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BILL NO.: SB 952 – Certificate of Public Convenience and Necessity -
Overhead Transmission Lines - Grid Enhancing Technologies

COMMITTEE: Education, Energy, and the Environment

HEARING DATE: March 6, 2025

SPONSOR: Senators West, Lewis Young, Ready, Hettleman, Brooks, and
Watson

POSITION: Favorable

The Office of People’s Counsel (OPC) supports SB 952 – Certificate of Public Convenience and Necessity - Overhead Transmission Lines - Grid Enhancing Technologies. SB 952 would require the consideration of grid-enhancing technologies (GETs) as an alternative to construction of an overhead transmission line during a certificate of public convenience and necessity (CPCN) proceeding. Although the bill could be improving by requiring a more robust alternative analysis,¹ SB 952 has the potential to reduce the costs—ultimately borne by ratepayers—of building new transmission lines in Maryland.

GETs encompass a host of technologies that squeeze more performance out of existing transmission assets using advanced power flow controls, dynamic line ratings, and topology optimization. SB 952 specifically defines GETs to include high performance conductors—which allow for increased line capacity, higher transmission efficiency, and reduced thermal sag—and storage as a transmission asset—which substitutes batteries for new transmission lines and can enable faster and cheaper transmission system upgrades than traditional transmission lines.

GETs can increase the useful life of existing transmission assets, decrease congestion costs, allow new generation to interconnect more quickly and more cheaply, defer expensive transmission upgrades, and enable transmission system expansion with less disturbance of previously unused land.

¹ House Bill 829 — Public Utilities - Transmission Lines - Advanced Transmission Technologies would require such a robust alternatives analysis.

Some generation and storage projects drop out of the PJM interconnection queue because once they are studied, they are required to pay for significant transmission system upgrades that will take years to construct. By enabling cheaper and more rapid transmission system upgrades, GETs support generation interconnection at lower cost and more quickly. One recent study found that use of GETs in five PJM states could allow an additional 6 gigawatts of new capacity to come online within the next three years.²

GETs can also decrease land use concerns. Storage as a transmission asset can “pre-flow” energy over existing lines so that the line can functionally deliver more energy than the maximum line rating at times of peak demand. While current PJM rules do not allow storage to act as a transmission asset, such a framework has been approved by the Federal Energy Regulatory Commission (FERC) in other regions and the policy has been studied by PJM.³ Similarly, advanced conductors unlock the possibility that lines with higher ratings can use existing transmission line routes and towers, or allow new transmission builds to have smaller footprints, thus limiting the need to build on new land.

The potential cost savings of the bill are difficult to estimate, given that the efficacy of GETs varies based on the specific needs of a transmission line. Still, evaluations of GETs deployed in the Southwest Power Pool—another regional transmission organization that stretches from North Dakota to Oklahoma—found that GETs increased the utilization level of certain high voltage transmission lines by 16 percent.⁴

It is also worth noting that there are limits to how much the bill—or any legislation—can require GETs deployment. For transmission lines regulated by FERC, the PSC would likely be preempted from requiring the installation of GETs unless the use of GETs directly impacts siting concerns. Likewise, for lines with FERC-regulated transmission charges, the PSC is likely preempted from allowing cost recovery for GETs.

OPC supports SB 952 as an important step toward maximizing the utility of existing transmission infrastructure in Maryland that is likely to prevent unnecessary investments in new infrastructure that could prove costly to ratepayers.

Recommendation: OPC requests a favorable committee report on SB 952.

² Katie Mulvaney et. al., *GETting Interconnected in PJM* (2024) available at https://rmi.org/wp-content/uploads/dlm_uploads/2024/02/GETs_insight_brief_v3.pdf.

³ See Storage as a transmission asset issue charge, <https://www.pjm.com/committees-and-groups/issue-tracking/issue-tracking-details.aspx?Issue=%7BB435C39B-D4BB-4C3C-ADA9-8EFBC0E52246%7D>.

⁴ Brattle Group, *Building a Better Grid*, at 5 (2003) available at <https://www.brattle.com/wp-content/uploads/2023/04/Building-a-Better-Grid-How-Grid-Enhancing-Technologies-Complement-Transmission-Buildouts.pdf>.