



## **Comments of Protect Our Power for the Department of Energy's May 13, 2016, Public Workshop on New Opportunities and Challenges in U.S. Energy Security**

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Protect Our Power submits these public comments in connection with the Department of Energy's May 13, 2016, workshop on New Opportunities and Challenges in U.S. Energy Security. The security and reliability of the electric grid is a matter of vital importance to national security and the health and well-being of every American. Protect our Power commends the Department for arranging this event and provides these comments to further highlight the importance of an active approach to developing and implementing effective solutions to this critical issue.

### **Background on Protect Our Power**

Protect Our Power is a public awareness campaign of Save Our Grid, a not-for-profit 501(c)(4) organization with the sole mission of ensuring that government, industry and other key stakeholders take the steps necessary to improve the security and resiliency of the nation's power grid in the wake of emerging threats, including natural threats, such as hurricanes and solar storms, and deliberate attacks such as cyber and physical attacks as well as nuclear electromagnetic pulse (EMP) attacks. Protect Our Power advocates for practical, consensus-driven solutions that will meaningfully address the vulnerability of the electric power grid. To that end, Protect Our Power is convening stakeholders to develop and support initiatives—whether legislative, regulatory, policy, or industry-driven—that effectively respond to 21st Century threats to the security of the electric grid.

### **Comments**

At a time when the nation's dependency on electricity is undisputed, there is an emerging consensus among the electric industry, power generation and transmission regulators, the defense and national security community, and other energy and national security experts that the electric grid is vulnerable to extended outages caused by intentional attacks as well as natural events. Such extended outages could be caused by a sophisticated attack by a terrorist organization or foreign nation using, for example, an EMP device or advanced cyber warfare.

The recent cyber attack against the Ukrainian power grid and the Department of Justice's recently-unsealed indictment against Iranian hackers alleged to have targeted a dam in New York State highlight this emerging risk. The electric grid is also vulnerable to more traditional risks of physical attacks. This risk was highlighted by the 2013 attack on PG&E's Metcalf Transmission Substation in which gunmen damaged 17 transformers and a blackout was only narrowly averted, and by a Federal Energy Regulatory Commission (FERC) report leaked to the Wall Street Journal in 2014 finding that coordinated attacks on discrete substations could cause the entire U.S. power grid to collapse for an extended period of time. Natural disasters also remain a threat to the security of the grid, as evidenced, for example, by the extensive outages caused by SuperStorm Sandy in 2012 and Hurricane Katrina in 2005, and the 1989 geomagnetic storm (i.e., space weather) which caused a large blackout of Quebec's electric grid.

While the attacks and natural events affecting the U.S. electric grid have not caused extended outages to date, there is a widespread view that extended outages of large portions of the grid are an emerging catastrophic threat, particularly given the known recent increase in attempted attacks against the grid, increased sophistication of terrorist organizations, and advances in cyber warfare, among other things. A widespread, extended outage of



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the U.S. electric grid, which could be caused by an EMP attack, space weather, or a sophisticated physical or cyber attack on grid infrastructure, would inevitably cause extensive loss of life and severe, if not irreparable, harm to the nation as a whole. The economic implications are incalculable.

Protect Our Power believes that the security and resiliency of the electric grid should be at the forefront of the Department's efforts to foster the development of a 21st Century electric grid. Protect Our Power submits that grid security and resiliency cannot be decoupled from other issues and advances in energy policy, such as the changing, lower-carbon generation resource mix, increases in the amount of renewable generation and decentralized distributed generation, and increased use of electricity as a transportation fuel. Unfortunately, changes and advances to the nature and sophistication of energy resources and technology have been accompanied by changes and advances in the threats and risks to the grid. Therefore, it is essential that the Department facilitate forward-thinking, effective solutions that not only modernize the grid, but harden it against 21st Century threats with potentially catastrophic consequences. Protect Our Power believes that the issue of grid security necessitates an effective, collaborative public-private partnership that benefits from the unique insights and viewpoints of diverse stakeholders, ranging from first responders and the medical community to the military and police in addition to American industry, small business and the diverse elements of the power industry itself.

Protect Our Power also urges the Department to make electric grid security and resiliency a core component of the FAST Act study. Protect Our Power believes the study should address emerging risks to grid security, and propose concrete strategies and/or processes to facilitate hardening the grid and making it resilient against 21st Century threats, including necessary outreach and collaboration with industry and regulatory authorities. In addressing these risks, strategies and processes, Protect Our Power believes the Department should also address related questions of cost (i.e., what is a reasonable cost estimate to significantly improve the resiliency of the grid?), timeframe (i.e., considering the importance of the challenge, what is a reasonable timeframe in which the resiliency of the grid can be significantly improved?), regulations (i.e., how do such risks, strategies and processes fit within the federal government and the states' respective jurisdictions over the grid?), and funding (i.e., should investments in grid resiliency be funded by the federal government, rate increases, or a combination?).

Protect Our Power again commends the Department for arranging this workshop and providing the opportunity to submit these comments

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