

# Climate Assessment

Office of Legislative Oversight

## **BILL 9-26: RENTAL HOUSING – MAINTENANCE STANDARDS AND ESSENTIAL SERVICES – AIR-CONDITIONING**

### **SUMMARY**

The Office of Legislative Oversight (OLO) anticipates Bill 9-26 will likely have a small, positive impact on the County's contribution to community climate resilience as access to air-conditioning can decrease the risk of heat-related illnesses and deaths and increase a community's resilience to extreme heat days. However, there are currently 8,719 rental units currently exempt from air conditioning requirements, which makes up a small portion of renters in the County. Further, while air conditioning can increase the amount of energy consumption in a household, the increase in greenhouse gas (GHG) emissions from air conditioning requirements is likely to be small and not contribute significantly to the County's GHG emissions.

---

### **BACKGROUND AND PURPOSE OF BILL 9-26**

Extreme heat and heat waves pose a serious risk to public health. Prolonged exposure to heat can lead to heat stress, heat exhaustion, and even death.<sup>1</sup> Access to air conditioning can keep residents safe during heat waves and prevent heat-related illnesses and deaths.<sup>2</sup>

In 2020, Bill 24-19 was enacted which required landlords to provide air-conditioning in rental units from June 1<sup>st</sup> – September 30<sup>th</sup>. Specifically, the units are required to maintain a temperature no higher than 80 degrees Fahrenheit, whether the unit has a thermostat controlled by the landlord or one controlled by the tenant.<sup>3</sup>

Currently under County Code, there are two exemptions for the types of rental units required to provide air-conditioning which are detached single-family homes and units located on sites listed in the National Register of Historic Places.<sup>4</sup>

Bill 9-26 seeks the following amendments to air-conditioning requirements in the County Code:

- Changing the period for air conditioning requirements in rental properties from June 1<sup>st</sup> – September 30<sup>th</sup> to May 15<sup>th</sup> – September 30<sup>th</sup>; and
- Requiring detached single-family home rentals, regardless if the thermostat is controlled by the landlord and by the tenant, to meet air-conditioning requirements.<sup>5</sup>

Bill 9-26, Rental Housing – Maintenance Standards and Essential Services – Air Conditioning was introduced by County Council on February 10, 2026.

## METHODOLOGIES, ASSUMPTIONS, AND UNCERTAINTIES

**Methodology.** OLO reviewed literature on air-conditioning impacts on GHG emissions and community climate resilience. OLO also reviewed energy consumption data from the U.S. Energy Information Administration.

**Assumptions.** OLO assumes this Bill would increase access to air conditioning during extreme heat periods for renters in single-family homes and ADUs in the County.

**Uncertainties.** OLO does not know the number of single-family home rentals who **do not** currently provide adequate access to air conditioning, nor the exact amount of emissions that would occur from a minimum air conditioning temperature requirement for single-family homes and ADUs.

---

## AIR-CONDITIONING AND HOW IT IMPACTS GREENHOUSE GAS EMISSIONS AND COMMUNITY CLIMATE RESILIENCE

Climate change is affecting weather patterns and increasing the number of extreme heat days experienced across the United States. In Montgomery County, extreme heat is one of the greatest climate risks facing the County and the number of days above 95 degrees Fahrenheit is expected to increase. By 2035, it is expected that the County will experience about 12 days above 95 degrees each year and by 2100, the County could experience anywhere from 28-60 days above 95 degrees each year.<sup>6</sup>

Extreme heat is a public health concern. Exposure to temperatures above 95 degrees for an extended period can lead to heat stroke, exhaustion, and even death. Access to air conditioning can increase an individual's resilience to extreme heat. Analyses by public health experts, such as a recent analysis by Canadian public health authorities, show that a lack of access to air conditioning is a key driver in heat-related deaths during a heat wave.<sup>7</sup> Increasing access to air conditioning for renters can have a positive impact on community climate resilience.<sup>8</sup>

While access to air conditioning is mostly beneficial to community climate resilience, it is important to consider further strain on the electric grid. Heatwaves can make the electric grid less reliable and prone to outages, as energy demand from cooling can increase significantly.<sup>9</sup> Access to reliable electricity is an essential component of overall resilience as much infrastructure relies on consistent and reliable electricity, including telecommunications, water, healthcare, and transportation infrastructure.<sup>10</sup>

Further, air conditioning does contribute to GHG emissions, about 3.9% of all global emissions.<sup>11</sup> As climate change has led to increased temperatures, it has also increased demand for air conditioning to stay safe during extreme heat.

However, there are ways to reduce GHG emissions associated with air conditioning as well as nature-based solutions to protect communities from extreme heat such as:

- Installing shade trees<sup>12</sup>;
- Insulating houses, apartments, and other buildings against extreme heat<sup>13</sup>;
- Installing energy efficient HVAC systems, such as heat pumps;<sup>14</sup> and
- Investing in clean energy to power the electric grid which would decrease GHGs associated with energy.<sup>15</sup>

These solutions could also improve community resilience and energy resilience efforts, especially solutions that focus on energy efficient cooling as it would decrease the electricity needed to cool a house.<sup>16</sup> Solutions that increase energy efficiency also have the added co-benefit of decreased costs associated with cooling a house.<sup>17</sup>

## ANTICIPATED IMPACTS

According to County data as of February 1<sup>st</sup>, 2026, there are currently 25,807 rental units with licenses issued, although the status of some of these licenses are not active.<sup>18</sup> OLO also notes the number of licenses is not equivalent to the number of total rental units in the County. For example, one license is issued to an apartment complex and all units are covered under a single license.

DHCA staff confirmed that in addition to single-family homes, accessory dwelling units (ADUs) are also currently exempt from the air-conditioning requirement.<sup>19</sup> Out of the 25,807 rental units, there are currently 8,719 licensed properties that are currently exempt from the air-conditioning requirement. 6,435 have active licenses and there are also 382 licenses either pending or pending renewal and 1 new application.<sup>20</sup> It can be assumed the number of licenses issued to single-family homes and ADUs is equivalent to the number of rental units.

**Greenhouse Gas Emissions.** OLO does not know the details of the single-family rentals, including if air-conditioning is already provided, who controls the thermostat, the average temperature a house is kept at, or how energy efficient an HVAC system is. Without this information available, it is difficult to predict the impact of requiring air conditioning to be set at a certain level during summer months in single-family rentals. Air conditioning does require electricity, which emits GHGs when generated.

To roughly estimate additional GHG emissions from the proposed changes, OLO performed a “back of napkin” calculation, using data from the U.S. Energy Information Administration’s most recent 2020 Residential Energy Consumption Survey (RECS).<sup>1</sup> The survey collects data from households across the United States and collects information on the physical characteristics of houses, energy use habits, and fuel consumption data from

---

<sup>1</sup> Data for the 2024 Residential Energy Consumption Survey will be publicly available in Spring 2026. [Energy Information Administration \(EIA\)- Commercial Buildings Energy Consumption Survey \(CBECS\)](#)

energy suppliers. The following data points and assumptions were made to calculate potential GHG emissions from requiring single family homes and ADUs to provide air conditioning for 5 months in the summer:

- 2020 RECS data estimated the average home in the Mid Atlantic used 8,275 kilowatt hours for the year. The estimate for five months of usage is 3,448 kWh, and OLO does not account for fluctuations in usage during the summer, as disaggregated data by season was not available.<sup>21</sup>
- 2020 RECS data estimated energy consumption for air conditioning accounted for about 19% of electricity consumption in U.S. homes. They did not provide disaggregated data on air conditioning by region.<sup>22</sup>
- County data, which was updated February 1, 2026, shows there are currently 8,719 licensed rental properties not currently required to provide air conditioning, per County Code.<sup>23</sup> Data on rentals not currently providing air conditioning is not available.
- This calculation assumes the 8,719 exempt rental units were not providing air conditioning already. In reality, it is likely many of the rentals are already providing air conditioning to tenants.

OLO used the EPA's GHG Equivalencies calculator to calculate the potential maximum GHG emissions that would be created from requiring single-family homes and ADUs in the County to provide air conditioning during the summer months. Again, this calculation is built on the assumption that all currently exempt homes are not providing air conditioning and the actual number is likely much less.

The estimate for five months of air conditioning across 8,719 rental units is 5,710,945 kWh used which is equivalent to 1,795 metric tons of carbon dioxide.<sup>242</sup>

According to the Climate Action Plan, 2015 emissions from the residential energy sector were responsible for 2,739,447 metric tons of carbon dioxide emissions.<sup>25</sup> 19% of the annual total emissions is 520,495 metric tons of carbon dioxide. Five months of emissions can be estimated to be 216,873 metric tons of carbon dioxide. Comparing the maximum estimate for additional emissions from proposed changes to air conditioning requirements shows the additional 1,795 metric tons of carbon dioxide from the rental units reflects 0.8% of estimated total residential energy emissions related to air conditioning for five months.

This calculation also does not account for the size of the house, energy efficient appliances, access to solar energy, or other factors that could affect total energy emissions associated with air conditioning. However, it is likely that proposed changes from the Bill would not contribute significantly to the County's GHG emissions.

---

<sup>2</sup> To account for the likelihood that electricity usage for air conditioning is likely much higher than 19% during summer months, OLO also calculated the annual increase as well. For 8,719 households, the estimated annual consumption for air conditioning is 13,708,448 kWh hours, which is equivalent to 5,395 metric tons of CO<sub>2</sub>. This is about 0.2% of total annual CO<sub>2</sub> emissions from the County's residential energy sector, according to 2015 data.

**Community Resilience.** Extreme heat is a public health concern and as climate change increases the number of extreme heat days the County experiences, more people will be exposed to and harmed by extreme heat days. Access to air-conditioning can decrease the risk of heat-related illnesses and deaths and increase a community's resilience to extreme heat days. While increasing energy consumption by household can strain the electric grid and negatively impact the overall energy resiliency of a community, it is unlikely to negatively impact the energy resilience of the County as this proposed change would only apply to 8,719 rental units. Overall, OLO anticipates a small, positive impact on overall community resilience as the proposed changes would likely increase access to air-conditioning for some renters in Montgomery County.

---

## RECOMMENDED AMENDMENTS

The Climate Assessment Act requires OLO to offer recommendations, such as amendments or other measures to mitigate any anticipated negative climate impacts.<sup>26</sup> OLO does not offer recommendations or amendments as Bill 9-26 is likely to have a small, positive impact on the County's contribution to addressing climate change, including the reduction and/or sequestration of GHG emissions, community resilience, and adaptative capacity.

---

## CAVEATS

OLO notes two caveats to this climate assessment. First, predicting the impacts of legislation upon climate change is a challenging analytical endeavor due to data limitations, uncertainty, and the broad, global nature of climate change. Second, the analysis performed here is intended to inform the legislative process, not determine whether the Council should enact legislation. Thus, any conclusion made in this statement does not represent OLO's endorsement of, or objection to, the bill under consideration.

---

## PURPOSE OF CLIMATE ASSESSMENTS

The purpose of the Climate Assessments is to evaluate the anticipated impact of legislation on the County's contribution to addressing climate change. These climate assessments will provide the Council with a more thorough understanding of the potential climate impacts and implications of proposed legislation, at the County level. The scope of the Climate Assessments is limited to the County's contribution to addressing climate change, specifically upon the County's contribution to GHG emissions and how actions suggested by legislation could help improve the County's adaptative capacity to climate change, and therefore, increase community resilience.

While co-benefits such as health and cost savings may be discussed, the focus is on how proposed County bills may impact GHG emissions and community resilience.

---

# CONTRIBUTIONS

OLO staffer Kaitlyn Simmons drafted this assessment.

- <sup>1</sup> [National Integrated Heat Health Information System, "Learn About Extreme Heat", Accessed 2/11/2026.](#)
- <sup>2</sup> [National Resources Defense Council, "Toward a Renter's Right to Heat-Safe Housing", June 9, 2022.](#)
- <sup>3</sup> [Bill 24-19 - Landlord Tenant Relations - Obligation of Landlord - Air Conditioning, Montgomery County Council, Enacted March 2, 2020.](#)
- <sup>4</sup> [Ibid.](#)
- <sup>5</sup> [Introduction Staff Report for Bill 9-26, Montgomery County Council, Introduced February 10, 2026.](#)
- <sup>6</sup> [Montgomery County Government, "Community Heat Mapping in Montgomery County", 2022.](#)
- <sup>7</sup> [Henderson, S. B., et. al., "Analysis of Community Deaths During the Catastrophic 2021 Heat Dome: Early Evidence to Inform the Public Health Response During Subsequent Events in Greater Vancouver, Canada", January 19, 2022.; Oregon Office of Emergency Management, "Initial After-Action Review of the June 2021 Excessive Heat Event", July 27, 2021.; KFF, "Disparities in Access to Air Conditioning And Implications for Heat-Related Health Risks", August 16, 2024.](#)
- <sup>8</sup> [KFF, "Disparities in Access to Air Conditioning And Implications for Heat-Related Health Risks", August 16, 2024.](#)
- <sup>9</sup> [Environmental and Energy Study Institute, "Heat Waves Make the Grid Less Reliable", August 28, 2025.](#)
- <sup>10</sup> [Cybersecurity and Infrastructure Security Agency, "Energy Systems", Accessed 2/18/2026.](#)
- <sup>11</sup> [Zhai, Z., et. al., "Responses of air-conditioning loads to climate change and its impact on carbon emissions in the hot summer and warm winter climate", March 12, 2024.](#)
- <sup>12</sup> [US EPA, "Using Trees and Vegetation to Reduce Heat Islands", Accessed 2/18/2026.](#)
- <sup>13</sup> [Department of Energy, "How Insulation Works", Accessed 2/18/2026.](#)
- <sup>14</sup> [Department of Energy, "Heat Pump Systems", Accessed 2/18/2026.](#)
- <sup>15</sup> [US EPA, "Adapting to Heat", Accessed 2/18/2026.](#)
- <sup>16</sup> [Environmental and Energy Study Institute, "Heat Waves Make the Grid Less Reliable", August 28, 2025.](#)
- <sup>17</sup> [RAND, "The Double-Edged Sword of Air Conditioning in a Warming World", August 19, 2024.](#)
- <sup>18</sup> [Montgomery County Government Open Data Portal, Housing Licensing and Registration, Accessed 2/18/2026.](#)
- <sup>19</sup> DHCA Staff Feedback
- <sup>20</sup> [Montgomery County Government Open Data Portal, Housing Licensing and Registration, Accessed 2/18/2026.](#)
- <sup>21</sup> [U.S. Energy Information Administration, "Annual Household Site Fuel Consumption in the United States - Total and Averages, 2020", Released March 2023.](#)
- <sup>22</sup> [U.S. Energy Information Administration, Frequently Asked Questions \(FAQs\) - How much Electricity is Used for Air Conditioning in the United States?", Accessed 2/18/2026.](#)
- <sup>23</sup> [Montgomery County Government Open Data Portal, Housing Licensing and Registration, Accessed 2/18/2026.](#)
- <sup>24</sup> [US EPA, "Greenhouse Gas Equivalencies Calculator", Accessed 2/18/2026.](#)
- <sup>25</sup> [Montgomery County Government, "Montgomery County Climate Action Plan", June 2021.](#)
- <sup>26</sup> Bill 3-22, Legislative Branch – Climate Assessments – Required, Montgomery County Council, Effective date October 24, 2022