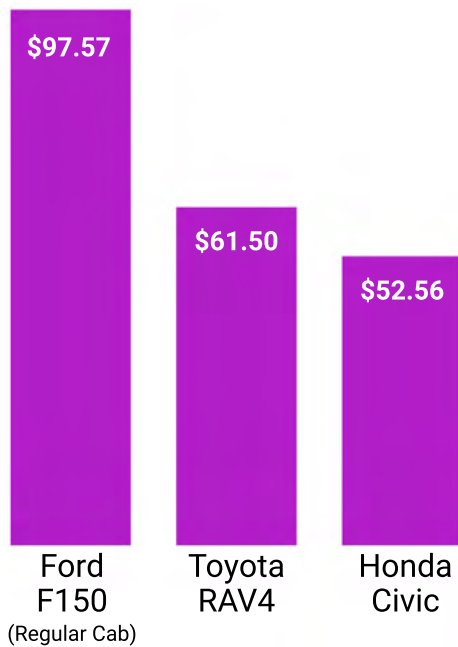
# Virginia

Average Energy price  
for Gallon of Gasoline

**\$4.24**

Average Energy price  
for kWh in Electricity

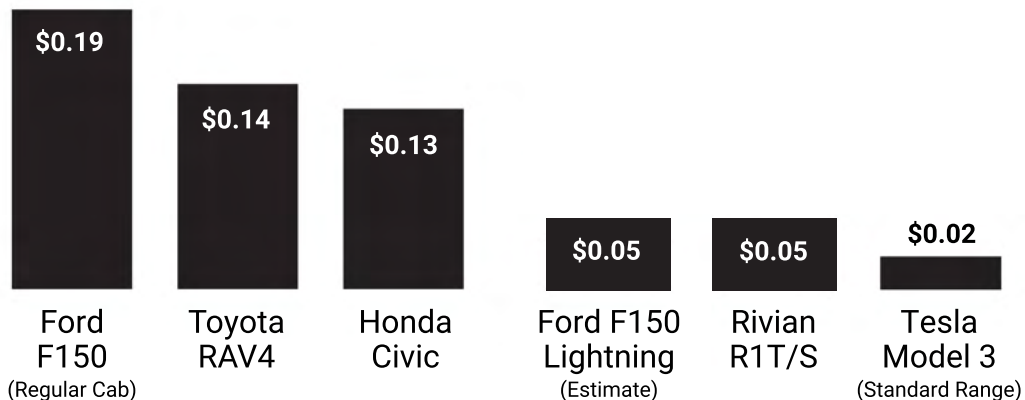
**\$0.12**



**Total fueling cost**



**Total charging cost**



**Total Cost Per Mile**

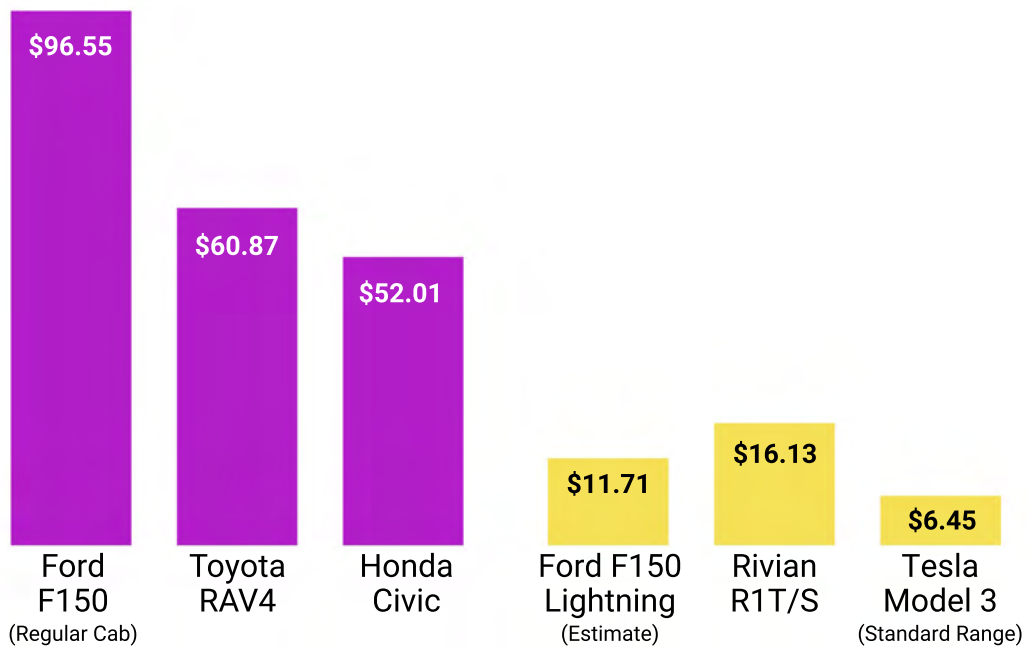
# West Virginia

Average Energy price  
for Gallon of Gasoline

**\$4.20**

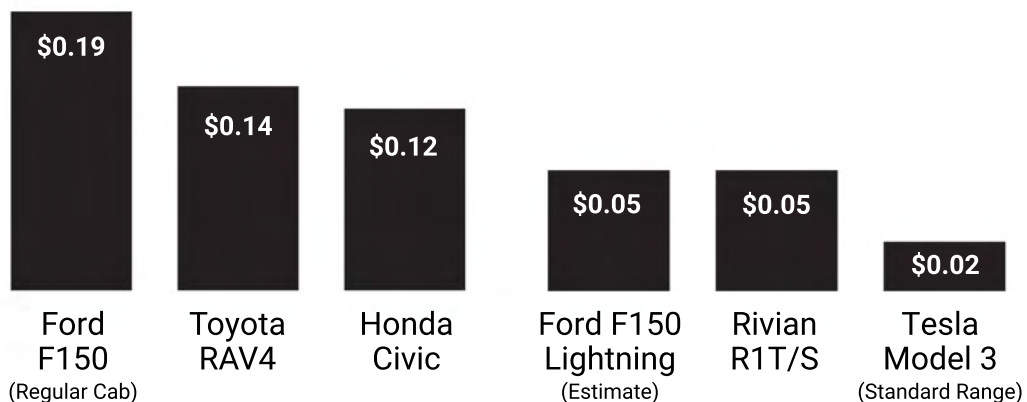
Average Energy price  
for kWh in Electricity

**\$0.12**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

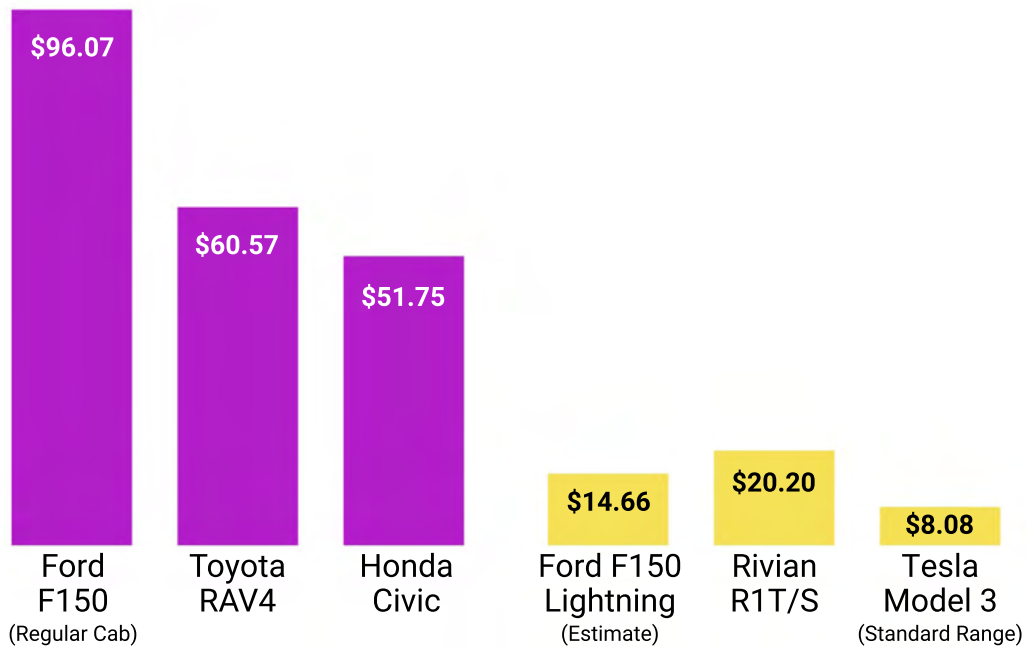
# Wisconsin

Average Energy price  
for Gallon of Gasoline

**\$4.18**

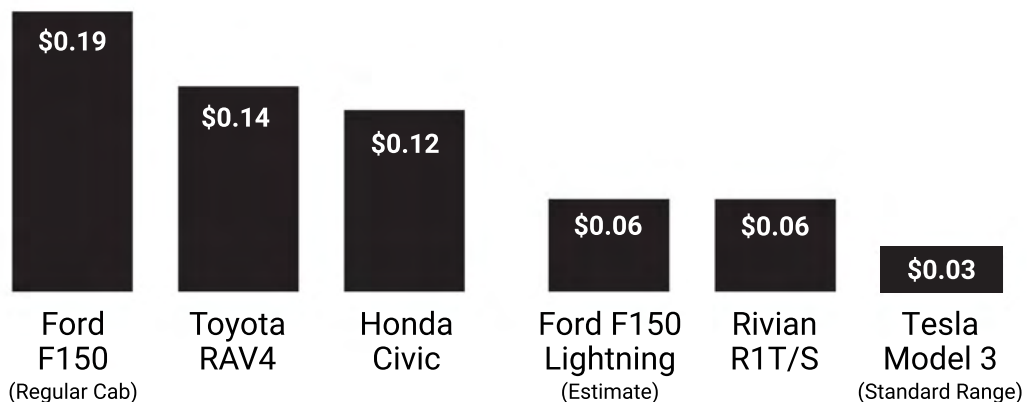
Average Energy price  
for kWh in Electricity

**\$0.15**



**Total fueling cost**

**Total charging cost**



**Total Cost Per Mile**

# Sources

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\*Gasoline prices are based on May 2022 data, and residential end-use sector electricity prices are based on February 2022 data. In both cases, these are the most recent available data. Electricity prices have been relatively static; in many states, the price of residential end-use sector electricity has decreased from previous iterations of this report, which is updated monthly.

**Gas Prices as of May 10, 2022:** <https://gasprices.aaa.com/>

**Electricity Prices in Residential End-Use Sector in Feb 2022 (most recent data available):** <https://www.eia.gov/electricity/monthly/>

**Ford F150:** <https://www.ford.com/trucks/f150/models/f150-xl/>

**Toyota RAV4:** <https://www.toyota.com/rav4/features/mpg/4430>

**Honda Civic:**

<https://hondanews.com/en-US/honda-automobiles/releases/release-abdd33728c044217ba85db3c233b2483-2020-civic-hatchback-specifications-features>

**Ford F150 Lightning:**

[https://www.greencarreports.com/news/1134532\\_ford-confirms-f-150-lightning-ev-battery-pack-details-range-estimates](https://www.greencarreports.com/news/1134532_ford-confirms-f-150-lightning-ev-battery-pack-details-range-estimates)

**Rivian R1T + R1S:**

<https://www.caranddriver.com/news/a37500438/rivian-r1t-r1s-epa-range/>

**Tesla Model 3:** <https://www.evspecifications.com/en/model-driving-range/cc48e0>

## Additional Resources

**Gas Gallons vs. Electricity E-Gallons:** <https://www.energy.gov/maps/egallon>

**Vehicle Fueling Cost Calculator:** <https://afdc.energy.gov/calc/>

## About Z E T A

The **Zero Emission Transportation Association** (ZETA) is a federal coalition focused on advocating for 100% EV sales by 2030. ZETA is committed to enacting policies that drive EV adoption, create hundreds of thousands of jobs, secure American global EV manufacturing leadership, drastically improve public health, and significantly reduce carbon pollution.