

ELECTRIC VEHICLE READINESS

Convenient access to EV charging is one of the most critical factors in people's decisions to purchase an electric vehicle. Parking garages and parking lots last for decades – and **investing in EV readiness during construction can result in 75% savings compared with retrofitting later.**¹ We can build a resilient, future-ready St. Louis by investing in electric mobility infrastructure now.

Why Now?

- GM committed \$27 billion to EVs through 2025
- More than half of the GM product development team is devoted to EVs
- GM will launch more than 30 EVs by 2025
- Some manufacturers have increased the maximum range to 450 miles on their EV platform
- By 2035, all new cars sold in California will be zero-emissions
- By 2023, EVs could cost the same as gasoline cars thanks to falling battery prices
- Ford F-150, the best-selling vehicle in the country, will be electric by 2022

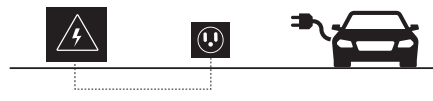


There are 3 Different Levels of EV Readiness:



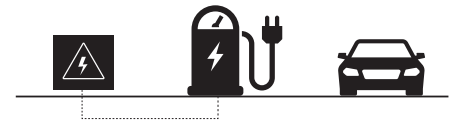
EV Capable

Electrical panel capacity and conduit



EV Ready

Electrical panel capacity, conduit and full circuit



EVSE Installed

EV charger installed

Why Implement an EV Ordinance?

- Vehicles are a major contributor to air pollution in St. Louis, and impact **more vulnerable racial and socioeconomic groups disproportionately.**
- 80% of charging takes places at home.² An EV ordinance is critical to making cleaner vehicles more accessible to all, particularly creating **more affordable at-home charging.**
- By 2030, EVs are projected to reach about 10% of registered vehicles in St. Louis, and could **reach up to 30% of vehicles** if the City is on track to reach its climate goals.
- An EV ordinance adopted this year would provide about **92% of needed residential EV ready spaces**, and 35% of needed installed public and workplace charging ports by 2030.
- **An EV ordinance can create new jobs** – over the next 10 years, an estimated 7-8 full time jobs to install EV charging stations at construction, and an additional 30-40 jobs to convert EV ready spaces to EV charging stations.
- Ameren Missouri's incentive program, Charge Ahead, can help offset costs with up to 50% of project costs or \$5,000 per Level 2 charging plug installed; whichever is the lesser amount. Ameren Missouri must pre-approve project prior to construction.

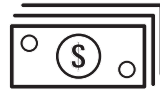
¹ "Electric Vehicle Charging Infrastructure: Cost-effectiveness", SWEPP

² "Charging at Home", U.S. Department of Energy

The Challenge with Gas Vehicles



Vehicles are a major contributor to air pollution in St. Louis, accounting for 91% of carbon monoxide emissions and 76% of nitrogen oxide emissions.³



AAA estimates the average annual costs for owning a gas-fueled car to be over \$8,000.⁴



Air pollution directly impacts human health, and frequently impacts **more vulnerable racial and socioeconomic grounds disproportionately.**⁵

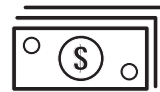
The Opportunity with Electric Vehicles



Electric vehicles in Missouri currently emit 33%⁶ less greenhouse gases than gasoline vehicles and **emit no harmful tailpipe air pollutants.**



More affordable used EVs are becoming available and analysts predict new electric cars will cost the same or less than gasoline vehicles by around 2025.⁷



EVs are less expensive to operate and maintain, **saving the average driver in St. Louis about \$6,800** in fuel costs along over the vehicle's lifetime.



As more solar and wind power replace energy with other fuels, EVs will become even cleaner. Ameren has pledged to be **net-zero carbon emissions by 2050.**

Regional Examples of EVs Ordinances

Municipality	State	Year	Code	One or Two-Family Dwellings	Multi-Family Unit Dwellings	Commercial
St. Louis	MO	2021	IBC	EV Ready	EV Ready 5% space & EVSE Installed 2% (50+spots)	
Richmond Heights	MO	2021	IEC	EV Ready	EV Ready Outlet: 20% of parking (11+ spaces)	
City of Boulder	CO	2017	IBC / IRC	EVSE-Ready Outlet	EVSE-Ready Outlet: 10% of parking (25+ spaces)	
Atlanta	GA	2017	Ordinance	EV-Capable	EV Ready: 20% of parking	
New York City	NY	2013	IBC / IRC			EV-Capable: 20% of parking
Los Angeles	CA	2014	IBC	EV-Capable or EVSE-Ready Outlet	EV-Capable: 5% of parking	

³ 2017 National Emissions Inventory (NEI) Data, EPA

⁴ "Cost to Own a Vehicle", AAA

⁵ Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure, PNAS

⁶ "Emissions from Hybrid and Plug-In Electric Vehicles", AFDC.energy.gov

⁷ Update on electric vehicle costs in the United States through 2030, ICCT