

# **Tom Kuhn Remarks**

## **United States Energy Association**

### **11<sup>th</sup> Annual State of the Energy Industry Forum**

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#### **Remarks:**

Good afternoon. Thank you, Barry, for that kind introduction. I always enjoy participating in this forum. It is a good opportunity to hear what others across the energy sector are working on and—most important—to discuss how we can all continue partnering together on a broad range of energy issues.

Unlike last year, where my role at this event was on a panel—with my fellow panelists at the table helping to keep the length of my remarks in check—you are now faced with just me for the next 20 minutes. And, as my EEI colleagues will tell you, I get very excited about all of the innovative things happening in the electric power industry, and I like talking about them.

But, I am reminded of what someone once said—*make sure you have finished speaking before your audience has finished listening*. So, with that in mind, I will keep my remarks brief and hopefully finish talking before you finish listening and then we can have some discussion through Q&A.

It is truly a great time to be part of the electric power industry. Our industry is adapting, changing, and transforming to meet our customers' modern lifestyles. Every facet of the economy is experiencing a major shift in how it works, how it communicates, and how it serves its customers—and our industry is making this possible.

One statistic that I love to share—The typical U.S. home now has, on average, at least 25 electronic products—99 percent of which must be plugged in or recharged. And if you saw

any of the reports out of the recent Consumer Electronics Show, you will know that even more electric-powered technologies are on the horizon as we continue to “connect all things.”

Yet, electricity remains a great value. Last year for every dollar that American consumers spent on goods and services, they spent less than a penny and a half of it on electricity. In fact, we now spend four times more on electric apps than on electricity, which is truly astounding.

EEI’s winter Board meeting was held earlier this month, and the most resounding theme that came across from our member company CEOs is that our industry has a powerful story to tell. Electricity is safe, reliable, affordable, and increasingly clean. But rarely do consumers stop to consider that electricity powers their everyday lives, drives our economy, and makes innovation possible. It is really a catch-22: consumers don’t stop to think about electricity until they don’t have it. That’s because electricity is so reliable and powers so much.

The grid is a dynamic, multi-dimensional plug-and-play platform—itsself an amazing innovation—that powers innovation, and we need to constantly remind our customers of the value that it provides.

As you aware, “change” is the buzzword in our industry today. I always say that there are three key drivers to change—shifts in public policy, new technologies, and evolving customer and market expectations. How our industry adapts to and leads these changes, while continuing to provide value to our customers, will define our long-term success.

As far as policy and regulation, the Environmental Protection Agency’s proposed 111(d) guidelines to regulate greenhouse gas emissions from existing electric generation units is the most significant environmental rulemaking to ever impact our industry.

Most concerning is the proposed guidelines' inclusion of interim goals that force states to achieve much of EPA's required reductions before the year 2020. As you can imagine, there is not sufficient time between now and 2020 for utilities and states to develop, plan, design, and build the infrastructure required to meet the interim goals as proposed. I want to be clear—the 2020 date cannot be met.

It is critically important for EPA to provide states with achievable emission reduction goals and compliance deadlines. The transition to a cleaner generating fleet requires a great deal of time, infrastructure development, and planning that EPA has not allowed for in the proposed guidelines' compliance schedule.

As it currently stands, EPA's approach would have a significant impact on electricity customers and the nation in terms of the cost and overall reliability of the electric system. Eliminating the 2020 interim goals would allow states to determine the most cost-effective actions and measures to achieve EPA's 2030 goals.

It's also interesting to note that EPA recently announced that it will delay the rollout of its final rules and plans to package them all together, releasing its regulations on new, existing, and modified, and reconstructed plants at the same time.

Today, America's electric utilities rely on a variety of domestic fuels to generate electricity. Fuel diversity helps to protect companies and their customers from contingencies such as fuel unavailability, fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel. Fuel diversity also helps to ensure stability and reliability in electricity supply and strengthens national security.

Earlier this month, severely cold temperatures hit most of the country and our industry was able to keep homes and businesses warm because of the nation's diverse fuel mix. Mother Nature's cold snaps remind us of the continued importance of a diverse fuel mix and the ongoing need for baseload capacity—coal, natural gas, and nuclear power plants.

The emergence of new technologies, new environmental policies, the evolving fuel mix, and other factors are changing market fundamentals and require policy makers to re-examine and review the regulations, policies, and programs currently in place.

It is important that we recognize the importance of, and protect, all fuel sources to ensure a reliable, resilient, and affordable power supply. This is especially true of nuclear, which is a significant component of our generation mix. It is also important that wholesale markets provide accurate price signals to promote efficient operations, as well as mechanisms to ensure long-term resource adequacy and reliability.

Another change happening within the industry is the growing interest in the use of distributed generation systems, such as customer-owned wind and rooftop solar panels. DG offers an attractive option for some consumers, and utilities are actively examining the ways in which DG systems can work with and enhance the existing grid.

However, such renewable technologies are variable, which means they do not produce electricity when the sun is not shining and the wind is not blowing. To ensure around-the-clock reliability, they need to be backed up and balanced with non-renewable power plants, which means that they are still utilizing the grid.

Distributed generation transforms a utility's distribution system from a one-way delivery mode into a complex two-way network on which electricity flows need to be carefully monitored and balanced. High penetration of DG changes the design and operation of the grid and requires electric utilities to invest in new systems to assure that the grid remains safe, reliable, and resilient.

It is important to make sure that state and federal policies recognize the value of the grid to all customers, both those with and those without distributed generation. If today's policies fail to evolve to keep pace with technology, grid costs will continue to be shifted to customers who do not install DG systems, and ultimately that is unsustainable. It is important that as DG continues to evolve, all customers continue to help pay for the grid.

Another area that the industry remains focused on is the cyber and physical security of the grid. The cyber-attack on Sony Pictures and, more recently, U.S. Central Command reminds us of the significant implications that a coordinated attack on the grid would have on our nation. That is why cyber and physical security are top priorities for EEI and the industry.

To enhance our resilience to threats, we are partnering with federal agencies to coordinate efforts to prepare for, prevent, respond to, and recover from national-level incidents or threats to critical infrastructure.

Serving as the principal liaison between industry and government agencies is the Electricity Subsector Coordinating Council (ESCC), which is now viewed as the model for industry-government engagement.

The ESCC is focused on core missions of:

- Planning and exercising coordinated responses to any attacks on the grid;
- Making sure that information about threats is communicated quickly among government and industry stakeholders; and,
- Deploying government technologies on utility systems to improve our situational awareness of threats to the grid.

Of note, investor-owned electric utilities and stand-alone transmission companies invested a record-high \$37.7 billion in transmission and distribution infrastructure in 2013 to strengthen the grid.

Congress, too, is taking notice. We expect even greater focus on cyber issues in Congress and the Administration this year, including legislative and executive proposals on cybersecurity information sharing already being actively discussed on the Hill and at the White House.

As I said in the beginning, there are so many exciting things happening within our industry. We are investing more than \$90 billion each year, on average, as part of a major transition to a cleaner generating fleet and enhanced electric grid to meet the needs of our 21st-century digital economy.

The evolving distribution grid is enabling the integration of new technologies and innovations across the grid, including energy efficiency, distributed generation, community solar, electric vehicles, electricity storage, and microgrids.

As the grid evolves into a broad platform for new energy services and technologies, the ability to connect existing assets and systems and to integrate new ones is critical; smart meters and smart rates are supporting this evolution. The data collected by smart meters opens the door for greater integration of new resources and new energy services for customers. And, the growing deployment of smart meters is helping utilities to improve reliability, while also enabling customers to be more energy efficient.

As of last July, more than 50 million digital smart meters had been deployed nationwide, covering more than 43 percent of U.S. homes.

We are also seeing exciting things happening with electric transportation. Just last week, GM announced its electric sedan, the Chevrolet Bolt, which will rival Tesla's upcoming Model 3 passenger car.

In November, electric utilities were recognized at the White House for their outstanding work on moving the electric transportation market forward. This includes fleet electrification efforts, employee EV adoption programs, and demonstrating the tremendous opportunities that exportable power offers. There is a lot of opportunity and potential for electricity as a transportation fuel, and I am proud of where we are and where we are heading.

This truly is an exciting time to be part of the electric power industry. It is also an exciting time for our customers, who now have more choices than ever.

Thank you for having me here today. I would now like to open the floor to questions.