September 21, 2023

Senator Joe Manchin III
Chairman
Senate Energy & Natural Resources Committee

Senator John Barrasso
Ranking Member
Senate Energy & Natural Resources Committee

Representative Cathy McMorris Rodgers
Chairwoman
House Energy & Commerce Committee

Representative Frank Pallone, Jr.
Ranking Member
House Energy & Commerce Committee

Dear Members of Congress,

On Tuesday, the Congressional Grid Innovation Caucus hosted the "Grid Innovation Expo" on Capitol Hill to showcase new, innovative grid technologies to Members of Congress and staff. As manufacturers, customers, and users of these technologies, we write today urging Congress to consider measures that modernize the grid, bolster reliability and resiliency, and reduce congestion through the use of readily available solutions as you consider permitting reform and other energy policies.

These proven, advanced grid technologies and systems can cut energy costs and keep the lights on for all Americans in the face of outages caused by extreme weather-related events, physical attacks, or cyber-attacks.

As our nation's grid continues to endure more severe and frequent disruptions, there is an evident need to strengthen our energy infrastructure. The Department of Energy currently estimates that power outages cost the U.S. economy $150 billion annually, and this figure does not account for the human toll from these events[1]. Studies also indicate that our grid will face heightened instability and strain from extreme weather and unprecedented investments in electric vehicles, decarbonization measures, and other forms of electrification. Mitigating this pressure on the grid can be achieved through the deployment of smart grid technologies, an increased focus on demand-side solutions, and the effective utilization of aggregated distributed resources, among other solutions. These methods and technologies will enable a more intelligent, communicative, and cost-effective energy landscape.

In 2010, China's innovation and advanced-industry capabilities were approximately 58% of U.S. capabilities on a proportional basis and 78% of U.S. output in absolute terms. However, China has made strides over the past decade, putting it on a path to overtake the U.S. in innovation and advanced-industry output[2].

Given the critical role of the power sector and grid operations to national security, the U.S. must continue to focus its efforts on innovation in this space and lead by example with the deployment of cutting-edge solutions. These technologies provide operators with unmatched visibility to assess grid stability and the capacity to make data-driven, real-time decisions that reduce congestion and enhance flexibility. Further, smart controllers and advanced software platforms enable the cumulative benefits of distributed

[1] U.S. Department of Energy
[2] Information Technology & Innovation Foundation (ITIF)

resources and energy storage to be leveraged by storing excess capacity and deploying excess energy back to the grid during peak demand.

Therefore, digitization saves consumers money on their electricity bills and informs them with usage data while utilities benefit from increased integration of renewable energy assets and lower operational costs. These smart technologies and innovative software solutions enable the most significant impacts from decentralized and diverse energy assets by maximizing energy optimization, cost savings, and grid stability.

Effective grid modernization requires a multi-pronged approach that capitalizes on the deployment of next-generation technologies for a smarter, more resilient, and more secure grid. As such, the undersigned organizations believe that modernizing and securing the country's electrical grid should be based on the following principles:

- *Innovation* is the tip of the spear for resiliency and reliability while enhancing the country's global economic competitiveness. Innovative products, technologies, and solutions are essential to the grid of the future.

- *Permitting* reform and certainty are badly needed in order to deploy innovative solutions to improve grid reliability and resiliency.

- *Collaboration* between a broad network of stakeholders is required to coordinate planning and execution of complex efforts to update and protect the country's electrical systems.

- *Investment* in research and development, deployment, management, and maintenance is continually needed to respond to changing dynamics, increasing physical, cyber, and geopolitical threats, and to unlock the innovative solutions of tomorrow.

We are eager to work with Congress, the Administration, and other stakeholders to develop priorities, recommendations, and policy proposals based on these principles to rapidly modernize and secure the nation's critical infrastructure, including the electric grid.

In the coming weeks, this coalition will deliver specific policies based on the above principles that can help advance forward-looking grid solutions. We look forward to discussing them with you during a meeting at your earliest convenience.

Thank you for your attention to this critical matter and we appreciate your leadership in safeguarding the operations of our grid and urge your ongoing commitment to the exploration of innovative solutions.

Sincerely,

National Electrical Manufacturers Association
National Association of State Energy Officials
GridWise Alliance
Digital Climate Alliance
Business Council for Sustainable Energy

CC: Senate Energy & Natural Resources Committee, Energy Subcommittee
House Energy & Commerce Committee, Energy, Climate, and Grid Security Subcommittee