



October 25th, 2022

The Honorable Jennifer Granholm  
Secretary of Energy  
U.S. Department of Energy  
1000 Independence Ave., Southwest  
Washington, D.C. 20585

Dear Secretary Granholm:

Thank you and your Energy Advisory Board for allowing our Task Force to provide comment we feel could help secure our nation's electrical grid.

The Task Force on National and Homeland Security is an official Congressional Advisory Board which was established by the Congressional EMP Caucus in 2011 to act as a surrogate for the bipartisan Congressional Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack.

The nation's electrical power grid is the most essential component of our critical infrastructure. There are a growing number of looming threats including, cyberattack, Directed Energy Weapons (DEW), physical sabotage, massive geomagnetic solar storms, a High Altitude EMP Weapon, a non-nuclear electromagnetic device EMP, or any other threat that could cause a widespread shutdown of the US electrical power grid.

We recommend addressing four important actions to help promote and secure our energy future:

- 1) Executive Order 13865 "Coordinating National Resilience to Electromagnetic Pulses" issued on March 26, 2019, laid out a strategic plan for protection. Unfortunately, a Government Accountability Office (GAO) Report issued in February of 2018 stated, "...We also found that while Department of Homeland Security (DHS) components had independently conducted some efforts to assess electromagnetic risks, DHS had not fully leveraged opportunities to collect key risk inputs—threat, vulnerability, and consequence information—to inform comprehensive risk assessments of electromagnetic events." The DOE must work more closely with the DHS to move our nation to be more protected.
- 2) We encourage that the DOE through its network of national labs clarify terms that we use often in discussions involving secured energy systems and components. Many are openly discussed, but not fully understood. There seems to be some confusion on the terms, "All Hazards Protected," "Hardened," "Resilient," "Sustainable," and other terms related to grid security. Clear and present definitions of the many threats presented in the US Congressional Commission Reports must be distributed, well understood, and clearly outlined on how these existential threats could result in potentially billions of dollars of damages to generation, transmission, and distribution of power systems that could cause death and injury to the American public. Ironically, many of our largest threats to our



critical electrical infrastructure, including a nuclear High Altitude Electromagnetic Pulse Weapon (HEMP) attack, Non-Nuclear Electromagnetic Pulse (NNEMP) devices, and massive Geomagnetic Disturbances (GMD solar storms) are often not spelled out or even understood or presented. Failure to clarify these terms hurts our ability to seek solutions and understand the associated risks.

- 3) Extra High Voltage Transformers (EHV) are the backbone of the nation's electrical grid security. Without them the US National Electrical Power Grid fails. The nation has over 2,400 power transformers located around the country. They are a logistical nightmare to procure and move. Recently, our Task Force broke the national story of a potential security breach. A foreign made unit, destined for Colorado, was suspected of having potentially dangerous cyber backdoors which, to our understanding, could compromise power grid security if malicious intentions were deployed. Many concerned individuals filed Freedom of Information Act (FOIAs) from our task force at the time, that still have not been released to the public. Every day that passes with information withheld, causes grave concerns that these issues will continue to occur. Public policies using this approach are unwise, ill advised, and in fact, possibly illegal in the State of Colorado. We ask the Secretary of Energy to immediately sunlit and resolve these FOIA issues, by releasing these FOIAs in the interest of national public safety and confidence.
- 4) Finally, we ask that Secretary of Energy immediately form an urgent DOE Task Force composed of select Regional Transmission Organizations (RTOs), State Public Utility Commissioners (PUCs), Power Utilities and event related experts, such as our organization, to seek pilot projects on how to strategize and incentivize power utilities to resolve security concerns. Working together, engineers and PUCs can seek to deploy proven and available technological solutions needed to protect the power grid. Local grass roots and grid security projects are sprinkled around the nation that highlight "All Hazards" protected solutions that are scalable, reproducible, and immediate. Projects such as the Colorado Critical Infrastructure Resiliency Initiative (CCIRI), the Air Force's Domestic Electromagnetic Spectrum Operations (DEMSO) in San Antonio, Texas, and the Lake Wylie Project involving North and South Carolina/Duke Energy need critical and immediate attention and funding to move this nation into a more secured and resilient energy posture.

Regards,

Glenn Rhoades,  
Director, National Operations,  
EMP Task Force on National and Homeland Security