Getting smart Smart home trends and codes

Learn what smart home technologies are in high demand and which building codes apply.



HVAC and climate control systems

Energy efficiency and the ability to maintain comfortable humidity levels are key benefits of owning a smart home.

- 2019 California Title 24
- Read about <u>duct testing</u>, <u>HVAC sizing</u> and thermostats
- 2021 IEEC Find out more about energy efficiency
- ENERGY STAR® Stay up to date on energy-efficiency certifications



Programmable lighting and window coverings

Automation is key for home buyers wanting to adjust these features at set times.

- 2019 California Title 24
 Read about major changes to:
 Light source markings and
 JA8 performance requirements
- New exterior and interior <u>light source</u>
 <u>categories and compliances</u>
- Interior switching devices and controls
 language clarification



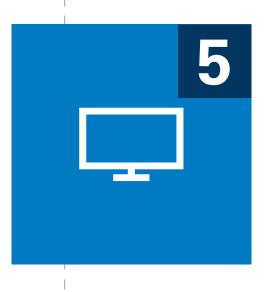
Security and surveillance

For most homeowners, <u>security is the top benefit</u> for owning a smart home. Building codes for cybersecurity may be developed soon to address smart locks, garage door openers and video doorbells.



Kitchen and laundry appliances

Smart appliances adhere to <u>California Title 20</u>, <u>ENERGY STAR ratings</u> and <u>UL®</u> tests for product interoperability and cybersecurity.



Entertainment systems

Building codes do not apply to smart TVs, smart speakers and gaming consoles. However, <u>UL</u> tests these devices so they connect seamlessly, perform as featured and function safely.



Renewable energy

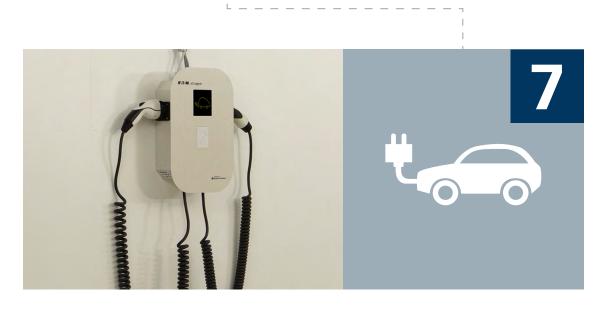
A new <u>solar roof</u> needs distribution and storage components that operate in parallel with the grid. This requires safe connections of PV equipment to electrical systems.



- 2020 NEC® Article 690
 - Learn how to <u>safely install various</u>
 PV components
- 2020 NEC Article 691
- Get guidance for installing large-scale PV electric
- supply stations2020 NEC Article 705

grid equipment

- Make <u>safe interconnections</u> of grid and off-
- 2020 NEC Article 706 Know where energy storage systems are located and used



Electric vehicle (EV) charging systems

California requires all new home construction to be prewired for Level 2 vehicle chargers.

- 2019 California Title 24 Install
 a service panel and conduit
 that can support a 32-A Level 2
 charging station
- 2020 NEC Article 625 Make
 sure the Level 2 charger meets
 several <u>safety requirements</u>

Check with your local utility and permitting authorities for approvals before building.











Learn how our Home as a Grid approach helps you safely and securely integrate renewable energy sources, reduce energy costs and support a low-carbon energy future.

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