Testimony in Support of HB 0829.pdf
Uploaded by: Brenda Myers
Position: FAV

Testimony in Support of HB 0829

Chair and members of the committee, thank you for the opportunity to testify in support of **HB 0829**.

This bill represents a much-needed shift in how Maryland—and potentially other states—approach **energy transmission planning**. Instead of rubber-stamping large-scale projects that burden **ratepayers and landowners**, HB 0829 ensures that Maryland prioritizes:

- **Grid efficiency** over unnecessary expansion
- **Local and distributed energy solutions** that reduce reliance on massive infrastructure projects
- **Environmental and community protections** to prevent harmful land seizures and ecological damage
- **Fair cost considerations** to keep energy rates affordable for Maryland residents

By enacting **HB 0829**, Maryland can move toward a **smarter, more sustainable approach to energy infrastructure**, ensuring that future projects serve the public interest—not just the interests of large utilities. I urge you to support this bill and put Maryland on a path toward a more **efficient, fair, and community-driven energy future**. Maryland legislators have the opportunity to lead the way, please do.

Thank you.

Brenda Myers

HB0829 price.pdf
Uploaded by: Brysn Price
Position: FAV

February 28, 2025

Dear Members of the Maryland General Assembly,

I am here today to speak in strong support of HB0829 because, without this legislation, Maryland will continue to prioritize corporate convenience over community well-being. This bill is not about stopping transmission development; it is about ensuring that when we expand our grid, we do so in a way that protects homeowners, preserves property rights, and minimizes unnecessary disruption.

Right now, transmission companies like PSEG are pushing projects like the Maryland Piedmont Reliability Project (MPRP) without considering smarter alternatives—not because they don't exist, but because they do not want to take the time to pursue them. The result is that homeowners face land seizures, property values plummet, public school funding suffers, and communities are left with environmental devastation, all in the name of expediency.

HB0829 demands common-sense accountability by requiring utilities to justify their expansion plans before seizing land and imposing unnecessary costs on ratepayers. PSEG has shown time and again that they will not do this voluntarily. When Delegate Mangione inquired about the possibility of using existing infrastructure, PSEG admitted that they had not explored that option at all. Only when the community demanded answers did they conduct a hasty study to validate their predetermined stance—one that conveniently supported their original plan. The speed of this so-called "analysis" raises serious concerns about its thoroughness and sincerity. If they were truly committed to exploring alternatives, wouldn't that have been the first step in their planning, rather than something they scrambled to do after public outrage? HB0829 closes this loophole by ensuring that companies like PSEG can no longer ignore proven alternatives in favor of the path of least resistance.

For my family and many others, this is not just a policy debate—it is our reality. The moment I found out that MPRP was threatening my home and my community, my life was thrown into chaos. How do you plan for a future when you don't even know if your home will still belong to you? I have had to restructure my life around fighting this project. I have spent hours away from my family, sacrificing time, sleep, and peace of mind just to demand the basic fairness that utilities should be required to justify their actions before they take what isn't theirs.

And I am not alone. This project has upended lives across the region. Neighbors who planned to retire in their homes are now living in uncertainty. Families who invested everything into their properties are being told that their sacrifice is irrelevant in the face of

corporate profits. I hear the stories of parents struggling to explain to their children that the place where they feel safest might be taken away not because it is necessary, but because it is convenient for a corporation? Our elected leaders are being forced to clean up the mess PSEG created simply because they refused to do their due diligence.

If this bill does not pass, Marylanders will continue to pay the price for utility companies' unchecked power. Homeowners will see their property values plummet, as no one wants to live under massive transmission lines, and many families' largest financial asset—their home—will be devalued through no fault of their own. Property rights will be stripped away as the ability to seize land through eminent domain becomes a rubber-stamped corporate process rather than a true test of necessity. Local schools will suffer because property values drive public school funding through property taxes, and when values decline, so does the tax base that supports teachers, students, and school programs. The environment will be sacrificed for corporate expediency as PSEG chooses the fastest route, not the best one. Instead of modernizing existing transmission infrastructure, they plan to clearcut, disrupt local ecosystems, and carve a path of destruction in the name of progress.

This is not progress. This is corporate convenience disguised as necessity.

PSEG and PJM do not want to take the time to consider advanced transmission technologies, high-performance conductors, or energy storage solutions, even though these options exist and are being used successfully in other states. They do not want to take the time to explore demand-response programs, distributed energy resources, or grid enhancements that could solve the problem without new construction. Why? Because that would take time and effort, and it is easier to steamroll communities than innovate.

This is why HB0829 is so critical. It ensures that utilities must justify every expansion decision before forcing new infrastructure on homeowners. If Maryland is serious about responsible energy planning, economic fairness, and environmental stewardship, then HB0829 must pass. Without it, utilities will continue making ratepayers fund unnecessary projects, homeowners bear the financial burden, and communities suffer the consequences.

This is a chance for Maryland to be a leader. It is an opportunity to put an end to unchecked transmission expansion, to choose smarter, more efficient energy solutions, to protect homeowners, property rights, and local economies, and to demand accountability, transparency, and long-term planning in our energy policies.

I urge you to support HB0829 and protect the people you were elected to serve. Thank you.

OPC Testimony HB0829.pdf
Uploaded by: David Lapp
Position: FAV

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PEOPLE'S COUNSEL

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DIRECTOR, CONSUMER
ASSISTANCE UNIT

CARISSA RALBOVSKY
CHIEF OPERATING OFFICER

BILL NO.:	HB 829 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
COMMITTEE:	Economic Matters
HEARING DATE:	February 20, 2025
SPONSOR:	Delegate Charkoudian
POSITION:	Favorable

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The Office of People's Counsel (OPC) respectfully offers the following supportive comments on HB 829 – Public Utilities - Transmission Lines - Advanced Transmission Technologies. HB 829 will require that a transmission owner provide an alternatives analysis when applying for a certificate of public convenience and necessity (CPCN), which is primarily required upon construction of a new transmission line. This analysis will consider, among other things, an analysis of the impact of utilizing advanced transmission technologies (ATTs) as part of the transmission line build. The bill also requires transmission owners to submit a report to the Public Service Commission (PSC) every two years on transmission congestion costs and whether ATTs could decrease these costs for ratepayers.

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.

The potential cost savings of the bill are difficult to estimate, given that the efficacy of ATTs varies based on the specific needs of a transmission line. Still, 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]

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

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

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

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

Even considering these limitations however, this bill takes an important step towards 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.

Recommendation: OPC requests a favorable committee report on HB 829.

Testimony HB829 DAC.pdf
Uploaded by: Debbie Cohn
Position: FAV

Committee: **Economic Matters**
Testimony on: **HB829 – Public Utilities – Transmission Lines – Advanced Transmission Technologies**
Submitting: **Deborah A. Cohn**
Position: **Favorable**
Hearing Date: **February 20, 2025**

Dear Chair Wilson and Committee Members:

Thank you for allowing my testimony today in support of HB829. As a Maryland since 1986, I am writing to underscore that we need to invest prudently in our transmission grid to ensure its planned growth in the most cost effective manner.

Maryland consumes almost six times more energy than it produces and imports around 40 percent of its electricity from other states. Importing electricity from other PJM states requires a robust transmission grid. Economic incentives, however, have induced utilities to invest in the distribution grid, leading to inadequate investment in the transmission grid. This investment is expensive and consumers are already concerned about rising utility bills. To contain increases in electricity bills, Maryland needs to understand its future need for energy resources, including a robust grid, ensure that utilities maximize the throughput of the existing grid, and then determine the most efficient build-out of additional transmission lines.

HB829 addresses all three concerns, ensuring in particular, that utilities identify existing and foreseeable areas of grid congestion, plan infrastructure investments to avoid emergency construction and in that process, maximize transmission through the existing grid by taking advantage of existing advanced transmission technologies.

Advanced transmission technologies include the infrastructure, hardware and software that increase the capacity, efficiency, reliability or resilience of new and existing transmission lines. They include grid enhancing technologies (GETS), high-performance conductors and storage systems used as transmission.

GETS includes several technologies. Dynamic line rating (DLR), the real time monitoring of wind, humidity, temperature and other factors that impact the amount of electricity that can flow safely through an existing transmission or distribution line, can increase line capacity by an average of 10-30 percent, take three to six months to deploy and cost less than five percent of the price of building new transmission lines[1]. Advanced power flow control devices act like air traffic controllers. They enable the redistribution of power from congested lines to lines with available capacity, increasing capacity by 10-25 percent.[2] Topology optimization addresses congestion in a manner similar to the rerouting of trains along different tracks through controlling switches in the tracks. Topology optimization uses software models of the grid network and real time conditions to trigger high voltage circuit breakers to redistribute power flow more efficiently through the existing grid.

Reconductoring existing lines with improved conductors using composite cores also increases throughput, enabling a wire to carry higher mechanical loads without increasing weight. Reconductoring

[1] https://ceepr.mit.edu/wp-content/uploads/2024/09/MIT-CEEPR-RC-2024-06.pdf
[2] Ibid.

can take one to three years to deploy but can double capacity and reduce transmission line loss by around 30 percent. It generally costs less than half the price of building a new transmission line.[3]

Storage systems are also transmission assets as they can quickly absorb excess electricity production and later reinject it into the grid to manage power flows on transmission lines. In effect, they function as virtual transmission lines that can be used to alleviate congestion, support voltage levels and improve grid stability. These functions are often referred to as "storage as transmission."[4]

HB820 imposes two requirements to ensure right-sizing the build-out of the transmission grid. The first ensures through the certificate of public convenience and necessity (CPCN) process that any applicant for a CPCN for a new transmission line carefully consider opportunities to defer or avoid the new construction. The second requires transmission line planning by owners and operators of overhead transmission lines.

Applications for a CPCN. In their request for a CPCN to construct a new overhead transmission line applicants would need to include an analysis of alternatives to the new line, including the use of advanced transmission technologies, alternative routes, changes to the existing distribution system that could avoid the need for the new transmission line, an analysis of the proposed transmission line route and the consideration of alternative routes. The application would also need to include the cost to ratepayers and the impact of the proposed line on the environment.

Congestion Planning. HB820 requires owners and operators of overhead transmission lines to plan for future congestion and determine the degree to which advanced transmission technologies can address this congestion. Every two years starting in December 2025, the owner or operator of an overhead transmission line must identify line congestion in the preceding three years, anticipated transmission congestion in the next five years, projected costs to ratepayers from this congestion, and the opportunity to use advanced transmission technologies to address the congestion and reduce costs.

Summary. HB820 thus takes advantage of technological advances and advanced grid planning to reduce costs to ratepayers, increase throughput on existing lines, reduce the need for costly reactive emergency construction of high voltage transmission lines, such as the $796 million new transmission line designed to facilitate import of electricity upon the closure of the Brandon Shores and Wagner coal generating station, and increase reliability of our electricity supply.[5]

For these reasons I support HB829 and urge a FAVORABLE report in Committee.

Thank you.

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[3] Ibid.

[4] https://www.utilitydive.com/news/energy-storage-underused-transmission-asset-ferc/727946/

[5] Federal Energy Regulatory Commission Order on Cost Allocation Report and Tariff Revisions, Docket Nos. ER23-2612-001 and ER23-2612-002 (November 8, 2023), https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20231108-3068&optimized=false

HB0829-ECM_MACo_SUP.pdf
Uploaded by: Dominic Butchko
Position: FAV

MARYLAND Association of COUNTIES

House Bill 829

Public Utilities - Transmission Lines - Advanced Transmission Technologies

MACo Position: **SUPPORT**

To: Economic Matters Committee

Date: February 20, 2025

From: Dominic J. Butchko

The Maryland Association of Counties (MACo) **SUPPORTS** HB 829. This bill calls for additional considerations and requirements for the construction of transmission lines.

The 2025 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 (i.e., energy demands and environmental goals).

As drafted, HB 829 requires the Public Service Commission and applicants to more deeply consider the impact of projects and project routes on ratepayers, the environment, and other factors. Additional consideration must also be given to the use of advanced transmission technologies as a means to avoid unnecessary community and 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 commonsense 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 829 a **FAVORABLE** report.

ECA testimony HB829 Advanced Transmission Tech.pdf
Uploaded by: Frances Stewart
Position: FAV

HB0829 - SUPPORT
Frances Stewart, MD
Elders Climate Action Maryland
frances.stewart6@gmail.com
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HB0829, Public Utilities – Transmission Lines – Advanced Transmission Technologies

Meeting of the Committee

February 20, 2025

Dear Chair, Vice Chair, and Members of the Committee, on behalf of Elders Climate Action Maryland, I urge a favorable report on HB0829.

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 that 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.

Maryland imports about 40% of the electricity we consume from other states in the PJM grid. Unfortunately, the grid is inadequate for current and future needs. That increases costs for ratepayers, decreases reliability, and makes it difficult to add the new clean energy resources we need.

But building new transmission lines is a slow and very expensive process. Fortunately, advanced transmission technologies can maximize transmission through the existing grid quickly and at a much lower cost. Those technologies

include grid enhancing technologies (GETS), high-performance conductors, and using storage as transmission.

These technologies may be new to Maryland, but they have been in widespread use for years. GETS technologies were developed in the 1970's and 80's and are used by power companies in Indiana, Ohio, New York, and the United Kingdom. Belgium, the Netherlands, Italy, India, and China have done large scale reconductoring projects using high-performance conductors. Storage projects in California and Wisconsin are being used as transmission assets. These technologies have been shown to be safe, reliable, and cost-effective ways to increase transmission capacity in much less time than building new lines.

Other states are recognizing the potential of these technologies. In 2023, Montana passed a law that provided an incentive for utilities to use high-performance conductors. In 2024, Minnesota passed a law requiring consideration of advanced transmission technologies in transmission planning.

HB829 requires that utilities identify existing and foreseeable areas of grid congestion, plan infrastructure investments to avoid emergency construction, and maximize transmission through the existing grid by using advanced transmission technologies.

Any applicant for a Certificate of Public Conveneince and Necessity (CPCN) for a new transmission line would be required to carefully consider opportunities to defer or avoid the new construction. The bill also requires transmission line planning by owners and operators of overhead transmission lines.

In their request for a CPCN to construct a new overhead transmission line, applicants would need to include an analysis of alternatives to the new line. The alternatives include the use of advanced transmission technologies, alternative routes, changes to the existing distribution system that could avoid the need for the new transmission line, an analysis of the proposed transmission line route and the consideration of alternative routes. The application would also need to include the cost to ratepayers and the impact of the proposed line on the environment.

HB0829 also requires owners and operators of overhead transmission lines to plan for future congestion and determine the degree to which advanced transmission technologies can address this congestion. Every two years starting in December 2025, the owner or operator of an overhead transmission line must identify line congestion in the preceding three years, anticipated transmission congestion in the

next five years, projected costs to ratepayers from this congestion, and the opportunity to use advanced transmission technologies to address the congestion and reduce costs.

HB0829 provides many benefits to Maryland through its use of technological advances and advanced grid planning. It reduces costs to ratepayers, increases throughput on existing lines, reduces the need for costly emergency construction of high voltage transmission lines, such as the $796 million new transmission line designed to facilitate import of electricity upon the closure of the Brandon Shores and Wagner coal generating station, and increases reliability of our electricity supply.

For all of these reasons, we strongly urge a favorable report on HB0829.

Thank you.

Ceres Testimony HB829 -Public Utilities - Transmis
Uploaded by: Jeff Mauk
Position: FAV

HB829 – SUPPORT
Jeff Mauk
Ceres
jmauk@ceres.org

TESTIMONY SUPPORTING HB829:
Public Utilities - Transmission Lines - Advanced Transmission Technologies Act

House Economic Matters Committee
February 20th, 2025

Dear Chair Wilson, Vice Chair Crosby, and members of the Economic Matters Committee,

I write today on behalf of Ceres to urge a favorable report from the Committee on SB0037 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 85 major employers, including several businesses doing business in Maryland, to advocate for more effective climate and clean energy policies.

HB829 represents a smart business approach to modernizing Maryland's electric transmission system while protecting ratepayer interests. This legislation creates a framework for deploying cost-effective grid technologies that can increase capacity and reliability while potentially avoiding expensive new transmission lines.

Transmission congestion contributes to growing energy costs for Maryland ratepayers. Traditional solutions - building new transmission lines - are increasingly expensive and face significant siting challenges. HB829 opens the door to advanced technologies that can:

- Maximize existing transmission capacity
- Reduce congestion costs for businesses and residents
- Improve grid reliability and resilience
- Defer or avoid costly new transmission construction
- Enable faster integration of new power generation

The legislation includes several provisions designed to protect business interests while promoting grid modernization. Before utilities can build new transmission lines, they must analyze cost-effective alternatives, ensuring that ratepayers don't pay for unnecessary infrastructure. The bill creates important transparency around congestion costs and potential solutions, while establishing a biennial reporting requirement that helps identify opportunities to optimize the grid. Utilities can recover reasonable costs for implementing proven technologies, encouraging innovation while protecting ratepayers through comprehensive alternatives analysis. These balanced provisions ensure that grid modernization proceeds in a fiscally responsible way that benefits both utilities and their customers.

By requiring utilities to evaluate advanced transmission technologies, this bill helps ensure that Maryland businesses have access to reliable, affordable electricity through the most cost-effective solutions available. The reporting requirements will help identify opportunities to reduce congestion costs while maintaining system reliability.

Leading companies already use these technologies successfully in other markets. This legislation positions Maryland to benefit from proven innovations that can reduce costs while improving performance.

I respectfully request a favorable report.

Respectfully submitted,

Jeff Mauk
Director, State Policy, Eastern Region, Ceres

FAV_HB0829_StopMPRPInc.pdf
Uploaded by: Joanne Frederick
Position: FAV

WRITTEN TESTIMONY

BILL NO.: House Bill 829 – Public Utilities – Transmission Lines – Advanced Transmission Technologies

COMMITTEE: House Economic Matters Committee

HEARING DATE: February 20, 2025

SPONSOR: Delegate Charkoudian

POSITION: Favorable

On behalf of **Stop MPRP, Inc.** and the many Maryland residents committed to protecting our environment, farmland, and communities, I submit this testimony in **strong support** of House Bill 829. This critical legislation will ensure that Maryland takes a more responsible, **technology-driven approach to energy transmission**, prioritizing **grid optimization and advanced transmission technologies** over destructive and unnecessary new power lines.

The Maryland Piedmont Reliability Project (MPRP): A Case Study in Poor Planning

The **Maryland Piedmont Reliability Project (MPRP)**, proposed by **PSEG** demonstrates the urgent need for the reforms in HB0829. The MPRP would **clear more than 900 acres of Maryland's forests and farmland**, destroy **wetlands, waterways, and conservation lands**, and disrupt **local communities** while failing to explore alternative solutions.

The **sheer environmental destruction** of the project cannot be overstated:

- **394.2 acres of forest would be permanently cleared**
- **522.6 acres of productive farmland would be lost**
- **101 streams and waterbodies would be crossed, increasing pollution risks**
- **139.6 acres of high-quality, Tier II catchments would be impacted**
- **Endangered species, including the Indiana Bat and Northern Long-eared Bat, would suffer severe habitat loss**

The Hidden Devastation of Access Roads

Beyond the transmission line itself, **the MPRP includes the construction of 303 access roads**, each between **16 to 25 feet wide**, cutting through **Baltimore, Carroll, and Frederick Counties**. These roads will cause **even greater environmental damage**, including:

- **Destruction of an additional 140 acres** of land for roadways alone.
- **Fragmentation of forests and ecosystems**, further stressing wildlife populations.

- **Severe soil erosion and compaction**, making farmland difficult to rehabilitate and increasing flooding risks.
- **Crossing 22 streams and waterways**, increasing sedimentation and water pollution.
- **Threats to federally protected species**, including the **Indiana Bat, Northern Long-eared Bat, and Bog Turtle**.

While PSEG claims many of these roads will be "temporary," the reality is that construction damage is often **permanent**. **Soil compaction, tree removal, and wetland destruction** create irreversible scars on the landscape, impacting both **wildlife and the livelihoods of farmers**.

How HB0829 Provides a Smarter Path Forward

House Bill 829 directly **addresses the flaws in Maryland's transmission planning** and would force projects like MPRP to **consider alternatives** before causing unnecessary harm. The bill would:

- **Require a thorough analysis of alternatives** before approving new overhead transmission projects.
- **Mandate consideration of grid-enhancing technologies**, advanced transmission solutions, and undergrounding options.
- **Prevent land seizure through eminent domain unless an urgent need is demonstrated.**
- **Increase transparency** by requiring reports on congestion, alternative solutions, and cost impacts to ratepayers.

Under HB0829, PSEG would have to **demonstrate why the MPRP is necessary** and prove that **existing infrastructure cannot be improved to meet demand**. This **critical oversight** would prevent projects from being greenlit simply because they benefit transmission developers **at the expense of Maryland residents**.

A Call for Action: Issue a Favorable Report on HB0829

The **MPRP is a cautionary tale** of what happens when transmission companies **prioritize expansion over efficiency**. Maryland **must shift away** from outdated, destructive transmission models and embrace **modern technology-driven solutions**—and **HB0829 is the way to do it**.

We **urge** the committee to **issue a favorable report** on **House Bill 829** and ensure that Maryland's transmission future is built on **innovation, responsibility, and respect for landowners**.

Respectfully submitted,

Joanne Frederick
President
Stop MPRP, Inc.
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Uploaded by: Julie Frye
Position: FAV

02/18/2025

Statement in Support of HB0829

I strongly support HB0829, a landmark bill that will modernize Maryland's approach to transmission infrastructure and protect our communities and environment. For too long, the unchecked construction of massive overhead power lines has been the default solution, often with detrimental consequences. HB0829 offers a smarter, more sustainable path forward.

This bill represents a paradigm shift, prioritizing analysis and innovation over simply building more and bigger transmission lines. By mandating a thorough analysis of alternatives, including advanced transmission technologies, HB0829 ensures that we explore all options before resorting to the seizure of private land and the construction of disruptive overhead lines.

Several key provisions make HB0829 a crucial piece of legislation:

* **Stronger Oversight:** Empowering the PSC to rigorously assess alternative solutions before approving new overhead lines provides much-needed oversight and accountability.

* **Advanced Transmission Technologies:** Encouraging the use of grid-enhancing technologies, high-performance conductors, and energy storage is essential for optimizing our existing infrastructure and maximizing efficiency.

* **Increased Transparency:** Requiring biennial reports from transmission operators will shed light on grid congestion issues, potential solutions, and the costs to ratepayers, fostering greater transparency and public engagement.

* **Protection of Landowners:** Limiting the use of eminent domain protects property owners from unnecessary land seizures and ensures that this power is only used when truly necessary.

* **Comprehensive Planning:** Requiring consideration of alternative energy strategies, such as demand response and distributed energy resources, ensures a holistic approach to energy planning.

HB0829 is not just about transmission lines; it's about building a more resilient, efficient, and sustainable energy future for Maryland. It's about protecting our communities, our environment, and our ratepayers. I urge the legislature to pass HB0829 and usher in a new era of responsible energy planning.

Thank you,

Julie Frye

Parkton, MD 21120

HB829_Transmission Lines Advance Technologies_ECM_
Uploaded by: Laurie McGilvray
Position: FAV

Committee: Economic Matters
Testimony on: HB0829 - Public Utilities - Transmission Lines - Advanced Transmission Technologies
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Laurie McGilvray, Co-Chair
Position: Favorable
Hearing Date: February 20, 2025

Dear Mr. Chair and Committee Members:

Thank you for allowing our testimony today in support of HB829. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on HB829.

HB829 strengthens the Public Service Commission (PSC) process for issuing a certificate of public convenience and necessity (CPCN) for construction of an overhead transmission line to include analyses of "advanced transmission technologies" and alternate routes. The bill also requires each owner or operator of an overhead transmission line to submit a periodic report to the PSC that identifies: 1) areas of transmission congestion; 2) the projected or actual costs to ratepayers of that congestion; 3) the feasibility and cost of alternatives to address congestion; 4) the economic, environmental, and social issues posed by each alternative; and (5) proposes an advanced transmission technology implementation plan to address areas of congestion.

Maryland is faced with challenges regarding the adequacy of our transmission system 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. In addition, the Maryland Piedmont Reliability Project is extremely controversial with opposition from landowners, farmers, communities and elected officials.

Getting more out of the grid we have is a practical and cost-effective way to address these challenges. While our grid operator, PJM, and the Federal Energy Regulatory Commission have the ultimate say over transmission lines, Maryland's PSC approves aspects of the transmission line through their CPCN process. HB829 will promote greater consideration of "advanced transmission technologies" - a fancy term for infrastructure, hardware, or software that increases the capacity, efficiency, reliability, or resilience of a new or existing transmission line. Maryland will be in good company as twenty other states are taking steps to squeeze every amp possible out of existing lines (see *Utility Dive* - **21 states, DOE launch initiative to spur grid-enhancing technologies, advanced conductors**).

Grid-enhancing technologies (GETs) are a suite of software and hardware technologies that boost the ability of transmission lines to carry more power and are typically deployed faster and at a lower cost than traditional options, such as new lines and substations. GETs include:

- **Dynamic Line Ratings (DLR) -** a methodology that uses sensors to calculate the rating or maximum electricity flow allowed on a line, based on real-time weather conditions, which allows grid operators to safely boost the line capacity when weather conditions allow, rather than using the more conservative static rating.
- **Advanced Power Flow Control (APFC) -** are devices that allow grid operators to direct electricity flows to avoid congested areas of the grid – akin to air traffic control.
- **Topology Optimization (TO) -** a software technology that allows grid operators to reroute power flows to avoid congested areas, like using WAZE to find driving routes to avoid traffic.

Advanced conductors are a modern, commercialized technology that increases line capacity up to two-fold. Advanced conductors use composite cores instead of steel (making them stronger and lighter) and denser annealed aluminum for conductors instead of aluminum strands. "Reconductoring" is the term used for re-stringing existing transmission towers with new cables, without having to permit and build expensive new transmission towers and power lines.

In addition line upgrades, an applicant for a CPCN for construction of an overhead transmission line must provide an analysis of the transmission line route selection, including the risks associated with cost estimates; cost containment efforts; construction schedule; rights-of-way acquisition; outage coordination; and experience working with communities and stakeholder on route consideration.

HB829 is a common-sense and cost-effective approach to improving Maryland transmission grid. For all of these reasons, we strongly support HB829 and urge a **FAVORABLE** report in Committee.

350MoCo
Adat Shalom Climate Action
Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
Chesapeake Earth Holders
Chesapeake Physicians for Social Responsibility
Climate Parents of Prince George's
Climate Reality Project
ClimateXChange – Rebuild Maryland Coalition
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
IndivisibleHoCoMD

Maryland Legislative Coalition
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
WISE

Testimony.HB829_Delegate Lorig Charkoudian.docx.pd
Uploaded by: Lorig Charkoudian
Position: FAV

LORIG CHARKOUDIAN
Legislative District 20
Montgomery County

Economic Matters Committee

Subcommittees

Public Utilities

Chair, Unemployment Insurance

Annapolis Office
The Maryland House of Delegates
6 Bladen Street, Room 220
Annapolis, Maryland 21401
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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

HB 829 - PUBLIC UTILITIES - TRANSMISSION LINES - ADVANCED TRANSMISSION TECHNOLOGIES

TESTIMONY OF DELEGATE LORIG CHARKOUDIAN
FEBRUARY 20, 2025

Chair Wilson, Vice Chair Crosby, and Members of the Economic Matters 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. By adding ATTs to lines being constructed, we can ensure 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 that we get the most out of our 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.

Some examples of Grid-Enhancing Technologies:

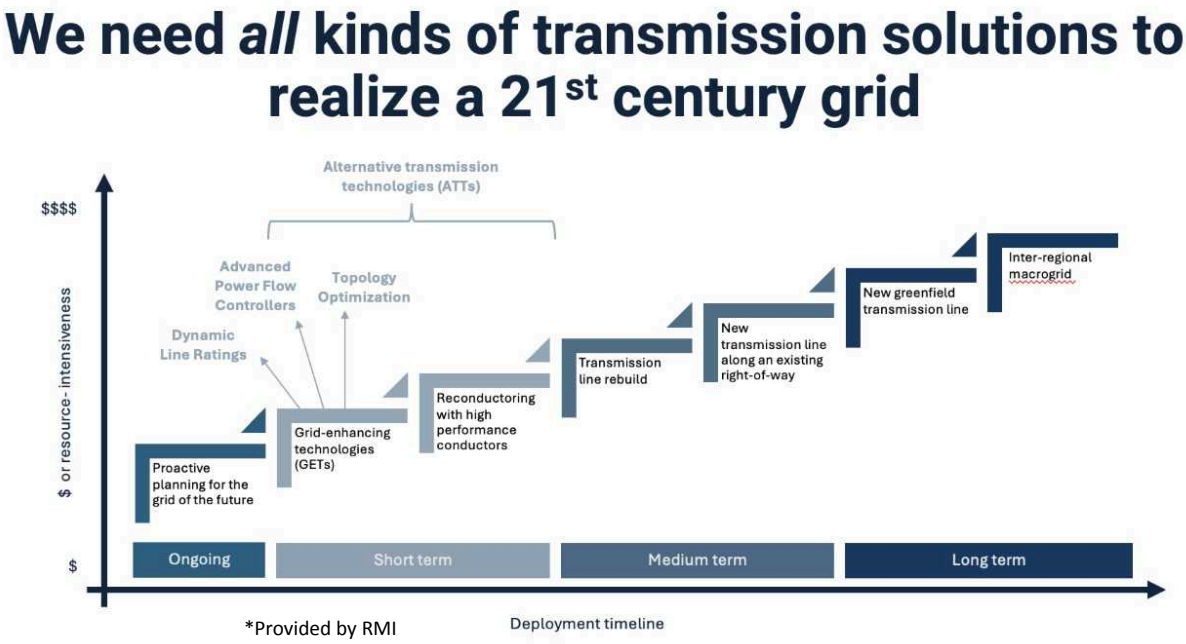
- Dynamic Line Ratings: Measures the ambient conditions and temperature of a line to determine its real-time rated capacity. The capacity of lines can increase up to 50% in cold or windy conditions over the conservatively established static capacity rating.
- Advanced Power Flow Control: Hardware and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

This bill will:

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

✔ Allow the Public Service Commission (PSC) to approve cost recovery mechanisms for ATTs investments.

✔ 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.



*Provided by RMI

HB 829 SUPPORT - Michael Goggin.pdf
Uploaded by: Michael Goggin
Position: FAV

HB 829 SUPPORT

Public Utilities - Transmission Lines - Advanced Transmission Technologies

Economic Matters Committee
February 20th, 2025

Dear Chair Wilson, Vice Chair Crosby, and Members of the Economic Matters Committee:

I, Michael Goggin, Vice President of Grid Strategies LLC, an electric transmission policy consulting firm based in Washington, DC, write today in support of HB829. Our firm has administered the Working for Advanced Transmission Technologies (WATT) Coalition since it was formed in 2017 on behalf of Grid Enhancing Technology (GETs) vendors, energy generation, and utility members. We began this work because we saw the opportunity to use these tools to get significantly more transfer capacity out of the existing transmission grid. GETs often 20% or more additional headroom on the grid. Much of my work is on the value of large-scale transmission lines but GETs have an important role to play in unlocking capacity in the near term and optimizing infrastructure decisions moving forward. Grid Strategies also administers the Advancing Modern Powerlines (AMP) Coalition for High Performance Conductors (HPCs), which can double capacity on transmission rights-of-way when compared to traditional conductors. I have been working on transmission issues for more than 15 years, frequently testifying before Public Utility Commissions, and I have been elected to multiple committees for the North American Electric Reliability Corporation.

I strongly support the provision for utilities to study Advanced Transmission Technologies (ATTs) to reduce past and projected grid congestion. From 2019 to 2023, transmission congestion increased wholesale electricity prices in the PJM Interconnection by $5.675 billion. While it's not transparent how much those costs affected Maryland, reducing grid congestion will save ratepayers money. GETs can often reduce congestion by 40% or more – by not evaluating these technologies, utilities are leaving money on the table. The requirement for a regular study of the opportunity for these technologies to reduce congestion is a good step for utilities to take. In the long term, ATTs should be fully integrated into transmission planning and operations – tools in the toolbox. This legislation will help push towards that future. Utilities are not rewarded for reducing congestion through rates or any other mechanism, so a requirement is appropriate to unlock this value.

On the requirement for ATTs to be studied as alternatives to new lines, ATTs should primarily be considered to maximize the value of new infrastructure. The requirement for inclusion in CPCN applications should prioritize using ATTs to increase asset utilization and flexibility and reduce constraints during the planning and construction of new infrastructure.

I urge a favorable report on HB 829.

HB 829 - Advanced Transmission Technologies_ MDLCV
Uploaded by: Rebecca Rehr
Position: FAV

MARYLAND LEAGUE OF CONSERVATION VOTERS

February 20, 2025

SUPPORT: HB 829 - Public Utilities - Transmission Lines - Advanced Transmission Technologies

Chair Wilson and Members of the Committee:

Maryland LCV supports HB 829 - 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 829 is a sensible step in the development of transmission infrastructure, particularly as Maryland seeks to increase grid stability. Advanced transmission technologies (ATTs), which include grid enhancing technologies (GETs), high-performance conductors, and storage used as transmission, provide cost-effective, efficient, and flexible alternatives to building 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 829 importantly requires a CPCN applicant for the construction of an overhead transmission line to include in their application—and the PSC to consider in their review of the application—an analysis of alternatives to the proposed transmission line, which includes the use of ATTs, alternative routings, and technologies or modifications to electric distribution systems that could avoid the need for the transmission line. Additional considerations under this bill include the costs to ratepayers, resource adequacy, energy efficiency and demand response, and 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 829 also requires biannual reporting on transmission congestion as another opportunity to deploy ATTs. 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 recent 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.

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.

HB 829 is an important part of Maryland's energy landscape. Maryland LCV urges a favorable report on this bill.

HB829 testimony.pdf
Uploaded by: Renee Hamidi
Position: FAV

VALLEYS
PLANNING COUNCIL

thevpc.org | info@thevpc.org | 410.337.6877
118 W. Pennsylvania Avenue, Towson, Maryland 21204
P.O. Box 5402 Towson, Maryland 21285-5402

Committee: Economic Matters
Testimony on: HB829 "Public Utilities – Transmission Lines – Advanced Transmission Technologies"
Position: Support
Hearing Date: February 20, 2025

Valleys Planning Council, a non-profit that conserves land and resources, preserves historic character and maintains the rural feel and land uses in northwestern Baltimore County, urges a favorable report on HB829, which would expand the circumstances under which the Public Service Commission (PSC) is required to examine alternatives to the construction of a new transmission line.

Requiring applicants for Certificates of Public Convenience and Necessity (CPCN) to construct an overhead transmission line to include an analysis of alternatives to the proposed transmission line, including those that could reduce the impact of the project on the environment, reduce costs to ratepayers, and avoid the transmission line altogether, makes good sense. Requiring the PSC to consider alternatives considered by PJM, the applicant, and alternatives submitted by other parties, will help keep applicants and PJM honest, though the "other parties" may be individuals without the necessary knowledge and skills to analyze the impact of a proposed transmission line and its alternatives. Those individuals, likely those affected by a proposed transmission line, would have to pay a consultant for such an analysis. The cost may be prohibitive, and that's assuming a consultant willing to do the work can be found; many consultants are conflicted as they do work for transmission planners and builders.

Nevertheless, the process of allowing a new transmission line to be built will only be improved by adding accountability and elements of planning. Valleys Planning Council urges a favorable report on HB829.

Renée Hamidi
Executive Director
Valleys Planning Council

MDFB - Support - HB829 Public Utilities - Transmis
Uploaded by: Tyler Hough
Position: FAV

Maryland Farm Bureau

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

February 18, 2025

To: House Economic Matters Committee

From: Maryland Farm Bureau, Inc.

RE: **Support of HB829 Public Utilities - Transmission Lines - Advanced Transmission Technologies**

On behalf of the nearly 8,000 member families of the Maryland Farm Bureau, I submit written testimony in support of HB829 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 overcompensation and access rights. Given these challenges, careful planning, fair compensation, and mitigation strategies are essential when building transmission lines on agricultural land.

HB829 would put in place additional measures for the review and approval of transmission lines, adding further protection to agricultural land in our state.

Sincerely,

Tyler Hough
Director of Government Relations

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

testimony FWA HB 829 powerlines 2025.pdf
Uploaded by: Emily Tarsel
Position: FWA

Emily Tarsell, LCPC

2314 Benson Mill Road
Sparks, Maryland 21152
February 20 , 2025

Favorable with Amendment - HB 829

Public Utilities - Transmission Lines - Advanced Transmission Technologies

Dear Chairman Wilson and Economic Matters Committee Members,

I am Emily Tarsell, a mother, licensed therapist and founder of Health Choice Maryland. We are all concerned about the environmental, economic and health impact of high intensity power lines. The MPRP issue has been the focus of great concern to many Marylanders whose property, homes, businesses, wildlife and health could be adversely affected.

This bill is similar to HB 657 (SB 483) in that it would require looking into alternatives to the proposed MPRP project and includes suggestions regarding the use of existing power lines and reconductoring. **I want to emphasize that the reconductoring of existing power lines would need to carefully consider that many existing power lines are in residential and farming areas. We should be extremely careful that we would not be just transposing all of the negative effects of high voltage overhead power lines from one proposed area to become the burden of those in another area. What are the health threats of such increased exposure to those living near exiting lines and threats to the environment?**

Epidemiological studies have suggested that human exposure to electromagnetic fields induce an increased risk of developing malignant tumors. No adequate laboratory data have yet been available. However, the trend continues to show that **exposure to EMF and RFR at levels allowable under current federal public safety limits pose health risks.**

A journal article in the **International Journal of Hygiene Environment and Health** references a number of studies concerned about the health effects of EMF on humans which are still under investigation.

While HB 829 , in addition to requiring the consideration of alternatives to the new construction of power lines would also require various analyses and reports such as a report regarding the electricity need and cost, it does not require studies regarding the safety of EMF on humans, particularly those living near existing power lines.

The existing lines were constructed 65 years ago and it is irresponsible to assume that say doubling the power load on those lines would be safe for those living in the vicinity of the lines. We simply don't know what the impact would be. Therefore, **I propose an amendment to the bill that would require studies to investigate the effect of the increased high voltage power lines on humans, livestock and wildlife near such re-purposed lines.**

In spirit, we cautiously support HB 829 with an Amendment **as one alternative** provided that Marylanders living near existing power lines are not thereby compromised. There are likely also multiple options to consider to meet Maryland's energy needs which might reduce or alter the need for overhead power lines.

Thank you.

Emily Tarsell, LCPC

HB 829_FAVWAMEND_PSC.pdf
Uploaded by: Frederick Hoover
Position: FWA

STATE OF MARYLAND

PUBLIC SERVICE COMMISSION

Chair C.T. Wilson
Economic Matters Committee
230 House Office Building
Annapolis, MD 21401

RE: HB 829 – Favorable with Amendments – Public Utilities - Transmission Lines - Advanced Transmission Technologies

Dear Chair Wilson and Committee Members:

The Public Service Commission (the Commission) requests a favorable report on HB 829, with consideration of the amendments detailed below. The Commission has already begun discussions with the bill sponsor to enhance the current bill language to achieve the policy directives set forth in the bill.

The bill modifies the regulation and approval process for overhead transmission lines, incorporating requirements for advanced transmission technologies, enhanced analytical reporting, and potential cost recovery. The bill significantly alters the Certificate of Public Convenience and Necessity (CPCN) process, mandates transmission congestion reports, and establishes guidelines for considering alternatives to new transmission infrastructure. The proposed legislation adds requirements to the CPCN process which require the Commission to consider alternatives or options which employ technological methods which extend beyond traditional power transmission design methods. These advanced transmission technologies include materials, equipment, software, and energy storage components which increase the ability of transmission lines to transmit electrical power. With this additional analysis, the Commission would be required to consider whether a proposed transmission line is necessary if existing facilities could be upgraded with advanced technology instead of building new lines. The required Commission analysis would also include costs, performance, and time required to complete upgrades. In addition to the review of new technology, the bill adds new elements for CPCN review which consider other distribution system improvements which could alleviate the need for additional transmission capacity. Further, the bill requires a CPCN review to consider alternatives considered by PJM or other parties prior to selecting the transmission line for which the CPCN is requested. Enactment of HB 829 has the potential to decrease ratepayers' costs through the use of advanced transmission technologies and mitigate the need for new transmission projects to be undertaken.

The Commission notes that a large amount of the work to implement the CPCN provisions will fall to the applicant and the Power Plant Research Program (PPRP), which provides an analysis to the Commission for consideration for conditions for the CPCN. The Commission will then be responsible for reviewing the analysis and the resulting conditions, along with considerations already required by current statute.

The Commission suggests the definition of a "qualified generator lead line" in § 7-207(a)(7) be amended. As written, a possible interpretation might be that any software change might require a CPCN for a

qualified transmission lead line without any other work on the transmission line. A possible solution that the sponsor might consider would be the following. "Qualified generator lead line" means an overhead transmission line INCLUDING ADVANCED TRANSMISSION TECHNOLOGY designed to carry a voltage in excess of 69,000 volts and would allow an out-of-state Tier 1 or Tier 2 renewable source to interconnect with a portion of the electric system in Maryland that is owned by an electric company.

§ 7-207.4(D) authorizes the Commission to approve cost recovery for advanced transmission technologies. This provision appears to be aimed at promoting the deployment of advanced transmission technologies but may also raise jurisdictional concerns. The Federal Energy Regulatory Commission (FERC) has primary jurisdiction over interstate transmission rates and cost recovery. PJM, the regional transmission organization (RTO), determines cost allocation for regional transmission projects under FERC-approved tariffs. The bill does not specify how PSC-approved cost recovery would be implemented. The bill would benefit from greater clarity on how PSC-approved cost recovery would be implemented. Greater clarity on the implementation of PSC-approved cost recovery could help to prevent conflicts and legal challenges and would ensure that the legislative intent is accurately followed, particularly when introducing additional costs to ratepayers. Clearly defining the cost recovery process can provide transparency, prevent unintended financial impacts, and align regulatory actions with the bill's objectives. Alternatively, the Commission already has retail rate setting authority and this parameter could be struck, as it does not clearly modify the Commission's existing procedures or authority related to the allocation and recovery of costs.

Finally, the Commission interprets the enactment of HB 829 to apply prospectively. Therefore, the provisions would not apply to 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 Public Service Commission appreciates the opportunity to provide testimony on HB 829. The Commission requests a favorable report, with amendments as detailed, as this bill has the potential to mitigate costs for transmission projects. Please contact the Commission's Director of Legislative Affairs, Christina M. Ochoa, if you have any questions.

Sincerely,

Frederick H. Hoover, Chair
Maryland Public Service Commission

2025.02.20_HB0829_2025_ATTs_FWA_Advanced Energy Un

Uploaded by: Katie Mettle

Position: FWA

February 20, 2025
Economic Matters Committee

HB 0829
Public Utilities – Transmission Lines – Advanced Transmission Technologies
Sponsor: Delegate Lorig Charkoudian

Katie Mettle
Policy Principal, Advanced Energy United

FAVORABLE WITH AMENDMENTS

Dear Chair Wilson, Vice Chair Crosby, and esteemed members of the Economic Matters Committee:

Advanced Energy United is an industry association that represents companies operating in the clean energy space. Our mission is to accelerate the transition to a 100% clean energy economy.

HB 0829 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 2 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 plan. It also gives the Public Service Commission the ability to authorize reasonable cost recovery for the use of advanced transmission technologies under certain circumstances.

This bill has the potential to save ratepayers money, by encouraging and even incentivizing the use of technologies that are more cost-effective than building additional overhead transmission lines.

We would like to respectfully request an amendment to the definition of "advanced transmission technologies. Our preferred language is below:

"Advanced transmission technologies" means a set of hardware and software technologies that increase the capacity, efficiency, reliability, or resilience of an existing or new transmission facility, including, but not limited to:

a. *Advanced conductors;*
b. *Grid-enhancing technologies; and*
c. *Any other technology as determined by the Commission.*

"Advanced conductor" means a conductor that has a direct current electrical resistance at least 10 percent lower than existing conductors of a similar diameter, while simultaneously increasing capacity by at least 75% on the system and may include rebuilding support structures or other associated facilities.

"Grid-enhancing technology" means a hardware or software technology that reduces congestion or enhances the flexibility of electric transmission and distribution systems by increasing the capacity of a line or rerouting electricity from overloaded to uncongested lines, while maintaining industry safety standards. This includes, but is not limited to:

a. *Dynamic line ratings;*
b. *Advanced power flow controllers;*
c. *Topology optimization; and*
d. *Other technologies that increase grid reliability, flexibility, and capacity.*

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

Best Regards,

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

HB0829 - FWA - Public Utilities - Transmission Lin

Uploaded by: Landon Fahrig

Position: FWA

Maryland Energy Administration

TO: Chair Wilson, Vice Chair Crosby, and Members of the Economic Matters Committee
FROM: MEA
SUBJECT: HB 829 - Public Utilities - Transmission Lines - Advanced Transmission Technologies
DATE: February 20, 2025

MEA Position: FAVORABLE WITH AMENDMENTS

House Bill 829 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).

While MEA supports the intent of this bill, we recommend targeted amendments to enhance clarify, and 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, high performance conductors, and storage used as a transmission asset. MEA recommends:
    a. Changing 'includes' to 'including' to allow for future technological advancements without requiring further statutory amendments.
    b. Incorporating additional ATTs enumerated in FERC Order No. 1920[1]:
        i. Dynamic line ratings
        ii. Advanced power flow control devices
        iii. Advanced conductors
        iv. Transmission switching
    c. Amending 'storage used as a transmission asset' to 'storage "classified" as a transmission asset, including dual-use assets.' This ensures that emerging storage technologies, which may provide both market and reliability services, are not unintentionally excluded.
2. **Analysis of Transmission Alternatives:** The bill mandates CPCN applicants to include an analysis of transmission alternatives. However, Maryland regulations (Md. Code Regs. 20.79.04.03) already require a description of alternative routes. To avoid redundancy, MEA suggests:
    a. Striking (iv)(1)(B) ALTERNATIVE ROUTINGS from the bill.
    b. Clarifying the intent and applicability of provisions (E) and (F) regarding resource adequacy and eliminating energy efficiency and demand response considerations. Transmission-owning utilities do not serve retail customers and cannot institute energy efficiency or demand response programs, making these provisions impractical.

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3. **Considerations in the PSC's CPCN Process:** MEA supports incorporating ATTs into the CPCN process but recommends:
    a. Allowing the Public Service Commission (PSC) discretion to screen out infeasible alternatives, such as extensive undergrounding of new overhead high-voltage transmission lines. Underground transmission is significantly costlier—approximately $2 million per mile compared to $390,000 per mile for overhead lines—potentially burdening ratepayers with unnecessary expenses.
4. **Cost and 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 focus on heavily congested lines rather than all transmission lines. The 2023 National Transmission Needs Study (NTNS) could serve as a reference for identifying significant congestion areas.
5. **Cost Recovery and Incentives for ATTs:** MEA supports providing reasonable cost recovery for ATTs but recommends:
    a. Establishing efficacy standards to prevent ratepayers from subsidizing marginally effective technologies. Montana's model, which offers an ROI "adder" for utilities selecting conductors that reduce electrical resistance by 10% or more, could serve as a precedent.
    b. Structuring Section (D) of HB 879 as a temporary authorization rather than a permanent feature of the CPCN process. A sunset provision extending through 2040, aligned with PJM's long-term transmission planning process, would ensure regulatory certainty while allowing reassessment as market conditions evolve.

MEA urges the committee to issue a **favorable report**, with the adoption of these amendments.

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.

[1] FERC Order No. 1920: https://www.ferc.gov/media/e-1-rm-21-17-001

HB829 Oppose PHI 2.20.25.pdf
Uploaded by: Anne Klase
Position: UNF

February 20, 2025

112 West Street
Annapolis, MD 21401

Oppose – House Bill 829 Public Utilities - Transmission Lines - Advanced Transmission Technologies

Potomac Electric Power Company (Pepco) and Delmarva Power & Light Company (Delmarva Power) respectfully submit this letter of opposition on **House Bill 829 - Public Utilities - Transmission Lines - Advanced Transmission Technologies**. House Bill 829 alters the definition of qualified generator lead line for purposes of provisions of law regarding certificates of public convenience and necessity (CPCN), requires an applicant for a CPCN for the construction of an overhead transmission line to include certain analyses and requires the Public Service Commission (PSC) to consider certain alternatives before taking final action on a certain application for a CPCN.

Pepco and Delmarva Power are committed to supporting the use of grid-enhancing technologies to advance Maryland's energy transition and endorsing policies that prioritize affordability, resiliency, and reliability. However, Pepco and Delmarva Power oppose House Bill 829 as it will create additional regulatory delays in the CPCN process and increase the costs borne by utility ratepayers. While well-intentioned, this legislation attempts to add an unnecessary layer onto an already robust and comprehensive CPCN process that considers the community, physical, environmental, aesthetic and noise impacts for the siting of transmission lines and generating stations.

Pepco and Delmarva Power are concerned that House Bill 829 may add significant time and costs to any future Maryland CPCN application required for any overhead transmission line that does not meet the Commission's waiver requirements. Section 7(iv)1 proposes a new CPCN requirement for an "analysis of alternatives to the proposed transmission line." As part of the CPCN process, the PSC can request certain information, however, the information in the bill is concerning as it includes things that are necessarily related to the transmission line. Also, this requirement for "a review of an integrated electric transmission-distribution system to address the need of the transmission line" is very broad and potentially unduly burdensome to produce. These requirements, while well-intentioned, could prolong decision-making process, delaying the timely development of necessary transmission infrastructure, particularly at a time where the state is looking to increase in-state generation quickly in Maryland.

Extending CPCN permitting times could make it infeasible to meet required in-service dates for PJM-mandated projects, risking putting the transmission system into an unreliable state and being in non-compliance with federal (i.e., North American Electric Reliability Corporation) reliability standards. Additionally, the legislation discusses transmission planning and cost recovery, which are areas that are not within the jurisdiction of the PSC. The Federal Energy Regulatory Commission (FERC) regulates transmission planning and cost recovery. The legislation contains various provisions that a court may find are preempted by federal law, particularly the provisions that delve into transmission planning and cost recovery.

Pepco and Delmarva Power respectfully oppose House Bill 829 and are committed to collaborating with the bill sponsor and stakeholders.

Valencia McClure | Anne Klase | Allyson Black-Woodson | Poetri Deal | 410 980 5347

BGE_ECM_HB829-Transmission Lines Advanced Transmis

Uploaded by: Guy Andes

Position: UNF

Position Statement

Oppose
Economic Matters
2/20/2025

House Bill 829 – Public Utilities - Transmission Lines - Advanced Transmission Technologies

Baltimore Gas and Electric Company (BGE) opposes *House Bill 829 - Public Utilities - Transmission Lines - Advanced Transmission Technologies,* which 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, alternative routes, technology modifications to the electric distribution systems in the State, and a review of an integrated electric transmission-distribution system to address the need for the proposed transmission line.

BGE remains steadfast in its commitment to supporting the use of grid-enhancing technologies to advance Maryland's energy transition and endorsing policies that prioritize affordability, resiliency, and reliability. However, BGE opposes House Bill 829, because it is overly prescriptive, will create significant additional regulatory delays in the CPCN process, and increase the costs borne by utility ratepayers.

The Maryland Public Service Commission's ("Commission") CPCN process involves robust, quasi-judicial administrative proceedings, as well as extensive public notification requirements, public hearings, and opportunities for comment from the public, State Agencies, and local jurisdictions. For example, the Power Plant Research Program ("PPRP") in the Department of Natural Resources coordinates a comprehensive environmental and socioeconomic review of a proposed project and presents recommendations on behalf of seven different State agencies. The Staff of the Commission and the Office of People's Counsel also regularly participate as parties in CPCN proceedings.

House Bill 829 expands the required analysis for CPCN applications by potentially prioritizing less economical and reliable transmission options. Further, the CPCN process is already comprehensive and lengthy, typically 12-18 months, and would become even more burdensome, increasing costs for applicants, the Commission, and State agencies like the PPRP. Additionally, the bill will cause further delays in the permitting and siting of overhead transmission lines. Extending CPCN permitting times could make it infeasible to meet required in-service dates for PJM-mandated projects, risking putting the transmission system into an unreliable state and being in non-compliance with federal (i.e., North American Electric Reliability Corporation) reliability standards.

Under current law, applicants for a CPCN must already consider alternatives to newly proposed transmission lines, including the use of existing rights-of-way and alternative routes. This required alternative analysis includes a thorough evaluation and consideration of various potential routes for the proposed power line. Factors such as environmental impact, land use, community

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impact, and costs are considered to demonstrate that the proposed route is the most feasible and minimizes negative effects compared to other options.

A significant component of the analysis involves environmental and socioeconomic considerations, such as land use impacts. The impact of each alternative route on natural habitats, sensitive ecosystems, and visual aesthetics are examples of the environmental matters reviewed. Additionally, community impact is evaluated during the alternative analysis study. Factors such as property values, land use, and community concerns are strongly considered when identifying the most viable route for the transmission line. The CPCN process also currently requires that applicants identify whether the overhead transmission line is proposed to be constructed on property that is subject to an existing easement.

Many of the alternative evaluation criteria proposed in House Bill 829 are already part of existing federal approval processes and FERC Order 1920, which considers the use of viable grid enhancing technologies. Incorporating targeted State policies into these planning processes is a more appropriate venue than the CPCN process, which could delay projects thereby negatively impacting Maryland's transmission grid.

BGE remains committed to supporting Maryland's energy transition and supports policies that keep affordably, resiliency, and reliability a priority. For these reasons, BGE opposes House Bill 829 and requests an unfavorable report.

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FirstEnergy UNFAV HB-829 - Transmission Technologi

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OPPOSE – House Bill 0829
HB0829 – Public Utilities - Transmission Lines - Advanced Transmission Technologies
Economic Matters Committee
Thursday, February 20, 2025

Potomac Edison, a subsidiary of FirstEnergy Corp., serves approximately 285,000 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 ten electric distribution companies form one of the nation's largest investor-owned electric systems, serving customers in Ohio, Pennsylvania, New Jersey, New York, West Virginia, and Maryland.

Unfavorable

Potomac Edison / FirstEnergy opposes House Bill 0829 – *Public Utilities - Transmission Lines - Advanced Transmission Technologies*. 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 0829 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 alternatives 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-829 requires applicants seeking certificates for constructing overhead transmission lines to include specific analyses 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-829 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 0829.**