Testimony Before the United States House of Representatives Committee on Natural Resources Subcommittee on Oversight and Investigations

Unleashing the Golden Age of American Energy Dominance

Testimony of Megan C. Gibson, Senior Attorney of the Southern Environmental Law Center

April 2, 2025



Chairman Gosar, Ranking Member Dexter, and Distinguished Members of the Committee:

Thank you for the opportunity to testify on how the United States can truly unleash a golden age of American energy dominance and abundance. My name is Megan Gibson, and I am a Senior Attorney in the Energy Program at the Southern Environmental Law Center (SELC), focusing on energy policy across the Southeast and at the federal level. On behalf of SELC, I am here to share how clean energy and grid modernization are the keys to securing America's energy future in a way that benefits all Americans.

The Southern Environmental Law Center is the largest nonprofit, nonpartisan environmental legal advocacy organization rooted in and focused on the South: Alabama, Georgia, North Carolina, South Carolina, Tennessee, and Virginia. Founded in 1986, our mission is to protect the basic right to clean air, clean water, and a livable climate; to preserve our region's natural treasures and rich biodiversity; and to provide a healthy environment for all. With over 200 attorneys and professional staff, we use legal and policy work, strategic vision, and pragmatic problem-solving in all three branches and at all levels of government.

Testimony Summary

Achieving true American energy dominance requires a strategic shift toward renewable energy expansion and grid modernization. Renewable sources—solar, wind, and battery storage—are already driving substantial economic growth, job creation, and resilience, by providing reliable, affordable, and domestically controlled power. In 2024, over 90% of new utility-scale electric capacity additions came from renewable energy, a trend expected to continue in 2025. This rapid expansion is strengthening local economies, reducing consumer energy costs, and improving grid reliability, particularly during extreme weather events.

To sustain American energy leadership and economic competitiveness, policies must prioritize transmission expansion and continued federal incentives for clean energy investment. Programs such as the DOE's Coordinated Interagency Transmission Authorizations and Permits Program (CITAP) and the strengthening and use of FERC's backstop siting authority are essential to unlocking renewable potential and ensuring affordable, secure energy for all Americans. Maintaining this trajectory will solidify the U.S. as a global leader in energy innovation while fostering long-term economic prosperity and resilience.

Conversely, continued reliance on fossil fuels presents economic inefficiencies, market volatility, consumer risks, and environmental and health consequences. Coal is no longer cost-competitive with renewable and battery storage, with nearly all U.S. coal plants now more expensive to operate than new renewable generation. Natural gas prices remain highly volatile, exposing consumers to fuel price spikes and long-term financial burdens. Furthermore, the environmental and public health impacts of fossil fuel emissions, including methane leaks, air pollution, and escalating weather disasters, underscore the need for a transition to cleaner alternatives. A forward-looking energy strategy that prioritizes renewables, modern infrastructure, and smart policy solutions will ensure lasting economic and national security benefits while positioning the U.S. at the forefront of the global energy transition.

Introduction: American Energy Dominance for All

"American energy dominance" should be measured by abundance, affordability, and energy security for the American people. True energy dominance means an energy system that delivers reliable, low-cost power to every household and business, shields us from global market shocks, and positions the U.S. as the world's technology leader. By these measures, today renewable energy is the foundation for U.S. energy leadership. America has a long history of pioneering energy innovation-the first solar device to produce electricity was installed in New York in 1883 to the first modern electric cell being created in an American lab in 1954¹—not to mention cutting-edge advances from our National Laboratories, including advanced battery storage, superconductor powerlines that can carry electricity with no energy loss, and high efficiency airfoils that have reduced the cost of wind power by more than 80 percent over the last 30 years.² We must continue this legacy of leadership by embracing technologies of and for the future, with potential sources all evaluated on the merits. Tapping our abundant domestic solar, wind, and other renewable resources will provide far more long-term energy dominance than clinging to outdated and polluting fossil-fuel use. Our policies should and can foster innovation and opportunity in renewables and energy efficiency—sectors that offer lasting jobs, long-term economic growth, and genuine energy abundance.³ American's renewable energy industry is already driving economic growth and domestic manufacturing jobs. Continuing this momentum will be key to achieving American energy dominance.

Crucially, an energy-dominant America must mean energy abundance for all, not just for the few. We must ensure that the drive for "energy dominance" remains squarely focused on the public interest—delivering affordable, reliable, and sustainable energy on a modernized grid to American families and businesses, rather than a vehicle for private gain at public expense. Sound governance and oversight are needed from our state and federal regulators to keep the playing field moving steadily in this direction and fair.

The good news is that an affordable, reliable, modern, and clean energy future is within our reach. Thanks to American innovation and recent federal investments, we are witnessing an explosion of clean energy development. In this testimony, I will outline why renewable energy and a modern grid are the twin pillars of energy dominance, and briefly why pivoting away from unconstrained fossil fuel dependence is both an economic and strategic imperative. I will also discuss common-sense policy solutions—from transmission permitting reform to maintaining incentives for clean energy—that can accelerate our progress.

American can achieve a new era of energy "dominance"—one defined by homegrown renewable power, robust infrastructure, and economic opportunity. By embracing this path, we will secure our energy independence, national security, and create a more prosperous and healthier future for our communities. The United States has the resources and technology to lead; now, we must do the work.

¹ <u>https://www.nrel.gov/news/video/solar-energy-basics-text.html</u>.

²<u>https://www.energy.gov/articles/75-breakthroughs-americas-national-laboratories-0</u>.

³ See Alexandra B. Klass & Matthew Appel, *The Law of Energy Abundance*, N.C. L. REV. 21-24 (forthcoming 2025).

Renewable Energy: The Foundation for Affordability, Security, and Reliability

Abundant domestic renewable resources—such as solar, wind, and geothermal—will form the bedrock of an energy-dominant America. The United States has enormous untapped renewable (and efficiency) potential, from the sunny plains and the windy coasts to our ingenuity in advanced energy technologies. In recent years, these clean energy sources have moved from the margins to the mainstream of our power supply. They are growing at record rates, driving economic investment, and out-competing legacy fuels on cost and speed of deployment. Investing in renewables is an economic and strategic imperative, positioning the U.S. to have inexhaustible and domestically controlled energy supplies, while also providing significant environmental benefits.

In an era of rapid technological innovation and growing energy demand, it is critical that energy remains affordable and reliable for all types of customers. Residential customers need affordable and reliable energy to heat and cool their homes, especially during extreme weather events, which continue to increase in frequency and severity.⁴ Commercial customers need it to power their businesses and stay connected with their own customers. Industrial customers need it to fuel the tools and technology that will enable the next great American innovations. Clean energy technologies are particularly well suited to meet the challenges of maintaining energy affordability and reliability. These technologies are here, they are commercially scalable, fast to deploy, and are unlocking powerful potential in the South and around the country.

The Clean Energy Economy is Benefiting the South and the Nation

Renewable energy has rapidly become one of American's great industrial success stories. In 2024, the US added a record 30,000 megawatts (MWs) of utility scale solar, which accounted for 61% of all the electric generating capacity additions for the year.⁵ To put this in perspective, the current national average is that one MW of utility scale solar can provide the same amount of electricity consumed by 172 homes.⁶ Thus, the 30,000 MW of solar added in 2024 roughly equates to the electricity consumption of approximately 5.16 million homes. Together, solar, wind, and batteries made up over 90% of the utility-scale capacity additions in 2024⁷ and are projected to do the same in 2025.⁸ Texas alone is expected to deploy 11,600 MWs of solar in 2025—or more than one-third of all U.S. utility-scale solar slated for that year.⁹

This clean energy surge is not confined to one region but nationwide. In the six states where SELC works in the Southeast, 2024 was a banner year for clean energy with over 2,000 MWs of

⁴ <u>https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf</u> (finding that humancaused climate change "has resulted in changes in a wide variety of recent extreme weather events. Strong increases in probability and magnitude, attributable to human influence, have been found for many heatwaves and hot extremes around the world").

⁵ <u>https://www.eia.gov/todayinenergy/detail.php?id=64586</u> (last visited Mar. 30, 2025). Note: EIA reports solar capacity in alternating current (AC) while some organizations report in direct current (DC), which can lead to discrepancies between different reports of capacity. See also U.S. Energy Info. Admin., *Direct Current vs. Alternating Current Reports*, <u>https://www.eia.gov/todayinenergy/detail.php?id=35372</u>.

⁶ Solar Energy Industries Ass'n, What's in a Megawatt?, <u>https://seia.org/whats-in-a-megawatt/</u>

⁷ https://www.npr.org/2025/03/12/nx-s1-5319056/trump-clean-energy-electricity-climate-change

⁸ Id. with 2024 percentages calculated from figures in the article.

utility scale solar and 220 MWs of battery storage added¹⁰ and the second major onshore wind facility in the region, the 189 MW Timbermill Wind, started operating.¹¹ While the Southeast certainly has room to expand our deployment of clean energy, we are proud that multiple states now rank in the top 10 for installed solar capacity.¹²

Battery storage also set a record in 2024 with 10,300 MWs of new battery storage capacity added to the nationwide and is expected to set another record in 2025 with 18,200 MWs of new capacity added.¹³ Wind also added an impressive 5,100 MWs in 2024.¹⁴

The economic benefits flowing from this clean energy growth are profound. Clean energy development has already contributed significantly to local economies, creating thousands of new jobs and revenue for communities and landowners. In 2023, with 149,000 new clean energy new jobs¹⁵, jobs in clean energy grew at a rate of 4.9%, more than twice the rate of the overall U.S. labor market (2%). From 2022 to 2023, clean energy jobs increased in every state across the country and in every energy technology category, including electric power generation, energy efficiency, fuels, motor vehicles, and in transmission, distribution, and storage.¹⁶ Clean energy jobs pay higher wages than average (21% higher by some estimates) and a majority do not require a four-year degree, making them accessible to more Americans.¹⁷ Federal investments under the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA), injected more than \$240 billion in project awards under 174 programs designed to create new jobs, enhance American energy production and security, promote economic growth, and boost public safety.¹⁸ Over \$20 billion of these awards have been invested across the South,¹⁹ catalyzing over \$78 billion in private sector investments,²⁰ and supporting over 400,000 clean energy jobs.²¹ Unfortunately, this growth in jobs and economic development is now under threat with more than 50,000 clean energy jobs across the country being threatened or eliminated since January.²²

Renewables are boosting local economies, including and especially in rural areas. For example, in North Carolina, every new MW of utility scale solar has added nearly \$2,000 in annual property tax revenue due to the increased property value these systems bring.²³ From 2008 to

¹⁶ Id.

¹⁰ U.S. Energy Information Administration, Preliminary Monthly Electric Generator Inventory 860M, February 2025, https://www.eia.gov/electricity/data/eia860m/

¹¹ https://www.timbermillwind.com/news

¹² https://seia.org/solar-state-by-state/

¹³ Id.

¹⁴ Id.

¹⁵ https://www.energy.gov/policy/us-energy-employment-jobs-report-useer

 $^{^{17}\} https://www.forbes.com/sites/energyinnovation/2024/06/25/americas-clean-energy-jobs-boom-313000-new-jobs-and-counting/$

¹⁸ Atlas Public Policy, Climate Program Portal, Outcomes Dashboard as of March 28, 2025, All Agencies, All Funding Types (Including Loans & Tax Credits), All Sectors.

¹⁹ Id.

²⁰ https://climatepower.us/wp-content/uploads/2025/01/January-2025-Clean-Energy-Boom-Report.pdf

²¹ https://cleanjobsamerica.e2.org/

²² https://climatepower.us/news/as-trump-guts-clean-energy-utility-prices-have-already-risen-as-much-as-32-per-month-for-some-households/

²³ <u>https://www.energync.org/wp-content/uploads/2022/09/Sept2022v6-Increased-North-Carolina-County-Tax-Revenue-from-Solar-Development.pdf</u>, pg. 4

2022, this amounted to over \$11 million in additional property tax revenues across the state, all without creating additional demands from local governments such as increased water and sewer service.²⁴ In Texas, the expansion of renewables and storage has created significant sources of revenue for local governments and landowners across the state with the current and expected fleet of these resources expected to pay almost \$50 billion in lifetime landowner payments and local taxes.²⁵ These are tangible, community-level dividends of energy dominance that directly benefit Americans.

Clean Energy is Cheaper and Faster to Deploy

Renewable energy is now the cheapest source of new electricity in most cases. Over the past 15 years, the levelized cost of energy (LCOE) from utility scale solar has plummeted by about 80% and wind by roughly 65% to where they have now become the least cost forms of producing electricity on a levelized cost basis.²⁶ Even when battery storage is added to onshore wind and solar to firm up output, their levelized cost falls well within the range of the most efficient fossilfuel generation (combined cycle gas plants).²⁷ The global costs of clean power technologies are expected to fall even further in 2025, with wind, solar and battery technologies expected to experience additional drops of between 2% and 11% despite the threat of trade barriers.²⁸

This all means that investing in renewables saves electricity customers money in the long run. Moreover, solar panels and wind turbines have zero fuel costs and low operating expenses, compared to coal or gas generation, once built. Major utilities have taken notice. In its March Investor Presentation, NextEra Energy-the nation's largest electric utility holding companynoted that, "Renewables and storage are the most cost-effective energy and capacity solutions, and are ready now."29 They also noted that, "Natural gas-fired generation cannot meet demand in the near term and is a longer-term, more expensive solution."³⁰ In other words, even the utility industry is recognizing that if you want cheap, quickly available power capacity, you turn to wind, solar, and batteries.

Clean Energy and Resilience: Protecting Communities & Businesses Besieged by Extreme Weather

An energy-abundant America must also be one where the lights stay on during the toughest challenges. Clean energy and grid modernization are not only about economics but also public safety and resilience. As climate change brings more extreme heat waves, cold snaps, hurricanes,

 $^{^{24}}$ Id.

²⁵https://static1.squarespace.com/static/652f1dc02732e6621adb2a3a/t/678c0be1d3dc1c42cd14be89/1737231331280 /FINAL 2025 Renewable Energy Storage in Texas.pdf, pg. 3.

²⁶ <u>https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-_vf.pdf</u>, slide 16. LCOE is a convenient summary measure of the overall economic competitiveness of different technologies and represents the average revenue per unit of energy generated (typically a megawatt hour MWh) that would be required to cover the costs of building and operating the generating facility over an assumed useful life. https://www.eia.gov/outlooks/aeo/pdf/electricity_generation.pdf, pg.1

²⁷ https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-vf.pdf, slide 9

²⁸ https://about.bnef.com/blog/global-cost-of-renewables-to-continue-falling-in-2025-as-china-extendsmanufacturing-lead-bloombergnef/

²⁹ https://www.investor.nexteraenergy.com/~/media/Files/N/NEE-IR/news-and-events/events-andpresentations/2025/2025%20March%20Investor%20Deck.pdf, slide 9 ³⁰ https://www.investor.nexteraenergy.com/~/media/Files/N/NEE-IR/news-and-events/events-and-

presentations/2025/2025%20March%20Investor%20Deck.pdf, slide 7

wildfires, and floods, our energy system is being tested like never before. We need reliable power to heat and cool homes, keep businesses running, and support critical services in these extreme conditions. The evidence is mounting that renewable energy and advanced grid technologies can enhance resilience and backup power in ways the old fossil-based grid did not. Far from being a liability, clean energy is proving to be key to surviving and recovering from such disasters.

For example, after Hurricane Helene caused power outages across Western North Carolina, solar panels provided a lifeline to dozens of communities.³¹ Local organizations working with the nonprofit Footprint Project were able to deploy 45 solar arrays and battery systems to the region.³² The major electric utility in the state, Duke Energy, was also able to deploy its microgrid in Hot Springs in its first true test under extreme conditions. The solar and battery storage that are part of the microgrid allowed for the utility to provide power to downtown Hot Springs both day and night in the immediate aftermath of the hurricane.³³

Likewise, in Texas, the growth of renewables and storage has significantly improved the grid's ability to handle extreme weather events. Just four years after disastrous power outages during Winter Storm Uri, Texas increased its energy supply by 35%, with 92% of that new supply coming from solar, wind, and battery storage.³⁴ By 2024, nearly 30% of all the electricity generated in Texas came from renewable sources.³⁵ In 2024, Texas faced its highest electricity demand in history—86,000 MWs—during a blistering heat wave.³⁶ Solar supplied nearly 21,000 MWs of that demand and batteries nearly 4,000 MWs, helping stabilize the grid when it needed it most.³⁷ These clean resources are now critical to keeping the lights on in Texas and communities across the U.S.

Modernizing the Grid: Transmission is the Backbone of Energy Dominance

Energy dominance requires both the capacity to produce ample, affordable power and the infrastructure to deliver that power where it is needed and when needed. High-voltage transmission lines and a resilient electric grid are the backbone of this vision. Among other things, they move electricity from more remote generation sites to consumers in more densely populated areas. Unfortunately, our existing grid is aging and balkanized, ill-suited to handle the rapid growth of renewable energy and rapidly shifting demands. We urgently need to increase our transmission line capacity three- or four-fold to keep pace with growing demand and to support economic growth, energy security, decarbonization, grid reliability, and affordability.³⁸

³¹ https://www.newsobserver.com/news/politics-government/article294532699.html

³² *Id.*

³³ https://www.newsobserver.com/news/politics-government/article294532699.html

³⁴ https://www.texastribune.org/2025/03/06/texas-legislature-energy-renewables-power-grid/

³⁵ https://www.governing.com/resilience/in-2024-more-electricity-than-ever-came-from-renewable-sources

³⁶ https://gridlab.org/solar-storage-saved-the-hot-day/

³⁷ https://gridlab.org/solar-storage-saved-the-hot-day/

³⁸ See generally Ted Boling et al., Niskanen Ctr., Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (Apr. 2024) [hereinafter Evidence-Based Recommendations Report], https://www.niskanencenter.org/evidence-based-recommendations-for-overcoming-barriers-to-federal-transmissionpermitting/; see also Eric Larson et al., Net-Zero America: Potential Pathways, Infrastructure, and Impacts 27–29 (Dec. 15, 2020),

https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf (estimating increase in transmission capacity two to five times that of 2020 levels would be needed to reach zero emissions);

Despite widespread consensus that the United States must massively expand high-voltage transmission line capacity, real-world progress has been hampered by complex siting, permitting, and interconnection hurdles. The complex coordination problem – multiple states, agencies, and utilities, and potential local opposition – has slowed progress to a crawl. The Sunzia Southwest Transmission Project is illustrative of this: a 550-mile, 3GW bi-directional high-voltage direct-current line designed to transport up to 4,500 megawatts of primarily renewable energy from New Mexico to Arizona and California markets.39 It took fourteen years from the initial federal right-of-way application40 until the start of construction in 2023.⁴¹

America's transmission challenge is twofold: we need more capacity (more miles of lines and higher-voltage corridors) and a more integrated, flexible grid that can move power across and within regions seamlessly. Today, the U.S. grid is often described as 'silos' or 'islands' of power with limited interconnections.⁴² Regulatory silos between and among states and regions compound the physical constraints, and this fragmentation has real-world consequences. We saw a dramatic example during Winter Storm Uri in February 2021, when extreme cold knocked out power plants across Texas. While Texas's isolated grid suffered catastrophic outages, neighboring regions in the Midwest and Plains (with better connections to other grids) were able to import large amounts of power form their neighbors and avoid the worst outcomes that befell Texas.43 And as found in analysis of Winter Storm Uri and other extreme weather events, "an additional GW of transmission capacity during many of these events could have generated more than \$100 million in consumer savings."⁴⁴ Greater transmission capacity means grid operators can send electricity from low-cost generators to where it's needed, displacing more expensive generation. It creates a more competitive energy market, driving costs down. In short, transmission is the enabler of energy dominance: it unlocks our full resource potential and ensures power gets to where it's needed most efficiently.

Liza Reed et al., Niskanen Ctr., *How Are We Going to Build All That Clean Energy Infrastructure?: Considering Private Enterprise, Public Initiative, and Hybrid Approaches to the Challenge of Electricity Transmission* 6–7 (Aug. 2021), <u>https://www.niskanencenter.org/wp-content/uploads/2021/08/CleanEnergyInfrastructure_Report_08.19.21.pdf</u> (discussing Larson's findings on the scale of needed change).

³⁹ See Notice of Intent To Prepare an Environmental Impact Statement and Possible Resource Management Plan Amendments for the SunZia Southwest Transmission Project in Arizona and New Mexico, 74 Fed. Reg. 25,764 (May 29, 2009); see also Evidence-Based Recommendations Report 69–71 (Apr. 2024) (chronicling federal delays and lack of coordination among federal agencies for the permitting of the SunZia Southwest Transmission Project, including after the 2016 presidential election).

⁴⁰ Bureau of Land Mgmt., U.S. Dep't of Interior, *Record of Decision for the SunZia Southwest Transmission Project* (Jan. 23, 2015),

https://eplanning.blm.gov/public_projects/2013584/200486954/20040619/250046814/SunZia%20ROD%20with%2 0Appendices%20(January%202015).pdf.

⁴¹ Biden-Harris Administration Celebrates Groundbreaking of New SunZia Transmission Line That Will Deliver Clean, Reliable, Affordable Energy to Millions of Americans, U.S. DEP'T OF INTERIOR (Sept. 1, 2023),

https://www.doi.gov/pressreleases/biden-harris-administration-celebrates-groundbreaking-new-sunzia-transmissionline (last visited Mar. 28, 2025).

⁴² See Alexandra B. Klass, Joshua Macey, Shelly Welton, & Hannah Wiseman, *Grid Reliability Through Clean Energy*, 74 STAN. L. REV. 969, 990- 996 (2022) (describing how "Siloed Grid Policy and Governance Impede a Clean Reliable Grid.").

⁴³ Michael Goggin, Jesses Schneider, THE ONE-YEAR ANNIVERSARY OF WINTER STORM URI, LESSONS LEARNED AND THE CONTINUED NEED FOR LARGE-SCALE TRANSMISSION, AT 1, GRID STRATEGIES LLC (FEB. 13, 2022), <u>the-one-year-anniversary-of-winter-storm-uri-lessons-learned-and-the-continued-need-for-large-scale-transmission.pdf.</u> ⁴⁴ *Id.*

Fortunately, the U.S. Department of Energy's (DOE) took on the transmission permitting bottleneck through its design of the Coordinated Interagency Transmission Authorizations and Permits Program ("CITAP").45 CITAP is an example of a program that successfully marries acceleratory review initiatives with rigorous yet efficient oversight.⁴⁶ Through the CITAP program, DOE positioned itself to be the one-stop coordinator for all federal permits and environmental reviews needed to site interstate transmission lines. CITAP harmonizes environmental reviews and consolidates them into a single, streamlined process with a standardized timeline. Under the old model, developers had to wrestle with separate timelines at multiple federal agencies that may or may not have been coordinating with one another. By bringing multiple federal agencies onto a shared platform and establishing DOE as the lead coordinating authority, CITAP aimed to encourage investment in new lines, bolster grid reliability, and support building a more flexible, lower-cost, and lower-carbon energy system.⁴⁷ The integrated pre-application process reduces redundant paperwork and fosters earlier communication among developers, stakeholders, and impacted communities. In other words, CITAP is an excellent example of civil servants and private developers working toward energy abundance in an innovative, measured way to modernize how we permit interstate electric transmission lines.

To fully realize the goals of the energy dominance agenda, we need consistent support for more programs like CITAP and related designations and programs, such as National Interest Electric Transmission Corridors ("NIETCs"),⁴⁸ and utilization of FERC's "backstop siting authority" when state permitting fails.⁴⁹ The first program kicks in when, through extensive study, DOE designates NIETCs as critical zones where transmission expansions are deemed vital to the national interest, thus hypothetically should provide a clearer path through regulatory hurdles.50 However, there currently are only three live options for NIETC designations, with public comment open until April 15, 2025, shaved down significantly from the initially floated ten corridor designations.⁵¹ If this administration, or any other, is genuinely committed to

⁴⁵ Coordination of Federal Authorizations for Electric Transmission Facilities Final Rule, 89 Fed. Reg. 35,312, 35,313 (May 1, 2024).

⁴⁶ Id.

⁴⁷ Id.

⁴⁸ National Interest Electric Transmission Corridor Designation Process, U.S DEP'T OF ENERGY,

https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process (last visited Mar. 27, 2025) [hereinafter "NIETC Designation Process"]..

⁴⁹ See Applications for Permits to Site Electric Transmission Facilities, 187 FERC ¶ 61,069, PP33-37 (May 13, 2024).

⁵⁰ U.S. Dep't of Energy, Grid Deployment Off., *Guidance on Implementing Section 216(a) of the Federal Power Act to Designate National Interest Electric Transmission Corridors* 5, 23-30 (2023), <u>https://www.energy.gov/sites/default/files/2023-12/2023-12-</u>

<u>15%20GDO%20NIETC%20Final%20Guidance%20Document.pdf</u> (finding "key areas where NIETC designation may be particularly valuable" based on DOE 2023 Needs Study's identified transmission needs).

⁵¹ U.S. Dep't of Energy, Grid Deployment Off., *Initiation of Phase 2 of National Interest Electric Transmission Corridor (NIETC) Designation Process: Preliminary List of Potential NIETCs Issued Pursuant to Section 216(a) of the Federal Power Act* 9–10 (2024), <u>https://www.energy.gov/sites/default/files/2024-</u> 05/PreliminaryListPotentialNIETCsPublicRelease.pdf; *NIETC Designation Process.*

streamlining infrastructure reviews and ensuring abundant, reliable energy for all,52 it should uphold and strengthen these permitting frameworks rather than pare them back.

Don't Cede the Future: The Global Race in Clean Energy Technology

American energy dominance is also about leading the world in the technologies of today and tomorrow. The competition is fierce in the global race for leadership in clean energy industries. After years of strategic investments and supportive governmental policies, China leads the world in installations of wind and solar power. In most green technologies and components, China makes up more than half of global production output, and that share grew from 2021 to 2023.⁵³ Europe, India, and others are also heavily investing in renewables, batteries, and electric vehicles. If the United States retreats or stagnates in clean energy development, we will cede economic leadership to our competitors, just as the world leans more into these technologies. Conversely, if we lead, we can secure our place as the world's modern energy superpower in the decades ahead--not just in oil and gas production (where we are already a leader), but in the new pillars of the global energy economy.

Thankfully, the U.S. has made strides in reclaiming clean energy leadership. Thanks to American manufacturing incentives, we are onshoring solar manufacturing, quickly taking back the solar supply chain from China, and on track to build one of the strongest solar manufacturing bases in the world.⁵⁴ Similarly, our wind industry is growing with new offshore wind leases and onshore development. Maintaining this momentum is crucial. For some additional context, according to the National Renewable Energy Laboratory ("NREL"), the contiguous United States has the potential to generate up to 37 million gigawatt-hours annually from wind energy-nearly ten times the total U.S. electricity generation in 2009-due to advances in wind resource assessment technology that "triple previous estimates of the size of the nation's wind resources."⁵⁵ The study identifies Texas, Kansas, and Nebraska as the states with the greatest potential wind capacity and highlights that improved mapping and validation techniques have revealed new wind development areas previously considered unsuitable.⁵⁶ And these states are taking advantage of that potential. In January 2025, the five states with the greatest total amount of wind power generation nationally were Texas (25%), Iowa (11%), Oklahoma (7%), Illinois (6%), and Kansas (5%). 57

technological innovation" and stating need to "permit and build energy infrastructure and remove barriers to progress, including federal policies that make it too easy to stop projects and far too difficult to complete projects").

⁵³ China dominates the world in renewable energy, including solar and wind - The Washington Post

⁵² See Secretary Wright Acts to "Unleash Golden Era of American Energy Dominance", U.S. DEP'T OF ENERGY (Feb. 5, 2025), https://www.energy.gov/articles/secretary-wright-acts-unleash-golden-era-american-energydominance (describing DOE's "opportunity to promote energy abundance, demonstrate leadership in scientific and

⁵⁴ See https://seia.org/news/report-solar-adds-more-new-capacity-to-the-grid-in-2024-than-any-energy-technology-<u>in-the-past-two-decades/</u>. ⁵⁵ Nat'l Renewable Energy Lab., NREL Triples Previous Estimates of U.S. Wind Power Potential 1 (2011),

https://www.nrel.gov/docs/fy11osti/51555.pdf.

⁵⁶ *Id.* at 2.

⁵⁷ See Electric Power Monthly, Table 1.14.B., Utility Scale Facility Net Generation from Wind by State, by Sector, Year-to-Date through January 2025 and 2024, Energy Info. Admin. (Jan. 2025)

https://www.eia.gov/electricity/monthly/archive/january2025.pdf. These same states held the same positions in 2023. See Wind Explained: Where Wind Power is Harnessed, U.S. Energy Info. Admin. (June 12, 2024),

https://www.eia.gov/energyexplained/wind/where-wind-power-is-harnessed.php ("The five states with the most

Putting the brakes on domestic renewable energy development would undermine our ability to compete on the global stage. As the president of the Advanced Energy United trade group recently warned, "A freeze on investing in the technologies we need to power our grid and vehicles threatens our ability to lower costs, create energy abundance, and win the race for global energy dominance."58

Maintaining U.S. leadership will require stable policy support and public-private collaboration. Long-term federal tax credits and research investments have been instrumental in scaling up renewables to where they are today. Extending and fully implementing these policies will provide market certainty. A recent survey by the American Council on Renewable Energy, tax credit uncertainty could cause 84% of investors and 73% of developers to decrease their activity in clean energy-potentially translating to the loss of tens of billions of dollars in private sector investment.⁵⁹ "Longstanding federal energy tax credits have played an instrumental role in creating a stable market environment to stimulate this growth, and recent enhancements to those credits have further bolstered domestic energy. These include production and investment tax credits for energy generation facilities, domestic manufacturing, and critical minerals production, associated bonus credits, and new tax credit monetization options like transferability."60 Thus, keeping these incentives in place is a bipartisan opportunity to ensure the U.S. remains the most attractive place in the world to build clean energy projects and factories. In short, continued American leadership in clean energy is ours to lose. We have the entrepreneurial spirit, the technological know-how, and now a supportive policy environment. The rest of the world is not waiting, though.

The Fossil Fuel Fallacy: Why Fossil Fuel Strategies Cannot Deliver Energy Dominance

Some argue that "energy dominance" can be achieved by simply expanding fossil fuel production and infrastructure – drilling more oil and gas, mining more coal, building pipelines and export terminals – on the premise that fossil fuels provide on-demand energy. This is, in effect, a costly bet on yesterday's technology that ignores the rapid changes in energy economics. To be clear, oil and gas will remain part of the energy mix during a transition period, particularly in sectors like transportation and industry. However, the idea that fossil fuels alone can "ensure energy dominance" for the U.S. is a myth that crumbles under scrutiny.

Generating electricity from coal is uneconomic and polluting

While coal powered much of the U.S. economy in the twentieth century, it is no longer costcompetitive with renewables. In fact, the non-partisan think tank Energy Innovation Policy & Technology analyzed the cost of electricity from new renewable energy and battery resources compared to electricity from coal and found that 99% of coal plants are more expensive to run than new wind or solar resources in the same region.⁶¹ The problem is especially acute in the Southeast, where I work: between 2015 and 2022, utilities in the Southeast ran coal plants when

electricity generation from wind in 2023 were Texas, Iowa, Oklahoma, Kansas, and Illinois" which, combined, "produced about 59% of total U.S. wind electricity generation in 2023.")

 $^{58\} https://blog.advancedenergyunited.org/articles/the-new-york-times-trump-wants-to-unleash-energy-as-long-as-its-not-wind-or-solar$

⁵⁹ Id.

 $^{^{60}} https://acore.org/wp-content/uploads/2025/03/ACORE_Tax-Stability-for-Energy-Dominance_Final.pdf$

⁶¹ https://energyinnovation.org/wp-content/uploads/Coal-Cost-Crossover-3.0-One-Pager.pdf

it was uneconomic to do so, racking up \$5.3 billion in excess costs for customers.⁶² There is nothing "dominant" about clinging to a fuel that raises people's bills and pollutes our air and water: emissions from coal include sulfur dioxide, which contributes to acid rain and respiratory illnesses; nitrogen oxides, which contribute to smog and respiratory illnesses; particulates, which contribute to smog, haze, respiratory illnesses, and lung disease; as well as mercury and other heavy metals, which have been linked to both neurological and developmental damage.⁶³ Uneconomic coal generation not only hits consumers in the wallet, pollution from these aging coal plants also harms the health of communities by causing or contributing to premature deaths, heart disease, and respiratory conditions including asthma.⁶⁴

These are real costs imposed on American communities – medical bills, missed work days, environmental cleanup of mercury in waterways – none of which are reflected in the market price of coal power. Continuing to prop up costly coal plants is the antithesis of an "affordable and secure" energy strategy. The market has spoken: coal is out.

Gas prices are inherently volatile and expose consumers to the risk of fuel price spikes Second, while natural gas has a useful role as a bridging fuel in certain applications, an uncritical expansion of natural gas infrastructure poses serious economic risks to consumers. Natural gas prices are inherently volatile, as discussed earlier – they can swing drastically due to factors outside U.S. control (geopolitical events, global demand, weather). Betting our energy dominance on cheap gas forever is risky.

In most regulated electricity markets, electric utilities can "pass through" their fuel costs directly to customers (subject to approval by regulators) and therefore have no incentive to keep their fuel costs low. Utilities' ability to pass fuel costs on to customers leaves customers vulnerable to the risk of fuel price spikes.⁶⁵ Gas markets are inherently volatile,⁶⁶ and gas market prices tend "to change quickly and perhaps unpredictably."⁶⁷ Just one example from the South, where SELC operates: As a result of spikes in the price natural gas in 2022 due to Russia's invasion of Ukraine, Duke Energy Carolinas' fuel costs were \$999 million more than it had forecast.⁶⁸ Recovering those costs would have increased customer bills by an average of 18%, were it not for a settlement between the utility and the consumer advocate agency. Fuel cost "hedging" through the construction or procurement of fuel-free, renewable energy resources can help mitigate rate shock by reducing ratepayers' exposure to volatile gas price markets.

health/#:~:text=The%20latest%20research%20indicates%20that,in%20health%20costs%20each%20year. ⁶⁵ See, e.g. Redacted Direct Testimony of R. Brent Alderfer and Ivan Urlaub on Behalf of Clean Energy Buyers Association at 11, 16-17, 25, 30, Docket No. E-100, Sub 190 State of North Carolina Utilities Commission (May 2024) (discussing how natural gas prices are inherently volatile, with historical evidence showing "runups and spikes that are inherent parts of natural gas supply markets" leading to significant financial burdens on ratepayers).

⁶² https://utilitytransitionhub.rmi.org/economic-dispatch/

⁶³ https://www.eia.gov/energyexplained/coal/coal-and-the-

environment.php#:~:text=Emissions%20from%20burning%20coal,when%20power%20plants%20burn%20coal ⁶⁴ https://rmi.org/how-uneconomic-coal-plants-are-taking-a-toll-on-our-

⁶⁶ Direct Testimony and Exhibits of Ronald J. Binz on behalf of Southern Alliance for Clean Energy, Docket No. E-2, Sub 1292, at 6:14 (Aug. 24, 2022) (Binz Direct Test.)

⁶⁷ *Id.* at 8:11-12. "Officially, volatility is the standard deviation of changes in value of a variable over time." *Id.* at 8:16-17.

⁶⁸ Tr. vol. 2, 141.

Furthermore, pouring billions into new long-lived gas infrastructure (plants and pipelines) could result in stranded costs that consumers must pay, even if those assets become obsolete before their expected life. Utilities earn a return on capital investments like pipelines and power plants, charging customers over decades. In contrast, if we direct investment to fuel-free resources today, we avoid saddling customers with those stranded asset costs. The smarter play for consumer affordability is building the resources we know we will need for a low-carbon grid up front, rather than overbuilding gas and paying for an overshoot.⁶⁹

Compounding the problem of gas price volatility is the fact that electric and gas utility ratepayers will pay for the cost of pipeline capacity whether or not that capacity is actually used. Utilities sign "firm transportation" contracts that reserve capacity on a pipeline. Pipeline owners receive a generous 14% return on equity for new interstate pipelines, authorized by the Federal Energy Regulatory Commission. That return on equity is included in the cost of contracts for transportation of gas on a pipeline, and regulated utilities are permitted by state utility commissions to recover those transportation costs in the rates charged to customers as part of the cost of fuel. Thus, fossil-first arguments quite simply don't make economic sense in the near or long-term.

Burning gas for electricity is bad for human health and the environment

Gas produces many of the same emissions as coal or oil—including nitrogen oxides, which are precursors to smog, as well as sulfur dioxide, particulates, and various hazardous air pollutants. And emissions from the smokestack are only part of the picture—drilling and extraction of gas from wells and its transportation in pipelines results in the leakage of methane, the primary component of natural gas, as well as volatile organic compounds (VOCs)—of which the natural gas industry is one of the highest-emitting industrial sectors in the United States. ⁷⁰

Conclusion: A Path Forward to True American Energy Dominance

In closing, the United States stands at a pivotal moment in energy history. We have before us a clear choice and a remarkable opportunity. We can embrace the rapid growth of clean energy and invest in a modern grid, securing American energy dominance in a form that is sustainable and beneficial to our people. Or we can cling to the status quo of fossil dependence, and in doing so, forfeit our leadership, burden our citizens with avoidable costs, and leave ourselves more vulnerable to escalating, deadly and expensive floods, storms, and droughts. The evidence is overwhelming that renewable energy and grid modernization are the keys to an abundant, affordable, and secure energy future. By tapping our endless wind and solar resources, empowering our engineers and builders to upgrade the grid, and continuing to innovate, we can supply cheap, reliable power for generations to come – all while creating jobs, protecting public health, and mitigating climate risks. This is a future where energy abundance means every American household and business has access to dependable, low-cost power, where no community is left in the dark after a disaster because we have built resilience, and where the United States leads the world in the energy technologies that define the century.

⁶⁹See Redacted Direct Testimony of R. Brent Alderfer and Ivan Urlaub on Behalf of Clean Energy Buyers Association at 11, 16-17, 25, 30, Docket No. E-100, Sub 190 State of North Carolina Utilities Commission (May 2024).

⁷⁰ https://www.ucs.org/resources/environmental-impacts-natural-gas