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COMMITTEE: ENVIRONMENT & TRANSPORTATION

TESTIMONY ON: HB1279 MARYLAND BUILDING PERFORMANCE STANDARDS – FOSSIL FUEL USE, ENERGY CONSERVATION, AND ELECTRIC– AND SOLAR–READY STANDARDS (BETTER BUILDINGS ACT OF 2024)

POSITION: OPPOSE

HEARING DATE: MARCH 6, 2024

Washington Gas respectfully submits this statement in **OPPOSITION** to **House Bill 1279** – **Maryland Building Performance Standards** – **Fossil Fuel Use, Energy Conservation, and Electric** – **and Solar**–**Ready Standards (Better Buildings Act of 2024)**

Washington Gas Light Company ("the Company") provides safe, reliable natural gas service to more than 1.2 million customers in Maryland, Virginia, and the District of Columbia. Washington Gas has been providing energy to residential, commercial, government, and industrial customers for more than 175 years, and currently serves more than 500,000 Maryland customers in Montgomery, Prince George's, Charles, St. Mary's, Frederick, and Calvert Counties. The Company employs over 400 people within Maryland, including contractors, plumbers, union workers, and other skilled tradespeople. The Company strives to improve the quality of life in our communities by maintaining a diverse workforce, working with suppliers that represent and reflect the communities it serves, and giving back through its charitable contributions and employee volunteer activities. The Company, together with other natural gas distribution utilities, are responsible for delivering the primary source of heat to Maryland residential energy consumers, serving approximately one half of all Maryland households while providing critical energy services to residential, commercial, and industrial customers at one-third the cost of electricity on a per unit basis.¹

The Company supports Maryland's climate goals and believes that Maryland's gas infrastructure can help the State meet those goals while providing a wide range of benefits to Maryland customers. House Bill 1279 ("HB 1279") would require, starting October 1st, 2025, all new

¹ DOE. <u>Energy Conservation Program for Consumer Products: Representative Average Unit Costs of Energy</u> (Aug. 28, 2023).

buildings or buildings undergoing significant improvements to meet all water and space heating demand without fossil fuels. HB 1279 also proposes to implement strict site energy use intensity ("EUI") requirements and offers no rationale for how the targets were determined. These requirements mandate that all of Maryland's buildings electrify regardless of any impacts on reliability, affordability, and energy choice while disregarding practical, low cost decarbonization alternatives. The State should consider technology-agnostic policies that can help achieve its greenhouse gas ("GHG") emissions reduction goals while maintaining affordable, reliable, safe, and secure energy for Marylanders. HB 1279 is not an appropriate, realistic, or efficient way to advance emissions reductions for customers in Maryland. It will require substantial investments by Maryland's residents and businesses, increase utility bills, and reduce the diversity, reliability, and resilience of Maryland's supply of energy.

Affordability

By forcing home and building owners to electrify, HB 1279 will increase Marylanders' energy bills. The Energy Information Administration's (EIA) Winter Fuels Outlook for 2023-2024 estimates that it will cost, on average, 76% more to heat homes this winter using electricity compared to natural gas (U.S. Average: \$1,063 vs \$601). In the Northeast, it is estimated to cost 92% more this winter (Northeast Average: \$1,465 vs. \$761). Additionally, widespread electrification will increase electric rates overall due to the increased need for infrastructure investments that are needed to support high load growth. A recent New York Times article stated that "power bills have been rising nationwide, and in Baltimore, electricity rates have increased almost 30 percent over the last decade, according to data from the Bureau of Labor Statistics."

Additional benefits and cost savings resulting from the reliability of the State's natural gas infrastructure would be lost through widespread electrification. Less than 1% of customers are expected to experience a natural gas outage in any given year, while electric distribution systems see an average of one (1) outage per year per customer.⁴ The high reliability of the natural gas system provides significant cost savings on peak demand days. For example, Oregon utility Northwest Natural Gas conducted an analysis of its winter peak demand days and found that the amount of new renewables and storage required to replace the use of natural gas on such days (in terms of exajoules of energy) would cost approximately \$20 billion, not including any grid upgrades required to reliably integrate and deliver energy from these renewables.⁵

The site EUI targets included in HB 1279 are stricter than the targets adopted in Maryland's Building Energy Performance Standards ("BEPS") and would accrue significant costs to all buildings in the State to achieve compliance. The Building Energy Transition Implementation Task Force ("BETITF"), co-chaired by the Maryland Department of the Environment with the Maryland Energy Administration, estimates the compliance costs for buildings covered by BEPS at roughly

² U.S. Energy Information Administration. Winter Fuels Outlook 2023-24 (Jan. 9, 2024).

³ New York Times. <u>As Utility Bills Rise, Low-Income Americans Struggle for Access to Clean Energy - The New York Times (nytimes.com)</u> (Jan. 11, 2024).

⁴ AGA. Natural Gas is Reliable

⁵ NW Natural. Understanding Peak Demand (2023).

\$1 billion per year.⁶ BETITF assumed that at most half of these necessary costs are financeable, meaning that the State would be accountable for funding at least the other half. Modeling commissioned for BETITF, conducted by the engineering firm AECOM, estimated ~\$15B in total costs for all covered buildings to achieve compliance.⁷ HB 1279 applies to all buildings in the State, not just those covered by BEPS. When analyzing HVAC electrification of residential buildings, BETITF estimated that electrification could cost as much as \$1.3 billion per year for a total cost of ~\$715 per year for each residential building in the State.⁸ HB 1279 would impose these costs onto Marylanders in the form of high compliance costs for building owners and strain the State's budget without viable sources of funding.

Feasibility of Implementation

HB 1279 bans using fossil fuels for water and space heating, and questions remain about the legality of such a measure. For example, Berkely, California's proposed ban on natural gas hookups in new construction was struck down in federal court. There are also uncertainties around the feasibility of abandoning natural gas for widespread electrification and whether the grid will be able to accommodate the increased load. The United States Department of Energy's ("DOE") 2023 Transmission Needs Study found that PJM must increase within-region transmission by 61% by 2035 and interregional transfer capacity with the Midwest region by 474% by 2035, both relative to 2020 to accommodate high load and high clean energy growth. Major transmission lines can take more than a decade to obtain permits. This does not account for the planning, purchasing of land, construction, and other subsequent activities that go into making new transmission operational on the grid.

Besides the cost and grid impact-related challenges of electrification, there is reason to question whether the site EUI requirements outlined in HB 1279 are feasible. According to the DOE, a typical heat hump in a typical home uses 5,475 kWh per year¹² (~18,680 kBtu), and a typical heat pump water heater uses 2,195 kWh per year¹³ (~7490 kBtu). Together these two end uses would account for ~83% of a home's site EUI requirement in 2032, without accounting for additional energy needs for lighting, cooking, clothes drying, etc. It is unreasonable to assume any building will be able to comply with this extremely strict requirement.

Finally, the timeline in which the site EUI targets are implemented is very aggressive and not feasible for Marylanders. Going from 17 kBTU/sqft to net zero in three years would require

⁶ Building Energy Transition Implementation Task Force. <u>Final Report of the Building Energy Transition Implementation Task Force</u> (Jan. 24, 2024).

⁷ MDE. Maryland Cost of Building Data Summary (2023). See 'Total Costs' under the 'Potentially Covered Costs' Tab

⁸ MDE. <u>Maryland Cost of Building Data Summary</u> (2023). See 'Total Costs/year' under the 'Residential Costs' Tab. \$1303545544.23688/year divided by 1,823,247 buildings equals \$714.958/residential building/year

⁹ SmartCitiesDive. <u>Federal court won't reconsider decision to overturn Berkeley, California, natural gas ban</u> (Jan. 2, 2024).

¹⁰ DOE. Transmission Needs Study Mid-Atlantic Region (Oct. 30, 2023).

¹¹ Bloomberg Law. States Balk at Permitting Plan's 'National Interest' Power Lines (Sep. 2022).

¹² Energy Sage. How much energy does a heat pump use? (Nov. 20, 2023).

¹³ Carbon Switch. Heat Pump Water Heater Buyer's Guide (2024).

aggressive energy efficiency, solar, storage, and/or electrical heating equipment rollouts and saddle Maryland residents and businesses with significant energy-related costs. This does not consider the availability of the necessary equipment and labor. According to the Bureau of Labor Statistics, there will be ~73,500 electrician job openings per year over the next decade. ¹⁴ Electricians are necessary to electrify buildings, and this projected shortage will hamper Maryland's ability to electrify on the timeline stated.

Emissions from Electricity Generation

While HB 1279 is meant to reduce GHG emissions to help meet the State's climate goals, PJM's current and future electricity generation mix presents challenges to reducing GHG emissions through electrification. Today, fossil fuel resources comprise over 55% of PJM's generation mix, 15 with fossil generation often being higher during periods of peak demand, 16 and PJM has documented challenges in interconnecting new renewable energy resources. 17 The State's Climate Pollution Reduction Plan further anticipates that the State's reliance on imported power from PJM will increase ~81% by 2030 and ~142% by 2035 as it retires additional in-State fossil resources and fails to add in-State zero-emission generation at a commensurate pace. 18 The high reliance on fossil-fuel heavy electricity imports from PJM underlines the fact that electrification is not guaranteed to reduce GHG emissions, and HB 1279 risks increasing that reliance.

The State's inability to meet its own in-State renewable energy generation targets also highlights the challenges that the electric sector is facing to meet Maryland's climate goals. The Bureau of Ocean Energy Management recently excluded a proposed offshore wind energy area in Maryland from an offshore wind lease sale that is set to occur this year. 278,000 acres off the shores of Delaware and Virgnia were approved by BOEM, while 78,265 acres off the shore of Ocean City, MD,¹⁹ were deemed unviable due to the significant costs and mitigation of negative environmental effects that would be required.²⁰ The excluded area was projected to generate between 1.1 – 2.2 GW of power.²¹ Meanwhile, Ørsted has cancelled its Maryland offshore wind projects as the State and the broader Northeast region has hit major stumbling blocks in adding their own in-State renewable energy sources.²² In 2021, Senate Bill 65 revised down the solar carve-out requirement in Maryland's renewable energy portfolio standard for every year from 2023-2029,²³ and the State has been challenged to add sufficient new solar resources. According to the Public Service Commission's 2022 Annual Report, applications for in-State photovoltaic solar renewable energy credits were down by ~3.9% from 2021 and the total capacity of projects approved was only 263 MW, down more than 40% from 2021.²⁴

¹⁴ Bureau of Labor Statistics. Electricians Job Outlook (Sep. 6, 2023).

¹⁵ PJM. Markets & Operations (last accessed Feb. 27, 2024).

¹⁶ PJM. Winter Operations of the PJM Grid: December 1, 2020 – February 28, 2021 (Apr. 7, 2021).

¹⁷ PJM. Energy Transition in PJM: Resource Retirements, Replacements & Risks (Feb. 24, 2023).

¹⁸ MDE. Climate Pollution Reduction Plan – Climate Plan Data (Dec. 28, 2023).

¹⁹ BOEM. BOEM Finalizes Wind Energy Areas in the Central Atlantic (Jul. 31, 2023).

²⁰ BOEM. Biden Harris Administration Advances Offshore Wind in the Central Atlantic (Dec. 11, 2023).

²¹ Offshore WIND. BOEM Issues Draft EIS for Maryland Offshore Wind Project (Oct. 2, 2023).

²² Maryland Matters. <u>Md. offshore wind developer announces 'repositioning' of project, seeks new financial support</u> (Jan. 25, 2024).

²³ Maryland General Assembly. Senate Bill 65 (Jun. 1, 2021).

²⁴ Maryland Public Service Commission. <u>2022 Annual Report</u> (April 2023).

Lower carbon fuels and other GHG emission abatement strategies for the gas system can provide emissions benefits when compared to the emissions profile of the current and projected grid electricity supply, and these solutions should not be disadvantaged by the electrification mandate proposed in HB 1279.

Conclusion

The Company is committed to working with stakeholders to help achieve Maryland's GHG emissions reduction targets. HB 1279, by prohibiting natural gas, eliminates an affordable way for Maryland customers to heat their homes, cook their meals, and operate their businesses. Electrification is not the sole solution to climate change in Maryland and should not be treated as such. There is a role for existing and future technology innovation to support diverse pathways to decarbonizing Maryland, and the State's existing natural gas infrastructure can and should be leveraged to preserve affordability, reliability, safety, and security of energy delivery.

For the above reasons Washington Gas respectfully requests an unfavorable report on House Bill 1279. Thank you for your consideration of this information.

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