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April 30, 2025

Senate Committee on Environment & Agriculture
Rhode Island State House
82 Smith Street
Providence, RI 02903

Acadia Center Testimony in Support of Senate Bill 862, Energy Facility Siting Act

Dear Chair Sosnowski, Vice Chair Britto, and Members of the Senate Environment & Agriculture Committee:

Acadia Center appreciates the opportunity to provide testimony in support of Senate Bill 862, *The Energy Facility Siting Act*. Acadia Center is a non-profit research and advocacy organization committed to advancing the clean energy future. Acadia Center's work is characterized by reliable information, comprehensive advocacy, and collaborative, innovative problem-solving, including regional and state advocacy on our electric grid in the Northeast.

Senate Bill 862 would provide commonsense oversight and reform on transmission approvals happening at the Energy Facilities Siting Board (EFSB) and require due consideration of and establish incentives for the deployment of low-cost, efficient grid-enhancing technologies (GETs) and advanced conductors, and prompt an investigation of such technologies for both transmission and distribution infrastructure within the state.

Over the past few months, Acadia Center has had a productive dialogue with the Public Utilities Commission (PUC), which has jurisdiction over Rhode Island's electric distribution resources. Based on the feedback of staff, Acadia Center recommends advancing an amended version of Senate Bill 862 that removes Section 2 (Chapter 39-1 "Public Utilities Commission") and is in conversation with the sponsors, Senator Britto and Representative Solomon, to do so.

In narrowing the scope to the additions in Section 1 (Chapter 42-98 entitled "Energy Facility Siting Act") and Section 3 (Chapter 39-25 entitled "Electric Transmission Siting and Regulatory Act"), this bill would focus on **leveraging the state's siting review as a tool for transmission oversight** – a concern that we have heard echoed by both staff of the PUC and the Chair of the EFSB.

Background – Transmission spending

When it comes to transmission spending, the Northeast has an affordability and accountability problem. Transmission charges make up 17% of a typical monthly electric bill in Rhode Island[1] and are reviewed and approved by the regional grid operator, ISO-New England. The amount spent on transmission annually in New England increased from $58 million in 2016 to nearly $800 million in 2023. **Despite this dramatic increase in spending, transmission projects continue to receive very little oversight.** The problem with many of these project proposals is there is poor accountability at the regional level with their review— just a PowerPoint presentation in front of a

[1] RI Public Utilities Commission. Notice of Public Hearing on RI Energy rate change, March 2025. https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2025-02/RIE-RateChangeNotice-Mar2025.pdf

singular committee, as soon as 90 days before the start of construction, and with no precedent for rejection or even modification of project proposals. In the Northeast, the largest share of recent transmission investments has been projects focused on replacement, rebuild, and expansion as opposed to new line builds; at least $5.4 billion of transmission replacement, rebuild, and expansion projects are projected out through 2030, outpacing other types of transmission spending.[2] Further, there is an overall lack of cohesion and coordination with other types of transmission improvements that would more holistically benefit the ratepayer.

Oversight of transmission via the EFSB

This raises the question of what can be done at the state level to help solve some of these broader issues. Although transmission is regulated at the federal level, the state can use its power of siting authority to provide more accountability for certain transmission investments. Leveraging state siting authority (the EFSB in Rhode Island) is an approach emerging in the Northeast, including in Massachusetts' 2024 climate bill and in legislation currently under consideration in Connecticut.

In Rhode Island, the EFSB is tasked with providing oversight on the siting of major energy facilities, including new transmission lines (defined as power lines operating above a voltage of 69 kilovolts (kV)). The EFSB currently does not have language in its statute regulating changes made to existing transmission lines; **this legislation, Senate Bill 862, expands EFSB's role to include oversight not just for new transmission, but also for the replacement, rebuild or expansion of existing transmission line infrastructure**.

The language also:

- encourages more regional transmission projects to be presented to the EFSB— projects that are typically more multi-benefit and cost efficient to the ratepayer compared to siloed projects— as well as projects utilizing existing rights of way, already existing corridors, to make transmission projects more efficient;
- reiterates the importance of the Act on Climate, ensuring that applicants consider it in their transmission projects, as well as non-pipeline alternatives in the case of gas projects.

All these changes will bring more accountability to the transmission system and its investments at the state level. Acadia Center strongly supports these changes.

Background – Grid enhancing technologies (GETs) and advanced conductors

Additionally, grid-enhancing technologies (GETs) and advanced conductors are technologies that could help tackle the issue of affordability, but they are not currently being adequately considered in the grid planning process. Namely, utilities involved in the infrastructure planning process at the state level earn more profit on larger capital expenditures, which includes infrastructure projects like substations, poles and wires, and are not incentivized to invest in operational, lower-cost, more efficient alternatives. This creates a **misalignment in incentives as utilities**

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[2] Joe LaRusso, Anya Poplavska. "Planning the Future Electric Grid: The Need for An Independent Transmission Monitor." *Acadia Center blog,* 14 Mar. 2025. https://acadiacenter.org/planning-the-future-electric-grid-the-need-for-an-independent-transmission-monitor/

push for costly capital spending approvals, instead of considering lower-cost yet efficient alternatives like GETs and advanced conductors on their lines - subsequently increasing bills for ratepayers.

GETs and advanced conductors increase the efficiency of the transmission and distribution 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 can maximize the capacity of existing power lines, increase the flow of power, prevent line sag, and offer numerous additional benefits such as enhancing grid reliability during periods of stress. 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 New England—from the historical peak demand of 28 gigawatts to 57 gigawatts by 2050[3]—it is **critical to maximize power throughout the existing transmission system** whenever we can, especially for the purposes of cost savings. The distribution system transports lower voltage electricity from the transmission system to end users like households and businesses; GETs may also be leveraged on these lower voltage power lines to increase the capacity and efficiency of this piece of the electric grid at a lower cost for ratepayers.

It is notable that GETs and advanced conductors can have a faster deployment period, especially compared to new transmission construction, which on average takes 10 years. In contrast, GETs take less than 3 to 5 years to deploy on average and at a lower cost and greater value compared to other traditional technologies.[4] Numerous case studies have demonstrated the **significant cost savings, congestion relief, and reliability benefits GETs and advanced conductors provide**. For instance, PPL in Pennsylvania 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.[5] In this time of skyrocketing rates, electricity customers need to know that the build out of our electric grid gives due consideration of alternatives to new builds, particularly in the short- to medium-term. Cost-effective GETs and advanced conductors can deliver significant savings for ratepayers.

Incentives for GETs and advanced conductors

Senate Bill 862 emulates best practices that other states in the Northeast have taken to push for GETs and advanced conductors. While transmission investments are reviewed and approved at the regional level, the state's siting jurisdiction has been leveraged across the region to incentivize GETs and advanced conductors on transmission infrastructure. In addition to expanding the EFSB's oversight of transmission infrastructure (to include replacement,

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[3] Acadia Center. "The Energy Is About to Shift." Nov. 2024. https://acadiacenter.org/resource/the-energy-is-about-to-shift/

[4] U.S. Department of Energy. "Pathways to Commercial Liftoff: Innovative Grid Deployment." *See Page 5.* 4 Feb. 2025. https://liftoff.energy.gov/wp-content/uploads/2024/05/LIFTOFF_Innovative-Grid-Deployment_Updated-2.5.25.pdf

[5] Joe LaRusso, Jamie Dickerson. "Electrifying Everything Is the Right Way to Go." *CommonWealth Beacon*, 9 Dec. 2023, http://commonwealthbeacon.org/opinion/electrifying-everything-is-the-right-way-to-go/

rebuilds, and expansions of existing transmission lines), this bill also mandates that applicants to the EFSB give due consideration to advanced conductors and GETs, as well as other non-wires or non-pipeline alternatives.

Within the PUC's jurisdiction, GETs and advanced conductors can be incentivized for Rhode Island's electric distribution system. For distribution companies proposing capital upgrades before the PUC, this bill (1) requires those companies to (1) conduct an analysis of cost-effective alternatives and (2) provides an opportunity for an incentive for GETs and advanced conductors. Senate Bill 862 also seeks to embed GETs and advanced conductor considerations into existing infrastructure, safety, and reliability (ISR) reviews before the PUC, to streamline future consideration of these technologies. In addition, the bill prompts the PUC and the Office of Energy Resources (OER) to conduct an investigation on such technologies for transmission and distribution infrastructure within the state. Overall, Senate Bill 862 takes critical steps to establish incentives on behalf of ratepayers in a process that currently does not prioritize low-cost, efficient technologies like GETs and advanced conductors. This bill **ensures that Rhode Island ratepayers are not missing out on the potential cost savings of these technologies, on both the transmission and distribution systems**. For this reason, Acadia Center is in strong support of this legislation.

Thank you again for your consideration of Senate Bill 862,*The Energy Facility Siting Act*. I have also included an overview of the legislation. If you have any questions or concerns, please do not hesitate to reach out.

Sincerely,
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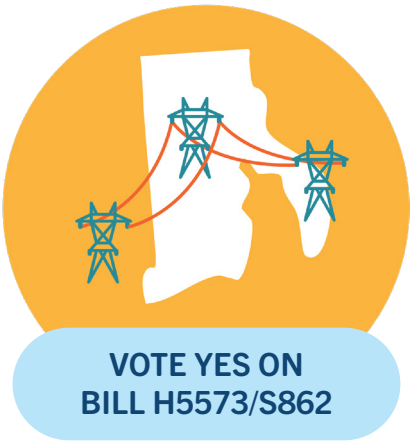
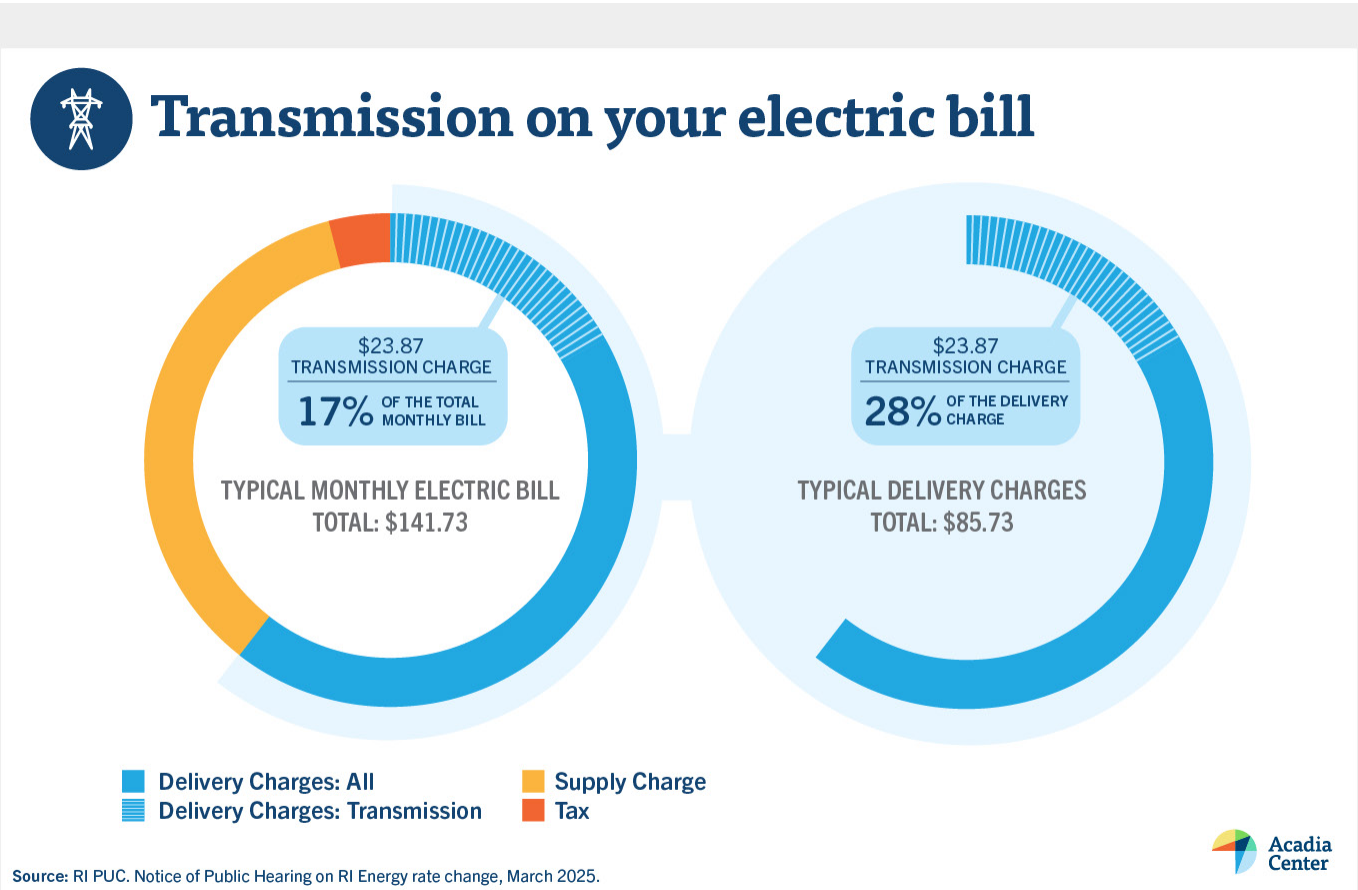
Reduce Rising Energy Costs with Grid Enhancing Technologies (GETs)



In the 2025 Rhode Island legislative session, Acadia Center has developed legislation that supports the adoption of Grid Enhancing Technologies—also known as GETs—and advanced conductors which carry more power than traditional power lines. The House bill is H5573, introduced by Representative Joseph Solomon, with Senator Robert Britto introducing S862 in the Senate.

Why are energy costs rising?

At the regional level, we are not seeing meaningful scrutiny or prudency on billions of dollars of investments. The transmission system (high voltage lines that transport electricity over long distances from sources of generation to distribution lines) has its investments reviewed and approved by our regional grid operator, ISO-New England, with projects presented as soon as 90 days before the start of construction. NESCOE, the New England States Committee on Electricity, has stated that not a single project has been denied or modified after presentation to the ISO committee, even as costs continue to rise. The amount spent on transmission annually in New England increased from $58 million in 2016 to nearly $800 million in 2023. Despite this dramatic increase in spending, transmission projects continue to receive very little oversight.



In light of expectations for electricity demand to increase dramatically in the coming decades due to the electrification of homes and transportation, there is an urgent need to increase the capacity of the regional transmission system without significantly increasing costs. Further, transmission upgrades are needed ASAP in order to interconnect wind and solar generation sources and support the region's clean energy transition.

Analyzing how GETs and other opportunities can enhance the capacity and efficiency of our electric grid at lower cost is a crucial step toward managing inevitable increases in demand and controlling these costs. Bill H5573/S862 leverages siting, planning and incentives at the state level to ensure that Rhode Island ratepayers are not missing out on the benefits of more cost-effective technologies.

What are GETs and why are they needed?

GETs are hardware and software that increase the capacity and efficiency of the electric grid on a faster timeline. These technologies are installed on existing power lines to give operators more situational awareness and control over the grid. GETs can provide operators with real-time information and more control over the transmission as well as distribution system (low voltage lines, typically <69 kV, that transport electricity to end users like households and businesses). This legislation also encourages the use of advanced conductors, which can replace the less efficient materials in power lines without a complete rebuild so more power can pass through the lines.

Why aren't GETs installed already?

Under existing regulation, utilities earn their profit on "capital expenditures," which includes infrastructure projects like substations, poles, and wires. By building a new, expensive power line, for example, utilities can earn more than if they deployed less expensive GETs, which are used to make existing power lines more efficient. **These financial incentives bias utilities towards expensive infrastructure investments that cost ratepayers more.**

How does bill H5572/S862 encourage cost effective grid infrastructure?

- It instructs and empowers the utilities in front of the Energy Facility Siting Board (EFSB) and the Public Utilities Commission (PUC) to consider GETs and advanced conductors, for the siting of transmission and planning of distribution infrastructure.
- Expands the EFSB's transmission siting review within the state to include the replacement, rebuild, or expansion of existing infrastructure.
- Allows utilities and the PUC to propose a financial incentive for the deployment of GETs and advanced conductors.
- Prompts the PUC and the Office of Energy Resources (OER) to conduct an investigation on such technologies for transmission and distribution infrastructure within the state.

For more information, contact:

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