

**Testimony in Support of Bill 5351
AAC CERTAIN PROGRAMS AND TO INCENTIVIZE AND IMPLEMENT
ELECTRIC ENERGY STORAGE RESOURCES.**

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On behalf of The Nature Conservancy, I would like to express our support for Bill 5351, which would encourage the deployment of one thousand megawatts of energy storage in Connecticut by the end of 2030.

The Nature Conservancy commends this committee for last year's legislation authorizing the procurement of 2,000 megawatts of offshore wind energy, and for legislation you have passed boosting solar energy. In order to reduce our greenhouse gas emissions sufficiently to do our part in arresting climate change, we will need every kilowatt of wind and solar power that we can possibly deploy. And yet, we recognize the challenge these renewable energy sources will pose to our grid and supply due to their intermittency.

According to a Wood-Mackenzie report from a year ago, cited by an article in Inside Climate News, after last winter's polar vortex event, "...storage would need to go from about 11 gigawatts today to 277.9 gigawatts in the grid regions that include New England, New York, the Mid-Atlantic, the Midwest and parts of the South. That's roughly double Wood Mackenzie's current forecast for energy storage nationwide in 2040."

Storage by itself, even with the advances in technology and reductions in cost that are well underway and will be speeded by legislation such as Bill 5351, will not be sufficient to carry a 100% clean electricity system through extreme events such as the polar vortex. While we continue to increase our focus on energy efficiency, we will also need to deploy Load Flexibility to shift various energy consumptions demands to different times of day or even longer time periods. Enhanced transmission capacity and flexibility to send power over longer distances, while posing risks, can play a role.

Storage, however, in various forms - lithium-ion batteries, newer battery technologies, compressed air, and others – must and can play a crucial role in enabling us to move towards a more efficient and renewable energy system. Bill 5351 would be an important step towards helping Connecticut play its part in advancing this critical component of our energy future.