

Congress of the United States
Washington, DC 20515

November 14th, 2024

The Honorable Jennifer Granholm
Secretary
Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Granholm,

As your department and the Office of Cybersecurity, Energy Security, and Emergency Response (CESER) continues development of the “Potential Benefits and Risks of Artificial Intelligence (AI) for Critical Energy Infrastructure” report as outlined by Executive Order 14110, we urge you to give strong consideration to a number of the complexities in the energy sector that underpin the necessary development of AI. In order for the United States to be positioned for global leadership in next generation AI deployment, our critical energy infrastructure needs to serve as a secure foundation that can be leveraged for continued research and development. Without the necessary foundational infrastructure that can support AI models, we risk forfeiting leadership to authoritarian states like China. In developing the final CESER report, we strongly urge your office to address the infrastructure needs of AI systems while recognizing the threats posed by other nations and the implications of losing the global race in AI development. AI models hold enormous potential for our nation’s energy system and, as a result, the United States economy writ large. AI-driven operational improvements to American energy production, grid reliability, and energy security can enable a more reliable and affordable energy system while providing a crucial foundation for economic growth to lift up communities across the nation. We are already beginning to see the potential that AI holds to harden our nation’s electric grid against attacks, protect reliability from supply disruptions, and advance predictive models for capacity needs that can improve operational efficiencies of electricity distribution.

Regional Transmission Operators and Independent System Operators have already begun planning to implement AI-based solutions to more effectively automate real-time demand response and long-term reliability planning to ease ongoing constraints on our electric grid. For our nation’s abundant oil and natural gas resources, industry efforts are being developed to optimize seismic data to identify oil and gas resources and leverage equipment to more efficiently extract higher amounts of fuel at a lower cost. Importantly, AI is playing a key role in efforts to develop advanced nuclear fusion technologies that can revolutionize the power generation sector and provide zero-emission baseload resources that can fuel next generation job-creating industries. Machine learning methods being developed in conjunction with federal

partners can help harness the power of fusion energy by responding in milliseconds to instabilities within fusion reactions to maintain constant power generation.

However, our federal government must meet the challenges posed by adversarial actions being taken by the Chinese Communist Party to attack our critical infrastructure and undermine our national security and economic interests. Ongoing efforts by the Chinese Communist Party to fuel AI development under the auspices of a military-style, authoritarian framework represents a threat to the United States and our allies abroad. Allowing the CCP to lead in AI development places an authoritarian regime in the driver's seat of writing the rules for the next generation economy. Experts assessing Chinese development of AI have concluded that the CCP leverages their surveillance state to gain unfettered access to the information of their public and to train AI tools on this massive trove of data, as well as illicitly collecting information on United States citizens. The CCP is focusing on surveilling America and our allies, manipulating public opinion, and attacking critical infrastructure.

Creating the necessary infrastructure environment to develop the next generation of AI models is uniquely reliant on access to affordable and reliable electricity. The CCP is pouring resources into building the necessary energy production apparatus to meet their own electricity demands from energy-intensive AI data centers. It continues to be reported that China remains on pace to construct the equivalent of two new coal plants per week. Their command-and-control style of governance allows their state to quickly construct the baseload generation and distribution infrastructure necessary to support the power needs of data centers. As you develop a final report, we strongly urge your department to work with your peer agencies to address the constraints on our electric grid and ensure continued US leadership in AI development.

Comparatively, our electric grid is already experiencing supply constraints that could hinder future opportunities for AI development. It is projected that AI data centers alone will necessitate an additional 50 TWh of electricity generation over the next two years and could consume as much as 20 percent of our nation's electricity production in a decade. Unfortunately, the operators tasked with enforcing reliability standards for our nation's electric grid are raising red alarms about the rate of premature retirements of wholesale power generation as a result of aggressive regulatory actions taken by federal agencies. We are already witnessing the halting of new AI data center additions to the electric grid in states such as Virginia due to a lack of interconnection availability.

Because of China's authoritarian focus on military frameworks for AI development, the U.S. is uniquely positioned to leverage our free-market and democratic ideals for the successful commercialization of AI models that will benefit all Americans and incentivize private investment to fuel American leadership. It is critical to avoid regulatory decisions that can unnecessarily hamper this nascent AI development. As you seek to design a framework of

principles around the utilization of AI in the context of energy security, we urge your department to leverage the resources and tools already in place to combat cybersecurity attacks and data protection while fostering innovation. In order to effectuate a productive partnership between the energy industry and federal departments, your department should leverage industry expertise and private partners that are on the front lines of deploying AI.

Our nation needs to affirm our leadership in AI development to prevent an authoritarian state from writing the rules for the next generation economy. Thank you for your attention to this important matter.

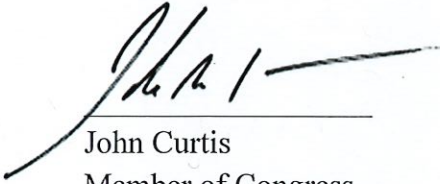
Sincerely,



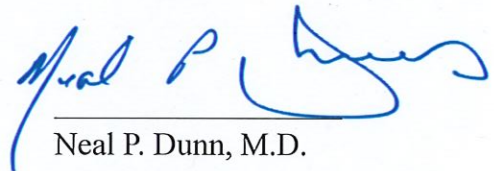
Brett Guthrie
Member of Congress



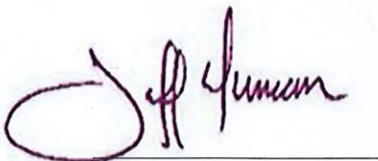
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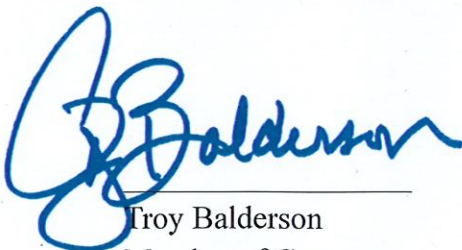
Neal P. Dunn, M.D.
Member of Congress



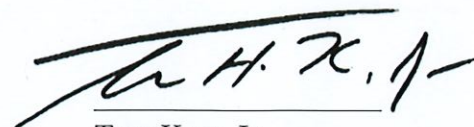
Jeff Duncan
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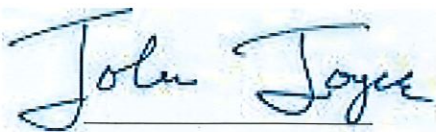
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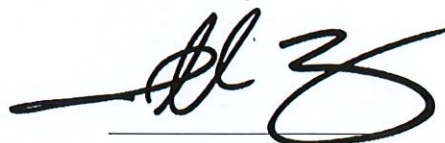
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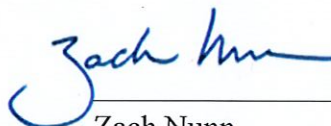
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