

IOWA ELECTRIC VEHICLE FACT SHEET

Updated: July 2022

ELECTRIC VEHICLES (EVs) AND CHARGING INFRASTRUCTURE IN IOWA

- Through December 31, 2021, there were 4,264 fully electric vehicles, known as Battery Electric Vehicles (BEVs) and 4,106 plug-in hybrid electric vehicles (PHEVs) registered in Iowa. [1] This represented 0.34% of the 2,453,366 registered passenger vehicles in Iowa.
- As of June 10, 2022, Iowa had 209 level 2 and 71 level 3 charging stations. [2]
 - A level 2 charging station provides about 25 miles of range each hour and is most appropriate for overnight use, at workplaces, and locations such as shopping centers and hotels because it can take 4+ hours to fully charge a vehicle battery. [3]
 - A level 3 charging station (also referred to as a DC Fast Charger) refills a battery at a rate of 100 to 200 miles per 30 minutes of charging, intended to provide service similar to a gas station fill-up.
- As part of the 2021 Infrastructure Investment and Jobs Act (IIJA), federal funds were authorized to support the continued development of EV chargers. Iowa is eligible for \$51.4 million over 5 years, including \$7.6 million for federal fiscal year 2022. [4]

BENEFITS OF SWITCHING TO AN EV

- MidAmerican and Alliant customers charging their vehicle at home pay about \$0.03 per mile in the winter and \$0.04 per mile in the summer, compared to the \$0.12 to \$0.21 per mile cost of driving a gas vehicle. [5]
- EV drivers in rural Iowa saved an average of \$770 in 2018 by switching from gasoline to electricity. [6]
- EVs can provide owners with “micro-reliability” as a backup home power source during outages and, when combined through utility programs, can serve as a power source for the electric grid as a whole, complementing clean wind and solar power. [7] [8]
- If Electric Vehicles had been used to travel the 25,319,000,000 Iowa vehicle miles traveled in 2020, the CO₂ emissions would have been 3,416,546 tons compared to 11,275,406 tons of CO₂ using gasoline.
- An electric grid that is 100% carbon-free energy would result in zero CO₂ emissions, and avoid the more potent greenhouse gas emissions of methane (CH₄) and nitrous oxide (N₂O) from the tailpipe of internal combustion engine vehicles. [9] [10]

IOWA POLICY ON EVs IS MIXED

- EV owners pay a \$130.00 supplemental registration fee, and starting July 1, 2023, will pay a tax of \$0.026 per kilowatt hour for non-home charging. [11] [12] These fees are disproportionate compared to fees paid by drivers of fossil fueled vehicles.
 - A driver of a new Ford Escape would pay an annual registration fee of \$294.60 and average annual gas tax of \$137.75 for yearly taxes and fees of \$432.35. [13]
 - A driver of a new Tesla Model 3 would pay an annual registration fee of \$634.40 plus an estimated \$13.00 of charging taxes. This is 50 percent more taxes even though the vehicles have very similar weights and road impacts. [14]
 - Beginning in 2023, all public charging stations will be required to collect a \$0.026 per kWh tax on electricity provided for electric vehicle charging. This is a burdensome requirement for locations providing charging as a free amenity and threatens to reduce the number of available charging stations in Iowa when entities like libraries, assisted living facilities, and others are faced with increased cost and paperwork.
- Administrative rules adopted by the Iowa Utilities Board allow businesses to sell electricity for EV charging by the kilowatt hour without becoming classified as a public utility. Facilities that pair retail EV charging with renewable energy will receive consideration on a case-by-case basis at the IUB. [15]

EV INCENTIVES

- Many Iowa utilities are providing incentives for home EV charging infrastructure and for purchase of an EV including [MidAmerican Energy](#), [Alliant](#), and some rural electric cooperatives and municipal utilities. Check with your utility for specific information.
- A federal tax credit of up to \$7,500 is available for certain new EVs. Check for vehicle eligibility at <https://www.fueleconomy.gov/feg/taxevb.shtml>.

SOURCES

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3. Developing Infrastructure to Charge Electric Vehicles. Alternative Fuels Data Center, U.S. Department of Energy. https://afdc.energy.gov/fuels/electricity_infrastructure.html
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9. [clvmt20.pdf \(iowadot.gov\)](#)
10. [Greenhouse Gas Emissions from a Typical Passenger Vehicle | US EPA](#), IEC calculation.
11. [321.116.pdf \(iowa.gov\)](#)
12. [Iowa Legislature: Chapter 151 \(HF767\)](#).
13. IEC calculation.
14. Id.
15. 199 Iowa Administrative Code, Chapter 20.20. <https://www.legis.iowa.gov/docs/iac/rule/05-05-2021.199.20.20.pdf>