

## OPENING STATEMENT

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Subcommittee on Oversight  
Committee on Science, Space & Technology

“Examining Vulnerabilities in America’s Power Supply”  
Joint Subcommittee Hearing

September 10, 2015

Thank you Chairmen Loudermilk and Weber for holding this important hearing today.

In September 1882 Thomas Edison flipped a switch that enabled the electricity generated from the Pearl Street power plant in lower Manhattan to power on 400 light bulbs for 82 customers living in a one-quarter square mile radius of each other, including 52 light bulbs at the *New York Times*. The electric grid was born and blossomed quickly, spreading across the country and around the world. Today the U.S. power grid is an intricate labyrinth of 200,000 miles of transmission lines, thousands of generating stations and hundreds of high voltage transformers.

This complex and interconnected power system fuels our national and global economy. It plays a key role in our national security. It enables the delivery of critical healthcare services. It improves our lifestyles in a multitude of ways, and provides emergency services that save lives. When the electric grid goes down today it is more than a passing inconvenience. The elderly and very young alike may die from a lack of access to critical medical services or availability of adequate heating or air conditioning. Police, fire and emergency response capabilities may be hindered. Businesses close. Grocery stores and gas stations may cease to open or operate. Hospitals may be unable to fully function effectively.

At the same time we have witnessed more and more severe weather events in the past few years that have disabled the grid, knocking down transmission lines and utility poles, flooding critical equipment and leaving customers without access to this critically important service for days on end. Reliant on the telecommunications infrastructure to operate and computer control systems to function the power grid has also become vulnerable to malicious cyber threats. Recent physical attacks on electrical power stations have highlighted the need to harden the grid against these kinds of threats. A successful, coordinated cyber and physical assault against key portions of the grid could leave cities or regions without power for long stretches of time. Geomagnetic Disturbances (GMDs), producing solar flares, can also disable portions of the grid and interfere with global navigation and communication systems. Electromagnetic Pulses (EMPs) intentionally produced by a weapon is one of the least likely, but most serious, threats to the power grid since its successful use would destroy critical electronic components that are vital for the grid’s continued performance and could be difficult to replace quickly.

Protecting the power grid against all of these variables and potential vulnerabilities is not a problem that can be, or should be, faced by the utility industry alone. The government has a key role to play in ensuring that our shared reliance on electricity is as resilient as possible. The

electric industry and federal government also need to have detailed plans for recovery operations if, or when, the electrical grid is degraded by natural disasters or intentionally disabled by malicious actors.

How we confront these multiple vulnerabilities and emerging threats is not straight-forward. There is no silver bullet to eradicating these threats. There is no cure-all for ensuring that the electric grid will never go down. It will - at times - as we have seen most recently due to the power of natural storms and the fragility of our aging electrical infrastructure. Ensuring that we are prepared to recover from these potential events in a timely manner and able to restore power to critical facilities, such as hospitals, quickly demands our collective attention, from industry, the Administration and Congress.

Because I believe it is critically important that we are as prepared as possible to effectively deal with these potential incidents when they occur I asked the Government Accountability Office (GAO) to investigate these issues in a letter I sent to GAO yesterday. I would welcome other Members who are interested – on both sides of the aisle – to join me in this request. This is an important, non-partisan issue, and I am glad we are holding this hearing today.

I look forward to learning more about these important issues from our witnesses and hearing about any recommended actions they have to help keep the lights on as long as possible and get them back on as quickly as possible should they go out – regardless of the reason why.

I yield back.