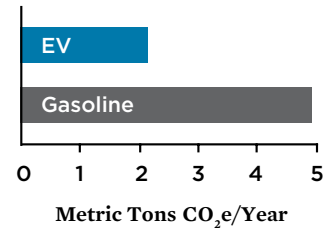


# Electric Vehicle Benefits for Arizona

*Four Facts You Need to Know*

## 1. EVs cut global warming emissions.

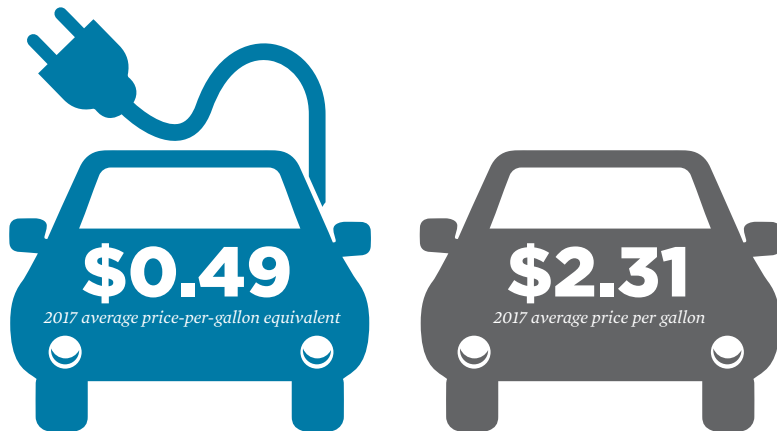
Driving an EV in Arizona produces 2.1 metric tons of emissions per year compared with 4.9 metric tons from the average new gasoline-powered car.



## 2. Rural EV drivers save the most on fuel.

On average, rural Arizona drivers saved \$763 in 2018 by switching from gasoline to electricity.

## 3. City drivers save money too.



Charging an EV at home in Tucson is like paying \$0.49 per gallon of gasoline.

## 4. Interest in EVs is quickly growing.

EV sales grew 138 percent in Arizona from 2017 to 2018, reaching 18,248 sold by the end of 2018.

## Why Electric Vehicles Are Essential to Arizona

### EV DRIVERS SAVE MONEY

Fueling an electric vehicle (EV) at home typically costs significantly less than fueling a gasoline-powered vehicle. In Tucson, fueling an EV is like paying the equivalent of \$0.49 for a gallon of gasoline (Reichmuth 2017). And, because EVs have fewer moving parts and don't need oil changes, EV owners can save an average of \$2,100 in maintenance costs over the life of an EV compared with a similar gasoline car (AAA 2017). In addition, since rural drivers drive more than urban drivers, they will save more from switching to an EV—potentially up to twice as much as their urban counterparts (Gatti 2018).

### EVS IMPROVE PUBLIC HEALTH AND COMBAT CLIMATE CHANGE

When operating on electricity, EVs don't emit harmful tailpipe pollutants known to have negative respiratory and circulatory health impacts (EPA 2017). EVs are also one of the most promising solutions to cut global warming emissions from transportation, which is now the United States' largest source of these emissions (EPA 2018). In 2017, the average EV in Arizona produced 2.12 metric tons of global warming emissions compared with 4.9 metric tons from an average gas-powered vehicle (ANL 2017; EPA 2016). Overall, driving on electricity in Arizona produces the global warming emissions equivalent to a gasoline-powered vehicle that gets 59 miles per gallon (Reichmuth 2018).

The total global warming emissions from EVs—including manufacturing, driving, and disposal—are about half the emissions of a comparable gasoline car over its lifetime (Nealer, Reichmuth, and Anair 2015). As more EVs hit the road, the nation will consume less oil, which could help alleviate pollution-related health problems caused by burning gasoline and diesel fuel.

### AMERICANS LARGELY SUPPORT EVS AND POLICIES THAT HELP PUT MORE EVS ON THE ROAD

More than 50 percent of drivers in the Northeast and California support government policies that would make it easier to own an EV (UCS 2016). While the purchase cost of new EVs is expected to be closer to gasoline vehicles by the mid-2020s (Berckmans 2017), rebates and tax credits that help offset the purchase price of an EV and incentivize automakers to offer more EVs, especially larger models such as SUVs and pickup trucks, can give consumers more ways to save money and reduce emissions.

### POLICY SUPPORT CAN KEEP THE MARKET FOR EVS GROWING

The federal tax credit of up to \$7,500 for a qualifying EV, which has helped hundreds of thousands of car buyers go electric, has expired or is about to expire for some manufacturers. Extending the credit is critical to continue building the EV market. Arizona can encourage EV growth by offering purchase incentives to offset the up-front cost of the vehicles (PIA 2019). Additionally, California's Zero Emission Vehicle (ZEV) program has pushed automakers to offer a variety of EVs in California and the nine other states that have adopted this policy. Expanding the ZEV program to additional states and extending incentives to reduce the up-front cost of an EV would build upon past success, ensuring that everyone who wants to purchase an EV has a fair shot, and maintaining US leadership in automotive technology.

Also, policies that encourage deployment of charging stations in urban areas and apartment or condominium parking facilities would help address the needs of people who cannot have home charging stations and people who have long commutes into the city. Access to reliable and affordable public charging, especially fast charging, will broaden the base of potential EV drivers.



FIND METHODOLOGY AND REFERENCES ONLINE [www.ucsusa.org/state-EV-fact-sheets](http://www.ucsusa.org/state-EV-fact-sheets)

*The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.*

#### NATIONAL HEADQUARTERS

Two Brattle Square  
Cambridge, MA 02138-3780  
Phone: (617) 547-5552  
Fax: (617) 864-9405

#### WASHINGTON, DC, OFFICE

1825 K St. NW, Suite 800  
Washington, DC 20006-1232  
Phone: (202) 223-6133  
Fax: (202) 223-6162

#### WEST COAST OFFICE

500 12th St., Suite 340  
Oakland, CA 94607-4087  
Phone: (510) 843-1872  
Fax: (510) 843-3785

#### MIDWEST OFFICE

One N. LaSalle St., Suite 1904  
Chicago, IL 60602-4064  
Phone: (312) 578-1750  
Fax: (312) 578-1751