

2024 IECC

NBI has submitted proposals into the ICC process to advance the 2024 IECC. The proposed amendments cover a wide range of measures and improve the code by adding additional efficiency, clarifying requirements, and creating greater flexibility for code users and local jurisdictions. Learn more at newbuildings.org/code_policy/2024-iecc-national-model-energy-code-base-codes.

Code Change Title: Electric Vehicles **CEPI-146-21 Part II**

Summary: Requires single- and two-family EV charging. Requires multifamily to comply with a sister provision under commercial section of energy code.

Add new definitions as follows:

ELECTRIC VEHICLE (EV). An automobile for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a building electrical service, EVSE, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid electric vehicles are electric vehicles having a second source of motive power. Off-road, self-propelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not considered electric vehicles for this code.

EV READY SPACE. An automobile parking space that is provided with an electrical circuit capable of supporting an installed EVSE.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED (EVSE) SPACE. An automobile parking space that is provided with a dedicated EVSE.

Add new text as follows:

R404.5 Electric vehicle charging infrastructure. Electric infrastructure for the charging of electric vehicles shall be installed in accordance with this section. EV ready spaces are permitted to be counted toward meeting minimum parking requirements.

R404.5.1 One- and two- family dwellings and townhouses. New One- and two-family dwellings and townhouses with a dedicated attached or detached garage or on-site parking spaces and new detached garages shall be provided with one EV-ready space per dwelling unit. The branch circuit shall terminate in a receptacle outlet and shall comply with the following requirements:

1. Panel capacity for a 40-amp, 208/240-volt circuit with a minimum capacity of 9.6 kVA.
2. Terminates at a receptacle outlet or an EVSE, located within 3 feet (914 mm) of the parking space.

3. The electrical panel directory shall designate the branch circuit as “For electric vehicle charging” and the junction box or receptacle shall be labelled “For electric vehicle charging”.

R404.5.2 Group R occupancies. New Parking facilities serving all other Group R occupancies shall comply with Section C405.15 of the International Energy Conservation Code – Commercial Provisions.

Revise table as follows:

TABLE R406.2 REQUIREMENTS FOR ENERGY RATING INDEX

SECTION ^a	TITLE
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
<u>R404.5</u>	<u>Electric vehicle charging infrastructure</u>
R406.3	Building thermal envelope

The adoption rate of electric vehicles is on a steep upward climb, creating the need for electric vehicle charging now and in the near future. While the cost of adding electric vehicle charging infrastructure (EVCI) to single-family homes is minimal, the cost of retrofitting EVCI to existing homes can be substantial. This proposal requires a low-cost branch circuit to support an EV charger in single family homes.