

EXECUTIVE SUMMARY

Regulatory Best Practices

As the electric vehicle (EV) market continues to grow in the U.S., so does infrastructure. According to the U.S. Department of Energy, there are (as of December 2021) 45,846 total charging station locations with 112,048 ports (90,813 level 2 (L2) and 21,235 direct current fast charging (DCFC)).¹ EV drivers currently do about 80% of their vehicle charging at home, but this is expected to change as the market continues to grow.² There is growing interest in the potential to develop public EV-charging stations (EVCS) at workplaces, fuel stations, retailers, and other sites. Utilities, states, and localities are providing funding for infrastructure expansion at these kinds of sites, and \$7.5 billion in federal funding is planned specifically to help achieve the Biden administration's 500,000 nationwide charger goal under the Infrastructure Investment and Jobs Act (IIJA).³

As shown in the *EV Market Regulatory Report* produced by the Fuels Institute in March 2021, a patchwork of requirements has been developed across the country among states, their public utility commissions, localities (county and cities), and now the federal government with IIJA funding. Several states, such as California, have been on the forefront of developing and implementing policies to encourage the uptake of the EV market and the spread of public EV charging.⁴ Many localities around the country are beginning to follow.

However, the research for that report also revealed that most states and localities that were surveyed had little to no policies at all respecting public EV charging. This is expected to change quickly in the next several years as states and localities recognize the need to prepare for the rise in electrification and receive funding from different sources. One of those sources has been the Volkswagen Dieselgate settlement to the states, which many states are using to expand infrastructure.⁵ Many state and local officials for the first time will have to consider developing and implementing policies to expand infrastructure.

1 "Electric Vehicle Charging Station Locations," Alternative Fuels Data Center, U.S. Department of Energy, accessed Dec. 9, 2021, https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC&ev_levels=dc_fast&ev_levels=3.

2 "Charging at Home," Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, accessed May 4, 2021, https://afdc.energy.gov/fuels/electricity_charging_home.html.

3 Infrastructure Investment and Jobs Act, H.R. 3684 (became Public Law No: 117-58 on November 15, 2021), available at <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

4 Fuels Institute, *EV Market Regulatory Report*, March 2021, <https://www.fuelsinstitute.org/Research/Reports/EV-Market-Regulatory-Report>.

5 Infrastructure Investment and Jobs Act, H.R. 3684.

This guide has been prepared to help these officials and other readers understand in brief form the policy landscape in the U.S. at both the state and local levels, noting the types of policies that have been set and providing several examples of how different authorities having jurisdiction (AHJ) have implemented them. Policy topics addressed in this guide include the following:

- **states**
 - defining *public utility* and allowing kWh charging
 - installation-related policies
 - operation-related policies
 - EV-charging incentive programs
 - utility-related policies
- **localities**
 - expedited permitting requirements
 - parking requirements
 - EV-ready building code requirements
 - signage requirements
 - technical requirements

The guide concludes with best practice recommendations from regulated entities themselves, that is, stakeholders that have accumulated years of experience installing and operating EV-charging infrastructure around the U.S. Stakeholders from the EV-charging industry, fuel retailing, utility, and metropolitan planning organizations (MPOs) shared their expertise and actionable and practical recommendations as AHJs begin to develop and implement EV-charging policies. These recommendations include the following:

- Do not wait for federal funding to begin planning for the future expansion of charging, even if EV uptake in an AHJ is limited right now.
- Localities, particularly within a metropolitan area, but ideally at the state (and even federal) level, should consider harmonizing policies, particularly respecting permitting and other aspects affecting the installation and operation of charging infrastructure.



- Localities and states should take the lead in coordinating among themselves and with stakeholders now to begin discussing, developing, and implementing charging policies. Utilities should be engaged as an important stakeholder and partner as part of this effort.
- Localities may need to review their comprehensive plan, zoning, and land-use code to eliminate unintended barriers to charging.
- State public utility commissions (PUCs) should address issues surrounding cost recovery, time of use (TOU), and demand charges.
- States, following California and New Jersey’s lead, should consider implementing expedited and streamlined permitting policies. In the absence of a state action, localities should consider developing and implementing such a policy to help facilitate the installation of EVCS. Similarly, localities can adopt EV-ready/EV-capable building codes to help facilitate the expansion of charging and better enforce parking regulations that impact consumers’ ability to charge.
- Policies should take into account the issue of equity, and localities should remember rural areas. Localities may want to review resource materials from the Justice40 Initiative, led by the U.S. Department of Transportation.⁶
- States and/or localities can consider developing a reliability standard to ensure that EVCS downtime is kept to a minimum.
- Incentives to help site hosts new to public EV charging reduce risk is key.



These recommendations are discussed in greater depth and with additional insight in the [final section](#) of this guide.

This report was written before the National Electric Vehicle Infrastructure (NEVI) formula program requirements were released in February 2022. However, a number of topics addressed in NEVI are directly addressed in this report, such as EVCS installation and operation. This report is meant as a complement to these federal efforts and provides, in addition, real-world experience and guidance from government and industry with years of experience in the charging space.

⁶ “Justice40 Initiative,” U.S. Department of Transportation, last updated November 18, 2021, <https://www.transportation.gov/equity-Justice40>. See also Argonne National Laboratory, “Electric Vehicle Charging Equity Considerations,” at <https://www.anl.gov/es/electric-vehicle-charging-equity-considerations>.