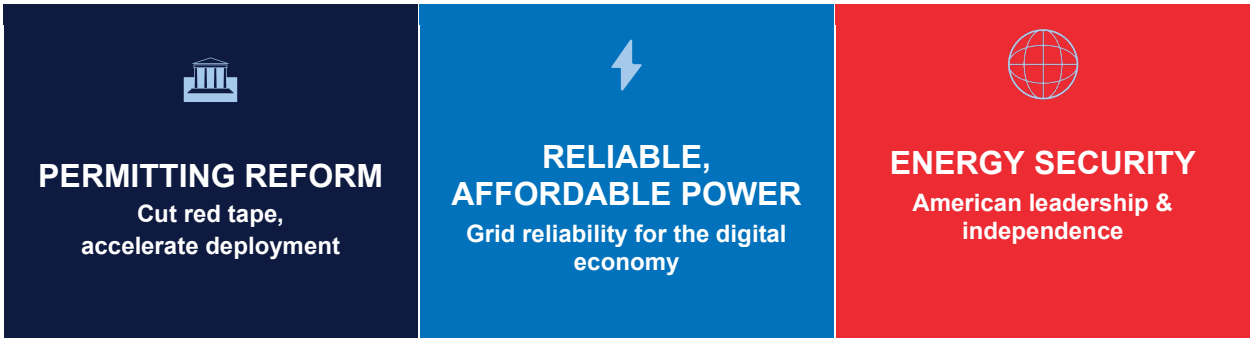
ENSURING AMERICA'S ENERGY LEADERSHIP

A State Roadmap for Energy Security, Economic Growth, and Grid Resilience

Advancing a Bipartisan Framework Across All 50 States

Three Pillars of American Energy Leadership



Executive Summary

America stands at an inflection point. The convergence of artificial intelligence, reindustrialization, and electrification is driving electricity demand at rates not seen since the post-war era — with U.S. power consumption projected to grow 15–20% by 2030.[1] States that act decisively will attract investment, create high-wage jobs, and enhance national security.

This roadmap provides governors with a practical framework built on three pillars:

- Accelerating Permitting Reform: Removing bureaucratic bottlenecks that delay infrastructure by years and billions of dollars.
- Delivering Reliable Power for a Growing Economy: Ensuring abundant, affordable, and reliable power to drive economic growth.
- Strengthening Energy Security: Building a resilient, American-led energy supply chain.

Projected U.S. Electricity Demand Growth Drivers (TWh by 2030)

Category	Value	Chart
Data Centers & AI	**~100 TWh**	~100 TWh
EV Charging	**~85 TWh**	~85 TWh
Industrial Electrification	**~70 TWh**	~70 TWh
Residential Growth	**~40 TWh**	~40 TWh
Commercial Growth	**~30 TWh**	~30 TWh

Note: Additional demand above 2024 baseline. Sources: DOE, NERC, EPRI projections.[2]

Key Bipartisan Opportunity

While energy policy is a nuanced and complex field, energy security is not typically a partisan issue. Reliable, affordable energy underpins national defense, economic competitiveness, job creation and household budgets. The policies in this roadmap should have broad appeal across the political spectrum — regardless of a state's energy resources.

The National Energy Landscape

Before charting the path forward, it is critical to understand where America's grid stands today — and the structural challenges each state must confront. The most significant obstacle to expanding available electric power is the disparity in development timelines between new large

[1] DOE, NERC, EPRI projections; see EPRI, "Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption," 2024; NERC, "2024 Long-Term Reliability Assessment," December 2024; U.S. DOE, "Clean Energy Resources to Meet Data Center Electricity Demand," 2024.
[2] EPRI, "Powering Intelligence," 2024 (data centers projected to reach up to 9% of U.S. electricity by 2030, up from ~4% in 2023); Lawrence Berkeley National Laboratory, "2024 United States Data Center Energy Usage Report," December 2024.

loads and the generation and transmission infrastructure required to serve them. Large electricity consumers can often be deployed much more rapidly than new power plants or transmission facilities can be permitted, financed, and constructed. Reliability challenges are further compounded by insufficient investment in new natural gas midstream infrastructure, which constrains fuel delivery to existing and planned generation resources.

Electricity Reliability & Affordability Under Pressure

NERC's 2024 Long-Term Reliability Assessment identifies two-thirds[3] of the continental U.S. as facing elevated or high risk of insufficient energy during peak demand events over the next decade. Key drivers include:

- Rapid retirement of dispatchable baseload (coal) faster than replacement capacity is built.
- Explosive load growth from data centers, EV adoption, and industrial reshoring.
- Transmission bottlenecks that prevent moving power from where it is generated to where it is needed.
- Weather volatility exposing single-fuel dependency vulnerabilities as well as limitations on interregional transmission networks (cf. Winter Storm Uri, 2021).

Challenge	States Most Exposed	Risk Window
Summer Peak Shortfalls	CA, TX, AZ, NV, GA, NC	**2025–2027**
Baseload Retirement Gap	OH, IN, WV, KY, MO, WI	**2026–2030**
Transmission Congestion	PJM, MISO, SPP regions	**Ongoing**
Data Center Demand Surge	VA, TX, IL, GA, AZ	**2024–2028**

The Opportunity: America's Energy Advantage

Despite these challenges, the United States possesses unparalleled energy assets: one of the world's largest proven natural gas reserves,[4] an advanced and growing nuclear technology sector, abundant geothermal resources across the West, significant pumped hydro potential, ample wind and solar resources, all built and maintained by a highly skilled energy workforce. The states that harness these assets will lead the next era of American economic growth.

PILLAR I: Permitting Reform and Regulatory Clarity

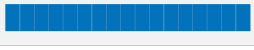
The United States cannot build its energy future faster than its permitting system allows. Today, a high-voltage transmission line that took 3–5 years to permit in the 1970s routinely takes 10–15

[3] NERC, "2024 Long-Term Reliability Assessment," December 2024, pp. 1–15. The 2024 LTRA found that over half the continent — and particularly two-thirds of the continental U.S. — faces elevated or high risk of energy shortfalls during peak demand events over the next decade.
[4] U.S. Energy Information Administration (EIA), Natural Gas Proved Reserves data; Energy Institute, Statistical Review of World Energy 2025. Note: While the U.S. ranks among the top global holders of technically recoverable natural gas resources, proved reserves rankings vary by source, with Russia, Iran, and Qatar leading in proved reserves.

years.[5] Natural gas pipelines approved by FERC face years of state-level litigation. The cost of this delay is measured in blackouts, high energy bills, and lost industrial investment.

1.1 The Permitting Crisis by the Numbers

Average Major Energy Infrastructure Permitting Timeline (Years)

Category	Value	Chart
High-Voltage Transmission	**10–15 yrs**	
Natural Gas Pipeline	**5–10 yrs**	
LNG Terminal	**5–9 yrs**	
Nuclear (new unit)	**8–12 yrs**	
Geothermal (EGS)	**3–6 yrs**	
Large Solar Farm	**2–5 yrs**	
Data Center (major)	**2–4 yrs**	

Note: Includes environmental review, state and federal permitting, and litigation resolution periods.

1.2 State-Level Permitting Reforms

Governors can play an impactful role in urging Congress to address common sense federal permitting reform. In late 2025, a bipartisan group of 13 governors articulated their consensus permitting priorities to Congress in a detailed letter. While federal reform is essential, states have significant authority over energy infrastructure siting and can act independently to create competitive advantage in attracting energy investment:

- Establish permitting timelines: establish statutory deadlines for agency action on all major energy infrastructure permits — generation, transmission, pipelines, LNG facilities, and data centers. Deadlines should include consequences or the 'money-back guarantee' model.
- Cap and standardize permitting fees across all generation and transmission types, eliminating arbitrary fee disparities that discriminate against particular fuel sources.
- Apply uniform environmental review standards to all generation sources — the same rigor applied to a natural gas plant should apply to a wind or solar facility of equivalent impact.
- Provide regulatory pre-approval pathways for co-located infrastructure, particularly where AI facilities, industrial campuses, and dedicated generation are proposed as integrated projects.
- Utilize AI tools to streamline permitting by developing smart applications and reduce permitting timelines.

[5] DOE Transmission Impact Assessment, October 2024; Belfer Center, "The Challenges of Decarbonizing the U.S. Electric Grid by 2035," January 2022 (review of 30+ projects found average of ~10 years, with some requiring 15+ years).

State Best Practice: Oklahoma — AI Tools to Streamline Permitting
Oklahoma's Department of Environmental Quality ("ODEQ") has engaged an AI platform in a proof of concept and cost/benefit analysis to improve both internal workflow and work-product quality and streamline the public-facing permitting process. Approximately 50% of ODEQ non-field personnel participated in the initial trial, which demonstrated enormous potential for time savings and cost reduction. The most promising aspects of the AI platform include: standardization of certain permits and reducing the time a draft permit spends in peer review; researching interpretations and analysis of applicable state/federal rules and guidance documents; assisting with rule drafting for minor and/or simple rule revisions; streamlining and expediting the review of compliance reports; and analyzing proposed federal rulemakings and the potential impacts to state programs or agency authority.

State Best Practice: Pennsylvania & Delaware — Permit Deadline Guarantee
Pennsylvania's Act 36 (2022) and Delaware's Energy Infrastructure Acceleration Act (2023) both established hard permit decision deadlines for major energy projects: 180 days for generation under 500 MW, 365 days for larger facilities and transmission. Critically, if an agency fails to act by the deadline, permit fees are refunded and the applicant receives automatic conditional approval — creating a powerful accountability mechanism. Both states saw a measurable increase in project applications within 18 months of enactment.

1.3 Permit-by-Rule Frameworks

For technologies with well-understood environmental profiles and repeated deployment patterns, permit-by-rule is an efficient regulatory approach. States can establish permit-by-rule frameworks for:

- Nth-of-a-kind small modular reactor (SMR) and microreactor deployments (after the first unit of a design has received full NRC review).
- Grid-enhancing technology (GET) installations on existing transmission infrastructure.
- Geothermal resource exploration wells and pilot projects below defined capacity thresholds.
- Energy storage projects co-located with existing licensed generation facilities.
- Battery storage systems.
- Carbon capture equipment added to existing permitted power plants or industrial facilities.
- Low-impact hydropower additions to existing permitted dams.
- Reconductoring and vegetation management on existing transmission corridors.

1.4 Federal Alignment and Interstate Cooperation

- Establish interstate permitting compacts for linear infrastructure (transmission, pipelines) that cross state lines, with mutual recognition of environmental reviews conducted by a lead state.
- Create regional transmission authorities or multistate compacts with joint siting authority for high-voltage interstate corridors, modeled on the Western States Transmission Compact.

State Best Practice: West Virginia — Permitting Certainty Act

West Virginia's 2024 Permitting Certainty Act created a statutory cap on state-level judicial review of energy infrastructure permits: challengers must file within 60 days of permit issuance, courts must rule within 120 days, and appeals must be decided within 90 days thereafter. The Act also created a bond requirement for injunctive relief petitions, deterring frivolous delay litigation while preserving legitimate legal challenges.

State Best Practice: Delaware — Permitting Accelerator

In 2026, Governor Matthew Meyer of Delaware issued Executive Order #18 creating the Delaware Permitting Accelerator. The Delaware Permitting Accelerator is designed to streamline and coordinate permitting practices across the state to speed up the construction of both housing units and critical energy system upgrades.

PILLAR II: Powering Economic Growth

The digital economy runs on electricity. AI model training and inference, cloud computing, and advanced manufacturing are creating load profiles unlike anything grid operators have managed before — large, persistent, and growing. States should act proactively to ensure adequate power is available without passing those costs to households.

2.1 Dispatchable Power: The Foundation of Grid Reliability

Renewable generation is valuable, but intermittent. The grid needs firm, dispatchable generation — power that can be called on at any hour regardless of weather. To capture these benefits, states could prioritize the following generation technologies:

Natural Gas: The Near-Term Answer

- Convert retiring coal plants to natural gas where existing pipeline infrastructure allows, avoiding greenfield permitting timelines and preserving existing workforce.
- Expand pipeline capacity in constrained corridors — particularly the Northeast and Pacific Northwest — to unlock stranded generation capacity.
- Prioritize LNG storage to protect against supply disruptions during extreme weather events.

Nuclear: The Long-Term Backbone

- Enact state-level SMR deployment acts that streamline siting, licensing coordination with the NRC, and utility cost recovery.
- Pursue permit-by-rule frameworks for nth-of-a-kind SMR and microreactor deployments, recognizing that, once successfully deployed, repeated designs may require diminishing incremental review.
- Re-license or uprate existing nuclear plants — the cheapest, lowest-risk pathway to continued large-scale, carbon-free generation.

Geothermal: The Underutilized Asset

- Geothermal provides 24/7 baseload power with a minimal land footprint. Enhanced geothermal systems (EGS) using directional drilling technology from the oil and gas sector are showing promise in unlocking vast new geothermal resources across 20+ states.
- Develop state geothermal resource mapping programs and fast-track exploration permits.

- Create co-development frameworks with oil and gas operators to leverage existing drilling expertise, equipment, and subsurface data.
- Adopt permit-by-rule for geothermal pilot projects below defined capacity thresholds.

State Best Practice: Wyoming — Nuclear & Geothermal Leadership

Wyoming enacted HB 176 (2024), creating a streamlined SMR licensing coordination program and directing the state Energy Authority to develop a nuclear workforce pipeline. Separately, Wyoming's vast subsurface resources have attracted multiple EGS project developers, supported by a 2023 geothermal leasing modernization act that allows oil and gas operators to convert existing wells for geothermal use — reducing costs by up to 60%.

Nuclear Energy Regional Collaboration

Over the last few years states have begun to explore regional cooperation on the development of new nuclear technologies and facilities. In the West, Governor Spencer Cox of Utah, Governor Brad Little of Idaho, and Governor Mark Gordon of Wyoming established a tri-state agreement to strengthen nuclear energy innovation. In early 2026, a bipartisan group of governors from across New England issued a joint statement committing the region to explore advanced nuclear energy development.

2.2 Cost Responsibility: Data Centers Pay Their Way

An important fiscal protection for ratepayers is a clear framework to ensure large new loads to bear the full cost of the grid upgrades they necessitate. States can consider the following standards:

- Companies building or locating data centers should fund all new generation resources required to serve their load, whether by building dedicated generation or purchasing from additive (new) power plants — not existing supply that would otherwise serve existing customers.
- All new power delivery infrastructure (transformers, substations, transmission upgrades) required specifically to serve a data center should be paid by the data center developer, not socialized across the rate base.
- Where feasible, data center developers are encouraged to provide generation capacity that can serve the broader public during scarcity events, effectively acting as a grid reliability asset.
- Grid operators can be empowered to encourage backup generation disclosure and emergency dispatch agreements as a condition of large load interconnection.

Cost Responsibility: DO	Cost Responsibility: DON'T
Encourage new loads to fund additive generation	Spread transmission upgrade costs to existing ratepayers
Encourage firm fuel contracts for large industrial loads	Allow speculative interconnection queue positions to delay other projects
Encourage emergency dispatch agreements for backup generation	Let grid upgrade costs appear as undifferentiated rate increases

2.3 Grid-Enhancing Technologies: Unlocking Hidden Capacity

America's transmission system is underbuilt relative to projected demand — but building new transmission lines takes 10–15 years. GETs can increase the capacity of existing transmission infrastructure by 10–40% in 2–3 years at a fraction of the cost of new lines.[6]

Technology	How It Works	Capacity Gain
Dynamic Line Ratings (DLR)	Real-time thermal limits based on actual weather vs. static conservative ratings	**10–40% on targeted lines**[7]
Advanced Power Flow Control (APFC)	Electronically redirects power flows to prevent congestion and loop flows	**15–30% regional improvement**
Topology Optimization	Software-optimizes switching to reroute power around constraints	**5–20% congestion reduction**
High-Temp Low-Sag (HTLS) Reconductoring	Replaces existing wires with higher-capacity conductors on same towers	**Up to 2x line capacity**
Energy Storage as Transmission	Strategically sited storage that defers or avoids transmission upgrades	**Project-specific**

State Best Practice: New Jersey

New Jersey's 2023 transmission modernization docket directed PSE&G to deploy dynamic line ratings across its highest-congestion corridors, unlocking an estimated 800 MW of additional import capacity without new tower construction.

2.4 Strategic AI-Energy Hubs: Siting the Digital Economy

- Develop detailed GIS mapping of excess generation capacity, underutilized substations, and fiber/water co-location opportunities to guide data center siting decisions.
- Designate AI-Energy Enterprise Zones in areas with abundant power, proximity to transmission, skilled labor, and water availability — offering expedited permitting, property tax clarity, and workforce incentives.
- Partner with state community colleges and universities to build pipeline programs in power systems engineering, high-voltage operations, and data center infrastructure management.
- Co-locate data centers with dispatchable generation and thermal storage to minimize transmission losses and improve local grid resilience.

[6] DOE Office of Electricity and Idaho National Laboratory, "Smart Transmission Tools Modernize America's Power Grid," November 2025; U.S. DOE, "Grid-Enhancing Technologies Improve Existing Power Lines," 2023. DLR technology has demonstrated power transfer increases of 10–40% on targeted lines.

[7] Bipartisan Policy Center, "Unlocking the Potential of Grid Enhancing Technologies: Pathways to Widespread Adoption," 2024; Columbia University SIPA/CGEP, "Unlocking Transmission Efficiency through Grid Enhancement Solutions," April 2026.

2.5 Grid Innovation and Demand-Side Management

- Launch regulatory sandboxes that allow utilities and third parties to test AI-driven grid optimization, automated demand response, and virtual power plant aggregation without full rate case proceedings.
- Encourage behind-the-meter solutions where appropriate — microgrids, on-site generation, thermal energy storage — that reduce peak demand and improve resilience for critical facilities.
- Establish incentives for small and mid-size commercial customers to deploy smart load management technology, reducing peak demand costs across the system.
- Increase awareness of demand-side management by explicitly emphasizing the need for more price-responsive electricity demand, greater retail price and cost transparency, and enhanced customer ability to monitor and manage their energy consumption and costs. The current power system remains largely opaque, limiting consumers' awareness of price signals and their capacity to make informed decisions. Improving transparency and expanding customer control could significantly enhance both grid reliability and affordability, while representing a policy area that lies primarily within the jurisdiction of state governments.

2.6 Regional Planning: Generation, Transmission, and Gas-Electric Coordination

Generation, transmission, and gas pipeline networks are physically interconnected across state lines. Regional planning processes that pool generation resources, coordinate reserve margins, and jointly plan transmission investment outperform state-by-state solutions on both dimensions. The interstate character of natural gas pipeline infrastructure makes the case for regional thinking even stronger on the gas side, where a state-by-state approach to pipeline capacity and storage planning is largely unworkable given the interstate nature of the transportation and storage system.

- Participate actively in regional electric resource and transmission planning processes — including Regional Transmission Organization/Independent System Operator (RTO/ISO) capacity markets, integrated resource planning coordinated across state lines, and multistate transmission planning under FERC Order 1920 — rather than defaulting to unilateral, in-state-only solutions.
- Support regional planning for natural gas infrastructure, including pipeline capacity, storage, and interstate coordination mechanisms, recognizing that gas system reliability is inherently a multistate undertaking.
- Advance electric-gas coordination consistent with the National Petroleum Council's December 2025 report, Reliable Energy: Delivering on the Promise of Gas-Electric Coordination (NPC, Dec. 2025), including joint reliability planning between RTOs/ISOs and pipeline operators, aligned definitions of firm service across the two sectors, and improved information-sharing protocols ahead of and during peak demand events.
- Encourage state regulators and utility commissions to participate in cross-sector planning bodies and readiness forums — such as the natural gas readiness forums jointly administered by the American Gas Association and the National Association of Regulatory Utility Commissioners — to strengthen coordination between gas and electric systems.

PILLAR III: Energy Security

Energy security is national security. A grid that can be disrupted by weather events, cyber attacks, or foreign supply chain dependencies is a strategic vulnerability. States should work alongside the federal government to harden energy infrastructure, diversify supply chains, and project American energy leadership globally.

3.1 LNG and Global Export Capacity

American LNG is among the most powerful tools of energy diplomacy available to the United States. By displacing Russian gas in European markets and providing reliable supply to allies in Asia, U.S. LNG exports strengthen alliances and reduce adversary leverage — while supporting domestic production jobs.

- Expand LNG storage, pipeline interconnections, and terminal development — particularly in Gulf Coast, Mid-Atlantic, and potential Pacific export corridors — to maximize export capacity.
- Streamline LNG facility siting and permitting to maintain America's position as the world's leading LNG exporter.[8]
- Develop LNG bunkering infrastructure at major U.S. ports to enable the marine sector's energy transition while creating domestic demand for American LNG.
- Promote LNG as a strategic lever in U.S. energy diplomacy, enabling state and federal energy departments to offer supply commitments as geopolitical tools.

State Best Practice: Louisiana — LNG Export Hub

Louisiana hosts four of the nation's eight operating U.S. LNG export terminals and has streamlined state-level environmental and coastal permitting through a consolidated LNG Facilities Act, reducing state permit timelines from an average of 4.2 years to 18 months. The state has captured an estimated $42 billion in capital investment and 12,000 direct construction jobs from LNG infrastructure over the past decade.[9]

3.2 Critical Infrastructure Protection

- Designate energy generation, transmission, and compute infrastructure as strategic assets with enhanced physical and cyber security standards.
- Leverage State Emergency Support Function 12 (ESF-12) specialists with open lines to DHS, DOE, and CISA to facilitate rapid threat information sharing and incident response.
- Harden energy systems near defense installations and in regions identified by DOW as high-priority continuity-of-operations zones.
- Encourage critical infrastructure owners to maintain minimum fuel or energy storage reserves sufficient for 72-hour independent operation or longer. For energy emergencies

[8] U.S. EIA, "The United States remained the world's largest liquefied natural gas exporter in 2024," March 27, 2025 (exports of 11.9 Bcf/d in 2024).
[9] Louisiana Economic Development (LED), "Historic Investment: Woodside Energy Announces $17.5 Billion Final Investment Decision," April 28, 2025 (Louisiana has four operational LNG export terminals, more than any other state, accounting for 61% of national LNG exports).

lasting longer than 72 hours, states can explore on-site renewable generation, long-duration storage, and microgrid systems.

- Promote cybersecurity assessments for grid control systems, with particular attention to SCADA systems and operational technology connected to public networks.

Infrastructure Type	Primary Threat	State Action
Large Power Transformers	Physical attack, supply chain	Domestic procurement incentives
Grid Control Systems	Cyberattack, foreign components	SCADA audit program, air-gap protocols
Gas Pipeline Networks	Physical disruption, weather	Redundant routing, storage standards
LNG Import/Export Terminals	Weather, sabotage	Hardening standards, reserve margins

3.3 Workforce Development: Building the Energy Economy

Every energy technology — natural gas, wind, solar, nuclear, geothermal, grid modernization, LNG — requires a skilled workforce that America should cultivate now or risk ceding ground to competitors.

- Launch state energy workforce development programs through community colleges, technical schools, and apprenticeship programs tailored to specific regional energy industries.
- Create fast-track credential programs for high-voltage operations, power systems engineering, nuclear plant operations, geothermal drilling, and LNG facility management.
- Partner with industry associations to develop apprenticeship frameworks that produce job-ready graduates in 18–24 months.
- Align university research programs with state energy priorities: geothermal at western land-grant universities, nuclear engineering at Midwest flagship schools, grid modernization across engineering schools nationwide.

State Best Practice: Idaho — Nuclear Workforce Pipeline

Idaho National Laboratory's partnership with Idaho State University and College of Eastern Idaho has created a vertically integrated nuclear workforce pipeline: associate degrees in nuclear technology at the community college level, bachelor's and master's programs at ISU, and direct INL employment pathways. The program has produced 400+ nuclear-qualified graduates since 2021 and is being replicated by Tennessee, South Carolina, and Georgia around their respective nuclear assets.

3.4 Reshoring Manufacturing for Energy Independence

America's energy security is only as strong as its ability to manufacture the equipment the grid depends on. Today, the U.S. imports the majority of its large power transformers, a critical grid vulnerability. [10]

- Support domestic manufacturing of large power transformers, high-voltage cables, turbines, compressors, SMR components, and geothermal drilling equipment through targeted state investment tax credits and other market-based incentives.
- Develop regional energy manufacturing hubs that co-locate logistics infrastructure, energy supply, and fabrication capacity, reducing supply chain fragility.
- Partner with U.S. Department of Energy, U.S. Department of Commerce, and U.S. Department of War through the Defense Production Act and Industrial Base programs to secure critical minerals — lithium, cobalt, rare earths — and rebuild U.S.-based supply chains for gas, nuclear, and geothermal technologies.
- Prioritize domestic content preferences for state-funded grid infrastructure projects, consistent with Buy American principles and WTO obligations.

State Best Practice: Ohio — Grid Equipment Manufacturing Hub

Ohio's 2023 Advanced Energy Manufacturing Act created a $500M state revolving fund for manufacturers of grid-critical equipment, paired with expedited permitting for qualifying manufacturing facilities. Four large power transformer manufacturers have announced Ohio facilities since enactment, representing an estimated 3,200 direct manufacturing jobs and reducing U.S. transformer import dependency by 8%.

Conclusion - America's Energy Future Starts at the State Level

America stands on the threshold of a new era of energy abundance — one where reliable, affordable power fuels a resurgence of American manufacturing, innovation, and opportunity. The states that embrace this moment will help write the next chapter of the nation's economic story, becoming the places where the industries of the future choose to grow, invest, and put down roots.

This roadmap offers a shared vision, grounded in the practical, bipartisan cooperation that has long defined American energy leadership. By working together across state lines, governors and legislators who lead on energy will define their states' economic trajectories for the next generation.

[10] National Infrastructure Advisory Council (NIAC), “Addressing the Critical Shortage of Power Transformers to Ensure Reliability of the U.S. Grid,” June 2024; Breaking Defense, “Securing America’s Grid Through Transformers and Workforce Resilience,” November 2025 (U.S. imports roughly 80% of large power transformers). Presidential Determination Pursuant to Section 303 of the Defense Production Act, April 2026.

Appendix: Policy References

Key Federal Frameworks for State Alignment

Federal Authority	State Alignment Opportunity
Defense Production Act (Title III)	Co-invest in grid equipment manufacturing; access DPA authorities for critical mineral supply chains.
FERC Order 1920 (Long-Range Transmission)	Participate actively in regional transmission planning; designate state liaisons to RTOs.
NRC Part 53 (Advanced Nuclear Licensing)	Enact state coordination legislation; pre-position workforce and siting infrastructure.
DOE Loan Programs Office (Title XVII)	Connect state manufacturers and utilities with DOE loan guarantees for demonstration projects.
Clean Water Act §401 Reform	Implement streamlined state certification timelines; resist litigation-driven expansions of §401 scope.

State Energy Policy Innovation: 50-State Scorecard Categories

Governors and legislators should benchmark their states against peers in the following policy categories, which represent the core action areas of this roadmap:

Policy Category	Best Practice State	Key Metric
Data Center Cost Responsibility Framework	Virginia	Additive generation framework
SMR / Advanced Nuclear Enabling Legislation	Wyoming, Tennessee	Licensing coordination act
Geothermal Development Modernization	Wyoming, Nevada	Co-use leasing framework
Utilize AI Tools to Streamline Permitting	Oklahoma	Time savings and cost reduction
Permit Deadline Guarantee	Pennsylvania, Delaware	180/365-day deadlines
Grid-Enhancing Technology Deployment	New Jersey, MISO states	GET evaluation standard
LNG Infrastructure & Export	Louisiana	Permit timeline, jobs created
Energy Workforce Development	Idaho, Tennessee	Graduates per year
Grid Equipment Manufacturing	Ohio	Domestic content % of procurements
Litigation Reform / Permit Finality	West Virginia	Challenge timeline caps

Glossary of Key Terms

Term	Definition
Dispatchable Generation	Generation that can be called on at any time, regardless of weather — natural gas, nuclear, geothermal, hydro.
Grid-Enhancing Technologies (GETs)	Software and hardware solutions that increase capacity or utilization of existing transmission infrastructure.
Small Modular Reactor (SMR)	Nuclear reactors of less than 300 MWe designed for factory fabrication and modular deployment.
Enhanced Geothermal Systems (EGS)	Geothermal energy systems that use directional drilling to access heat resources outside naturally occurring geothermal fields.
Permit-by-Rule	A regulatory framework in which a project meeting defined criteria is deemed permitted upon notification, without individual review.
Firm Fuel Contract	A legally binding agreement guaranteeing delivery of fuel at specified volumes regardless of market conditions.
Additive Generation	New generation capacity that increases total supply, as opposed to capacity that merely shifts load from existing plants.
RTO/ISO	Regional Transmission Organization / Independent System Operator — entities that manage grid reliability across multiple states.
Interconnection Queue	The process by which new generation and load projects apply for and receive permission to connect to the transmission grid.