

Model EV Zoning Regulations

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Western Connecticut



CLEAN TRANSPORTATION
COALITION *Western Connecticut*

How EV Zoning Regulations Can Improve the Charging Station User Experience



Clean Cities and
Communities



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A U.S. Department of Energy Partnership To
Advance Clean Transportation Nationwide

Why Do EV Zoning Regulations Matter?



**Foster Diversity,
Equity and
Inclusion**



**Helps to make
EV adoption
inevitable**



**Regional
Consistency**



**Reduces range
anxiety and
creates safety**



**Economic and
Community
Development**



Benefits of EV Zoning Regulations

"EV zoning regulations allow local zoning commissions to set standards that create safety for the charging station users, supports equity, encourages EVSE implementation which can bolster economic and community development, sets standards for signage, and are a powerful tool for municipalities seeking to stay current with the changing demands of transportation."

EV Zoning Projects



Zoning Board of Appeals - 10 Years



Municipal EV Readiness Studies and Toolkits



EV Zoning Regulations Blueprint - NREL Grant



EV Zoning Regulations Pilot - NREL Grant



Model EV Zoning Regulations - NREL Grant

Coast-to-Coast EV Road Trip

2022

15 States

2023

21 States

2024

16 States



Safety

Would you want your best friend to charge their car in this location?

- Lighting
- Cameras
- Proximity to Services

Coast to Coast EV Road Trip



Coast to Coast EV Road Trip



Coast to Coast EV Road Trip





Model EV Zoning Regulations



Permitted Land Use

Ensures all EV charging equipment is being built on authorized land with any necessary permits.



Minimum Number of Parking Spaces

Requires a certain number of a property's total parking spaces to be designated EV charging spaces.



Safety and Maintenance

Considers security measures, environmental factors, surrounding buildings, and emergency contact information provided to the user.



Parking Use Standards and Protections

Outlines how EV charging spaces are allowed to be used and which vehicles can occupy these spaces.



Signage

Promotes proper usage of charging equipment and directs EV drivers to charging stations.



Make-Ready Standards/New Construction

Incentivizes adoption of EVs by ensuring that new properties are equipped with the wiring and space necessary for future installation of EV charging infrastructure.



Supply Equipment Standards

Ensures that all EV charging equipment meets minimum safety and operational requirements.



Parking Space Design, Location, and Performance Standards

Considers safety, accessibility, and parking layout as factors of the charging experience.



User Experience

Aims to create a positive charging experience for the user, considering app accessibility, accepted payment methods, amenities offered, and overall ease of charging.

Model Language: EV Zoning Regs by Zone/Use

What works where?



Service Plazas



Strip Malls/Big Box



Rural/Isolated



**Historic
Neighborhoods**



**Urban/Commercial
Street Parking**

SITE ASSESSMENT



CLEAN TRANSPORTATION
COALITION Member Companies

Permitted Land Use	Does the municipality have EV zoning regulations that outline permitted land use?
Parking Use Standards and Protections	Are all EV charging spaces clearly designated for the exclusive purpose of EV charging?
Supply Equipment Standards	Are all charging cords retractable or hung safely above the pedestrian surface? Does the equipment pose any trip or collision hazards?
Minimum Number of Parking Spaces	What percentage of total parking spaces in the lot are equipped with EV charging equipment?
Signage	Does the EV charging station have clear and legible directional signage, instructions, safety information, time limits, and/or fees posted?
Parking Space Design, Location, and Performance Standards	Is the charging station located in a desirable and convenient parking location? Is the charging station easily accessible? Does the station have security cameras, sufficient lighting, and knowledgeable attendants on-site?
Safety and Maintenance	Is the charging station located in a secure, visible, and well-populated area? Are there any safety or environmental risks associated with using the charger?
Make-Ready Standards	Is there space and availability for further installation of EV charging equipment?
User Experience	What amenities are offered to the user? What payment methods are accepted? Is the user able to easily access stable internet and operate the charging software?

Site Assessment **Town Pump Travel Center**



1210 S Haynes Ave, Miles City, MT
59301, USA

SITE ASSESSMENT KEY TAKEAWAYS

21 Site Assessments Performed
Throughout the Country

HIGHLIGHTS/EXEMPLARS:

- **Detroit Bagley Mobility Hub:** dedicated lounge/waiting facility with Wi-Fi, restrooms, vending machines, air-conditioned lounge (capacity ~40)
- **Oak Park Avenue Garage:** Employee Discount Parking Program (EDPP)
- **EVIE Carshare St. Paul:** policy to remove snow and ice from the equipment



COMMON CONCERNS

- **Low-hanging cords:** pose a trip hazard; rest directly on the pedestrian surface.
- **Insufficient lighting:** many stations rely solely on adjacent parking lot lights.
- **Lack of clear instructions:** minimal instructions may be unclear to newer EV users.
- **Lack of covers:** user experience impacted by weather; equipment unprotected.



ROAD TO A POSITIVE EV CHARGING USER EXPERIENCE

1. Develop a list of model EV zoning regulations.

Collaborate with APA, RPA, and municipal zoning staff to review and collect additional feedback.

2. Create a site assessment template based off of model regulations.

Compile a series of questions to assess EV charging stations that consider zoning regulations as a tool to potentially address some of the barriers to EV adoption.

3. Perform site assessments at EV charging stations throughout the Coast-to-Coast EV Road Trip.

Using the template, perform site assessments of all EV charging stations visited during the road trip.

4. Create a report from all data collected throughout the road trip.

Create a comprehensive site assessment report of each charging station in a format that considers barriers identified in the context of EV zoning regulations.

5. Share the reports with state coalitions and municipal zoning staff.

Share the finalized site assessment reports with the respective coalitions and each municipality's zoning commissions. Provide recommendations to use zoning regulations as a tool to address any barriers identified and work toward a more positive user experience.



EPA Grant

- Norwalk and Torrington
 - Site Assessments with Community Members
 - One-on-One Interviews
 - Surveys
 - Community Informed Report
 - Presentation to Zoning Staff and Commission
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Grant: EV Zoning Regulations Working Group

American Planning Association

American Bar Association - Land Bureau

Regional Plan Association

Equity Groups

Neighborhood Groups

What can you do?

Talk with your zoning staff today about adopting/updating EV zoning regulations in your town.



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