

**BEFORE THE  
UNITED STATES SENATE**

**COMMITTEE ON ENERGY AND NATURAL RESOURCES**

**TESTIMONY OF THE HONORABLE LISA EDGAR  
PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY  
COMMISSIONERS  
COMMISSIONER, FLORIDA PUBLIC SERVICE COMMISSION**

**ON BEHALF OF THE  
NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS**

**ON**

**“The State of Technological Innovation Related to the Electric Grid”**

**March 17, 2015**



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**THE HONORABLE LISA EDGAR  
PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY  
COMMISSIONERS  
COMMISSIONER, FLORIDA PUBLIC SERVICE COMMISSION**

Good morning Chairman Murkowski, Ranking Member Cantwell, and Members of the Senate Energy and Natural Resources Committee. My name is Lisa Edgar and I have the honor of serving as President of the National Association of Regulatory Utility Commissioners. Thank you for your interest in hearing from the States on these issues.

NARUC is a non-profit organization founded in 1889. Our members are the public utility commissions in all 50 States and the U. S. territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. Our members regulate the retail rates and services of electric, gas, water, and telephone utilities. We are obligated under the laws of our respective States to assure the establishment and maintenance of essential utility services as required by public convenience and necessity and to assure that these services are provided under rates, terms and conditions of service that are just, reasonable, and non-discriminatory.

I am also a member of the Florida Public Service Commission and have served in that capacity since 2005. My comments are reflective of both responsibilities and will focus on issues within the purview of State utility regulators.

Thank you for the opportunity to testify today on issues regarding technological innovation and the electric grid. I applaud the Committee for holding today's hearing and for recognizing the advances States have made and will continue making to improve electric utility service to customers. For economic utility regulators in each State across the country, ensuring the safe, reliable and affordable delivery of essential utility service is our most pressing duty. At NARUC, this has been our cause for the last 126 years, and it will only grow in importance in the future.

Today's hearing is timely. Coast to coast, change is happening all around the electric utility industry. From smart-grid deployments to energy efficiency and distributed generation projects, State public utility commissions are on the front lines in pursuing new and innovative changes across the country.

Distributed generation technologies can be defined as non-centralized sources of electricity generation interconnected to the distribution system and located at or near customers' homes and businesses. These kinds of resources include solar devices, energy storage, fuel cells, micro turbines, small wind turbines, backup generation, and much more. DG can offer economic, reliability, and environmental benefits to consumers who are able to access and use them.

When combined with smart meters and other advanced resources, distributed generation can revolutionize how some consumers use and consume electricity. These resources will also transform our current utility construct in ways we probably haven't quite imagined. Yet, it is important to also remember that consumers come in all shapes and sizes, from residential to large industrial, but their expectation of affordable, reliable utility service is the same, no matter who is producing or delivering their electricity.

States are leading the way in implementing DG programs to provide options, while still assuring reliable service at fair rates. By the end of 2013, 43 States and the District of Columbia had adopted net metering policies which credit consumers for excess electricity generated and exported to the electric grid. Indeed, several States—such as New York, Minnesota, New Jersey, Georgia, California, Texas, and elsewhere—have all deployed varying degrees of smart and distributed resources. As an example, in my State of Florida, one of our utilities recently installed a smart-grid system called Energy Smart Florida. This

program installed around 4.5 million smart meters. This did not come for free or without controversy. However, it is a concrete step to keep Florida on the path for a smarter, more nimble, reliable, and efficient grid.

As I described earlier, distributed generation can have multiple benefits for consumers and the grid. More importantly, however, DG including solar, has idiosyncrasies and challenges that should not be ignored. For example, solar and wind resources are not dispatchable, so if they are needed at a time the sun or wind isn't producing, those contributions to power supply are significantly limited. Solar and wind also need grid support to operate under many different scenarios and configurations. Likewise, small backup fossil units can have worse air emissions profiles than their utility-scale brethren.

Grid operators generally don't control these resources, and it is hard to predict when they will come in, where and for what time period. While these effects can be manageable to a degree, they should not be dismissed, as they come with economic and operational costs. The advantages and trade-offs of distributed resources must be better understood and balanced while making public policy and cost allocation decisions.

As States have encountered and embraced these challenges, experience has demonstrated that individual States pursuing these initiatives at their own pace works. More understanding and buy-in, consumer protections, and public education occur. These policy discussions do at times become heated, even at the State level, with media and advocates on every side sometimes utilizing sound bites rather than informative discourse.

Let me be clear, State regulators understand the value innovative technologies can bring, but we also understand there are challenges associated with integrating these technologies. Utilities are required to

provide electricity at all times, 24 hours a day, seven days a week. State commissions and legislatures need to be able to determine the best way to proceed to ensure that the core responsibilities of reliability and affordability are maintained while taking into account state and regional differences.

Change is here in the electric utility industry. With this comes innovation and enthusiasm, but also challenges at both the state and federal levels. States are working to determine which technologies work best for their ratepayers and the specifics of their respective systems. At NARUC, our members have passed resolutions recognizing numerous collaborative efforts between regulators, consumer advocates, utilities and other key stakeholders to address the potential for DG and other new technologies and the impact on the electricity grid. These dialogues are so important as they allow all of us to better evaluate system-wide benefits and costs as use of these technologies continues to grow throughout the country.

In addition, hearings such as this and ongoing discussions will help us all ensure that necessary consumer protections are maintained and that consumers of all types have the information needed as they consider whether to invest in DG and other technologies and services. It remains our responsibility to facilitate the continued provision of safe, reliable, resilient, secure, cost-effective, and environmentally sound energy services at fair and affordable rates as new and innovative technologies are added to the energy mix, and to engage fully and effectively at both the State and federal levels on technology policy considerations.

As State utility regulators, part of our job, more so than in the past, is to help bring some certainty into this fast changing and uncertain dynamic, to ensure safety, reliability, customer affordability, environmental sustainability and financial viability. Our unique reality is that we have to regulate, in the public interest, for consumers, short term and long term, while our systems are in transformation.

Given our statutory responsibilities over the various components of the electric system, many of these decisions may best be made at the State level. NARUC and State Commissioners look forward to an open dialogue with Congress in an effort to better understand both the opportunities and the challenges presented by existing and future innovative grid technologies.

Thank you again for your attention to these issues.