

Dear Council members,

AGA represents more than 200 local energy companies that deliver natural gas throughout the United States. AGA's mission is to facilitate, on its members' behalf, the promotion of safe, reliable, and efficient delivery of natural gas to homes and businesses across the nation. There are more than 77 million residential, commercial, and industrial natural gas customers in the U.S., of which 96 percent — more than 73 million customers — receive their gas from AGA members including the residents of Montgomery County.

Thank you for the opportunity to share the progress our industry is making to both reduce greenhouse gas emissions and ensure our customers and communities have safe and affordable energy every single day. AGA's member companies are at the foundation of a healthy economy and a purpose-driven innovation agenda. We have a bold vision, with ambitious emissions reductions goals to demonstrate what is possible when government and communities harness America's abundant resources, vast delivery infrastructure, and deep well of talent. We can, and therefore we must, strive for an energy future where affordability, reliability, and safety go hand-in-hand with emissions reductions and a cleaner environment. Gas utilities and gas infrastructure have crucial and enduring roles when building pathways to achieve a decarbonized future, including net-zero.

### **The Direct Use of Natural Gas is Significantly More Affordable than Electricity**

According to the U.S. Department of Energy the direct use of natural gas is 3.4 times more affordable than electricity.<sup>1</sup> Economic modeling conducted by AGA demonstrates the negative consequences a local natural gas ban would have on the Baltimore metropolitan area<sup>2</sup>, the closest area to Montgomery County that was modeled. The analysis<sup>3</sup> found that the annual average energy cost for a home with high-efficiency gas would be \$1,100 per year. The annual energy cost for an all-electric home, without the addition of any upgrades to the electrical panel, would be \$1,420 per year. In total, the all-electric home would witness a 29-46 percent cost increase compared with a home with high-efficiency gas appliances.

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<sup>1</sup> Available at: <https://www.federalregister.gov/documents/2022/03/07/2022-04765/energy-conservation-program-for-consumer-products-representative-average-unit-costs-of-energy>.

<sup>2</sup> Baltimore-Columbia-Towson, MDMSA, which includes Baltimore County, Baltimore City, Anne Arundel County, Howard County, Harford County, Carroll County, and Queen Anne's County in Maryland.

<sup>3</sup> See American Gas Association, *Grounded in Reality: The Implications of Electrification in Baltimore, MD*, (2021) <https://www.aga.org/research/reports/implications-of-policy-driven-residential-electrification/grounded-in-reality-the-implications-of-electrification/>.

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A recent study by Home Innovation Research Labs found a similar sticker shock for all-electric homes.<sup>4</sup> An all-electric home in Baltimore costs between \$3,832 and \$14,495 more to build than a mixed-fuel home without even considering the potential need for upgraded electric service given the increase in demand.

### **The Natural Gas Distribution System Has Unique Reliability & Resilience Attributes that Should be Considered**

On an energy equivalent basis, the gas system provides 2-3 times the energy as that of the electric sector during peak winter months. Overreliance on any one source of energy can jeopardize overall energy system reliability and resilience and ultimately result in greater costs for all consumers. Widespread electrification would likely result in significantly higher peak-day electric power asset requirements which often takes the form of higher-emitting resources.<sup>5</sup> The modeling done for the Maryland Commission on Climate Change's Building Decarbonization Study found that meeting electric loads in the High Electrification scenario would require around \$3-\$4 billion of annual incremental system costs.<sup>6</sup> These costs would be borne directly by homes and businesses across Montgomery County.

The natural gas distribution system is an incredibly reliable energy delivery system with unplanned outages affecting only about 1 in 800 natural gas customers per year.<sup>7</sup> By comparison, electric distribution systems have an average of one outage per year per customer.<sup>8</sup> In a 2020 analysis, the Government Accountability Office found that compared to electric power outages, the frequency and scope of outages to natural gas consumers appears relatively limited.<sup>9</sup> Gas interruptions usually did not result in a complete loss of service to affected consumers however the scope of electric outages can be extensive, affecting millions of consumers for days at a time.<sup>10</sup> Following the past extreme cold weather events that left many homes and businesses without power across Texas, the International Energy Administration

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<sup>4</sup> Home Innovation Research Labs, *Cost and Other Implications of Electrification Policies on Residential Construction*, Feb. 2021, <https://www.nahb.org/-/media/NAHB/nahb-community/docs/committees/construction-codes-and-standards-committee/home-innovation-electrification-report-2021.pdf>.

<sup>5</sup> GTI Energy, *Seasonal Residential Space Heating Opportunities and Challenges*, (May 2022), <https://www.gti.energy/residential-space-heating/>.

<sup>6</sup> Energy & Environmental Economics, *Maryland Building Decarbonization Study*, Slide 10 (Sept. 21, 2021), <https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/MWG/Building%20Decarbonization%20Study%20Update%209.21.21.pdf>.

<sup>7</sup> Gas Technology Institute, *Assessment of Natural Gas and Electric Distribution Service Reliability*, at 2 (July 19, 2018), <https://www.gti.energy/wp-content/uploads/2018/11/Assessment-of-Natural-Gas-Electric-Distribution-Service-Reliability-TopicalReport-Jul2018.pdf>.

<sup>8</sup> *Id.*

<sup>9</sup> Government Accountability Office, *Gas Transmission Pipelines: Interstate Transportation of Natural Gas Is Generally Reliable, but FERC Should Better Identify and Assess Emerging Risks*, GAO-20-658, (Sept. 23, 2020), at 16, <https://www.gao.gov/assets/gao-20-658.pdf>.

<sup>10</sup> *Id.* at 12, 15.

highlighted that “energy systems with heavy dependence on electricity for space heating will be challenged by exceptionally cold temperatures.”<sup>11</sup>

### **Gas Utility Infrastructure is Vital to Achieving the County’s Emissions Reduction Goals**

To achieve lasting, affordable, and reliable deep emissions reductions the existing natural gas distribution infrastructure that Montgomery County residents have already invested millions of dollars in must be part of the solution. Montgomery County can achieve significant emissions reductions by working with its local utility to accelerate the use of tools available today, including high-efficiency natural gas applications, renewable gases, methane reduction technologies, and enhanced energy efficiency initiatives.<sup>12</sup>

Pathways that utilize natural gas and the vast utility delivery infrastructure offer opportunities to incorporate renewable and low-carbon gases, provide optionality for stakeholders, help minimize customer impacts, maintain high reliability, improve overall energy system resilience, and accelerate emissions reductions. The ability of natural gas infrastructure to store and transport large amounts of energy to meet seasonal and peak day energy use represents an important and valuable resource that needs to be considered when building pathways to achieve net-zero greenhouse gas emissions goals. Continued utilization of natural gas and the vast utility delivery infrastructure can increase the likelihood of successfully reaching net-zero targets while minimizing customer impacts.

### **Montgomery County Should Await Pending State Analysis to Inform its Decision Making**

During the 2022 legislative session the Maryland General Assembly directly considered a ban on natural gas in new construction and rejected the concept choosing instead to devote further study to the issue given several uncertainties raised by lawmakers, the Maryland Energy Administration, and various stakeholders.

Accordingly, Maryland municipalities should evaluate the balance of energy sources to residential and commercial customers, the impact to state and local economies and the impact on utilities after the Maryland Building Codes Administration has had the opportunity to complete its study as required by the Climate Solutions Now Act of 2022. Furthermore, the Public Service Commission has been directed to complete a general system planning study to assess the capacity of Maryland’s distribution systems under a highly electrified scenario. As noted above, careful planning is required before making any rushed decisions to fundamentally overhaul how Montgomery County residents heat their homes and cook their meals particularly

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<sup>11</sup> International Energy Administration, *Severe power cuts in Texas highlight energy security risks related to extreme weather events*, (Feb. 18, 2021), <https://www.iea.org/commentaries/severe-power-cuts-in-texas-highlight-energy-security-risks-related-to-extreme-weather-events>.

<sup>12</sup> To learn more about how AGA members can help the communities they serve achieve net-zero emissions, See ICF & American Gas Association, *Net-Zero Emissions Opportunities for Gas Utilities*, (Feb. 2022), <https://www.aga.org/research/reports/net-zero-emissions-opportunities-for-gas-utilities/>.

on the coldest days of the year. As the most populous county in Maryland, decisions in Montgomery County have ramifications far beyond its county lines.

**Conclusion**

AGA appreciates and echoes the County Council's commitment to the welfare of its constituents. Thank you for the opportunity to share how the natural gas energy delivery network can help provide a safe, reliable, and affordable energy source well into the future.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Daniel Lapato". The signature is fluid and cursive, with a large initial "D" and a stylized "L".

Daniel Lapato