

USEEA

United States Energy Association



30 Years of International Energy Partnerships

A PUBLIC FORUM FOR ENERGY INFORMATION
AND SUPPORTER OF DOMESTIC AND
INTERNATIONAL ENERGY DEVELOPMENT
WITH THE U.S. GOVERNMENT



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Dear USEA Members and Friends,

2021 was another exhilarating year at the United States Energy Association. After adjusting to virtual life in 2020, we embraced remote work for the entirety of 2021. It was a continuous learning experience, as we grew stronger as an organization and in our confidence to fulfill our mission. Through the incredible dedication of our staff, we seamlessly hosted virtual Forums, webinars, roundtables, meetings, workshops, and training sessions. Our international work was conducted flawlessly, and our flagship forums and webinars grew in size and scope.

The year left me with several very special memories. At our Annual Membership Meeting in May, I had the opportunity to interview 90 year-old Dr. Matthew Holden Jr. from his home in Mississippi. A longtime professor at the Universities of Virginia and Illinois-Springfield, Matthew has a renowned background in public administration and policy, the law, urban affairs, and race and politics. He also served as the first African American FERC Commissioner, and is an inspiring individual who brought truly unique insight to our program.

A few months later, in September, USEA hosted its first in-person event in 18 months: the U.S. Energy Award ceremony at the National Press Club. I was honored to present the award to Charif Souki, and it was invigorating to see close colleagues and friends in person. We ended the year with a staff holiday reception in December, and I met much of

our team for the first time since becoming Acting Executive Director – 15 months prior! It was a day of camaraderie that offered a short glimpse into a very much missed in-person world.

While it seems that the “new normal” is not far away, USEA’s mission and those of our fellow energy associations will be even more important in 2022. Energy has not been at the forefront of the public eye to this degree since the 1970’s. Extreme weather events, such as wildfires and deep freezes, have generated intense public scrutiny of utilities and the grid. Russia’s inhumane invasion of Ukraine has brought global attention to the relationship between energy supply and geopolitics. It will be a pivotal year in energy history, and USEA is prepared to create a neutral venue to discuss, debate, and advance solutions openly without prejudice.

From all of us at USEA, we thank you for your friendship, participation, and encouragement in 2021. I especially would like to thank our Executive Chairperson, Vicky Bailey, and our entire Board for their steadfast support and invaluable advice over the past year. I wish with all of my heart that 2022 brings all of us closer to meeting the enormous energy and environmental challenges worldwide. We look forward to seeing you soon.

Sheila Hollis
Acting Executive Director
United States Energy Association

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A Message from our Executive Chairman



Dear USEA Members and Friends,

2021 was a year of change in so many ways and yet, in some regards, the year operated in a steady state. The changes included a new Administration; major strides in energy technology, such as hydrogen and EVs; and the opportunity for USEA to increase its virtual footprint in every corner of the globe. I admired the resilience of our USEA Staff to ingeniously discover and innovate new methods of maintaining our international partnerships in the virtual environment.

The paradox was very much evident with multiple examples of astronomical success for USEA. We hosted 70 virtual webinars and four major Forums last year – an absolutely unprecedented level of outreach! Thousands of registrants participated both during the actual events and then afterwards by viewing the program recording. Representing our Board, I was personally honored to be invited to speak at every Forum and delighted to offer a few opening remarks on each occasion.

Although we endured another year of the global pandemic in 2021, a steadying hand was provided by the wise counsel and inspiring leadership of USEA's acting Executive Director Sheila Hollis. Sheila extended USEA's outreach and membership, embraced opportunities for diversity and equity, and reinvigorated existing relationships with new ideas and enthusiastic zeal. She offered USEA Staff moments of celebration and festivity – both remotely and in-person – to guide everyone through another year of relative isolation.

In a very special highlight, USEA was able to commemorate the recipient of the 2020-21 US Energy Award, Charif Souki, in an in-person ceremony. After an 18-month hiatus due to the pandemic, it was a truly extraordinary day to gather once again and celebrate the lifetime achievements of this tremendous leader in the international energy sector. It was an honor for me personally and professionally to introduce Charif during a very elegant ceremony at the National Press Club in Washington, D.C.

In another instance of change, I was delighted to nominate two new USEA Board members: Nathan Johnson, Director for the Laboratory for Energy and Power Solutions (LEAPS) at Arizona State University; and Michael LeClair, President and CEO of Babcock Power, Inc. As I noted at the time of the announcement: "The years ahead will be a time of profound transformation for the global energy industry. Nathan and Michael will help ensure a promising future for USEA by helping navigate the changing energy landscape."

Finally, I was privileged to be invited for the first time to speak virtually at the Concordia Annual Summit – a renowned global conference that focuses on equity and sustainability - where I proudly presented the vital work of USEA to an esteemed international body. I discussed USEA's Consensus Program, launched in 2008, which promotes consensus on the need for carbon capture, utilization, and storage and other carbon management technologies to help meet the world's decarbonization goals. It was extremely meaningful to see USEA receive well-deserved recognition on such a prominent stage.

As I write to you today in the first half of 2022, I see last year's paradox re-emerging: a time of profound geopolitical disruption in the midst of the ongoing need for energy as the lifeblood of a digital economy and healthy society. In the days ahead, USEA will keep moving forward, and will continue to convene our members and the energy sector in order to educate all stakeholders about ideas, concerns, and solutions regarding all relevant energy issues. The expansion of knowledge is essential for the betterment of us all. It will take the combined efforts of all of us, working together in harmony, to deliver energy to millions in need and to protect our planet's future.

Vicky Bailey
Executive Chairman
United States Energy Association

Executive Chairman
U.S. Energy Association
VICKY A. BAILEY



Founder
Anderson Stratton
International, LLC

Counsel
U.S. Energy Association
JOHN BUCHOVECKY



Partner
Van Ness Feldman, LLP

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Gee Strategies Group, LLC

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Acting Executive
Director
USEA

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Head, U.S. Corporate Relations
Chief of Staff to the President
Shell USA, Inc.

NATHAN JOHNSON



Director, Lab for Energy
& Power Solutions
Arizona State University

MARIA KORSNICK



President & CEO
Nuclear Energy Institute

THOMAS R. KUHN



President
Edison Electric Institute

MICHAEL LECLAIR



President & CEO
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IHS Markit

Board
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Acting Executive Director

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Chief Operating Officer
Chief Financial Officer

SHARON LUCAS



Senior Accounting
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WILL POLEN



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MARJORIE JEAN-PIERRE



Program Director

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Program Director

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DOMINIC LEVINGS



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NANCY LI



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Program
Coordinator

IRENE SUAREZ



Program
Coordinator

NICOLE BUCKLEY



ETAG
Communications

BRENDON THOMAS



Program Coordinator

ERNEST WYATT



Program Coordinator

USEA Staff

USEA Members 2021



ABT Associates

ADI Analytics LLC

Advanced Engineering Associates

AECOM Corporation

AEGIS Insurance Services, Inc.

American Coal Council

American Council of Engineering

American Electric Power

American Fuel & Petrochemical

American Gas Association

American Petroleum Institute

American Public Power Association

American Society of Mechanical
Engineers

Amsterdam & Partners, LLP

Anderson Stratton
International, LLC

Anterix, Inc.

Arizona State University

Association of Energy Engineers

Association of Oil Pipe Lines

ASTM International

Babcock Power

Bechtel

Black & Veatch Corporation

Brookhaven National Laboratory

Burns and Roe Enterprises, Inc.

Canary, LLC

Catalisto

Chemonics International, Inc.

Cheniere Energy, Inc.

Chevron Corporation

Clifton Larson Allen, LLP

Combined Cycle Journal -
PSI Media

ComEd (An Exelon Company)

Conoco Phillips

Contour Global

CyberCon

DAI Global, LLC

Delaware Office of Community
Services

Deloitte & Touche, LLP

Destaur Energy

Duane Morris LLP

ECODIT

Edison Electric Institute

Electric Power Research Institute

Enbridge

Enchant Energy Corporation

Encoord Inc.

Energy & Mineral Law Foundation

Energy Equipment & Infrastructure

Energy Exemplar

Energy Markets Group, Inc.

Energy Policy Institute of Australia

ENGIE North America

ESS, Inc.

ESTA International

ETAP

Excel Services Corp.

Exelon Corporation

ExxonMobil Corporation

Fluor Corporation

Gas Systems Engineering, Inc.

Gas Technology Institute

Gee Strategies Group, LLC

Geothermal Resources Council

Gorrelick, Tievy & Associates

Grant Thornton

Hunton Andrew Kurth, LLP

ICF International

USEA Members

(continued) 2021

Idaho National Laboratory
IHS Markit
INTEK Inc.
Interstate National Gas Association of
Jordan Capital Management
K&M Advisors LLC
Kaiserwetter Energy Asset Management
KPMG, LLP
Large Public Power Council
Lawrence Livermore National
Lehigh University
Lighthouse Energy Group
LNG Allies
London Economics International, LLC
Methanol Institute
Morgan Stanley
Morgan, Lewis & Bockius LLP
Mott MacDonald
National Energy Foundation
National Mining Association
National Ocean Industries Association

National Rural Electric Cooperative Association (NRECA)
Natural Gas Supply Association
Nexant, Inc.
North American Electric Reliability
Nuclear Energy Institute
NuScale Power
OnGrid Options (Formerly Bluewave Resources, LLC)
Peabody Energy
Petco International LLC
Planning & Forecasting Consultants
Power Engineers
PricewaterhouseCoopers, LLP
Sacramento Municipal Utility District
Sazmining
Schweitzer Engineering Laboratories
Segura Consulting, LLC
Shell USA, Inc.
Smart Electric Power Alliance
Solar Energy Industries Association
Solar Turbines
Southern Company

Strategen Consulting LLC
Strategic Power Systems, Inc.
Summit Power Group
Synfuels Americas
Tellurian Inc.
Tennessee Valley Authority
Tetra Tech
The Abraham Group, LLC
Tulane University
U.S. Agency for International Development
U.S. Department of Energy
University of Florida
University of Minnesota Duluth
University of Southern California
Utilities Technology Council
Van Ness Feldman, P.C.
West Financial Services, Inc.
Westinghouse Electric Company
Worley Parsons

2021 Forums and Flagship Events



17th Annual State of the Energy Industry Forum

THURSDAY, JANUARY 28, 2021

USEA begins each year with its widely-recognized State of the Energy Industry Forum in late January. The Forum brings together distinguished leaders from the most influential energy trade associations to share their outlook and to discuss dynamic issues facing the energy industry in the new year.

2021 marked the first virtual State of the Energy Industry Forum in its 17-year history. The online format allowed for an expanded program: nearly 1,000 people from around the world registered to hear 22 energy executives give their expert insight and projections for the upcoming year.

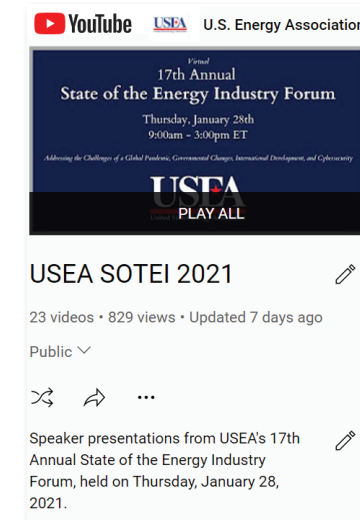
USEA Executive Chairperson **Vicky Bailey** and Acting Executive Director **Sheila Hollis** delivered opening remarks, followed by USEA Senior Director **Will Polen** and Directors **Marjorie Jean-Pierre** and **Andrew Palmateer** serving as moderators for the Forum's three sessions. Nearly every type of energy resource and technology was represented: solar, wind, nuclear, coal, oil, natural gas, methanol, renewable gas, petrochemicals, and interstate pipelines.

USEA also welcomed the newly-created American Clean Power Association (ACPA) and its CEO, **Heather Zichal**, to deliver the final presentation of the Forum.

“Clean energy as a whole has made extraordinary progress over the last decade, due to not only technology improvements, but also competitive pricing and strong consumer preferences for renewable energy technologies,” Zichal said in her address.



HEATHER ZICHAL



The State of the Energy Industry Forum was featured in widespread media coverage, including an event recap in [BIC Magazine](#) and a summary article in [Forbes](#), where the fossil fuel outlook was analyzed based on Forum remarks. Following the event, the speaker presentations were added to a [playlist](#) on USEA's YouTube channel, where they garnered nearly 900 views.

2021 Annual Membership Meeting & Public Policy Forum

THURSDAY, MAY 6, 2021

USEA's Annual Membership Meeting & Public Policy Forum convenes USEA members and energy stakeholders to highlight industry achievements, energy policy developments, and to preview the future of the energy sector. The U.S. Energy Award and USEA Volunteer Awards are also presented during a special ceremony. This Forum is traditionally held the day after the Spring USEA Board of Directors meeting.

After being canceled in Spring 2020 due to the pandemic, USEA's Annual Membership Meeting & Public Policy Forum returned virtually in 2021. Twelve guest speakers hailing from a variety of energy backgrounds and organizations were welcomed and four volunteer partners were honored for their outstanding contributions with the USEA Volunteer Award.



DAVID TURK

As the premiere membership event, the program opened with USEA Business Reports from two Board members. **Majida Mourad** of Tellurian delivered the report of the nominating committee, which slates the officers for the Board for the upcoming year. **Bob Gee** of Gee Strategies Group presented USEA's Treasurer's report.

The event lineup featured speakers from government, academia, trade associations, utilities, and engineering firms, with an opening address delivered by **David Turk**, Deputy Secretary, Department of Energy. Longtime USEA Board Member and Pulitzer-Prize winning author **Dan Yergin** provided the closing keynote address. FERC Commissioner **Allison Clements** also offered insights on new developments at the nation's top federal energy regulatory agency.

USEA VOLUNTEER AWARDS

USEA Senior Director **Will Polen** and Program Director **Marjorie Jean-Pierre** presented the 2020-2021 USEA Volunteer Awards. Through USEA programs, volunteers from US energy organizations are paired with their counterparts in developing countries and emerging economies to share their expertise and best practices. The awards recognize outstanding individuals and organizations for their contributions to USEA activities.

"USEA's international work with USAID would not be successful without volunteers and the cooperation of our international partners. They generously provide their expertise and serve as peer-to-peer sounding boards for their colleagues. Most importantly, they provide the generosity of their time, which may be the most valuable of all the things they contribute," Polen said.

CONGRATULATIONS TO THE 2020-2021 AWARD RECIPIENTS:

INDIVIDUAL VOLUNTEER AWARD RECIPIENTS

Vibhu Kaushik, Director of Transmission & Distribution Business Strategy, Southern California Edison

Rich Barone, Vice President, Advanced Energy Transformation, TRC

David Batz, Managing Director, Cyber and Infrastructure Security, Edison Electric Institute

INTERNATIONAL PARTNER OF THE YEAR

Georgian State Electrosystem (accepted by **Zurab Ezugbaia**, Member of the Board of Directors)



Left to Right: Vibhu Kaushik, Rich Barone, David Batz, and Zurab Ezugbaia with their awards.

3rd Annual Advanced Energy Technology Forum

THURSDAY, SEPTEMBER 9, 2021

USEA's Advanced Energy Technology Forum explores technological innovation in the energy sector. The event focuses on research and development in the corporate and government sectors, including national labs and universities.

On September 9, 2021, USEA was honored to host five representatives from the country's leading national labs, four professors from distinguished universities, senior executives from associations and corporations, high-level officials in government entities, and up-and-coming energy leaders.

USEA's 3rd Annual Advanced Energy Technology Forum, which was held virtually for the second straight year, featured an international audience of over 500 registrants. **Sheila Hollis**, Acting Executive Director, opened the program and welcomed the audience by thanking USEA's Board for their support and encouragement, as well as the USEA staff for their unwavering dedication throughout the year.

The four-hour event was divided into four sessions. The Forum's speakers all discussed one overriding theme: how do we increase energy access using new and emerging technologies, while reducing the impacts for those who have it?



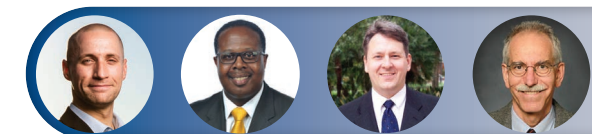
Vicky Bailey Brian Anderson Martin Keller James Misewich Marianne Walck Jennifer Wilcox

The first panel, moderated by USEA Executive Chairman **Vicky Bailey**, featured four national labs – NETL, Brookhaven, INL, and NREL – as well as DOE's Principal Deputy Assistant Secretary for Fossil Energy & Carbon Management, **Jennifer Wilcox**. The panel experts focused on the advanced technology research and development conducted by their respective labs and departments.



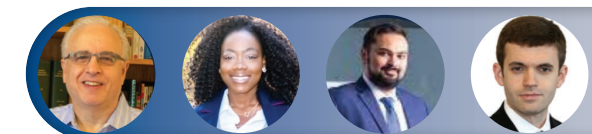
Sheila Hollis Dena Wiggins Paul Kjellander Allison Clements Mark Lauby Catherine Hunt Ryan

Sheila Hollis moderated the second panel, titled 'Infrastructure Challenges and Opportunities', which featured distinguished senior executives from private and nonprofit organizations, as well as National Association of Regulatory Utility Commissioners (NARUC) President **Paul Kjellander** and FERC Commissioner **Allison Clements**. The guests gave their unique insight on the role of energy technology through the lenses of their individual institutions.



Nathan Johnson Samuel Graham Ted Kury Tom Richard

The third panel, 'Academic Innovations', was moderated by USEA's new Board member, **Nathan Johnson**, who guided the discussion with professors from the Georgia Institute of Technology, University of Florida, and Pennsylvania State University.



Steve Mitnick Damei Jack Ali Mohammed Ben York

To close out the event, the final panel featured three young energy leaders who had been selected by Public Utilities Fortnightly (PUF) magazine for special recognition in its annual 'Fortnightly Under 40' issue. The panelists described their jobs and how they got started in the energy industry in a discussion moderated by PUF's Executive Editor **Steve Mitnick**.

13th Annual Energy Supply Forum

THURSDAY, OCTOBER 28, 2021

Each year, USEA's Annual Energy Supply Forum features dynamic presentations from leading industry experts and policy leaders on the state of energy exploration and production, electricity generation, and energy fuel supply. The Forum welcomes leading industry experts from trade associations, corporate organizations, and nonprofits.

Following a two-year hiatus due to COVID, the 13th Annual Energy Supply Forum was held before an expanded international audience, thanks to its [virtual platform](#). Executive Chairman **Vicky Bailey** and acting Executive Director **Sheila Hollis** began the day with a fascinating 'Fireside Chat' reflecting their in-depth knowledge of the global energy landscape.

Vicky observed how important informational dialogue is now when there are basic foundational issues impacting energy supply. During her energy career, she has experienced tremendous change: when she began, the US was in a position of energy scarcity. Today, the US is in a position of energy abundance, and the resulting energy independence – with universal access to safe, reliable, and affordable energy – has made the country safer and contributed to a growing economy. She noted the importance of good environmental stewardship during the energy transition, balancing both policy and technology, and the strategic capital-intensive investments being made to advance decarbonization.

Vicky and Sheila concurred that the single most important driving issue for humankind is quality of life, which cannot be achieved without energy access, which serves as the foundation for both public health and the economy. Given that context, USEA believes energy is a basic human right. Both women noted that USEA's ability to convene, educate, and offer differing viewpoints is an inspiring feature of the organization. The increasing diversity of USEA's Board was also commended, as was the Association's growing outreach in Africa.



SHEILA HOLLIS

Vicky and Sheila concurred that the single most important driving issue for humankind is quality of life, which cannot be achieved without energy access, which serves as the foundation for both public health and the economy.

VICKY BAILEY



The dialogue concluded with the need to define USEA's mission to the world, particularly on the existential issues of our times: cyber security, COVID, and carbon emissions. A sequence of individual presentations followed the Fireside Chat, and the guest speakers represented varying energy sources and entities. As Sheila Hollis later pointed out, the Forum was a remarkable success thanks to 'the extremely brilliant industry experts' on the agenda.

Energy Technology and Governance Program



USEA's Energy Technology and Governance Program (ETAG) enables the countries of Europe and Eurasia to achieve their shared vision of energy security and regional integration.

In partnership with the United States Agency for International Development (USAID), ETAG programs serve to: support the maturing energy industry across Europe and Eurasia on its journey to self-reliance; reduce malign geopolitical influence exerted by Russia and China on the region's energy supply; enhance energy security; integrate network infrastructure and markets within the region and with Europe; and support the clean energy transition.

ETAG programs lean on U.S. industry expertise and technology to build capacity for change in utilities and energy leaders. These programs offer training and the exchange of best practices, targeted technical support, and provide software and tools necessary to enhance the energy security of the region and its transition to a clean energy economy.

Accelerating The Clean Energy Transition

To accelerate the clean energy transition in the region, in 2021 the ETAG program:

- Advised TSOs, regulators and ministries on the potential to use a grid-enhancing technology—flexible alternating current transmission systems (FACTS)—to accelerate renewable energy development in the Black Sea region.
- Commenced assessments in Moldova and Serbia to determine the amount of renewable energy that can be added to their power grids; informed investors of the optimal locations for solar and wind project development; identified necessary network upgrades; and calculated the amount and cost of required balancing energy.
- Informed policy makers, TSOs, regulators and investors of the network and market impacts—CO2 reductions, cost, energy security implications—of rapid decarbonization and renewable energy integration in Southeast Europe.
- Initiated a nine-month resource adequacy study to ensure the affordability and security of North Macedonia's electricity supply as it implements its national energy and climate plan.

WHY RENEWABLE ENERGY IN MOLDOVA?

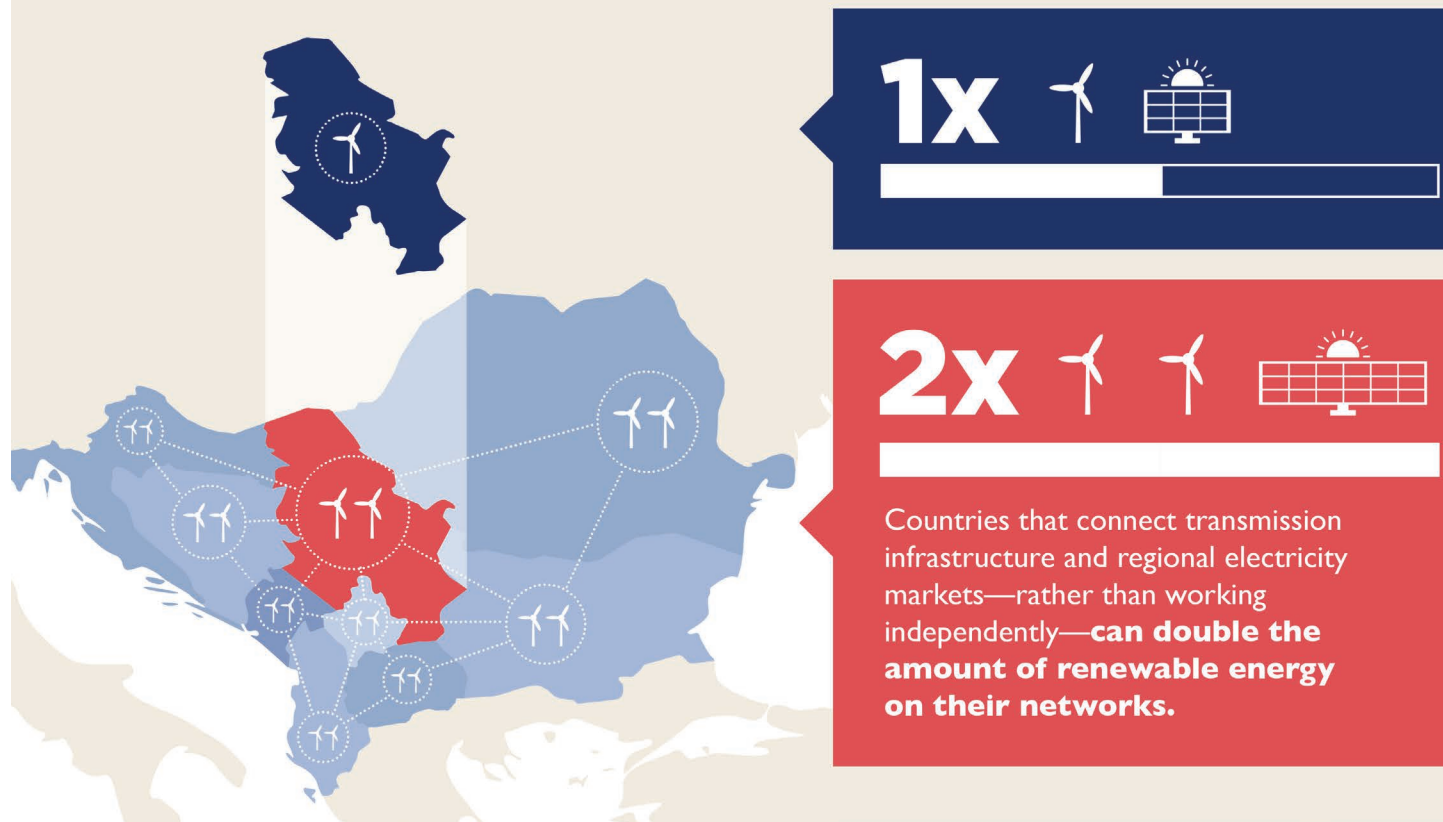
Moldova is planning to increase the amount of renewable energy on its electricity network over the next decade.



- Cleaner air
- Mitigate climate change
- Reliable domestic energy resource
- European integration



Countries that integrate their networks can support up to three times more renewables than if operating in isolation.



Developing Future Energy Leaders

To develop energy leaders across Europe and Eurasia to sustain the region into the future, in 2021 the ETAG program conducted training and workshops on:

- Using advanced network and cost production modeling software to accelerate renewable energy integration.
- Employing low-cost grid-enhancing technologies to integrate variable solar and wind generation on regional electric power grids.
- Developing electricity distribution network models to calculate the capacity of distribution companies to host renewable energy distributed energy projects.
- Developing renewable energy integration scenarios in Moldova.
- Conducting network stability analyses in the Black Sea region.
- Writing scripts to automate day ahead congestion forecasting in Moldova.
- Understanding the technology options and cost of a submarine cable connecting Georgia and Romania.
- Migrating the ENTSO-E cost-benefit methodology to assess transmission network investment projects supporting regional clean energy generation investment.



In October, ETAG trained more than 50 engineers from Southeast Europe on advanced network planning software.

Enhancing Energy Security

To assist the region in strengthening energy security and independence, and support the integration of its networks and markets with Europe, in 2021 the ETAG program:

- Prepared the network simulation models used by ENTSO-E to assess the feasibility of synchronous integration of the Ukrainian and Moldovan networks with the European electricity grid.
- Began a yearlong project to develop an automated day-ahead congestion forecast system in Moldova to comply with ENTSO-E requirements for its synchronous connection with Europe.
- Concluded a yearlong analysis and determined that Eastern Europe could reduce Russian natural gas imports by as much as 20% by linking LNG import terminals and underground storage facilities with cross-border pipeline connections to create a north-south/south-north natural gas transmission connecting resources in the Mediterranean, Black and Baltic Seas.
- Conducted a transmission network assessment in Georgia and Romania that leveraged a World Bank-funded feasibility study of a project to connect the electricity systems via a submarine cable crossing the floor of the Black Sea.
- In cooperation with 11 Eastern European natural gas transmission operators, developed a GIS-located catalogue of future LNG, underground storage and pipeline investments that will diversify Eastern Europe's natural gas supply.

SINCE 2000

In partnership with USAID, the USEA ETAG program has leveraged nearly \$35 billion in network and power generation investment in Europe and Eurasia.

**\$35
BILLION**

Building Sustainable Capacity

In support of the networking planning that is critical to the clean energy transition in the region—while maintaining a secure, affordable, reliable daily power supply—in 2021 the ETAG program:

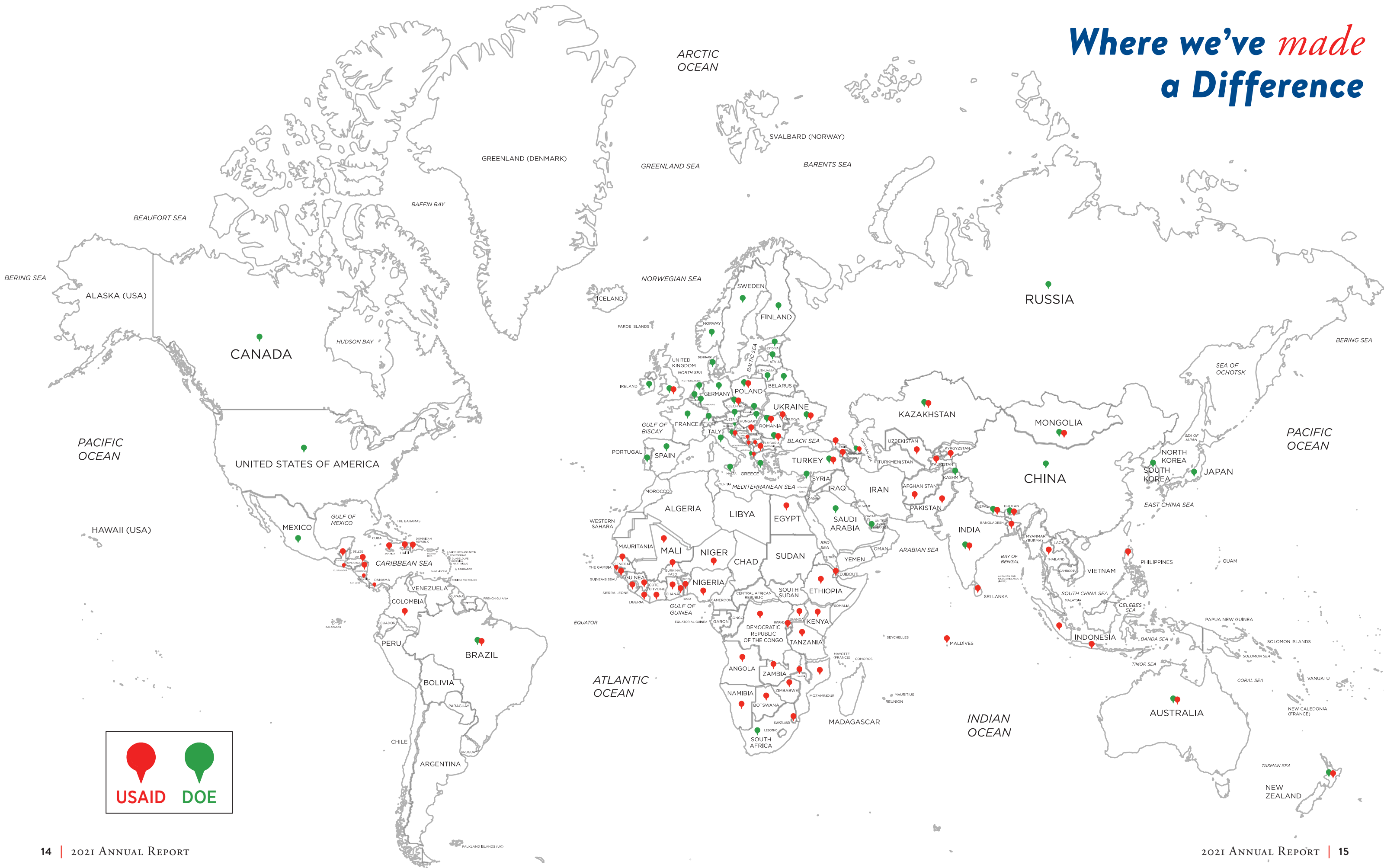
- Developed and communicated to decision makers a set of recommendations to accelerate distributed generation in Southeast Europe.

Ensuring Energy Sector Cybersecurity

To protect energy security and support utilities in the region as they develop mature cybersecurity programs and work together to share knowledge and threats, in 2021 the ETAG program:

- Conducted assessments of cybersecurity capability and maturity for utilities in Moldova, Georgia, and North Macedonia.
- Developed three-year roadmaps to guide cybersecurity enhancements and investments in these countries.

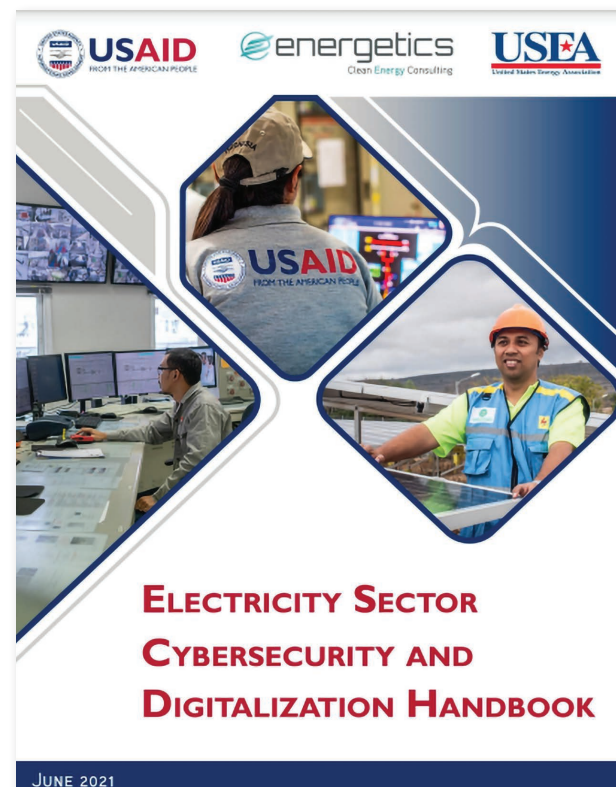
Where we've *made* a Difference





Energy Utility Partnership Program (EUPP)

The Energy Utility Partnership Program (EUPP) is a cooperative initiative between the United States Energy Association and the United States Agency for International Development under the Bureau for Development, Democracy, and Innovation (DDI). EUPP works around the world to promote energy security and clean energy access by providing capacity building to local utilities using industry experts. By bringing countries together and encouraging knowledge sharing of global best practices, EUPP enables emerging markets to have access to U.S. public and private sector expertise and technical assistance. Together, the partnering organizations expedite the transfer of market-based approaches in utility operation and management, regulation, and environmental improvement.



Business Innovation Partnership (BIP)

USAID and USEA launched the Business Innovation Partnership to assist USAID-partner utilities navigate the most pressing challenges, needs, and opportunities within the growing cybersecurity, digitization, grid modernization, and energy management industry. The BIP began a Cybersecurity and Digitalization for the Energy Sector course in May 2021. The self-paced course consisted of 15 webinars and two industry panels from the “Cybersecurity and Digitalization Webinar Series” held in 2020. Eighteen participants completed the course and received certification from the Institute of Electrical and Electronics Engineers (IEEE). Based on the course, USEA composed a “Cybersecurity and Digitalization Handbook for the Electricity Sector” to provide a comprehensive introduction to the cybersecurity threats, vulnerabilities, and risks that modern power sector utilities face, as well as potential solutions to these concerns.

EUPP also began the Change Management and Business Process Innovation Program, selecting five partner utilities (Edesur

- Dominican Republic, Ghana Grid Company Limited, Jamaica Public Service, Nepal Electricity Authority, and Power Information Technology Company - Pakistan) to be trained in business process innovation and change management and apply these techniques to a chosen project to improve core business operations. Thirteen mentors and two facilitator organizations will assist the utilities in business process innovation and change management over the next year.

Colombia

EUPP continued to support Colombian governmental efforts to successfully incorporate 2.5 Gigawatts of renewable energy to its grid. In partnership with the National Renewable Energy Laboratory (NREL) and Tetra Tech, EUPP successfully held an online course for young professionals in Colombia’s electricity sector. Fifty one participants received IEEE certification. As a result of the training, participating organizations are migrating vehicle fleets to electric, implementing a computational tool for the study of resilience in power systems, and completing pre-feasibility studies for projects.

EUPP, together with Tetra Tech and NREL, also assisted Colombia’s Ministry of Mines and Energy (MME) in geothermal, offshore wind and green hydrogen. EUPP held a workshop to collect feedback on a draft Geothermal Decree and compiled it into a report for the Ministry to use as they finalized the decree. EUPP held a workshop on offshore wind, and supported efforts to develop a master plan for Providencia Island to fix hurricane damaged transmission infrastructure.

Honduras

Participants in the Reverse Energy Auction event in November 2021 in Honduras created action plans to design a reverse energy auction, which will ultimately increase renewable energy on their network.



In 2021 EUPP implemented three projects: a “Women in Energy” blog for the Secretary of Energy, a workshop on reverse auctions, and a comprehensive study analyzing gaps in Honduras’ General Law on the Energy Industry. The auction workshop presented case studies from Latin America, with speakers from Chile, Mexico, Colombia, and Guatemala,

with an introduction and overview by IRENA. The first draft of the gap study was presented to the Honduras’ Secretary of Energy and EUPP looks forward to providing a final draft in 2022.

U.S. – Asia Gas Partnership (AGP)

Indo-Pacific countries are relying on liquefied natural gas and highly efficient natural gas-fired generation to assist in balancing grid variability and in the transition to renewable energy. EUPP conducted five capacity building webinars in 2021 covering the role of a gas transmission system operator, dynamic gas network modeling, natural gas industry standard setting and cybersecurity.

EUPP led a number of technical assistance and capacity building efforts focused on transitioning to cleaner energy in the Philippines. EUPP and NARUC jointly published the “LNG Pricing and Market Opportunities in the Philippines White Paper” on LNG supply options, pricing indices and trends in the market and how LNG can assist in the clean energy transition. EUPP also hosted a series of capacity building trainings for the Philippines Department of Energy Gas Policy Development Project (GPDP) to assist in its LNG shift and improved capacity for LNG analysis.



The Gas Technology Institute and AJS Consulting & Advisement LLC present as part of EUPP’s LNG training for the Philippines’ Gas Policy Development Project (GPDP).

The final project was the publication of the “Catalogue and Analysis of South and Southeast Asia Natural Gas Plans & Policies, 2021,” compiling the current plans and policies governing the natural gas markets of the region. The report will assist private sector, investors, and governments to identify policy and institutional traits and potential interventions to improve the prospects of natural gas development.



Executives from Bangladesh, Bhutan and Nepal discuss what regulations and policies are absent from South Asia's transition to regional power trade.

As a result of EUPP's training, USEA's training partner Manikaran Power recently signed an agreement to facilitate Nepal's 500 MW of electricity trade to India in the initial phase – a first for the private sector in the region. To complement the power trading training, EUPP also provided "Training on the Creation and Operations of a Power Exchange" focused on the fundamentals of power markets and products, and the design and operation of a power exchange.

South Asia Regional Energy Hub (SAREH)

USAID's missions in South Asia have a rich portfolio of ongoing energy programs, bilateral and regional, that support the promotion of economical, reliable and clean energy access across the region. To achieve harmonization and continuity between these programs, USAID/India designated USEA to serve as the "regional hub" tasked to coordinate all USAID energy activities in Bangladesh, Bhutan, India, Nepal, Sri Lanka, and the Maldives. EUPP achieves this by serving as a regional energy cooperation platform through communications, outreach and coordination, and targeted, quick technical assistance actions to support public and private sector stakeholders. In 2021, EUPP held extensive activities on SAREH's behalf on renewable and clean energy, training over 900 participants. Activities included:

- "Decarbonization Pathways for South Asia" side event at the Asia Clean Energy Forum (ACEF) to deliberate how to achieve decarbonization in power, transportation, buildings, and industry in South Asia.
- "[De-risking Renewable Energy Investments](#)" webinar covering risk identification, characterization, financing impacts, and mitigation instruments.
- "[Role of Women's Leadership in Advancing the Global Clean Energy Transition](#)" roundtable during USAID's National Conference on Large-Scale Integration of Renewable Energy in India.

South Asia Initiative For Energy Integration (SARI/EI)

Since 2000, USEA has been an implementing partner of USAID's SARI/EI program, which promotes energy security in South Asia through cross-border energy trade, energy market formation, and regional clean energy development. In 2021, EUPP conducted two separate trainings on the "Design, Management, and Operation of the Power Trading Entity" for Bangladesh, Nepal and Bhutan. This training was particularly vital to Nepal, which is taking steps to export its surplus power. As



An IT system study and inspection visit to the CTRLS Data Center facility in Noida, India in December 2021 as part of SAREH and EUPP's Technical Assistance to NOAR.

- Ten-week "Powering Clean Energy for Climate Action" campaign to showcase USAID's work and the work of South Asian governments, civil society and private sector. The campaign reached 100,000 audience members through SAREH social media platforms and stakeholder tags. USAID has requested for a second edition of the campaign.
- Workshop on electric vehicles for the Nepal government, private sector, financial institutions, academia, and donor agencies.
- Last-mile technical assistance and project management support for the Government of India initiative National Open Access Registry (NOAR), which will integrate transparency and market efficiency.
- Workshop on integrated resource and resilience planning to support development of strategic and optimal energy planning in the region to scale up clean energy.
- Project finance training for the Government of Bhutan to develop the skills to structure a hydro project.

India

EUPP supported USAID's Greening the Grid (GTG) program to aid the Government of India's efforts to manage large-scale integration of large renewable energy into the grid. In 2021, EUPP held a six-day virtual "Financial Instruments for Energy Markets Workshop" to discuss how financial instruments can increase liquidity in energy markets – reducing the risks of energy-related investments, increasing demand for these kinds of investments, and protecting investors in these markets against extreme energy-price swings that could bankrupt them. Twenty-six participants received IEEE certification.

The Nile Equatorial Lakes Subsidiary Action Program (NELSAP) and Eastern Africa Power Pool (EAPP)



Participants of the power system modeling course for NELSAP/EAPP in Kigali, Rwanda.

USEA supports NELSAP's and EAPP's efforts to encourage the establishment of an integrated NELSAP/East Africa power market to increase access, improve reliability, and optimize development of energy resources in the region. EUPP hosted a training on Eastern Africa power system modeling for NELSAP, EAPP, and planning engineers from the Burundian, the Democratic Republic of Congo (DRC), Ethiopian, Tanzanian, and Ugandan utilities. The training was the second of a three-part series designed to increase EAPP, NELSAP, and member states planning staff's capacity for advanced modeling and simulation and long-term planning. The program will create conditions conducive to greater regional electrical interconnection and facilitate power trading, ultimately leading to the expansion of the required electrical generation to meet regional governments' goals.

New AmpUp Program

On July 20, USAID awarded USEA with the \$39 million Advancing Modern Power through Utility Partnerships (AmpUp) program, which introduces a performance improvement model that will build peer-to-peer relationships and strong practitioner and stakeholder networks to actualize sustainable impacts and enhance utility self-reliance. USEA leads a consortium comprised of Arizona State University, MK Advisors, NRECA International, and Segura Consulting.

Kenya

Like many other countries, Kenya utilizes the power system simulator for engineers (PSS/E) tool for transmission planning, network stability, and grid operation studies. In 2021, EUPP continued its advanced training initiated in 2019 for Kenya Power and Lighting Company, Kenya Electricity Transmission Company, Kenya Electricity Generating Company, and Energy Regulatory Commission in PSS/E. USEA's 2021 trainings focused on modeling, simulation and analysis of intermittent renewable energy and high-voltage direct current (HVDC) systems in PSS/E and on improving the power system to allow for higher levels of intermittent energy.

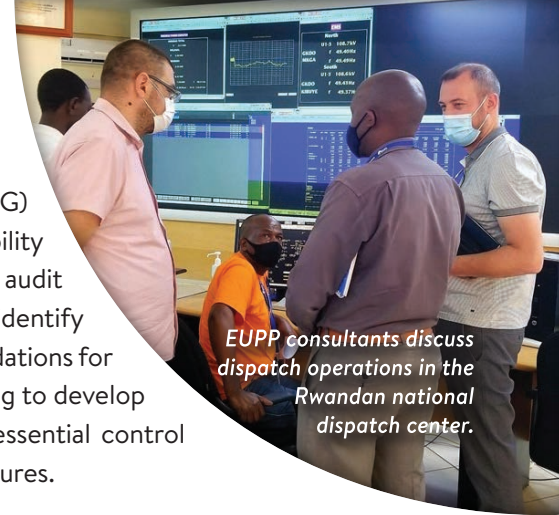


Engie Engineer Pieter Tielens and Kenyan trainees examine the country's transient stability and small signal stability analysis for the existing and projected system.

Rwanda

The EUPP-Rwanda Partnership enhances the capacity of the Rwanda Energy Group (REG) for the integration of renewable power plants and assists REG with improving reliability and efficient operation of Rwanda's electric grid. EUPP conducted a comprehensive audit of Rwanda's National Energy Control Center (NECC) operations and procedures to identify deficiencies and potential problems and provided technical solutions and recommendations for improvement. EUPP will follow up on this study in 2022 with NECC operator training to develop the knowledge and skills of multi-tasking dispatchers, including management of essential control room equipment and understanding and application of the latest operational procedures.

Previous EUPP training enabled REG to conduct joint studies and develop joint system operational procedures with the Uganda Electricity Transmission Company Ltd (UETCL) on interconnected operations of the Rwandan and Ugandan power systems. These activities strengthen regional cooperation in real-time grid operations, facilitating regional power trading; regulate operations in Rwandan and Ugandan interconnected power systems, and improve stability and reliability of both countries' national grids.



EUPP consultants discuss dispatch operations in the Rwandan national dispatch center.

Uganda

Uganda's overreliance on hydropower has increased the country's vulnerability to climate change. In 2021, USEA completed the Energy Mix Diversification Strategy for the Uganda Electricity Generation Company Limited (UEGCL) to maximize Uganda's generation capacity and diversify its generation. The study was presented and accepted by all major energy stakeholders who agreed to standardize and systematize generation planning, load forecasts, and national targets to establish consensus through an integrated resource plan (IRP). The plan will help diversify the country's energy mix with an anticipated 300MW of solar, wind, and geothermal power by 2030, leading to a more resilient system.

In addition, UEGCL achieved several results from previous activities including:

- 1) Implementing a computerized maintenance management system (CMMS) solution based on IBM Maximo application suite to support the Enterprise Asset Management program.
- 2) Establishing a risk department to proactively identify, monitor, and mitigate risks.
- 3) Training more than 100 operation and maintenance and asset management staff.

U.S. – East Africa Geothermal Partnership (EAGP)

The U.S. – East Africa Geothermal Partnership, with funding from USAID and Power Africa, provided technical assistance to the Oserian Two Lakes Geothermal Industrial Park, an innovative project in Naivasha, Kenya. Oserian owns a 20,000-acre flower farm that currently operates three geothermal wells, which produce both thermal energy and electric power. Oserian received a license to sell electricity generated on their land from Kenya's Energy and Petroleum Regulatory Authority (EPRA), making them the only Kenyan company with a license to generate, transmit, and sell electricity.

Using this license and the site's abundant geothermal resources, Oserian is developing the first geothermal industrial park in sub-Saharan Africa. A grid study conducted in 2020 found that the industrial park's installed geothermal and solar power will not be sufficient to meet the load of all prospective industrial park clients. While Oserian plans to develop additional renewable energy resources, the grid study found that interconnecting with the national grid presented an economic solution to meet power demands. EAGP is partnering with technical experts from POWER Engineers and K&M Advisors to support Oserian with the design of an interconnection for backup power.

Illustration of the Oserian Two Lakes Geothermal Industrial Park once completed. (Source – Oserian Two Lakes Power 2)



Senegal

The Government of Senegal is fast-tracking hundreds of electricity generation, transmission, and distribution projects to meet rising demand and meet the country's goal of universal electricity access to become an emerging economy by 2025. In order to ensure grid reliability and stability, Senegal's

national electricity company, Senelec, must accurately model all these new projects. EUPP completed the "Senegal Power System Modeling and Network Training Series" with three trainings on dynamic load modeling & network stability. Senelec developed dynamic load models of their transmission and distribution system and became familiar with PSS/E contingency analysis and reactive power planning tools, user-defined models using Fortran scripts, and governor and exciter models. This training helped Senelec understand how to integrate variable renewable energy and to identify short circuiting and voltage and frequency control for these resources. This could enable future potential for energy access to Senegal's underserved areas.



3rd Training on Senegal Power System Modeling and Network Training for Senelec on July 2021 in Dakar, Senegal.

Tanzania

EUPP conducted a two-week virtual workshop for representatives from the Tanzania Petroleum Development Corporation (TPDC) on financial modeling for natural gas to provide participants from various TPDC directorates and units with the knowledge and tools to develop, understand, analyze and interpret various financial models. This training came at a critical time for Tanzania as they look to develop their natural gas sector to meet the energy demands of Tanzania's growing economy. All 15 participants received Institute of Electronics and Electrical Engineers (IEEE) certification.



Tanzanian executives participate in virtual training with the goal of increasing interaction on natural gas financial modeling.



Consensus Oil and Gas

USEA consultants train regional Coordinating Dispatch Center (CDC) Energia staff on DlgSILENT software.



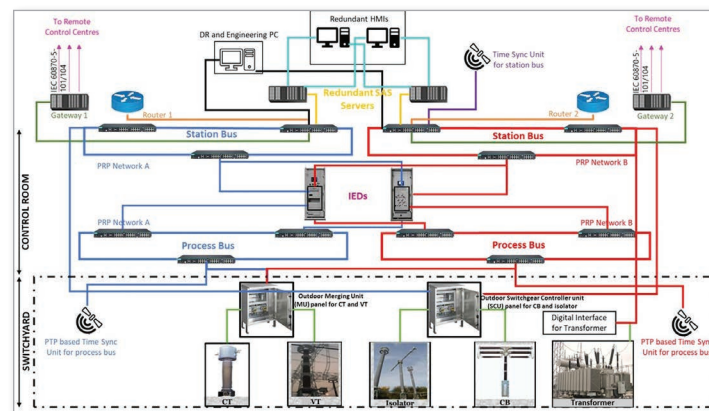
Central Asia

EUPP conducted a series of three in-person trainings on power system modeling and network analyses in DlgSILENT PowerFactory for the regional Coordinating Dispatch Center (CDC) Energia. The series included training on advanced short-circuit calculations and relay protection simulation, on Python scripting, and on advanced small signal stability. This training enhanced the capacity of CDC Energia’s planning staff for power systems modeling and long-term planning. In the long run, this will help

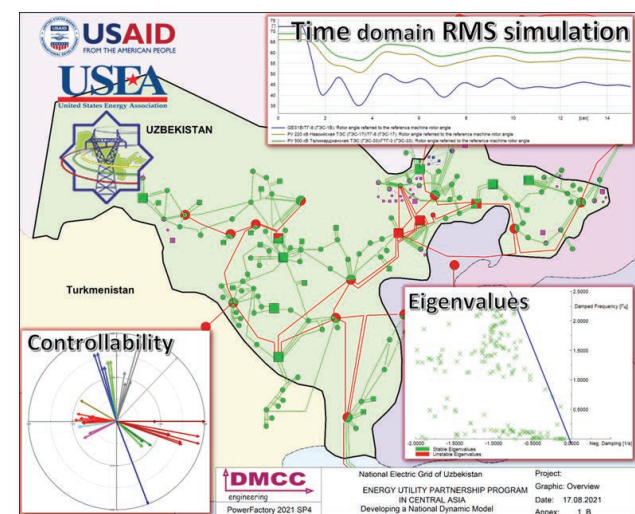
create an enabling environment for expanded integration of renewable generation and for the establishment of a unified power system in Central Asia.

Kazakhstan

EUPP completed a project on digital substation technology for the Kazakhstan Electricity Grid Operating Company (KEGOC). KEGOC received a comprehensive review of currently available digital substation technologies, including best international practices and strengths, weaknesses, opportunities and threat (SWOT) analysis, suggestion of an optimal technology for implementation in Kazakhstan, assistance with selecting a substation to host a pilot application of the technology, and a strategy roadmap for integrating the technology throughout KEGOC’s system. In the long term, this will enhance the capacity of KEGOC for reliable and efficient operation of Kazakhstan’s national electric grid, improving reliability and efficiency and reducing operational costs.



Proposed System Architecture for a Digital Substation pilot for Kazakhstan.



Overview diagram of the Uzbekistan power system model for FY2025 and FY2030.

Uzbekistan and Tajikistan

EUPP provided the National Electricity Transmission Company (NETC) of Uzbekistan and the Electricity Transmission Network (ETN) of Tajikistan with dynamic models of their power systems for the existing network topology, and with planning models – static and dynamic – for 5- and 10-year horizons to include planned renewable generation, as well as comprehensive training on power system modeling, simulation and analyses.

The activities also produced important recommendations on improving NETC and ETN’s operations in areas of grid stability, transfer capacity, load demand forecasting, inter-connection of regional systems, and further integration of renewable generation. The models and training will help achieve improved efficiency, stability, and reliability of the national grids resulting in reduced power outages and fewer network interruptions, creating an enabling environment for expanded integration of renewable generation and the establishment of a unified power system in Central Asia.

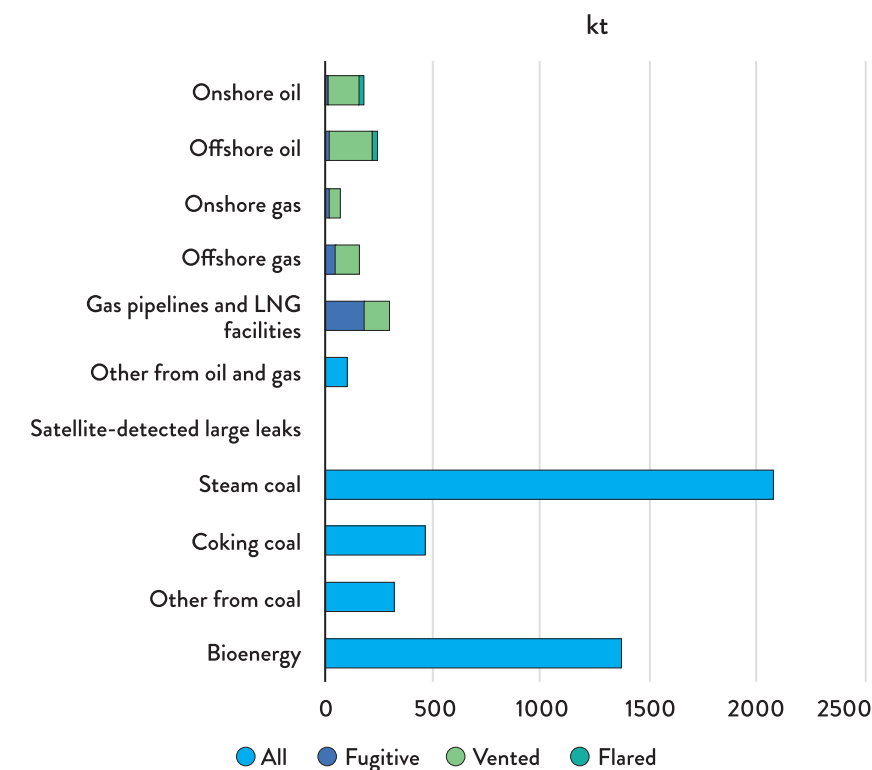
BUILDING INTERNATIONAL CONSENSUS ON OIL AND NATURAL GAS

To tackle the joint challenges of ensuring energy security and mitigating climate impacts of energy systems domestically and internationally, USEA continued “Building International Consensus on Oil and Natural Gas.” As the world continues to rely on oil and natural gas resources to meet energy and power demand, USEA is working with industry and governments to ensure that

they are utilized responsibly. USEA continued to work in partnership with the U.S. Department of Energy’s Office of Fossil Energy and Carbon Management (DOE-FECM) to strengthen international energy relationships and promote the responsible use of oil and natural gas to enable a cleaner energy future. In 2021, India was a key focus point as a critical U.S. energy partner.

U.S.-India Low Emission Gas Task Force (LEGTF)

India methane emissions from energy sources, IEA estimate



An IEA study on India’s methane emissions.

IEA. All Rights Reserved

USEA serves as Secretariat for the U.S.-India Low Emission Gas Task Force (LEGTF) under the U.S.-India Strategic Clean Energy Partnership.

Throughout 2021, USEA worked with DOE officials, U.S. industry, the Government of India and India’s natural gas industry to meet India’s climate and energy goals through the deployment of maximally-abated natural gas.

The LEGTF supports the Government of India in three strategic areas where the U.S. industry has expertise:

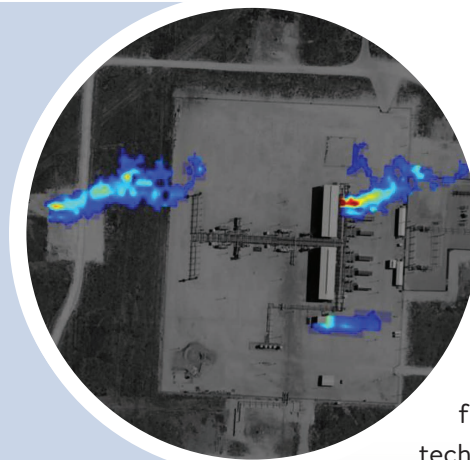
1. Natural Gas Markets and Regulation
2. Natural Gas Grid Strengthening
3. Natural Gas for Lower Emissions

continued on next page

The Government of India meets six percent of its total energy consumption with natural gas; it seeks to increase that to 15 percent by 2030. Natural gas is an important tool for the Government of India to meet the emissions reduction targets announced at the COP26 Summit. In particular, natural gas can enable fuel switching from high-polluting fuels in the manufacturing, agriculture, transportation, and residential sectors. Deploying natural gas, while mitigating greenhouse gas (GHG) emissions associated with gas infrastructure, can reduce hazardous emissions, promote positive health benefits, and lower energy costs for users.

In 2021, LEGTF subcommittees prepared five white papers on best practices in regulating natural gas markets, facilitated the signing of a Memorandum of Understanding (MOU) on pipeline safety, and provided capacity building to Indian stakeholders on natural gas as a tool for a cleaner energy future.

Consensus Carbon Management

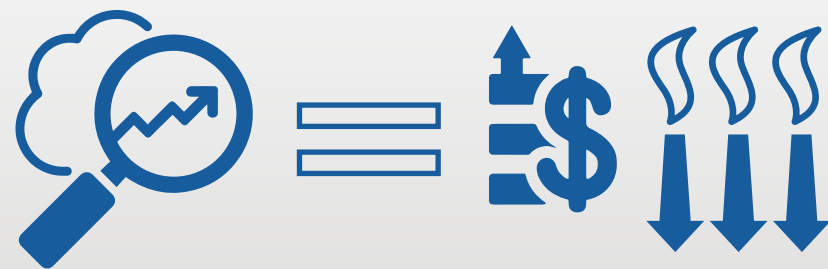


Fugitive methane emissions (generated by John Crane, Inc.)

Study on the Potential for Methane Leak Detection and Repair (LDAR)

LEGTF members developed a report on the potential for methane leak detection and repair (LDAR) in India. LEGTF member John Crane, Inc. provided case studies of LDAR programs in the US and abroad. The report demonstrated that tracking fugitive methane emissions by deploying monitoring technologies allowed infrastructure owners to reduce revenue losses and reduce GHG emissions. The report found that

there was a strong commercial and environmental case for implementing LDAR programs in India. Following the study, several LEGTF members in India's gas distribution sector are exploring the potential for LDAR pilot projects.



PROMOTING CONSENSUS ON CARBON CAPTURE, UTILIZATION AND STORAGE (CCUS) AND CARBON MANAGEMENT TECHNOLOGIES

Implemented by USEA and the U.S. Department of Energy (DOE) Office of Fossil Energy and Carbon Management (FECM), the Promoting Consensus on CCUS and Carbon Management Technologies (CONSENSUS) program conducts workshops, training programs and informational briefings, and performs analyses to communicate the technical, environmental and societal benefits of CCUS, carbon management technologies, rare earth elements and blue hydrogen.

WORKSHOPS AND REPORTS

USEA hosted 6 workshops and released 3 reports under DOE CONSENSUS:

- American Gulf Coast Regional Workshop on Critical Minerals Sustainability
- American Midwest & Plains Regional Workshop on Critical Minerals Sustainability
- DOE National Laboratories Workshop on Critical Minerals Sustainability
- Workshop on Simulation Based Engineering for Accelerating the Deployment of Decarbonization Technologies
- Workshop on Models for the Deployment of CCUS Hubs
- Workshop on CCUS's Role in Utility Resource Planning
- CCUS: A State Comparison of Technical and Policy Issues
- Increasing CO2 Storage Options with Injection of CO2 in Shales
- Co-utilization of Coal and Mixed Scrap Plastics via Syngas Production with Carbon Capture, Utilization, and Storage (CCUS)

WEBINARS

- Sustainable Water Management for Decarbonizing Fossil Power Generation
- Uncovering Newly-Passed Omnibus Legislation and Finalized 45Q Regulations Affecting CCUS
- Following Bakken CO2, Pore Structure Alteration of Organic-Rich Shale with Sc-CO2 Exposure
- Unlocking the Energy Transition with the Keys to CCUS Commercialization

- The Geopolitics of Critical Minerals Supply Chain
- Indian Energy Minerals Forum 2021 Webinar Series 2
- Building Commercial Scale Clean Energy Systems through Deep Carbonization & GT Scale Carbon Capture Infrastructure
- The Developing Hydrogen Economy - Potential, Progress, and Challenges
- Clean Hydrogen Future Coalition
- Carbon Capture in Colorado and the Southern Ute Indian Reservation
- Is Low Carbon Hydrogen the Panacea for Climate Change? What can the US Learn from Early Adoption in Europe?
- CO2 Storage: Optimizing Large Value First Mover Projects by Managing Short and Long Term Security and Liabilities
- Beyond Boundary Dam - What's Next for CCS in Canada and the International CCS Knowledge Center
- US DOE - FECM's Division of Minerals Sustainability Multi-Year Program Plan Rollout
- CCUS: A State Comparison of Technical and Policy Issues
- Carbon Management and Energy Transition Projects - An Economic Opportunity for Kansas
- Increasing CO2 Storage Options with Injection of CO2 in Shales
- Introduction To The Carbon Ore, Rare Earth, And Critical Minerals (CORE-CM) Initiative For U.S. Basins (2 parts)
- Paving The Way To A Hydrogen Economy (2 parts)



2020-21 United States Energy Award

Charif Souki Presented With 2020-21 United States Energy Award

SEPTEMBER 29, 2021

Charif Souki, Co-founder and Chairman of Tellurian Inc., [accepted the 2020-2021 United States Energy Award](#) at the National Press Club in late September in recognition of his outstanding lifetime efforts to advance energy initiatives and for his support of USEA.



Left to Right: Dan Yergin, Charif Souki, and Sheila Hollis with the award.

The award, which was established in 1989 to recognize preeminent energy leaders and their contribution to the understanding of energy issues, was presented in front of both an in-person audience and an audience viewing via livestream. The ceremony was opened by USEA Acting Executive Director **Sheila Hollis**, who welcomed the

audience to USEA's first in-person event since January 2020.

Mr. Souki is widely acknowledged as the architect of the liquefied natural gas (LNG) export industry in the United States. He founded Cheniere Energy in 1996, which became the first entity to begin exporting LNG from the U.S. following the shale revolution. He co-founded Tellurian Inc. in February 2016, which is developing an integrated global gas business beginning with LNG export facilities in Lake Charles, Louisiana.

"My career has been defined by two principles, really," Mr. Souki said after accepting the award.

"Necessity is the mother of invention...you have to adapt. And you can do that if you have the second very important component: having people who were friends - supporters - allowing me to have the confidence in what I was doing."

Mr. Souki then acknowledged **Barry Worthington**, who was the Executive Director of USEA for 31 years before passing away in August 2020.

"I would start with Barry Worthington, who recruited me for USEA at a time when we were a very small company. But he saw something: he said 'you belong here, join us, and be here'. And [to be a part of] an organization like USEA, that allowed me to have credibility in the business."

Before accepting the award, Mr. Souki was introduced by two longtime friends: **Dan Yergin**, USEA Board Member, Vice Chairman of IHS Markit, and Pulitzer-prize winning author; and **Jack Futcher**, former Chairman of USEA and current Vice Chairman of Bechtel Group, Inc.

"Charif, being an entrepreneur, saw the need to export LNG. There were lots of ups and downs, and downs and ups. But Charif stayed the course. He was all in, with entrepreneurial energy, persuasiveness, and perseverance, and the confidence that comes from the optimism of an entrepreneur," Yergin said.

Yergin also emphasized that in his recent book, *The New Map*, he calculated the massive economic impact of the LNG export industry that Mr. Souki pioneered: the U.S. saves an astounding \$400 billion per year by not importing oil or natural gas.

Before introducing Mr. Souki to the stage, Futcher said: "It took extraordinary skill for Charif to navigate the regulatory and permitting requirements at both the federal and the state level. At the same time he was doing that, raising the financing required for a major investment was an incredible feat - a real accomplishment. He was able to pave the path, and set the course, for many individuals and companies that followed him. He laid the groundwork."

At the end of his remarks, Mr. Souki thanked those who have supported him over the years.

"I really appreciate the help of USEA for many years, not just now - when I was a much smaller company - and the help of all the friends and people who believed in me who have made me able to achieve what I've done. Thank you very much, and thank you for your recognition."

All photos copyright 2021 Tony Powell.



Virtual Press Briefings



USEA's Virtual Press Briefing series features a panel of industry experts answering questions from energy journalists about the leading issues and cutting-edge energy topics of the day. The general audience can also submit questions. USEA Acting Executive Director **Sheila Hollis** delivers opening remarks for each briefing. The briefings are organized and moderated by **Llewellyn King**, producer and co-host of *White House Chronicle* on PBS.

USEA rebooted its Press Briefing series into a virtual format in late 2020 and returned last year with nearly monthly sessions. The series received extensive media coverage, including articles in Forbes, The Guardian, Energy Daily, S&P Global, Utility Dive, and RTO Insider. The briefing recordings are distributed to registrants and posted on [USEA's website](#), and they have been viewed thousands of times online.

"Each briefing featured a topic that was timely and of great importance to our industry, and the pointed questions asked by the reporters allowed for excellent responses and dialogue from our guest experts. Each briefing generated news and important insight into today's most pressing energy issues," said USEA Acting Executive Director Sheila Hollis.

"The expanded Virtual Press Briefing series was a wonderful addition to USEA's slate of events in 2021," said Hollis.

Forbes

Will Coal's Survival Kill Efforts To Combat Climate Change?



Ken Silverstein Senior Contributor
Energy
I write about the global energy business.

January 15, 2021

GREEN HYDROGEN: THE NEW UTILITY FRONTIER

Mark Eisenhower, Partner, Energy, Sustainability and Infrastructure, Guidehouse

Bruce Hallbert, Director, Technical Integration Office, LWR Program, Idaho National Laboratory

Michael Green, General Manager, Nuclear Power, Arizona Public Service

February 26, 2021

THE LESSONS OF TEXAS

Daniel Brooks, Vice President of Integrated Grid and Energy Systems, EPRI

Clinton Vince, Chair, Dentons' U.S. Energy Practice

Pat Wood III, Principal, Wood3 Resources; Former Chairman, FERC and Texas PUC

May 14, 2021

PRESIDENT BIDEN'S INFRASTRUCTURE PLAN & ELECTRIC UTILITIES

Julia Hamm, President & CEO, Smart Electric Power Alliance

Dr. Karen Wayland, President, Gridwise Alliance

Robert Chapman, Senior VP, Energy Delivery and Customer Solutions, EPRI

continued on next page

June 4, 2021

CYBER INSECURITY IN THE ENERGY SECTOR

Matt Barrett, COO, CyberESI

Galen Rasche, Senior Program Manager, Power Delivery and Utilization Sector, EPRI

Commissioner Paul Kjellander, President, Idaho PUC; President, NARUC

Suzanne Lemieux, Manager of Operations, Security, and Emergency Response Policy, API

The Guardian

Severe drought threatens Hoover dam reservoir – and water for US west

The wellspring of Lake Mead created by the dam's blocking of the Colorado River has plummeted to a historic low as states in the west face hefty cuts in their water supplies by [Oliver Milman](#) at Hoover dam

June 25, 2021

THE WEST'S MEGADROUGHT AND THE ELECTRICITY SUPPLY CRISIS

Elliot Mainzer, President & CEO, California ISO

Tyler Hodge, Senior Economist, Office of Energy Analysis, U.S. EIA

Peter Asmus, Research Director, Guidehouse

Leah Rubin Shen, Policy Director, Advanced Energy Economy

July 30, 2021

THE RESILIENCE IMPERATIVE FOR U.S. ELECTRIC UTILITIES

Joseph Fiksel, Professor Emeritus, Integrated Systems Engineering, Ohio State University

Richard S. Mroz, Esq., Immediate Past President, New Jersey Board of Public Utilities (NJBPU)

Paula Gold-Williams, President & CEO, CPS Energy

Mark McGranaghan, EPRI Fellow, EPRI

October 22, 2021

NATURAL GAS: THE ESSENTIAL GRID STABILIZER

Sheila Hollis, Acting Executive Director, USEA

Arshad Mansoor, President & CEO, Electric Power Research Institute

Suriya Evans-Prichard Jayanti, International Energy Counsel, U.S. Department of Commerce

Branko Terzic, Managing Director, BRG LLC

November 29, 2021

COP26: BUILDING BLOCK OR STUMBLING BLOCK FOR U.S. UTILITIES?

Jeff Lyash, President & CEO, Tennessee Valley Authority

Duane Highley, CEO, Tri-State Generation and Transmission Association

Eric Holdsworth, Managing Director, Clean Energy and Environmental Policy, Edison Electric Institute

Katie Jereza, Vice President, Corporate Affairs, EPRI

December 15, 2021

INFRASTRUCTURE SPENDING: PENNIES FROM HEAVEN OR GREEN STRESS?

Justin Driscoll, Interim President & CEO, New York Power Authority

Andrew Shaw, Partner, Dentons

Katie Jereza, Vice President of Corporate Affairs, EPRI

Peter Londa, President & CEO, Tantalus

Reporters (in order of appearance):

- Jeff Beattie, The Energy Daily
- Rod Kuckro, Freelance
- Andrew Moore, S&P Global
- Ken Silverstein, Forbes
- Peter Behr, E&E News
- Edward Saltzberg, Security & Sustainability Forum
- Linda Gasparello, White House Chronicle
- Robert Walton, Utility Dive
- Diego Mendoza-Moyers, San Antonio Express-News
- Jasmin Melvin, S&P Global
- Ellie Potter, S&P Global



California braces for energy resource shortfalls amid extreme heat and drought

Robert Walton
Reporter

Published June 28, 2021

USEA Communications



USEA's enhanced outreach efforts that began in late 2020 due to the pandemic were in full swing in 2021. Through interviews, podcasts, newsletters, social media, and more, it was a banner year spreading the word about USEA's mission and accomplishments.

After becoming USEA Acting Executive Director in September 2020, **Sheila Hollis** placed renewed emphasis on USEA's communications efforts. The new virtual nature of the world demanded that USEA increase its visibility and online presence in order to remain relevant and a well-respected global resource. This approach proved even more successful in 2021.

Over 12 months, USEA appeared in 79 unique online articles and 872 total articles. During the latter half of 2021, Sheila was interviewed 18 times by 16 reporters at 14 different outlets. Outlets spotlighting USEA included: Forbes, S&P Global, E&E News, Bloomberg, Vox, Morning Consult, and the Dallas Morning News. Each article was re-distributed through USEA's social media channels to amplify its reach.



The media exposure online was not limited to traditional articles, but included podcasts as well. In April, Sheila Hollis and Senior Program Coordinator **Elise Voorhis** were interviewed by Canadian journalist Markham Hislop for


his podcast, EnergiTalks. The [episode](#) focused on USEA's recent work in Uganda helping the Uganda Electricity Generation Company Ltd. (UEGCL) diversify their energy mix. In May, Sheila was interviewed for an episode of Resources Radio, a podcast produced by Resources for the Future, where [she discussed](#) USEA's international work. In July, Sheila was invited to outline the energy transition in DOE's "Grid Talk" [podcast](#).



USEA also produced a monthly external [newsletter](#) in 2021, which included an opening letter from the acting Executive Director, USEA Program updates, and other special features. A "USEA Spotlight" guest commentary series was launched in April. Beginning with that edition, a total of eight leading energy executives penned commentaries for the newsletter over the remaining months of 2021, lending a new authenticity and expert expertise to the newsletter.

During the summer of 2021, the USEA [Wikipedia](#) page was completely overhauled for two reasons: 1) the page was severely outdated; 2) Wikipedia's exploding readership provided a fresh opportunity to educate readers about USEA. Wikipedia was the most visited US website in 2020, with 1.1 billion users per month and 6.3 million articles in English. After lengthy revisions, USEA now enjoys a contemporary and accurate Wikipedia page, which helps strengthen USEA's credibility.



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