

How **green** are EVs across the U.S. and Canada?

EV vs ICE emissions in the United States and Canada

An important part of long-term planning for clients is considering their ICE to EV transition strategy, which should account for where EVs will be deployed. Element Fleet Management can work with our partners to offset emissions, even in states with the most carbon-intensive grids.

- While EVs have zero tailpipe emissions, the primary grid energy source is not green. EVs are a greener option than ICE vehicles but how green depends on where the EVs are being charged.
- The range of greenhouse gas (GHG) reduction is typically between 17.6% to 99.9% of ICE counterparts.
- In more than 70% of states/provinces GHG emissions are reduced by at least half with EVs.



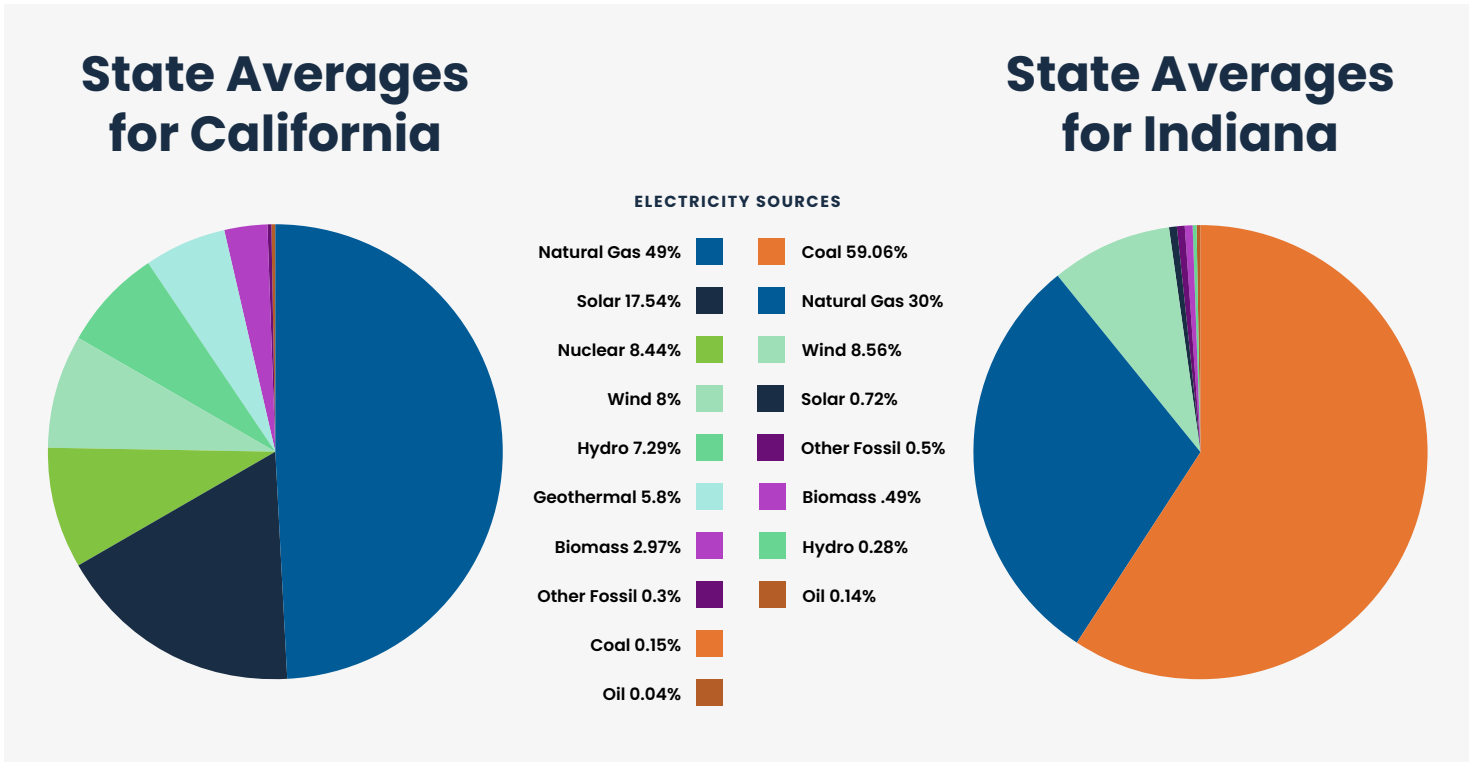
*Note: ICE = Internal Combustion Engine (normal petrol and gas cars), EV = Electric Vehicles (battery electric)

The source of your electricity has an effect on the emissions of your electric vehicle

Driving an EV will reduce scope 1¹ tailpipe emissions to zero, however, the local electricity generation mix determines your scope 2² emissions from charging the EV. It is important to account for specific driving territories, as states/provinces with higher percentages of nuclear and renewable energy generation will have a greater scope 2 GHG reduction than those states/provinces that rely on coal as a primary grid energy source.

State comparisons example

- In California, natural gas is the largest source of electricity powering EVs, which contributes to this state having a higher GHG reduction of 82%.
- In Indiana, coal is the largest source of electricity powering EVs, which contributes to this state having a lower GHG reduction of 33%.



¹ Scope 1 emissions are direct GHG emissions from the vehicle
² Scope 2 emissions are indirect GHG emissions from charging the vehicle