Drive Electric
MINNESOTA

Electric Vehicle-Ready Parking 101 for Minnesota Policy Makers

Electric vehicle-ready building codes and ordinances help expand charging infrastructure

Minimum electric vehicle-ready requirements in building codes and ordinances increase electric vehicle (EV) adoption and access by ensuring that buildings have EV charging infrastructure that meets community needs. EV-ready building codes and ordinances also reduce the need for costly retrofits, as they tend to focus on future-proofing buildings and preparing for expected trends in the transportation sector.

What does it mean to be EV ready?

According to the Minnesota Statutes, three designations are used to identify the varying levels of EV charging infrastructure installed at a given site: EV capable, EV ready, and EVSE installed.

- Parking spaces that are EV-capable have installed electric panel capacity and a raceway or path for wires from the electric panel to a future EV parking spot.
- EV-ready spaces take another step, installing a dedicated branch circuit and a 240-volt (V) outlet or hardwired connection point.
- EVSE-installed spaces take the final step of installing a physical EV charger to connect to the 240V outlet or hardwired connection.

Examples of cost savings from new construction vs. retrofits

Numerous studies have explored the cost difference between new construction and retrofits regarding EV infrastructure.

In Florida, the City of Orlando highlighted a local EV-ready building cost example before the passage of the city's EV-ready ordinance in 2021. The city found that for a 116-unit affordable multi-family dwelling project, providing 20 percent of parking spots as EV charger-capable and 2 percent as EV charger-installed added just 0.0009 percent to the total construction costs.[1]

The city estimated that efforts to include EV infrastructure in new construction could save 75 percent in construction costs compared to retrofitting.

[1] City of Orlando, "EV Ready Code" (presentation, March 17, 2021), 26.

Studies showing the cost difference between new construction and retrofits for electric vehicle charger installations

Study	Author	New construction cost per charger	Retrofit cost per charger
EV Ready Code	City of Orlando	$916	$3,460
Electric Vehicle Supply Equipment Installed Cost Analysis	Electric Power Research Institute	$2,619	$4,160
Electric Vehicle Infrastructure Cost Analysis Report for Peninsula Clean Energy & Silicon Valley Energy	Energy Solutions	$1,410	$4,443

Role of the State of Minnesota in becoming EV ready

The Minnesota Department of Labor and Industry's Construction Codes and Licensing Division administers the building code in partnership with local governments. While the department regularly updates the code, the legislature can also amend it by creating new regulations or changing how the existing codes apply within Minnesota.[2]

In 2023, a law was enacted mandating the Minnesota Department of Labor and Industry (DLI) to establish EV-ready standards for new commercial buildings and multifamily buildings with four or more units.[3] While the DLI will implement this legislation through an administrative rulemaking process beginning in 2025, the Construction Codes Advisory Council at DLI also approved a code change proposal, effectively expanding the requirements to all residential buildings. The proposal establishes rules for new single- and two-family homes and townhouses to provide an "EV-ready" or "EV-capable" space.[4]

In addition to these measures, states can enact right-to-charge laws, which ensure that residents of multi-unit dwellings have the legal right to install EV charging stations. These laws can help overcome barriers to EV adoption in areas with multi-family dwellings. [5]

Furthermore, states can encourage utilities to invest in EV charging infrastructure at multi-unit dwellings, providing incentives and support for the installation of charging stations. This dual approach not only promotes equitable access to EV charging but also supports the broader transition to electric vehicles.

Benefits of expanding access to electric vehicle charging

Incorporating EV infrastructure benefits many different users such as residents, employees, and tourists. Many EV drivers can easily charge at home on a Level 1 or Level 2 charger. For those without access to home charging, including many multi-unit dwelling residents, deploying EV-ready solutions for multi-unit dwelling residents and other people without access to at-home charging will speed up EV adoption by removing barriers.[6]

In the meantime, adding chargers at workplaces and public spaces will enable residents without access to at-home charging to pursue EV adoption. Further, publicly accessible EV charging at city centers, shopping plazas, and parking ramps can provide tourists and residents with convenient vehicle charging locations in these high-traffic areas. This can elevate cities and towns to EV road trip destinations.

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[2] Anna Scholin, *State Building Code - 83rd Minnesota Legislature* (Minnesota House Research, October 2022).

[3] Minnesota Legislature, "SF 3035, 93rd Legislature (2023)," Accessed October 28, 2024.

[4] Carolyn Berninger "Legislative Session Recap: Minnesota Makes Additional EV Investments in 2024," Drive Electric Minnesota, August 13, 2024.

[5] "Right-to-Charge Policies," Plug In America, February 26, 2024, https://pluginamerica.org/policy/right-to-charge-policies/

[6] U.S. Department of Energy, "Charging at Home."