

Comments to DOE QER

Quadrennial Energy Review: Comment on the Public Meeting “Enhancing Infrastructure Resiliency”

**Remarks of Duane D. Highley
Washington, DC
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Introduction:

- Thank you for inviting me to participate in this important discussion today. My name is Duane Highley, and I am the President, CEO and Chief Affordability Officer for the Arkansas Electric Cooperative Corp. (AECC), a non-profit, member-owned power supply cooperative serving 2/3 of the land mass in Arkansas, and over 1 million ultimate consumers. I'm here today to represent the perspective of cooperatives and other consumer-owned utilities on the critically important topics of grid resiliency and vulnerabilities. I also want to talk a little about the strength of the existing grid, just to make sure we don't unnecessarily devalue what we already have.
- The primary mission of AECC is to provide Reliable power, Affordably and Responsibly. As a non-profit power supply and services cooperative, we aren't in business to make a profit; we exist to improve the quality of our member-owners lives and the communities in which they live.
- Let me take a moment to tell you where I've been this week. I just returned yesterday from Cuilco, Huehuetanango, Guatemala, where linemen from Arkansas cooperatives have been working for the past two weeks to put up poles and string lines to bring electricity to remote villages that never had it before. These people were so grateful, tears were streaming down their face when the lines were energized. It was an incredible experience for all of us, and it gives me a particular appreciation for the high quality and reliable electric service we often take for granted. It seems to be in vogue these days to refer to the U.S. electric grid as outdated, antiquated, obsolete or even “third world.” Well, I've been to that third world and I can tell you that there is nothing third world or antiquated about the grid we enjoy here in the U.S. We deploy the very latest technology, and continually update our facilities to insure that our members have reliable service.
- In fact, our first mission is to be reliable. If you can't make the power reliable, it doesn't matter what it costs. Anyone who has lived through a long power outage knows that the value of electricity is far greater than its price. But in rural America, where I come from, affordability is particularly important. We serve some of the poorest families in the country. It is our responsibility to see that their energy is delivered at the lowest possible cost.

- Electric cooperatives face an additional challenge in that we have higher investment per consumer than other utilities. On average, cooperatives serve only seven consumers per mile of line. Even with this additional burden, we manage to deliver energy at rates that are comparable to other for-profit utilities, by focusing on efficiency and cost instead of profit.
- Besides my role as CEO for the cooperative, I also serve as Vice-Chairman of the Electric Subsector Coordinating Council, or ESCC, a partnership between government and industry to improve security, reliability and resiliency of our power supply system. We meet regularly with representatives from DOE, DHS, the White House, and other government agencies to improve information sharing and develop actions plans. I believe that the work of this council represents the model for other critical infrastructure areas.
- For example, the ESCC has worked with the government to obtain security clearances for utility CEOs, allowing them to be briefed on potential threats to the grid. This dialog has allowed utility leaders to better direct resources to anticipate those threats. Also, utilities have partnered with the government to deploy advanced technology to protect power system networks from cyber threats.
- To my knowledge the electric sector (and the nuclear side of our industry) is the only critical infrastructure area which has mandatory, enforceable standards for cyber-security. These standards are vetted by subject-matter experts through NERC's standards development process and approved by the NERC Board of Trustees and FERC before becoming mandatory. Our disaster response plans are exercised in coordination with government, as demonstrated in last years' NERC-led GridEx II national grid exercise.
- Utilities are committed to working with NERC to complete similar mandatory standard development on physical security as recently ordered by FERC.
- While additional regulations may enhance the physical security of our grid, redundancy is our first line of defense against all threats, natural or intentional. Our industry has direct experience with physical threats, as demonstrated last year in California at the Metcalf substation and in three incidents in Arkansas near Little Rock. Initially we did not know the source of sabotage in Arkansas. A transmission tower was pulled down, a substations control building was burned, and transmission lines were cut. Utilities worked directly with the FBI and other government agencies as the events developed. In the end, an arrest was made and terrorist activity was ruled out, but until we knew the source, utilities across the nation were on alert. Information about the incidents was shared in real-time using the methods initiated by the ESCC.
- These deliberate acts of sabotage failed to cause the desired interruption of service to customers, primarily because of the redundancy that has been designed into the electric system to provide

reliability through natural disasters and routine equipment failure. This redundancy is a critical aspect of grid resiliency.

- When it comes to future electric sector reliability, my primary concern, as someone responsible for delivering reliable, secure and affordable energy to my member-owners, is the impact that will come from proposed carbon dioxide emission regulations. Because of existing regulations, we can no longer affordably build new coal-based plants. We continue to rely on older, less efficient coal plants to provide our most affordable energy.
- In GridEx II hosted by NERC last fall, we simulated the simultaneous failure of many power plants and transmission facilities across the grid. The resulting outages affected large portions of the grid, leaving millions without power. It should be noted that the proposed regulations on existing plants would eliminate more capacity from the grid than what was simulated in that exercise. I'm not saying that the grid will immediately fail, but there WILL BE reliability impacts to the grid if this capacity is not allowed to continue to operate. This is inevitable.
- There's a lot of talk about the so-called aging grid, and while I appreciate the heightened concern about resiliency, I also want to push back on any notion that our electric grid is not up to snuff. Our experience has demonstrated that the grid is more than ready to handle the challenges of a 21st century energy industry.
- Co-ops and other consumer-owned utilities are often among the early adopters when it comes to new technology, and we will continue to be open to new technologies and new ways of doing things ... when it is shown to be cost-effective and a benefit to the consumers we serve. . Being member owned and governed, we are particularly sensitive to dreamy investments that do not provide clear benefits. A lot of folks would like to sell us some technology that may theoretically provide some small measure of benefit, and those people would love to create a government mandate to deploy their technology, but it is our job to balance cost and reliability to keep the power reliable AND affordable.
- Reflecting on my experience in Guatemala this week, I recognize what an incredible benefit access to reliable, affordable energy is to society. Human health, national security, and economic output all benefit. While we clearly have work to do here in the U.S. to improve our grid, we should also recognize how far we have come.
- I continue to remain optimistic about our future. Dialog such as this forum allow us hear one another, consider alternatives, and seek the best solution for all consumers. Thank you for hosting this panel and for allowing me to share my views on these issues.