California has some of the most ambitious climate and energy goals in the world. Achieving these goals while ensuring the state’s energy systems remain accessible, reliable, safe, and affordable requires thoughtful planning and the identification of policy solutions to some of today’s toughest challenges.

As the state’s primary energy policy and planning agency, the California Energy Commission prepares the Integrated Energy Policy Report (IEPR)—which provides a cohesive approach to identifying and solving California’s pressing energy needs and issues—and collaborates with state and federal agencies, utilities, and other stakeholders to develop and implement energy plans and policies.

Developing Energy Policy

Sound policy development requires thoughtful and thorough analysis. The IEPR includes assessments and analyses of California’s energy industry, supply, production, transportation, delivery and distribution, demand, and prices. It also includes forecasts of electricity and natural gas demand for 10-year periods.

The IEPR provides the Governor and the Legislature with energy policy recommendations that reduce greenhouse gas emissions, ensure electricity reliability, enhance the state’s economy, and protect public health, safety, and the environment.
The policies proposed in the IEPR have far-reaching effects and are often championed in legislation. For example, in response to the climate and energy reliability risks that were elevated by the natural gas leak at the Aliso Canyon storage facility, the 2017 IEPR called for a plan to close the facility within 10 years. Subsequently, the California Public Utilities Commission (CPUC) opened a proceeding to consider this path.

The electricity forecasts are important for infrastructure planning to ensure that supply meets demand in a cost-effective, environmentally preferred, and reliable manner. The CPUC and California Independent System Operator use this forecast for generation procurement and transmission planning. As policy evolves, so does the Energy Commission’s need for granular data to support thorough analysis. The 2015 IEPR anticipated the growing need to forecast seasonal, hourly, and local demands for electricity and natural gas. New data collection rules approved in 2018 will improve these forecasts and provide granter insight into California’s energy challenges and policy impacts.

Planning to Meet State Energy Goals

Transitioning to a low-carbon economy requires long-term planning.

Greenhouse gas emissions in the electricity sector are driven by demand for electricity and the carbon intensity of the fuel used to generate that electricity. Planning targets for 2030 are adopted by the California Air Resources Board, with input from the Energy Commission and CPUC. These targets guide load-serving entities in their efforts to achieve California’s long-term greenhouse gas reduction goals at least cost, while ensuring electric service reliability.

California is reinvigorating integrated resource planning. The plans will incorporate actions needed to reduce greenhouse gas emissions, double energy efficiency, and electrify transportation, while balancing affordability, reliability, and impacts on disadvantaged communities.

The Energy Commission continues to provide outlooks for energy demand and available resources for multiagency Southern California reliability planning. This is a result of natural gas generators closing because of once-through cooling and other environmental requirements, as well as the abrupt closure of the San Onofre Nuclear Generating Station and the planned closure of the Diablo Canyon Nuclear Power Plant.