

Energy Talk In Depth

Focus on: Enhancing Energy Infrastructure



TOP STORY

United for Energy Infrastructure

EEI's member companies—America's investor-owned electric companies—remain focused on delivering resilient clean energy across all sectors of the U.S. economy.

EEI's member companies continue to make significant investments to make the energy grid smarter, stronger, cleaner, more dynamic, and more secure. And, in the last two years, Congress has passed the Bipartisan Infrastructure Law and the clean energy tax package in the Inflation Reduction Act, historic laws that will benefit electricity customers and enhance energy infrastructure across the country.

This month, EEI proudly supported United for Infrastructure Week. Over the past decade, United for Infrastructure Week has highlighted the importance of investing in resilient, modern, and equitable infrastructure. Electric transmission is the backbone of the nation's energy grid and plays an important role in facilitating the continued transition to a resilient clean energy future.

One persistent challenge to expanding the transmission system and deploying more clean energy is the inefficient siting and permitting process for critical infrastructure such as transmission lines. EEI supports a coordinated, consistent, and efficient siting and permitting regulatory framework to help ensure that electricity is reliable and affordable for customers.

EEI and our member companies commend President Biden and House Speaker Kevin McCarthy (R-CA) for recently reaching a bipartisan resolution on the debt ceiling, which includes elements related to siting and permitting. EEI President and CEO Tom Kuhn issued the following statement on the deal:

"The siting and permitting elements of the deal will make important improvements that create a more efficient, environmentally sound, and legally durable process for deploying new energy infrastructure and upgrading existing infrastructure. Having a clear, coordinated, consistent, and efficient permitting process is essential for our industry and for America's electric companies as we make critical investments in our nation's energy grid. We urge Congress to act quickly to pass the compromise legislation."

Read on for more information about EEI and our member companies' work every day to enhance our energy infrastructure.



NUMBERS TO KNOW

Key Facts About America's Energy Infrastructure

EEI's member companies own and operate energy infrastructure across the country, and the energy grid powers nearly every aspect of our lives.

Here are four facts you should know about America's energy infrastructure:

1. Over the past decade, electric companies have invested more than \$1 trillion in critical energy infrastructure. In the last year alone, electric companies invested more than \$154 billion to make the energy grid smarter, cleaner, stronger, more dynamic, and more secure.
2. Electric companies invested nearly \$30 billion in 2022 in adaptation, hardening, and resilience initiatives to strengthen the nation's transmission and distribution infrastructure.
3. Today, more than 40 percent of all U.S. power generation comes from clean, carbon-free sources, including nuclear energy, hydropower, wind, and solar energy. Carbon emissions from the U.S. power sector are now as low as they were in 1984, while electricity use is up 73 percent since then.
4. Creating a cleaner economy also means creating a cleaner transportation sector. Today, there are more than 3 million electric vehicles (EVs) on U.S. roads, and EEI's member companies are investing more than \$4 billion in customer programs and projects to deploy EV charging infrastructure and to accelerate electric transportation.

See more facts and figures in [EEI's Annual Electric Power Industry Outlook](#).



SHOWCASING INNOVATION

Finalists for the 2023 Edison Award

EEI has announced five U.S. and three international electric companies as finalists for the 2023 Edison Award. Presented annually, the Edison Award recognizes electric companies for their distinguished leadership, innovation, and contribution to the advancement of the electric power industry.

The winners of the 95th Edison Award will be selected by a panel of former electric company chief executives and will be announced during EEI 2023. EEI's annual thought leadership forum to be held June 11-13 in Austin, Texas. [There's still time to register!](#)

Edison Award Finalists

- **American Electric Power—Rapid Customer Substation Solution**
To meet customer requests to construct a substation within a compressed schedule, American Electric Power (AEP) teams collaborated on innovative solutions, achieving several "firsts." Most prominent was a radically different 138-kilovolt (kV) prefabricated structure design. The project saw a 40-50 percent reduction in construction time, as compared to a traditional approach. The structure and layout now are AEP standard designs. The concepts demonstrated by this project increase safety and reduce time to service.
- **Edison International—Southern California Edison's Electric Asset Data Remediation Tool**
Electric companies rely on millions of data points to facilitate risk-informed asset management decisions. Southern California Edison's data remediation tool leverages data science and machine learning to improve the accuracy and consistency of asset data for a more dynamic energy grid in a timeframe of hours instead of years. These benefits save time, reduce costs, and improve safety and reliability.
- **Florida Power & Light Company—FPL Air One Launch**
Florida Power & Light Company (FPL) made history by flying FPL Air One as part of the company's Hurricane Ian restoration. FPL Air One is the first-ever large-scale fixed-wing drone of its size to be flown for commercial use outside of a Federal Aviation Administration test site. The company used the drone to assess the impact the devastating storm had on the energy grid, providing visuals of FPL infrastructure and speeding restoration efforts. Information gathered by FPL Air One also was used to assist with search and rescue efforts by state and local officials.
- **PPL Electric Utilities—Dynamic Line Ratings**
PPL Electric Utilities (PPL Electric) installed and integrated a dynamic line rating (DLR) system within its transmission management system, allowing it to operate transmission lines with more accurate, real-time ratings than traditional conservative static ratings. In October 2022, PPL Electric became the first electric company in the United States to integrate a DLR system into market operations. PPL Electric is sending hourly day-ahead ratings forecasts to PJM Interconnection's market operations to help coordinate more efficient generation and ensure reliability.
- **Puget Sound Energy—Clean Buildings Accelerator**
Puget Sound Energy (PSE) has created the Clean Buildings Accelerator, a no-cost, virtual program designed to assist building owners, operators, and facility teams in meeting state-mandated energy targets and decreasing greenhouse gas emissions from commercial buildings. To date, PSE is supporting more than 80 customers on their path to compliance and has additional cohorts starting throughout the year. PSE is targeting energy savings of 2-7 percent per building and is developing enduring relationships to save even more energy over time.

International Edison Award Finalists

- **The AES Corporation—InterAndes**
In 2022, AES Andes, a subsidiary of the AES Corporation, engaged with authorities in Chile and Argentina to reactivate energy exchanges between the two countries to help improve the resilience of both systems while also reducing systemic costs and emissions. The InterAndes interconnection is a 345-kV transmission line that runs 255 miles between the Andes substation in Chile and the Cobos substation in Argentina. Up to 80 megawatts (MW) of solar power can be exported from Chile to Argentina during the day, with up to 200 MW of energy exports from Argentina to Chile at night. The project is a positive example of regional energy integration and energy cooperation between the private and public sectors toward accelerating the clean energy transition.
- **Endeavour Energy—Network Digital Twin**
Endeavour Energy is the first electricity network in Australia to utilize an engineering-grade 3D virtual model of the network to enhance flood resilience and to improve flood incident response and coordination efforts. The effort has led to improved safety and has reduced restoration times for impacted customers during weather events.
- **Terna S.p.A.—Italy-France Electrical Interconnection**
Terna S.p.A. and RTE, the Italian and French electricity transmission system operators, have partnered on a project for a direct current transmission line that will be the world's longest electrical infrastructure completely integrated in a highway, spanning 190 kilometers between the two countries. The line is fully integrated into existing road infrastructures with zero impact on the surrounding environment. It crosses the Alps through the Frejus Tunnel and 28 highway viaducts. The line will increase the transmission capacity between the two countries by 1,200 MW, enabling the integration of more renewable energy and increasing the interconnectedness of Europe's electricity system.



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Embracing Change Together

As an energy provider, you are facing a period of intense change as the world makes its way through the energy transition. OS I can help you navigate.

[Watch the video.](#)



TUNE IN

Siting and Permitting Reforms Are Necessary for a Clean Energy Future

Prior to President Biden and House Speaker Kevin McCarthy (R-CA) reaching a bipartisan resolution on the debt ceiling, Dominion Energy Vice President of Federal Affairs Ann Loomis joined EEI Senior Director of Government Relations Patrick Arness for an episode of the *Electric Perspectives* podcast to discuss Dominion Energy's experience going through the environmental and regulatory review process for its offshore wind project.

[Listen here or wherever you get your podcasts.](#)



WHAT WE'RE READING

Physical Security Threats: Preparation and Response

"A top priority for Puget Sound Energy, and for all electric companies, is protecting the nation's critical energy infrastructure," writes Puget Sound Energy President and CEO Mary Kipp in a recent issue of *Electric Perspectives*.

"As an industry, we recognize that we cannot prevent every incident from happening. That is why we will continue to invest in stronger and more resilient infrastructure needed to ensure we can respond and recover quickly when incidents do occur."

[Read more.](#)



DRIVING ELECTRIC

Gabe Klein: "Clean Transportation Will Be Accessible for Everyone"

Transportation electrification is critical to electrifying the U.S. economy. Today, there are more than 3 million electric vehicles (EVs) on U.S. roads, and EEI has projected that number to reach more than 26 million in 2030. Such an expansion will require approximately 140,000 EV fast charging ports across the country, which will require strong coordination among electric company leaders, regulators, and government officials at all levels to build the needed infrastructure.

"Decarbonizing our transportation sector is achievable, but it will take everyone—from federal, state, local, and tribal governments to communities and individuals," said Gabe Klein, executive director of the Joint Office of Energy and Transportation, in a recent issue of *Electric Perspectives*.

"The development of a foundational charging network would be a game changer for both current EV owners and prospective ones... As EV sales increase year-over-year, having easy access to a reliable charger will be of utmost importance."

[Read more](#) on the work Klein and the Joint Office are doing to expand EV infrastructure.



REGISTER TODAY

Join electric industry executives, government officials, and thought leaders at EEI 2023, the premiere annual electric power industry forum. The conference will be held at the JW Marriott Austin in Austin, Texas, from June 11-13. Thought-provoking and information-packed programming will focus on how America's electric companies are accelerating the transition to resilient clean energy.

Bill Gates, founder of Breakthrough Energy, and U.S. Secretary of Energy Jennifer Granholm will be our opening keynote speakers on Monday morning, June 12. Two-time Super Bowl champion Deion "Coach Prime" Sanders will headline our conference dinner on Monday night. And you won't want to miss our dynamic CEO leadership panel on Tuesday morning, June 13, featuring Duke Energy Chair, President, and CEO Lynn Good in conversation with EEI Chair Warner Baxter, executive chairman, Ameren; EEI Vice Chair Pedro J. Pizarro, president and CEO, Edison International; and EEI Vice Chair Maria Pope, president and CEO, Portland General Electric.

There's still time to register! Find registration information and a full agenda at eei.org/2023.



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