AUSTIN ENERGY GREEN BUILDING

2024 CITY OF AUSTIN ENERGY CODE

SINGLE FAMILY
ELECTRIC VEHICLE (EV) READINESS GUIDE

One- and Two-Family Dwellings and Townhomes

WHAT'S HAPPENING?

- The City of Austin adopted the 2024 Energy Code with local amendments on April 10, 2025. It takes effect on July 10, 2025.
- The amendments align the Energy Code with other adopted City of Austin codes and climate goals while offering more compliance flexibility.
- New EV readiness requirements apply to all new residential and commercial construction.

OVERVIEW

This guide helps industry professionals understand the three levels of EV readiness requirements of the 2024 International Energy Conservation Code (IECC) as amended and adopted by the City of Austin. As a leader in energy efficiency, Austin amends the Energy Code to align with local goals and conditions. Austin's Climate Equity Plan aims for 40% of total vehicle miles traveled in Austin to be electrified and EV ownership that is culturally, geographically and economically diverse. By adopting EV readiness measures in the Energy Code, the City of Austin helps the whole community prepare for the future installation of electric vehicle charging infrastructure.

This document does not replace any applicable building, fire or structural codes and ordinances. Users must consult the relevant code documents during design and permitting. The Austin Development Services Department is responsible for interpretation and compliance decisions.

Disclaimer: *This guide is for informational purposes only. For specific requirements, consult the City of Austin Energy Code and Building Technical Codes. This is not design advice; consult a licensed design professional for project specific guidance.*

AUSTIN'S ENERGY CODE

On April 10, 2025, Austin City Council voted to adopt the 2024 IECC and local amendments. The ordinance takes effect July 10, 2025. EV readiness requirements appear in 2024 IECC Appendices **CG** and **RE** and apply to new construction. The ordinance applies to multiple building occupancy categories. This document focuses on one- and two-family dwellings and townhouses.

KEY DEFINITIONS OF EV READINESS

Table 1 below describes how key EV readiness terms are defined in the 2024 Energy Code with Austin amendments and this document.

Table 1. EV Readiness Definitions

Term	Code Definition[1]	Guide Sheet Interpretation
EV Capable Space	A designated automobile parking space that is provided with electrical infrastructure such as, but not limited to, raceways, cables, electrical capacity, a panelboard or other electrical distribution equipment space necessary for the future installation of Electric Vehicle Supply Equipment (EVSE).	An EV capable space requires, at minimum, load sizing of 6.2 kVA[2] of electrical capacity per space, breaker space in a panel, raceway (can be empty) and a raceway termination. The breaker space and raceway termination are required to be marked as "For future EVSE."
EV Ready Space	An automobile parking space that is provided with a branch circuit and an outlet, junction box or receptacle that will support an installed EVSE.	An EV ready space requires, at minimum, load sizing of 6.2 kVA[2] of electrical capacity per space, breaker marked as "For EVSE" in a panel, raceway with wiring and a receptacle or charger.
EVSE Space	An automobile parking space that is provided with a dedicated EVSE connection.	An EV ready space requires, at minimum, load sizing of 6.2 kVA[2] of electrical capacity per space, breaker marked as "For EVSE" in a panel, raceway with wiring and EV charger.

[1] 2024 IECC RE101 for one- and two-family dwellings and townhouses.
[2] If an energy management system (EMS) is utilized, load sizing of 2.1 kVA of electrical capacity per space can be used.

KEY REQUIREMENTS

The following sections and tables explain the local code requirements, including the minimum quantities for each type of EV space and the associated power load requirements.

ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES REQUIREMENTS

The 2024 IECC outlines the requirements for one- and two-family dwellings and townhouses under its residential provisions. New one- and two-family dwellings and townhouses with a designated attached or detached garage or other on-site private parking provided adjacent to the dwelling unit shall be provided with one (1) EV capable, EV ready or EVSE space per dwelling unit. The City of Austin did not amend model EV readiness provisions for these residential types. Table 2 below outlines the corresponding infrastructure requirements.

Table 2. One- and Two-family Dwellings and Townhouses EV Requirements

Requirement Type	EV Capable	EV Ready
Panelboard/Switchboard	Designed and installed to accommodate EV load. Could include upsizing panels, additional panels and/or efficient placement of circuits in panels. Reserved space in panels labeled "For future electric vehicle supply equipment."	Same as EV capable
Conduit/Raceway	Sized for calculated EV charging load of not less than 2.1 kVA[1] per space.	Same as EV capable
Electrical Enclosure	Located within six (6) feet of the EV capable space. Labeled "For electric vehicle supply equipment."	Located within six (6) feet of the EV ready space. Labeled "For electric vehicle supply equipment."
Transformer (utility side)	No requirement	Sized to accommodate calculated EV charging load.
Wiring	No requirement	Sized for calculated EV charging load of not less than 6.2 kVA with no EMS or 2.1 kVA with an EMS.
Breaker/Circuit	No installation requirement, however, spare electrical capacity for a two-pole circuit breaker or set of fuses.	Installation of branch circuit serving each EV ready space.
Installed EVSE	No requirement, however, EV capable required quantity may be reduced by the number of spaces served by installed EVSE.	
Energy Management Systems (EMS)[1]	No requirement, however, it is recommended for sites with multiple dwellings to consider this option to reduce overall electrical site load.	

[1] Many dual port electric vehicle charging stations utilize EMS. These stations double the number of EV readiness spaces while keeping the overall electrical demand within a building's existing capacity. The capacity of the electrical distribution system and each branch circuit serving multiple EV readiness spaces with a dual port system is reduced from 6.2 kVA to 2.1 kVA per space.

OTHER CONSIDERATIONS

Parking arrangements for one- and two-family dwellings can vary by project. Table 3 below outlines EV readiness requirements based on different parking scenarios. Examples of on-site private parking adjacent to the dwelling unit can include carports, driveways, parking lots and parking garages. Note that the City of Austin does not require parking space minimums.

Table 3. Occupancy Method Parking Percentages

Parking Scenario	Requirements
No parking	EV readiness requirements do not apply.
Designated attached garage	Provide one (1) EV capable, EV ready or EVSE space per dwelling unit.
Designated detached garage	Provide one (1) EV capable, EV ready or EVSE space per dwelling unit.
On-site private parking adjacent to dwelling unit	Provide one (1) EV capable, EV ready or EVSE space per dwelling unit.
Offsite private parking	EV readiness requirements do not apply.

NON-ELECTRICAL CONSIDERATIONS

The City of Austin adopted the EV readiness provisions of the 2024 IECC to reduce barriers to EV adoption and encourage integration of infrastructure during original construction, when it is most cost effective. EV readiness may also involve non-electrical elements such as concrete, rebar, siting, permits and inspections.

EXCEPTIONS

The residential provisions of the 2024 IECC also include two exceptions:

- Where the local electric distribution entity certifies in writing that it is not able to provide 100% of the necessary distribution capacity within two (2) years after the estimated certificate of occupancy date, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity.
- Where a substantiation is approved that meeting the requirement of 2024 IECC RE101.2.5 will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than $450 per dwelling unit.

BEST PRACTICES

Deciding whether to install EV stations in a new project at original construction ultimately rests with the building owner or developer. When planning to include EV readiness infrastructure, project teams can follow several best practices to fully benefit from the Energy Code and prepare for future EVSE installation.

Start by Consulting the Local Utility

Engage with your electric utility early in the design process — sooner than you might expect. For most projects in Austin, this will be Austin Energy. Early coordination helps you make informed decisions on transformer sizing, offsite improvements, metering and siting.

Planning for Near-Term EVSE Installation (3-5 Years)

If you plan to install EV stations in the near future, consider the following:

- Consult your electric utility about offsite improvements that could affect service.
- Size utility transformers to handle future EVSE load.
- Allocate conductor capacity for future EVSE use.
- Locate both utility- and building-side transformers in accessible areas.
- Design space for future meters dedicated to EVSE.
- Design space for protective features like bollards and wheel stops.
- Indicate future EVSE locations and infrastructure on design plans to reserve space and inform future project teams.
- Include future load data on local utility design forms, such as Austin Energy's Electric Service Planning Application (ESPA).
- Account for accessibility requirements in future EVSE locations.

Planning for Long-Term EVSE Installation (5+ Years)

If you expect to install EV stations further in the future, consider the following:

- Locate utility- and building-side transformers in accessible areas.
- Allocate use of transformer conductors to support future EVSE needs.
- Design space for future meters.
- Allocate space for protective measures like bollards and wheel stops.

OTHER GUIDES

2024 City of Austin Energy Code | Multifamily Electric Vehicle Readiness Guide

LOCAL INCENTIVES

Many utilities and entities offer rebates to offset EVSE equipment and installation costs. Contact your utility to learn more about eligibility requirements and levels of incentives available.

MORE INFORMATION

2024 IECC: Codes.ICCsafe.org/Content/IECC2024V1.0

2024 Energy Code: AustinTexas.gov/Department/Building-Technical-Codes

Austin Energy Code Questions: EnergyCode@AustinEnergy.com

AUSTIN ENERGY GREEN BUILDING

Updated July 10, 2025