

Legislative Testimony of FuelCell Energy, Inc.
Energy and Technology Committee
March 5, 2020

Regarding House Bill 5351
AN ACT CONCERNING CERTAIN PROGRAMS AND TO INCENTIVIZE AND
IMPLEMENT ELECTRIC ENERGY STORAGE RESOURCES

My name is Derek Phelps and I am Director of Market and Project Development at FuelCell Energy. We are a home grown Connecticut high-tech manufacturer of baseload clean energy power generation. We are headquartered in Danbury and our manufacturing facility is located in Torrington. We employ almost 300 people and the fuel cell products we manufacture here in Connecticut are exported all over the world. Most of you are familiar with our installations and the energy, environmental and economic benefits we deliver to the state in the form of high-tech manufacturing jobs; sales, property, payroll and other taxes; and clean energy free of NOx, SOx and particulate pollutants that is always on, regardless of whether the sun is shining or the wind is blowing. And we are environmental stewards, recycling 93% by weight of our fuel cells at the end of life.

I'd like to offer some brief comments on HB 5351.

FuelCell Energy is fully supportive of House Bill 5351 concerning the procurement of energy storage, however we would like to offer some modifications to improve the bill. First, the bill calls for the deployment of 1,000 MW of energy storage. We suggest that the bill should specify megawatt-hours of

energy storage. 1000 MW of storage is not very useful for a prolonged storm outage if the storage lasts less than an hour.

Second, we were very happy to see that the bill is technology agnostic and not weighted toward batteries. However, we would suggest that Section 3 be modified such that it does not require storage to be collocated with Class I renewables, but merely to utilize or store energy from Class I renewables. FuelCell Energy has been developing a proprietary solid oxide fuel cell that has the capability to operate in reverse electrolysis mode. This means that the fuel cell can take excess electricity produced by solar or wind, such as on a sunny summer day, and convert it into hydrogen, storing the hydrogen in a tank or cavern. Then, when power is needed, such as at night or during a storm, the fuel cell operates in reverse electrolysis mode, taking the hydrogen from the tank and converting it back into clean electricity. This is essentially unlimited storage, as one can increase the number of hours that can be supplied to the grid by simply adding additional hydrogen storage capacity. Our application is well suited to providing unlimited hours of power, as compared to batteries which at most can supply power for approximately 90 minutes.