

**Opening Statement of the Honorable Ed Whitfield**  
**Subcommittee on Energy and Power**  
**Hearing on “21st Century Electricity Challenge: Ensuring a Secure, Reliable, and Modern**  
**Electricity System”**  
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*(As Prepared for Delivery)*

Ensuring a secure, reliable, and affordable electricity system that meets the needs of the American people may very well be the most important task within this subcommittee’s jurisdiction. Indeed, the National Academy of Engineering cited electrification as the greatest achievement affecting the quality of life in the 20th century. This morning’s hearing is focused on improving our electricity system in the 21st century.

The U.S. was the first nation to electrify, and our system of generation, transmission, distribution and related communications remains the best in the world. Nonetheless, new challenges are emerging, as are opportunities to modernize and improve the electric grid.

The challenges are significant – much of our grid is outdated, coal-fired generation facilities are shutting down at an alarming rate, reserve margins are inadequate in several regions, intermittent and remote renewable capacity is coming online, and cyber threats pose a growing concern.

But there are opportunities as well. Utilities plan to invest more than \$60 billion dollars in transmission infrastructure through 2024 to modernize the nation’s electric grid, while abundant fuel resources and advanced generation, storage, and distribution management technologies can help modernize and diversify the nation’s power portfolio.

Further, “big data” energy analytics and new information technologies offer a diverse suite of novel products and services that can identify and mitigate inefficiencies in the electricity supply chain while helping utilities meet changing consumer expectations.

The availability of advanced, user-friendly communications technologies has disrupted the traditional business model for nearly every consumer sector from home entertainment to taxis. The electricity sector is witnessing a similar shift. New innovative products and technologies in the electricity space hold the potential to empower consumers to make smarter decisions in energy usage, while providing new, more efficient and responsive ways to generate and distribute power. As consumer expectations and technology evolve, new business and regulatory models within the electricity sector also may be necessary to better reflect changing market conditions.

A more modern and resilient grid will be better positioned to withstand and minimize any impacts resulting from severe weather, cyber-attacks or any other threats to the grid. However, as the grid becomes increasingly reliant on information technology and digital communications devices, thousands of potential new grid access points are being created. While encouraging technology and innovation in the electricity sector should be a priority, policies must ensure that new grid-related products do not leave the grid more exposed or compromise customer information and privacy.

Given the shift taking place in the electricity sector, it is paramount that policymakers and regulators at the federal, state and local level carefully weigh policies that can adapt to these new challenges and opportunities to build a market-driven, modern and flexible system while ensuring the continued safe, reliable and affordable delivery of electricity to consumers.

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