

Testimony of

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Connecticut Center for Advanced Technology, Inc.

Before the

Energy and Technology Committee

March 10, 2016

Regarding

H.B. No. 5510 - An Act Concerning Electric, Zero-Emission and Fuel Cell Electric Vehicles.

Introduction

The Connecticut Center for Advanced Technology, Inc. (“CCAT”), offers this testimony in support of H.B. No. 5510 - An Act Concerning Electric, Zero-Emission and Fuel Cell Electric Vehicles.

CCAT is a nonprofit corporation that provides services and resources to entrepreneurs, businesses, industry, academia, and government. The Energy Initiative of CCAT has been established to improve the economic competitiveness of the region through solutions that lower energy costs and increase long-term energy reliability. This CCAT Initiative also provides assistance to businesses and manufacturers regarding energy use and energy efficiency; promotes use of sustainable and renewable energy; and undertakes energy planning, including regional planning for zero emission vehicle (ZEV) deployment.

This proposed Bill would encourage the use of electric vehicles (EV) and fuel cell electric vehicles (FCEV). The deployment of zero emission vehicles using 1) battery electric vehicle (BEV) technology, and 2) hydrogen powered fuel cell electric vehicle (FCEV) technology will reduce the region’s dependency on oil, improve air and water quality, meet carbon and ZEV requirements, potentially utilize renewable energy from indigenous sources such as biomass, wind, and photovoltaic (PV) power, and increase the number of clean energy sector jobs within the state and Northeast region.

The use of hydrogen and FCEV technology will also provide market value with vehicles that are convenient for consumer use, powerful with no voltage drop after use, easily refueled in 3 to 5 minutes consistent with conventional refueling, and have a range of 300+ miles to avoid refueling anxiety.

Public policy to require the price of fuel, such as hydrogen, be displayed on each pump or other dispensing device is prudent and will serve to educate and protect the consumer. The National Institute of Standards and Technology (NIST) Handbook 44 currently prescribes kilograms as the unit of measure for hydrogen.

Consequently, revisions to Section 7 to include a standard unit of measure for hydrogen are unnecessary.

CCAT also suggests that the proposed Bill be refined to include provisions for "time of day" rates for hydrogen production. Provisions for "time of day" rates would encourage hydrogen producers to make hydrogen during off-peak periods at a lower cost and be better balanced with grid resources. The production of hydrogen during off-peak periods would result in savings to the consumer and increased grid stability.

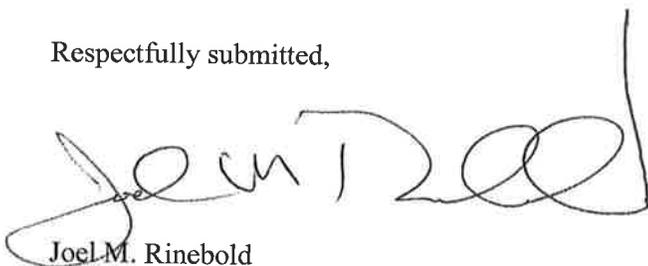
CCAT also supports the proposed changes addressed in Section 12 (a) which would eliminate the restriction on hydrogen fueled vehicles from areas that are below grade and eliminate the requirement for vehicle signage with a placard for hydrogen fueled vehicles, provided the vehicle is in compliance with all applicable federal codes and standards for light duty passenger vehicles. Hydrogen is lighter than air, so like natural gas, it is not expected to pose a risk from "settling" or "pooling" in areas that are below grade, such as tunnels or parking garages.

Conclusion

CCAT is supportive of the proposed Bill with minor refinement. The proposed Bill will educate and protect consumers and encourage the deployment of electric vehicles (EV) and fuel cell electric vehicles (FCEVs) in the State, which will improve air quality, improve energy reliability, and create jobs throughout the supply chain.

CCAT will make itself available to the Committee upon request to assist in the refinement of this legislation.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Joel M. Rinebold". The signature is stylized and cursive, with a large loop at the end.

Joel M. Rinebold

Director of Energy Initiatives