



The Edison Foundation

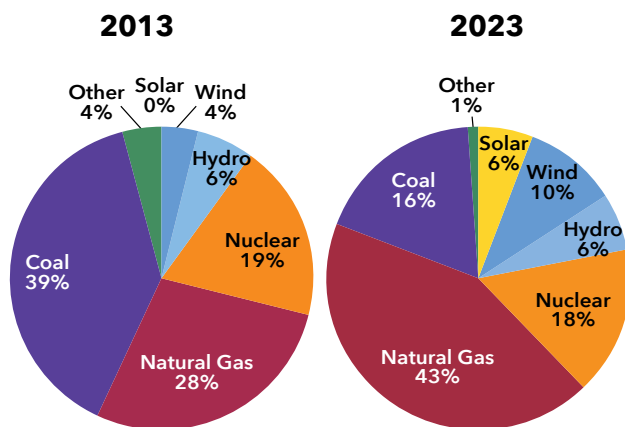
INSTITUTE for
ELECTRIC INNOVATION

APRIL 2024

Electric Companies Are Committed to a Clean Energy Future: 10 Things You Should Know (2024)

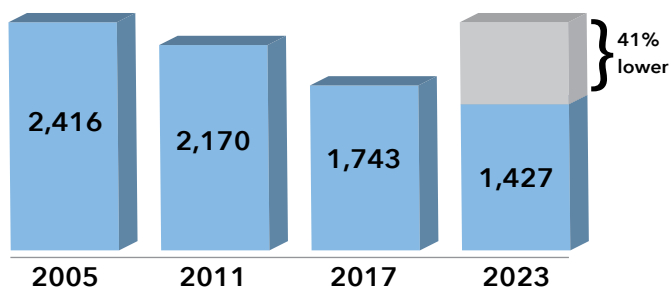
- 1** In 10 years, the electricity generation mix has changed dramatically—in 2023, more than 40 percent of all U.S. power generation came from carbon-free sources like nuclear, hydropower, wind, and solar energy.

Electricity Delivered by Source



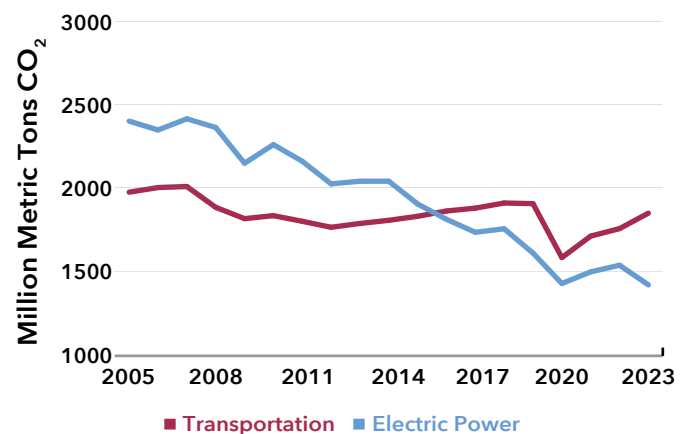
- 2** Carbon dioxide (CO₂) emissions from electricity generation have been declining for the last decade and were 41 percent below 2005 levels at the end of 2023.

Electric Power CO₂ Emissions (MMT)

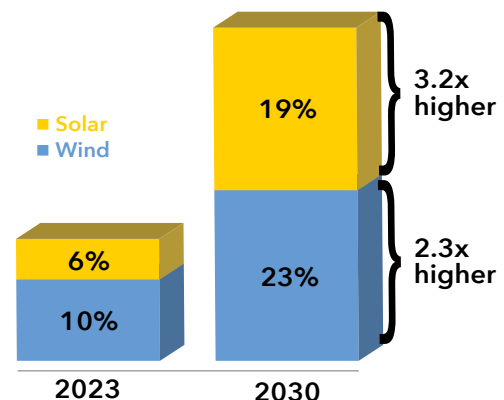


- 3** CO₂ emissions for the electric power sector are now 23 percent below transportation sector emissions.

U.S. CO₂ Emissions by Sector



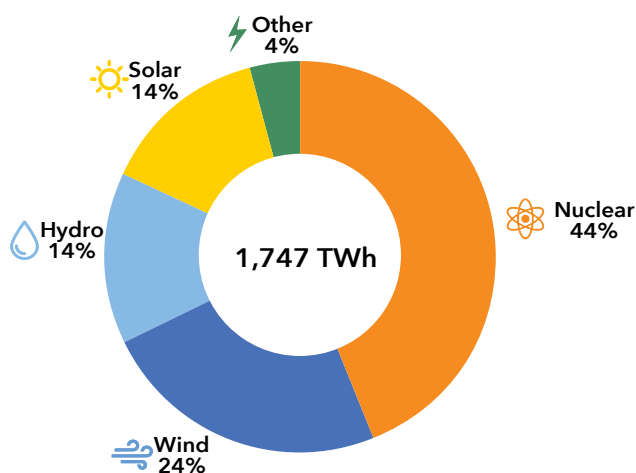
- 4** In 2023, wind and solar generated about 16 percent of all electricity used in the United States and are expected to account for about 42 percent of all electricity used in the United States in 2030.



5 Solar energy is growing rapidly in the United States. Total installed solar capacity was 154 gigawatts (GW) through the end of 2023 and is expected to nearly quadruple by 2034.

6 Today, nuclear accounts for 44 percent of the carbon-free electricity generated in the United States. Preserving the existing nuclear fleet and investing in advanced nuclear technologies is critical for achieving a carbon-free energy future.

Carbon-free Electricity Generated (2023)

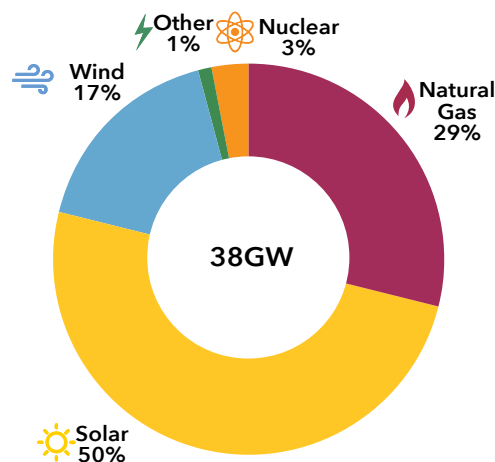


7 Electric companies are responsible for virtually all of the wind energy and 66 percent of the solar energy in the United States.

8 Corporations increasingly want renewable energy to power their offices and operations. Between 2019 and 2023, corporate customers contracted for about 62 GW of renewable energy.

9 Wind and solar energy accounted for 67 percent of all electricity capacity additions in the United States in 2023.

Annual Capacity Additions (2023)



10 Integrating more clean energy requires smarter energy infrastructure. Electric companies invest more than \$150 billion annually to make the energy grid smarter, stronger, cleaner, more dynamic, and more secure.

Sources:

- U.S. Energy Information Administration: Electric Power Monthly (March 2024); Monthly Energy Review (March 2024)
- Wood Mackenzie/SEIA: U.S. Solar Market Insight 2023 Year in Review (March 2024). Note: capacity values in this report have been converted from DC to AC.
- Hitachi Energy: Velocity Suite
- Edison Electric Institute
- CEBA Deal Tracker 2023

About the Institute for Electric Innovation

The Edison Foundation's Institute for Electric Innovation focuses on advancing the adoption of new technologies that improve the customer experience by enhancing how electric companies engage with customers to strengthen and transform the energy grid. IEI's members are the investor-owned electric companies that represent about 70 percent of the U.S. electric power industry. The membership is committed to an affordable, reliable, secure, and clean energy future.

IEI promotes the sharing of information, ideas, and experiences among regulators, policy makers, technology companies, thought leaders, and the electric power industry. IEI also identifies policies that support the business case for the adoption of cost-effective technologies.

IEI is governed by a Management Committee of electric industry Chief Executive Officers. In addition, IEI has a select group of technology companies on its Technology Partner Roundtable.



701 Pennsylvania Avenue, N.W. | Washington, D.C. 20004

Phone: 202.508.5440 | Fax: 202.508.515 | [in/ElecInnovation](https://www.edisonfoundation.net/IEI) | [@Elec_Innovation](https://www.edisonfoundation.net/IEI)