Acadia Center
Advancing the Clean Energy Future
21 Oak Street • Suite 202
Hartford, CT 06106-8015

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Connecticut General Assembly Energy and Technology Committee
Chairs Needleman and Steinberg
Legislative Office Building, Room 3900 (2E)
Hartford, Connecticut 06106-1591

Testimony in Support of HB 7017 and SB 1532

Dear Chair Needleman, Chair Steinberg, and Honorable Members of the Committee:

Thank you for the opportunity to provide testimony. Acadia Center is a non-profit research and advocacy organization that works to advance bold, effective, and equitable clean energy solutions in Connecticut and other Northeastern states. Acadia supports both HB 7017 and SB 1532 – this written testimony will cover both pieces of legislation.

Acadia Center supports HB 7017

First, Acadia Center supports HB 7017, in its modified version that would adopt language supporting the study and deployment of Grid-Enhancing Technologies (GETs).This legislation would require distribution companies to evaluate the use of GETs and advanced conductors, deploying these technologies when they are deemed cost-effective and contributing to an aggregate lower cost in transmission upgrades for ratepayers.

Acadia Center is especially excited about this legislation, given the Northeast region's rapid movement to deploy these cost-effective GETs. Massachusetts' new climate law puts a major emphasis on GETs, and Maine and Rhode Island are currently contemplating GETs laws during each of their legislative sessions, respectively. As such, Acadia Center encourages Connecticut to build on this regional momentum and pass strong legislation that would embed GETs in Connecticut's transmission planning processes.

Put simply, GETs are lower-cost solutions that will save Connecticut ratepayers money. GETs and advanced conductors increase the efficiency of the transmission system through a suite of technologies that include sensors, power flow control devices, analytical software tools, and new composite cores in conductors. Overall, GETs and advanced conductors maximize the capacity of existing power lines, enhance grid reliability during periods of stress, prevent line sag, increase the flow of power through transmission lines, and offer numerous additional benefits. Our transmission system is like the highway system – and GETs are the tools that ensure that traffic runs smoothly. At a time when we need to build more transmission to support the potential doubling of electricity peak demand in the New England—from the historical peak demand of 28 gigawatts to 57 gigawatts by 2050[1]--it is critical to maximize power throughout the existing transmission system whenever we can, especially for the purposes of cost savings.

It is notable that GETs and advanced conductors can have a faster deployment period, especially compared to new transmission construction, which on average (at best) takes 10 years – in contrast GETs, on average, take less than 3 to 5 years to construct, at a lower cost and greater value compared to other traditional technologies.[2]Numerous case studies have demonstrated the significant cost savings, congestion relief, and reliability benefits GETs and advanced conductors provide. For instance, the utility PPL invested only $300,000 in GETs sensors on their lines, and the return on investment was more than $20 million in annual congestion cost savings, as well as $50 million in upfront cost savings.[3] In this time of skyrocketing rates, electricity customers need GETs and advanced conductors prioritized in the utility process to ensure

[1] See Acadia Center and Clean Air Task Force's Report "The Energy is about to Shift": The Energy is About to Shift - Acadia Center
[2] See Page 5 of this DOE report: "https://liftoff.energy.gov/wp-content/uploads/2024/05/LIFTOFF_Innovative-Grid-Deployment_Updated-2.5.25.pdf"
[3] Electrifying everything is the right way to go - CommonWealth Beacon

savings for ratepayers are being delivered, and that the best combinations of options are being considered instead of just new builds.

The utility business model provides a fixed rate of return on capital expenditures that does not incentivize utilities to minimize the cost of system upgrades via GETs and advanced conductors. However, HB 7017 would help remedy this misalignment of utility incentive; as such, Acadia Center is in strong support of the legislation.

Acadia Center Supports S.B. 1532 Requiring PURA to Initiate an Uncontested Proceeding Regarding the Future of Natural Gas Use in Connecticut

Additionally, Acadia Center supports SB 1532, *An Act Promoting Energy Efficiency*. Specifically, Section 5 of Senate bill 1532 calls for PURA to initiate an uncontested proceeding regarding the future of natural gas use in the state in relation to the provision of section 22a-200a of the general statutes, which requires the state to reduce greenhouse gas (GHG) emissions 45% below 2001 levels by 2030 and 80% by 2050. Acadia Center strongly supports opening this uncontested proceeding and considers it a necessary first step in minimizing future stranded asset risk posed by Connecticut's gas distribution system as the state moves towards compliance with legally binding GHG reduction goals.

Based on a review of the Preliminary 2022 Connecticut Greenhouse Gas Inventory[4] and data from the U.S. Energy Information Administration (EIA) on natural gas consumption in the state,[5] in 2022, GHG emissions from natural gas combustion in residential and commercial buildings accounted for almost exactly 50% of total GHG emissions from the building sector[6]. It simply will not be possible for the state to achieve the economy-wide GHG reductions required in statute without dramatic reductions in natural gas consumption. A Future of Gas study and proceeding will be instrumental in ensuring that the Connecticut gas utilities' current and planned business and operating practices are consistent with Connecticut's 2050 emission reduction mandate and interim 2030 target. Achieving these GHG reduction targets will require a fundamental shift away from "business as usual" gas system planning processes and business models. Neighboring states – including New York, Massachusetts, and Rhode Island – have all undertaken similar future of gas proceedings that have proven to be essential in informing frameworks and policies aimed at protecting ratepayers from the stranded asset risk posed by the gas distribution system as the building decarbonization transition proceeds.

Conclusion

In summary, Acadia Center offers its strong support for these two technical but highly important pieces of legislation. Taking affirmative action on these bills will represent major strides toward ensuring the affordability of the future energy system in Connecticut and around the region, ensuring that ratepayers are not on the hook for unnecessary infrastructure and imprudently incurred costs. Please let us know if Acadia Center can be of any assistance in advancing these bills throughout the remainder of the legislative session.

Sincerely,

Anastasiya Poplavska
Transmission Advocacy Fellow
Acadia Center
apoplavska@acadiacenter.org

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[4] The Connecticut Greenhouse Gas Emissions Inventory 1990-2021 with Preliminary Look at 2022 estimates total statewide GHG emissions of 35.0 MMTCO_2e in Table 1, page 6. https://portal.ct.gov/DEEP/Climate-Change/CT-Greenhouse-Gas-Inventory-Reports

[5] The United States Energy Information Administration "Natural Gas Summary" for Connecticut reports that, in 2022, 105,857 million cubic feet (MCF) of natural gas were consumed by residential and commercial buildings combined. https://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_sct_a.htm

[6] Acadia Center converted natural gas consumption data provided by EIA to MT CO_2e using standard carbon dioxide emissions coefficients from U.S. EIA. The 50% figure does not include gas leaks from the distribution system or behind the meter. https://www.eia.gov/environment/emissions/co2_vol_mass.php