

## The Grid Must Grow Quickly to Achieve California's Net-Zero Goal by 2045

Edison International's new paper, 'Countdown to 2045,' calls for expanded electric infrastructure, further deployment of clean energy technologies to support rising electricity demand.

Unprecedented innovation across planning, policy and technology is required to achieve California's net-zero goal by 2045, according to a new paper by Edison International (the parent company of SCE). **Countdown to 2045: Realizing California's Pathway to Net Zero** makes it clear that the electric grid must expand rapidly and integrate new clean energy technologies, such as offshore wind turbines, clean hydrogen, carbon capture and vehicle-to-grid connectivity, well before the deadline in 22 years.

The scale of electrification needed to decarbonize the economy is dramatic. *Countdown to 2045* forecasts that electricity demand will rise by more than 80%, with 90% of vehicles and 95% of buildings being electrified by 2045 to achieve California's goal to reduce greenhouse gas emissions by 85% from 1990 levels. Through a detailed analysis into grid reliability, Edison International foresees that the state will need an unprecedented pace of clean energy infrastructure buildout.

"The stakes are higher than they have ever been for expanding the electric system to meet decarbonization goals safely, reliably and affordably," said Pedro J. Pizarro, president and CEO of Edison International. "While today's available technologies can achieve significant reduction, policies must encourage greater investment in emerging technologies and enable more options to meet California's net-zero goal."

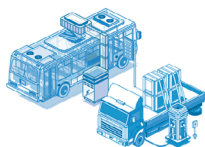
## COUNTDOWN TO 2045

### REALIZING CALIFORNIA'S PATHWAY TO NET ZERO

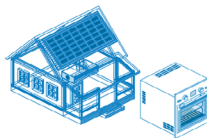
The electric grid must expand rapidly and integrate new clean energy technologies to achieve California's net-zero goal by 2045. Edison International's white paper forecasts:



**+80%**  
GROWTH IN  
ELECTRICITY  
DEMAND



**90%** OF  
VEHICLES ARE  
ELECTRIFIED



**95%** OF  
BUILDINGS ARE  
ELECTRIFIED



**3X** MORE  
UTILITY-SCALE  
CLEAN ENERGY  
VS. TODAY



**40%**  
AVERAGE  
SAVINGS ON  
HOUSEHOLD  
ENERGY  
EXPENSES



[edison.com/countdownto2045](https://www.edison.com/countdownto2045)

Infographic credit: Lawrence Tsuei

The paper assesses the scale of the path forward and calls for immediate action. Some highlights include:

- The grid must support the use of three times more utility-scale clean energy sources than today.
- Investing must accelerate in emerging clean energy technologies that complement solar generation and energy storage, as they must comprise up to 15% of total utility-scale resources.
- New transmission and distribution grid projects must be added at up to four times and 10 times their historical rates, respectively.
- The state will require about \$370 billion of incremental transmission, distribution and utility-scale clean energy investments.
- Significant reform in planning, permitting and siting processes is required to expedite the buildout.

- The average household will save on energy costs. Because of reduced fossil fuel spending and the greater efficiency of electric vehicles and appliances, the average SCE customer will see a savings of about 40% in household energy expenses by 2045.

*Countdown to 2045* calls for an additional approximately 90 gigawatts (GW) of utility-scale clean generation and around 25 GW of utility-scale energy storage, plus more than 15 GW each of behind-the-meter solar and storage.

This paper is an update to SCE's 2019 *Pathway 2045*. A key driver for the refreshed analysis is California's Assembly Bill 1279, which made the state's net-zero goal into law last year and established a deeper requirement for direct reductions of greenhouse gas emissions. While AB 1279 calls for a feasibility evaluation by 2035, *Countdown to 2045* identifies several feasibility challenges that must be taken into consideration quickly, before 2035, as part of the state's ongoing evaluation of options to meet decarbonization goals.

Edison is committed to helping California reach its ambitious goal to mitigate the impacts of climate change and sees this set of approaches as a model for other states and nations. The accelerating effects of climate change include extreme weather events taking place across the country. According to 2023 *National Oceanic and Atmospheric Administration data*, so far this year, the U.S. alone has seen 23 climate-related disasters that cost at least \$1 billion each, surpassing the previous annual record of 22 events in 2020.

For more information and to [download the paper](#), visit [edison.com/countdownto2045](https://www.edison.com/countdownto2045).

## Become an Energy Efficiency Star

Take an important step toward saving energy and money by visiting the [ENERGY STAR](#)® website, where you can find information on ENERGY STAR-certified products – which must meet strict efficiency specifications set by the U.S. Environmental Protection Agency – as well as product rebates, tax breaks and special offers.

Website features (under “Find Products”) include:

- The **Product Finder** tool, which allows you to view a list of certified products based on criteria including category, brand and model number. You also can compare products side-by-side and check features, specifications and energy efficiency ratings.
- The **Rebate Finder** tool, which helps you find rebates and special offers on certified products available in your area (based on ZIP Code), plus filter the results by product category, brand and rebate type.

For additional details, see [energystar.gov](https://energystar.gov). To learn more about SCE's energy management solutions for your business, contact your Account Manager or visit [sce.com/business](https://www.sce.com/business).

## SCE Honors Outstanding Organizations at Heritage Events

We recently held our 13th Annual Hispanic Heritage Month (HHM) event and 2nd Annual Multicultural Celebration to recognize organizations and companies that advance the efforts and contributions of our diverse communities.

Following is the list of the highly deserving award recipients from each event:

### HHM Honorees

- **Clean Energy Champion Award:** The City of Downey Utilities Division
- **Gwen Moore Diversity Award:** California Hispanic Chambers of Commerce
- **Community Partnership Award:** Amigos de los Rios – Emerald Necklace
- **Community Partnership Award:** Designated Exceptional Services for Independence (D.E.S.I.)

### Multicultural Celebration Honorees

- **Clean Energy Champion Award:** Setton Pistachio of Terra Bella, Inc.
- **Gwen Moore Diversity Award:** American Indian Chamber of Commerce
- **Community Partnership Award:** College of the Sequoias (COS) Foundation
- **Community Impact Award:** Tulare County Sheriff's Office

Read more about all of these outstanding organizations on our [HHM honoree page](#) and our [Multicultural Celebration honoree page](#).