HB40 Support.docx.pdf
Uploaded by: Benjamin Ford
Position: FAV

SUPPORT for HB40

1/28/2026

Chair Korman, Vice Chair Guyton, and Honorable Members of the E&T Committee:

My name is Benjamin Ford, and I serve as the Miles-Wye Riverkeeper for ShoreRivers. Thank you for the opportunity to testify in strong support of House Bill 40.

ShoreRivers works to protect and restore the rivers, creeks, and wetlands of Maryland's Eastern Shore. Our mission is rooted in science, public health, and stewardship. HB 40 strengthens Maryland's oversight of major transmission projects by requiring applicants for certificates of public convenience and necessity for overhead transmission lines to provide detailed analyses of routing alternatives, advanced transmission technologies, and environmental impacts. It ensures that the Public Service Commission has the information needed to evaluate whether proposed projects truly serve the public interest.

For the Environment and Transportation Committee, this bill is especially important because of its direct connection to **land conservation, habitat protection, and transportation and utility corridors**. Transmission lines often follow or intersect existing roadways, rights-of-way, and rural landscapes. Without strong review standards, these projects can fragment wetlands, convert productive farmland, and degrade forest buffers that protect water quality.

HB 40 helps prevent unnecessary impacts on sensitive lands by requiring developers to demonstrate that less damaging alternatives have been fully considered. This includes upgrading existing infrastructure, using advanced technologies to increase capacity, and avoiding ecologically significant areas wherever feasible. These safeguards are essential for protecting tidal marshes, forest interiors, and agricultural preservation areas that are central to Maryland's environmental and transportation planning goals.

Scientific and economic evidence shows that poorly sited infrastructure imposes lasting public costs through increased flooding, habitat loss, water pollution, and reduced agricultural productivity. Thoughtful siting and early environmental analysis reduce these risks and minimize future mitigation and restoration expenses borne by taxpayers.

Importantly, HB 40 does not delay needed grid improvements. Instead, it promotes efficient, coordinated planning that aligns energy infrastructure with transportation corridors, land-use priorities, and environmental protection standards. This approach strengthens community trust while supporting long-term system reliability.

Maryland has invested heavily in restoring the Chesapeake Bay, preserving farmland, and strengthening climate resilience. Allowing avoidable damage to sensitive landscapes from major

ShoreRivers
Isabel Hardesty, Executive Director
Annie Richards, Chester Riverkeeper | Matt Pluta, Choptank Riverkeeper
Ben Ford, Miles Wye Riverkeeper | Zack Kelleher, Sassafras Riverkeeper

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utility projects undermines that investment. HB 40 reinforces the principle that infrastructure development must proceed in harmony with environmental stewardship.

On behalf of ShoreRivers and the communities we serve, I respectfully urge the House Environment and Transportation Committee to issue a favorable report on HB 40. Thank you for your consideration.

Sincerely,

Benjamin Ford, Miles-Wye Riverkeeper, on behalf of ShoreRivers

HB40_FAV_CCANAF.pdf
Uploaded by: Brittany Baker
Position: FAV

TESTIMONY OF
BRITTANY BAKER
MARYLAND DIRECTOR
—
MIKE TIDWELL
EXECUTIVE DIRECTOR

HB0040- PUBLIC UTILITIES- TRANSMISSION LINES- ADVANCED TRANSMISSION TECHNOLOGIES
FEBRUARY 3, 2026 AT 2:00 PM

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

Transmission infrastructure is a vital asset that must be built to secure Maryland's energy future. In fact, transmission infrastructure is needed to ensure a least cost energy future for the entire PJM region, not only in Maryland.

However, grid enhancing technologies have the ability to maximize our current transmission infrastructure and relieve grid congestion in advance of new lines being constructed. According to RMI, grid-enhancing technologies (GETs) could save an estimated $1 billion in reduced costs for interconnection customers across the PJM region between now and 2027.[1] These savings trickle down in the energy economy lowering costs for ratepayers. Further, even without building new transmission lines, GETs can reduce grid congestion allowing for 6.6 gigawatts of additional solar, wind, and battery storage projects to interconnect in the region by 2027.[1] These cheap, new, clean energy resources would increase energy reliability, put downward pressure on rates, and allow for reasonable new load growth.

The oversight and planning process for adding these vital technologies to the grid currently has significant gaps. PJM has taken some steps to implement FERC order 1920- yet, this is not enough. Requiring the Maryland Public Service Commission to consider GETs as part of the Certificate of Public Convenience and Necessity (CPCN) process will ensure that Maryland stakeholders, including the General Assembly and the public, are able to confirm that we are not missing any opportunities to integrate these vital resources into our grid infrastructure.

I respectfully request a favorable report on HB0040.

[1] https://rmi.org/insight/analyzing-gets-as-a-tool-for-increasing-interconnection-throughput-from-pjms-queue/

HB0040 Favorable CPR.pdf
Uploaded by: Bryan Dunning
Position: FAV

Center for Progressive Reform

February 3, 2026

Testimony of Bryan Dunning
Senior Policy Analyst
Center for Progressive Reform

Before the Maryland House of Delegates Environment and Transportation Committee Requesting a Favorable Report on HB0040: Public Utilities – Transmission Lines – Advanced Transmission Technologies

Dear Chairman Korman, Vice-Chair Guyton, and the members of the Environment and Transportation Committee,

Thank you for the opportunity to testify in support of HB 40. Passage of this bill will result in the state of Maryland taking concrete steps to advance a more reliable and affordable grid for the state. Functionally this means lower costs for transmission borne by Maryland ratepayers, strengthening grid reliability in Maryland, increasing the likelihood of new generation assets coming online in the state, and critically, and achieving this in a substantially shorter time windows than traditional new transmission construction.

Defining advanced transmission technologies (ATTs) broadly to include not only both "grid enhancing technologies" (GETS) and "high-performance conductors", but also including within the ATT definition "energy storage used for transmission" directs developers and the Maryland Public Service Commission (MD PSC) to utilize a suite of tools that will substantially improve the capacity of Maryland's grid. This allows for alternatives to traditional transmission construction that will maximize existing transmission infrastructure. This includes both hardware and software upgrades that have comparatively lower capital costs and utilizing storage to advance avoided transmission which will have additional benefits to strengthening the Maryland grid.

Requiring analysis for the integration of ATTs in an application for a Certificate of Public Convenience and Necessity for overhead transmission lines will give MD PSC the authority needed to ensure that new transmission projects in Maryland are evaluated to ensure that they are least-cost, and most effective for Maryland transmission projects.

Finally, by requiring transmission owners to submit to the commission an analysis of recent, current, and projected (within five years) transmission congestion – *paired with an analysis of deploying ATTs in identified congested regions* – will greatly strengthen grid planning and provide a mechanism for reducing areas of existing transmission congestion. This is crucial to work proactively to implement least-cost interventions to avoid issues with known congestion risk, rather than relying on reactive cost-intensive emergency upgrades to address pending issues only once they have risen to the level of an emergency.

Such evaluation and planning will work to harmonize state efforts with updates regional transmission planning at PJM, and drive lowered costs in the state and region for transmission network upgrades. This point is critical if Maryland wishes to online new generation, as across the PJM region, new generation assets that have finally cleared the interconnection queue after many years of review are now facing prohibitive network upgrade costs that can preclude the project from moving forward.

Planning and implementation of cost-effective solutions through ATTs maximizes the capabilities of the Maryland grid, and is crucial to meet the challenges of an affordable and reliable energy future. The Center for Progressive Reform accordingly requests that the Environment and Transportation Committee issue a favorable report on HB0040.

Sincerely,

Bryan Dunning
Senior Policy Analysist
Center for Progressive Reform

HB0040_Public_Utilities_Transmission_Lines_Advance
Uploaded by: Cecilia Plante
Position: FAV

MARYLAND LEGISLATIVE COALITION

TESTIMONY FOR HB0040
Public Utilities – Transmission Lines – Advanced Transmission Technologies

Bill Sponsor: Delegate Charkoudian
Committee: Environment and Transportation
Organization Submitting: Maryland Legislative Coalition
Person Submitting: Cecilia Plante, co-chair
Position: FAVORABLE

I am submitting this testimony in strong support of HB0040 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

The need for power – to fuel our homes and our cars, power up our devices, and allow us to use AI – is ever growing. We simply have not been able to keep up. Our grid is being strained, and the utility companies are always at work expanding it. So far, it's cost us a fortune to keep up.

What about a different idea? What if we were to USE technology that already exists to make our grid more efficient and provide us with the power we need without the constant investment in new transmission lines?

That grid-enhancing technology, Alternative Transmission Technologies (ATIs), includes such things as:

- Dynamic Line Ratings, which measure the ambient conditions and temperature of a line to determine its real-time rated capacity. The capacity of lines can increase up to 50% in cold or windy conditions over the conservatively established static capacity rating.
- Advanced Power Flow Control, which is hardware and software that can reroute power flows to optimize line utilization, avoiding overflows of electricity in some areas and underutilization in others.
- Topology Optimization, which is software that is used to track the best route and combination of lines for transferring power. The software can then proactively alter grid topology to better control power flows.
- Advanced Reconductoring, which replaces old conductors on existing transmission lines with new, higher-capacity conductors that can enhance the overall performance of the line.

It would seem silly to ignore these technologies in order to opt for spending tons more money to achieve the same thing.

This bill will require transmission owners to identify areas of congestion in our transmission lines over the past 3 years and to also identify what they expect in the next 5 years. They are to then identify the feasibility of installing ATIs and what the relative cost/benefit would be to using traditional methods of expanding capacity. It also would require anyone who seeks a Certificate for Public Convenience and Necessity (CPCN) to demonstrate to the PSC that they have done this analysis and included it in their proposal.

We strongly support this bill and recommend a **FAVORABLE** report in committee.

HB0040 & SB0201 OPC Testimony .pdf
Uploaded by: David Lapp
Position: FAV

DAVID S. LAPP
PEOPLE'S COUNSEL

WILLIAM F. FIELDS
DEPUTY PEOPLE'S COUNSEL

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BRANDI NIELAND
DIRECTOR, CONSUMER
ASSISTANCE UNIT

CARISSA RALBOVSKY
CHIEF OPERATING OFFICER

BILL NO.:	Senate Bill 0201/House Bill 0040 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
COMMITTEE:	Education, Energy, and the Environment Environment and Transportation
HEARING DATE:	February 3, 2026 (ENT)
SPONSOR:	Senators Brooks, Hettleman, and West Delegate Charkoudian
POSITION:	Favorable

****

The Office of People's Counsel (OPC) respectfully offers the following comments in support of SB 201/HB 40, which seeks to incorporate the use of advanced transmission technologies (ATTs) and other alternatives into transmission planning and ultimately reduce costs to customers.

Specifically, SB 201/HB 40 would require each owner or operator of an overhead transmission line to demonstrate to the Public Service Commission that they have considered the use of ATTs and other alternatives (1) as part of an application for a certificate of public convenience and necessity (CPCN), primarily required for construction of a new transmission line; and (2) in a regular report that identifies areas of transmission congestion, projected or actual costs of the congestion, and the feasibility of using ATTs or other alternative means of addressing transmission congestion at a lower cost to customers.

ATTs encompass a host of technologies including:

- high performance conductors, which allow for increased line capacity, higher transmission efficiency, and reduced thermal sag;
- 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; and

- grid enhancing technologies (GETs), which squeeze more performance out of existing transmission assets using advanced power flow controls, dynamic line ratings, and topology optimization.

ATTs 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.

ATTs can enable more rapid deployment of transmission capacity upgrades that are required for new generation to interconnect to the grid. Some 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, ATTs 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.[1]

ATTs 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.[2] 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.

ATTs can provide significant savings for transmission costs. For example, evaluations of ATTs 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.[3] As amended, however, the bill only requires reporting on any ATT solutions a utility, in fact, has studied; it does not require a study of any additional ATT solutions that the utility has not considered. The bill's added value is informational, by providing a reporting mechanism that could give additional insights to the PSC in its CPCN hearings rather than necessarily spurring adoption of ATTs that had not been considered.

This bill takes an important step toward maximizing the utility of existing transmission infrastructure in Maryland and is likely to prevent unnecessary investments in new infrastructure that could prove costly to ratepayers.

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[1] Katie Mulvaney et. al., *GETting Interconnected in PJM*, RMI (2024).
[2] *See* Storage as a Transmission Asset Issue Details, PJM Interconnection, LLC.
[3] Brattle Group, *Building a Better Grid* (Apr. 20, 2023) at 5.

Recommendation: OPC requests a favorable committee report on SB 201/HB 40.

Testimony on HB0040 Advanced Transmission Technolo

Uploaded by: Debbie Cohn

Position: FAV

Committees:	**Environment and Transportation**
Testimony on:	**HB0040- Public Utilities – Transmission Lines – Advanced Transmission Technologies**
Submitting:	**Deborah A. Cohn**
Position:	**Favorable**
Hearing Date:	**February 12, 2026**

Dear Chair Korman and Committee Members:

Thank you for considering my testimony in support of HB0040, Public Utilities – Transmission Lines – Advanced Transmission Technologies. As a longstanding Montgomery County resident, I am concerned about electricity reliability and affordability. HB0040 addresses both as Maryland modernizes its electric grid.

Maryland needs to modernize its grid to meet rising electricity demand, integrate less expensive clean energy sources and ensure resource adequacy and reliability. Upgrading the grid is inevitably very expensive. To minimize ratepayer costs, Maryland must ensure it does not overbuild the grid, takes advantage of cost-effective advanced transmission technologies and provides the Public Service Commission (PSC) the tools it needs to minimize costs to ratepayers. HB0040 is designed to achieve these goals.

What are Advanced Transmission Technologies: Advanced transmission technologies (ATTs) include grid-enhancing technologies (such as dynamic line rating, advanced power flow control, and topology optimization), reconductoring of existing lines with high-performance conductors, and energy storage techniques that can be used as transmission. ATTs can be deployed more quickly and improve the capacity, efficiency, reliability and resilience of new and existing lines, typically at lower cost than traditional upgrades or construction of conventional transmission lines. ATTs thus buy time until high technology transmission lines, where needed, can be installed.

Strengthening the Hand of the PSC in Evaluating Specific Applications for Certificates of Public Convenience and Necessity: Because publically owned utilities have a monopoly and earn a rate of return on infrastructure investments, ratepayers must rely on the PSC to ensure that utilities are considering all cost-effective alternatives to new transmission capacity. HB0040 strengthens the PSC's hand, making clear that applicants for a certificate of public convenience and necessity to build a transmission line would need, in addition to providing information on the project's environmental impact, also to demonstrate that their internal planning processes had evaluated (i) alternatives to the proposed line, including alternative routing options, (ii) the use of ATTs, distribution-level technologies or modifications that could avoid construction of the transmission line, (iii) whether integration of the transmission and distribution system could reduce the need for the proposed new transmission line, (iv) the cost to ratepayers, (v) the impact of strategies to increase customer demand response and energy efficiency improvements, and (vi) the proposal's impact on resource adequacy. Combined, these requirements could result in better transmission line planning and a much needed upgrade of the electric grid at a lower cost.

Enabling the PSC to Plan for Future Enhancement of the Grid: The PSC currently lacks information it needs to plan for the future development of the electric grid. HB0040 would require utilities to provide that information to the PSC every four years. These reports would disclose (i) areas of transmission congestion or predicted congestion where new transmission or distribution lines might be needed, (ii) actual and projected costs to ratepayers from this congestion, and (iii) various means, including use of ATTs, to relieve this congestion. It would also enable the PSC to consider the economic, environmental and social costs posed by each transmission alternative.

HB0040 is a carefully constructed bill that ensures that (i) utilities and the PSC have the needed information to plan, and (ii) the PSC has the clear authority to supervise the modernization of the transmission and distribution grid in the most cost effective and equitable manner. For these reasons I urge this committee to issue a FAVORABLE report on HB0040.

HB0040-ET_MACo_SUPP.pdf
Uploaded by: Dominic Butchko
Position: FAV

House Bill 40

Public Utilities - Transmission Lines - Advanced Transmission Technologies

MACo Position: **SUPPORT**

To: Environment and Transportation Committee

Date: February 3, 2026

From: Dominic J. Butchko

The Maryland Association of Counties (MACo) **SUPPORTS** HB 40. This bill calls for additional considerations and requirements for the construction of transmission lines.

The 2026 Maryland General Assembly is facing a historic number of complex generational challenges. One of the loudest issues to arise has been Maryland opposition to the Piedmont Reliability Project. The Project, which crosses Baltimore, Carroll, and Frederick Counties, effectively creates an "extension cord" across some of our state's prime agricultural lands, providing Pennsylvania-generated energy to Virginia-based data centers, with little direct benefit to Marylanders. As the General Assembly debates how to address this and other energy challenges, one of the biggest underlying issues will be how to prioritize now-competing state priorities (ie, energy demands and environmental goals).

As drafted, HB 40 requires the Public Service Commission and applicants to consider advanced transmission technologies more deeply as a means to avoid unnecessary community, environmental, or ratepayer impacts. As many transmission infrastructure upgrades may uniquely be accomplished by upgrading existing lines or using existing land, counties join the sponsor in wanting to protect both our mutual constituents and the finite number of conserved lands.

This is common sense legislation which seeks to address conflicts between Maryland's growing demand for energy and billions invested into other pro-climate policies to date. For this reason, MACo urges the Committee to issue HB 40 a **FAVORABLE** report.

ECA testimony Advanced Transmission HB40.pdf
Uploaded by: Frances Stewart
Position: FAV

HB0040 - SUPPORT
Frances Stewart, MD
Elders Climate Action Maryland
frances.stewart6@gmail.com
301-718-0446

HB0040 – Public Utilities – Transmission Lines – Advances Transmission Technologies

Meeting of the Environment and Transportation Committee

February 3, 2026

Dear Chair, Vice Chair, and Members of the Committee, on behalf of Elders Climate Action Maryland, I urge a favorable report on HB0040.

Elders Climate Action is a nationwide organization devoted to ensuring that our children, grandchildren, and future generations have a world in which they can thrive. The Maryland Chapter has members across the state.

Each day, we see the climate crisis more clearly. We know Maryland is at risk for sea level rise, flooding from intense rainfall, heat waves, and other extreme weather events. Maryland can also be a leader in moving us to a safer, cleaner future where we all can thrive. The clean energy transition is an essential part of that future.

We are also acutely aware of the rapid rise in utility bills Maryland households and businesses are facing. For those of us on fixed incomes, including many of our members, this is a growing concern.

Advanced transmission technologies (ATTs) include grid-enhancing technologies, high-performing conductors and storage. These technologies can make our existing grid more efficient. They are cost-effective and can be deployed more rapidly than building new transmission lines. ATTs can also reduce the need for new

transmission lines, which, in turn, reduces land use impacts, while improving grid reliability.

ATTs can also help with the integration of renewable resources into the grid. Those resources are the least expensive and cleanest sources of the power we need and can be added to the grid much faster than a new gas or nuclear power plant.

For all of these reasons, we strongly urge a favorable report on HB0040. Thank you.

HB40Advanced transmission technologiesChesapeake P

Uploaded by: Gwen DuBois

Position: FAV

CHESAPEAKE PSR PHYSICIANS FOR SOCIAL RESPONSIBILITY

Committee: Energy and Transportation
Testimony on: HB40
Position: Favorable
Hearing date: February 3, 2026

Chesapeake Physicians for Social Responsibility (CPSR) is an organization of over 880 supporters, that was founded by physicians addressing existential threats to health and life like climate change, pollution and nuclear war. CPSR strongly supports **HB40** because, in addition to saving tax payers money, it would allow more renewable energy sources to come on line instead of polluting and greenhouse gas (ghg) producing fossil fuel sources. This will move us closer to achieving our net zero ghg emission goals all while helping Marylanders stay healthier and our transmission grid more reliable.

HB40 require utilities and other transmission owners to explore and report advanced technology alternatives when applying to PSC for a permit (CPCN) to develop new transmission lines. In addition owners would be required to report every 4 years whether advanced transmission technology (ATT) could decrease the cost of transmission congestion for ratepayers.
ATT refer to both grid enhancing technologies (GET) and advanced conductors.
Grid enhancing technologies, also known as "flexible technologies," include: dynamic rating system technology (may increase capacity by up to 70%) that takes weather and other real time conditions into account to adjust transmission capacity, technology that can adjust and reroute power flow to relieve congestion and software that can create different flow configurations as needed to reduce congestion.
Advanced conductors use alternate conductor material that may increase energy carrying capacity by up to 110% without requiring new transmission lines. Advanced conductors also reduce the risk of wildfires.

These advanced technologies are faster (3 years or less vs 10 years), cheaper, more flexible and less socially disruptive than constructing new power lines running through private property like homes and farmland. In addition, they avoid the ghg emissions by allowing more renewable energy sources to come online, and avoid health harms from pollution caused by the use of coal, and gas brought on line temporarily while awaiting the completion of the new power line. ATT would help transition Maryland towards the carbon free grid we need to achieve

Finally, ATT avoids the environmental injustice that results from using fossil fuel derived power plants which are located in low income, minority neighborhoods where excessive sources of pollution already exist. A recent report in the British Medical Journal concluded "Pollution from oil and gas development in the US accounts for around 91 000 premature deaths every year, along with over 200 000 new childhood asthma cases and 10 000 preterm births, disproportionately affecting black, Hispanic, Native American, and low-income populations."

Though not totally avoiding the building of new transmission lines in the future, ATT creates the possibility of increasing energy transmission in the short term, reducing costs, and speeding up transition to a clean carbon free, more equitable energy future. It avoids a rush to building new transmission lines that may not be needed in the long run.

CPSR supports HB 40.

Terry Fitzgerald MD
Chesapeake Physicians for Social Responsibility
ttfitz@stanfordalumni.org

HB0040 Advanced Transmission Technology - HoCoCA-

Uploaded by: HoCo Climate Action Organization

Position: FAV

HoCoClimateAction.org
Howard County, Maryland

Testimony: **HB0040 – Public Utilities - Transmission Lines - Advanced Transmission Technologies**
Hearing Date: **Feb. 3, 2026**
Bill Sponsor: **Delegate Charkoudian**
Committee: **Environment and Transportation**
Submitting: **Liz Feighner for Howard County Climate Action**
Position: **Favorable**

Dear Chair, Vice Chair and Committee Members,

HoCo Climate Action is a 350.org local chapter and a grassroots organization representing approximately 1,400 subscribers. We are also a member of the Climate Justice Wing of the Maryland Legislative Coalition. Our organization works with residents and ally organizations to promote a safe climate and clean energy future. Specifically, we have worked extensively on building electrification to help Maryland achieve its ambitious climate goals, including net-zero emissions.

We urge you to vote favorably on **Advanced Transmission Technologies**, **HB0040**, which would improve the capacity, efficiency, reliability, and resilience of both new and existing transmission infrastructure, often at a lower cost and faster implementation than traditional upgrades.

HB0040 requires utilities and other transmission owners to analyze and report on advanced transmission technology (ATT) alternatives when applying for a CPCN permit to develop new transmission lines. In addition, this bill requires regular reporting every 4 years whether advanced transmission technologies could decrease the cost of congestion for ratepayers. Advanced Transmission Technologies (ATTs) include grid-enhancing technologies (GETs), high-performance conductors, and storage used as transmission.

ATTs offer cost-effective, efficient, and flexible alternatives to build new transmission lines and deploy more quickly, offering a faster solution to address grid constraints. They are less socially disruptive than constructing new transmission power lines running through private property (like homes and farmland) and public conservation and recreation lands. Building new transmission lines is extremely expensive and highly controversial. Case in point, Maryland ratepayers will bear the $796 million and rising cost for making transmission upgrades to handle the planned retirement of the Brandon Shores and Wagner power plants.

ATTs would help Maryland transition towards the carbon free grid we need by helping get more out of the grid we already have. Although not totally avoiding building new transmission lines in the future, ATT creates the possibility of increasing additional energy transmission in the short term, reducing costs, and speeding up the transition to a clean carbon-free, more equitable energy future. It avoids a rush to build new transmission lines that may not be needed in the long run.

For these reasons, we support **HB0040** and recommend a **favorable** report.

Howard County Climate Action
Submitted by Liz Feighner, Steering and Advocacy Committee
www.HoCoClimateAction.org
HoCoClimateAction@gmail.com

Ceres Testimony HB40 -Public Utilities - Transmiss
Uploaded by: Jeff Mauk
Position: FAV

HB40 – SUPPORT
Jeff Mauk
Ceres
jmauk@ceres.org

TESTIMONY SUPPORTING HB40:
Public Utilities - Transmission Lines - Advanced Transmission Technologies

House Environment and Transportation Committee
February 3rd, 2026

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

I write today on behalf of Ceres to respectfully urge a favorable report from the Committee on HB40 concerning Advanced Transmission Technologies. Ceres works with investors, companies, and financial leaders to promote sustainability solutions. Through our Business for Innovative Climate and Energy Policy Network (BICEP), we mobilize over 80 major employers, including several businesses doing business in Maryland, to advocate for more affordable and sustainable climate and clean energy policies.

Advanced transmission technologies—including grid-enhancing technologies, high-performance conductors, and energy storage used as transmission—represent proven, cost-effective solutions that can dramatically increase the capacity of existing transmission infrastructure without the time delays and expense of building new lines.

From a business perspective, these technologies offer compelling economic advantages:

Faster Deployment and Reduced Regulatory Risk

New transmission line construction typically requires 7-10 years or longer, with significant permitting, siting, and construction challenges that introduce cost overrun risks and schedule delays. Advanced transmission technologies can often be deployed on existing infrastructure in 1-3 years, dramatically accelerating the timeline for relief of transmission congestion and reducing project execution risk. This speed-to-market advantage is critical for businesses planning major clean energy investments in Maryland.

Enhanced Grid Reliability and Resilience

Grid-enhancing technologies provide real-time monitoring and control capabilities that increase system reliability and prevent cascading outages. For businesses, this translates to reduced risk of costly power interruptions. High-performance conductors also perform better under extreme weather conditions, reducing outage risks during heat waves and storms, which are a growing concern for corporate risk managers as climate impacts intensify.

Supporting Maryland's Economic Competitiveness

Maryland is competing with neighboring states to attract new companies to invest in the state. Transmission constraints directly impact the state's ability to compete for these high-value economic development opportunities. House Bill 40 addresses this challenge by:

- Requiring applicants for transmission line certificates to demonstrate they have considered advanced technologies and alternatives. This ensures the Public Service Commission has complete information to evaluate whether proposed projects represent the most cost-effective solution for ratepayers.
- Establishing regular reporting on transmission congestion and potential solutions. This transparency allows businesses and policymakers to understand bottlenecks in the system and plan accordingly, while ensuring transmission owners are actively evaluating cost-effective solutions rather than defaulting to expensive new construction.
- Creating a more comprehensive planning framework that considers the full range of options—from transmission and distribution system modifications to demand response and energy efficiency. This integrated approach ensures Maryland's grid investments deliver maximum value and support the state's clean energy goals without unnecessary expenditure.

Alignment with Industry Best Practices

Leading utilities and grid operators across the country are already deploying advanced transmission technologies. PJM Interconnection has implemented dynamic line ratings on thousands of circuit-miles. Major utilities have announced significant deployments of high-performance conductors and grid-enhancing technologies. These utilities recognize that maximizing existing infrastructure is both economically prudent and essential for meeting growing electricity demand.

The Federal Energy Regulatory Commission (FERC) has encouraged regional transmission organizations to consider advanced technologies in their planning processes. House Bill 40 brings Maryland's state-level regulatory framework into alignment with this evolving federal and industry consensus around grid modernization.

Enabling the Clean Energy Transition

Companies are increasingly committed to clean energy procurement and decarbonization goals. Transmission capacity is frequently the limiting factor in connecting new clean energy projects to load centers. By accelerating the deployment of technologies that increase transmission capacity quickly and cost-effectively, House Bill 40 directly supports the business community's ability to meet clean energy commitments while controlling costs.

The bill's expansion of the definition of 'qualified generator lead line' to include advanced transmission technologies is particularly important. This ensures that clean energy interconnection projects can leverage the most cost-effective infrastructure solutions, reducing the cost of clean energy for Maryland businesses and residents.

Conclusion

House Bill 40 represents sound policy that balances the need for transmission infrastructure investment with fiscal responsibility to ratepayers. By requiring consideration of advanced transmission technologies and establishing regular reporting on transmission congestion, the bill creates a planning framework that will result in lower costs, faster deployment, and more resilient infrastructure.

The business community and all ratepayers need a transmission system that can accommodate growing electricity demand, facilitate clean energy deployment, and support economic development, all while controlling costs for ratepayers. House Bill 40 advances all of these objectives.

For these reasons, I urge a favorable report on House Bill 40.

Respectfully submitted,

Jeff Mauk
Director, State Policy, Eastern Region, Ceres

House Bill 0040 letter of support.pdf
Uploaded by: jennifer teeter
Position: FAV

Jennifer Teeter
1805 Uniontown Road
Westminster, MD 21158
Jennyteeter@comcast.net
443-340-2070

RE: House Bill 0040

Dear Delegate Charkoudian and Members of the Environment and Transportation Committee:

I am writing in support of House Bill 0040. I am a concerned citizen impacted by the MPRP proposed transmission line.

The US electricity transmission infrastructure dates to the 1940s and 1950s. The technology is outdated and causes outages due to fires, and accidental or weather-related line breakage. The transmission wires are heavier and carry less energy than newer composite core materials

Thinking about modernization in other industries we rely upon heavily in our daily lives such as housing materials (asbestos removal, modern fire-retardant materials), plumbing supplies (replacing lead pipes), safety technology in vehicles (seat belts, power brakes, air bags) and others. People die annually (down power lines, traffic signal outages, medical device failures and extreme temperature deaths) due to power outages that could be prevented by use of more modern equipment. Wildfires in California and winter storm outages in Texas are current examples of risks of aging lines.

This begs the question of who is monitoring our grid and making sure investments are being made in modernization instead of replacing or building new lines with old technology? Cost incentives for utilities to upgrade are non-existent and our grid is made up of interregional players with competing priorities. After 25 years, transmission lines degrade and fail. Performance, safety and efficiency are at risk.

Smarter, modern grids have composite core lines that carry up to 3x the power, they are lighter in weight and less prone to fire risk and breakage. Supporting structures have grid enhancing technologies, computers that direct power to where it is needed and move excess power to storage batteries for backup use.

We've been learning about this since the MPRP proposal was submitted. Even then, it was apparent that the Federal Government realized the grid requires updating and to protect the public from expansion using "more of the same" the Federal Energy Regulatory Commission passed Order 1920, requiring among other changes, that utilities must

prioritize updating the existing infrastructure. The FERC also noted that there needs to be incentives for utilities to use existing transmission and transportation right of ways for erecting new lines rather than recommending greenfield projects that disrupt private land and finite green spaces. PJM appealed FERC 1920 and is exempt until that is complete. Use of existing transportation right of ways for transmission makes sense, the right of ways are owned by the Dept of Transportation and provide a direct pathway between substations connecting to urban areas where use is highest. This avoids use of ever increasingly finite farmland and green spaces.

I was pleased to see Governor Moore's recent Executive Order, bipartisan Senate Bill 386 and House Bill 0040 that work to codify these important elements of the FERC regulation into Maryland Law and reduce energy costs. This is truly one of those industries that needs to be turned on its head. For too long we have allowed the public to bear the burden of supplying big industry with energy because the public has always paid for transmission costs. With the extraordinarily large energy loads in our modern society such as AI Data Centers, this no longer makes sense. These multi-million dollar corporations look for sweet deals in states with minimal zoning restrictions and fast track approval processes. They provide tax revenue to localities struggling to make ends meet.

Thank you for your attention to these issues and moving forward toward passage of this important bill.

Most sincerely,

Jenny Teeter

HB40_ENT_2.3.26_Audubon_Fav.pdf
Uploaded by: Jim Brown
Position: FAV

Audubon | MID-ATLANTIC

Maryland Office
2901 E. Baltimore St
Baltimore, MD 21224

Jan. 30, 2026

To: Chair Korman, Vice-Chair Guyton and members of the Maryland House Committee on Environment and Transportation

From: Jim Brown, Policy Director, Audubon Mid-Atlantic

Subject: Favorable Testimony for HB 40 Public Utilities - Transmission Lines - Advanced Transmission Technologies

Audubon Mid-Atlantic submits this testimony in support of HB 40: Advanced Transmission Technologies. Audubon Mid-Atlantic is the regional office of National Audubon Society, representing over 35,000 Marylanders who advocate for the protection of birds, bird habitat, and policies aiming to protect both birds and human communities in the face of increasing environmental challenges, habitat loss, pollution, and climate change. We work with partner organizations, government agencies, and local communities to protect birds and the places they need to survive now, and into the future.

HB 40 is a critical step forward in ensuring Maryland's grid is reliable, efficient, and prepared for future energy demands. This bill gives the PSC more opportunities to review and applicants more opportunities to demonstrate how advanced transmission technologies (ATTs) and grid-enhancing technologies (GETs) can modernize our transmission infrastructure in a way that accommodates new generation, while minimizing disruptive new transmission lines. Furthermore, ATTs facilitate better integration of renewable energy sources such as wind and solar, which are crucial for protecting Maryland's environment. By improving the transmission system's capacity and flexibility, these technologies help ensure that electricity can be delivered efficiently and reliably.

Beyond improving grid reliability and efficiency, ***ATTs provide significant benefits for wildlife, particularly birds. These technologies help optimize existing transmission infrastructure, reducing the need for new transmission lines that have the potential to fragment habitats and pose collision risks to birds***. By enhancing grid efficiency, ATTs can minimize environmental disruption while supporting the responsible expansion of renewable energy. HB 40 provides an opportunity for Maryland to lead in renewable energy development while safeguarding the state's diverse bird populations. By supporting ATT deployment, this bill enables us to advance a cleaner, more reliable grid without additional conservation impacts.

HB 40 will help reduce the threats that birds and people face because of transmission line development. And it will hold Maryland up as a leader in conservation planning, renewable energy, and transmission policy, protecting birds and the places they need to survive now and into the future. Audubon urges a favorable review of HB 40.

Sincerely,
Jim Brown
Audubon Mid-Atlantic
Jim.brown@audubon.org

HB0040 (ATTs) testimony - final (1).pdf
Uploaded by: Josh Tulkin
Position: FAV

P.O. Box 278
Riverdale, MD 20738

Committee: Environment and Transportation

Testimony on: HB0040 "Public Utilities - Transmission Lines - Advanced Transmission Technologies"

Position: Support

Hearing Date: February 3, 2026

The Maryland Chapter of the Sierra Club supports HB 0040 and urges the Committee to adopt a favorable report. This bill would modernize Maryland's transmission planning and deployment process by ensuring that advanced transmission technologies (ATTs), including hardware and software upgrades that increase capacity on existing lines, are systematically evaluated and used where cost-effective.

Maryland needs smarter, faster grid capacity without unnecessary new construction

Maryland's electric grid is part of the PJM regional network, where rapid load growth is stressing existing transmission infrastructure. Large new lines can take years before they can be planned, permitted and built. Meanwhile, congestion costs, which occur when limited transmission capacity forces expensive generation to run, cost consumers billions nationwide. In 2022 alone, grid congestion costs in the U.S. were estimated at over $20.9 billion[1].

ATTs address this challenge by increasing the effective capacity of the existing grid without waiting for new rights-of-way, lowering the risk of delay and disputes that accompany transmission lines.

What Are Advanced Transmission Technologies (ATTs)?

ATTs include a suite of hardware and software upgrades that improve the operation, capacity, and reliability of existing transmission infrastructure. These include[2] :

1- **Dynamic Line Ratings (DLR):** Processes that adjust thermal line ratings using real-time weather data, enabling operators to safely transmit more power under favorable conditions compared with static ratings.
2- **Advanced Power Flow Control:** Devices that dynamically reroute electricity around congestion points, increasing grid utilization.
3- **Transmission Topology Optimization:** Software that identifies optimal switching configurations to reduce congestion impacts without physical upgrades.

State and federal research identifies ATTs as a key method to modernize the grid. Fifteen states across the US have already enacted policy measures to advance ATT to reduce congestion and accelerate renewable integration[3]. However, because ATTS do not necessarily increase the rate base (either because they can result in less need for capital or are expenses rather than capital investments) utilities can have less incentive to explore and implement ATTs without legislation directing them to do so.

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[1] Pew Charitable Trusts: *Advanced Transmission Technologies Can Help States Meet Growing Energy Demand* (Jan. 15, 2025). https://www.pew.org/en/research-and-analysis/fact-sheets/2025/01/advanced-transmission-technologies-can-help-states-meet-growing-energy-demand/

[2] Bipartisan Policy Center: *Unlocking the Potential of Grid Enhancing Technolgies: Pathyways to Widespread Adoption* (Jan. 8, 2026). *https://bipartisanpolicy.org/issue-brief/unlocking-the-potential-of-grid-enhancing-technologies-pathways-to-widespread-adoption/*

[3] Climate Policy Dashboard: *Enabling ATTs and GETs*. https://www.climatepolicydashboard.org/policies/electricity/transmission-atts-gets/

P.O. Box 278
Riverdale, MD 20738

Aligning planning with grid modernization

Policy literature emphasizes that integrating ATT into formal planning processes is essential. A joint report by the Clean Air Task Force and The Brattle Group recommends that planners "maximize the value of the existing power system" by rapidly deploying ATTs alongside proactive planning and interconnection reforms[4].

Similarly, national grid policy analyses show that states that require utilities to study or incorporate ATT options benefit from clearer, more transparent decision-making and faster grid improvements[5].

Benefits to Maryland ratepayers, reliability, and clean energy goals

Deploying ATTs can reduce congestion costs borne by ratepayers, lower the likelihood of reliability disruptions caused by constrained transmission lines, and expedite the integration of new clean generation. By increasing capacity on existing infrastructure, ATTs reduce the need for expensive and disruptive new construction projects that often entail lengthy siting battles, community opposition, and environmental concerns. A growing body of evidence suggests that ATTs can be deployed more quickly and at significantly lower cost than building new transmission corridors[6].

ATT deployment supports both grid reliability and decarbonization objectives. House Bill 0040 takes an important step by ensuring that Maryland's transmission planning reflects modern solutions, not solely traditional overhead line construction. The bill defines "advanced transmission technologies" broadly to include grid-enhancing technologies, high-performance conductors, and energy storage used as transmission—recognizing that meaningful capacity and reliability benefits can come from upgrading existing infrastructure with ATTs.

HB 0040 requires that any applicant seeking approval for a new overhead transmission line provide evidence that ATTs and other alternatives were evaluated as part of internal planning, including whether these solutions could enhance efficiency, reduce costs, and provide greater value to ratepayers. The bill also establishes a recurring congestion reporting requirement, ensuring that transmission owners identify areas of congestion, quantify the associated ratepayer costs, and, where feasible, propose implementation plans for advanced technologies to address these constraints.

Conclusion

HB 0040 provides a prudent framework to modernize Maryland's transmission planning by embedding ATTs into the evaluation and siting process. This will help reduce congestion costs, improve reliability, and support clean energy integration without imposing unnecessary environmental or ratepayer costs.

For these reasons, the Maryland Chapter of the Sierra Club urges a favorable report on HB 0040.

Qasim Mehdi
Energy Team Member
mqasimmehdi@gmail.com

Josh Tulkin
Chapter Director
Josh.Tulkin@mdsierra.org

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[4] Clean Air Task Force: *New CATF/Brattle report identifies untapped solutions to address rising electricity demand and avert grid bottlenecks* (July 22, 2025). https://www.catf.us/2025/07/new-catf-brattle-report-identifies-untapped-solutions-address-rising-electricity-demand-avert-grid-bottlenecks/

[5] Climate Policy Dashboard: *Enabling ATTs and GETs*. https://www.climatepolicydashboard.org/policies/electricity/transmission-atts-gets/

[6] World Resources Institute: *How Advanced Transmission Technologies Can Revamp the Aging US Power Grid* (July. 10, 2025). https://www.wri.org/insights/advanced-transmission-technologies-us-power-grid/

MF_HB 40_ Advanced Transmission Technologies.pdf
Uploaded by: Kathy Kinsey
Position: FAV

Committee: Environment and Transportation
Testimony on: House Bill 40 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
Organization: Mobilize Frederick
Submitting: Kathy Kinsey
Chair, Government Affairs Committee
Position: Favorable
Hearing Date: February 3, 2026

Dear Chair Korman, Vice-Chair Guyton, and Committee Members,

Thank you for the opportunity to comment on House Bill 40 – Public Utilities - Transmission Lines - Advanced Transmission Technologies.

Mobilize Frederick, a nonprofit community advocacy organization formed to assist with implementation of innovative local solutions to address climate change, urges the Committee to issue a **favorable** report on this bill., which would require consideration, and where appropriate, use of Advanced Transmission Technologies to increase the capacity of existing and future transmission lines.

At a time when Marylanders across the State are facing sharply rising energy costs and strained grid capacity, deployment of grid-enhancing tools and other Advanced Transmission Technologies that would optimize and increase transmission line capacity, efficiency, or reliability is vitally important. Advanced Transmission Technologies can reduce or delay the need to build costly new transmission lines at rate-payer expense and help to ensure that ratepayer dollars are used as cost-effectively as possible.

To ensure consideration and use of these tools, House Bill 40 requires developers of new overhead transmission lines to demonstrate how they considered the use and costs of Advanced Transmission Technologies and other alternatives to construction of a new transmission line as part of the required application to the Public Service Commission for a Certificate of Public Convenience and Necessity (CPCN).

The bill further requires regular capacity assessments of the transmission system, and the development of implementation plans to address line congestion. Starting this year and

every four years thereafter, owners or operators of overhead transmission lines are required to submit a report to the Public Service Commission that:

1. Identifies service areas that experienced line congestion during the previous three-year period and service areas that are projected to experience congestion in the next five years;
2. Assesses the feasibility and costs associated with the use of Advanced Transmission Technologies or other alternatives to construction of new transmission lines to address transmission congestion; and
3. Where feasible, includes a proposed plan for the use of Advanced Transmission Technologies to address areas of congestion.

In this time of unprecedented growth in electricity demand, multiple solutions are needed to ensure grid capacity. Evaluation and use of Advanced Transmission Technologies is an effective strategic planning tool that promotes grid reliability and cost control and helps to ensure the most economically efficient use of ratepayer dollars. Moreover, Advanced Transmission Technologies offer grid flexibility that allows easier connection with renewable energy sources, thereby reducing the need for fossil fuel derived generation.

For all the foregoing reasons, we respectfully urge the Committee to issue a **favorable** report on House Bill 40.

Sincerely,

KATHY KINSEY
Chair, Government Affairs Committee

cc: Karen Cannon
Executive Director

2026.02.03_HB0040_FAV_Advanced Energy United.pdf
Uploaded by: Katie Mettle
Position: FAV

February 3, 2026

Environment & Transportation Committee

HB 40
Public Utilities – Transmission Lines – Advanced Transmission Technologies
Sponsor: Delegate Lorig Charkoudian

Katie Mettle
Policy Principal, Advanced Energy United

FAVORABLE

Dear Chair Korman, Vice Chair Guyton, and esteemed members of the Environment & Transportation Committee:

Advanced Energy United is an industry association that represents companies operating in the clean and advanced energy spaces. "Advanced energy" broadly refers to technology that consists of or which is compatible with clean energy generation, and which makes our grid more affordable, efficient, reliable, resilient and/or secure.

HB 40 will require transmission owners to conduct an analysis on whether alternative routes or the deployment of advanced transmission technologies could be preferable to building an overhead transmission line. It also requires transmission owners to submit a report every four years to the Public Service Commission that will require transmission owners to anticipate future transmission needs and plan accordingly, including the requirement that if feasible, transmission owners create an advanced transmission technology implementation plan.

In general, incorporating advanced transmission technologies on the grid can be faster and more cost-effective than not. This bill has the potential to save ratepayers money in two major ways:

1. By encouraging additional transmission capacity to be added in the fastest, most cost-effective way possible, and

2. By allowing needed energy supply to enter Maryland as quickly and cost-effectively as possible, which will place downward pressure on wholesale energy prices.

We respectfully request the Committee issue a favorable report. Thank you for your time.

Best Regards,

Katie Mettle, Policy Principal
Advanced Energy United
kmettle@advancedenergyunited.org
202.380.1950 x3197

HB0040_Advanced Transmission Technologies_E&T_CJW
Uploaded by: Laurie McGilvray
Position: FAV

Testimony on: HB0040 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
Committee: Environment and Transportation
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Gwen DuBois
Position: Favorable
Hearing Date: February 3, 2026

Dear Chair and Committee Members:

Thank you for allowing our testimony today on HB0040. The Maryland Legislative Coalition (MLC) Climate Justice Wing, a statewide coalition of 32 grassroots and professional organizations, urges you to vote favorably on HB0040.

The MLC Climate Justice Wing supports HB0040 because it would save ratepayers money, reduce the impacts of new transmission lines, and allow more renewable energy sources to come online instead of relying on polluting, greenhouse gas (GHG) producing fossil fuel sources. This bill will move us closer to achieving our net zero GHG emission goals, all while helping Marylanders have a more affordable, healthier, and reliable electricity grid.

HB0040 requires utilities and other transmission owners to analyze and report on advanced transmission technology (ATT) alternatives when applying to Public Service Commission (PSC) for a permit (CPCN) to develop new transmission lines. In addition, they would be required to report every 4 years whether advanced transmission technologies could decrease the cost of congestion for ratepayers.

ATT refers to both grid enhancing technologies (GETs) and advanced conductors. Grid enhancing technologies, also known as "flexible technologies," include, *dynamic rating system technology* that takes weather and other real time conditions into account to adjust transmission capacity (and which may increase capacity by up to 70%), *advanced power flow technology* that can adjust and reroute power flow to relieve congestion, and *topology optimization software* that can create different flow configurations as needed to reduce congestion. *Advanced conductors* use alternate conductor material that may increase energy carrying capacity by up to 110% without requiring new transmission lines. Advanced conductors also reduce the risk of wildfires.

These advanced technologies are faster to deploy (3 years or less vs 10 years), cheaper, cleaner, more flexible, and less socially disruptive than constructing new transmission power lines running through private property (like homes and farmland) and public conservation and recreation lands. For example, the Maryland Piedmont Reliability Project is extremely controversial with opposition from landowners, farmers, communities and elected officials. Additionally, Maryland is faced with skyrocketing utility bills while struggling to deliver the right amount of power to the right regions of the state. Building new transmission lines is extremely expensive and highly controversial. Case in point, Maryland ratepayers will bear the $796 million cost for making transmission upgrades to handle the planned retirement of the Brandon Shores and Wagner power plants. Furthermore, ATTs

can avoid GHG emissions by making it possible for more renewable energy sources to connect to the grid and avoid health harms from pollution from the coal and gas power plants needed temporarily while awaiting the completion of new transmission. ATTs would help Maryland transition towards the carbon free grid we need by helping get more out of the grid we already have.

Finally, ATTs avoids the environmental injustice that results from fossil fuel powered generating plants, which frequently are located in low-income, minority neighborhoods where excessive sources of pollution already exist. A recent report in the British Medical Journal concluded "Pollution from oil and gas development in the US accounts for around 91,000 premature deaths every year, along with over 200,000 new childhood asthma cases and 10,000 preterm births, disproportionately affecting black, Hispanic, Native American, and low-income populations."

Although not totally avoiding building new transmission lines in the future, ATT creates the possibility of increasing additional energy transmission in the short term, reducing costs, and speeding up the transition to a clean carbon-free, more equitable energy future. It avoids a rush to building new transmission lines that may not be needed in the long run.

For these reasons we ask for a FAVORABLE report.

- 350MoCo
- Adat Shalom Climate Action
- Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
- Chesapeake Earth Holders
- Chesapeake Physicians for Social Responsibility
- Climate Communications Coalition
- Climate Parents of Prince George's
- Climate Reality Greater Maryland
- ClimateXChange
- Coming Clean Network, Union of Concerned Scientists
- DoTheMostGood Montgomery County
- Echotopia
- Elders Climate Action
- Fix Maryland Rail
- Glen Echo Heights Mobilization
- Greenbelt Climate Action Network
- HoCoClimateAction
- Howard County Indivisible
- Maryland Legislative Coalition
- Maryland Energy Advocates
- Maryland Third Act
- Mizrahi Family Charitable Fund
- Mobilize Frederick
- Montgomery County Faith Alliance for Climate Solutions
- Montgomery Countryside Alliance
- Mountain Maryland Movement
- Nuclear Information & Resource Service
- Progressive Maryland
- Safe & Healthy Playing Fields
- Takoma Park Mobilization Environment Committee
- The Climate Mobilization MoCo Chapter
- Unitarian Universalist Legislative Ministry of Maryland

Testimony.HB40_Delegate Lorig Charkoudian.docx.pdf
Uploaded by: Lorig Charkoudian
Position: FAV

Lorig Charkoudian
Legislative District 20
Montgomery County

Vice Chair, Economic Matters Committee

Rules and Executive
Nominations Committee

Annapolis Office
The Maryland House of Delegates
6 Bladen Street, Room 231
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410-841-3423
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Lorig.Charkoudian@house.maryland.gov

THE MARYLAND HOUSE OF DELEGATES
Annapolis, Maryland 21401

HB 40 - PUBLIC UTILITIES - TRANSMISSION LINES - ADVANCED TRANSMISSION TECHNOLOGIES

TESTIMONY OF DELEGATE LORIG CHARKOUDIAN
FEBRUARY 3, 2026

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

Alternative transmission technologies (ATTs) are a suite of tools that can quickly and cost-effectively increase the capacity of the existing electrical grid without building new transmission lines. These typically encompass grid-enhancing technologies (GETs) — hardware and software solutions that can be deployed on the existing system and essentially act as energy efficiency for the grid — and advanced conductors. By increasing and optimizing the capacity of lines already in place, the grid can transmit more electricity without the lengthy planning and permitting process required for new transmission lines. Adding ATTs to lines being constructed, ensures that all new lines being built are as efficient as possible, thus decreasing the need for more lines and ensuring the best use of rate-payer dollars. While construction of new transmission lines will still be needed to support projected increased demand, ATTs ensure maximized efficiency from current and future grid investments. Thus, they merit consideration in grid planning processes, as now required by FERC Order 1920, as well as in the planning and permitting of specific transmission projects.

This bill will:

✔ Require transmission owners to identify areas of congestion over the past 3 years, identify areas that are expected to be experiencing congestion in the next 5 years, identify the potential increased cost to ratepayers as a result of that congestion, identify the technical feasibility and cost of installing ATTs to address congestion, and propose an implementation plan to install ATTs at such points.

✔ Require transmission developers who are seeking a Certificate for Public Convenience and Necessity to demonstrate to the PSC how they considered ATTs in their transmission proposal.

Some examples of Grid-Enhancing Technologies (GETs):

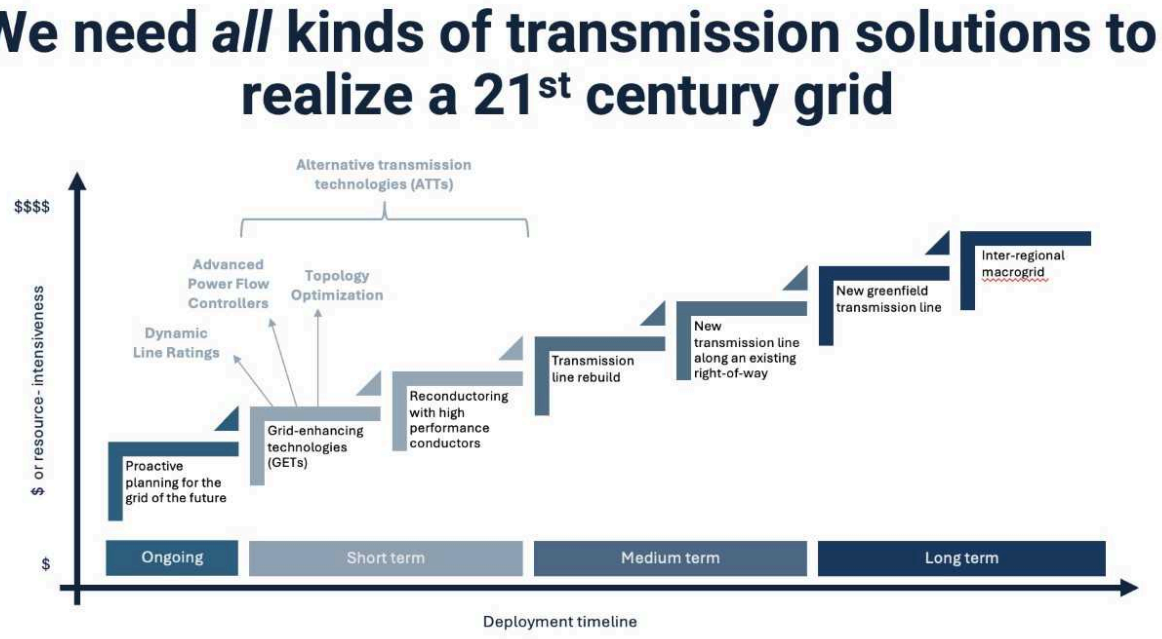
- Dynamic Line Ratings: Measures the ambient conditions and temperature of a line to determine its real-time rated capacity. The capacity of lines can increase up to 50% in cold or windy conditions over the conservatively established static capacity rating.

- Advanced Power Flow Control: Hardware and software that can reroute power flows to optimize line utilization, avoiding overflows of electricity in some areas and underutilization in others.

- Topology Optimization: Software is used to track the best route and combination of lines for transferring power. The software can then proactively alter grid topology to better control power flows.

- Advanced Reconductoring: Replacing old conductors on existing transmission lines with new, higher-capacity conductors that can enhance the overall performance of the line.

I respectfully request a favorable report on HB 40.



*PROVIDED BY RMI

HB 40 - MoCo_Elrich_FAV (GA 26).pdf
Uploaded by: Marc Elrich
Position: FAV

OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

February 3, 2025

TO: The Honorable Marc Korman
Chair, Environment and Transportation Committee

FROM: Marc Elrich
County Executive

RE: House Bill 40 – *Public Utilities - Transmission Lines - Advanced Transmission Technologies*
Support

I am writing to express my strong support for House Bill 40, *Public Utilities - Transmission Lines - Advanced Transmission Technologies,* which requires that alternatives such as advanced transmission technologies (ATT) be considered before approval of new overhead transmission lines. Owners of overhead transmission must also report on grid congestion and use of ATT to help address these issues.

Transmission congestion contributes to growing energy costs for ratepayers in Montgomery County and Maryland writ large. The traditional solution of building new transmission lines is expensive and siting can significantly impact private and public landowners.

The use of technologies like advanced conductors can increase the capacity and efficiency of existing grid infrastructure. Requiring utilities to evaluate ATTs before new transmission is built will help ensure that Montgomery County residents and businesses have access to reliable electricity through the most cost-effective solutions available. This is common sense legislation that would address challenges of growing regional demand for energy while protecting ratepayers.

I respectfully request that the Environment and Transportation Committee give this bill a favorable report.

cc: Members of the Environment and Transportation Committee

HB40_FAV_WATT and AMP Coalitions.pdf
Uploaded by: Nathan Shreve
Position: FAV

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.

Maryland LCV_Support_HB 40.pdf
Uploaded by: Rebecca Rehr
Position: FAV

MARYLAND LEAGUE OF CONSERVATION VOTERS

February 3, 2026

SUPPORT: HB 40 Public Utilities - Transmission Lines - Advanced Transmission Technologies

Mr. Chair and Members of the Committee:

Maryland LCV supports HB 40 - Public Utilities - Transmission Lines - Advanced Transmission Technologies, and we thank Delegate Charkoudian for her leadership and commitment to ensuring grid reliability and resource adequacy in Maryland.

HB 40 represents an important step forward in modernizing Maryland's transmission planning framework, at a time when the state must integrate increasing levels of clean energy, meet rising electricity demand, and minimize costs to ratepayers. Advanced Transmission Technologies (ATTs) include grid-enhancing technologies (GETs), high-performance conductors, and storage used as transmission. ATTs offer cost-effective, efficient, and flexible alternatives to build new transmission lines.

ATTs can improve the capacity, efficiency, reliability, and resilience of both new and existing transmission infrastructure, often at a lower cost and faster implementation than traditional upgrades. Unlike traditional transmission line projects, which can take years to plan, site, permit, and gain community acceptance, ATTs can typically be deployed more quickly, offering a faster solution to address grid constraints.

HB 40 appropriately strengthens the Public Service Commission's review of new overhead transmission line proposals by requiring CPCN applicants to demonstrate that their internal planning processes evaluated alternatives to the proposed line, including the use of ATTs, alternative routing options, and distribution-level technologies or modifications that could avoid the need for new transmission altogether. Additional considerations under this bill include the costs to ratepayers, resource adequacy, energy efficiency, and demand response, as well as the impact of the project on the environment. This allows for a better assessment of the viability and necessity of a transmission construction project. HB 40 also requires regular reporting on transmission congestion and opportunities for deploying ATTs, with an initial report due by December 1, 2026, and subsequent reports every four years thereafter.

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Phone: 410-280-9855

www.mdlcv.org

These reports will help identify where targeted, lower-cost upgrades could relieve system constraints and maximize the use of existing infrastructure before more expensive construction is pursued. **Passing this bill will help us get the most out of the grid that we have in a cost-effective way.**

ATTs play a crucial role in integrating renewable energy sources into the grid, to meet increasing electricity demand and achieve the state's climate goals. A 2024 report by RMI highlighted that GETs could enable the integration of 6.6 GW of new clean energy onto PJM's grid, which would support regional reliability and save approximately $1 billion in production costs annually.

Advanced conductors, which can carry 50% to 110% more power than conventional lines thanks to more efficient materials, can be deployed on existing towers and rights of way to replace older transmission wires. Likewise, storage on the transmission grid offers a cost-effective alternative to building new transmission lines by enhancing system flexibility, managing congestion, reducing renewable curtailment, supporting grid stability, and providing quicker solutions to meet clean energy goals and address resource adequacy concerns.

As the development of renewable energy projects accelerates, ATTs play a vital role in addressing the challenge of limited space on the grid, expediting interconnection processes, and reducing delays. These technologies ensure a smoother transition to a cleaner energy future, enhance grid reliability, and help reduce costs.

ATTs have less land use impacts compared to traditional transmission lines, meaning less disruption to communities and the environment. They can also improve grid access and reliability for underserved or vulnerable communities, ensuring that energy justice is a priority in the state's transition to a more sustainable energy system.

Maryland LCV wants to Power Maryland Forward, supporting **energy affordability** through **deployment of solar and storage, defense against more fossil fuels** and **unchecked utility profits**, while **getting the most out of the electricity grid we have**. Maryland LCV urges a favorable report on this important bill as part of this framework.

HB40_FAV_Third Act_Detchon.pdf
Uploaded by: Reid Detchon
Position: FAV

HB 40 - SUPPORT
Reid Detchon
Third Act Maryland
E-mail: reid.detchon@gmail.com
Mobile phone: 202-446-7589

HB 40 SUPPORT

Public Utilities - Transmission Lines - Advanced Transmission Technologies

House Committee on Environment and Transportation
February 3, 2026

Chair Korman, Vice Chair Guyton, and Members of the Committee:

I am writing to express strong support for H.B. 40, encouraging the deployment of Advanced Transmission Technologies by Maryland utilities. I am writing as a confessed energy nerd – a retired private citizen in Bethesda, a customer of Pepco, a member of Third Act Maryland, and a former official in the U.S. Department of Energy, where I served as Principal Deputy Assistant Secretary for Conservation and Renewable Energy from 1989 to 1993. **Third Act Maryland** is a volunteer organization that brings together over-60 adults who want to build a better future for our children and grandchildren – in this case, by strengthening clean energy policies that also reduce energy costs to consumers.

The rising cost of our monthly electricity bills has focused the attention of Marylanders, including Gov. Moore, on the issue of energy availability and affordability – a complex topic that seemingly defies easy solution. This bill, however, is **the lowest-hanging fruit you will find** to reduce the cost of electricity in a comparatively short period of time. Unlike other proposals you will consider on this committee as you grapple with energy policy, this one is a no-brainer.

Put simply, advanced transmission technologies are low-cost, proven, and quickly deployable tools to squeeze more juice from our existing transmission grid. Ironically, it is the fact that they are low-cost that has proved their biggest impediment. Utilities make money by investing capital and earning a return on that investment. The bigger the investment, the bigger the return. To them, these technologies are small potatoes – even if they save consumers money and make better use of our built-and-paid-for transmission grid. They need to be nudged to do the right thing, and HB 40 would provide that nudge.

What are advanced transmission technologies?

The transmission grid is one of our greatest achievements, but it represents old technology. Advances in material science, power electronics, communication devices, computational processing power, and optimization algorithms have made possible new ways to improve the efficiency and carrying capacity of existing power lines.[1]

To take two that are specifically called out in HB 40:

- "**Grid-enhancing technologies**," or GETs, include hardware and software that increase the capacity, efficiency, reliability, or safety of the power system **faster and at a lower cost** than traditional wires-based solutions. In many cases, GETs can be installed in months, not years, and pay for themselves in less than a year, making them a low-risk investment option.
- "**High-performance conductors**," or HPCs, enable existing power lines to carry higher loads with reduced thermal sag, improved efficiency (i.e., lower losses), and greater resilience compared to traditional conductors – 50% to 100% more than conventional conductors – often **avoiding the need to build additional transmission** lines.

A recent paper from MIT's Center for Energy and Environmental Policy Research[2] summed it up this way:

> In the near-term, perhaps the most powerful opportunity for progress involves increasing the capacity of the electricity grid without building entirely new lines or systems. With so-called advanced transmission technologies (ATTs), we can expand transmission capacity quickly by improving utilization of existing grid infrastructure. According to a recent DOE report[3], wider implementation of these solutions could meet our expected 10-year peak demand growth if deployed rapidly.

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[1] The Brattle Group, "Incorporating GETs and HPCs into Transmission Planning Under FERC Order 1920," Overview of GETs and HPCs, April 2025, p. 11: https://www.brattle.com/wp-content/uploads/2025/04/Incorporating-GETs-and-HPCs-into-Transmission-Planning-Under-FERC-Order-1920.pdf.

[2] Brian Deese, Rob Gramlich, and Anna Pasnau, Massachusetts Institute of Technology Center for Energy and Environmental Policy Research, "A Roadmap for Advanced Transmission Technology Adoption," CEEPR RC-2024-06, September 2024: https://ceepr.mit.edu/wp-content/uploads/2024/09/MIT-CEEPR-RC-2024-06.pdf.

[3] U.S. Department of Energy, "Pathways to Commercial Liftoff: Innovative Grid Deployment," April 2024, p. 1: https://climateprogramportal.org/wp-content/uploads/2025/02/Liftoff_Innovative-Grid-Deployment_Final_5.2-1.pdf.

As the U.S. Department of Energy put it in its December 2020 report, "Advanced Transmission Technologies"[4]:

> Advanced transmission technologies, coupled with advanced computational and advanced dynamic situational awareness, are a suite of tools that can help address transmission challenges, improving the efficiency and effectiveness of electricity delivery and increasing the reliability and resilience of the system.
>
> Other technologies, such as energy storage, microgrids, and distributed controls, can also help support the overall objectives of the electric power system. Underpinning the various grid challenges is the fundamental need to perform real-time balancing of generator outputs to meet demand – at all times and across all regions – within the limits and capabilities of the underlying hardware. Enhanced planning and optimization methods can help minimize operating costs, while new hardware capabilities can help move more power by upgrading existing line materials using existing transmission pathways. These new capabilities become more critical with a growing number of evolving threats from cyber-attacks and extreme weather events, among others.

Why is this legislation needed?

Utility profit incentives get in the way of the deployment of advanced transmission technologies. As a report from the U.S. Department of Energy put it:[5]

> Broadly speaking, under traditional cost-of-service regulation, [utilities] earn profits based on capital expenditures (CAPEX) investments and volumetric energy sales rather than customer outcomes. Operational expenditures (OPEX) are passed on to customers at cost, without generating a return for utilities. This business model can disincentivize investments in innovative technologies that have relatively lower CAPEX costs, have higher OPEX, improve system efficiency, or facilitate integration of third-party owned generation and storage (e.g., distributed energy resources, VPPs).
>
> Additionally, the value of advanced grid solutions sometimes flows to customers, other grid stakeholders, or society at large, while the utility bears the cost without realizing significant financial benefit. In the absence of a financial incentive or regulatory mandate, utilities are likely to prioritize investments in other projects that

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[4] U.S. Department of Energy, "Advanced Transmission Technologies," December 2020, pp. i-ii: https://www.energy.gov/sites/prod/files/2021/02/f82/Advanced%20Transmission%20Technologies%20Report%20-%20final%20as%20of%2012.3%20-%20FOR%20PUBLIC.pdf.

[5] U.S. Department of Energy, *op. cit.* ("Innovative Grid Deployment"), p. 54.

generate higher financial returns, rather than prioritizing solutions that may drive better overall system or societal impact.

MIT's recent report made a similar point:

> This "capex bias," which has become an accepted and well-known feature of cost-of-service regulation for over 50 years, ultimately means that transmission providers lack a positive incentive to use GETs or can be disincentivized from using GETs. Because GETs can obviate the need for more costly construction of new transmission lines, thereby reducing utility capital expenditures, they can lower utilities' profits. Even high-performance conductors, which are more expensive than regular conductors, can lower profits when they are installed in lieu of building new transmission – [because] reconductoring transmission lines costs less than half as much as building new transmission.[6]

Conventional incentives based on return on equity cannot motivate utilities because profit is directly proportional to capital invested, which for advanced transmission technologies can be very small: "For example, a 100-basis-point incentive on $1 million of equity invested yields only $50,000 in additional earnings. It is hard to imagine senior utility management even having a meeting to discuss an action that could achieve only a $50,000 contribution to the bottom line, especially when 100 basis points on a $100 million transmission line with potentially similar system benefits would yield $5,000,000 in additional earnings."[7]

HB 40 addresses this dilemma by putting it squarely in front of the Public Service Commission. A utility that wants permission to build a new transmission line would have to show the Commission that it had already considered alternatives to that line, including advanced transmission technologies.

Would Maryland be breaking new ground with HB 40?

HB 40 does not represent radical new thinking in utility regulation. **Twenty years ago,** in the Energy Policy Act of 2005, Congress directed FERC to "encourage deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities."[8] In that same

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[6] Deese *et al., op. cit.*

[7] American Council on Renewable Energy, Comments before the Federal Energy Regulatory Commission on "Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act," RM20-10-000, July 2020: https://acore.org/wp-content/uploads/2020/07/ACORE-Comments-on-FERC-Transmission-Incentives-NOPR.pdf.

[8] Public Law 109–58, title XII, Subtitle D – Transmission Rate Reform, Sec. 1241, Transmission Infrastructure Investment, codified at 16 U.S. Code § 824s: https://www.law.cornell.edu/uscode/text/16/824s.

law, Congress defined advanced transmission technology as including, among other things, energy storage devices (specifically including batteries), controllable load, and distributed generation (including PV, fuel cells, and microturbines).[9]

Former **FERC Chairs Rich Glick and Neil Chatterjee** recently urged[10] state action to encourage the rapid adoption of grid-enhancing technologies and high-performance conductors to quickly squeeze more out of existing transmission lines and rights-of-way. Noting the long lead time needed to build new electric transmission capacity, they said:

> Advanced transmission technologies will provide numerous benefits, but misaligned economic incentives often keep utilities from integrating them into their transmission planning processes. …
>
> At least 10 states passed legislation in 2025 requiring, at minimum, the consideration of advanced transmission technologies. …
>
> Given the urgent need to bring new generation online and keep costs low for customers as demand grows, we must maximize the use of the existing system through advanced transmission technologies. Economic growth relies on low-cost reliable power, and state regulators – in their state commissions and in regional planning processes – now have an important opportunity to ensure that growth is supported by cost-effective investments in advanced transmission technologies.

Gov. Moore's Executive Order of December 19, 2025, addressing the topic of Consumer Affordability, directs the Maryland Energy Administration to petition the Maryland Public Service Commission to require transmission owners to "specifically evaluate Advanced Transmission Technologies (ATTs), including Grid-Enhancing Technologies (GETs), before approving new transmission lines or major upgrades."[11] That is a step in the right direction, but HB 40 would put that direction into law.

We urge a favorable report on HB 40.

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[9] *Ibid*., Sec. 1223, Advanced Transmission Technologies, codified at 42 U.S. Code § 16422: https://www.law.cornell.edu/uscode/text/42/16422.

[10] Rich Glick and Neil Chatterjee, "FERC paved the way for smart grid solutions. States must take the next step." in *Utility Dive*, Aug. 15, 2025: https://www.utilitydive.com/news/smart-grid-gets-grid-enhancing-hpc-states/757687/.

[11] Gov. Wes Moore, Executive Order: "Building an Affordable and Reliable Energy Future," Sec. E2, "Grid Optimization and Advanced Transmission Technologies," Dec. 19, 2025, p. 6: https://governor.maryland.gov/Lists/ExecutiveOrders/Attachments/99/EO%2001.01.2025.27%20Building%20an%20Affordable%20and%20Reliable%20Energy%20Future_Accessible.pdf.

HB0040 Advanced Transmition Technologies Favorable

Uploaded by: Rhonda Kranz

Position: FAV

Testimony on: HB0040 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
Committee: Environment and Transportation
Submitting: Rhonda Kranz
Position: Favorable
Hearing Date: February 3, 2026

Dear Chair and Committee Members:

Thank you for accepting my written testimony in support of HB0040– Public Utilities - Transmission Lines - Advanced Transmission Technologies. I have been a resident of Maryland for over thirty years and am concerned with the increasing danger from our aging electric grid and rising demand for energy. HB0040 will move us forward in addressing these serious issues in a sensible and productive manner.

Maryland needs to prepare for a major increase in energy needs in response to the current push for development, especially high energy consumption data centers, and the increased need for heating and cooling our homes from climate change impacts, such as what we have been dealing with over this last week.

We have to be thoughtful when planning how we address these concerns. HB0040 takes that approach. It will save ratepayers money, reduce the impacts of new transmission lines, and allow more renewable energy sources to come online instead of relying on polluting, greenhouse gas (GHG) producing fossil fuel sources. It will move us closer to achieving our net zero GHG emission goals, all while helping Marylanders have a more affordable, healthier, and reliable electricity grid.

For these reasons I urge you to vote favorable for HB0040.

2026 Template_IndivisibleHoCo_FAV.docx.pdf

Uploaded by: Sidaarth Karegowdra

Position: FAV

HB-0040

Public Utilities - Transmission Lines - Advanced Transmission Technologies

Testimony before Environmental and Transportation Committee

Hearing 02/03

Position: Favorable

Dear Chair and Co-Chair Korman and Guyton, and members of the committee, my name is Sidaarth Karegowdra, a junior at River Hill High School, and I represent the 1600+ members of Indivisible Howard County. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are submitting written testimony today in support of Maryland House Bill 0040, Public Utilities – Transmission Lines – Advanced Transmission Technologies, sponsored by Delegate Charkoudian.

This bill strengthens Maryland's oversight of major transmission infrastructure by modernizing the certificate of public convenience and necessity (CPCN) process. It requires applicants proposing new overhead transmission lines to provide more comprehensive information, including evidence that advanced transmission technologies and alternatives have been fully considered. Additionally, it ensures that the Public Service Commission evaluates this evidence before approving projects that could have long-term environmental, economic, and community impacts.

As Maryland accelerates its clean energy transition, it is essential that new transmission infrastructure is built responsibly, transparently, and with meaningful consideration of impacts on local communities, land use, and the environment. This legislation promotes smarter grid planning by encouraging the use of advanced technologies that can increase capacity, reduce the need for new overhead lines, and minimize disruption to residents and natural resources. It strikes an important balance between meeting our climate goals and protecting community interests.

For these reasons, Indivisible Howard County strongly supports this bill and believes it represents a forward-looking approach to energy infrastructure development in Maryland.

Thank you for your consideration of this important legislation.

We respectfully urge a favorable report.

Sidaarth Karegowdra
Columbia, Maryland

HB40-MML-Testimony.pdf
Uploaded by: Tyler Brice
Position: FAV

TESTIMONY

COMMITTEE:	House Environment and Transportation	**DATE:**	February 3, 2026
POSITION:	Favorable	**BILL:**	HB 40

The Maryland Municipal League (MML) is pleased to offer this favorable testimony in support of House Bill 40. This legislation is a vital affirmation of local authority, meaningful engagement, and the power of coordination as Maryland confronts large-scale infrastructure projects such as the Maryland Piedmont Reliability Project.

As statewide initiatives like the Maryland Piedmont Reliability Project advance, municipalities are at the forefront of responding to community concerns, protecting residents, and facilitating responsible development. HB40 recognizes the essential role of local governments as partners, rather than bystanders, in these processes. Local governments possess direct knowledge of their communities and are best equipped to address impacts unique to their jurisdictions. This bill safeguards that capacity by ensuring local perspectives are integral to planning and decision-making.

A favorable report on HB40 is also a positive stance against unnecessary preemption of local authority. Preemption, the displacement or overriding of local decision-making by the state, can undermine the ability of municipalities to protect public safety, preserve community character, and address the specific needs of residents. HB40 affirms that the state values collaboration with municipalities, and that preemptive policies should be weighed carefully when local voices have vital contributions to make.

Additionally, the Maryland Piedmont Reliability Project stands as a clear example of why HB40 is needed. Transmission projects of this scale have complex and far-reaching implications, not only for the state but for individual municipalities and neighborhoods directly affected by construction and long-term operations. By requiring early and ongoing municipal engagement, HB40 ensures that such projects proceed with full transparency, accountability, and regard for local input, ultimately leading to better, safer, and more widely supported outcomes.

Public safety and responsive governance are fundamental values shared by the Maryland Municipal League and our member municipalities. HB40 promotes both, honoring the principle of local authority while setting clear expectations for partnership among state and local stakeholders. Through its provisions, the bill enables Maryland's cities and towns to protect their residents and contribute constructively to statewide progress. For these reasons, the Maryland Municipal League respectfully urges the committee to issue a favorable report on House Bill 40.

For more information relating to this piece of testimony, please contact:

Tyler Brice: Manager, Advocacy and Public Policy, tylerb@mdmunicipal.org

MDFB - Support - HB40 Public Utilities - Transmiss

Uploaded by: Tyler Hough

Position: FAV

Maryland Farm Bureau

3358 Davidsonville Road | Davidsonville, MD 21035
410-922-3426 | www.mdfarmbureau.com

February 3, 2026

To: House Environment and Transportation Committee

From: Maryland Farm Bureau, Inc.

RE: **Support of HB40 Public Utilities - Transmission Lines - Advanced Transmission Technologies**

On behalf of the 7,000 plus member families of the Maryland Farm Bureau, I submit written testimony in support of HB40 Public Utilities - Transmission Lines - Advanced Transmission Technologies. This bill would require certain changes to how the Public Service Commission handles certificates of public convenience and necessity for the construction of an overhead transmission line, including requiring the Public Service Commission to consider certain alternatives before taking final action on an application for a certificate of public convenience and necessity for the construction of an overhead transmission line.

The construction of transmission lines on agricultural land raises several significant concerns. One major issue is the loss of productive farmland, as transmission towers and easements reduce the amount of land available for cultivation. Additionally, the soil can become compacted during construction, lowering its fertility and affecting crop yields. Farmers also face operational challenges, as large transmission structures can interfere with irrigation systems, disrupt crop patterns, and limit the movement of machinery, making farming less efficient. There are also environmental concerns, such as soil disturbance leading to erosion and the potential impact of herbicides used for vegetation control under the power lines.

Another key concern is the effect on land value and compensation. Farmers may not receive adequate financial compensation for land-use restrictions, and property values can decline due to the presence of transmission infrastructure. Health and safety risks are also a topic of debate, with concerns over exposure to electromagnetic fields (EMF), though scientific research on long-term health effects remains inconclusive. Additionally, electrical hazards pose a risk to farm workers operating large machinery near high-voltage lines. Legal and ownership issues further complicate matters, as landowners often have limited control over easements, leading to disputes over compensation and access rights. Given these challenges, careful planning, fair compensation, and mitigation strategies are essential when building transmission lines on agricultural land.

HB40 would put in place additional measures for the review and approval of transmission lines, adding further protection of agricultural land in our state.

Sincerely,

Tyler Hough
Director of Government Relations

Please reach out to Tyler Hough, though@marylandfb.org, with any questions

HB 40_Fav w Amend_PSC.pdf
Uploaded by: Barve Barve
Position: FWA

STATE OF MARYLAND

PUBLIC SERVICE COMMISSION

Chair Marc Korman
Environment and Transportation Committee
250 Taylor House Office Building
Annapolis, MD 21401

RE: HB 40– Favorable with Amendments – Public Utilities - Transmission Lines - Advanced Transmission Technologies

Dear Chair Korman and Committee Members:

The Public Service Commission ("Commission") requests a favorable report on HB 40, with consideration of the amendments detailed below. The Commission has had extensive discussions with the bill sponsor to enhance the bill language to achieve the policy directives set forth in the bill and ensure that implementation of the bill is feasible.

The bill modifies the regulation and approval process for overhead transmission lines, incorporating requirements for advanced transmission technologies (ATTs), enhanced analytical and transmission congestion reporting, cost-containment strategies, and potential incentives for advanced transmission technologies. The bill alters the Certificate of Public Convenience and Necessity (CPCN) process in order to maximize the capacity, efficiency, and reliability of existing transmission infrastructure before authorizing the construction of new transmission lines.

In order to accomplish a smooth implantation of the proposed legislation, the Commission suggests the following amendments to the bill:

- The definition of "high performance conductors" should be edited so as not to require conductors to satisfy every listed performance threshold simultaneously. If the definition required: 1) diameter and weight similarity **AND** a reduced resistance; 2) increased potential energy carrying; **OR** 3) reduced coefficient of thermal expansion (bold emphasis added), it would allow for the selection of a broader range of advanced conductors which could provide the necessary congestion relief at a lower project cost.

- Including a more precise definition for the term "Storage as a Transmission Asset (SATA)" as opposed to "energy storage used as transmission" would better align with current PJM efforts to define and implement future rules for using SATA as a transmission alternative in its regional planning. Aligning the legislative intent with PJM's efforts will also establish clearer eligibility and functional requirements for

applicants and allow consistent analysis by the Commission across all CPCN proceedings. It will also provide a distinction between front-of-the-meter transmission-level energy storage used for PJM markets, such as contemplated in the 2025 Next Generation Energy Act, and SATA applications intended to serve as transmission alternatives, thereby helping to avoid confusion as to which regulatory process is required.

- Where the bill refers to a "new lead line" in proposed § 7–207(b)(3)(iv)(1)(B) it should instead refer to a "transmission line" so that the requirement is not inadvertently limited to just "qualified generator lead line[s]."

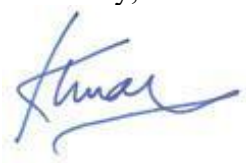
- Because proposed § 7-207.6 does not specify whether the transmission congestion reports it requires must be aligned with PJM planning assumptions or regional planning cycles, the bill should specify that the reports must distinguish local vs. regional congestion drivers and, where applicable, reference the PJM planning inputs used to support the reported congestion forecasts and proposed ATT solutions.

The Commission notes that where proposed § 7–207(b)(3)(iv)(1) requires CPCN applicants to consider factors specific to distribution systems in the State, the Commission may need to interpret this requirement to apply only to the extent that the applicant has access to the information necessary to make those considerations. If the applicant is not a Maryland public service company they may not have access to some of the information that would be required to complete a full analysis specific to the distribution systems in the State, and they may not be able to obtain such information from a public service company without compromising the competitive nature of the transmission planning process approved by FERC.

In addition, the Commission interprets the enactment of HB 40 to apply prospectively. Therefore, the provisions would not apply to submitted CPCN applications currently under consideration by the Commission. However, the Commission always has discretion to request additional information from applicants not previously provided in the CPCN application.

The Commission appreciates the opportunity to provide testimony on HB 40. The Commission requests a favorable report, with the amendment as detailed above, as this bill has the potential to mitigate costs for transmission projects. Please contact the Commission's Director of Legislative Affairs, Niki Wiggins, if you have any questions.

Sincerely,



Kumar P. Barve
Chair, Maryland Public Service Commission

WILLIAM DONALD SCHAEFER TOWER 6 ST. PAUL STREET BALTIMORE, MARYLAND 21202-6806

410-767-8000 Toll Free: 1-800-492-0474 FAX: 410-333-6495
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BGE_FWA_ House Bill 40 – Public Utilities - Transm

Uploaded by: Dytonia Reed

Position: FWA

Position Statement

Favorable with Amendments
Environment & Transportation
2/3/2026

House Bill 40 – Public Utilities - Transmission Lines - Advanced Transmission Technologies

Baltimore Gas and Electric Company (BGE) supports with amendments **House Bill 40 – Public Utilities - Transmission Lines - Advanced Transmission Technologies**. *House Bill 40* requires an applicant for a certificate of public convenience and necessity (CPCN) for the construction of an overhead transmission line to include in its application, an analysis of alternatives to the proposed transmission line, including the use of advanced transmission technologies.

BGE remains committed to supporting grid-enhancing technologies that strengthen reliability, while prioritizing affordability for our customers.

House Bill 40 would add new requirements to the Maryland Public Service Commission's Certificate of Public Convenience and Necessity (CPCN) process, which typically takes 12–18 months. Current law already requires CPCN applicants to evaluate alternatives, including use of existing rights-of-way and route options, with detailed consideration of environmental, community, land use, and cost impacts. Many of the evaluation criteria in *House Bill 40* are already addressed in federal processes, including FERC Order 1920 and FERC Order 2023, which considers grid-enhancing technologies, including advanced conductors. Integrating State priorities into existing regional and federal planning processes is more appropriate than expanding the CPCN process in ways that could delay critical projects.

The bill also creates inconsistent definitions of advanced conductors, conflicting with those definitions in FERC Order 1920 and 2023, and reinforced in FERC Order 2023-A. For example, *House Bill 40*'s definition of high-performance conductors would exclude aluminum conductor, steel supported conductors (ACSS), despite their superior performance over traditional ACSR conductors. As written, the bill would limit engineers' ability to choose the most cost-effective technical solutions when executing large-scale infrastructure projects. More importantly, the bill would require utilities to evaluate other technologies before making equipment upgrades, even when those equipment limitations, not conductors, are the true constraint, which may not deliver the expected benefits. We strongly urge the bill sponsor to amend the definition of high-performance conductors to align with the definition found in FERC Order 1920, 2023, and 2023-A.

John Haysbert| Brittany Jones | Guy Andes| Dytonia Reed| 410.269.5281

AN EXELON COMPANY

Position Statement

BGE does caution that by expanding the required analysis, the bill could force consideration of less economical and less reliable transmission options, increasing costs for applicants and customers, the Commission, and State agencies such as PPRP. It would also slow the permitting and siting of overhead transmission lines, potentially delaying PJM-mandated projects, jeopardizing system reliability, and risking noncompliance with federally enforceable North American Electric Reliability Corporation standards.

BGE will continue discussions with the bill sponsor to address our concerns. We respectfully request a favorable report with specified amendment for House Bill 40.

John Haysbert| Brittany Jones | Guy Andes| Dytonia Reed| 410.269.5281

HB40_Tarsell_FWA
Uploaded by: Emily Tarsel
Position: FWA

Emily Tarsell, LCPC

2314 Benson Mill Road
Sparks, Maryland 21152
phone: 410 472 1466

January 30, 2026
Updated 2/2/2026

Support with Amendment HB 40 (SB 201)
Public Utilities – Transmission Lines – Advanced Transmission Technologies

House Environment and Transportation Committee

Dear Chairman Koman, Vice Chair Guyton and E and T Committee Members:

I am a resident of northern Baltimore County and I have been supportive of proposed alternatives to the MPRP project. I am aware that the use of existing power lines with reconductor upgrades has been presented as one option to cost effectively increase power line capacity as an alternative to new MPRP construction. Clearly the proposals in this bill are meant to set the stage for such alternatives. However, while reconductoring is celebrated as a purely positive development, there is a downside.

As transmission lines are re-energized with higher current loads, the electromagnetic fields they generate intensify. There is concern and evidence that power line EMFs are linked to serious adverse health issues including cancer, particularly childhood leukemia. The International Agency for Research on Cancer classifies low level frequency EMF as a "possible carcinogen." I have attached copies of articles relating to this issue.

Studies regarding health risks from EMFs were conducted prior to the proposed much higher current loads. They do however, suggest a relationship between amount of exposure, distance from the EMF and health outcomes. Yet this bill does not establish any limits on power line

capacity for existing power lines, no limits on EMF exposure, distance guidelines or any requirement to conduct such studies.

I live near one of those existing power lines which is quite visible from my home. There has been a helicopter flying back and forth along this power line for the past four weeks. At times it hovers directly over the tower with cables and something attached. I have tried to find out from BGE what is going on but the receptionist denies that anything is happening. Clearly BGE must know about the helicopter making repeated trips along this power line. I suspected that the trips by the helicopter were related in someway to the use of existing power lines to increase power line capacity. I recently contacted my Senator and learned that BGE has entered into a contract with PJM to upgrade the power line. This is all being done in advance of this bill, without any public hearing or attention to the risks and loses to residents who live along existing power lines.

It is very disturbing that HB 40 (SB 201) does not seem to offer the same safeguards for the use of existing power lines as it would for constructing new power lines. Ideally there should be hearings regarding the use of exiting lines like there were for the MPRP project. Using existing lines has moved the MPRP project closer to more densely populated areas and human habitats. Barring that, there should minimally be amendments to the bill setting limits on power loads, EMF exposure and distances from power lines. I ask that requirements be added to the bill to ensure the safety and health of humans, wildlife and the environment of those living near existing power lines, especially where expansion of the power load is a possibility.

Finally, from a purely cost-effective perspective, just Google the downside of reconductoring for a whole list of structural concerns.

Thank you for your attention to this important matter.
Please amend HB40 (SB 201) to include these protections.

Sincerely,

Emily Tarsell
chriscares@live.com

BCMJ
A Doctors of BC Publication

Is living near power lines bad for our health?

Issue: BCMJ, **vol. 50, No. 9, November 2008,** Page 494 BC Centre for Disease Control

By: **Ray Copes, MD, FRCPC Prabjit Barn, MSc,**

The debate of whether there are adverse effects associated with electromagnetic fields from living close to high-voltage power lines has raged for years. While research indicates that large risks are not present, the possibility of a relatively small risk cannot be conclusively excluded.

Electromagnetic fields (EMFs) are produced by electrical appliances, electrical wiring, and power lines, and everyone is exposed to them at some level. Numerous studies have investigated EMF exposure and health. Although earlier studies did suggest associations between exposure and a variety of health effects including brain cancer, breast cancer, cardiovascular disease, and reproductive and developmental disorders, most of these associations have not been substantiated by more recent research. One notable exception to this is the association with childhood leukemia, which the International Agency for Research on Cancer regards as sufficiently well established to rate extremely low frequency magnetic fields as a "possible" human carcinogen.[1]

The first study to link childhood leukemia with residential EMF exposure was published in 1979[2] and since then, a number of studies have found weak associations to support this original finding. Studies investigating childhood leukemia as a health outcome of EMF exposure have used measured and calculated magnetic fields, as well as distance of homes to power lines, as an exposure measure. Studies using magnetic field strength as an exposure measure have found that exposures greater than the range of 0.3 to 0.4 μT lead to a doubling risk of leukemia, with very little risk below this level. This exposure range is approximately equal to a distance of 60 m within a high-voltage power line of 500 kV.

However, a more recent study showed an elevated risk of leukemia among children living in homes with distances much greater than 60 m from high voltage power lines.[3] This study involved close to 30000 matched case-control pairs of children living in the United Kingdom. It was found that children living in homes as far as 600 m from power lines had an elevated risk of leukemia. An increased risk of 69% for leukemia was found for children living within 200 m of power lines while an increased risk of 23% was found for children living within 200 to 600 m of the lines.[3] This study was notable in that it found some elevation of risk at much greater distances than previous studies.

Although distance of homes from power lines can be considered a crude measure of exposure, the results of this study do merit attention. A limited understanding exists of how exposure to EMF can affect health. The underlying biological mechanism is unknown, making it difficult to determine which measure of EMF is most appropriate when evaluating health outcomes. Use of residential proximity may be a reasonable surrogate for direct measurements of EMF, but may also reflect other factors that are related to proximity to high voltage lines.

If the association found in the UK study does reflect a causal relationship, what are the potential impacts in BC? Using current BC leukemia rates[4] and assuming similar proportions of the population live near high voltage lines, on a statistical basis, there may be one additional leukemia in BC every 2 years. To eliminate this risk, one would need to achieve a separation distance of 600 m between every high voltage power line and the nearest residence. While this could be done, it would require substantial changes to existing land use patterns and would require significant resources. While it can be argued that this action is consistent with some forms of the precautionary principle, based on best available evidence, one can achieve much greater risk reduction or health benefits if resources are directed to other larger, better established risks.

References

1. World Health Organization. Extremely low frequency fields environmental health criteria monograph no. 238. 2007. www.who.int/peh-emf/publications/elf_ehc/en/index.html (accessed 12 September 2008).
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Dr Copes is the director of BCCDC's Environmental Health Services Division. Ms Barn is an environmental health scientist at BCCDC.

https://www.ifm.org/articles/emf-health-reducing-exposures

EMF Fact Sheet

Power lines emit invisible electromagnetic fields (EMFs) that are strongest directly underneath and decrease rapidly with distance, often fading to background levels within a few hundred feet (around 100 meters), though higher voltage lines reach further, sometimes up to 700 feet or more, with levels dropping to ambient (like household appliances) at moderate distances. While strong evidence for health risks like cancer from typical residential EMF exposure is lacking, some studies suggest potential links to childhood leukemia at very close proximity (under 50 meters), prompting caution and distance as a primary way to reduce exposure.

No Federal Standards:

The U.S. EPA notes there are no federal EMF limits for power lines, though some states mandate right-of-way widths

Potential Effects on Brain Structure & Function:

- **Blood-Brain Barrier (BBB) Permeability:**

  RF-EMFs can increase BBB leakage, allowing substances like albumin to enter the brain.

- **Neuronal Damage:**

  Studies show potential for neuronal loss (e.g., pyramidal cells) and changes in synaptic structure, particularly in the hippocampus.

- **Neurotransmitter & Calcium Levels:**

  EMFs can alter neurotransmitter levels and impair calcium homeostasis, affecting cell signaling.

- **Oxidative Stress:**
  Increased reactive oxygen species (ROS) and oxidative stress are noted mechanisms, potentially damaging cells and DNA.

Key Distances & Guidelines:

- **For Health Concerns (EMFs):**
- >200 meters (650 ft): EMFs generally fade significantly.
- 700-1000+ ft: Recommended by some sources for reduced exposure.
- <50 meters: Expected to have typical magnetic fields, says Australia's health authority.
- ~300m: Some studies focus on childhood leukemia within this range.
- **For Physical Safety (Regulatory):**
- 12 meters (~40 ft): Minimum clearance for high-voltage lines (e.g., >66kV) from structures, primarily for preventing electric shock/fires, not EMFs

Factors to Consider:

- **Voltage: Higher voltage means stronger EMFs, requiring greater distance.**
- Type of Line: Transmission lines (large towers) differ from neighborhood distribution lines (smaller poles).
- EMF Meters: You can rent meters to measure actual magnetic fields in a potential home.
- Secondary Concerns: Noise (sizzling in wet weather), visual blight, and potential property value impacts.

NIH NATIONAL CANCER INSTITUTE

Electromagnetic Fields and Cancer - NCI

Electric fields are produced whether or not a device is turned on, whereas magnetic fields are produced only when current is flowing, which usually requires a device to be turned on. Power lines produce magnetic fields continuously because current is always flowing through them. Electric fields are easily shielded or weakened by walls and other objects, whereas magnetic fields can pass through buildings, living things, and most other materials.

Electric and magnetic fields together are referred to as electromagnetic fields, or EMFs. The electric and magnetic forces in EMFs are caused by electromagnetic radiation. There are two main categories of EMFs:

- Higher-frequency EMFs, which include x-rays and gamma rays. These EMFs are in the ionizing radiation part of the electromagnetic spectrum and can damage DNA or cells directly.
- Low- to mid-frequency EMFs, which include static fields (electric or magnetic fields that do not vary with time), magnetic fields from electric power lines and appliances, radio waves, microwaves, infrared radiation, and visible light. These EMFs are in the non-ionizing radiation part of the electromagnetic spectrum and are not known to damage DNA or cells directly. Low- to mid-frequency EMFs include extremely low frequency EMFs (ELF-EMFs) and radiofrequency EMFs. ELF-EMFs have frequencies of up to 300 cycles per second, or hertz (Hz), and radiofrequency EMFs range from 3 kilohertz (3 kHz, or 3,000 Hz) to 300 gigahertz (300 GHz, or 300 billion Hz). Radiofrequency radiation is measured in watts per meter squared (W/m^2).

Why are non-ionizing EMFs studied in relation to cancer?

Power lines and electrical appliances that emit non-ionizing EMFs are present everywhere in homes and workplaces. For example, wireless local networks are nearly always “on” and are increasingly commonplace in homes, schools, and many public places.

No mechanism by which ELF-EMFs or radiofrequency radiation could cause cancer has been identified. Unlike high-energy (ionizing) radiation, EMFs in the non-ionizing part of the electromagnetic spectrum cannot damage DNA or cells directly. Some scientists have speculated that ELF-EMFs could cause cancer through other mechanisms, such as by reducing levels of the hormone melatonin. There is some evidence that melatonin may suppress the development of certain tumors.

Studies of animals have not provided any indications that exposure to ELF-EMFs is associated with cancer (10–13). The few high-quality studies in animals have provided no evidence that Wi-Fi is harmful to health (8).

Although there is no known mechanism by which non-ionizing EMFs could damage DNA and cause cancer, even a small increase in risk would be of clinical importance given how widespread exposure to these fields is.

What have studies shown about possible associations between non-ionizing EMFs and cancer in children?

Numerous epidemiologic studies and comprehensive reviews of the scientific literature have evaluated possible associations between exposure to non-ionizing EMFs and risk of cancer in children (13–15). (Magnetic fields are the component of non-ionizing EMFs that are usually studied in relation to their possible health effects.) Most of the research has focused on leukemia and brain tumors, the two most common cancers in children. Studies have examined associations of these cancers with living near power lines, with magnetic fields in the home, and with exposure of parents to high levels of magnetic fields in the workplace. No consistent evidence for an association between any source of non-ionizing EMF and cancer has been found.

Exposure from power lines. Although a study in 1979 pointed to a possible association between living near electric power lines and childhood leukemia (16), more recent studies have had mixed findings (17–25). Most of these studies did not find an association or found one only for those children who lived in homes with very high levels of magnetic fields, which are present in few residences.

Several studies have analyzed the combined data from multiple studies of power line exposure and childhood leukemia:

- A pooled analysis of nine studies reported a twofold increase in risk of childhood leukemia among children with exposures of 0.4 μT or higher. Less than 1% of the children in the studies experienced this level of exposure (26).

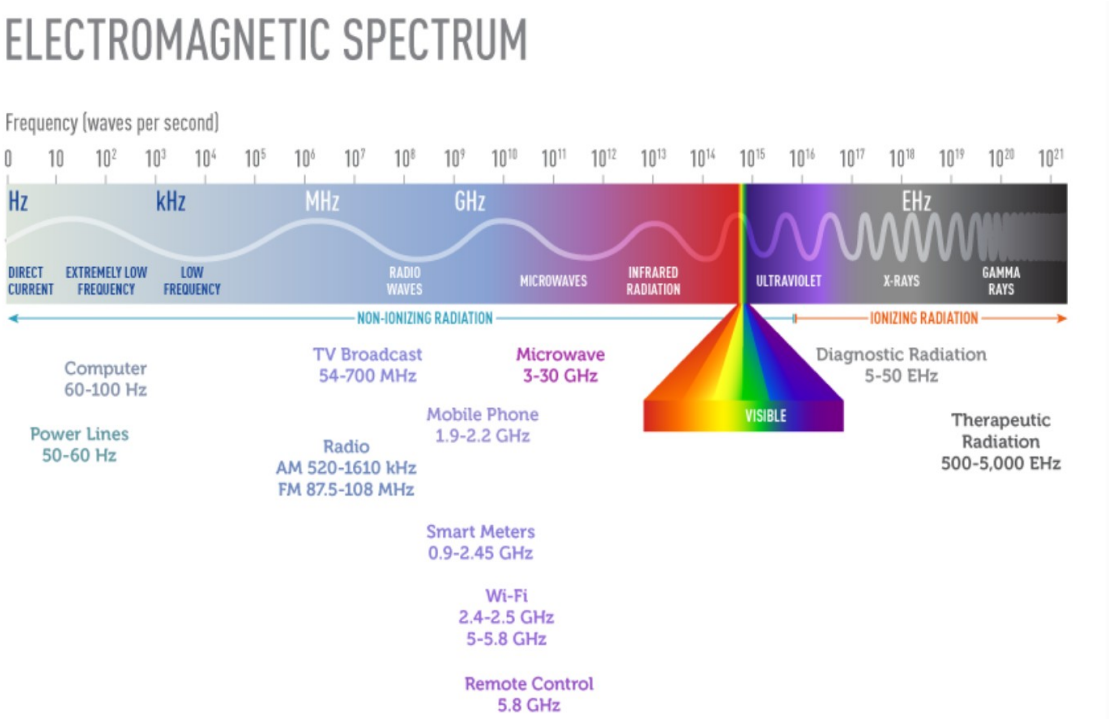
- A meta-analysis of 15 studies observed a 1.7-fold increase in childhood leukemia among children with exposures of 0.3 μT or higher. A little more than 3% of children in the studies experienced this level of exposure (27).
- More recently, a pooled analysis of seven studies published after 2000 reported a 1.4-fold increase in childhood leukemia among children with exposures of 0.3 μT or higher. However, less than one half of 1% of the children in the studies experienced this level of exposure (28).

For the two pooled studies and the meta-analysis, the number of highly exposed children was too small to provide stable estimates of the dose–response relationship. This means that the findings could be interpreted to reflect linear increases in risk, a threshold effect at 0.3 or 0.4 μT, or no significant increase.

The interpretation of the finding of increased childhood leukemia risk among children with the highest exposures (at least 0.3 μT) is unclear.

What do expert organizations conclude about the cancer risk from EMFs?

In 2002, the International Agency for Research on Cancer (IARC), a component of the World Health Organization, appointed an expert Working Group to review all available evidence on static and extremely low frequency electric and magnetic fields (13). The Working Group classified ELF-EMFs as “possibly carcinogenic to humans,” based on limited evidence from human studies in relation to childhood leukemia. Static electric and magnetic fields and extremely low frequency electric fields were determined “not classifiable as to their carcinogenicity to humans” (13).



The electromagnetic spectrum represents all of the possible frequencies of electromagnetic energy. It ranges from extremely long wavelengths (extremely low frequency exposures such as those from power lines) to extremely short wavelengths (x-rays and gamma rays) and includes both non-ionizing and ionizing radiation.

BACK TO TOP

testimony for HB 40 (SB 201) 2026.pdf
Uploaded by: Emily Tarsel
Position: FWA

Emily Tarsell, LCPC

2314 Benson Mill Road
Sparks, Maryland 21152
phone: 410 472 1466

January 30, 2026

Support with Amendment HB 40 (SB 201)
Public Utilities – Transmission Lines – Advanced Transmission Technologies

House Environment and Transportation Committee

Dear Chairman Koman, Vice Chair Guyton and E and T Committee Members:

I am a resident of northern Baltimore County and I have been supportive of proposed alternatives to the MPRP project. I am aware that the use of existing power lines with upgraded conductors has been presented as one option to increasing power line capacity as an alternative to the MPRP project. Clearly the proposals in this bill are meant to set the stage for such alternatives.

My main concern however is that I live near one of those existing power lines which is quite visible from my home. There has been a helicopter flying back and forth along this power line for the past three weeks. At times it hovers directly over the tower with cables and something attached. I have tried to find out from BGE what is going on but the receptionist denies that anything is happening. Clearly BGE must know about the helicopter making repeated trips along this power line. I suspect that the trips by the helicopter are related in someway to the use of existing power lines to increase power line capacity.

As I read the bill, it does not seem to offer the same safeguards for the use of existing power lines as it would for constructing new power lines. In addition, the existing bill, while requiring safeguards re the environment, it

says nothing about safety for humans. I ask that such requirements be added to the bill to ensure the safety and health of humans, wildlife and the environment of those living near existing power lines, especially where expansion of the power load is a possibility.

Thank you for your attention to this matter.
Please amend HB40 (SB 201) to include these protections.

Sincerely,

Emily Tarsell
chriscares@live.com

HB0040 (SB0201) - FWA - Public Utilities - Transmi

Uploaded by: Megan Outten

Position: FWA

Maryland Energy Administration

TO: Chair Korman, Vice Chair Guyton, and Members of the Environment & Transportation Committee
FROM: MEA
SUBJECT: HB 40 - Public Utilities - Transmission Lines - Advanced Transmission Technologies
DATE: February 3, 2026

MEA Position: FAVORABLE WITH AMENDMENTS

House Bill 40 seeks to modernize Maryland's approach to transmission line development by integrating Advanced Transmission Technologies (ATTs) into the regulatory process governing Certificates of Public Convenience and Necessity (CPCN).

MEA appreciates the Delegate's efforts to highlight the issues related to transmission modernization to be addressed by the bill, particularly encouraging the deployment of alternative transmission technologies. MEA supports the intent of this bill, and recommends targeted amendments to ensure effective implementation:

1. **Definition of Advanced Transmission Technologies (ATTs):** The bill introduces a definition of ATTs in Section 7-207, listing specific technologies such as grid-enhancing technologies (GETs), high performance conductors, and storage used as a transmission asset. MEA recommends:
    a. Changing "includes" to "including but not limited to" to allow for future technological advancements without requiring further statutory amendments.
2. **Additional Evidence:** The requires the applicant to include evidence of several categories of alternatives related to local, state, or federal transmission planning processes. MEA recommends adjusting the number of requirements to preserve the efficiency of the CNCP process.
    a. **Alternative Routes:** The bill mandates CPCN applicants to include an analysis of transmission alternative routes. However, Maryland regulations (Md. Code Regs. 20.79.04.03) already require a description of alternative routes. To avoid redundancy, MEA suggests striking (iv)(1)(B) ALTERNATIVE ROUTINGS from the bill.
    b. **Non-transmission Alternatives:** MEA also suggests changing the intent and applicability of provisions (D), (G), and (I) regarding energy efficiency and demand response, as well as distribution-level GETs and review of an integrated electric transmission-distribution system to address the need for the transmission line. While MEA recognizes the need to drive more holistic electric system planning that leverages transmission- and distribution-level resources, these considerations may be more effectively developed through the planning requirements proposed at 7–207.6 rather than

through permitting processes, to balance the need for efficient approval of necessary energy infrastructure.

3. **Considerations for Cost-Effectiveness:** MEA supports incorporating ATTs into the State's electrical grid and within transmission planning, but recommends:
    a. Including cost-effectiveness considerations to avoid potentially overburdening ratepayers with expenses for alternatives that meet the need but at a significantly higher cost. This approach aligns with the Federal Energy Regulatory Commission (FERC's) intent in Order No. 1920 to promote ATTs as potentially faster, cheaper, and more efficient solutions to congestion and reliability needs compared to conventional wires-based projects.
4. **Congestion Analysis Requirements:** The bill requires utilities to report on congestion levels and the feasibility of ATTs. To ensure efficiency, MEA recommends:
    a. Establishing a threshold for congestion levels, so that analyses target heavily congested lines rather than all transmission lines. The U.S. Department of Energy (DOE) 2023 National Transmission Needs Study (NTNS) and subsequent updates could serve as a reference for identifying significant congestion areas.

MEA urges the committee to adopt the proposed amendments and to issue a **favorable report as amended**.

Our sincere thanks for your consideration of this testimony. For questions or additional information, please contact Megan Outten, Policy manager, at megan.outten@maryland.gov or 443.842.1780.

HB0040 (SB0201) - FWA - Public Utilities - Transmi

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Position: FWA

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House Bill 40 seeks to modernize Maryland's approach to transmission line development by integrating Advanced Transmission Technologies (ATTs) into the regulatory process governing Certificates of Public Convenience and Necessity (CPCN).

MEA appreciates the Delegate's efforts to promote reliability, affordability, and to highlight the issues related to transmission modernization to be addressed by the bill, particularly encouraging the deployment of alternative transmission technologies. MEA supports the intent of this bill, and recommends targeted amendments to ensure effective implementation:

1. **Definition of Advanced Transmission Technologies (ATTs):** The bill introduces a definition of ATTs in Section 7-207, listing specific technologies such as grid-enhancing technologies (GETs), high performance conductors, and storage used as a transmission asset. MEA recommends:
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MEA urges the committee to adopt the proposed amendments and to issue a **favorable report as amended**.

Our sincere thanks for your consideration of this testimony. For questions or additional information, please contact Megan Outten, Policy manager, at megan.outten@maryland.gov or 443.842.1780.

2026 Sallie Taylor HB 40 Favorable.pdf

Uploaded by: Sallie Taylor

Position: FWA

January 30, 2026

The Honorable Marc Korman, Chairman
Environment and Transportation Committee
The Honorable Michele Guyton, Vice-Chairwoman
Environment and Transportation Committee
Members of the Environment and Transportation Committee
250 Taylor House Office Building
Annapolis, Maryland 21401

RE: HB 40 Public Utilities - Transmission Lines - Advanced Transmission Technologies

Dear Chair Korman, Vice-Chair Guyton and Committee Members:

I respectfully submit this testimony in support of HB 40, *Public Utilities – Transmission Lines – Advanced Transmission Technologies*.

The proposed Maryland Piedmont Reliability Project (MPRP) transmission line, which would cut through Baltimore, Carroll, and Frederick Counties, has brought into sharp focus important questions about Maryland's current transmission-line approval process.

As Maryland moves toward developing new energy-generating sources, the siting of transmission lines will become an increasingly significant issue. We should demand the use of the most up-to-date transmission technologies, particularly given that projects of this scale allow only one opportunity to get it right. Environmental impact, alternatives to routes and other consideration as outlined by the bill should be carefully and thoroughly evaluated. I commend HB 40 for requiring applicants to consider these impacts as part of their internal planning process; however, I believe the bill would be further strengthened by requiring an economic analysis that accounts for lost revenue and reduced productivity of farmland or other income-producing properties affected by transmission lines.

HB 40 represents an important step toward ensuring that Maryland has a thoughtful, comprehensive, and forward-looking process for evaluating transmission line projects. For these reasons, I urge the committee to give HB 40 a favorable vote.

Sincerely,

Sallie Taylor

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21784

FirstEnergy UNFAV ENT - HB0040.pdf
Uploaded by: Timothy Troxell
Position: UNF

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OPPOSE – House Bill 0040
HB0040 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
Environment and Transportation Committee
Tuesday, February 3, 2026

Potomac Edison, a subsidiary of FirstEnergy Corp., serves approximately 293,000 customers in all or parts of seven Maryland counties (Allegany, Carroll, Frederick, Garrett, Howard, Montgomery, and Washington). FirstEnergy is dedicated to safety, reliability, and operational excellence. Its electric distribution companies form one of the nation's largest investor-owned electric systems, serving customers in Maryland, Ohio, Pennsylvania, New Jersey, New York, and West Virginia.

Unfavorable

Potomac Edison / FirstEnergy requests an Unfavorable report on HB-40 – *Public Utilities - Transmission Lines - Advanced Transmission Technologies* as drafted. While the bill aims to modernize our state's electrical transmission infrastructure, we believe it is laden with unintended consequences that warrant further review and careful consideration.

Potomac Edison / FirstEnergy requests an Unfavorable report on HB 0040 for the following reasons.

While the bill proposes altering the definition of *"qualified generator lead line"* within the context of certificates of public convenience and necessity, this change could lead to ambiguities in regulatory interpretations -- potentially complicating the approval process for new transmission projects. The bill also mandates that the Public Service Commission consider certain evidence before taking decisive action on applications. This requirement, though well-intentioned, could prolong the decision-making process, hindering the timely development of necessary transmission infrastructure.

HB-40 requires applicants seeking certificates for constructing overhead transmission lines to include specific evidence and analysis in their applications. While thorough evaluation is essential, the administrative scope of the required analyses and reports are significant. Imposing these additional mandatory analyses increases the administrative burden on applicants and potentially delays the start of these critical infrastructure projects. Given the rapid pace of technological advancements and grid changes, the usefulness of these reports and the data within them can quickly become outdated and irrelevant.

The bill also assumes that future areas of grid congestion can be accurately projected. Growth related to new development and the shifting of energy demands make such projections inherently difficult to make -- and may lead to misguided policy decisions or the misallocation of resources.

In addition, multiple provisions of HB-40 appear to conflict with existing authority held by Regional Transmission Organizations (RTOs) and the Federal Energy Regulatory Commission (FERC). These conflicts may create regulatory confusion, delay projects, and lead to potential legal challenges that could hinder Maryland's ability to modernize its grid efficiently.

While the modernization of our electrical transmission system is a worthy goal, it is crucial to implement policies that facilitate progress without introducing new obstacles. Given the administrative scope of the analyses and reports, how quickly data can become irrelevant, the difficulty in projecting future areas of grid congestion, and the fact that multiple portions of this bill conflict with existing RTO/FERC authority, **Potomac Edison / FirstEnergy respectfully request an Unfavorable report on House Bill 0040.**