



Energy Storage Rules of the Road **North Carolina Sustainable Energy Working Group**

The North Carolina Sustainable Energy Association (NCSEA) has identified the need for a collaborative dialogue to outline the regulatory rules of the road for North Carolina's energy storage deployment. North Carolina has a strong and growing energy storage cluster and an interested base of customers looking for its adoption. In short, energy storage is beginning to penetrate the North Carolina market and we have an opportunity to lead other similarly situated electricity markets in the United States if we provide clear rules of the road for these customers before other southeast and mid Atlantic states catch up.

Energy storage has become a high-value component in the energy sector. It is used in electric grids globally and has become essential to economic development. Traditionally, electricity must be used as it is generated. By allowing for delayed consumption of electricity, energy storage has the potential to be extremely important for electricity generation from intermittent sources, quickly meeting changes in electricity demand, and other grid services. In the past decade energy storage has garnered a resurgence of attention. This interest has been motivated primarily by declining costs of storage technologies and, to a lesser extent, by advances in storage technologies, volatile fuel prices, business opportunities in energy markets, transmission and distribution challenges on the electricity grid, and the emergence of intermittent renewable energy generation.

Energy storage technologies can be broadly defined as devices or physical media that are used to store energy, in various forms for use at a later time. From 2014 to 2015, [according to Advanced Energy Economy \(AEE\)](#), the energy storage market in the U.S. increased ten-fold, from \$58 million to \$734 million. The market growth is expected to continue, with deployments of utility-scale energy storage expected to increase from 184 MW in 2015 to 4.2 GW in 2025, and deployments of distributed energy storage expected to increase from 89 MW in 2015 to 2.6 GW in 2025.

While North Carolina's energy storage cluster has grown in both revenue and employment, the state lacks the significant deployment of storage that is seen in other leading states. In light of national and international storage deployments, favorable technological properties, declining costs, and robust future projections, *North Carolina must develop a set of regulatory "rules of the road" that allow energy storage to be utilized for all of its possible purposes.* If North Carolina's dialogue succeeds, we can become a model for similarly situated states. This builds on NCSEA's decades of work with other clean energy technologies and its recent energy storage publication [Batteries Not Included](#).

Goals and Outputs:

- Identify existing regulations that are applicable to energy storage;
- Identify gaps in those regulations where additional guidance is necessary to deploy storage;
- Produce a unified regulatory structure to govern storage deployment in North Carolina that will allow the industry to conduct transactions and scale business.

The expected outcomes from NCSEA's working group are expanded markets for storage technologies and new economic benefits to North Carolina.



NC SUSTAINABLE ENERGY ASSOCIATION

Timeframe:

Three meetings from 8:30 – 12:30 p.m. on **April 25th, May 26th, July 14th**. Lunch will be served.

Locations:

- April 25, 2016, 8:30 am to 12:30 pm, Charlotte Convention Center
- Meetings on May 26th and July 14th will be at the NC Sustainable Energy Association, 4800 Six Forks Road, Suite 300, Raleigh, NC 27609

Process:

- Meeting 1: Learn what other states have done to address regulatory barriers to energy storage deployment. Review the regulatory environment for energy storage in North Carolina. Through hearing from other states and learning what North Carolina's barriers are, working group members will understand what gaps exist. By the end of this meeting, the Working Group will produce a list of gaps in regulations and delivery mechanisms critical for energy storage companies and the utilities in North Carolina.
- Meeting 2: Based on the gap analysis in meeting one, Working Group members will develop policy and regulatory recommendations at the state level to create the conditions in North Carolina for energy storage deployment. By the end of this meeting, these policy recommendations will be prioritized by the Working Group.
- Meeting 3: Working Group members will finalize their consensus document and consider the implementation steps necessary to put these ideas into practice.