Testimony of Susan Kennedy, CEO of Advanced Microgrid Solutions
before the United State Senate Committee on Finance
"Energy Tax Policy in 2016 and Beyond"
June 14, 2016

Mr. Chairman, Senator Wyden, and distinguished Committee members:

Thank you for inviting me to participate in today's hearing on energy tax policy, including the Investment Tax Credit (ITC) for advanced energy storage. My name is Susan Kennedy, and I am the CEO and founder of Advanced Microgrid Solutions (AMS). Prior to founding AMS, I served as Chief of Staff to Governor Arnold Schwarzenegger and was a Commissioner at the California Public Utilities Commission, which is the agency that regulates investor owned utilities in California.

AMS finances, designs, installs, and manages advanced energy storage systems for businesses, utilities and government entities. Our systems are technology agnostic and source neutral. We use best-in-class technology and advanced analytics software to charge batteries when energy is plentiful and discharge them during peak demand hours. Advanced energy storage is the only resource that serves multiple grid functions including reducing customers' peak demand, providing them with reliable back-up power in case of grid outages, and optimizing intermittent and on-site generation. Of greater interest to this Committee, however, are the myriad benefits that energy storage provides to the nation's electrical system as a whole.

In Southern California, the decommissioning of the San Onofre Nuclear Power Plant in 2013 and last year's Aliso Canyon gas leak underscore the need to build a stronger, more resilient electrical grid. But this is far from a California issue – as this Committee is well aware, energy security is a national concern. Natural disasters, cyber-security attacks, terrorism, and even human error can take down our electrical grid, threatening national security, public safety, and our economy. The U.S. Department of Energy has estimated the annual cost of power outages to

be approximately $150 billion. In 2012, Hurricane Sandy knocked out power for more than eight million people, from North Carolina to Maine and as far west as Illinois and Wisconsin. Grid modernization is critical to promoting economic competitiveness and energy security.

As established in the Department of Energy's Quadrennial Energy Review, which was released in April 2015, distributed energy resources – including energy storage – play an important role in building a stronger, more resilient grid. For the first time, electric utilities are able to tap into energy stored by their own customers to inject stability and resiliency into the grid. When demand is high, storage can turn buildings into virtual power plants, providing immediate and secure grid support. Under the traditional model, electric utilities have peaker plants on spinning reserve to meet increased demand. Now, we can take entire city blocks off the grid for any length of time, reducing the need to invest in excess, redundant peaker plants. Storage systems also provide commercial and industrial facilities, as well as government institutions, with "reservoirs" of back-up power, protecting against unexpected grid outages.

Energy storage is a $528 million industry, and it is expanding at a rapid pace. Last year alone, the U.S. energy storage market grew by 243%. By 2021, it is expected to be worth $2.9 billion, six times its current value. This rapid growth presents an important opportunity for investors, businesses, and the economy as a whole, but the storage market still faces significant barriers to widespread deployment. The costs of battery systems are dropping, but are still too prohibitive to make economic sense in most parts of of the nation. Improved federal incentives are necessary to make energy storage more attractive to consumers and more affordable for investors, supporting the technological development that we need for scaled deployment of energy storage.

Federal tax policy is the single most important tool to attract investment in critical infrastructure, including the electric grid. For most of the 20th century, energy tax policies promoted domestic oil and gas reserves and production. After the 1970's, the focus shifted towards towards energy conservation and alternative energy

sources. The solar ITC alone has helped annual solar installations grow by over 6,500% since its implementation in 2006. Providing targeted and efficient incentives for truly innovative, source neutral technologies like energy storage will spur competition and attract the private investment we need to build a more resilient and efficient grid, help control electricity usage and costs, and move towards energy security and independence.

Thank you again for the opportunity to discuss how we can use tax policy to unlock competition in the energy sector and build tomorrow's grid. I look forward to working with the Committee on initiatives that will further support U.S. leadership in energy storage.