

HB 40 SUPPORT

Public Utilities - Transmission Lines - Advanced Transmission Technologies

Environment and Transportation
February 3rd, 2026

Dear Chair Korman, Vice Chair Guyton, and Members of the Environment and Transportation Committee:

My name is Nathan Shreve, and I am a Senior Associate at Grid Strategies LLC, a power sector consulting firm based in Washington, D.C. I am testifying today on behalf of the Working for Advanced Transmission Technologies (WATT) Coalition and the Advancing Modern Powerlines (AMP) Coalition, which collectively represent Grid Enhancing Technology (GET) vendors, High Performance Conductor (HPC) vendors, generation developers, and utilities. Collectively known as Advanced Transmission Technologies (ATTs), GETs include Dynamic Line Rating, Advanced Power Flow Control, and Transmission Topology Optimization, and HPCs include carbon core conductors and superconductors. These Advanced Transmission Technologies can more quickly unlock significant transfer capacity on the existing transmission grid. GETs often find 20% or more additional headroom on the grid, while HPCs can at least double capacity on existing transmission rights-of-way, both in much less time when compared to conventional rebuilds. I have worked extensively on transmission financing, grid congestion analysis, and state and federal policy related to modernizing the electric grid, and I appreciate the opportunity to testify today in support of HB 40.

I strongly support the bill's requirement that transmission owners identify areas of historical and expected congestion, quantify the associated costs to ratepayers, evaluate the technical feasibility and cost of deploying ATTs to address that congestion, and propose an implementation plan where these solutions are feasible. Transmission congestion has become a significant driver of electricity costs across the PJM region, totaling \$1.7 billion across the region in 2024 alone. Most recently during Winter Storm Fern, PJM saw significant differences in prices across its footprint, driven in part by transmission congestion. While congestion costs are not always transparently allocated by state, reducing congestion anywhere on the system benefits Maryland consumers by lowering wholesale prices and improving system reliability. GETs can often increase usable capacity on constrained lines by 20% or more, and in many cases can even reduce congestion by

40% or greater, while reconductoring with HPCs can provide firm capacity increases and reduce line losses by 20% or more. Requiring utilities to consistently evaluate these opportunities ensures that cost-effective solutions are not overlooked simply because they fall outside traditional planning practices.

This requirement is especially important because utilities are not currently rewarded for reducing congestion through operational or targeted technology upgrades. Without a clear directive, valuable and low-cost opportunities to relieve congestion can remain unrealized. HB 40 helps correct this structural gap by ensuring that utilities identify and transparently report where ATTs can deliver savings to ratepayers in the near term, rather than defaulting to solutions that may offer comparatively lower net-benefits over the lifecycle of the project.

On the requirement for ATTs to be studied as alternatives to new lines, ATTs are best either evaluated from a holistic system-wide perspective where network benefits can be properly captured, or considered to maximize the value of new infrastructure. The requirement for inclusion in CPCN applications should prioritize using ATTs to increase asset efficiency, utilization and flexibility, and reduce constraints during the planning and construction of new infrastructure. When ATTs are incorporated early in the design process, they can significantly improve the long-term performance and value of transmission investments.

HB 40 is complementary to recent federal and state policy developments. Governor Wes Moore's Lower Bills and Local Power Act underscores Maryland's commitment to an affordable, reliable, and modern electric grid. The Governor's proposal emphasizes prioritizing ATTs to increase capacity and efficiency on existing lines. And at the federal level, PJM just filed its compliance to FERC Order No. 1920, which requires transmission providers to evaluate ATTs as part of long-term regional planning.

HB 40 positions Maryland as a leader in practical grid modernization. While new transmission lines will continue to be necessary to reliably meet growing demand and manage a changing resource mix, widespread ATT deployment will ensure that the state maximizes the value of existing and future infrastructure, reduces unnecessary costs to ratepayers, and accelerates solutions that can be implemented on a fast, near-term timeline.

I urge a favorable report on HB 40.