100 YEARS

USEA

United States Energy Association

ANNUAL REPORT 2024

A Message from the ***President & CEO***

Dear USEA Family,

As we close out 2024 and reflect on a year of extraordinary growth, transformation, and renewed purpose at the United States Energy Association, I am filled with pride—not only in what we accomplished, but in how we laid the groundwork for an even more ambitious future.

We began the year with a reimagined ***State of the Energy Industry Forum***, shedding the format of scripted speeches in favor of candid, expert-led conversations across four robust panels. This year's theme—the integrated nature of today's energy systems—reflected the complex reality of the U.S. and global energy landscape. We addressed the electrification of the economy, emerging grid challenges, the continuing importance of oil and gas, and the promise of breakthrough technologies.

It was a true honor to be joined by Dr. Daniel Yergin, Pulitzer Prize-winning author and one of the most respected voices in global energy, for a wide-ranging discussion on energy geopolitics, investment signals, and the American role in shaping the future. And with leaders from all major U.S. energy trade associations in the room—spanning generation, fuels, utilities, renewables, storage, and efficiency—The event underscored USEA's pivotal role in steering America's energy dialogue through a rapidly changing landscape.

In May, we welcomed our members and partners to Washington for our ***Annual Membership Meeting and Public Policy Forum***. We were privileged to host senior officials from both the Department of Energy and the State Department for an important dialogue on energy security, economic competitiveness, and the evolving contours of the energy sector. One of the central discussions focused on the future of transmission—a critical piece of infrastructure as we respond to growing demand, modernize the grid, and connect new sources of generation. We also took time to recognize those who have gone above and beyond in service to USEA's mission—a mission grounded in reliability, affordability, and expanding energy access both at home and abroad.

Later in the year, we marked a rare and humbling milestone: our 100th Anniversary. At our Centennial Celebration Dinner at the historic Mayflower Hotel, we honored not only our past but the people who made it possible. We presented the ***Centennial Lifetime Achievement Award*** to Dr. Yergin for a career spent guiding our understanding of global energy markets. The ***Centennial Executive Service Award*** was given to The Honorable Vicky A. Bailey, whose leadership in public and private energy arenas has been unwavering. And in perhaps the most meaningful moment of the evening, we posthumously honored Barry Worthington—the architect of today's USEA—with the ***Centennial Visionary Legacy Award***, recognizing his decades of service and unmatched dedication to building an inclusive, technically sound, and internationally respected institution.

This year also saw the launch of our newest flagship event: the ***EnergyTech Connect Forum***, held in October. With the power sector now facing unprecedented demand from AI, data centers, advanced manufacturing, and cryptocurrency mining, we convened a cross-section of key voices—from Bitcoin miners to Independent System Operators—to chart a path forward. The event underscored critical needs: streamlined permitting, more resilient and reliable electricity supply, and smarter grid investment strategies. The conversations that began at EnergyTech Connect will guide our work for years to come.

We closed the year with our ***Advanced Energy Technology Showcase***, highlighting how breakthrough technologies—from direct air capture to fusion—are moving from lab bench to grid-scale deployment. This event served as a reminder that innovation must be paired with sound policy and smart investment, and that USEA remains at the forefront of these transformative conversations.

Throughout the year, I had the opportunity to represent USEA across the United States and on the world stage—from speaking alongside Senator Bill Cassidy in Louisiana about unleashing American energy, to participating in the World Energy Congress in Rotterdam and the Global Energy Transition Conference in Milan. In every conversation, one thing was clear: the world is watching the United States lead—not with empty promises, but with real solutions, scalable technologies, and the courage to build.

At home, we continued our successful ***Virtual Press Briefings***—an open, trusted forum where media and industry thought leaders gather monthly to examine pressing energy issues. From the potential of AI to grid enhancing technologies and fusion, these briefings demonstrate USEA's ability to convene—and clarify. One highlight this year was our panel featuring the directors of multiple national labs in a single discussion, spotlighting the incredible science and innovation taking place behind the scenes of our energy future.

We also expanded the global reach of USEA's ***Power Sector Podcast***, now available on Spotify and Apple Podcasts. With expert guests ranging from grid operators to emerging tech entrepreneurs, the podcast brings our network of members and partners into timely conversations about how energy is produced, consumed, and financed in a rapidly changing world.

As we look ahead to 2025, I am more confident than ever in USEA's future. We are building the foundation for our next century—one focused on getting projects built, expanding access to affordable energy, and preparing a skilled energy workforce for the demands of tomorrow.

We will announce new programs next year that harness our three decades of experience in international development, technology deployment, and convening thought leadership. We will double down on what we do best: advancing policy discussions, bringing stakeholders together for substantive dialogue, and improving energy literacy in service of our mission—Energy for All.

Thank you for being a part of this journey. Together, we will continue to lead—not just in words, but in action.

Sincerely,
Mark W. Menezes
President & CEO
United States Energy Association

100 YEARS USEA
United States Energy Association

THE UNITED STATES ENERGY ASSOCIATION

The United States Energy Association (USEA) promotes the development of sustainable, reliable, and affordable energy systems worldwide by facilitating partnerships, sharing best practices, and supporting technical collaboration. Through its programs and initiatives, USEA helps expand energy access, strengthen infrastructure, and advance energy solutions globally.

A Message from our **Executive Chairman**

Dear USEA Members and Friends,

In 2024, the United States Energy Association proudly celebrated a remarkable milestone: 100 years of continuous operation and unwavering commitment to its vision and mission. Since 1924, USEA has consistently convened stakeholders, shared knowledge, and amplified critical energy issues across the globe.

I'm proud of everything USEA achieved in 2024 - our centennial year was not just a celebration of our legacy but a clear demonstration of our continued leadership in the energy sector. USEA expanded international partnerships, championed energy innovation, and reinforced its role as a convening force for dialogue and collaboration.

USEA hosted informative briefings and podcasts throughout the year where we highlighted new issues impacting the energy space. We discussed topics ranging from the growing use of artificial intelligence and its impact on electric vehicles to the potential for fusion as an energy source. I have been honored to participate in the key USEA events this past year, as well as to represent the organization in external conferences and executive arenas.

It has been gratifying to welcome new members to the USEA family, as well as to congratulate newly arrived Board members. Foremost, I am extremely grateful for the dedicated support of USEA's gifted staff and their individual enthusiasm to identify new ways to collaborate with all energy stakeholders.

On a personal note, I am honored to have been appointed to serve as an inaugural board member of the U.S. Department of Energy's Foundation for Energy Security and Innovation (FESI), an independent non-profit entity that supports the Department's mission of continued security and prosperity through transformative science and technology solutions. Joining FESI really comes at a critical point as we are addressing access to energy for all, the environment, and affordability challenges.

Equally, I was also humbled to be recognized for leadership in public and private energy areas with USEA's Centennial Executive Service Award at our Centennial Celebration Dinner in October.

Yes, the Celebration Dinner was a joyous night. This centennial wasn't just about looking back - it was about setting the course for the next hundred years. 2025 promises to be a year of opportunity for USEA as we expand our vision and mission. We look forward to a year of reconnection, new beginnings, and fresh opportunities.

I hope you will find this annual report both informative and useful.

Vicky A. Bailey
Executive Chairman
United States Energy Association

SVP of Woodside Energy Majida Mourad; TerraPower CEO Chris Levesque; Natural Gas Supply Association President & CEO Dena Wiggins; Excel Services CEO Donald Hoffman and White House Chronicle Executive Producer Llewellyn King.

Membership

Amplify, Convene, Educate

The United States Energy Association is an educational association with a broad membership consisting of major players in all sectors of the American energy industry. We empower energy stakeholders and organizations through strategic engagement and comprehensive resources. We actively shape the energy dialogue, ensuring members have a powerful voice in critical discussions. We provide access to timely, critical information on policy, markets, and technology, fostering informed decision-making. Recognizing the sector's dynamism, USEA offers robust educational programs for continuous professional development. Finally, we enhance organizational visibility through strategic connections and event participation, ensuring members gain deserved recognition and strengthen their industry reputation. USEA is the premier platform for amplifying, convening, and educating within the energy landscape.

CONNECTION

USEA facilitates strategic connections within the energy sector, offering direct engagement with key executives, including Directors and CEOs. Through a curated program of forums, workshops, and webinars, participants gain access to exclusive networking opportunities and knowledge-sharing platforms. These events are designed to foster meaningful relationships and provide insights from industry leaders, enabling attendees to remain abreast of and contribute to the sector's advancements.

IMPACT

USEA plays a proactive role in shaping the energy dialogue, advocating for a robust and sustainable energy future. Membership with USEA strengthens this advocacy, providing a collective voice that ensures impactful representation in critical discussions. This collaborative approach enables tangible contributions to the advancement of the energy sector.

KNOWLEDGE

USEA provides members with critical information, recognizing its pivotal role in informed decision-making. Through timely updates on policy developments, market trends, and technological advancements, USEA delivers comprehensive insights into the energy sector. Publications, reports, and online resources serve as a centralized hub for navigating the complexities of the industry. USEA's commitment to disseminating accurate and timely information empowers members to maintain a strategic advantage.

GROWTH

Recognizing the dynamic nature of the energy sector, USEA prioritizes continuous professional development. To this end, the association offers a comprehensive suite of educational programs designed to equip members with the latest industry knowledge and skills. This investment in professional growth underscores USEA's commitment to its members' success, acknowledging the symbiotic relationship between individual advancement and the association's overall impact.

RECOGNITION

USEA membership enhances organizational visibility within the energy community. Through strategic member connections,sponsorship opportunities, and active participation in our events, members gain increased prominence and strengthen their industry reputation. This platform provides an opportunity for organizations to achieve deserved recognition and elevate their profile within the sector.

Scan to learn more about membership!

JOIN USEA MEMBERSHIP

Our members directly influence the subjects that we address during our informational events in the U.S. and around the world. Members can participate as speakers/panelists at events, on our podcast, or in press briefings; share announcements via USEA's platforms; and collaborate on custom events. Lastly, members gain direct access to USEA's expertise, including consultation with President and CEO Mark W. Menezes (former Deputy Secretary of Energy) and his team, to further USEA's mission of promoting sustainable energy. Download the application from www.usea.org/membership or email Membership Program Coordinator Alana Sweeting (asweeting@usea.org) for more information.

USEA President & CEO Mark Menezes and S&P Global Vice Chairman Dr. Dan Yergin's keynote conversation.

2024 FORUMS & Flagship Events

2024 State of the Energy Industry Forum

Our 20th Annual State of the Energy Industry Forum (SOTEI), held in January, was an electrifying gathering of dynamic leaders representing the full spectrum of the energy arena. Convened annually by USEA, this premier forum engages Washington's top energy associations, providing a vital platform for dialogue on the latest developments shaping the industry.

This year's SOTEI broke from the past format of prepared speeches to four conversational panels of experts on the thematic topic of the integrated nature of our energy systems moderated by USEA President & CEO Mark Menezes. This year's forum began with Pulitzer Prize winning author and renowned energy expert, Dr. Daniel Yergin, in a "Keynote Conversation" with USEA President Menezes where they discussed the rapidly-evolving, integrated, and multidimensional networks of the U.S. and global energy systems.

After the conversation, the four panels began and covered a variety of topics including the electrification of the economy and the increased interdependence of natural gas supply; challenges faced with providing and distributing energy supplies and the push for more energy options; opportunities and challenges in the U.S. and global energy markets today with a continued demand for oil and natural gas; and breakthrough technologies designed to increase access to affordable and reliable energy.

The forum closed with remarks from Jacob Irving, President and CEO of the Energy Council of Canada. Irving discussed the important partnership between the two nations when it comes to energy resources. "Everything that you are doing in energy, we are doing up north as well," he said.

Jacob Irving, President, Energy Council of Canada.

SOTEI panel Innovation featuring (l to r) Moderator Mark Menezes, President & CEO, USEA; Frank Wolak, President & CEO, Fuel Cell & Hydrogen Energy Association; Carlos Koeneke, Vice Chair, Gas Turbines Association; Paula Gant, President & CEO, GTI Energy; and Malcolm Woolf, President & CEO, National Hydropower Association.

SOTEI panel Electricity, Natural Gas, Power: A Growing Interdependency, featuring (l to r) Moderator Mark Menezes, President & CEO, USEA; Dan Brouillette, President & CEO, Edison Electric Institute, Abigail Hopper, President & CEO, Solar Energy Industries Association, Dena Wiggins, President & CEO, Natural Gas Supply Association, Amy Andrysak, President & CEO, Interstate Natural Gas Association of America, Maria Korsnick, President & CEO, Nuclear Energy Institute, and Arshad Mansoor, President & CEO, EPRI.

2024 Annual Membership Meeting & Public Policy Forum

USEA hosted its Annual Membership Meeting & Public Policy Forum on May 30, 2024. The event brought together industry leaders, policymakers, and experts to discuss the future of energy and its impact on the global landscape.

"USEA's Annual Membership Meeting & Public Policy Forum provided a platform for meaningful discussions and valuable insights into the future of energy...The event showcased the commitment of industry leaders and policymakers to drive sustainable and innovative solutions for a more resilient energy sector."

- USEA President and CEO Mark W. Menezes

A standout moment of the forum was the keynote conversation, "Driving the Energy Transition to 2050 and Vision for the Next 100 Years," featuring David Turk, Deputy Secretary of the U.S. Department of Energy, and Mark W. Menezes, President & CEO, USEA. The discussion shed light on the strategies and vision for a sustainable energy future.

Gillian Caldwell, Chief Climate Officer & Deputy Assistant Administrator at the U.S. Agency for International Development (USAID), delivered remarks on "Funding the Future of Developing Nations," emphasizing the importance of supporting sustainable energy initiatives worldwide. Caldwell also presented the USEA Individual Energy Volunteer Award to Yok Potts, Director of Policy, Research & Industry Strategy at Smart Electric Power Alliance, and the USEA Corporate Volunteer Award to Jose Avila-Gomez, representing Dragos.

The meeting also featured a conversation between Ambassador Geoffrey Pyatt, Assistant Secretary of Energy Resources at the U.S. Department of State, and Mark W. Menezes, President & CEO, USEA. Together, they explored the critical importance of energy security and its far-reaching implications for the future.

The forum addressed the crucial role of women in the energy sector. The panel discussion titled "Women in Energy: Shifting from Words to Action" featured esteemed speakers who explored ways to empower women in the field and drive meaningful change. The panelists included NERC Board of Trustees member Sue Kelly, Tellurian, Inc.'s Senior Vice President of Federal Government Relations Majida Mourad, Laisar Management Group Founder & President Florence Amate, and U.S. Department of State Principal Deputy Assistant Secretary, Energy Resources Laura Lochman.

In addition, a conversation was held on transmission solutions for the future and featured Electric Power Supply Association President & CEO Todd Snitchler, Southwest Power Pool Vice President of Engineering Casey Cathey, and EPRI Technical Leader Anna Lafoyiannis.

The forum also included recorded remarks from World Energy Council Secretary General & CEO Dr. Angela Wilkinson, and a speech from White House Chronicle Executive Producer & Columnist Llewellyn King.

USEA AWARDS

Congratulations to the 2024 Award Recipients

2024 United States Energy Award

NICK AKINS,
Chair, President and Chief Executive Officer of American Electric Power (Ret.)

International Partner

TRANSELECTRICA,
accepted by George Visan, Director of Energy Markets

Corporate Volunteer

DRAGOS,
accepted by Jose Avila-Gomez, Senior Industrial Consultant

Individual Energy Volunteer

YOK POTTS,
Director of Policy, Research & Industry Strategy Smart Electric Power Alliance (SEPA)

EnergyTech Connect Forum

On October 24, 2024, USEA hosted its inaugural EnergyTech Connect Forum at the National Press Club, bringing together industry leaders, regulators, and policymakers to tackle the energy challenges of growing data center demands and AI.

Discussions covered grid reliability, utility strategies, state regulatory perspectives, and market evolution, with keynote insights from Chris Levesque of TerraPower on the role of nuclear energy. The event highlighted collaborative solutions from organizations like NVIDIA, Southern Company, PJM, and the U.S. Department of Energy to ensure a resilient and sustainable energy future.

"Facing unprecedented energy demands driven by AI, data centers, EVs, advanced manufacturing, and cryptocurrency mining, our inaugural EnergyTech Connect Forum convened diverse voices to chart a path toward streamlined permitting, resilient supply, and smarter grid investments. This pivotal dialogue, coupled with our Advanced Energy Technology Showcase highlited the crucial transition of breakthrough innovations to grid-scale deployment, underscoring USEA's commitment to fostering transformative conversations at the nexus of technology, policy, and investment, shaping the future of energy for years to come."

- USEA President and CEO Mark W. Menezes

Advanced Energy Technology Showcase

On December 12, 2024, USEA hosted the Advanced Energy Technology Showcase at the Ronald Reagan Building, featuring groundbreaking innovations from the Department of Energy's National Labs, the Loan Programs Office, and industry leaders such as ESS and Oxy.

The event showcased emerging technologies in grid modernization and fusion energy with discussions led by experts from across the energy sector. The showcase reinforced the role of public-private partnerships in accelerating the energy transition.

JSET

Just and Secure Energy Transition

The USEA Just and Secure Energy Transition (JSET) program supported the countries of Europe and Eurasia in their secure transition to a new energy economy. In partnership with the United States Agency for International Development (USAID), the JSET program built upon 30 years of groundbreaking efforts in the region to develop infrastructure and to create markets for U.S. energy exports, software, and equipment. The JSET program harnessed U.S. energy industry expertise and experience, as well as the expertise of partner organizations around the world.

Specifically, the JSET program worked to: operationalize and integrate regional energy markets to reduce the cost and complexity for American investors and traders operating in the region; improve energy system operation and strengthen energy security by integrating American grid enhancing technologies; and improve regional energy sector resilience and response capabilities to disasters and extreme events by introducing American software and hardware.

USEA extends its gratitude to the many members, staff, contractors, partners, and friends who contributed to the success of the JSET program. USEA-led programs over the past 30 years have left a legacy and contributed significantly to the energy maturity and energy security of the Europe and Eurasia region.

USEA will continue applying its expertise and experience to energy projects in the region through new partnerships with public and private funding institutions.

Market Integration and Market Coupling

Trade across borders and with Europe attracts U.S. investment

The small, fragmented, and shallow electricity markets across Europe and Eurasia are unable to attract the scale of energy investment required to protect their energy security. So, countries in this region are integrating their electricity markets with each other and with Europe to unlock billions of dollars of energy investment, reduce the cost of cross-border trade.

Integrated markets are more attractive to U.S. investors, suppliers, and vendors. Integrating markets in this region with Europe draws the region away from competitors who seek to undermine U.S. influence to advance their own export interests.

One of the important steps to achieving full market integration is through "market coupling," which optimizes the use of a regional transmission network by reducing the complexity and cost of cross-border electricity trade. Market coupling attracts investment because integrated markets increase the confidence of potential American investors by providing price transparency for power purchase agreements and other offtake arrangements. Market coupling also advances regional energy security by increasing the number of energy suppliers, improving access to shared resources, and optimizing investments in new generation and grid improvements.

Making progress on market coupling in Southeast Europe. Miha Pregl and other USEA JSET team members met with participating regulatory authorities, transmission system operators, and power exchanges to discuss progress on a USAID-sponsored project to couple electricity markets in Greece, Albania, Kosovo, and North Macedonia. To be successful, energy institutions in each participating country are making changes to their internal operations and protocols in accordance with EU market rules and principles, while simultaneously developing legal agreements with EU counterparts.

Representatives from the Romanian and Moldovan energy sectors met in Bucharest to launch a significant project to integrate the countries' electricity networks. This integration—"market coupling"—will make it easier for Moldova and Romania to trade energy with each other and with other parts of Europe. Market coupling is attractive to investors, aids in the clean energy transition, and reduces reliance on energy supplied by malign nations. At the meeting, with support from USAID U.S.-Europe Energy Bridge and the USEA JSET team, regulatory authorities worked in parallel with transmission system operators from both countries and a power exchange to discuss the additional steps needed to achieve market coupling.

Through training and technical assistance, the USEA JSET program provided much needed technical support to resource challenged utilities in the region, to harmonize their policies, procedures, technologies, budgets, and human resources to integrate with the European wholesale electricity market.

JSET was involved in several market coupling projects happening in the region, requiring multi-country cooperation between electricity transmission system operators, market operators, and national regulatory authorities. Some of these projects include:

- Market coupling project involving Greece, Albania, Kosovo, and North Macedonia.
- Several market coupling projects involving Ukraine, Moldova, and Romania.
- Market coupling project between Montenegro and Italy.
- Market coupling preparation projects for Türkiye and Georgia/Armenia.

The Vertical Corridor

Enabling U.S. LNG to diversify natural gas supply

The "Vertical Corridor" is a collection of investments proposed by the gas system operators in Greece, Bulgaria, Romania, Hungary, Slovakia, Ukraine, and Moldova consisting of approximately 600 million Euros to increase the firm incremental capacity of the pipelines connecting these countries. Development of this corridor will: provide increased opportunity for U.S. LNG exports to the region via Greece; increase energy security in the region by diversifying gas supply options; provide expanded access for EU countries to Ukraine's underground gas storage; and allow the U.S. to push back against strategic competitors in the region.

The USEA JSET program, in cooperation with a coalition of these system operators, was involved in an analysis to reduce the cost of investment in the corridor through a regional planning approach, which would enable U.S. LNG shippers to be more competitive with pipeline gas.

Regional Electricity Transmission Interconnections

Network connections enlarge markets to increase U.S. investor confidence

Regional electricity transmission interconnections play a strategic role in strengthening the region's energy independence; reinforcing energy security and economic cooperation; and reducing malign energy leverage across Europe and Eurasia. Expanded network connections help grow market size, which makes markets more attractive—and less risky—to U.S. investors.

By investing in these interconnections, the United States and its partners counter malign energy dependencies, promote competitive and transparent Western-aligned electricity markets across Europe and Eurasia, and create new commercial opportunities for U.S. energy companies.

The USEA JSET team led network feasibility studies on new transmission interconnections that will support U.S. strategic investment in the region:

- New and upgraded interconnections between Ukraine, Moldova, and Romania, enhancing energy resilience and supporting Ukraine's deeper integration with Europe.
- Infrastructure development projects connecting Türkiye with Georgia, laying the foundation for electricity exchange and regional market integration.

Queue Management

Bottlenecks delay billions in potential U.S. energy investment

Many countries worldwide face a similar challenge: the need to rank-order and effectively evaluate all the private sector requests they receive to connect to the high-voltage grid, which are generally far greater than what the grid can accommodate, and far greater than what will come to fruition. The pace and magnitude of such additions impact investment in substations and the network, customer costs, the pace of new energy integration, congestion, system balancing, imports and exports, and reliability.

In the Western Balkans, grid operators do not yet have the ability to accurately or efficiently evaluate the projects in their queues. The resulting backlog of connection requests represents billions in unrealized and delayed private investment.

The USEA JSET program worked to improve the connection process by instituting a "first-ready, first-served" approach to identify and connect the most advanced generation projects and create an environment that reduces the cost and risk to American project developers.

Increasing Resilience and Cybersecurity

Positioning American cybersecurity solutions as the preferred provider in the region

Cybersecurity is energy security. Utilities in Europe and Eurasia lack software and hardware, processes, controls, and training to identify digital devices on their electricity networks, rank and prioritize risk mitigation, patch vulnerabilities, and recover from cyberattack.

The USEA JSET program partnered with electric utilities in the region to procure and install American software and hardware, train staff on its use, and develop policies and procedures to ensure its continued use in years to come. In doing so, USEA positioned U.S. technology vendors as the preferred cybersecurity choice in the region.

George Visan, Director of Energy Markets for Transelectrica, accepts the USEA 2024 International Partner of the Year Award on May 30, 2024, in Washington, D.C. Pictured here, from left: Cristian Gaginsky, Deputy Chief of Mission for the Romanian Embassy; William Polen, Senior Director of USEA; George Visan; Mark Menezes, President and CEO of USEA.

Grid Enhancing Technology

Positioning advanced American technology to improve security and attract private investment

Grid enhancing technologies can increase the capacity of electric power transmission lines to integrate neighboring electricity markets, improve reliability, and create a supporting environment for investment in new generation capacity. Countries across Europe and Eurasia are exploring the possibility of deploying U.S.-developed grid enhancing technology to meet their energy transmission needs.

The United States is a leading provider of this technology. USEA had been working with transmission system operators and regulators across the region to partner with U.S. equipment manufacturers and software companies to reduce technical and regulatory impediments to deploying cutting-edge American smart grid technology. This technology promises to increase the region's transmission capacity at a fraction of the cost and time compared to building new infrastructure.

Investing in Ukraine and Moldova Energy Security

Reducing malign influence in Eastern Europe

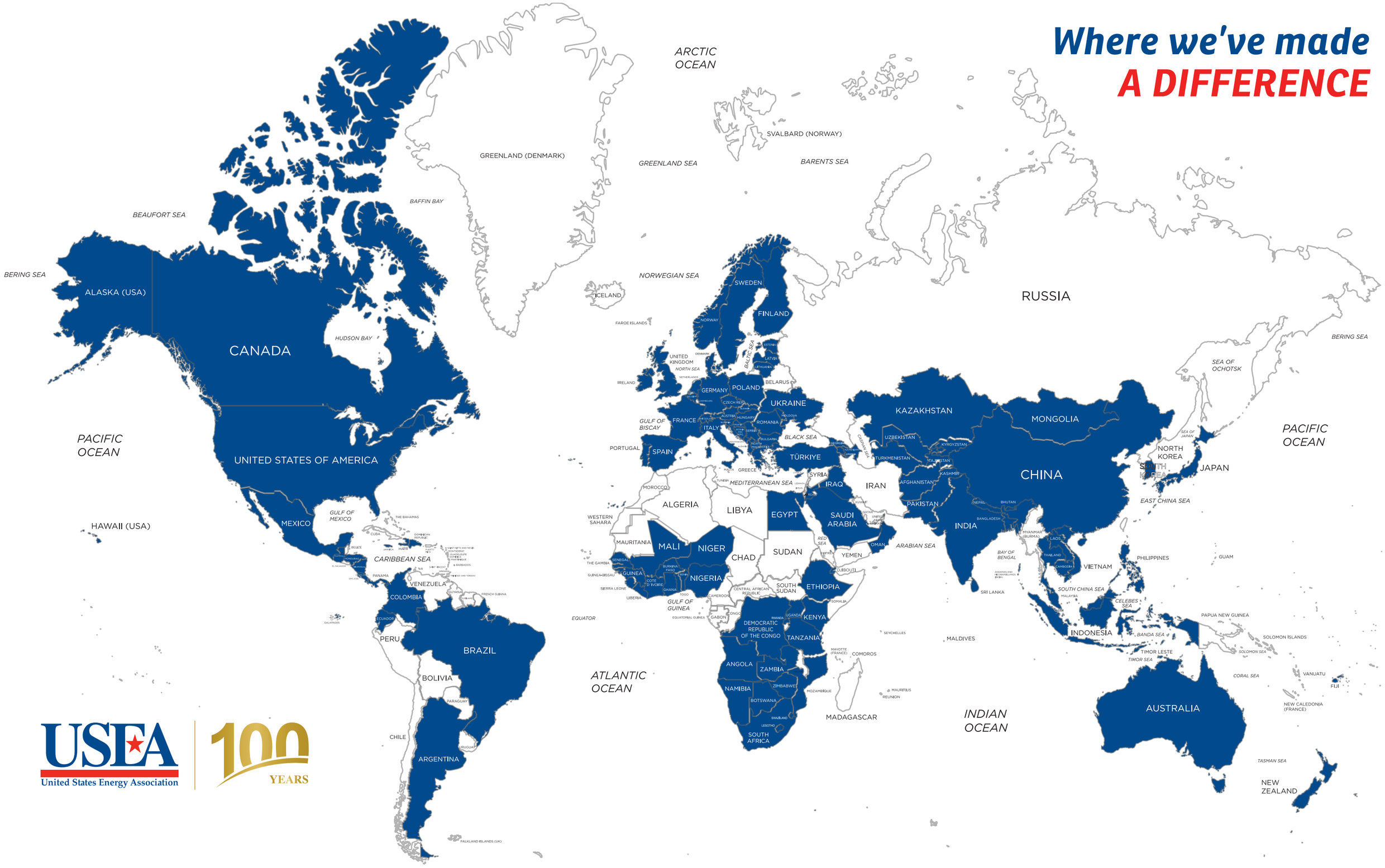
UKRAINE

Following USEA's facilitation of Ukraine's network synchronization with Europe in 2022, USEA continued to provide critical technical, financial, and diplomatic support to ensure Ukraine's energy independence. USEA support to increase Ukraine's energy security expands the market for American energy technology and creates opportunities for U.S. infrastructure investments, reinforcing transatlantic economic and security ties while promoting long-term energy stability in Eastern Europe.

MOLDOVA

USEA played a crucial role in strengthening Moldova's energy security and integration with Europe, which is also vital for Ukraine's long-term success. USEA support has helped Moldova to diversify its energy supply (including natural gas) and strengthen cross-border connections with Romania and Ukraine. A strong, energy-secure Moldova creates and reinforces broader U.S. trade, investment, and strategic interests in a stable, independent Eastern Europe.

Where we've made A DIFFERENCE



USEA United States Energy Association | 100 YEARS

2024 ENERGY Award Recipient

Nicholas "Nick" Akins - Chair, President and Chief Executive Officer of American Electric Power (Ret.) 2024 United States Energy Award Recipient

USEA was honored to recognize Nick Akins as the recipient of the 2024 United States Energy Award. The United States Energy Award is one of the most respected awards within the energy industry. Established in 1989, the award recognizes preeminent energy leadership and contributions to the international understanding of energy issues.

Each year, USEA announces the call for nominations of individuals to receive this prestigious award. The Award Selection Committee examines each nominee's leadership, history of proven accomplishments, and efforts in advancing global energy initiatives. Support for the United States Energy Association is also a major consideration.

Nick not only met but far exceeded the qualities that USEA seeks in its United States Energy Award recipients. We are honored that he accepted this award in recognition of his devotion and pursuits in advancing energy access domestically and worldwide. He joins a group of elite industry leaders who share this honor and distinction.

Nick Akins is the former chair, president and chief executive officer of American Electric Power. He served as AEP's 11th chair, and from 2011-2022 as the company's sixth chief executive officer and 10th president. During his tenure, AEP invested in modernization and security of the electric grid, resource diversification, and technology and innovation to enable the transition to a clean energy future while preserving universal access to the grid. Akins also led a culture transformation to engage employees in customer-focused innovation, enhance diversity and inclusiveness, and build workforce agility for a digital future. Akins rose through the ranks at both AEP and the former Central and South West Corporation (CSW), which merged with AEP in 2000, holding various positions of increasing leadership responsibility throughout his career.

A native of Louisiana, Akins received his bachelor's degree in 1982 and a master's degree in 1986 in electric engineering from Louisiana Tech University in Ruston. Additional training includes executive management programs at Louisiana State University, the University of Idaho and the Reactor Technology Course for Utility Executives at the Massachusetts Institute of Technology. He is a registered professional engineer in Texas. Akins is a former chairman of the board of directors of the Edison Electric Institute (EEI), Electric Power Research Institute (EPRI), Global Sustainable Electricity Partnership (GSEP), Nuclear Electric Insurance Limited (NEIL), the Ohio Business Roundtable (OBRT), Ohio Health, as well as the former chair of the U.S. Business Roundtable (BRT) Energy and Environment Committee. Currently, he serves on the boards of GE Vernova, Fifth Third Bancorp and DTE Energy, and also serves on the board of The Rock and Roll Hall of Fame.

He was awarded the Louisiana Tech Tower Medallion and inducted into the university's Hall of Distinguished Alumni in 2022. Other awards include the EEI Distinguished Leadership Award, the Edwin D. Hill Award and the Thomas A. Edison Legacy Award for his continued dedication to the electric utility industry.

"Nick, On behalf of the entire EEI Board of Directors and our EEI team, thank you for your decades of contributions to the electric power industry. Your work to shape and strengthen our mutual assistance efforts—and your commitment to safe, affordable, reliable, and resilient clean energy—have left a lasting legacy at American Electric Power and throughout our industry. Your vision for the National Response Event framework came to life and proved its worth time and again. Having seen it in action during my tenure at the DOE, I can truly say it's been a game-changer during those crucial moments when disaster strikes. As chair of EEI, your drive to push us toward clean, affordable, and reliable energy and enhance our grid has really defined what we strive for daily in providing the energy solutions our customers need. Thanks so much for your hard work and dedication—it's made a real difference. Congratulations again on this well-deserved award!"

- Dan Brouillette, President & CEO, Edison Electric Institute

100TH CELEBRATION

On October 19, 2024, USEA hosted its 100th Anniversary Celebratory Event at the historic Mayflower Hotel.

At this event, USEA recognized the service of three individuals who have demonstrated dedication and commitment to USEA.

For his many years of participation on our board and his dedication to the energy industry, Pulitzer Prize winning author ***Dr. Daniel Yergin*** received our ***Centennial Lifetime Achievement Award***. ***The Honorable Vicky Bailey*** received our ***Centennial Executive Service Award*** for her years of board service and her vision and leadership for steering USEA over the past decade. And to honor the dedication and selfless service of the creator of today's USEA, we honored ***Barry Worthington*** posthumously by recognizing his contributions through the ***Centennial Visionary Legacy Award***. The evening also included ***special honors*** presented to individuals who have made ***exceptional contributions*** to USEA's success over the years. These included: ***Sheila Hollis,*** Of Counsel and Chair, Duane Morris (Ret.), ***Steve Burns***, Director for Energy Security, White House National Security Council, and ***Llewellyn King,*** Co-Host & Producer *White House Chronicle.*

Dr. Daniel Yergin accepting the Centennial Lifetime Achievement Award.

Hon. Vicky A. Bailey accepting the Centennial Executive Service Award.

Dr. Louise Worthington and daughter, Kerry Worthington, accepting the Centennial Visionary Legacy Award on behalf of the late Barry K. Worthington, a past President & CEO of USEA.

Sheila Hollis
Of Counsel and Chair, Duane Morris (Ret.)

Steve Burns
Director for Energy Security, White House National Security Council

Llewellyn King
Co-Host & Producer White House Chronicle

2024 Virtual Press Briefings

USEA's Virtual Press Briefing series features industry experts answering questions from energy journalists about the leading issues and cutting-edge energy topics of the day.

The Virtual Press Briefing series was launched in October 2020. It is a virtual reboot of the original Press Briefing series, which was conducted several years ago in the USEA offices.

The series has received extensive media coverage, including articles in Forbes, POLITICO, The Guardian, Energy Daily, S&P Global Platts, and Utility Dive.

The year began with a stark reminder of 2023's challenges: extreme weather. Utilities, having weathered record-breaking heat, now faced the ongoing threat of unpredictable conditions. This threat was not merely meteorological; it extended to the very foundations of the energy sector. Consequently, the United States Energy Association (USEA) convened briefings to address these mounting concerns.

As the year progressed, a recurring theme emerged: the confluence of technological advancement and escalating demand. In March, the focus shifted to artificial intelligence (AI), seen as both a solution and a catalyst for change. While AI promised to revolutionize utility operations, it also raised questions about workforce impact and energy consumption. This thread of technological evolution continued into April, with discussions on the potential of fusion energy, a long-sought clean power source. The vital role of National Laboratories in driving these technological advancements was then highlighted in May, emphasizing their contributions to modernizing the energy grid.

S&P Global Platts
The Guardian
UTILITY DIVE
POLITICO
Forbes

However, these innovations arrived amidst a growing sense of urgency. June brought stark warnings of an impending electricity supply crisis, exacerbated by rising demand and extreme weather. Industry leaders emphasized the "hyper-complex risk environment," prompting further USEA briefings. This led into July, where the focus was on the "Electron Renaissance" and the suite of new technologies poised to reshape the electric space. The stress on the electric utility industry was further underlined in August, with the industry facing an existential crisis from many different angles.

Despite technological advancements, traditional energy sources remained critical. September's briefing examined the continued importance of natural gas, a core fuel in the U.S. utility mix, addressing its challenges and future role. October then returned to the theme of AI, delving into its expanding role in utility operations, from grid management to customer service.

As the year drew to a close, the focus turned to the practicalities of maintaining a reliable energy infrastructure. November highlighted the vulnerabilities of the supply chain, particularly in the face of natural disasters and geopolitical uncertainties. Finally, December explored the rise of distributed energy resources (DERs) and virtual power plants (VPPs), marking a potential shift towards a more decentralized and resilient energy system. Throughout the year, the USEA briefings served as a vital forum for addressing these interconnected challenges, providing insights into the evolving landscape of the energy sector.

Power Sector Podcast

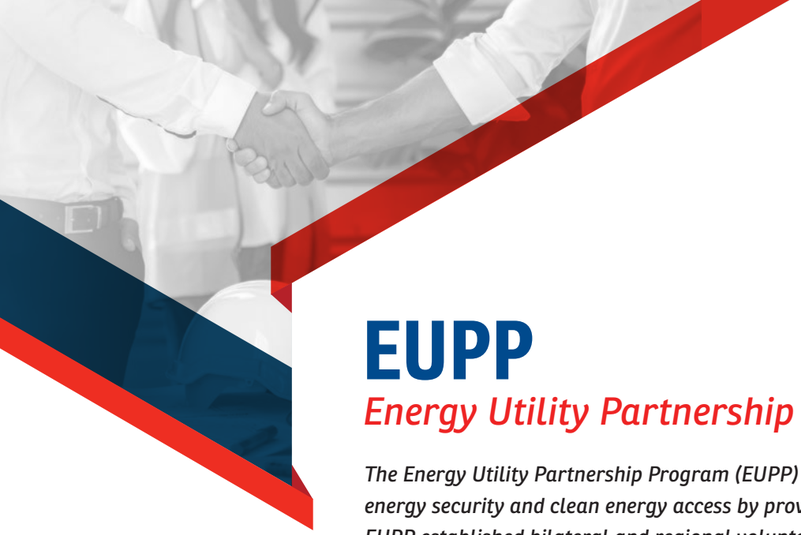
The USEA Power Sector Podcast is bringing new voices and new ideas to key energy system conversations in interviews targeting urgently needed solutions. Topics range from when, where, and how generation and transmission should be expanded to what resources and technologies are needed to ensure distribution systems remain reliable.

The podcast is airing the voices of those building and implementing tomorrow's energy system and of the policymakers who, in response to consumer demand, are setting the goals for a renewed power sector. It also features regular check-ins with state and federal agencies like the Department of Energy and public utility commissions to see what they are doing to drive and support change.

The podcast draws on USEA's diverse technology- and business-oriented members now caught up in today's sweeping changes of the way energy is harvested, used, and paid for.

In 2024, we began streaming the USEA Power Sector Podcast on Spotify and Apple Podcasts in addition to YouTube. We proudly have listeners on six continents and in 36 states including Washington, DC!

Scan to learn more!



EUPP

Energy Utility Partnership Program

The Energy Utility Partnership Program (EUPP) was established in July 2016 to promote energy security and clean energy access by providing capacity building to local utilities. EUPP established bilateral and regional volunteer partnerships between the U.S. energy industry and energy organizations in USAID-assisted partner countries. These practitioner-to-practitioner partnerships allowed advanced energy entities to share best practices and hands-on experience with their overseas counterparts through technical exchanges and other capacity building activities. This transfer of information assisted country partners to achieve their Nationally Determined Contributions (NDCs) to reduce emissions, improve management efficiency, achieve economic pricing, increase revenue collection, privatize utility functions, enhance employee productivity, and operate within a regulatory environment.

EUPP accelerated progress in expanding electricity access, though continued efforts are essential to achieve universal access to affordable, reliable, sustainable, and modern energy for all. EUPP helped ensure increased, environmentally-sustainable energy production and use with meaningful impact for global citizens. USEA concluded the EUPP program in June 2024 after achieving significant results, including advancing renewable energy integration, facilitating investment and opportunities for U.S. companies, reducing greenhouse gas emissions through technical assistance, improving utility operations through training, and strengthening regional trade capacity.

EUPP
By The Numbers

13,098 People Trained
7787 male
2852 female

32,299.7 metric tons of CO2 avoided (projected)

16 Laws, Policies, Regulations, or Standards

$9,285,071 Total Cost Share

Enabling Integration of Renewables

EUPP created an enabling environment for the deployment, financing, and grid integration of renewable energy generation to reduce emissions, lower costs, spur economic growth, and increase access to affordable modern energy services.

ENABLING INTEGRATION OF RENEWABLES	
Bilateral	**Regional**
EUPP's energy programs contributed to the installation of more than 456 MW of geothermal renewable capacity in Kenya.	Created an enabling environment in Central Asia through DIgSILENT planning & simulation software training to integrate renewables.
350 MW offshore wind project currently being built in Barranquilla, Colombia to be operational in 2026 as a result of Offshore Wind Resolutions and Roadmap.	PSS/E training in East Africa to improve system planning to maximize renewable energy production and trade.
EUPP supported energy sector reforms that reduced barriers to renewable energy deployment and strengthened utilities to maintain reliability with deployment of renewable energy resources.	South Asia work on technical interconnections, trading platforms and standardization opened trading to maximize renewable energy development and deployment as well as regional energy integration and cross border energy trade.

Enabling Investment and Opportunities for U.S. Companies

Emerging energy markets are key for clean energy technology; however, many utilities focus on overall cost and purchase inferior equipment. EUPP programs promoted U.S. equipment, highlighting the importance of the durability of U.S. battery storage solutions to stakeholders in Colombia, and purchasing geothermal drilling equipment for Djibouti. These markets also provide an opportunity for investment, particularly from U.S. clean energy companies. According to the IMF, most of the $2 trillion in annual investments needed to transition in developing country energy sectors will have to come from the private sector to supplement insufficient public sector funding.

ENABLING INVESTMENT AND OPPORTUNITIES FOR U.S. COMPANIES	
Bilateral	**Regional**
Tanzanian stakeholders received training on private-public partnerships to create an enabling environment for renewable energy investment. The total potential (not yet fully realized) investment is $2 billion.	East African stakeholders built their network with U.S. geothermal industry members and promoted their legal, regulatory and technical reforms at the Geothermal Resources Council (GRC) Annual Meeting, the largest annual geothermal conference in North America.
Support for offshore wind energy in Colombia led to a reverse energy auction worth up **to $2 billion worth of private investment.**	
In Kazakhstan, EUPP supported the design and execution of **Kazakhstan's first major clean energy auction** in 2018 and 2019.	
Colombia hydrogen roadmap developed the necessary policies to provide a framework for companies interested in investing in this renewable fuel.	

GHG Emission Reduction Through Technical Assistance

Working with governments in Colombia, Tanzania, Kazakhstan, and Kenya, EUPP reduced greenhouse gas emissions through assistance with laws, resolutions, reverse energy auctions, and policies to establish rules and transparency. EUPP assisted Colombia, Tanzania, and Kazakhstan with reverse energy auctions, outlining key rules and procedures necessary for a transparent, successful auction. In Colombia, EUPP also worked with the Ministry of Mining and Energy to finalize offshore wind and green hydrogen resolutions and roadmaps. EUPP's energy programs contributed to the installation of more than 2,361 MW of renewable capacity with approximately 38,527.16 estimated lifetime GHG emission reductions.

EMISSIONS REDUCTIONS BY COUNTRY	
Country	**Potential Total GHGs Reduced/ Avoided For Life of Project**
456 MW of geothermal renewable capacity in Kenya	5547.54
350 MW offshore wind project in Barranquilla, Colombia	7984.25
500 MW Kappa wind farm in development in Guajira, Colombia	3569.96
Kazakhstan reverse auctions of 2018 and 2019 contracted 356.5 MW of solar	7108.95
Kazakhstan reverse auctions of 2018 and 2019 contracted 609.84 MW of wind	11,470
Kazakhstan reverse auctions of 2018 and 2019 contracted 89.08 MW of hydro	2846.46
TOTAL PROJECTED	**38,527.16**

Improved Operations Through Training and Technical Assistance

Utilities in developing countries seek to plan, manage and operate power systems more effectively, integrate low-cost energy resources into their power grid, modernize infrastructure, and transform their business models. This requires addressing commercial, institutional, technological, workforce development, financial and policy issues in transitioning to self-reliant utilities. Through the establishment of partnerships between the U.S. and USAID-assisted energy service providers, EUPP improved modern energy services and energy sector governance, including:

- Training over 560 staff at the Ethiopian Electric Utility in substation maintenance
- Training staff at the Uganda Electricity Generation Company Ltd (UEGCL) so they can maintain their own dams and stop hiring contractors, resulting in substantial savings
- Improving geothermal drilling skills to allow new power plants to come online on schedule with financial savings
- Improving the institutional capacity of system operators, at the national, regional and state levels, to better handle the variability, uncertainty, and challenges specific to large volumes of renewable energy resources on the grid
- Improving system planning and operations to improve reliability and access in Central Asia, East Africa, and Senegal
- Providing technical assistance and training on coal flexing in India to improve operations and lower minimal load needed to offset renewable energy intermittency
- Improving project management in Senegal to speed up the more than 1,000 ongoing projects

Enhanced Capacity for Regional Trading

Advancing regional power trade can improve energy security by optimizing costs and promoting clean energy resources. EUPP worked in South Asia, Central Asia, and East Africa on interconnections and regional operations and markets to expand trading, providing new opportunities for economic development and improving reliability.

- Trainings provided Rwanda Energy Group (REG) with the knowledge to conduct joint studies with the Uganda Electricity Transmission Company Ltd (UETCL) on interconnected operations of the Rwandan and Ugandan power systems, strengthening regional cooperation in real-time grid operations.
- EUPP provided the system control engineers of Tanzania's National Grid Control Center with comprehensive training to develop the knowledge and skills of multi-tasking dispatchers, including the management of essential control room equipment and the understanding and application of the latest operational procedures. This training helped ensure that TANESCO has adequate capacity to take full advantage of the Tanzania – Kenya interconnection and maintain the stability of Tanzania's national power grid.
- EUPP supported power market development across Central Asia and facilitate the creation of a viable regional electricity market and cross-border trade, EUPP conducted a peer review and assisted Kyrgyz Electricity Settlement Center (KESC) in drafting the *Wholesale Electricity Market Concept and the Rules of the Wholesale Electricity Market of the Kyrgyz Republic*.
- To support Bhutan's efforts in regional power market development and strengthen its role as a cross-border electricity exporter in the BBIN (Bangladesh, Bhutan, India, and Nepal) region, USEA's South Asia Regional Energy Hub (SAREH) produced a study on Bhutan's readiness for regional power market integration. The report laid the groundwork for transitioning from bilateral trade to market-based mechanisms, helping the country optimize the monetization of its hydropower surplus—an asset that accounted for 63% of Bhutan's total export earnings in 2020 and supports the goals of its Sustainable Hydropower Development Policy 2021.

AMPUP

Advancing Modern Power Through Utility Partnerships (AmpUp)

Advancing Modern Power Through Utility Partnerships (AmpUp) introduced a new approach to international energy development assistance implemented by a consortium centered around peer-to-peer relationships and strong practitioner and stakeholder networks. AmpUp utilizes the vast experiences and knowledge of the organizations comprising the Consortium – the United States Energy Association (USEA), Arizona State University (ASU), National Rural Electric Cooperative Association International (NRECA), Segura Consulting, and MK Advisors – to offer overseas partner utilities an unparalleled network of utility and energy sector expertise. AmpUp leveraged the expertise and knowledge of utilities and energy sector experts from around the world, applying lessons learned and incorporating new models of engagement to support the global energy transition.

AmpUp develops and disseminates global performance improvement methods and practices, providing utilities with an array of capacity building support, technical assistance, and pathways for strengthening industry networks. The diversity and breadth of the Consortium's network allows AmpUp to respond to the unique operational realities of each recipient utility..

Improved Cybersecurity To Protect Assets And Ensure Reliability

Today's energy industry is undergoing rapid digitalization and increasingly conducting operations and planning via online platforms that are vulnerable to attack. Because of this rapid change, the development of cybersecurity strategies is critical to reduce vulnerabilities, protect assets, and ensure reliability. The threat of cyberattacks on electrical infrastructure poses a large-scale threat when considering that failures in one location can cascade to affect the rest of the network. System-wide cybersecurity and protection of critical infrastructure assets against these threats begins with a cyber-aware workforce trained to identify threat vectors, recognize vulnerabilities, and implement mitigation strategies.

To address this need, AmpUp created and implemented a Cybersecurity and Digitalization Partnership targeting utilities in USAID partner countries. Partnership participants gained the knowledge and skills to safely modernize the energy sector through digitalization and implement cybersecurity in their own utilities. The partnership included training for the GIAC exam and a ten-part cybersecurity webinar series on industrial control systems in cybersecurity. At the conclusion of the webinar series, USEA completed the *Cybersecurity and Digitalization: Handbook on Electric Sector Supply Chain Cybersecurity.*

Kenya Entrepreneurs Accelerator

The AmpUp consortium supported early-stage entrepreneurs and energy sector businesses to strengthen participation in Kenya's energy sector. The project provided three local businesses with grant funding and tailored business support that included a range of customized services such as customer segment analysis, entrepreneurship and leadership training, engineering and technology advice, product development support, supply chain analysis, cost reduction assessment, product pilots, market assessment, and organizational management.

AmpUp selected three companies: SunCulture, Giraffe Bioenergy and 60Hertz and provided each with a $50,000 USD grant and associated technical assistance. The one-year project served as a pilot framework for future initiatives aimed at scaling and supporting local businesses, within Kenya and beyond, with the ultimate goal of reducing the gender gap in the energy sector. Since the launch in January 2024, the project has provided technical assistance to the three companies, resulting in the following results:

Electricity Access: Number of new on- and off-grid actual direct connections (PA#3)	10,504* new systems
Number of productive-use, off-grid devices or systems sold as a result 11,000 new systems of USG/ Power Africa assistance (PA#27)	10,504 new systems
Number of employed women benefiting from on-the job, technical, or professional development training as a result of Power Africa assistance	52 women
Projected GHG emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy as supported by USG assistance (EG. 12-7)	62,882 tCO2e
Number of companies participating in Power Africa projects and transactions (United States, local, other) (PA#30)	3 companies
Amount of investment mobilized (USD) for clean energy as supported by USG assistance (EG 12-4; PA#14)	$1,000,000**
Training and Capacity-Building Activities: Number of people trained in technical energy fields with USG assistance (PA#18)	320 people

**figure represents all SunCulture products sold over duration of grant*
***$1M USD seed capital raised by Giraffe Bioenergy*

Investment Promotion In Energy Efficiency

The key to reaching climate goals for the 21st century is not only to make reforms in electricity generation but also to improve energy efficiency across the board. Improvements to both power system efficiency and how electricity is used by the end customer are required to reduce country-wide carbon footprints. Energy efficiency (EE) improvements can also create jobs, lower energy costs for consumers, and decrease water usage.

This initiative was launched to identify specific opportunities for energy efficiency investments at the basic business unit level and assist the company owners in formulating investments as "bankable" projects with the aim to reach financial close. Working with central government agencies, local public organizations, private entities that operate in the energy sector, and Chambers of Commerce & Industry, the AmpUp team produced a list of companies that consume significant levels of energy in their operations and could therefore potentially obtain high returns from sound EE investments. Through direct contact with the companies and a basic agreement to collaborate, the AmpUp technical team inspected the property, plant, and equipment (PPE) and explored the potential for significant EE gains with the end goal of structuring projects and promoting EE investments, thus reducing GHG emissions.

Twelve Guatemalan companies joined USAID's pilot program and five assessments were completed by the local partner, the Guatemalan Center for Cleaner Production (CGP+L), and reviewed by Arizona State University's Industrial Assessment Center. The five Level 1 Energy Efficiency Assessments for Guatemalan industrial companies found 4,011.71 ton/year of GHG emission reduction potential, representing an investment of $7,169,519.12 USD.

Accelerating Resilience in the Pacific Islands

Accelerating the energy transition is essential to resilience in Fiji and other Pacific island countries (PICs), and creates jobs in the energy industry. When coordinated with overall economic development plans, these efforts can facilitate economic diversity and job growth in other industries to improve democratic stability and enhance commercial trade with the United States.

AmpUp collaborated with over 70 energy sector leaders and stakeholders from ten Pacific Island countries on project ideas and action plans that will help accelerate the energy transition. Through regional workshops on *Accelerating Clean Energy Transitions and Resilience in Pacific Island Countries and Accelerating Off-grid Electrification for Pacific Island Countries*, energy stakeholders mapped pathways, resources, and expertise needed to accelerate the transition towards zero emissions, renewable energy, and transformational investments for a resilient future. The diverse set of actors in attendance met to co-create solutions, and form public-private sector partnerships, leading to at least 10 sites being developed and perhaps up to 75 sites for solar plus storage. UNDP and various development partners pledged up to $40M in investment to deploy renewable energy solutions, and a training program was outlined to continue advancing the energy transition through additional workshops, technical assistance, training, and coaching.

CONSENSUS

USEA CONSENSUS Year in Review 2024

The Promoting Consensus on CCUS and Clean Fossil Energy Technologies program aims to inform the public, policymakers, industry, and other stakeholders while fostering consensus on the benefits of Carbon Capture, Utilization, and Storage and other clean fossil energy technologies.

In keeping with its mission to increase understanding of energy developments domestically and internationally, USEA's CONSENSUS Program, launched in 2008, is a cooperative program with the U.S. Department of Energy's Office of Fossil Energy and Carbon Management to promote consensus on the need for Carbon Capture, Utilization, & Storage (CCUS) and other Clean Fossil Energy technologies. While dramatic progress continues to be made in developing these technologies, neither the progress achieved to date nor the full capability of CCUS and clean fossil energy technologies is widely understood - yet it must be if they are to have a significant global impact. The reality that much of the world will continue to use fossil fuels for decades to come, further underscores the need for these technologies.

These technologies also support an expanding market of opportunities for the use of CO2 and carbon byproducts in the production of cement, fertilizer, fuels and more. Deployment of CCUS and clean fossil energy technology holds the potential for rural job creation and revitalization. In further support of CCUS and Clean Fossil Energy technologies, Consensus promotes their importance to national security, energy resilience, and affordable and reliable energy.

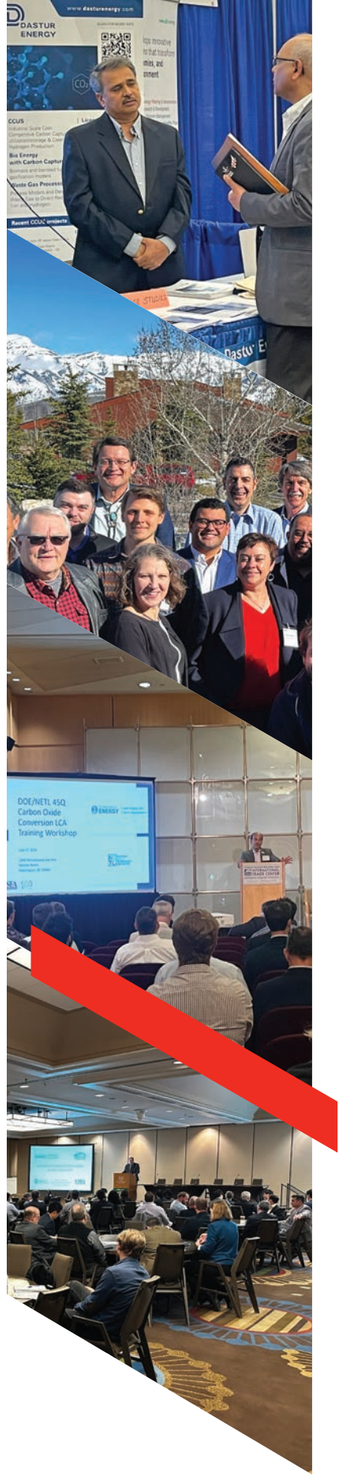
The CONSENSUS program collaborates with partners such as Battelle to develop reports and white papers that contribute to the CCUS and Clean Fossil Energy technology body of knowledge. These materials are designed to be accessible to a wide range of stakeholders, including the general public, policymakers, and industry. In 2024, the CONSENSUS program produced two reports:

- **Coupled Geothermal Power and Direct Air Capture with Storage**
  - This study evaluates the potential for using geothermal energy to power direct air capture (DAC) for carbon dioxide removal (CDR), addressing its high energy demand with a consistent, low-carbon source. By mapping geothermal and carbon storage fairways, the study integrates DAC power needs with regional geothermal capacity to model the feasibility and cost of geothermally powered DAC and storage (GDACS) facilities.
- **Evaluating the Relevance of NRAP Tools to Support Stakeholder Decision Making Related to UIC Class VI Injection Permit Application Process**
  - This study examines the applicability of the U.S. Department of Energy's National Risk Assessment Partnership (NRAP) tools for supporting EPA UIC Class VI permit applications for carbon storage projects. While NRAP tools were not designed for regulatory compliance, they assess key risks such as wellbore leakage, induced seismicity, and monitoring strategies, and may provide useful insights for permit development.

WEBINARS HOSTED IN 2024

The CONSENSUS program hosts a variety of webinars, fireside chats and briefings to provide the carbon management community with the latest industry knowledge in an easily accessible manner. USEA hosted the following webinars in 2024:

- Fireside Chat with Mike Moore and Ashleigh Ross on the Evolution of the Carbon Capture, Utilization, and Storage (CCUS) Industry
- Office of Fossil Energy and Carbon Management's (FECM) National Requirements for the Clean Energy Transition Partnership (CETP) Joint Call 2024 APPLICANT EDUCATION WEBINAR
- NETL Carbon Storage Planning Inquiry Tool (CS PlanIT) Webinar
- Evaluating the Utility of NRAP Tools in UIC Class VI Injection Permits
- CCUS Projects: What Does the US Regulatory and Permitting Landscape Look Like for 2024?



THE NATIONAL TRIBAL ENERGY ROUNDTABLE

Among the webinars and fireside chats hosted in 2024, the program is especially proud of its efforts to highlight issues impacting the Native American Tribal community through its National Tribal Energy Roundtable series, hosted in collaboration with its partner Shasta Advisors.

TRIBAL WEBINARS IN 2024

- Direct Air Capture and Advanced CCUS Solutions for Tribes
- Energy Technologies and Research and Development: Conceptualization, Scientific Research, Commercialization, and Options for Indian Country
- Consent Based Siting and Permitting, Social License, and Community Oriented Project Development
- Married at the Hip: Critical Minerals and Indian Country – Concepts and Solutions for a New Kind of Mining Development in the U.S.
- Justice 40: The Energy Evolution (Transition), Social Equity and Wealth Creation in Indian Country
- Trail of the Chiefs Energy Corridor
- FECM Tribal Informational Briefings #1: Overview of FECM's Office of Resource Sustainability
- FECM Tribal Informational Briefings #2: Capacity Building for Repurposing Energy Assets
- FECM Tribal Informational Briefings #3: Overview of FECM's Office of Carbon Management
- FECM Tribal Informational Briefings #4: Overview of the National Energy Technology Laboratory

WORKSHOPS HOSTED IN 2024

The CONSENSUS Program works with DOE-FECM to host near monthly workshops across the country, as well as internationally, both to inform stakeholder groups of FECM's portfolio and to gather feedback from academia, industry, researchers, and other non-government entities on the best pathways to a decarbonized future. The CONSENSUS program hosted the following workshops in 2024:

- DOE/NETL 45Q Carbon Oxide Conversion LCA Training Workshop (Hybrid)
- 2nd Annual Carbon Management Technology Showcase
- Western Tribal Carbon Management Technologies Forum
- Tribal Carbon Management Strategies Forum
- Future Innovation Needs for Responsible Mining of Critical Minerals – San Francisco
- Future Innovation Needs for Responsible Mining of Critical Minerals – Denver
- Strategy Workshop on Scaling Greenhouse Gas Removal
- U.S. DOE Office of Fossil Energy and Carbon Management (FECM) and Bioenergy Technologies Office (BETO) Virtual Workshop - Developing Guidance for Life Cycle Analysis of Biomass Carbon Removal and Storage (BiCRS)
- Two-Day Virtual Clean Fuels & Products Shot Summit
- Regional Decarbonization Series - Alaska Workshop
- DOE Alaska Workshop on Critical Materials
- 6th U.S.-China CCUS Experts Meeting
- Future Innovation Needs for Responsible Mining of Critical Minerals – Boston

USEA Briefings

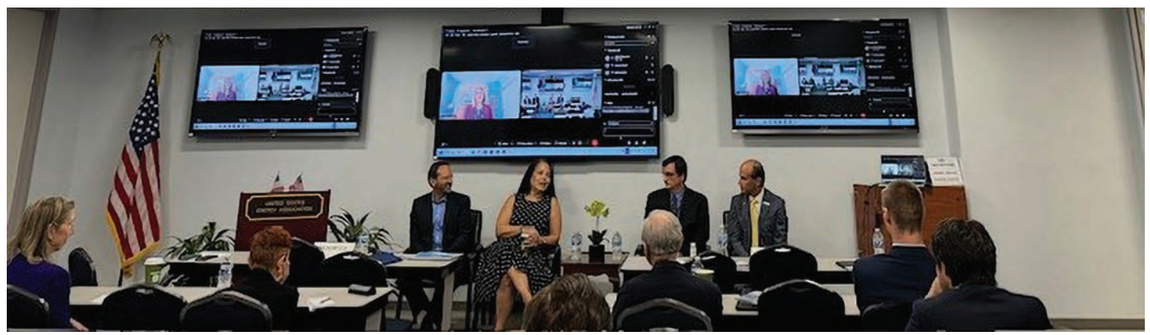
Throughout 2024, the United States Energy Association (USEA) conducted a series of remote and hybrid briefings to address pressing challenges and opportunities within the evolving energy landscape. ***February 2024*** *initiated the series by tackling the persistent and widespread supply chain disruptions plaguing the energy sector. This 90-minute remote meeting delved into the specific impacts of product and raw material shortages, as well as the two-to-three-year delays in obtaining essential finished products, on key sectors such as mining, oil and gas production, electric utility growth, and the replacement of aging infrastructure in generation, distribution, bulk electric, and transmission systems. Speakers from the National Mining Association, American Petroleum Institute, Nuclear Energy Institute, Edison Electric Institute, and Transformer Manufacturing Association of America provided insights into navigating these bottlenecks.*

April 2024 shifted the focus to the burgeoning electric vehicle (EV) market, with a remote briefing exploring the intricate relationship between the U.S. auto sector, the electric grid, and the strategic placement of EV charging infrastructure. Experts addressed strategies for enhancing traffic efficiency.

May 2024 featured two distinct and crucial briefings. The first addressed the rapidly evolving regulatory landscape surrounding methane emissions. This remote briefing explained the implications of federal and state regulations, including the Inflation Reduction Act's (IRA) methane fee, on the energy supply chain, particularly for electricity produced by natural gas and industrial consumers. Speakers dissected the EPA's proposed rules, as well as the numerous exemptions and variances.

The second May briefing focused on the SEC's proposed rule on greenhouse gas (GHG) emission reporting for publicly traded corporations. Experts from Deloitte Touche LLP provided a detailed overview of the rule's requirements, which, at the time of the briefing, were currently stayed by the U.S. Fifth Circuit pending further court review.

Finally, in **July 2024**, USEA, in collaboration with the National Hydropower Association (NHA), hosted a hybrid briefing titled "Bridging Waters: A Model for Enhancing Grid Reliability and River Restoration during the Energy Transition." This session featured a panel of industry experts who discussed innovative solutions and collaborative strategies for integrating hydropower into the evolving energy landscape, with a strong emphasis on balancing energy production with ecological health and community safety.



United States Energy Association

1300 Pennsylvania Avenue, NW
Suite 550, Mailbox 142
Washington, DC 20004

(202) 312-1230

www.usea.org

Please follow us on social media @USEnergyAssn