#### **CALIFORNIA ENERGY COMMISSION**

# **Achieving Energy Efficiency**







### Energy efficiency means doing more with less.

By leveraging technology to meet consumer needs while using less energy, California is reducing the need for new electricity generation, which reduces air pollution and saves consumers money. Many energy efficiency strategies also create more comfortable homes and workspaces.

For more than 40 years, the California Energy Commission has been pivotal in advancing energy efficiency strategies. By implementing cost-effective appliance and building energy efficiency standards, the Energy Commission has saved consumers more than \$100 billion in utility bills.

Constantly evolving technologies produce new opportunities for improved efficiency, especially in California where innovation is in our DNA. And more needs to be done to achieve the state's ambitious greenhouse gas reduction goals. The Energy Commission established targets to achieve a statewide, cumulative doubling of energy efficiency savings by 2030. To ensure that all Californians are included, the Energy Commission is working to address barriers low-income and disadvantaged communities encounter in benefiting from energy efficiency measures.

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## **Setting Standards**

California developed the nation's first energy conservation standards for buildings and appliances in the 1970s.

Since then, the state has continued to establish cost-effective standards and incentives that benefit consumers. California's standards are adopted by other governments around the world.

#### **Appliances**

The Energy Commission's appliance regulations, combined with federal standards, set minimum efficiency levels for energy and water consumption in products such as consumer electronics, household appliances, and plumbing equipment. The standards shift the marketplace toward more efficient products, producing significant energy savings for California consumers without affecting the usefulness of the products. The standards are developed with industry, energy efficiency advocates, and others through an open, transparent process. To ensure manufacturers comply, the Energy Commission can fine manufacturers and retailers that sell appliances that do not meet the state standards.

## New Buildings

Every three years, the Energy Commission updates energy efficiency standards for newly constructed buildings and alterations to existing buildings. In addition to saving energy and money, the standards help integrate renewable energy onto the electrical grid. The standards require solar generation in new, single-family homes starting in 2020. The standards reduce greenhouse gas emissions by maximizing efficiency during times of the day when the grid is most carbon intensive. To implement the standards, the Energy Commission works with stakeholders, including local building departments, design professionals, contractors, and many others.

## **Upgrading California's Existing Buildings**

Achieving California's ambitious climate and energy goals will require decarbonizing existing buildings. While voluntary actions have achieved some efficiencies, significant potential remains. The Energy Commission's Existing Buildings Energy Efficiency Action Plan provides a 10-year roadmap to activate market forces and transform California's existing residential, commercial, and public buildings into high-performing and energy-efficient ones.

Transforming California's buildings requires accurate information for decision makers and consumers. The Energy Commission developed the nation's first statewide building energy use benchmarking and public disclosure program for existing commercial and multifamily buildings. Giving consumers energy usage information will help encourage building owners to implement energy efficiency upgrades.

Incentives also play an important role in improving the performance of existing buildings. The Energy Commission administers several incentive programs, including the Energy Conservation Assistance Act Program and the Proposition 39 K-12 school program. The financing program is a revolving loan fund that provides zero- and low-interest-rate loans to local governments, schools, and other public institutions. The Proposition 39, or the Clean Energy Jobs Act program, provided \$1.5 billion in grant money to local education agencies for energy efficiency upgrades and clean energy projects.



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