Testimony in support of SB0937 - Public UtilitiesUploaded by: Richard KAP Kaplowitz

Position: FAV

SB0937_RichardKaplowitz_FAV 02/28/2025

Richard Keith Kaplowitz Frederick, MD 21703

TESTIMONY ON SB#/0937 – FAVORABLE

Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

TO: Chair Feldman, Vice Chair Kagan and members of the Education, Energy and the Environment Committee

FROM: Richard Keith Kaplowitz

My name is Richard K. Kaplowitz. I am a resident of District 3, Frederick County. I am submitting this testimony in support of SB#0937, Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

This bill seeks to add nuclear power generation as one of the sources for electricity in Maryland under tight controls. It also adds controls on how electricity suppliers or owners of generating stations seek to bypass controls over that electricity provision.

The bill accomplishes these goals by requiring the Maryland Energy Administration, in coordination with the Public Service Commission and the Department of Natural Resources, to pursue certain agreements with neighboring states and federal agencies related to the development of new nuclear energy generation stations. The control of the provision of electricity is provided by prohibiting an electricity supplier or other owner of a certain generating station from entering into a certain contract with a commercial or industrial customer under certain circumstances.

This bill will assist Maryland to meet goals related to how electricity is generated for use in Maryland by promotion of interstate and Federal cooperation in meeting the electricity needs. It will also treat electricity as a public good and not a private benefit for specific commercial or industrial companies.

I respectfully urge this committee to return a favorable report on SB#0937.

Testimony on the Next Generation Energy Act.pdf Uploaded by: Aiden Holdren

Position: FWA

I am flabbergasted that this legislature is even considering the construction of a natural gas plant in Maryland. This is a resounding backward step in the energy transition, a contribution to the desecration of our environment, and an overall terrible idea. It is blatantly wasteful to be spending taxpayer dollars on fossil fuel construction, when cheaper, more effective and more sustainable energy sources are available.

SB 937 testimony.pdfUploaded by: Chris Anderson Position: FWA



PLUMBERS AND STEAMFITTERS UA LOCAL UNION 486

8100 Sandpiper Circle, Suite 200 Baltimore, Maryland 21236 Phone: 410-866-4380 Fax: 410-933-3515 www.UALocal486.com Founded 1889 Pasquale D. Petrovia

Business Manager

Gary G. Glab

Harry M. Schleicher Jr.

C. Ryan Ambrose

Stephen M. Nitsch
Business Agent

Christopher D. Anderson .
Business Agent

Todd E. Eckley

Education, Energy, and the Environment Committee

To: Chair Senator Brian J. Feldman, Vice Chair Senator Cheryl C. Kagan, and members of the Education, Energy, and the Environment Committee

From: Christopher Anderson, Business Agent, Plumbers and Steamfitter Local 486

Support SB 937 with amendment - Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

On behalf of Plumbers and Steamfitters Local 486, I am writing to express our strong support for Maryland Senate Bill 937 with amendment, the "Next Generation Energy Act." This critical piece of legislation represents a significant step forward in ensuring Maryland's energy future is both sustainable and reliable, aligning with our values of promoting job growth, workforce development, and clean energy infrastructure.

As a union representing skilled plumbers, pipefitters, and steamfitters, we recognize the vital role our workforce plays in the development and implementation of energy generation and infrastructure projects. With the push to eliminate fossil fuels, which provide the most reliable energy, we are putting our regional grid in danger. While we support an all the above approach to energy generation (as long as it's built UNION). Wind and solar are not ready to take center stage in our energy production. Nuclear and Natural Gas create enough electron to start to replace other fossil fuel generation that has already been closed, though it takes time to get online as well so the development process needs to start quickly.

SB 937 not only creates a path for the development of new Nuclear and Natural gas to create a reliable grid, but includes excellent standard to protect ratepayers, workers, and ensure diversity in the industry.

For the above reasons, we ask that you give SB 937 a favorable Report with amendment.

Sincerely,

Christopher Anderson

Ulflitelle-

SUPPORT with amendment SB 937 - Public Utilities -

Uploaded by: Jason Ascher

Position: FWA

MID-ATLANTIC PIPE TRADES ASSOCIATION



7050 Oakland Mills Road Suite 180 Columbia, MD 21046

Phone: 410-290-3890

www.midatlanticpipetrades.org

Finance Committee

To: Senator Pam Beidle, Char; Senator Antonio Hayes, Vice Chair; and Members of the Committee **From:** Jason Ascher, Political Director – Mid-Atlantic Pipe Trades Association

SUPPORT with amendment SB 937 - Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

On behalf of the Mid-Atlantic Pipe Trades Association and our five United Association of Plumbers and Steamfitters Locals, which represent over 10,000 Plumbers, Steamfitters, Welders, HVAC Techs, and Sprinkler Fitters across Maryland, I ask you to **SUPPORT SB 937 with Amendment.**

Increasing energy production is vital for ensuring reliable grid. With the push to eliminate fossil fuels, which provide the most reliable energy we are putting our regional grid in danger. While we support and all the above approach to energy generation (as long as it's built UNION). Wind and solar are not ready to take center stage in our energy production repertoire, because there is a lot of construction that needs to be done for that to happen. Nuclear and Natural Gas create enough electron to start to replace other fossil fuel generation that has already been closed, though it takes time to get online as well so the development process needs to start quickly.

SB 937 not only creates a path for development of new Nuclear and Natural gas to create a reliable grid, but includes excellent standard to protect ratepayers, workers, and ensure diversity in the industry.

For the above reasons, we ask that you give SB 937 a favorable Report with amendment.

Sincerely

Jason Ascher Political Director Mid-Atlantic Pipe Trades Association

MID-ATLANTIC PIPE TRADES ASSOCIATION



7050 Oakland Mills Road Suite 180 Columbia, MD 21046

Phone: 410-290-3890

www.midatlanticpipetrades.org

SUPPORT with amendment SB 937 - Public Utilities -

Uploaded by: Jason Ascher

Position: FWA

MID-ATLANTIC PIPE TRADES ASSOCIATION



7050 Oakland Mills Road Suite 180 Columbia, MD 21046

Phone: 410-290-3890

www.midatlanticpipetrades.org

Education, Energy, and Environment Committee

To: Senator Brian Feldman, Char; Senator Cheryl Kagan, Vice Chair; and Members of the Committee **From:** Jason Ascher, Political Director – Mid-Atlantic Pipe Trades Association

SUPPORT with amendment SB 937 - Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

On behalf of the Mid-Atlantic Pipe Trades Association and our five United Association of Plumbers and Steamfitters Locals, which represent over 10,000 Plumbers, Steamfitters, Welders, HVAC Techs, and Sprinkler Fitters across Maryland, I ask you to **SUPPORT SB 937 with Amendment.**

Increasing energy production is vital for ensuring reliable grid. With the push to eliminate fossil fuels, which provide the most reliable energy we are putting our regional grid in danger. While we support and all the above approach to energy generation (as long as it's built UNION). Wind and solar are not ready to take center stage in our energy production repertoire, because there is a lot of construction that needs to be done for that to happen. Nuclear and Natural Gas create enough electron to start to replace other fossil fuel generation that has already been closed, though it takes time to get online as well so the development process needs to start quickly.

SB 937 not only creates a path for development of new Nuclear and Natural gas to create a reliable grid, but includes excellent standard to protect ratepayers, workers, and ensure diversity in the industry.

For the above reasons, we ask that you give SB 937 a favorable Report with amendment.

Sincerely

Jason Ascher Political Director Mid-Atlantic Pipe Trades Association

MID-ATLANTIC PIPE TRADES ASSOCIATION



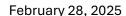
7050 Oakland Mills Road Suite 180 Columbia, MD 21046

Phone: 410-290-3890

www.midatlanticpipetrades.org

SB937 HB1035 Next Generation Energy Act SEIA Testi Uploaded by: Leah Meredith

Position: FWA





Senator Brian Feldman Chair Senate Education, Energy, Environment Committee 2 West Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Delegate C. T. Wilson Chair Economic Matters Committee 231 Taylor House Office Building 6 Bladen Street Annapolis, MD 21401 Senator Cheryl Kagan Vice Chair Education, Energy, Environment Committee 2 West Miller Senate Office Building 11 Bladen Street Annapolis, MD 21401

Delegate Brian M. Crosby Vice Chair Economic Matters Committee 231 Taylor House Office Building 6 Bladen Street Annapolis, MD 21401

RE: SEIA Favorable with Amendments on SB937/ HB398: Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Chair Feldman, Vice Chair Kagan, Chair Wilson, Vice Chair Crosby, and Members of the Senate Education, Energy, and Environment and House Economic Matters Committees:

I am writing on behalf of the Solar Energy Industries Association (SEIA) regarding our position of **Favorable with Amendments** on SB937 (Senate President Ferguson and Feldman)/ HB398 (House Speaker Jones and Wilson), also known as the Next Generation Energy Act. It was referred to the Senate Education, Energy, and Environment (EEE) Committee on February 3, 2025 and to the House Economic Matters (ECM) Committee on February 5, 2025.

Founded in 1974, SEIA is the national trade association for the solar and storage industries, building a comprehensive vision for the advancement of these technologies. SEIA is leading the transformation to a clean energy economy by supporting policy measures that will drive the needed investment in clean, domestic, local job-producing solar generation. We work with our 1,200+ member companies, which include solar and storage manufacturers, service providers, residential, community and utility-scale solar developers, installers, construction firms, and investment firms, as well as other strategic partners, to shape fair market rules that promote competition and the growth of reliable, low-cost energy storage and solar power.

Maryland Energy Landscape

After a history of flat, or even declining, electricity consumption, the U.S. power grid is currently experiencing the largest demand growth in eighty years, due to new manufacturing facilities as well as cutting-edge American innovations in artificial intelligence, data centers, and cryptocurrency mining. This increase in electricity demand is occurring faster than new generation is being brought online. As a result, Maryland now faces significant increases in costs to energy consumers after decades of relatively stable



electricity costs. This spike is exemplified by the recent 2025/2026 PJM capacity auction that saw an 800% increase from previous years, which will eventually be passed on to Maryland ratepayers as a portion of their utility bill.¹

The mismatch in electricity supply and forecasted demand is in large part attributable to years of policy decisions and inactions at PJM, the regional transmission organization and independent system operator that manages the electric transmission grid for thirteen states and the District of Columbia, including Maryland. The PJM interconnection queue is currently so backlogged that, in 2023, PJM announced it would cease to accept applications for new generation projects. As a result, PJM now has a roughly 5 year wait time from application to approval for new generation sources coming online, resulting in hundreds of gigawatts (GW) of planned capacity, largely wind, solar, and storage assets, sitting in limbo rather than being able to service Maryland's electric load requirements. Given this delay, projects which were ready to be deployed at the time of their application are often no longer viable due to changing economic realities by the time of their approval.

Maryland is reliant on electricity generation from the other PJM states. In 2023, the state imported approximately 40% of its electricity.² Meeting Maryland's energy needs and staving off continued dramatic increases in energy costs will require the rapid deployment of an "all of the above" energy strategy. Such a strategy must include solar and energy storage assets, which are among the only energy resources currently primed to cost effectively address the state's *near-term* energy challenges. In 2023, solar made up the majority of additions to the U.S. electric grid, accounting for 55% of all new generation capacity, due, in part, to the 37% decrease in the price of solar photovoltaics over the last decade.³ Utility scale solar, along with onshore wind, continue to be the cheapest sources of new electricity generation in the United States, beating out the cost of coal and fossil gas-fired generation, even when paired with energy storage which allows the electricity generated by wind and solar to be stored and sent back to the electric grid during periods of high demand.⁴

Next Generation Energy Act Recommended Amendments

SB937/ HB1035 requires the Maryland Energy Administration (MEA) to pursue cost-sharing agreements with neighboring states and federal agencies for the development of new nuclear energy generation stations. While this is a worthwhile endeavor to meet Maryland's growing electricity demand over the coming decade, nuclear generation cannot be leveraged on the timeline needed to address the state's

¹ Office of People's Counsel. "Bill and Rate Impacts of PJM's 2025/2026 Capacity Market Results & Reliability Must-Run Units in Maryland." August 2024. https://opc.maryland.gov/LinkClick.aspx?fileticket=keJs-QqaLr0%3D&tabid=63&portalid=0&mid=1480

² United States Energy Information Administration. Maryland State Profile. https://www.eia.gov/state/analysis.php?sid=MD.

³ Wood Mackenzie Power & Renewables and Solar Energy Industries Association. U.S. Solar Market Insights Report. December 2024.

⁴ Lazard. Levelized Cost of Energy+. June 2024. https://www.lazard.com/research-insights/levelized-cost-of-energyplus/.



current resource adequacy challenges. Fortunately, Maryland has a robust pipeline of energy storage projects in the near-term PJM queue that can be deployed more quickly than any other dispatchable energy resource, including natural gas. Because these projects require a formal program to spur construction, SEIA recommends amending SB937/ HB1035 to establish a competitive procurement program for front-of-the-meter (FTM), transmission-connected storage with contracted capacity revenue.

Specifically, SEIA recommends incorporating language from SB316/ HB938, also known as the Abundant and Affordable Clean Energy (AACE) Act, which creates a competitive procurement process in 2026 and 2027 for up to 1,600 MW of in-state battery storage projects, thus ensuring that storage assets become operational *in this decade* and start generating energy cost-savings to Marylanders. These projects will be constructed in Maryland and serve Maryland's peak demand – alleviating the need for comparatively more expensive peaker plants. These projects are also eligible to bid into the PJM capacity market which can, in part, alleviate soaring capacity market costs. The AACE Act's competitive storage procurement process includes significant cost-benefit analyses as a part of any project application to ensure the lowest cost to ratepayers, as well as a Certificate of Public Convenience and Necessity (CPCN) equivalent to ensure rapid deployment upon approval by the PSC. This procurement process includes significant labor protections, including the requirement for community benefit agreements, which include guarantees for hiring practices and wage provisions to ensure Maryland's workforce benefits from these projects. The AACE Act also creates a pathway for the deployment of 150 MW of new in-state FTM distribution-connected energy storage assets, not subject to the delays of the PJM interconnection queue.

As an instantly dispatchable energy resource, energy storage can function as both generation and load, thus helping the electric grid adjust to fluctuations in demand and supply, which optimizes grid efficiency, alleviates transmission congestion, and increases grid flexibility while reducing overall system costs. However, as currently drafted, SB937/ HB1035 does not adequately leverage these assets, despite them standing at the ready to provide near-term solutions to Maryland's resource adequacy challenges. While higher electricity costs are already on the horizon, the cost of policy inaction and failing to bring both energy storage assets and new sources of electricity online in Maryland is far greater. SEIA thus looks forward to working with members of the Administration, Chamber leadership, members of the EEE and ECM committees, as well as other stakeholders, to chart a pathway for cost effectively responding to Maryland's future energy demands while providing near-term solutions to the state's resource adequacy challenges. Should you have any questions, please do not hesitate to contact me.

Sincerely,

Leah Meredith

Mid-Atlantic Regional Director Solar Energy Industries Association

lmeredith@seia.org

Leah Meredith

M&A_Aaron Bast_Ironworkers Local 5_HB1035 SB937_FW

Uploaded by: Roger Manno

Position: FWA



TESTIMONY OF AARON BAST BUSINESS MANAGER & FINANCIAL SECRETARY-TREASURER, IRON WORKERS LOCAL 5

SUBMITTED TO THE HOUSE ECONOMIC MATTERS COMMITTEE & SENATE EDUCATION, ENERGY, AND THE ENVIRONMENT COMMITTEE

REGARDING SB937 / HB1035 – SUPPORT WITH AMENDMENTS

Chairs Feldman and Wilson, and esteemed members of the committees, I appreciate the opportunity to testify on behalf of Iron Workers Local 5. Our union represents the hardworking men and women who build and maintain the infrastructure critical to Maryland's economic and energy future. Our workforce, composed of thousands of skilled professionals, contributes daily to the state's energy, industrial, and commercial development.

As Maryland charts its course for long-term energy planning, it is crucial that legislative efforts support economic growth, workforce development, and energy security without unnecessary constraints. This bill, while a step forward, requires key adjustments to ensure Maryland remains competitive and adaptable in an evolving energy landscape.

A significant concern in this legislation is the proposed restriction on behind-the-meter (BTM) configurations for data centers. This provision is not only premature but also potentially damaging to Maryland's economic competitiveness. The conversation around BTM configurations is far from settled at the federal level, with ongoing discussions at FERC shaping the regulatory outlook. Unfortunately, testimony from Maryland Senator Katie Fry Hester at the FERC Colocation Technical Conference mischaracterized the state's position, creating a misleading narrative that does not reflect the broad spectrum of views within the Maryland General Assembly or the energy sector. Our partners, including IBEW Local 26, the Mid Atlantic Pipe Trades Association (UA), the Ironworkers District Council of the Mid-Atlantic States, and represented by attorney Roger Manno, are actively involved in FERC proceedings to ensure that these issues are addressed with the depth and expertise they require. It is imperative that Maryland refrains from implementing state-level restrictions before these matters are resolved at the federal level.

The role of nuclear energy in Maryland's energy future is another critical consideration. While SB937 / HB1035 takes an important step in recognizing the value of nuclear power, its procurement structure lacks the necessary financial stability to attract essential private investment. Iron Workers Local 5 fully supports an amendment put forth by Constellation that introduces a state-level safety net in the event of federal Production Tax Credit (PTC) reductions



or eliminations. Ensuring the economic viability of Maryland's existing nuclear facilities, such as Calvert Cliffs, is essential for a reliable, carbon-free energy future. The state must collaborate closely with industry stakeholders to develop a procurement structure that fosters sustainable investment and ensures long-term success in nuclear energy.

Additionally, this bill's study language regarding utility-owned generation is overly restrictive. A narrowly focused study on a single procurement model does not serve Maryland's best interests. Instead, a broader, more comprehensive analysis of energy procurement options—like the approach taken in the Hester/Crosby bill—should be pursued. Maryland needs a fact-based assessment of multiple procurement strategies to determine the most effective, cost-efficient path forward.

Maryland stands at a pivotal moment in shaping its energy strategy. SB937 / HB1035 lays the foundation for progress, but it must be refined to avoid unintended consequences that could hinder economic growth and job creation. Removing the premature restrictions on data centers, strengthening nuclear procurement with Constellation's amendment, and expanding the scope of the utility ownership study are necessary steps to ensure a balanced and future-ready energy policy.

I appreciate your time and consideration and look forward to continued discussions on these vital issues.

Aaron Bast

Business Manager & Financial Secretary-Treasurer

Iron Workers Local 5

M&A_Chris Madello_HB1035 SB937_FWA.02.26.25.docx.p Uploaded by: Roger Manno

Position: FWA

Journeymen Pipe Fitters and Apprentices



Local Union No. 602

8700 ASHWOOD DRIVE • 2ND FLOOR • CAPITOL HEIGHTS, MD 20743

TELEPHONE: (301) 333-2356 • FAX: (301) 333-1730

AFFILIATED WITH AFL-CIO

TESTIMONY OF CHRIS MADELLO, BUSINESS MANAGER & FINANCIAL SECRETARY-TREASURER, UA STEAMFITTERS LOCAL 602

SUBMITTED TO THE HOUSE ECONOMIC MATTERS COMMITTEE & SENATE EDUCATION, ENERGY, AND THE ENVIRONMENT COMMITTEE

SB937 / HB1035 – PUBLIC UTILITIES - ELECTRICITY GENERATION PLANNING - PROCUREMENT, PERMITTING, AND CO-LOCATION (NEXT GENERATION ENERGY ACT)

FAVORABLE WITH AMENDMENTS

Dear Chairs Feldman and Wilson, and honorable members of the Senate Education, Energy, and Environment Committee, and the House Economic Matters Committee:

Thank you for the opportunity to present my testimony. My name is Chris Madello, and I have the privilege of representing UA Steamfitters Local 602, a leader in Maryland's skilled labor force, particularly within the energy sector. While we support SB937 / HB1035, we believe key amendments are necessary to align the legislation with Maryland's long-term energy and workforce needs.

Introduction to UA Steamfitters Local 602

UA Steamfitters Local 602 represents more than 6,000 Journeymen and 1,200 Apprentices, along with 205 signatory mechanical construction and service contractors in the heating, air conditioning, refrigeration, and process piping industry across the Washington, D.C. metropolitan area. In 2024 alone, our members performed over 9 million work hours. Our partnership with contractors through the Mechanical Contractors Association of Metro Washington (MCAMW) fuels local economies, generating approximately \$2 billion in annual revenue and contributing \$500 million in state, federal, and local taxes.

Our expertise extends to constructing and maintaining data centers, power plants, LNG facilities, and other major industrial projects throughout the tri-state region. Given this

experience, we are uniquely positioned to contribute to discussions shaping Maryland's energy policies.

Data Center Restrictions Are Premature

The bill's restrictions on behind-the-meter (BTM) energy configurations for data centers are deeply concerning. There is no pressing justification for banning this model, particularly while regulatory discussions remain active at FERC. Testimony provided by Maryland Senator Katie Fry Hester at the FERC Colocation Technical Conference, which inaccurately suggested a unified stance on behalf of the State of Maryland, likely influenced both FERC and the Public Service Commission's report on co-location. This misrepresentation may have prejudiced the issue, which remains a subject of ongoing debate within the Maryland General Assembly, among states, and at FERC itself.

UA Steamfitters Local 602, through our regional Mid Atlantic Pipe Trades Association (UA), along with our partners at IBEW Local 26, the Ironworkers District Council of the Mid-Atlantic States, is actively engaged in two separate FERC proceedings on this matter, represented by our attorney Roger Manno. The stakes in these proceedings are high, with significant implications for the tens of thousands of union workers who are integral to the data center industry's expansion. Given the evolving nature of this issue and the ongoing litigation, Maryland should not take premature action to restrict BTM configurations. Instead, we strongly recommend removing this restriction entirely and allowing the federal process to reach a resolution before the state imposes limitations.

Strengthening the Nuclear Energy Procurement Framework

We strongly support Maryland's investment in nuclear energy, but the procurement model in SB937 / HB1035 requires further refinement. The OREC-like structure, modeled after offshore wind, lacks the necessary framework to attract significant nuclear investment. While we favor the approach outlined in Senator Brooks' Decarbonization Infrastructure Solutions Act (SB716), which elevates nuclear to Tier 1 of the Renewable Portfolio Standard (RPS), we also acknowledge the need for ongoing stakeholder engagement to improve the procurement structure in SB937 / HB1035.

Our partnership with Constellation has demonstrated the importance of structuring nuclear policy in a way that ensures economic feasibility and long-term viability. We strongly endorse an amendment proposed by Constellation that would establish a state-level financial safeguard should federal Production Tax Credits (PTCs) be reduced or eliminated. This measure would help ensure the continued viability of Maryland's existing nuclear assets, including Calvert Cliffs, and provide stability for future nuclear investments.

Utility Ownership Study Presents a Limiting Approach

While we have concerns about utilities entering power plant construction without prior experience, our primary objection is to the uncodified study language that narrowly

examines utility-owned generation. This study's scope is too restrictive and does not provide the comprehensive analysis needed to evaluate Maryland's energy future.

A better alternative is the approach outlined in the Hester/Crosby bill, which examines a range of procurement strategies to determine the most effective and cost-efficient solutions for Maryland. We urge the removal of this limited study language in favor of a broader, more inclusive assessment.

Conclusion

Maryland is at a critical juncture in shaping its energy future. SB937 / HB1035 is a step in the right direction, but thoughtful amendments are necessary to ensure that energy policies support reliability, affordability, and strong labor protections. By incorporating Constellation's proffered amendments and removing unnecessary restrictions on data centers, Maryland can develop a responsible, forward-thinking energy policy that benefits both workers and consumers.

We urge the committees to adopt these amendments to support Maryland's workforce and secure a sustainable energy future.

Thank you for your time and consideration. I am available for any further discussions or questions.

Chris Madello

Business Manager / Financial Secretary Treasurer

UA Steamfitters Local 602

lom. Mello

Farrell District 33C Written Testimony.pdf Uploaded by: Amelia Farrell

Position: UNF

HB1035/SB937 - UNFAVORABLE

Amelia Farrell ameliafarrella@gmail.com (410) 934-9033

HB1035/SB937- Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Joint Meeting of Education, Energy and the Environment Committee & Economic Matters Committee February 28th, 2025

Chair Feldman, Chair Wilson, Vice Chair Kagan, Vice Chair Crosby, and Members of the Education, Energy, and the Environment and Economic Matters Committees,

I urge an unfavorable report on HB1035/SB937, the Next Generation Energy Act.

The Next Generation Energy Act will allow for new gas plants to be constructed in Maryland. This will not solve the issue of high utility bills because of the time that it takes to get a new gas plant up and running. These fossil fuel powered plants may take years before they are creating energy that can be distributed to the public, whereas clean energy alternatives like batteries or solar can be online much faster. If the goal is to lower energy bills in the state, a new gas plant is not the most effective strategy.

Additionally, the cost of building the type of a gas plant approved in this bill is equal to \$1000 per kilowatt of energy produced. This means a new gas plant could cost Maryland \$3 billion dollars. This is far too expensive an investment to make with no immediate relief on utility bills.

Furthermore, a new gas plant would be counterproductive in helping Maryland reach its climate goals set forth in the Climate Solutions Now Act of 2022. The state has set a goal of reducing our greenhouse gas emissions by 60% by 2031 and Governor Moore issued an executive order last spring to create a framework to reach 100% clean energy by 2035. To achieve either of these goals, the state should be investing in clean and renewable energy rather than allowing for gas provisions.

Allowing for a new gas plant to be built near my community is fiscally irresponsible and a poor solution to the energy problems we are facing. As a youth constituent of District 33C, I want my state to invest in my future, and our energy future. That investment should be in renewables, not fossil fuels.

The pollution that will result from a new gas plant will wreak havoc on the health of Marylanders, particularly those who live in overburdened and underserved communities that are already facing the unequal effects of climate change and fossil fuel pollution. The greenhouse gas and particulate emissions that will be produced by a new gas plant will increase Maryland residents' chances of pulmonary and cardiovascular diseases, developing asthma, strokes, and premature death¹. The people of Maryland deserve to keep their lights on without putting their health and climate at risk.

-

¹ https://www.epa.gov/power-sector/human-health-environmental-impacts-electric-power-sector

I respectfully request an unfavorable report on HB1035/SB937.

AB SB0937 Feb 2025.pdf Uploaded by: Ann Bristow Position: UNF

SB0937: Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Education, Energy, and the Environment: February 26, 2025

UNFAVORABLE

Testimony submitted by: Ann Bristow, Ph.D., Emeritus Professor, Frostburg State University 92 Carey Run, Frostburg, MD 21532. (Garrett County)

I am a public health professional and served as a Commissioner on Gov. O'Malley's Marcellus Shale Safe Drilling Initiative.

I am writing to specifically **oppose natural gas dispatchable energy generation projects** that would be permitted under this bill.

I also object to the section of this bill that only requires a cost-benefit analysis of environment benefits, health benefits, and environmental impacts of the project to the citizens of the State — NOT HEALTH HARMS [Section 7-1210 (4) (VI)].

Everything I learned as a Commissioner about public health harms and harms to the environment — especially water sources, moved me to support the 2017 fracking ban in Maryland. Since 2017 I have continued to follow research on public health harms, especially harms to our PA neighbors, as there is ongoing research there.

Sources of fracked gas for MD electricity generation would likely come form PA and WV, as well as TX from the Texas Eastern transmission line to Accident, MD. All three states are known to have few regulations preventing harm to their residents.

And because Maryland has been spared these health and environmental harms, it is irresponsible, if not immoral, to promulgate these harms in other states by importing their fracked gas here to combust for electricity.

SB0937_UNFAV_Earth Ministry of the River Road Unit Uploaded by: Bruce Davis

Position: UNF



HB1035/SB0937 - Unfavorable

Bruce Davis
Earth Ministry of the River Road Unitarian
Universalist Congregation
Bdavis39@comcast.net (240) 477-5324

HB1035/SB937- Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Joint Meeting of the Senate Education, Energy and the Environment Committee and the House Economic Matters Committee February 28th, 2025

Chair Feldman, Chair Wilson, Vice Chair Kagan, Vice Chair Crosby, and Members of the Education, Energy, and the Environment and Economic Matters Committees:

The Earth Ministry¹ of the River Road Unitarian Universalist Congregation, in Bethesda, MD, urges the House Economic Matters Committee to issue an **UNFAVORABLE** report on the Next Generation Energy Act, HB1035/SB0937.

The Climate Solutions Now Act of 2022 established ambitious goals for reducing greenhouse gas pollution in Maryland: an interim goal of a 60% reduction below 2006 emissions by 2031, with a requirement to reach net-zero by 2045. The Next Generation Energy Act will needlessly and unjustifiably delay or prevent the achievement of these goals. Therefore, the Committee should report the Next Generation Energy Act unfavorably.

The Next Generation Energy Act provides for constructing or expanding "Natural Gas Dispatchable Energy Generation Projects." The goal of these projects is to satisfy peak electricity demands that are now satisfied by existing coal-fueled power plants in Baltimore that are scheduled to be decommissioned. However, there is no exigency for replacing the energy produced by these plants because they will remain in operation until the completion of a power line, now under construction, that will provide replacement power generated elsewhere.

Even more compelling reasons <u>not</u> to build the new gas-burning plants are that: (1) they would be costly to build and supply; (2) they would emit greenhouse gas pollution; (3) they would not come online until they were built, which could take 3-5 years; and (4) they would have useful lives of approximately 30 years, extending beyond Maryland's target date for achieving net zero greenhouse gas emissions (2045).

¹ The Earth Ministry is a member-created committee established in accordance with the Congregation's bylaws. This testimony is submitted by and on behalf of the Earth Ministry. Its members feel a moral obligation to do all they can to put a stop to greenhouse gas pollution that warms the earth, changes its climate, and ultimately brings great injury and suffering to people and all living beings. The Congregation itself has not taken a position regarding the Next Generation Energy Act.

HB1035/SB0937 - Unfavorable

Testimony of the Earth Ministry of the River Road Unitarian Universalist Congregation Hearing date: February 28, 2025

When 2045 arrives, Maryland would be required either to shut down the new gas-fueled plants, which would scrap their remaining useful lives, or to allow them to continue in operation, which would prevent Maryland from achieving its greenhouse gas reduction goals.² Who would pay for a wasteful shutdown? It won't be the power companies. Rate payers, mostly ordinary Marylanders, would pay the costs in the form of increased electricity bills.

Maryland has a better way to satisfy peak electricity demands. The Abundant, Affordable Clean Energy (AACE) Act now before the General Assembly (HB0398/SB0316) proposes increased battery storage as the solution. Power companies would use existing power facilities to charge storage batteries when electricity demand is low; and they would discharge electricity from the batteries back into the grid when electricity demand is high. Battery storage: (1) costs less than new gas-powered electric generation plants; (2) can be brought online sooner than new gas-powered plants; (3) does not emit greenhouse gases; and (4) will not need not be decommissioned in 2045. Battery storage is a "no regrets" solution because the batteries will be needed to stabilize the grid when new, clean wind and solar power come online.

For these reasons, the Earth Ministry respectfully requests an **unfavorable** report on the Next Generation Energy Act.

_

² The Next Generation Energy Act provides that the new gas-fueled power plants must be capable of conversion to new power sources: hydrogen or zero-emission biofuels. However, the feasibility of a hydrogen or biofuel conversion prior to 2045 is speculative. The conversion would depend on development of an affordable and reliable supply of zero-emission fuels produced by technologies and delivered by infrastructure that does not exist and may never exist.

CCooper_SB937test_022625.pdf Uploaded by: Charlie Cooper

Position: UNF

Charlie Cooper

2359 Nutmeg Terrace Baltimore, MD 21209

To the Education, Energy, and the Environment Committee

Please Oppose SB 937 – Public Utilities – Electricity Generation Planning – Procurement, Permitting, and Co-Location (Next Generation Energy Act)

February 26, 2025

Maryland should not turn its back on a proud history of leading the nation toward renewable energy. Yet, Senate Bill 937 would authorize approval of large-scale gas-fired power plants with major carbon emissions. How could such approval be justified? (Note: The summary of the bill on page 1 does not mention building new gas-fired power plants yet pages 5-9 of the bill seem to be devoted to building new gas-fired plants. In 35 years of reviewing bills, I have almost always found the summaries to be quite accurate.)

Is it because utility prices are rising? The Governor and legislature can fix this problem by reforming the Public Service Commission. Mark Ellis, an associate at the American Economic Liberties Project, is an independent consultant and expert witness in finance and economics in utility regulatory proceedings who previously worked for McKinsey, Exxon Mobil, and Southern California Edison. His latest work shows that the rate hikes are the result of excessive power held by big businesses and not by cost factors. Mr. Ellis showsⁱ that corporate power and public utility commission capture have created a crisis in utility rates.

Only 70% of electric utilities are investor-owned, the other 30% are publicly owned, either by cities or cooperatives or some other public ownership model.... Over the past three years, investor-owned utility rates went up 49% more than inflation, whereas publicly owned ones have gone up 44% less than inflation.

This analysis shows that there needs to be reform in how public utility commissions gather and weigh evidence and particularly in how they assess rate of return for the investor-owned utility monopolies.

Is it because of the massive electricity needs of data centers?

Big tech should pay for that, and Maryland should adhere to its requirements for renewable energy. Big tech's emergency is not our emergency. We, the people, do not profit from ever-expanding databases that record the details of our lives and exploit us economically. Data centers create few jobs.

Is it because of the massive electricity needs for developing AI?

Only about four weeks ago, revelations about a Chinese technology known as Deep Seek showed that AI results might require much less processing power than previously believed. The news resulted in a drastic reduction (about \$450 billion in market capitalization as of this writing) in the stock market price of Nvidia, which makes the most important AI processing chips.

AI in the hands of the existing tech monopolies threatens to exacerbate wealth and income inequality. The General Assembly should not feel compelled to respond to the whims of these giant corporations who are facing a bi-partisan onslaught of anti-trust litigation.

In April of 2024, candidate Donald Trump met with top oil executives and asked for \$1 billion in financial help for his campaign. The *Washington Post* paraphrased what people present at the meeting told its reporters: "You all are wealthy enough, he said, that you should raise \$1 billion to return me to the White House. At the dinner, he vowed to immediately reverse dozens of President Biden's environmental rules and policies and stop new ones from being enacted, according to people with knowledge of the meeting, who spoke on the condition of anonymity. . . . Giving \$1 billion would be a 'deal,' Trump said, because of the taxation and regulation they would avoid thanks to him, according to the people."

In April of 2024, candidate Donald Trump met with top oil executives and asked for \$1 billion in the people what people are president as a president provided by the people with the people are people with the people of the taxation and regulation they would avoid thanks to him, according to the people."

Maryland should be resisting Trumpism and not doing his work of expanding fossil fuels and undermining renewable energy. The residents of this nation suffer because of carbon emissions and other pollutants from burning fossil fuels. The health impacts are felt by families and are a burden on governmental budgets at all levels.

Maryland should stick to its principles and continue to require renewable energy, which is increasingly cost-efficient. Therefore, I ask that you issue an unfavorable report on SB 937.

ⁱ https://www.economicliberties.us/our-work/rate-of-return/#

ii https://www.washingtonpost.com/politics/2024/05/09/trump-oil-industry-campaign-money/

SB0937_UNFAV_Chesapeake Climate Action Network.pdf Uploaded by: Elizabeth Beckman

Position: UNF

HB1035/SB937 - UNFAVORABLE

Elizabeth Beckman Chesapeake Climate Action Network elizabeth.e.beckman@gmail.com (814) 460-9034

HB1035/SB937- Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Joint Meeting of Education, Energy and the Environment Committee and the Economic Matters
Committee
February 28th, 2025

Chair Feldman, Chair Wilson, Vice Chair Kagan, Vice Chair Crosby, and Members of the Education, Energy, and the Environment and Economic Matters Committees,

On behalf of the Chesapeake Climate Action Network, I urge an unfavorable report on HB1035/SB937, the Next Generation Energy Act.

The Next Generation Energy Act will allow for new gas plants to be constructed in Maryland. This will not solve the issue of high utility bills because of the time that it takes to get a new gas plant up and running. These fossil fuel powered plants may take years before they are creating energy that can be distributed to the public, whereas clean energy alternatives like batteries or solar can be online much faster. If the goal is to lower energy bills in the state, a new gas plant is not the most effective strategy.

Additionally, the cost of building the type of a gas plant approved in this bill is equal to \$1000 per kilowatt of energy produced. This means a new gas plant could cost Maryland \$3 billion dollars. This is far too expensive an investment to make with no immediate relief on utility bills.

Furthermore, a new gas plant would be counterproductive in helping Maryland reach its climate goals set forth in the Climate Solutions Now Act of 2022. The state has set a goal of reducing our greenhouse gas emissions by 60% by 2031 and Governor Moore issued an executive order last spring to create a framework to reach 100% clean energy by 2035. To achieve either of these goals, the state should be investing in clean and renewable energy rather than allowing for gas provisions.

The pollution that will result from a new gas plant will wreak havoc on the health of Marylanders, particularly those who live in overburdened and underserved communities that are already facing the unequal effects of climate change and fossil fuel pollution. As a resident of Baltimore, I reject the idea that my neighbors will have to suffer the unfair consequences of a gas plant near their homes. The greenhouse gas and particulate emissions that will be produced by a new gas plant will increase Maryland residents' chances of pulmonary and cardiovascular

diseases, developing asthma, strokes, and premature death¹. The people of Maryland deserve to keep their lights on without putting their health and climate at risk.

New gas plants will only exacerbate the climate crisis in the long term and will not effectively lower Marylanders' energy costs in the short term. They will lock us into using the dirty fuels of the past when the renewable transition is already underway, at the cost of a livable future for ourselves and our children. As the aunt of a 1 ½ year old nephew, I believe we must do everything in our power to speed the transition to cheap, abundant, clean energy so that young children today can grow and thrive in a world with a stable climate. Investing in new gas plants in Maryland is the opposite of what we need to do to create that world.

I respectfully request an unfavorable report on HB1035/SB937.

¹ https://www.epa.gov/power-sector/human-health-environmental-impacts-electric-power-sector

SB0937_Little_UNF.pdf Uploaded by: Kathryn Little Position: UNF

Testimony Opposing SB0937 Senate Education, Energy, and the Environment Committee February 28, 2025

Position: UNFAVORABLE

Dear Chair Feldman and Members of the Committee,

As a resident of Baltimore City and a person of faith concerned about public and environmental health, I am writing to express my opposition to SB0937, the Next Generation Energy Act.

Lowering electricity rates is a top goal in Maryland. I support achieving that goal through increased investments in solar power, utility-scale batteries, energy efficiency, and smartgrid technology. Hard data shows these efforts are faster, cheaper, and better for the environment and human health than a proposal to build a large new gas plant in the state.

I appreciate that the stated intent of this bill is to "encourage the development of clean-carbon-free nuclear power, including development through innovative designs." The issue is the definition of "dispatchable energy generation." If it were more specific to nuclear power, this would be a responsible bill. However, it leaves open the door for natural gas, and future subsections provide explicit provisions for natural gas plants, making clear the expectation that natural gas companies will provide some – likely up to the quota – of the requested dispatchable energy generation.

Likewise, I appreciate the provision to convert natural gas stations to hydrogen or zeroemissions biofuel when feasible, but it is more responsible to wait until those fuels are feasible and build those plants then. The potential for decades of burning natural gas in a new plant until the Commission deems it feasible to switch fuels is the wrong choice for Maryland.

As you are aware, Maryland and the US need to continually increase the renewable energy portion of our energy portfolio, not build new fossil fuel-burning infrastructure. This bill is a step in the wrong direction and will lock us into natural gas for decades to come.

I urge you to return an unfavorable report on SB0937. Thank you for your time and work.

Regards, Katie Little 881 W Lombard St Baltimore, MD 21201

HCCA - Testimony SB937-2025 Nuclear Energy Power P Uploaded by: Paul Verchinski

Position: UNF



SB 937 – Public Utilities – Electricity Generation Planning – Procurement, Permitting, and Co-Location (Next Generation Act)
Education, Energy, and
Environment
Position: Unfavorable
Friday, February 28, 2025

The Honorable Brian J. Feldman Chair, Education, Energy and the Environment Committee Senate Office Building Annapolis, MD 21401

Dear Chairman Feldman and Members of the Committee:

My name is Paul Verchinski. I am testifying for the nonprofit Howard County Citizens Association (HCCA). Founded in 1961, HCCA testifies regarding proposed legislation affecting the residents of Howard County and the State of Maryland. This written testimony has been authorized by the HCCA Board. Our website can be found at https://howardcountyhcca.org. While Nuclear Energy may be a green solution for base load generation, there has not been a successful new nuclear plant built in the United States in the past 40 years. Small packaged nuclear plants are now being touted, yet none have been installed and approved by the Federal Nuclear Regulatory Commission. If you proceed with this bill, it should only be done on a very strict Pilot basis instead of the broad language in this proposed bill. Alternatively, the State could authorize a Power Purchase Agreement for electricity from the existing Calvert Cliffs Nuclear Plant, thereby avoiding construction cost risk.

UnFavorable

The Howard County Citizens Association requests an UnFavorable report on SB 937 for the following reasons:

- 1. Haste makes waste. The potential effect on ratepayers is totally ignored. This bill "requires the Commission to approve orders to facilitate the financing of nuclear energy generation projects"
- 2. "The recent **Nukegate scandal** in South Carolina was a <u>political and legal</u> <u>scandal</u> that arose from the abandonment of the <u>Virgil C. Summer nuclear</u> <u>expansion project</u> in <u>South Carolina</u> by <u>South Carolina Electric & Gas</u> (SCE&G) and the <u>South Carolina Public Service Authority</u> (known as Santee Cooper) in 2017. It was the largest business failure in the history of South Carolina. Before its termination, the expansion was considered the harbinger of a <u>national</u>

nuclear renaissance. Under joint ownership, the two utilities collectively invested \$9 billion into the construction of two nuclear reactors in Fairfield County, South Carolina from 2008 until 2017. The utilities were able to fund the project by shifting the risk onto their customers using a state law that allowed utilities to raise consumers' electricity rates to pay for nuclear construction. The debacle left customers of Virginia-based Dominion Energy, which bought out SCANA in the aftermath, on the hook for more than \$2 billion for reactors that never generated power. "(Quotes and Links from Wikipedia)

- 3. There is still no solution for radioactive disposal of used depleted energy rods from existing nuclear power plants.
- 4. There is no current new proposed nuclear power plant that is financeable from the private sector while solar and wind are both being brought into the energy marketplace without rate payer subsidies.
- 5. Maryland decided not to own any generating plants and had the utilities divest themselves of all generation plants, including the nuclear power plant at Calvert Cliffs (currently owned by EDF Group a French firm) in Maryland. Maryland buys its electricity twice annually in the market and should continue to do so. Attempts to add a 3rd reactor in 2010 by Constellation Energy at Calvert Cliffs were not viable financially since it required a Federal Loan Guarantee for the approximate \$9.6 Billion cost. (It was not granted). This project was not financeable in the private sector and Nukegate only reinforced the perils of building Nuclear Power Reactors.
- 6. Maryland has 5 million people and 5 utilities that have dragged their feet since 2016 (Public Conference 44 Transforming Maryland's Electric Distribution System) in allowing Distributed Energy Resources to be added to their distribution grids in Maryland when those solutions are cheaper and much faster in construction and implementation.

We ask that the committee report out the bill Unfavorably.

Paul Verchinski HCCA Board Member PO Box 89 Ellicott City, MD 21041

Next Generation Energy Act 2025 Testimony - House. Uploaded by: Robert Wald

Position: UNF

HB1035/SB937 - UNFAVORABLE

Robert Wald and Pamela Steele Silver Spring, MD rwald1729@verizon.net 301-326-5181

HB1035/SB937 — Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Joint Meeting of Education, Energy and the Environment Committee and the Economic Matters
Committee
February 28, 2025

Chair Feldman, Chair Wilson, Vice Chair Kagan, Vice Chair Crosby, and Members of the Education, Energy, and the Environment and Economic Matters Committees,

We urge an unfavorable report on HB1035/SB937, the Next Generation Energy Act.

We are tired of electricity rate increases and do not think ratepayers should pay more than is reasonable and necessary to meet normal residential electricity needs, regardless of whether energy-hogging data centers are built in Maryland or not. Moreover, the state has a responsibility to pursue the generation of electricity at the lowest possible cost. The Next Generation Energy Act will enable the generation of electricity at the highest possible cost, through nuclear and methane gas plants.

It is well-documented that solar energy has become the cheapest form of energy generation (and the cost continues to drop). Maryland can meet its future electric energy needs by combining solar and wind generation with battery storage, and we can produce that energy right here in our state, without relying on out-of-state fracked gas.

And then there are the scientifically proven environmental and health consequences associated with burning methane gas and methane gas leaks. It's unconscionable that Maryland lawmakers would deliberately and unnecessarily take us in the opposite direction we need to be going, giving a gift to gas utilities and fracking and pipeline companies in the process.

Please do the right thing for Maryland ratepayers and for our young people, who face a dire future as it is without Maryland legislators polluting earth's atmosphere even more.

We urge an unfavorable report.

Third Act Maryland House Testimony - Next Generati Uploaded by: Robert Wald

Position: UNF

HB1035/SB937 - UNFAVORABLE



Robert Wald Third Act Maryland rwald1729@gmail.com 301-326-5181

HB1035/SB937 — Public Utilities - Electricity Generation Planning - Procurement, Permitting, and Co-Location (Next Generation Energy Act)

Joint Meeting of Education, Energy and the Environment Committee and the Economic Matters
Committee
February 28, 2025

Chair Feldman, Chair Wilson, Vice Chair Kagan, Vice Chair Crosby, and Members of the Education, Energy, and the Environment and Economic Matters Committees,

On behalf of Third Act Maryland, I urge an unfavorable report on HB1035/SB937, the Next Generation Energy Act.

The Next Generation Energy Act will enable the construction of new methane gas plants in Maryland, which, if built, will put the state wildly off course in (1) reaching the climate goals established by the Climate Solutions Now Act of 2022 and (2) complying with Governor Moore's executive order directing the state to reach 100% clean energy by 2035. Methane gas plants are anything but clean. Not only do they spew carbon emissions into the atmosphere, they also leak methane, which is 81 times more potent a greenhouse gas than CO2.¹

Those emissions will have grave health impacts on Maryland's most vulnerable citizens, including children and seniors, low-income and poor people, and people of color—the very people Maryland's Democratic party leaders purport to stand up for and protect. If a new methane gas plant is built, we will see increases in asthma, cardiopulmonary disease, and deaths, which will in turn burden the state's healthcare system, drive up insurance costs for everyone, cause children to miss school days, and hurt Maryland's economy. These and other social costs of a new gas plant are estimated to be \$425 million annually.²

¹ Beyond CO2 equivalence: The impacts of methane on climate, ecosystems, and health, Environmental Science & Policy, https://www.sciencedirect.com/science/article/pii/S1462901122001204.

² Based on the EPA's estimate of the social cost of carbon at \$190 per ton and an estimated 2,238,480 tons of CO2 emitted per year. https://www.nytimes.com/2023/12/02/climate/biden-social-cost-carbon-climate-change.html.

Moreover, the gas plant will likely increase costs for ratepayers and will take too long to bring online in order to meet Maryland's near- and medium-term electricity needs. Maryland ratepayers would be much better served by electricity generated via solar and wind, which is actually clean and next generation, coupled with battery storage.

Furthermore, no publicly available modeling has yet to find that Maryland needs new gas power to balance the grid. Plus the basis for the proposed gas plant is an increased demand for electricity in coming years, to a large degree based on new data centers to be built in Maryland. Recent reports suggest that demand may be weaker than projected; Microsoft has canceled some leases for data centers, raising questions on energy capacity estimates for the future.

Building methane gas plants to generate electricity is a last generation solution to meet our energy needs for the future. Twenty-five years into the 21st century, it makes no sense to use 20th century technology to generate electricity.

I respectfully request an unfavorable report on HB1035/SB937.

Maryland February 28 Testimony.pdf Uploaded by: Megan Gambrel Position: INFO



February 28, 2025

Maryland General Assembly Maryland Department of Legislative Services 90 State Circle Annapolis, Maryland 21401

Re: RF Testimony on Technical Reliability Considerations Related to Resource Adequacy

Dear Members of the Senate Committee on Education, Energy, and the Environment and of the House Economic Matters Committee,

As a supplement to ReliabilityFirst Corporation's (RF) upcoming testimony on February 28, 2025, RF respectfully provides comments on technical reliability considerations related to resource adequacy.

RF is one of the six North American Electric Reliability Corporation¹ (NERC) Regional Entities responsible for preserving and enhancing the reliability, resilience, and security of the bulk power system (BPS, or "system").² Collectively, NERC and the Regional Entities comprise the ERO Enterprise. With specific authorities under the Federal Power Act and through a delegation agreement with NERC, RF's mission serves the public good by assuring BPS reliability for over 73 million customers in 13 states (including Maryland) and the District of Columbia.² We audit and enforce the NERC Reliability Standards for more than 300 registered entities. We also provide outreach and education to registered entities in our footprint, and technical expertise to state public utility commissions, legislators, and other stakeholders.

RF's role with the states is to serve as an independent, objective technical resource concerning reliability topics. While energy policy should appropriately prioritize BPS reliability, our statements are not intended, and should not be interpreted, as advocating for a specific policy outcome.

¹ NERC is a not-for-profit international regulatory authority designated by the Federal Energy Regulatory Commission (FERC) to assure the effective and efficient reduction of risks to the reliability and security of the grid. Through delegation agreements and with oversight from FERC, NERC works with six Regional Entities (including RF) on compliance monitoring and enforcement activities.

² RF does not have jurisdiction over the local distribution of electricity, which is a state responsibility.

Resource Adequacy Reliability Considerations

Resource adequacy refers to matching supply with demand to ensure that the grid has adequate resources to supply loads 24 hours per day, 365 days per year, during all operating conditions. NERC annually assesses and reports on the adequacy of the Bulk Electric System in the United States and Canada over a 10-year period. This report, the Long-Term Reliability Assessment (LTRA),³ projects electricity supply and demand and discusses key issues and trends that could affect reliability.

Resource Adequacy Risk Map (including risk drivers and years when shortfalls begin)

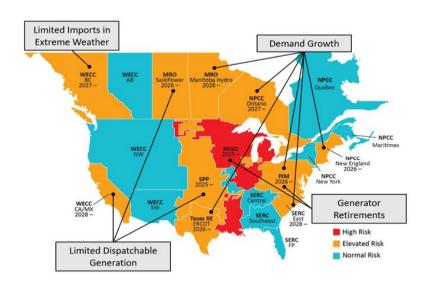


Figure 1: The 2024 LTRA risk map by region

Over a ten-year horizon, the 2024 LTRA finds that many areas of North America are at risk of energy shortfalls during extreme weather conditions (designated as "elevated risk" in Figure 1) and even during normal peak conditions (designated as "high risk" in Figure 1). Reliability concerns discussed in the 2024 LTRA include demand growth, generator retirements (with over 79 GW of fossil-fired and nuclear generator retirements planned through 2034), capacity shortage from limited dispatchable generation, and the impact of extreme weather events exacerbated by reliance on natural gas supply. From the 2023 to the 2024 LTRA, the PJM region was raised from normal to elevated risk (with the primary concern identified as demand growth, as seen in Figure 1). The combined factors of generation retirements, rapid demand growth, and slower-than-anticipated online new generation have elevated reliability risks across the country.

2

³ See, 2024 LTRA, 2024 LTRA infographic.

⁴ 2024 LTRA at p. 8.

⁵ 2024 LTRA at p. 27. These risks may be escalated during the winter peak in the PJM region due to weather-dependent resources and fuel supply issues.

⁶ 2024 LTRA at p. 7.

Demand Growth

There has been a rapid increase in demand, due to the recent rise in data centers, electric vehicles, and the overall electrification of society. For example, in 2024 PJM forecasted an average 2.3% net energy load growth per year over the next 10-year period, and in 2025 forecasted 4.8% growth (over double the previous year's estimate). In the 2024 LTRA, NERC states that "electricity peak demand and energy growth forecasts over the 10-year assessment period continue to climb; demand growth is now higher than at any point in the past two decades." This growth in demand can be difficult to match with new generation and transmission, even with the revitalization of previously retired generation being brought back online to power data centers. Large loads such as data centers can also present planning and operational concerns. NERC is currently working on a white paper on the characteristics and risks of emerging large loads, which will be released this year.

Generator Retirements and Capacity Shortage

In addition to the sharp increase in demand, there is also an increase in generation retirements. We are observing that across the country, traditional baseload generation plants are retiring, and replacement energy is largely being supplied by inverter-based resources (mostly wind and solar) that do not yet have the same operating features essential for reliability (such as ramping, voltage support, and blackstart capability, commonly referred to as Essential Reliability Services). In addition, due to the lower effective load carrying capability (ELCC) values of inverter-based resources, ¹⁰ replacing baseload generation with inverter-based resources requires more overall capacity to ensure grid reliability. ¹¹ Generation retirements without sufficient replacements can reduce reserve margins (*i.e.*, available, dispatchable energy that can be quickly brought online to satisfy demand). ¹² This can jeopardize reliability during periods of increased demand on the system, and in some cases, retirements can require extensive transmission reinforcement projects to sustain reliability.

The interconnection queue includes substantial sources of new generation, and integrating new resources onto the system expeditiously can help alleviate capacity shortages, provided the integration is done in a manner that ensures reliability. This includes conducting appropriate energy adequacy planning and modeling throughout all seasons. This planning and modeling evaluates the impact of new generation projects coming online from the interconnection queue on overall grid reliability and resource adequacy, considering factors like variable generation from renewables and load forecasting. Additionally, a diverse fleet of generation sources that

⁷ https://www.pjm.com/-/media/library/reports-notices/load-forecast/2024-load-report.ashx at p.2.

⁸ https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf at p.6.

⁹ 2024 LTRA at p. 8.

¹⁰ https://www.pjm.com/planning/resource-adequacy-planning/effective-load-carrying-capability

¹¹ https://www.rfirst.org/wp-content/uploads/2023/07/Base-Load-Generation-vs-Solar-Plus-Battery.pptx

¹²For example, PJM's <u>"Energy Transition in PJM: Resource Retirements, Replacements & Risks"</u> report focusing on generation retirements and replacements through 2030, states that "For the first time in recent history, PJM could face decreasing reserve margins...should these trends – high load growth, increasing rates of generator retirements, and slower entry of new resources – continue" (p. 17).

¹³ See NERC and the National Academy of Engineering's <u>Evolving Planning Criteria for a Sustainable Power Grid</u> for additional information on this planning and modeling approach.

does not depend on a singular fuel source, supply chain, or common failure mechanism can enhance reliability.

Increased usage of weather dependent inverter-based resources can aid in expanding the diversity of the generation fleet; however, it is important to be aware of the capabilities and limitations of these energy systems, such as their intermittent nature. Battery energy storage systems (BESS) or other storage (e.g., pumped hydro) can help with the intermittent nature of a growing inverter-based generation fleet. ¹⁴ Currently the PJM interconnection queue has about 122,000 MW of solar and 50,000 MW of battery storage (the two predominant resources in the queue). While solar and battery storage generally work well in tandem, it is important to study these installations as they relate to resource adequacy, including the impact of charging the batteries.

Extreme Weather & Energy Droughts

Decreased reserve margins can create additional risk during extreme weather events, when power is needed the most. Winter Storm Elliott, where generation outages resulted in demand exceeding supply, was the fifth major storm with reliability impacts in the last eleven years. There were unprecedented electric generation outages coinciding with winter peak electricity demands, resulting in about 5,000 MW of load shed as rolling blackouts. FERC, NERC, and the Regions recently released a Joint Inquiry Report on Winter Storm Elliott with numerous lessons learned and recommendations (which led to the creation of revised cold weather reliability standards and numerous other actions by FERC, NERC, and the industry).¹⁵

Another reliability risk associated with extreme weather is overdependence on a limited range of energy sources. This can be seen during extreme winter weather when natural gas is a key component of the resource mix. A significant percentage of natural-gas fired power plants rely on as-available, non-firm gas supply alongside solid transportation arrangements. However, this supply can be interrupted during extreme cold weather events when demand by both generators and natural gas distribution companies is high. The 2024 LTRA finds that natural gas fired power plants generated over 40% of electrical energy consumed by end use electricity customers over the last two years, with an additional 6,500 MW of new generation expected over the next five years. ¹⁶ Given the expanding role of this fuel source, it is important to continue to address natural gas supply risks.

Intermittent resources can also pose concerns during extreme weather conditions, and when two or more resource types simultaneously experience below-normal resource output from weather

¹⁴ In an example that RF uses, a 100 MW baseload generator that would run through an entire day would produce 2400 MWh of power. To achieve that same amount of energy, three 100 MW solar panels plus four four-hour BESS would be needed to produce the same 2400 MWh assuming 8 hours of perfect sunshine, no losses in conversion, and utilizing the battery storage during times of no solar.

¹⁵ See https://www.ferc.gov/media/winter-storm-elliott-report-inquiry-bulk-power-system-operations-during-december-2022. FERC also released a summary of actions taken in response to the Winter Storm Elliott Joint Inquiry Report:

 $[\]underline{https://www.ferc.gov/ReliabilitySpotlight\#:\sim:text=FERC\%20and\%20the\%20North\%20American,FERC\%2DNERC\%20winter\%20storm\%20analyses.}$

¹⁶ 2024 LTRA at p. 28-29.

conditions, meeting demand can be difficult.¹⁷ These times, called "energy droughts" as seen in Figure 2 below, are more likely to occur during high-demand periods and highlight a need for robust resource adequacy planning.

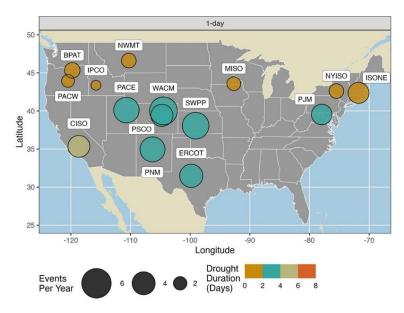


Figure 2: Daily energy droughts from the 2024 LTRA (Source: Pacific Northwest National Laboratory)

ERO Enterprise Efforts

Given the rapidly changing resource mix and its associated reliability risks, FERC and the ERO Enterprise are working to help mitigate these emerging concerns. The ERO Enterprise and industry are working to create new and revised standards to enhance reliability, such as Project 2022-03: Energy Assurance with Energy-Constrained Resources (revising several standards to require energy reliability assessments to evaluate energy assurance and Corrective Action Plans to address identified risks), and Project 2023-07: Transmission System Planning Performance Requirements for Extreme Weather. There are also several ERO Enterprise working groups working on these risks, such as the Reliability Issues Steering Committee (RISC) and the newly created Large Loads Task Force (LLTF).

NERC and the Regions partnered to perform the Interregional Transfer Capability Study (ITCS), ¹⁸ which analyzed total transfer capability (the amount of power that can be transferred between transmission planning regions to improve energy adequacy). It recommends prudent additions to total transfer capability that could strengthen reliability. The complete ITCS was filed with FERC and recently was posted for a public comment period. ¹⁹

¹⁷ As a recent example, the SPP footprint had to declare Conservative Operations throughout multiple days in October based on forecasts of high peak loads due to unseasonably warm temperatures combined with low expected output from wind and other intermittent resources.

¹⁸ See Interregional Transfer Capability Study Final Report at https://www.nerc.com/pa/RAPA/Documents/ITCS Final Report.pdf.

¹⁹ https://www.ferc.gov/sites/default/files/2024-11/20241125-3020_AD25-4-000-NERC%20ITCS%20Notice.pdf.

To successfully address the complex reliability challenges emerging as the grid is transformed, NERC, the Regional Entities, and state and federal policymakers will need continued collaboration, coordination, and thoughtful action. Robust resource adequacy planning that acknowledges the benefits of a diverse resource mix and the threat of extreme weather will also help fortify the grid and electricity consumers. As states craft policies for a cleaner, more sustainable grid, we are pleased to serve as a resource to help you remain well informed regarding key reliability topics.