



**Opening Statement
Senator Maria Cantwell (D-Wash.)
Committee on Energy and Natural Resources
Hearing on State of Technological Innovation Related to the Electric
Grid
March 17, 2015**

“Thank you, Madam Chairman, and thank you for holding this important hearing today. I would also like to join you in thanking the witnesses for being here to discuss these issues.

We’ve seen as our economy has evolved and information technology has evolved, it has disrupted many industries and business models – everything from the telecomm industry to the music industry. So I think today we’ll have a little bit of discussion about what that disruption is also going to mean for the electricity industry. And how the advanced electrical grid is part of efficiency that will drive savings to consumers and businesses.

The grid of tomorrow should offer new opportunities for consumers, savings on their electricity bills, and lower costs for businesses through new technology.

These aren’t obscure academic or regulatory debates. These things are hitting the streets today. States as diverse as Idaho, Georgia, New Jersey, and California, have sped ahead with distributed generation, smart meters, and net metering.

And some places around the world, like South Africa, have skipped the capital-intensive steps of developing centralized grids and just use pre-pay options so consumers can benefit from cheap electricity using American technology.

Cities in the United States like Spokane, Monterey, Salt Lake, and McAllen, Texas, have installed or are considering electric bus designs that include wireless charging stations embedded in roadways.

My point is that we can’t predict where the technology will take us, but we can invest in an efficient electric grid that will make these innovations possible and give consumers more options.

Our hearing today is about the savings, no matter what the source of generation, and putting that to use in a smarter way.

It doesn't matter if your state relies on hydropower, like my state of Washington, or nuclear or fossil fuels. The cost of solar and wind has come down, the cost of natural gas has come down. With the integration of smart appliances, the grid is being used in new ways to drive double digit savings.

The challenges and opportunities we face in upgrading our electricity grid and thinking about global markets is what the debate is about today.

According to a 2011 Electric Power Research Institute report, investments in the grid will require \$300 to \$500 billion of new investment over the next 20 years. Bloomberg New Energy Finance calculated that global smart grid investments alone reached \$15 billion in 2013, and Pike Research estimates that global spending will reach \$34 billion by 2020.

I say those numbers, because there is an opportunity here for the United States to continue to perfect technology that will then become a global platform.

The first job of the utilities, power producers, and technology vendors in each of our states is to sell and deliver reliable electric power.

The federal government is uniquely situated to take the broadest and longest view of the electric grid, as a platform for economic growth and diversification.

This broad view enables smart people like the National Labs, who are here today, and programs like ARPA-E to explore solutions that are creative and promising but challenge us of how to implement over the long run. The grid's efficiency, enhancing its resiliency, security and new technologies are all a part of the decisions that we are going to hear from actual regulators today and how they are implementing those.

Obviously, some of these solutions are already being pushed in the marketplace and can deliver new efficiencies.

As Chairman Murkowski and I discuss, with our colleagues, the broader energy policy for Congress, I hope we can find some common ground on continuing the federal investment in grid technologies. It does pay off for consumers and our economy.

The Bonneville Power Administration helped lead the way 15 years ago toward a responsive grid by installing the first network of sensors to take wide-area measurements of transmission systems.

We'll hear from Dr. Taft here today, from the Pacific Northwest National Lab, headquartered in Richland, Washington.

The lab has a long history of working hand-in-hand with industry, on pioneering new methods of controlling our rapidly changing electric grid, with all sorts of new energy storage, new tools for predicting and integrating the output of variable generation such as wind and solar. It was also integral to the largest smart grid demonstration project in the country.

Grid technology companies like Itron, Schweitzer, and Alstom all which have roots in Washington state, and employ thousands of people.

As our economy grows, it continues to have new sources of distributed generation. I want to applaud Secretary Moniz and the Department of Energy for convening the Grid Modernization Laboratory Consortium. This will help spread the wealth of the creativity of our National Labs through our state, private and academic partners. As I've said, I will continue to work with the Chair as we think about energy policy and how to support the investments in a smarter grid. Thank you."

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