

September 25-29, 2023

Celebrating U.S. Clean Energy Leadership

National Clean Energy Week Celebrating U.S. Clean Energy Leadership

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Let's recognize our nation's clean energy advancements



By Heather Reams, National Clean Energy Week and CRES Forum

t's no secret: Clean energy development is on the rise. Governors across the country have welcomed recent investments from the federal government, encouraging the use of tax credits to attract new businesses, and clearing regulatory hurdles to ensure streamlined, efficient

use of these resources. Clean energy is critical for American energy leadership, economic prosperity, and a healthier climate. So now is an opportune time to recognize and celebrate the growth of clean energy during National Clean Energy Week, September 25-29.

Now in its seventh year, National Clean Energy Week is a chance to highlight bipartisan collaboration and the progress made toward a cleaner energy future. As NCEW chair, I am incredibly proud of the platform we have convened where, over the next week, participants will showcase their work to diversify our energy portfolio, incentivize American innovation, and clear the way for further development of clean energy technologies.

In a demonstration of bipartisanship, NCEW is proud that dozens of Republican and Democratic governors have recognized Clean Energy Week in their states and that bipartisan resolutions noting the week have been introduced in both the U.S. House of Representatives and in the U.S. Senate. Thank you to the Congressional leads of the resolution -- U.S. Senators Susan Collins (R-Maine) and Maria Cantwell (D-Wash.), Representatives Mariannette Miller-Meeks (R-Iowa) and Lisa Blunt Rochester (D-Del.) -- and to all the House and Senate cosponsors who helped introduce the bipartisan, bicameral resolution. It is because of their leadership in Congress



that we have this opportunity to appreciate the strides the U.S. has made.

At the core of NCEW is the Policymakers Symposium, a three-day conference featuring robust panel discussions, remarks, and an exchange of ideas by energy leaders, members of Congress, carbon-intensive than ours – accountable for increasing emissions.

Addressing climate change is a global challenge and to tackle it, we must use every tool at our disposal. That means championing the development of renewable energy sources, including onshore

Clean energy is critical for American energy leadership, economic prosperity, and a healthier climate.

administration officials, and experts. The Symposium explores the challenges facing clean energy development and policy improvements the United States can make to continue innovating low-carbon technologies. Speakers will underscore the good-paying jobs created, the economic benefits local communities and states are experiencing due to investment in new clean energy projects, and how diversifying the energy grid results in stronger energy and national security.

Additionally, panelists will outline the importance of leveraging America's carbon advantage to bolster our competitiveness across the globe and to enable our country to hold bad actors – like China, whose manufacturing sector is three times more and offshore wind, solar, battery storage, geothermal and hydropower; increasing production and use of nuclear power; continued natural gas use and development, focused on responsible transport via pipelines while reducing carbon and methane emissions; and it means investing in nascent and emerging technologies such as hydrogen and advanced nuclear.

At the same time, the U.S. must onshore critical mineral supply chains and manufacturing so that we can reduce our reliance on foreign countries and strengthen our energy security. We must reform our permitting processes so that clean energy projects are developed within our world-class environmental protections but are not delayed or halted due to duplicative and burdensome requirements. It means we find compromise in modernizing our grid so that more homegrown energy is safely transmitted to families and businesses across America.

And we must continue to do what Americans do best: innovate.

In fact, the first wind turbines were created to generate electricity in Ohio. The first large-scale solar plant was built in California. The world's first geothermal district heating system was created in Idaho. Today, new and exciting clean energy technologies are developed by American researchers and scientists in our national labs and at private companies across the country. This is exactly the type of innovation NCEW hopes to continue to inspire that makes our country prosperous, healthy, and safe.

National Clean Energy Week 2023 is dedicated to the progress we have made as a country and giving momentum to the work that remains.

Finally, I extend gratitude for this year's sponsors who make National Clean Energy Week possible:

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Heather Reams is chair of National Clean Energy Week and president of Citizens for Responsible Energy Solutions (CRES) Forum, a 501(c)(3) non-profit organization founded in 2017 to educate Republican policymakers and the public about responsible, conservative solutions to address our nation's energy, economic, and environmental security while increasing America's competitive edge.

Every American family deserves commonsense energy solutions



By Rep. Mariannette Miller-Meeks

have dedicated my life to service, first as a nurse, then doctor, as an Army veteran, State Senator and now as a Member of Congress. I believe we owe it to our future generations to leave this planet better than we found it. I am not alone.

As Vice Chair of the Conservative Climate Caucus, I am joined by over 80 Republican Members of Congress who agree: we can act to mitigate the impacts of a changing climate, while strengthening the U.S. economy. We understand the importance of working together to enact commonsense solutions to lower global emissions. The United States leads the world in emissions reduction, due largely to innovation within our energy and manufacturing sectors, and we should be taking advantage of that fact.

In many cases, this means working across the aisle to pass important policies to encourage continued clean energy research, development, and deployment of new technologies. It means ensuring that clean energy solutions are economically viable and beneficial to both our environment and our local communities. And it means ensuring the federal government doesn't get in the way of important projects.

I am working with Rep. Lisa Blunt Rochester (D-Del.), alongside Senators Susan Collins (R-Maine) and Maria Cantwell (D-Wash.), to introduce a resolution recognizing September 25-29, 2023, as National Clean Energy Week.

The bipartisan, bicameral resolution helps kick off a weeklong celebration of U.S. clean energy leadership and activities that highlight American energy innovation and collaboration. It states that clean energy is an essential part of our growing economy, and with energy generation from zero- and low-emissions sources on the rise, it's bound to be more integrated. I am proud to serve on the House Energy & Commerce Committee, where we are working to promote resources like nuclear energy, renewable biofuels and hydropower and are focused on strengthening our energy grid resilience and transmission capabilities. These are important pieces of any energy puzzle that incorporates increasing energy demand, affordability, security, reliability and sustainability.

Despite this progress, we still have work to do. The United States is over reliant on countries like China and Russia for essential components of our clean energy strategy.

This is unacceptable. We must onshore these supply chains to not only modernize and bolster our energy grid but to strengthen our national security.

If we are going to do so, we have to reform our permitting processes here at home. Permitting a new mine or transmission line in the U.S. can take upwards of a decade or longer. Once permitted, outdated judicial review laws can derail progress by halting or delaying projects and driving up costs – ultimately disincentivizing investment in U.S. mineral development at all.

Of the 50 critical minerals recognized by the United States, China is the dominant supplier for 21 of them. Additionally, China has near-monopolistic control of refining and processing capacity. For example, China is responsible for 64% of the world's cobalt refining, a mineral used for technologies we need if we are serious about a cleaner energy future. We must onshore these supply chains to not only modernize and bolster our energy grid but to strengthen our national security.

Meanwhile, the United States is sitting on the largest untapped copper, nickel, and cobalt deposit in North America, located in northern Minnesota. Developing these minerals here at home would not only create good-paying American jobs, but it would ensure we are no longer dependent on these minerals from China, where environmental and labor protections are low and carbon emissions are high.

Strengthening domestic critical mineral supply chains for clean energy development should not be a partisan issue, and I am committed to working with my colleagues on both sides of the aisle to ensure we can do so.

While National Clean Energy Week only comes once a year, in my home state of Iowa, we recognize the contributions clean energy makes to our way of life. Thanks in part to states like Iowa, the American energy and manufacturing industries have made huge strides in reducing emissions, due largely to improved technologies for natural gas development and development of low-carbon biofuels.

Iowa is the nation's largest fuel ethanol and biodiesel producer, accounting for about one-fourth of U.S. fuel ethanol production capacity and one-fifth of biodiesel manufacturing capacity. Biofuels are an integral part of the Hawkeye State's economy, supporting the agriculture industry and the environment. But Iowa's energy portfolio also includes any-of-theabove sources like hydropower, solar, and wind power, with wind turbines generating 62% of Iowa's electricity.

In fact, Governor Kim Reynolds is one of more than two dozen governors across the country joining us in declaring Clean Energy Week in Iowa. Her proclamation highlights the 35,000 jobs within our state's clean energy sector and the continued economic growth resulting from continued clean energy development.

I am proud to celebrate National Clean Energy Week, and I encourage everyone to join me in seeking commonsense, bipartisan solutions to our country's energy challenges. As we strive to strengthen energy security and provide clean, affordable, abundant and reliable energy to every American family, we also must look to the future and ensure we are leaving a cleaner, healthier world for our children and grandchildren.

Mariannette Miller-Meeks, M.D., Iowa Republican, represents the state's SecondCongressional District. She serves on House Committee on Energy and Commerce, where she sits on the Subcommittee on Health and the Subcommittee on Environment, Manufacturing, and Critical Minerals, as well as the House Committee on Veterans' Affairs, where she serves as Chairwoman of the Subcommittee on Health.



'Fueling the future requires an all-of-the-above energy approach'



By Speaker Kevin McCarthy

n Washington, you often hear that policy change can't happen in a divided government. But on energy, House Republicans continue to prove this wrong.

Keeping our Commitment to America, we passed H.R. 1, the Lower Energy Costs Act, with bipartisan support and enacted the first permitting reform in 40 years as part of the Fiscal Responsibility Act (FRA). These provisions are a vital step forward for permitting. They will fast-track the process, cut costs for American families and businesses, and grow our economy to help us better compete with China. When implemented, the FRA's NEPA reforms will provide a level playing field to all forms of energy and are critical to reducing global emissions.

We know the world is cleaner and safer when we produce more energy under American standards – whether it's American natural gas, emissions-free nuclear power, or renewable energy. With global energy demand projected to grow through 2050, who provides this energy matters. dominance. Today, we are proud to be a world leader in natural gas production.

Compared to other sources, American natural gas is a cleaner, safer, and more affordable choice. It has allowed us to reduce our CO2 emissions while becoming the world's leader in exporting natural gas. In fact, America has reduced emissions more than the next six emissions-reducing countries combined, and we're responsible for 66% of all emissions reductions of OECD members since 2005.

With permitting reform, we've taken an essential first step toward investing in cleaner American natural gas, emissions-free nuclear power, and renewable energy based on regional resources.

Europe's dependence on Russian natural gas allowed Russia to weaponize the energy market after its brutal invasion of Ukraine. But when the Free World chose to boycott Russian energy, the United States was able to step up and help to fill the supply gap.

In America, we understand that when it comes to energy, you should never rely on dictators and regimes who don't share your values. Through American ingenuity and innovation like hydraulic fracturing, we achieved not just energy independence, but energy Environmental extremists suggest that the only way to reduce global emissions is to establish burdensome regulations and hamstring our economy with higher taxes. Yet the facts tell another story. If Europe simply replaced all of the natural gas it imported from Russia with American natural gas for one year, CO2 emissions would be reduced by 218 million tons.

The false choice that surrounds global energy policy also has a harsh side effect: it leaves developing countries and the poorest communities in the dark without access to affordable or reliable energy to grow their economies. Instead, they are told to abandon fossil fuels and invest in more expensive renewable energy, or be cast aside.

Not even nuclear power – the only emissions-free baseload energy source – meets the standard set by the world's elite. It has been over 60 years since the World Bank financed a nuclear energy project.

If this climate colonialism persists, billions of people will lose out on the chance to succeed. That is not only morally wrong, but deeply misinformed. Instead of issuing impossible ultimatums, we should be providing them with clean, affordable energy to grow.

House Republicans know that fueling the future requires an all-ofthe-above energy approach. Reliable, affordable energy is not a luxury. It is the foundation of modern life. With permitting reform, we've taken an essential first step toward investing in cleaner American natural gas, emissions-free nuclear power, and renewable energy based on regional resources. The work is only beginning, and with House Republicans at the helm, I know that we will deliver solutions for a better, safer tomorrow.

Kevin McCarthy, representing California's 20th District, serves as Speaker of the U.S. House of Representatives.



Pass the PROVE IT Act to show America's excellence outperforms foreign competition

By Senators Kevin Cramer and Chris Coons

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merican manufacturers are among the best in the world, but competition from cheap goods from overseas is undercutting our workers and shuttering our factories. In some industrial sectors, like steel, aluminum, and glass, our factories are among the cleanest globally. Our competitors often have the advantage of lower environmental standards, so their cheaper, dirtier products can outcompete our cleaner American-made ones. Our bipartisan PROVE IT Act (Providing Reliable, Objective, Verifiable **Emissions Intensity and Transparency** Act) would demonstrate our advantage in clean production and make clear to consumers around the world the environmental damage caused by some emissions-intensive foreign products.

Over the last fifty years, Americans watched as countless manufacturers across the country closed their doors. We have seen the high-paying, highquality jobs that are the backbone of the middle class move overseas, leaving families and whole communities high and dry. Lax environmental standards in distant lands allowed the creation of junk products at the expense of the environment and our workers. We do it better here at home, and our public policy should shift to put the value of the American worker first, and shore up our more secure supply chains by sourcing from the U.S.

Ultimately, American jobs and energy security are worth protecting, but our environmental stewardship only



We do it better here at home, and our public policy should shift to put the value of the American worker first, and shore up our more secure supply chains by sourcing from the U.S.

bolsters our value proposition. Energy production in North Dakota's Bakken Formation and advanced manufacturing in Delaware may seem unrelated, but if the goal is cleaner production and lower emissions, the solution is making it in America. Part of the problem is while we know our goods are cleaner and safer, we've never actually produced the official data to demonstrate it. Together, we introduced the PROVE IT Act in June to finally put the numbers behind what we believe to be true: our environmental stewardship is the best in the world.

Data compiled by the Climate Leadership Council shows the United States is the cleanest manufacturing nation: "Goods manufactured in the U.S. are 40% more carbon-efficient than the world average. ... The U.S. carbon advantage is 3X that of China and nearly 4X that of Russia and India." Defending our strategic interests starts with quantifying our advantage. We already collect data on many topics, so why should data on our domestic emissions and our competitors' emissions be any different? Our environmental excellence should be on full display for comparison to the world's polluters and their poor performance.

With the impending implementation of the European Union's carbon border adjustment mechanism (CBAM), trade and emissions are more intertwined than ever. Beginning this year, the EU will require the disclosure of the carbon dioxide content of certain exports, and in just a few years, the EU will enforce a tariff on those carbon-intensive goods entering the EU. If we're going to continue to export competitively to one of our largest trading partners, we need to do our own math instead of relying on numbers from other countries which could result in unjust tariffs being slapped on U.S. goods.

The PROVE IT Act is a bipartisan, commonsense effort to bridge the gap between what we know and what we can prove. Our public policy should be focused on protecting and rewarding American workers for their contributions to our economic, environmental, and national security strengths. Instead of being on the defensive, this bill is a proactive effort to keep American excellence at the head of the global table. Together, we are working across the aisle to defend America's economic interests, create an environment for future bipartisanship, and drive global emissions reductions.

Kevin Cramer, North Dakota Republican, is the Ranking Member of the Senate Environment and Public Works Subcommittee on Transportation and Infrastructure. He also serves on the Senate Armed Services, Veterans Affairs and Banking Committees.

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Chris Coons, Delaware Democrat, sits on the Appropriations, Judiciary, Foreign Relations, Small Business and Entrepreneurship, and Ethics Committees. He serves as Chair of the Senate Appropriations Subcommittee on State and Foreign Operations.



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America enters a new era of energy dominance



By Abigail Ross Hopper, Solar Energy Industries Association

n an ever-changing geopolitical landscape, there is broad consensus that the United States needs to establish true American energy independence. It's no secret that the United States relies on other countries to meet our energy needs, but this has affected our ability to control our destiny and compete on the world stage.

Fortunately, the momentum is shifting, and homegrown solar power is leading the way towards energy independence. The solar investments we're making today are already positioning the United States to be a global clean energy leader.

Solar is now one of the fastestgrowing energy sources in the world. This year alone, the U.S. solar industry is on target to add a record-breaking 32 gigawatts of new solar capacity to the grid in 2023 — which is 50% more than it added last year.

But this dramatic upswing did not happen in a vacuum. It is the product of pro-business, pro-growth incentive policies that went into effect last year and have fueled an unprecedented surge in demand for solar energy across the country.

These incentives work with businesses to drive demand and encourage private investment to add clean, domestically generated power to the energy mix. Over the last year, U.S. solar and storage companies announced more than \$100 billion in new solar and storage investments, making it clear these policies are fueling a massive clean energy boom that will help us produce more homegrown power and improve American competitiveness across the globe.

And this initial growth is just the beginning.

Over the next decade, the solar industry will add over \$565 billion to the economy and create over 200,000 well-paying careers across the country.

The transformation is already having a major impact on our supply chain. Thanks to the new incentives, America has unleashed a powerful manufacturing renaissance that will dramatically improve the country's capacity to make solar materials and products on American soil. Just one year in, these commonsense policies have done more for American solar manufacturing than any initiative or policy in the last decade.

Nationwide, the private sector has rushed to invest in domestic manufacturing, resulting in 59 facility announcements.

These manufacturing gains are already going to work for our economy. Businesses across the country are greenlighting new facilities, planning expansions, onshoring jobs, and hiring new workers every day.

Manufacturing is also the largest jobs multiplier of any market segment. Manufacturing jobs are expected to triple over the next decade — growing from about 35,000 solar manufacturing jobs today to more than 100,000 manufacturing jobs by 2033. These are great career opportunities that are also helping us create pathways to business ownership and build an energy future that uplifts all communities and people.

Every factory job also creates employment opportunities in other sectors, such as sales and purchasing, Over the next decade, the solar industry will add over \$565 billion to the economy and create over 200,000 well-paying careers across the country.

marketing, finance and accounting, human resources, warehousing and logistics, and more. With more well-paying manufacturing careers here at home instead of overseas, the United States can revitalize long dormant industrial communities, particularly in rural areas that are waiting for the resurgence of American manufacturing.

These new manufacturing facilities will serve as the foundation of true American energy independence and security for the future.

More U.S.-made products in the supply chain will protect the industry from geopolitical instability and ensure every component used to build a solar energy system has the country's best interests at heart. No one can limit our access to the sun, and as the domestic solar supply chain strengthens, the United States will be able to become a net exporter of American-made solar products, increasing the country's energy dominance around the world.

It's in our national interest to diversify our energy sources and reduce our reliance on other countries to power our lives. Whether it's solar panels on a family's home or a large-scale solar farm that keeps the lights on for communities, every American solar installation that comes online makes the U.S. grid, stronger, more reliable, and more secure.

We are expanding our domestic energy mix while also insulating American families and businesses from the volatile price shifts and supply shortfalls of global markets.

If we are serious about achieving true energy security, solar energy is one of the best options we have. We are well on our way to onshoring the solar and storage supply chain and positioning the United States as a global clean energy leader. The more solar and storage the United States deploys, the safer and more competitive America will be.

To stay on this path and achieve energy dominance, we need leaders at all levels of government to maintain the pro-business solar policies that are powering local economies and bringing manufacturing jobs back to the communities that need them most. Solar and storage are our best shot to ensure the United States can control its own energy future and destiny in a volatile world.

Abigail Ross Hopper is the President and CEO of the Solar Energy Industries Association (SEIA).



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'Nuclear power is a critical component of our clean energy future'



By Rep. John Curtis



Clean Energy Week, it's an opportune time to reflect on the remarkable strides we've made in transforming our nation's energy

landscape. From renewable sources like wind and solar to groundbreaking advances in battery technology, the United States has been actively reducing its carbon footprint while ensuring energy security. However, in our journey toward a cleaner, greener future, one often-overlooked but incredibly powerful solution stands out: nuclear energy.

Nuclear power is a critical component of our clean energy future. Its ability to generate large amounts of electricity with minimal greenhouse gas emissions makes it an invaluable part of our energy grid. Yet, despite its potential, the nuclear industry has faced significant challenges in recent decades, including regulatory hurdles and permitting bottlenecks.

of working alongside colleagues to promote clean energy solutions that align with conservative values. Nuclear energy embodies these values, offering a reliable, low-carbon energy source that can bolster our national security and support economic growth.

But the permitting process for nuclear facilities remains mired in complexity and uncertainty, often resulting

Nuclear energy embodies these values, offering a reliable, low-carbon energy source that can bolster our national security and support economic growth.

This National Clean Energy Week, we must spotlight the need for nuclear permitting reform to unleash its full potential. One company, Energy Fuels, a Utah-based firm, exemplifies the promise of nuclear energy and underscores the urgency of addressing regulatory issues.

Through a conversation with their staff I discovered the shocking fact that we, in the United States, by and large do not have the ability to mine or enrich uranium. Where do we do all of this? Russia. The United States can be a powerhouse for clean energy, but we must be willing to use our domestic resources.

As Chair of the Conservative Climate Caucus, I've had the privilege

in lengthy delays and financial burdens. This deters investment in projects and hinders our progress.

To accelerate its adoption, we must prioritize nuclear permitting reform. This means streamlining the regulatory process, improving coordination between agencies, and providing more certainty for investors. By doing so, U.S. companies can attract the necessary private capital to modernize existing nuclear infrastructure and develop advanced reactors that are even safer and more efficient.

Energy Fuels, with its strong commitment to environmental responsibility, is a prime example of how nuclear energy can be produced responsibly

and sustainably. Their White Mesa Mill in Utah, the only conventional uranium mill in the United States, safely processes uranium while recycling water and minimizing waste. Their dedication to environmental stewardship sets a high standard for the industry.

As we commemorate National Clean Energy Week, let us recognize that nuclear energy is not only part of the solution but a central component of our clean energy future. To truly embrace this future, we must advocate for sensible nuclear permitting reform, ensuring that companies can continue to drive innovation, create jobs, and provide clean, reliable energy for generations to come.

The time is now to unite across the aisle, industry, and government to advance nuclear permitting reform. Together, we can harness the immense potential of nuclear energy, reduce emissions, and secure a prosperous, sustainable future for America.

John Curtis, Utah Republican, represents the state's Third Congressional District. He serves on the Energy and Commerce Committee as the Vice Chair of the Energy subcommittee and a member of the Communications and Technology subcommittee. He also serves on the Natural Resource Committee and is the founder of the Conservative Climate Caucus.

I recognize the right and duty of this generation to develop and use the natural resources of our land; but I DO NOT RECOGNIZE THE RIGHT TO WASTE THEM, or to rob, by wasteful use, the generations that come after us."

THEODORE ROOSEVELT

Without nature, we are nothing. Let's take care of it — for ourselves and future generations.



© Jon McCorma

It's time to permit America to build



By Marty Durbin, U.S. Chamber of Commerce

t takes too long to build things in America. Projects to address critical needs for transportation, energy, water, broadband, and other priorities find themselves mired in regulatory and legal delays caused by an antiquated permitting process, threatening our economy and diminishing our global competitiveness. The good news is that Congress has made unprecedented investments in recent years to incentivize new and resilient infrastructure, with new opportunities available through more than \$2 trillion in incentives, grants, and loans.

Those opportunities cannot be fully realized without an effective modernization of our arcane and outdated federal permitting process. How outdated? The National Environmental Policy Act (NEPA), which governs the environmental review process, was signed into law January 1, 1970, and has seen only minor updates since.

Unfortunately, since 1970 our federal permitting process has only gotten worse, adding complexity and bureaucratic red tape and empowering project opponents of all kinds to delay action through the courts. According to government data, it now takes an average of 4.5 years for a project to obtain a federal permit. For roads or bridges, the story is even worse—those projects take an average of 7.4 years. Public transit takes 5.3 years. Even projects to connect renewable energy to the grid by building electricity transmission infrastructure are subject to delays, with some projects taking a decade or more.

We can and must conduct environmental reviews and provide for meaningful community input, but it shouldn't take longer to get a decision about a permit than it does to actually construct a project, and that's routinely the case in America. To meet our growing challenges—like updating crumbling roads and bridges, addressing water quality, expanding broadband access, combatting climate change, and strengthening our energy security—the permitting process simply must be improved.

That's why nearly 350 organizations from across the economy and around the country are urging Congress to Permit America to Build. Our goal is simple: to spur action on permitting reform in Congress. Our organizations may not agree on every detail, but we all agree on four critical principles:

1. Predictability: Project developers and financers must have an appropriate level of certainty regarding the scope and timeline for project reviews, including any related judicial review.

2. Efficiency: Interagency coordination must be improved to optimize public and private resources while driving better environmental and community outcomes.

3. Transparency: Project sponsors and the public must have visibility into the project permitting milestones and schedule through an easily accessible public means.

4. Stakeholder Input: All relevant stakeholders must be adequately informed and have the opportunity to provide input within a reasonable and consistent timeframe.

With needs and opportunities this great, we can't afford to let the perfect be the enemy of the good. Providing greater certainty in the permitting process could unleash private sector investment to build the infrastructure, and the economy, of the future.

It's time to Permit America to Build.

Martin (Marty) Durbin is Senior Vice President, Policy, U.S. Chamber of Commerce. He leads Global Energy Institute's efforts to build support for meaningful energy action through policy development, education, and advocacy, making it a go-to voice for commonsense energy solutions.

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Everyone's talking climate. Let's talk solutions.



By Rich Powell, ClearPath



Look, the climate is changing, and global industrial activity is contributing. We hear that from the oil and gas industry, power companies, and our friends in agriculture. The challenge of global emissions is pretty well understood. But to complicate it, the U.S. will need to double our grid's capacity by 2050. If the U.S. is going to do that, while ensuring the grid remains reliable and clean, and prices remain affordable, we're talking about adding more than 20,000 clean energy projects to the grid over the next 27 years.

reliable, secure, and clean.

Our country has an abundance of natural resources, from fossil fuels to critical rare earth minerals. More importantly, we're equipped with the American spirit and a passion to innovate. The clean energy development boom from 2005 to 2020 led to a decrease in U.S. emissions by more than

We must pursue a market-driven agenda that makes clean energy more affordable rather than making existing energy sources more expensive or putting them off-limits.

We cannot damage our economy in our efforts, especially during this time of high inflation and instability worldwide. We must pursue a marketdriven agenda that makes clean energy more affordable rather than making existing energy sources more expensive or putting them off-limits. There are exciting solutions such as carbon capture technology, zero-emissions nuclear energy, and renewable sources like hydropower and geothermal that protect America's workforce and, most importantly, make energy affordable, 20% and made the U.S. a global leader in energy production.

We know how to do this, but must allow American energy producers to do what they do best.

Fortunately, there is a clear path to success. Conservative clean energy policy leverages American innovation, unleashes American resources, brings American manufacturing back home, and modernizes permitting.

From nuclear energy, to the shale gas revolution, to renewables — most of the energy we're using today comes from American innovation.

If our policymakers embrace America's resources, the U.S. can win the global race to a new energy economy. We shouldn't depend on other countries for critical materials or natural gas when we have abundant resources here at home.

Let's bring manufacturing and energy production back to the U.S. because our environmental standards are better than in China.

And to do all this, to double our grid by 2050, American energy producers must be allowed to build. Our energy permitting and regulatory system is extremely outdated, and by modernizing the permitting process, those 20,000 clean energy projects become a lot more feasible.

America's economy is the strongest on the planet – and if we allow our free-market advantage to work, we can lower emissions, reduce costs... and America will win.

Rich Powell is CEO of ClearPath, a Washington, D.C.-based nonprofit that develops and advances policies that accelerate innovations to reduce and remove global energy emissions.



A SPECIAL ADVERTISING SUPPLEMENT TO THE WASHINGTON TIMES | WEDNESDAY • SEPTEMBER 27 • 2023

TVA partnerships develop clean energy technologies and strengthen energy economy



By Jeannette Mills, Tennessee Valley Authority

here is no singular way to reduce carbon emissions. At the Tennessee Valley Authority (TVA), we are taking an all-of-the above approach. Today, TVA operates one of the nation's most diverse, cleanest energy systems. Nearly 60% of TVA's generated energy comes from carbon-free nuclear, hydroelectric and renewables. The cornerstone of our approach is working with partners to develop new technologies, improve energy efficiency, and build America's clean energy economy.

At Clinch River, TVA has the nation's first early site permit for a Small Modular Reactor (SMR) that could be a flexible, reliable, scalable source of clean energy. We are working with partners Ontario Power Generation, Synthos Green Energy, and GE Hitachi to demonstrate that SMRs must be a part of our nation and global longterm carbon-free energy solution.

We also have a strong partner in Tennessee Governor Bill Lee, who called Clinch River the "future of energy in America." Development and successful deployment of this firstof-a-kind technology needs sponsorship and investment. For the energy security and clean energy benefits of advanced nuclear generation to be realized, federal financing is essential. By 2035, TVA is targeting the addition of 10,000 MW of solar, including 5,000 MW by 2030. TVA is developing the nation's first-of-itskind pilot program to determine if closed coal ash sites are suitable for utility-scale solar projects. Working with our 153 local power company (LPC) partners, we've made it easier for them to bring solar online, allowing for up to 2,000MW of new solar energy in the region.

Earlier this month, we announced a partnership with TC Energy to study carbon capture and continue to lead the development of innovative technologies like long-duration energy storage and pumped storage.

All told, our current plan takes us to approximately 80% carbon-free energy by 2035.

Working closely with LPC partners, TVA offers energy efficiency programs to reduce energy costs and lower carbon emissions. We have similar programs to improve energy efficiency at schools and small businesses. Over the next five years, TVA will invest \$1.5 billion to encourage the adoption of energy efficiency upgrades and demand response.

Alongside our partners, TVA is bringing clean energy manufacturing to the Tennessee Valley region. This includes economic development projects across our seven-states that will decarbonize transportation emissions through electric vehicle manufacturing, such as Ford's Electric Vehicle Plant at Blue Oval City, SK Batteries, LG Chem, Envision, and Novonix; and electricity such as the First Solar facility in Lawrence County, Alabama.

Energy must be a collaboration where we find practical solutions that move us in the right direction. The challenges are not insurmountable, and together we can move forward to the clean energy system of the future.

Jeannette Mills is Executive Vice President and Chief External Relations Officer at the Tennessee Valley Authority. She has over 30 years of commercial and regulatory experience in the energy and utilities sectors, with a strong track record of delivering highquality customer service and driving economic development.

America's clean energy relies on American chemistry.

Proposed restrictions on the U.S. chemical manufacturing industry stifle America's clean energy solutions.

The Biden Administration, Congress & federal agencies must support frameworks that celebrate innovation and accelerate progress.



CHEMISTRY CREATES AMERICA COMPETES

Get more details at chemistrycreates.org.

Domestic manufacturing is the key to American energy leadership

By Dan Shugar, Nextracker, and Jason Allen, Leeward Renewable Energy

he U.S. is in the middle of a clean energy boom. Last year, nearly 80% of new energy capacity came from wind, solar, or batteries, and the benefits are many: good-paying jobs, affordable electricity, clean air and water, and reduced reliance on foreign governments, to name a few. To realize the full potential of this energy transition, we must look increasingly to leverage American manufacturing strength.

That's why Nextracker, a domestic provider of solar trackers - the technology that rotates panels to follow the sun thereby increasing production from solar power plants - and Leeward Renewable Energy (LRE), a high-growth renewable energy company with an extensive portfolio of U.S. wind, solar, and energy storage facilities, have forged an agreement to source critical components for energy projects from responsible manufacturers and suppliers. Manufacturers



like Nextracker and LRE's domestic solar panel partners allow LRE to drive its strategy of building long-term reliability and resiliency by sourcing from American factories. Domestic manufacturing supports a well-paid workforce, fosters innovation, and drives economic growth; it's simply good for business.

The cost of an unreliable supply chain is significant. Products shipped long distances can lead to increased costs and schedule delays. Nextracker has opened over a dozen new manufacturing lines all over the U.S. – from Pittsburgh to Las Vegas – since the start of 2022; reducing shipping distances and supply uncertainties, while increasing demand for domestic steel. It's also why LRE continues to grow and strengthen its relationships with suppliers like Nextracker who share its commitment to responsible supply chain and employee practices. America's renewable energy projects also bolster grid resilience, reducing the risk of power outages and ensuring that the lights stay on when needed most.

Our companies are creating new economic opportunities and jobs in both rural communities and metropolitan hubs, including Phoenix, Corpus Christi, Memphis, and Pittsburgh. Skilled labor plays a critical role here; in the last year, our industry added more than 29,000 new clean energy manufacturing jobs.

The United States has propelled advancements across a spectrum of energy sources, from traditional to cutting edge - there is every reason to believe that we'll lead the way in the energy transition. With our shared values, LRE and Nextracker are proud to be partners in championing advanced domestic technologies and contributing to America's leadership in clean energy innovation.

Dan Shugar is the CEO and Co-founder of Nextracker.

Nebraska

New Hampshire New Mexico

North CarolinaNorth Dakota

Oklahoma

Pennsylvania

South Carolina

South Dakota

Nevada

Ohio

Utah

Vermont

Jason Allen is the CEO of Leeward Renewable Energy.



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FOR DECLARING SEPTEMBER 25-29, 2023 CLEAN ENERGY WEEK!

Embracing biofuels to create a sustainable future



By Rep. Eric Sorensen

s the only meteorologist in Congress, I can tell you for certain: our climate is changing, and extreme weather events are negatively impacting our communities. In Congress, I am working to make sure that our nation takes action to combat these threats. This year, I am joining my colleagues, energy experts, industry leaders, and administration officials in celebrating the 7th Annual National Clean Energy Week (NCEW), a recognition of the extraordinary steps our nation has taken to advance clean energy policy and lead the world in lowering global emissions.

As a member of the House Agriculture Subcommittee on Conservation, Research, and Biotechnology and the House Science, Space, and Technology Subcommittee on Energy, I work with colleagues on both sides of the aisle to advance climate policies that embrace sound science, empower American innovation, and benefit the U.S. economy – the very foundation of NCEW.

In Central and Northwestern Il-

linois, we understand that – in addition to addressing the impacts of extreme weather and helping us meet our goal of net-zero emissions – clean energy creates good-paying union jobs and sustainable growth for our communities. That is a commitment we can all get behind.

Addressing the climate crisis is

critical, but Americans have been making progress. We have taken huge strides toward reducing global emissions through advanced manufacturing techniques and low-carbon energy production, including a major driver of economic prosperity in my district and across the United States: biofuels.

This critical legislation promotes low-carbon, high-octane fuels, to lower emissions, improve vehicle efficiency, and performance.

I helped introduced the bipartisan Next Generation Fuels Act to ensure our producers have the support they need to strengthen American agriculture and biofuels production. This critical legislation promotes lowcarbon, high-octane fuels, to lower emissions, improve vehicle efficiency, and performance.

By removing regulatory barriers,

this bill will help unleash the full potential offered by American biofuels which is a common-sense step toward lowering fuel prices at home, achieving energy independence, and solidifying U.S. clean energy leadership.

I will continue to work in a bipartisan way to ensure biofuels producers, farmers, and our workers have the tools they need to create a future that is green, sustainable, and bright – for our economy, our jobs, and our climate – and I believe we are on the right track.

National Clean Energy Week is about increasing bipartisan collaboration and working together toward a clean energy future. It is our responsibility to build a sustainable future for our children and grandchildren. I'm proud to join in this celebration to do just that.

Eric Sorensen, Illinois Democrat, represents the state's 17th Congressional District. He proudly represents Illinois farmers on the House Agriculture Committee and uses his background in science as Ranking Member on the Space and Aeronautics Subcommittee on the Science, Space, & Technology Committee.

Equity needed: Boosting R&D investment for America's proven battery industry



By Roger Miksad, Battery Council International

o achieve energy independence, we will need batteries of all types: lead, lithium, flow, and chemistries yet to be discovered.

The demand for batteries will outstrip domestic production for decades. Today lithium batteries receive huge interest and investment. DOE predicts 1,000 GWhrs of production capacity for lithium may be online in 2030 if all the announced plants are built. But most lithium production capacity is slated for electric vehicles so other critical applications will be underserved – particularly energy storage.

But, America's battery manufacturers have a plan. We have a proven technology with a strong domestic manufacturing base, and which is undergoing a technological renaissance: lead batteries.

This view was confirmed at DOE's Energy Storage Grand Challenge (ESGC) in July. During the summit, they identified battery chemistries best positioned to meet target energy goals by 2030-35. The analysis found that lead batteries have the best chance of reaching the 2030-35 energy goals.

The only way we can fulfill that vision is for the federal government to invest in more R&D for lead batteries. The bipartisan infrastructure law allocated billions to invest in domestic battery technology expertise. To date, lead batteries - a proven U.S. battery manufacturing industry - have received

next to nothing.

Today the North American lead battery industry produces 206+ GWh of lead batteries each year, and North America's recycling facilities supplied the majority of the raw materials needed. The environmental impact of manufacturing a lead-based automotive battery is four times less than manufacturing a comparable lithium-iron phosphate battery.

The modern lead battery is not your grandfather's car battery. Current lead batteries form the backbone of largeformat and low-voltage battery storage across all applications - cars, forklifts, data centers, and home energy storage. Carbon additives, novel expanders, and bi-polar batteries are poised to provide another jump in performance.

Similarly, flow batteries stand poised to deliver large scale storage in a robust and highly scalable way. Like lead-based batteries, flow batteries utilize low-cost, abundant materials to provide significant advantages over other technologies. Flow batteries offer the advantage of allowing the capacity of a flow battery to be scaled by simply increasing the volume of electrolyte storage - rather than deploying additional batteries.

Congress and regulators must invest holistically in lead, flow, lithium, and other technologies to ensure that the U.S. lead battery industry remains a world leader. Current federal funding is improperly tilted in favor of a handful of technologies, has failed to support the existing U.S. industry, and doesn't reflect the nation's existing and future reliance on lead batteries across every sector. Lead batteries have a deep record of success and industry strength that can be relied on to provide the backbone of domestic energy storage manufacturing for decades to come and are a solid investment for future needs.

Roger Miksad is the President and Execu-

tive Director of Battery Council International (BCI), a trade association formed to advance the North American battery industry. He leads BCI's regulatory and legislative strategy and engagement on all matters, including occupational safety and health, sustainability and environmental issues, government investment, and legislative relations.

Safety will preserve consumer access as the market turns to clean energy

By UL Standards & Engagement

n expanding market for clean energy is resulting in a rapid transition that requires us to think differently, but it can't happen without safety at its core. Safety allows innovation to have its intended impact.

We have seen what happens when the unintended consequences of change get ahead of safety. Potential is replaced by restrictions and bans that slow or stop progress. It is the easiest — and arguably laziest — solution.

There is a better way forward. And standards can help get us there.

For example, the devastating lithium-ion e-bike battery fires initially prompted the New York City Housing Authority to propose a ban to e-bikes and scooters – devices that will reduce emissions and power us toward a cleaner world.

The move would have cut off access to a means of transportation

many of the city's residents depend on, not only to get from point A to point B but to support the food and goods delivery economy.

Ultimately, the ban didn't go forward. Instead, the city decided that all e-mobility devices sold, rented, or leased in New York City conform to a specific set of standards created by UL Standards & Engagement. are working to reinforce our 120-year legacy of advancing innovation — from our history in aviation and automobiles, to our future in automation and clean energy — through the development of voluntary safety standards.

Our standards are best-in-class, putting the U.S. at the forefront of standards development on the global stage, and critical to solving complex challenges

Our standards are best-in-class, putting the U.S. at the forefront of standards development on the global stage, and critical to solving complex challenges the world faces.

While New York City enacted a law, more commonly, standards are voluntary — which makes them easily adaptable and flexible in a changing world. These dynamic guidelines for how to make and test the safety of a product or system can be revisited as risk evolves and created as risks present themselves. At UL Standards & Engagement, we the world faces.

It is our responsibility and privilege to put safety science into action. Our 1,700 standards are informed by more than 4,000 experts from manufacturers, government, nonprofits, academia, and more that currently advise and vote on standards.

We are channeling that expertise

into new standards that will help chart the path for clean energy — one that allows innovation to flourish, preserves consumers' access to the products they want, and grows trust in those that they need.

UL Standards & Engagement is a nonprofit organization that translates safety science into action through standards development, partnerships and advocacy. Since 1903, we have developed nearly 1,700 standards and guidance documents for products ranging from fire doors to autonomous vehicles. ULSE enables innovation and grows trust by convening experts and informing policymakers and regulators as we work toward a safer, more secure and sustainable future. Visit ulse.org for more information.



Progress toward global net zero will take big thinking put into even bigger action.

Carbon capture and storage is critical in helping us all move toward global net zero. At Chevron, we're working on reducing the carbon intensity of our operations by targeting 25 million tonnes of CO_2 per year in storage and offsets by 2030. While at the same time developing partnerships to create world-class storage hubs so other industries, like cement and steel, can reduce their emissions, too. That's energy in progress.

the human energy company

Learn more at Chevron.com/CarbonCapture



One year later: Federal climate investments are driving the clean energy transformation



By Lisa Jacobson, Business **Council for Sustainable Energy**

ack in August 2022, the Business Council for Sustainable Energy (BCSE) released a powerful statement: With the passage of the Inflation Reduction Act, "clean energy enters a new era." Now with over a year of hindsight,

I can say confidently that we were correct. The Inflation Reduction Act (IRA) has changed the clean energy landscape faster than many of us could have expected, creating the market signals and incentives for the clean energy transition to become hard-wired into the U.S. economy.

Upon its passage in 2022, the IRA opened up \$369 billion in funding for clean energy and energy efficiency initiatives – including \$270 billion in tax credits. This funding includes key investments to spur the clean energy economy, including energy efficiency and clean energy incentives, electric vehicle tax credits, establishment of the Greenhouse Gas Reduction Fund, and funding for environmental justice. Plus, the IRA proved even more impactful by building upon the clean energy and energy efficiency provisions previously passed in the 2022 CHIPS and Science Act and the bipartisan Infrastructure Investment and Jobs Act (IIJA) of 2021.

These funds aimed to boost the development of clean energy businesses, industries, and projects nationwide.

The success of this endeavor in just one year has been astounding. Since August 2022, more than 220 U.S. clean energy projects have been announced, spurring the creation of more than 78,000 jobs. Together, the IRA and IIJA are expected to save consumers between \$27 billion and \$38 billion on their electricity bills from 2022-2030. Ultimately, research indicates that the IRA could lower U.S. emissions by as much as 48% by 2035.

Nevertheless, the work is not over yet. Enacting common sense federal permitting and siting reforms is crucial to speed up the pace of deployment of clean energy technologies. These reforms are imperative to achieving U.S. greenhouse gas emission reduction targets and to maintaining secure and resilient energy infrastructure.

An effective federal permitting reform package should include provisions related to providing predictable and efficient review processes and supporting the modernization and build of new electric transmission and other energy infrastructure, as well as policies to support energy system

optimization with digital technologies. BCSE looks forward to continuing to work with policymakers, stakeholders, and partners to enact further marketbased policies that drive forward the clean energy transition.

It is remarkable to reflect on how much clean energy policy and deployment has accelerated in just one year. The clean energy transition is rolling forward with increased momentum! As we continue to build strong public-private partnerships, enact constructive federal policy, and ground our work in sound science, I am excited to see this clean energy future come to fruition.

Lisa Jacobson is the President of the

Business Council for Sustainable Energy, a 65-member trade association representing the energy efficiency, natural gas, and renewable energy industries. She is a member of the United States Trade Representative's Trade and Environment Policy Advisory Committee, the Energy Efficiency Global Alliance Steering Committee, and the Gas Technology Institute's Public Interest Advisory Committee.



MADE-IN-AMERICA ENERGY = AMERICAN CLIMATE LEADERSHIP

The United States produces some of the cleanest and most responsibly sourced oil and natural gas in the world. In the US, increased natural gas production from the Shale Revolution displaced higher emitting sources as our primary source of electricity, which led to historic, world-leading emissions reductions.

We can support a lower-emission energy mix globally, while using the expertise and innovation of our industry to discover and develop new technologies for large-scale decarbonization.

Climate challenges cannot be solved without our industry.

58% OF ALL US EMISSIONS REDUCTIONS SINCE 2005 WERE DUE TO INCREASED USE OF NATURAL GAS FOR ELECTRICITY





Sources: Our World in Data, Global Carbon Project; Energy Information Administration

'Hydropower is the foundation of a ready and reliable 24/7 grid'

By National Hydropower Association

very day, Americans turn on their lights and plug in their devices without thinking twice about where their electricity is coming from. Yet, many have no idea that there is a domestic, dependable, emission-free energy source already in their backyard, many of which also provide local fishing

energy source already in their backyard, many of which also provide local fishing spots, boating areas or walking trails. It's hydropower; and it's an unsung hero of American energy security.

While hydropower may flow below the radar, it does not mean that its contributions do not touch your life every day. Hydropower is the foundation of a ready and reliable 24/7 grid, especially now when the nation is adding more variable renewable energy sources, like wind and solar.

There's more to appreciate about hydropower than just its affordable electricity entering your home. From its role as a baseload energy source providing power to an estimated 30 million Americans, jump starting the grid after blackouts, balancing the system minuteby-minute as wind and solar resources vary, to creating recreation areas, hydropower is a key component of our electricity grid.

For example, pumped storage hydropower is a proven energy storage technology which currently accounts for roughly 93% of utility-scale long duration energy storage – that means hydropower is key to keeping the lights on when other forms of electricity falter. As the U.S. electricity grid grows and integrates more variable renewable energy technologies, hydropower and pumped storage will be needed to keep American homes and businesses powered.

Despite the obvious benefits of hydropower, it may come as a surprise that many of our existing hydropower facilities are in danger of shutting down because of a long, expensive relicensing process. Hydropower facilities operate with a license that can last up to 50 years. With roughly 500 facilities coming up for relicensing by 2035, the American grid is at risk of losing approximately 20 GWs of energy -- enough to power 14.5 million homes.

Existing hydropower facilities are not the only projects under threat from a difficult licensing process. There are more than 90,000 dams in the United States, but less than 3% generate hydropower. Utilizing this existing infrastructure and retrofitting non-powered dams with power-generating infrastructure could unlock about 12 GW of new hydropower generation, and that becomes more attainable through more efficient licensing.

Fortunately, hydropower champions in Congress are working hard to make needed changes. There are two bills in Congress that could combat the long and expensive licensing and re-licensing processes, which would help maintain and grow this important energy source. Those bills are the Hydropower Clean Energy Future Act (H.R. 4045) and the Community and Hydropower Improvement Act (S. 1521).

That our normally divided Congress is joining together around this priority reinforces the critical need to fix the arduous process of licensing hydropower



We encourage you to contact your members of Congress and ask them to support these bills and others that will strengthen hydropower and ensure America's energy security.



The National Hydropower Association (NHA) is a nonprofit national association dedicated exclusively to preserving and expanding clean, renewable, affordable hydropower and marine energy. The NHA champions waterpower as America's premier carbonfree renewable energy resource.



CLIMATE LEGACY *IS ON THE BALLOT*

Right Way Forward

NEW: Young conservatives are quickly growing in ranks and in search of their climate legacy candidate.

81 Percent

of young GOP voters agreed that climate change is a severe threat now or may get worse in the years ahead.

4 to 1

is the ratio by which young Americans prefer a candidate who supports "immediate action" on climate.



young conservatives have joined ACC's movement for commonsense climate and energy solutions.







ACC Catholic University leader Alex Diaz posed the "climate question" to candidates onstage, and ACC sponsored the official debate afterparty in Milwaukee last month.

Renewable energy production policies need local, state and federal cooperation



By Mayor Rick Osbon

lean energy is an important part of our nation's allthe-above energy strategy and renewable sources of energy, such as wind, solar, and hydro, are a part of our country's energy future. Thankfully, South Carolina is on the forefront of renewable energy production as it powers more homes and businesses than ever before while providing good-paying jobs to people across the state.

That is why I am asking the people of Aiken to join me in celebrating National Clean Energy Week and the incredible advancements made by South Carolina's clean energy sector. These investments extend to every corner of our state employing more than 56,000 South Carolinians which enables us to be a regional and national leader in clean energy. In fact, the number of clean energy jobs has grown 16% between 2021 and 2022. Today, solar power, hydropower, and biomass are South Carolina's primary source of renewable energy, accounting for 7% of the state's total net generation.

As a state, we have taken significant steps to achieve net-zero emissions through reducing energy consumption, increasing the number of zero-emissions vehicles on our roads, and utilizing our state's abundant natural resources to establish more offshore wind development. But we can't do it alone.

While we work to address these

challenges on the state level, our federal delegation is working in tandem to support commonsense, bipartisan policies that provide the resources needed

We are putting these historic investments to work by upgrading the entire power infrastructure to make the grid more resilient and capable of supporting clean energy while also further developing clean energy technologies...

to embrace clean energy such as the Infrastructure Investment and Jobs Act which as of March, provided over \$3.2 billion in funding for 169 projects across South Carolina. Clean energy investments through the law include over \$58.5 million in funding for communities to purchase clean school buses to reduce pollution around our schools as well as over \$25.3 million to grow the state's EV charging network.

We are putting these historic investments to work by upgrading the entire power infrastructure to make the grid more resilient and capable of supporting clean energy while also further developing clean energy technologies like advanced nuclear, clean hydrogen, carbon capture, and battery storage.

I hope you'll join me on this National Clean Energy Week in celebrating the clean energy economy as well as all who have committed to reducing their carbon footprint through smart, sustainable, and environmentally friendly practices. Together, we are dedicated to embracing commonsense policy solutions on the local, state, and federal levels that will leave future generations a healthier world.

Rick Osbon was first elected mayor of Aiken, SC, in 2015. He is a third-generation family business owner running Osbon's Dry Cleaners, which his father and grandfather started together in 1948.

Kansas City finds innovative energy solutions to become cleaner and greener



By Mayor Quinton Lucas

s Kansas City experiences the negative impacts of climate change, including increased temperatures and more frequent flooding, we are committed to leading the nation and finding innovative ways to fight climate change, while also helping keep energy costs low for families across our city.

Just last month, I advanced legislation for Kansas City's proposed 3000-acre solar array at the Kansas City International Airport. In its final phase, this project could produce up to 500 MW of electricity, which is enough to power up to one-third of all Kansas City homes.

Across the runway, I was proud to stand next to U.S. Secretary of Transportation Pete Buttigieg last spring as we opened a new terminal at the Kansas City Airport, which was awarded with a LEED Gold certification—the first airport project in the Midwest and the second in the United States to achieve this recognition.

Not only are we working to construct Kansas City's first utility-scale solar farm, families across the city are installing panels on their homes to lower their power bills. Thanks to our Solarize KC program, families are purchasing solar panels at a reduced rate and we secured a grant to provide solar panels to low-income families. Clean, renewable solar energy should be available to each and every home in Kansas City, and we are working to expand the opportunity for everyone.

As part of our ongoing efforts for

With the federal Rebuilding American Infra- structure with Sustainability and Equity (RAISE) grant we will be able to study how to mitigate Highway 71's negative environmental impacts and ultimately make it safer for everyone.

the city to reach carbon neutrality by 2040, we are converting city vehicles to EVs where possible—including electric inspector vehicles in our neighborhoods and water services departments. We have zero emissions buses at the brand-new, LEED Gold Kansas City International Airport.

We are also working to mitigate the environmental impacts of Highway 71, which disproportionately affect neighborhoods surrounding the highway, which have the highest rates of childhood asthma in Kansas City. With the federal Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant we will be able to study how to mitigate Highway 71's negative environmental impacts and ultimately make it safer for everyone.

Kansas City is also leveraging natural solutions to fight climate change. I've committed the city to plant 10,000 trees across our community over the next three years. After receiving a \$25,000 Climate Protection Award from the U.S. Conference of Mayors and securing another \$1 million from the city's budget, we created a tree fund and giveaway program for residents to help increase our tree canopy across the city—particularly in areas underserved by tree coverage.

As a lifelong Kansas Citian, I am proud of our work to enhance our commitment to climate action and create a cleaner, greener, and healthier Kansas City.

Quinton Lucas is the 55th mayor of Kansas City. Born and raised in Kansas City's East Side communities, he represented the City's Third District At-Large on the City Council prior to serving as mayor.

Unlocking American LNG for energy security and lower global emissions



By Rep. Bill Johnson

made natural gas.

his week is National Clean Energy Week, and we are celebrating the contributions the United States has made toward lowering global emissions and asserting our energy leadership. The key? AmericanThe U.S. has reduced our carbon footprint by more than any other country since the turn of the century, largely due to hydraulic fracturing techniques that can access the abundant natural gas reserves that districts like mine depend on – for energy generation and good-paying jobs. With energy demand on the rise, both in the United States and around the world, we should be embracing the resources we have to provide clean, affordable, and reliable energy to the world.

Earlier this year, I introduced the "Unlocking Our Domestic LNG Potential Act," legislation that would help preserve the future of American energy, protect American energy jobs, lower energy costs, advance our global diplomatic leverage, and strengthen our national security. As I said about this legislation then, "it is past time we cut the red tape surrounding the natural gas export permitting process, and unleash homegrown American energy."

The Biden administration continues to send mixed messages — at best — on whether or not it supports the development of reliable, sustainable, and affordable energy resources, like natural gas, here in the U.S. At a time of great global uncertainty, for America to not be sitting at the head of the global energy table is irresponsible and dangerous. It doesn't have to be this way.

The Unlocking Our Domestic LNG Potential Act would serve as an enormous first step in reversing our decline in global energy leadership, and it would demonstrate our commitment to good global environmental stewardship. We have abundant clean energy resources in the Marcellus and Utica shale plays here in Ohio, and in other shale deposits across the country.

We can lead on the world stage as a global provider of clean and abundant U.S. natural gas, but to accomplish that we have to implement smart, Americafirst policies. Additionally, if other countries rely on America for their energy, they would rely less on cruel, energy-rich dictators like Vladimir Putin and the OPEC cartel that don't have our best interests in mind. In fact, Russian natural gas exported to Europe results in 41% more lifecycle greenhouse gas emissions than U.S. LNG exported to Europe – that seems like a no brainer to me.

As we recognize National Clean Energy Week, it's important to point out that good energy policy based on good old fashion American ingenuity and innovation is also good climate policy. Expanding American liquified natural gas exports results in massive global carbon emissions reductions. It is past time that we cut the Washington red tape surrounding the natural gas export permitting process, and unleash homegrown American energy.

Bill Johnson, Ohio Republican, represents the state's Sixth Congressional District and serves as Chairman of the House Energy & Commerce Subcommittee on Environment, Manufacturing, & Critical Minerals. As Chairman, he advances policies keeping air and water clean while putting American energy independence first. He has led efforts in the U.S. House to defend domestic energy production and the jobs it provides.

Bipartisanship and investments will make U.S. energy affordable and climate solutions achievable



By Rep. Frank Lucas



mandates that attempt to address global emissions. Not only are these misguided attempts ineffective, but they also end up raising energy prices for hard working Americans across the country. If we want to make real progress, we need to strengthen our research enterprise and invest in the acceleration of next-generation domestic energy pathways. This will lead to new, innovative technologies that will generate responsible and sustainable solutions for decades to come.

Over the past few years, we've made positive headway in supporting the federal research and development programs that will lead to science and energy technology breakthroughs. The passage of the bipartisan Energy Act of 2020 was the first comprehensive overhaul of U.S. energy policy in more than a decade and included strategic funding for critical, fundamental research across the Department of Energy's applied energy offices. No mandates. No regulations. Simply investing in basic and early-stage research that will spur advancements in nuclear energy, geothermal resources, energy storage

and more. This will drive clean energy solutions that address global climate change while keeping U.S. energy competitive and affordable.

We also saw substantial funding for next-generation energy technologies with the passage of the CHIPS and Science Act of 2022, legislation that was largely based on language first introduced by Science Committee Republicans. These investments will support basic science research in areas like fusion energy, materials science, and carbon capture and sequestration technologies, all setting the stage for clean, reliable, and affordable solutions to tackle our biggest climate threats. Better yet, these investments will boost our STEM workforce, enhance the American talent pipeline, and generate new domestic and international partnerships -benefits that will considerably strengthen our scientific enterprise.

I'm proud of the progress we've made so far, as it proves we can work together in a bipartisan fashion to advance climate-focused innovation. However, if we want to ensure success in the future, we must continue to prioritize these crucial technological investments. We can't do this without new efforts to generate scientific discoveries.

Looking ahead, I'm eager to work with my colleagues both on the Science Committee and off to continue on the path forward on long-term, practical climate solutions. Changes won't happen overnight, but we have the incredible resources and worldclass talent right here at home to cultivate a strong research industry and lead the global scientific enterprise in reducing emissions in an affordable and accessible way. Today the stakes have never been higher, and we can't afford to lose our hard-won momentum - it's time to commit to America's scientific progress.

Frank Lucas, Oklahoma Republican, serves as Chairman of the House Science, Space, and Technology Committee. Representing Oklahoma's Third Congressional District since 1994, he is the longest-serving Member on the House Agriculture Committee and the longest-serving Republican on the House Financial Services Committee.



We can realize nuclear energy's potential with American leadership and innovation



By Rep. Jeff Duncan



ational Clean Energy Week is an opportunity to celebrate U.S. clean energy leadership, and that leadership relies on the development of nuclear power.

Nuclear energy is affordable, available rain or shine, and carbon-free; and thanks to American innovation, it is safer than ever before. Nuclear currently makes up 20% of the electricity generated in the United States, but its potential is unmatched.

My home state of South Carolina is the third largest nuclear power

producer in the nation. In fact, our four nuclear power plants generated 54% of our state's electricity in 2021. Not only does that mean families and businesses in the Palmetto State were provided with affordable, reliable electricity, but that electricity was generated without carbon emissions. It almost seems too good to be true. nuclear development, but we have fallen behind. This year, we celebrated the first new nuclear reactor to start commercial operations since 2016, but new and existing nuclear power plants face uncertainty across the country. In addition, like all forms of energy, burdensome regulations, permitting processes, and licensing hurdles stand

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As Chairman of the House Energy & Commerce Subcommittee on Energy, Climate, and Grid Security, I hosted a hearing earlier this summer to examine legislation addressing the challenges and opportunities of nuclear energy expansion in the United States, and align and restore the Nuclear Regulatory Commission with the policy goals of the Atomic Energy Act. These policies helped the United States for several decades as the United States led the world in nuclear technology to spread peaceful benefits of nuclear.

American nuclear leadership is critical for our global competitiveness, national defense, and energy security. Since the Atomic Age, the United States has led the world in in the way of us truly unlocking this critical energy resource.

Fortunately, I am proud to report the Energy & Commerce Committee has solutions. We must improve the efficiency and predictability of Nuclear Regulatory Commission licensing. We must encourage continued investment in emerging nuclear technologies like advanced small modular reactors and micro-reactors that can bring reliable clean energy to even the most remote communities.

We must modernize our energy storage and grid delivery systems to adapt to a 21st Century energy portfolio that includes robust nuclear power. Finally, we must onshore our supply chain and processing of minerals like uranium so that we can decrease our reliance on countries like Russia, China, and their allies.

Last November, I introduced my Blueprint for Nuclear Innovation and Competitiveness to help pave the way for a more robust future for nuclear energy. This Blueprint charted the course in this Congress to facilitate policy discussions amongst lawmakers and industry leaders.

South Carolinians know nuclear is an important part of an all-of-theabove energy, and without it, we will never achieve our shared goal of a cleaner energy future. This National Clean Energy Week, I encourage everyone to follow South Carolina's example and embrace the benefits nuclear energy can bring to our economy, our environment, and our global energy leadership.

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Jeff Duncan, South Carolina Republican, serves as Chairman of the Subcommittee on Energy, Climate. and Grid Security of House Energy and Commerce. He represents the state's Third Congressional District and has received awards including the Freedom Fighter Award, Friend of the Farm Bureau, National Security Patriot Award, Guardian of Small Business, Hero of Main Street, Taxpayer's Hero, and the prestigious Order of the Palmetto awarded by the Governor of South Carolina.



Hydrogen by wire: Reducing the pipeline conundrum



By Richard Campbell, CRES Forum

ydrogen has been discussed for decades as a possible fuel source to produce cleaner, American-made energy. The Infrastructure Investment and Jobs Act (IIJA) designated approximately \$8 billion for the development of at least four regional clean hydrogen hubs, positioning the U.S. Department of Energy (DOE) to notify hub applicants of awards by fall 2023. This funding and recent emphasis on hydrogen presents an exciting opportunity for electricity production, but we must go about this the right way.

For much of our modern history, electric power in the United States has mostly been generated by the combustion of coal to produce steam that drives a turbine generator. In more recent years, natural gas replaced coal due largely to the shale gas revolution, which brought more abundant, cheaper natural gas to the marketplace. Carbon dioxide emissions significantly fell as a result, and the United States has reduced emissions more than any other country in the world—more than the following five countries combined since 2000. With the electric power sector taking action to reduce emissions—and do so affordably—looking to hydrogen as a potential next step makes sense.

Since the passage of IIJA, American businesses are competing to develop these hydrogen hubs, produce hydrogen in bulk, and meet a future potential demand from clean hydrogen consumers. To be eligible for DOE funding, the hydrogen must come from low-emission sources such as nuclear or renewables using electrolyzers, or from fossil fuels utilizing carbon capture. Today, about 20 hydrogen hubs are reported to be in the final phase of consideration. study in Germany testing the use of hydrogen in pipelines estimated the cost to convert its existing 342,000-mile natural gas grid would cost approximately 30 billion euros. While there are differences with the design, ages, and tolerances of the U.S.' natural gas transportation system, there are approximately three million miles of U.S. pipelines that, if all were converted for transporting hydrogen, could translate to an equivalent upgrade cost of \$290 billion.

But a possible, less costly alternative to deliver electricity generated by hydrogen may exist. If new, hydrogen-powered electric power plants can be built centrally (or conversions of existing plants made) either at or within the hydrogen hub systems, then it may be possible to produce "hydrogenby wire" to transport this electricity to the end consumer, as opposed to delivering it in pipelines over a

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Once the hydrogen is produced, transporting it does not come without challenges. Given its smaller molecular size, hydrogen gas is more difficult to contain, and concerns have been raised that existing pipelines, such as those used for natural gas, are not well suited for its transportation, because hydrogen can interact with pipeline steel, causing embrittlement and cracking.

So, is an entirely new U.S. hydrogen pipeline transportation system needed? While that may not always be the case, conversion of natural gas pipelines could come with a high price tag. A recent long distance. An overlay of the proposed locations of hubs and major transmission lines shows a favorable correlation, which could minimize any need for building new transmission infrastructure.

In March 2023, the future of hydrogen was made even more interesting as the U.S. Environmental Protection Agency (EPA) released its latest proposal to regulate greenhouse gas emissions from the electric power sector. The proposal would require coal and natural gas-fired facilities to employ carbon capture and sequestration or shut down, with natural gas facilities being given the option to switch to hydrogen as a fuel within a specified time frame – albeit unrealistic and politically-driven.

Unfortunately, among the many flaws that warrant further scrutiny, the EPA's proposal does not appear to address the potential infrastructure needed to bring hydrogen to power plants to comply with the new regulations. This problem is exacerbated by opposition on the left to meaningful permitting reform necessary to build energy infrastructure to advance clean energy. Alternatively, the potential cost of "hydrogen by wire" could be significantly cheaper than modifying or building new pipelines for transporting hydrogen.

While such an approach may not work in all situations and research is necessary to ensure such action is consistent with existing power market structures, "hydrogen by wire" is an option worth considering given the potential costs, energy permitting headaches, and disruption from alternatives. New technologies present new challenges, but they also provide new opportunities. We should explore all options to consider how we can leverage our nation's resources to deliver more affordable, reliable, and cleaner energy.

Richard Campbell is Vice President of Policy and Research for Citizens for Responsible Energy Solutions (CRES) Forum. Richard has over three decades of experience in energy policy, technology innovation, and advocacy. Prior to joining CRES Forum, he spent over a decade at the Congressional Research Service, advising Congress on energy policy and technology issues and authoring reports on clean energy, hydrogen production, and energy storage.

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CONGRATULATIONS!

Each year, CRES awards federal policymakers with the Clean Energy Champion award as a testament to their work supporting commonsense clean energy and climate legislation that protects communities as well as our economy and to celebrate their commitment to building a clean energy future for America.

"Together, these members have a strong track record of reaching across the aisle to advance policies that accelerate clean energy innovation, bolster the economy, create jobs, and clear the path towards an emissions-free future – the foundation upon which National Clean Energy Week is built. I want to thank Senators Shelley Moore Capito and Bill Cassidy and Representatives Bruce Westerman and Jen Kiggans for their continued spirit of bipartisanship that gives rise to commonsense clean energy policies."

- HEATHER REAMS, CRES President

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