CTA™ Consumer Technology Association
Producer of CES®

CTA's Policy for Powering America's Innovation Future

Background

The next wave of American innovation, including artificial intelligence (AI), quantum computing, electric mobility and advanced manufacturing, depends on one critical resource: energy. Every technological breakthrough has required dependable, sustainable, and scalable energy to thrive. Reliable, scalable, and innovative energy systems are now a core national priority. Without decisive action, the U.S. risks falling behind as the global innovation leader.

Policy Position

The Consumer Technology Association (CTA) supports a future driven energy strategy designed to accelerate innovation, power AI growth and strengthen American global technology leadership. This requires modernizing infrastructure, streamlining federal permitting, and embracing a diversified energy mix capable of powering high performance computing at scale, along with other evolving energy needs. By investing in grid resilience, ensuring equitable access to energy, and leveraging technology itself for energy efficiency, policymakers can secure America's position as the world's innovation – and ultimately AI - powerhouse. These actions together form the foundation of a smarter, diverse, and more competitive energy future. Congress must enable innovation while ensuring long-term energy security. Energy dominance fuels innovation dominance. America should lead both.

Accelerate Federal Permitting for Energy Infrastructure

Complex cumbersome permitting slows American innovation. Energy projects, including data centers, transmission lines, and grid modernization face long delays. These bottlenecks impede the scale and speed of infrastructure deployment, slowing down innovation.

CTA supports reforming NEPA to accelerate project timelines, enhance interagency coordination, and set firm deadlines. A streamlined process will reduce delays and development costs while unleashing America's ability to lead in next-generation technologies. States should also coordinate interstate energy siting through compacts backed by federal preemption, ensuring efficient development of vital energy corridors.

Modernizing the Electric Grid

The U.S. electric grid was not built for the energy and computational loads of today's technology driven world. Current demands such as AI data centers, edge computing, and millions of electric vehicle (EV) chargers require a smarter, more adaptive system. The grid must evolve into a dynamic digital network: intelligent, decentralized, and software-optimized to support AI workloads and maintain U.S. leadership in innovation. Modernizing the grid by reinforcing transmission lines, expanding connectivity, and deploying AI-driven management tools is essential to strengthen resilience and unlock economic growth. Interoperability across state lines will also be key, with federal frameworks that fast-track transmission lines to connect energy-rich regions to demand-heavy technology hubs.

Grid resilience and expansion is foundational to maintaining America's leadership in technology. The Department of Energy (DOE) and the National Renewable Energy Laboratory (NREL) have identified AI as a key enabler of grid modernization: enhancing real-time operations, forecasting demand, improving reliability, and integrating renewable energy sources seamlessly.

Embrace an All-of-the-Above Energy Strategy

Technological breakthroughs and AI's growth require abundant, reliable energy. A balanced all-of-the-above approach strengthens grid reliability, reduces systemic risk, and ensures energy availability across regions and use cases. To meet future electricity needs, the U.S. should reduce barriers to stable energy sources for baseload power, including small modular reactors (SMR), geothermal, hydrogen and other next generation energy technologies. We must value our current power supplies by not prematurely transitioning current energy supplies while continuing to embrace the energy infrastructure of the future. Expanding capacity and upgrading infrastructure will ensure the U.S. energy system can power the data-driven economy of the future. CTA supports Congressional action encouraging private sector investment in energy innovation and advanced infrastructure.

Ensure Fair and Scalable Energy Pricing for the Future

Energy policy should reward efficiency and innovation, not penalize growth. Energy costs and utility rate setting should not discriminate against specific customers or companies. Pricing should reflect a scalable, usage-based approach that accounts for demand intensity, efficiency measures, and grid contributions. A fair pricing framework encourages responsible energy use, supports smaller innovators, and ensures that new technology deployment, including AI development, is not hindered by disproportionate cost burdens. Discriminatory or arbitrary rates targeting specific users would chill investment and slow progress. Grid modernization costs should be balanced to promote efficient investment, prevent cross-subsidization, and support reliable affordable power for all users.

Promote Technology as an Energy Efficiency Driver

Technology must drive a more energy efficient future. Large scale infrastructure should deploy AI systems that optimize performance and resilience. AI improves grid resilience through load balancing, integration of diverse sources, demand forecasting, and improving cooling management. Predictive maintenance allows AI to detect infrastructure issues before failures occur. Real-time monitoring enables AI to analyze data from smart meters, IoT devices, and sensors to reduce waste and improve performance.

AI strengthens demand forecasting and management by predicting consumption and price fluctuations, helping businesses and utilities shift usage to off-peak hours and ease load pressures. When paired with ENERGY STAR equipment, AI-driven controls amplify savings by ensuring that devices run at optimal times.

Smart home technologies can help consumers understand and manage their usage, from blinds to thermostats. ENERGY STAR already saves households between $300 to $600 annually by making energy efficient products easier to identify and purchase. Technology delivers real savings when consumers need it most.

Transportation technologies also reduce waste. Ride-sharing and car-sharing services cut total vehicles on the road. When paired with energy-efficient technologies like EVs, those savings multiply. AI optimizes traffic flows, routing, safety, and congestion, reducing fuel consumption. Autonomous vehicles cut energy costs in manufacturing and hospital operations, while improving energy efficiency per mile.

Strengthen Domestic Energy Tech Supply Chains Without Tariffs

Strong technology deployment requires dependable access to components like semiconductors, batteries, heat pumps, transformers, and advanced materials. Policymakers should pursue smart, market-based approaches to strengthen domestic manufacturing and workforce development. Long-term leadership depends on reliable, diversified supply chains for computing and energy.

Conclusion

America's innovation edge depends on a robust, expanded, flexible, and future-ready energy system. A forward-looking, inclusive, and resilient energy strategy that modernizes infrastructure, streamlines permitting, embraces diverse energy sources, and leverages AI for efficiency will empower the U.S. to meet the demands of tomorrow's technologies. The path is clear: power innovation, and America will lead.