



OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

MEMORANDUM

January 22, 2025

TO: Kate Stewart, President
Montgomery County Council

FROM: Marc Elrich, County Executive

SUBJECT: Executive Regulation 17-23AM, Building Energy Performance Standards
Modifications

Executive Regulation 17-23AM, Building Energy Performance Standards implements Article 6, Building Energy Use and Benchmarking and Performance Standards, of Chapter 18A, Environmental Sustainability, of the Montgomery County Code.

I want to express my sincere appreciation to the County Council's Transportation & Environment Committee for engaging stakeholders over the past year, including engagement with the business community. This dialogue and engagement are key to Montgomery County's progress and leadership in promoting energy efficiency in our built environment.

I also would like to thank the Department of Environmental Protection (DEP) for making modifications that retain the important climate benefit from advancing energy efficiency while providing significant flexibility for the business, multifamily, and resident community. Since transmitting Executive Regulation 17-23 to the County Council, DEP has made several modifications to the proposed regulations to address stakeholder feedback raised during the Transportation & Environment Committee listening sessions. The proposed modifications have been made following conversations with members of the Transportation & Environment Committee and feedback from industry representatives and groups, individual building owners and property managers, and the Building Performance Improvement Board. Please see the attached memo from Jon Monger, Director of DEP, providing details on modifications to regulation.

By the terms of the Montgomery County Code, this Regulation must proceed under the Method 2 process for approval. As such, I am transmitting this Regulation to you for your approval.



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Marc Elrich
County Executive

Jon Monger
Director

MEMORANDUM

January 21, 2025

TO: Marc Elrich, County Executive

FROM: Jon Monger, Director
Department of Environmental Protection (DEP)

SUBJECT: Executive Regulation 17-23AM, Building Energy Performance Standards Modifications

Since transmitting Executive Regulation 17-23 to the County Council, the Department has made several modifications to the proposed regulations to address stakeholder feedback raised during the Transportation & Environment Committee listening sessions. The proposed modifications have been made following conversations with members of the Transportation & Environment Committee and feedback from industry representatives and groups, individual building owners and property managers, and the Building Performance Improvement Board.

OVERVIEW OF REGULATION MODIFICATIONS

1. Modify final performance standards for some building types.
2. Implement a new “performance cap” pathway such that an individual covered building’s final performance standard will not require a reduction of greater than 30% from its baseline.
3. Clarify normalized site energy use adjustments for parking and electric vehicle charging.
4. Modify definitions of “cost effective” and “economic infeasibility” to be defined within the effective useful life of each measure, rather than 25 years.
5. Update wording of “under-resourced building” to “specially designated building.”
6. Expand the definition of specially designated buildings to include multifamily buildings that are subject to the County’s rent stabilization requirements.
7. Clarify the BPIP revision process.
8. Require that energy improvement measures with a simple payback of 5 years or less be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard.

DETAILS OF REGULATION MODIFICATIONS

1. Modify final performance standards for some building types using more current data.

The site energy use intensity (EUI) final performance standards use the “Zero Net Carbon (ZNC) methodology,” a target-setting approach that aligns with the County’s climate goals and ultimately will require energy efficiency and efficient electrification in most building types¹. A performance standard is proposed for each ENERGY STAR Portfolio Manager property type.

To address stakeholder concerns about the feasibility of final site EUI standards for some property types, DEP reran the ZNC target setting calculations for all property types using the County benchmarking data collected for calendar year 2023. Final EUI standards were only updated for property types with enough available local data (at least 5 buildings) and where the recalculated EUI standards *increased*, making it more feasible for those property types to reach the final standards by their deadlines. These modifications apply to building types like hospitals, laboratories, data centers, and others.

Additionally, two additional property types were added to the table in 18A.43A.01.05 Establishment of Final Performance Standards by Building Type. A standard was added for Manufacturing/Industrial Plant. Though the law exempts covered buildings for which more than 50% of the total gross floor area is used for “industrial uses where the majority of energy is consumed for manufacturing, the generation of electric power or district thermal energy to be consumed offsite, or for other process loads,” a standard is needed to provide an area-weighted standard for mixed-use properties. Ambulatory Surgical Center was inadvertently omitted from the previous version.

2. Implement a new “performance cap” pathway such that an individual covered building’s final performance standard will not require a reduction of greater than 30% from its baseline.

A new section was added to specify that an individual covered building’s final performance standard will not require a reduction of greater than 30% from the building’s performance baseline. This new compliance pathway gives buildings furthest away from their final standard a compliance option that provides more flexibility while ensuring that covered buildings make significant reductions in energy use and emissions by their final deadline.

3. Clarify normalized site energy use adjustments for parking and electric vehicle charging.

Normalized net site energy use intensity is used to gauge whether each covered building is meeting the interim and final performance standards. Within this definition, “normalized” means normalized for weather and other characteristics within the limits of the capabilities of the benchmarking tool and normalized for other factors as determined by the Department. “Net” means normalized energy use minus energy generated from the renewable energy allowance.

The updated regulations clarify two items related to normalizing energy performance:

¹ For more information about the ZNC target setting methodology, reference the BEPS Technical Report available at <https://www.montgomerycountymd.gov/green/energy/beps.html#bepsreport>

- **Parking:** Instead of *adding a parking adjustment* to the final performance standard (i.e., providing a higher standard to account for parking), the regulations were modified to instead *deduct parking energy use* from the building's normalized site energy use. Since promulgating the regulations, EPA has made a new field available in ENERGY STAR Portfolio Manager such that the Department no longer must calculate a parking allowance outside of the benchmarking tool. Functionally, buildings reporting parking as part of their benchmarking report are still provided a parking adjustment but using the Portfolio-Manager-calculated field provides a more accurate, consistent estimate of parking energy use. Providing a deduction from the performance metric better aligns with County exemptions for transportation facilities as well as State benchmarking guidance.
- **Electric Vehicle Charging:** The law already states that site energy use does not include "electricity used to charge vehicles." This section was added to clarify how the Department intends to deduct EV charging from normalized site energy use using ENERGY STAR Portfolio Manager estimates of annual EV charging station energy use.

Building Performance Improvement Plan (BPIP) Overview

Buildings with qualifying scenarios (including economic infeasibility or circumstances outside of owner's control) are eligible to submit and implement BPIPs in lieu of compliance with a performance standard. The regulations define economic infeasibility based on an objective measure of the simple payback period of the energy improvement measures that would be required to meet an interim or final standard.

The regulations stipulate the components required of a BPIP which include:

- An energy audit by a qualified energy auditor;
- An assessment of replacement options for existing equipment that is planned to remain in service past the final performance standard date, the feasibility of electrifying fossil fuel combustion equipment, and onsite renewable energy systems; and
- A retrofit plan identifying the cost-effective energy improvement measures to be implemented, the calendar year or qualifying event during which such energy improvement measures will be made, and the predicted annual energy savings resulting from implementing the energy improvement measures.

The regulations also address how a BPIP will be evaluated for approval, as well as the process by which a building owner must demonstrate compliance with an approved BPIP through, among other requirements, recording the building performance improvement plan as a covenant in the County land records and annual reporting.

4. Modify definitions of “cost effective” and “economic infeasibility” to be defined within the effective useful life of each measure, rather than 25 years.

Stakeholders noted that the previously proposed 25-year payback threshold for most buildings is longer than the effective useful life of some replacement equipment. To address this concern, the definitions of “cost effective energy improvement measure” and “economic infeasibility” were modified.

Cost effective energy improvement measure is now defined as a measure that pays back within the effective useful life of the measure. For specially designated buildings, cost effective measures are those that payback within the effective useful life of the measure or within 10 years, whichever is less.

Building owners can demonstrate economic infeasibility if the interim or final standard cannot be met by implementing cost effective measures, as described above.

5. Update wording of “under-resourced building” to “specially designated building.”

These building types are not necessarily under resourced. Wording was updated accordingly.

6. Expand the definition of specially designated buildings to include multifamily buildings that are subject to the County’s rent stabilization requirements.

The definition of specially designated buildings was expanded to include multifamily buildings that are subject to the County’s rent stabilization requirements.

7. Clarify the BPIP revision process.

To account for changes to the BPIP, such as in cases of ownership changes, new technologies, or changes to cost estimates of plan measures, the updated regulations outline a process for BPIP revisions.

8. Require that energy improvement measures with a simple payback of 5 years or less be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard.

If the building owner has used a building performance improvement plan to comply with the interim performance standard, all energy improvement measures in the retrofit plan with a simple payback of 5 years or less must be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard. Because the definitions of cost effective and economic infeasibility were substantially modified, this modification helps to ensure that buildings using a BPIP for compliance implement these quick payback measures and realize energy improvements before the final standard deadline.



MONTGOMERY COUNTY EXECUTIVE REGULATION

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| Subject BUILDING ENERGY PERFORMANCE STANDARDS | Number 17-23AM |
| Originating Department DEPARTMENT OF ENVIRONMENTAL PROTECTION | Effective Date |

Montgomery County Regulation on:

BUILDING ENERGY PERFORMANCE STANDARDS

Issued by: County Executive

Regulation No. 17-23AM

COMCOR No. 18A.43A.01

Authority: Code Section 18A, Article 6

Council Review: Method (2) under Code Section 2A-15

Register Vol. 40 No. 11

Comment Deadline: 11/30/2023

Effective Date: _____

Sunset Date: None

Summary: This regulation implements Article 6, Building Energy Use Benchmarking and Performance Standards, of Chapter 18A, Environmental Sustainability.

Staff Contact: For further information or to obtain a copy of this regulation, contact: Emily Curley at energy@montgomerycountymd.gov or 240-777-7707.

Address: Written comments on this regulation should be sent to:

energy@montgomerycountymd.gov

or

Emily Curley
Department of Environmental Protection
2425 Reddie Drive, 4th Floor
Wheaton, Maryland 20902



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COMCOR 18A.43A.01 Building Energy Performance Standards

18A.43A.01.01 General Provisions

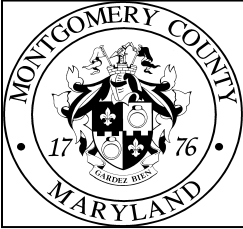
Authority. In accordance with the authority conferred under Chapter 18A, Section 18A-43A, of the Montgomery County Code, 2014, as amended (hereinafter referred to as the “Code”), the County Executive hereby promulgates this regulation to implement County law pertaining to building energy performance standards for covered buildings.

18A.43A.01.02 Definitions

Definitions of the terms used in the regulation are provided in Section 18A-38A of the County Code. For the purpose of this regulation, the following additional words and phrases will have the meaning respectively ascribed to them in this regulation:

- A. *Area-weighted final performance standard* means a final performance standard that is calculated based on the floor area proportion of each building type within a covered building, as reported in the benchmarking tool.

- B. *Cost-effective energy improvement measures* mean:
 - (1) circumstances in which the simple payback of the energy improvement measure is less than or equal to the effective useful life of the measure based on a broadly accepted industry standard approved by the Director, after considering all possible incentives and including avoided penalties for non-compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission; or
 - (2) for specially designated buildings, circumstances in which the simple payback of the energy improvement measure is less than or equal to the effective useful life of the measure based on a broadly accepted industry standard approved by the Director or is 10 years or less, whichever is less, after considering all possible incentives and including avoided penalties for non-compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission.



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- C. *Economic infeasibility* means circumstances in which the interim or final performance standard cannot be met by implementing a package of cost-effective energy improvement measures.
- D. *Energy improvement measure* means any installation or modification of equipment, devices, or other materials intended to decrease energy consumption or improve energy performance of a covered building.
- E. *Final performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its final performance standard as defined in Section 18A-42(d)(3) of the County Code.
- F. *Full-time equivalent employee* means the sum of employees or occupants occupying the building for 40-person hours per week/2080-person hours per year, exclusive of security guards, janitors, construction workers, landscapers, and other maintenance personnel.
- F. *kBtu* means thousand British thermal units.
- G. *Interim performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its interim performance standard as defined in Section 18A-42(d)(3) of the County Code.
- H. *Local small business* means local small business as defined in Section 11B-65 of the County Code.
- I. *Mixed-use building* means a building that contains two or more building types.
- J. *Normalized site energy use* means the site energy use by the covered building normalized for weather and other characteristics within the limits of the capabilities of the benchmarking tool and normalized for other factors as determined by the Department.
- K. *Onsite renewable energy system* means a renewable energy system physically located on the covered building or covered building site that produces renewable energy.
- L. *Renewable energy allowance* means all electricity generated from onsite renewable energy systems.



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- M. *Renewable energy* means electricity generated from a source that is not depleted when used.
- N. *Simple payback* means the estimated initial energy improvement measure cost divided by the energy improvement measure’s calculated annual cost savings.
- O. *Specially designated building* means a qualified affordable housing building, a common-ownership community, a multifamily building subject to rent stabilization under Section 29-58 of the Code, a non-profit owned building, or a local small business owned building.

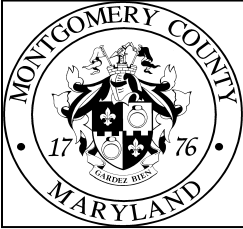
18A.43A.01.03 Establishment of Building Types

- A. Building type categories mean property types as defined in the benchmarking tool.
- B. If a building type is designated as “Other” in the benchmarking tool or if evidence suggests that the incorrect building type was entered into the benchmarking tool, the Department will assign the most accurate building type. The Department must reassign a building type that the Department determines to be more accurate based on available data. The owner will have the opportunity to dispute the building type after the Director’s decision on the building type.
- C. The Department has the final authority to assign a building type to a covered building.

18A.43A.01.04 Establishment of Final Performance Standards by Building Type

- A. The following table sets forth the building types and the final performance standard for each building type. If additional building types are created or changed in the benchmarking tool, the Department must set performance standards for those building types based on best available local and national data and update the building types and standards on the Department’s Building Energy Performance Standards website.

| Building Type | Final Performance Standard (kBtu/gross floor area) |
|-------------------------------|--|
| Adult Education | 46 |
| Ambulatory Surgical Center | 63 |
| Aquarium | 145 |
| Automobile/Vehicle Dealership | 61 |
| Bank Branch | 85 |

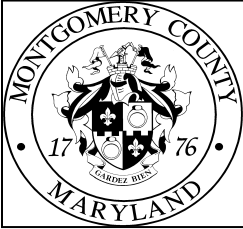


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| Bar/Nightclub | 220 |
| Barracks | 38 |
| Bowling Alley | 84 |
| Casino | 75 |
| College/University | 57 |
| Convenience Store with Gas Station | 137 |
| Convenience Store without Gas Station | 137 |
| Convention Center | 40 |
| Courthouse | 47 |
| Data Center | 206 |
| Distribution Center | 19 |
| Enclosed Mall | 44 |
| Fast Food Restaurant | 220 |
| Financial Office | 58 |
| Fire Station | 47 |
| Fitness Center/Health Club/Gym | 69 |
| Food Sales | 137 |
| Food Service | 220 |
| Hospital (General Medical & Surgical) | 173 |
| Hotel | 60 |
| Ice/Curling Rink | 84 |
| Indoor Arena | 75 |
| K-12 School | 38 |
| Laboratory | 212 |
| Library | 55 |
| Lifestyle Center | 121 |
| Mailing Center/Post Office | 48 |
| Manufacturing/Industrial Plant | 95 |
| Medical Office | 70 |
| Mixed Use Property | Area-weighted final performance standard, see 18A.43A.01.05 |



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| | Mixed-Use Buildings |
|---|---------------------|
| Movie Theater | 57 |
| Multifamily Housing | 37 |
| Museum | 40 |
| Non-Refrigerated Warehouse | 30 |
| Office | 55 |
| Other - Education | 45 |
| Other - Entertainment/Public Assembly | 48 |
| Other - Lodging/Residential | 37 |
| Other - Office | 55 |
| | |
| Other - Public Service | 61 |
| Other - Recreation | 78 |
| Other - Restaurant/Bar | 219 |
| Other - Retail/Mall | 81 |
| Other - Services | 51 |
| Other - Specialty Hospital | 165 |
| Other - Stadium | 23 |
| Other - Technology/Science | 183 |
| Outpatient Rehabilitation/Physical Therapy | 63 |
| Performing Arts | 90 |
| Personal Services (Health/Beauty, Dry Cleaning, etc.) | 47 |
| Police Station | 54 |
| Pre-school/Daycare | 48 |
| Prison/Incarceration | 38 |
| Race Track | 75 |
| Refrigerated Warehouse | 38 |
| Repair Services (Vehicle, Shoe, Locksmith, etc.) | 52 |
| Residence Hall/Dormitory | 38 |
| Residential Care Facility | 69 |
| Restaurant | 219 |



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| Retail Store | 48 |
| Roller Rink | 84 |
| Self-Storage Facility | 7 |
| Senior Living Community | 50 |
| Social/Meeting Hall | 39 |
| Stadium (Closed) | 23 |
| Stadium (Open) | 21 |
| Strip Mall | 58 |
| Supermarket/Grocery Store | 137 |
| Transportation Terminal/Station | 56 |
| Urgent Care/Clinic/Other Outpatient | 66 |
| Veterinary Office | 63 |
| Vocational School | 46 |
| Wholesale Club/Supercenter | 48 |
| Worship Facility | 32 |
| Zoo | 75 |

B. If a covered building consists of one building type, then its final performance standard is the final performance standard for the building type in which it belongs.

18A.43A.01.05 Establishment of Final Performance Standards for Mixed-Use Covered Buildings

A. Mixed-use covered buildings have an area-weighted final performance standard based on the gross floor area (GFA) assigned to each building type.

B. The Department will calculate an area-weighted final performance standard for mixed-use covered buildings based on the gross floor area of each property type reported in the benchmarking tool, excluding parking, and each building type’s final performance standard. The following formula illustrates this calculation:

$$EUI_{AW} = \frac{[(GFA_1 \times EUI_1) + (GFA_2 \times EUI_2) + \dots + (GFA_n \times EUI_n)]}{GFA_s}$$

Where:



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EUI_{AW} is the area-weighted final performance standard of the covered building
 n = The total number of building types within the covered building
 GFA_s is the sum of the gross floor area of all building types in the building
 GFA_1 is the gross floor area of the largest building type within the covered building
 GFA_2 is the gross floor area of the second largest building type within the covered building
 GFA_n is the gross floor area of the nth largest building type within the covered building
 EUI_1 is the final performance standard for the building type corresponding to GFA_1
 EUI_2 is the final performance standard for the building type corresponding to GFA_2
 EUI_n is the final performance standard for the building type corresponding to GFA_n ¹

- C. The Department provides covered buildings with heated swimming pools with a pool adjustment based on current or successor benchmarking tool estimates of heated swimming pool site energy use using the following formula:

For covered buildings that consist of one building type:

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

For mixed-use covered buildings that have an area-weighted final performance standard:

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Area weighted final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

- D. For any additional adjustments to final performance standards for covered buildings, the Department will follow current or successor benchmarking tool guidance and update the Department’s Building Energy Performance Standards website.
- E. The Department calculates final performance standards based on the covered building’s most recent annual energy use benchmarking report. If a building’s type changes from the prior benchmarking report, then the Department will provide the owner with updated standards to align to the updated square footage breakdown following annual energy use benchmarking.

18A.43A.01.06 Determination of the Final Performance Standard for a Covered Building

- A. Except as described in subsection C, if a covered building consists of one building type, then its

¹ Although final performance standards are established per building type in this regulation, the Department is not able to provide a unique area-weighted final performance standard for a mixed-use building until the building owner submits the first energy use benchmarking report for the mixed-use building.



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final performance standard is the final performance standard for the building type in which it belongs as described in Section 18A.43A.01.04.

- B. Except as described in subsection C, if a covered building is made up of a mix of building types, then its final performance standard is determined as described in Section 18A.43A.01.05.
- C. A covered building’s final performance standard will not require a reduction of greater than 30% from the covered building’s performance baseline.

18A.43A.01.07 Determination of the Interim Performance Standard for a Covered Building

- A. The Department calculates a covered building’s interim performance standard as halfway between the covered building’s performance baseline and its final performance standard.
- B. If a covered building’s performance baseline is already below its final performance standard, the covered building’s interim standard is equal to its final performance standard.

18A.43A.01.08 Department Factors for Normalized Site Energy Use

- A. The Department will provide covered buildings with parking that is not sub-metered and included as part of the building energy use benchmarking report with a parking adjustment to the building’s normalized site energy use by deducting current or successor benchmarking tool estimates of parking site energy use. The Department calculates parking adjusted normalized site energy use as normalized site energy use minus the benchmarking tool estimates of parking site energy use.
- B. The Department will provide buildings with electric vehicle (EV) charging stations that are not sub-metered and included as part of the building energy use benchmarking report with an electric vehicle charging station adjustment to the building’s normalized site energy use by deducting current or successor benchmarking tool estimates of electric vehicle charging station energy use. The Department calculates EV charging station adjusted normalized site energy as normalized site energy use minus benchmarking tool estimates of electric vehicle charging station energy use.
- C. For any additional adjustments to normalized site energy use, the Department will follow current or successor benchmarking tool guidance and update the Department’s Building Energy Performance Standards website.
- D. The Department will calculate normalized site energy use annually based on the covered



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building’s energy use benchmarking report.

18A.43A.01.09 Renewable Energy Allowance

- A. The renewable energy allowance will credit all electricity generated from onsite renewable energy systems, whether used onsite or exported back to the grid.
- B. Owners of covered buildings must follow the guidance of the benchmarking tool to report renewable energy produced by the onsite renewable energy system. To receive a renewable energy allowance, inputs must include:
 - 1. grid energy sent to the building;
 - 2. total renewable energy generated on site;
 - 3. renewable energy used on site; and
 - 4. any renewable energy generated on site and exported back to the grid.
- C. Entering net-grid delivered electricity alone is not sufficient for energy benchmarking or to calculate a renewable energy allowance.

18A.43A.01.010 Demonstration of Compliance – Interim and Final Performance Standards

- A. Covered buildings must demonstrate compliance with the interim and final performance standards by reporting building energy use benchmarking data to the Department using the benchmarking tool.
- B. The Department will determine compliance by comparing the covered building’s performance metric to the interim or final performance standard for each covered building.
- C. Each covered building’s performance metric accounts for the renewable energy allowance, using the following formula:

$$EUI_{PM} = \frac{(EU_N - REA)}{\text{Building GFA}}$$

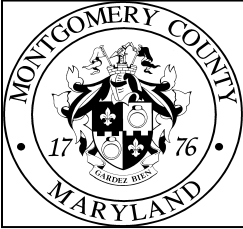
Where:

EUI_{PM} is the performance metric, expressed in kBtu per square foot

EU_N is normalized site energy use, expressed in kBtu, including any normalization as described in Section 18A.43A.01.08

REA is the renewable energy allowance, expressed in kBtu as described in Section 18A.43A.01.09

Building GFA is the covered building’s gross floor area



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- D. The Department will consider a covered building to be in compliance with this Section if the covered building's performance metric is at or below the covered building's interim or final performance standard at the covered building's interim or final performance standard deadline as applicable.

18A.43A.01.11 Building Performance Improvement Plans

- A. If a covered building owner cannot reasonably meet one or more of the applicable interim or final performance standards due to economic infeasibility or other circumstances beyond the owner's control, the owner may submit a proposed building performance improvement plan to the Department.
- B. Circumstances outside the owner's control may include characteristics inherent to the building or the building's operations or may involve timing events in the building's equipment lifecycles, occupancy, or financing

18A.43A.01.12 Building Performance Improvement Plan Submission

- A. The owner must submit, on a form prescribed by the Director, a building performance improvement plan to the Department no later than 90 days before the deadline for submitting documentation of compliance with interim or final performance standards as applicable.
- B. A building performance improvement plan must satisfy all of the following the requirements:
1. The plan must include supporting documentation that demonstrates economic infeasibility or circumstances outside of the owner's control preventing the building from reaching the interim or final standard.
 2. The building performance improvement plan must include the results of an energy audit that was performed not more than four years earlier that follows the Level 2 Procedures defined in the most current version of ASHRAE Standard 211, or a comparable standard as approved by the Director, and contains engineering calculations of energy savings and a simple payback analysis of each potential energy improvement measure covering, at a minimum:
 - (a) operational improvements;
 - (b) low and no-cost energy improvement measures;
 - (c) retro-commissioning or recommissioning of existing equipment that is planned to remain in service past the final performance standard deadline; and

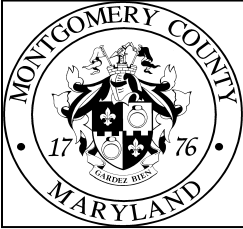


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- (d) replacement of existing equipment that is planned to be replaced before the final performance standard deadline.
- 3. The plan must contain an assessment that evaluates the initial cost and annual energy savings of potential energy upgrades that include:
 - (a) replacement options of existing equipment that is planned to remain in service past the final performance standard deadline;
 - (b) electrification feasibility for replacement of fossil fuel combustion equipment; and
 - (c) onsite renewable energy systems.
- 4. The plan must be completed by a recognized energy auditor that possesses an active credential in good standing of one of the following:
 - (a) a credentialing program approved by the U.S. Department of Energy Better Buildings Workforce Guidelines for Building Energy Auditors or Energy Managers;
 - (b) a Professional Engineer license; or
 - (c) another professional license or building energy training program credential recognized by the Director.
- C. The building performance improvement plan must contain a retrofit plan identifying the cost-effective energy improvement measures to be implemented in the building, the calendar year or qualifying event during which such energy improvement measures will be made, and the predicted annual energy savings resulting from implementing the energy improvement measures. The retrofit plan must also:
 - 1. address all building systems, including, where applicable, envelope, heating, cooling, ventilation, domestic hot water, lighting and electrical, elevators, motors, and pumps;
 - 2. if applicable, address building systems located in tenant spaces owned and maintained by the owner;
 - 3. detail energy improvement measures that include operational improvements, equipment retro-commissioning or recommissioning, and equipment replacement; and
 - 4. consist of a package of cost-effective energy improvement measures that maximize energy savings.



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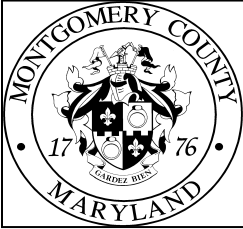
- D. The building performance improvement plan must include an executive summary in a form approved by the Director.
- E. The plan must acknowledge, on a form approved by the Director, that to demonstrate ongoing compliance, the building owner must fulfill the requirements contained in Section 18A.43A.01.13 and that an accepted building performance improvement plan does not guarantee compliance with State building energy performance standards.

18A.43A.01.13 Building Performance Improvement Plan Evaluation

- A. The Director must evaluate a building performance improvement plan based on the completeness of materials submitted and the resulting energy savings, taking into consideration the factors of economic infeasibility or circumstances beyond the owner's control documented in the building performance improvement plan.
- B. The Director may require that additional systems and measures be assessed and included in the retrofit plan if determined to be cost effective or that additional documentation be provided. The building owner may then submit an updated building performance improvement plan that addresses the Director's requirements for review.
- C. If, after consulting with the Building Performance Improvement Board, the Director approves the building performance improvement plan, the owner must record the building performance improvement plan as a covenant in the County land records and deliver a certified copy of the building performance improvement plan to the Department. In accordance with Section 40-10B(a)(3)(C) of the County Code, before a buyer signs a contract for the sale of a covered building the seller must provide the building performance improvement plan to the prospective buyer.
- D. If the Director does not approve the plan, the Director must provide the applicant with a written summary of the grounds for denying the building performance improvement plan and the covered building owner must either submit a new building performance improvement plan that satisfies the Director's written conditions as described in subsection B or satisfy the applicable interim or final standard or be considered noncompliant.

18A.43A.01.14 Demonstration of Compliance – Building Performance Improvement Plans

- A. After the Director receives the certified copy of the recorded plan, the covered building will be deemed to be in compliance with the applicable interim or final performance standards as long as the owner fulfills the terms of the building performance improvement plan.



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- B. Building owners must demonstrate fulfillment of the terms of the building performance improvement plan by reporting annually on June 1, on a form prescribed by the Director, on energy improvement measures implemented and of the progress of the building improvement plan in the previous calendar year.
- C. Annual building performance improvement plan reporting must also provide information on correcting any noncompliance with or deviation from the plan.
- D. The owner must notify the Director if schedules or measures identified within the building performance improvement plan change. If there is a change, the Director may require revisions to the building performance improvement plan under the process described in Section 18A.43A.01.13.B and C.
- E. If the building owner has used a building performance improvement plan to comply with the interim performance standard, all energy improvement measures in the retrofit plan with a simple payback of 5 years or less must be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard.
- F. If, by the final performance standard deadline, the building's performance metric is below the final performance standard, or the building has fulfilled all of the requirements of the approved building performance improvement plan, the building owner may submit to the Department a request to terminate the covenant recorded under Section 18A-42B(d) of the County Code for review and approval. If approved by the Department, the County will release the covenant.
- G. If the covered building has not fulfilled the requirements of the approved building performance improvement plan by the final performance standard deadline, the owner must continue to submit annual building performance improvement plan reports as described in subsection B and C.

18A.43A.01.15 Extensions and Adjustments

In addition to the extensions and adjustments criteria listed in Section 18A-42C of the County Code, the Department may grant an extension to an interim or final performance standard for a covered building whose owner submits a request along with documentation at least 90 days before the deadline for submitting documentation of compliance with an interim or final performance standard as applicable if any of the following conditions apply:

- A. on average, less than one full-time equivalent employee occupied the building during the



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calendar year being reported;

- B. a change of building ownership where the new building owner cannot obtain necessary data to submit the energy use benchmarking report for the year culminating in the applicable interim or final performance standard deadline;
- C. affordable housing refinancing timelines or low-income housing tax credit availability timelines that do not align with interim or final performance standard deadlines as applicable; or
- D. a building is subject to historic preservation requirements.

18A.43A.01.16 Severability

If a court holds that part of this regulation is invalid, the invalidity does not affect other parts.

18A.43A.01.17 Effective Date

This regulation takes effect upon approval by the County Council.

Approved:

Marc Elrich
County Executive

Date

APPROVED AS TO FORM AND LEGALITY
OFFICE OF THE COUNTY ATTORNEY:

Assistant County Attorney

Date



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Montgomery County Regulation on:

BUILDING ENERGY PERFORMANCE STANDARDS

Issued by: County Executive

Regulation No. 17-23AM

COMCOR No. 18A.43A.01

Authority: Code Section 18A, Article 6

Council Review: Method (2) under Code Section 2A-15

Register Vol. 40 No. 11

Comment Deadline: 11/30/2023

Effective Date: _____

Sunset Date: None

Summary: This regulation implements Article 6, Building Energy Use Benchmarking and Performance Standards, of Chapter 18A, Environmental Sustainability.

Staff Contact: For further information or to obtain a copy of this regulation, contact:
Emily Curley at energy@montgomerycountymd.gov or 240-777-7707.

Address: Written comments on this regulation should be sent to:

energy@montgomerycountymd.gov

or

Emily Curley

Department of Environmental Protection

2425 Reedy Drive, 4th Floor

Wheaton, Maryland 20902



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COMCOR 18A.43A.01 Building Energy Performance Standards

18A.43A.01.01 General Provisions

Authority. In accordance with the authority conferred under Chapter 18A, Section 18A-43A, of the Montgomery County Code, 2014, as amended (hereinafter referred to as the "Code"), the County Executive hereby promulgates this regulation to implement County law pertaining to building energy performance standards for covered buildings.

18A.43A.01.02 Definitions

Definitions of the terms used in the regulation are provided in Section 18A-38A of the County Code. For the purpose of this regulation, the following additional words and phrases will have the meaning respectively ascribed to them in this regulation:

A. Area-weighted final performance standard means a final performance standard that is calculated based on the floor area proportion of each building type within a covered building, as reported in the benchmarking tool.

B. Cost-effective energy improvement measures mean:

- (1) circumstances in which the simple payback of the energy improvement measure is less than or equal to the effective useful life of the measure based on a broadly accepted industry standard approved by the Director, after considering all possible incentives and including avoided penalties for non-compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission; or
- (2) for specially designated buildings, circumstances in which the simple payback of the energy improvement measure is less than or equal to the effective useful life of the measure based on a broadly accepted industry standard approved by the Director or is 10 years or less, whichever is less, after considering all possible incentives and including avoided penalties for non-compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission.

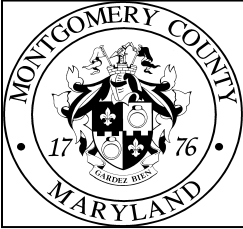


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- C. *Economic infeasibility* means circumstances in which the interim or final performance standard cannot be met by implementing a package of cost-effective energy improvement measures.
- D. *Energy improvement measure* means any installation or modification of equipment, devices, or other materials intended to decrease energy consumption or improve energy performance of a covered building.
- E. *Final performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its final performance standard as defined in Section 18A-42(d)(3) of the County Code.
- F. *Full-time equivalent employee* means the sum of employees or occupants occupying the building for 40-person hours per week/2080-person hours per year, exclusive of security guards, janitors, construction workers, landscapers, and other maintenance personnel.
- F. *kBtu* means thousand British thermal units.
- G. *Interim performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its interim performance standard as defined in Section 18A-42(d)(3) of the County Code.
- H. *Local small business* means local small business as defined in Section 11B-65 of the County Code.
- I. *Mixed-use building* means a building that contains two or more building types.
- J. *Normalized site energy use* means the site energy use by the covered building normalized for weather and other characteristics within the limits of the capabilities of the benchmarking tool and normalized for other factors as determined by the Department.
- K. *Onsite renewable energy system* means a renewable energy system physically located on the covered building or covered building site that produces renewable energy.
- L. *Renewable energy allowance* means all electricity generated from onsite renewable energy systems.



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- M. Renewable energy means electricity generated from a source that is not depleted when used.
- N. Simple payback means the estimated initial energy improvement measure cost divided by the energy improvement measure’s calculated annual cost savings.
- O. Specially designated building means a qualified affordable housing building, a common-ownership community, a multifamily building subject to rent stabilization under Section 29-58 of the Code, a non-profit owned building, or a local small business owned building.

18A.43A.01.03 Establishment of Building Types

- A. Building type categories mean property types as defined in the benchmarking tool.
- B. If a building type is designated as “Other” in the benchmarking tool or if evidence suggests that the incorrect building type was entered into the benchmarking tool, the Department will assign the most accurate building type. The Department must reassign a building type that the Department determines to be more accurate based on available data. The owner will have the opportunity to dispute the building type after the Director’s decision on the building type.
- C. The Department has the final authority to assign a building type to a covered building.

18A.43A.01.04 Establishment of Final Performance Standards by Building Type

- A. The following table sets forth the building types and the final performance standard for each building type. If additional building types are created or changed in the benchmarking tool, the Department must set performance standards for those building types based on best available local and national data and update the building types and standards on the Department’s Building Energy Performance Standards website.

| <u>Building Type</u> | <u>Final Performance Standard (kBtu/gross floor area)</u> |
|--------------------------------------|--|
| <u>Adult Education</u> | <u>46</u> |
| <u>Ambulatory Surgical Center</u> | <u>63</u> |
| <u>Aquarium</u> | <u>145</u> |
| <u>Automobile/Vehicle Dealership</u> | <u>61</u> |
| <u>Bank Branch</u> | <u>85</u> |



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| <u>Bar/Nightclub</u> | 220 |
| <u>Barracks</u> | 38 |
| <u>Bowling Alley</u> | 84 |
| <u>Casino</u> | 75 |
| <u>College/University</u> | 57 |
| <u>Convenience Store with Gas Station</u> | 137 |
| <u>Convenience Store without Gas Station</u> | 137 |
| <u>Convention Center</u> | 40 |
| <u>Courthouse</u> | 47 |
| <u>Data Center</u> | 206 |
| <u>Distribution Center</u> | 19 |
| <u>Enclosed Mall</u> | 44 |
| <u>Fast Food Restaurant</u> | 220 |
| <u>Financial Office</u> | 58 |
| <u>Fire Station</u> | 47 |
| <u>Fitness Center/Health Club/Gym</u> | 69 |
| <u>Food Sales</u> | 137 |
| <u>Food Service</u> | 220 |
| <u>Hospital (General Medical & Surgical)</u> | 173 |
| <u>Hotel</u> | 60 |
| <u>Ice/Curling Rink</u> | 84 |
| <u>Indoor Arena</u> | 75 |
| <u>K-12 School</u> | 38 |
| <u>Laboratory</u> | 212 |
| <u>Library</u> | 55 |
| <u>Lifestyle Center</u> | 121 |
| <u>Mailing Center/Post Office</u> | 48 |
| <u>Manufacturing/Industrial Plant</u> | 95 |
| <u>Medical Office</u> | 70 |
| <u>Mixed Use Property</u> | <u>Area-weighted final performance standard, see 18A.43A.01.05</u> |

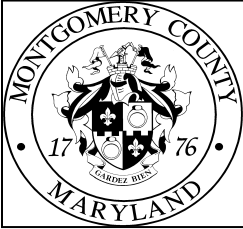


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| | <u>Mixed-Use Buildings</u> |
|--|----------------------------|
| <u>Movie Theater</u> | ___ 57 |
| <u>Multifamily Housing</u> | ___ 37 |
| <u>Museum</u> | ___ 40 |
| <u>Non-Refrigerated Warehouse</u> | ___ 30 |
| <u>Office</u> | ___ 55 |
| <u>Other - Education</u> | ___ 45 |
| <u>Other - Entertainment/Public Assembly</u> | ___ 48 |
| <u>Other - Lodging/Residential</u> | ___ 37 |
| <u>Other - Office</u> | ___ 55 |
| | |
| <u>Other - Public Service</u> | ___ 61 |
| <u>Other - Recreation</u> | ___ 78 |
| <u>Other - Restaurant/Bar</u> | ___ 219 |
| <u>Other - Retail/Mall</u> | ___ 81 |
| <u>Other - Services</u> | ___ 51 |
| <u>Other - Specialty Hospital</u> | ___ 165 |
| <u>Other - Stadium</u> | ___ 23 |
| <u>Other - Technology/Science</u> | ___ 183 |
| <u>Outpatient Rehabilitation/Physical Therapy</u> | ___ 63 |
| <u>Performing Arts</u> | ___ 90 |
| <u>Personal Services (Health/Beauty, Dry Cleaning, etc.)</u> | ___ 47 |
| <u>Police Station</u> | ___ 54 |
| <u>Pre-school/Daycare</u> | ___ 48 |
| <u>Prison/Incarceration</u> | ___ 38 |
| <u>Race Track</u> | ___ 75 |
| <u>Refrigerated Warehouse</u> | ___ 38 |
| <u>Repair Services (Vehicle, Shoe, Locksmith, etc.)</u> | ___ 52 |
| <u>Residence Hall/Dormitory</u> | ___ 38 |
| <u>Residential Care Facility</u> | ___ 69 |
| <u>Restaurant</u> | ___ 219 |



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| <u>Retail Store</u> | 48 |
| <u>Roller Rink</u> | 84 |
| <u>Self-Storage Facility</u> | 7 |
| <u>Senior Living Community</u> | 50 |
| <u>Social/Meeting Hall</u> | 39 |
| <u>Stadium (Closed)</u> | 23 |
| <u>Stadium (Open)</u> | 21 |
| <u>Strip Mall</u> | 58 |
| <u>Supermarket/Grocery Store</u> | 137 |
| <u>Transportation Terminal/Station</u> | 56 |
| <u>Urgent Care/Clinic/Other Outpatient</u> | 66 |
| <u>Veterinary Office</u> | 63 |
| <u>Vocational School</u> | 46 |
| <u>Wholesale Club/Supercenter</u> | 48 |
| <u>Worship Facility</u> | 32 |
| <u>Zoo</u> | 75 |

B. If a covered building consists of one building type, then its final performance standard is the final performance standard for the building type in which it belongs.

18A.43A.01.05 Establishment of Final Performance Standards for Mixed-Use Covered Buildings

- A. Mixed-use covered buildings have an area-weighted final performance standard based on the gross floor area (GFA) assigned to each building type.
- B. The Department will calculate an area-weighted final performance standard for mixed-use covered buildings based on the gross floor area of each property type reported in the benchmarking tool, excluding parking, and each building type’s final performance standard. The following formula illustrates this calculation:

$$EUI_{AW} = \frac{[(GFA_1 \times EUI_1) + (GFA_2 \times EUI_2) + \dots + (GFA_n \times EUI_n)]}{GFA_S}$$

Where:



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EUI_{AW} is the area-weighted final performance standard of the covered building
 n = The total number of building types within the covered building
 GFA_s is the sum of the gross floor area of all building types in the building
 GFA_1 is the gross floor area of the largest building type within the covered building
 GFA_2 is the gross floor area of the second largest building type within the covered building
 GFA_n is the gross floor area of the nth largest building type within the covered building
 EUI_1 is the final performance standard for the building type corresponding to GFA_1
 EUI_2 is the final performance standard for the building type corresponding to GFA_2
 EUI_n is the final performance standard for the building type corresponding to GFA_n ¹

- C. The Department provides covered buildings with heated swimming pools with a pool adjustment based on current or successor benchmarking tool estimates of heated swimming pool site energy use using the following formula:

For covered buildings that consist of one building type:

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

For mixed-use covered buildings that have an area-weighted final performance standard:

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Area weighted final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

- D. For any additional adjustments to final performance standards for covered buildings, the Department will follow current or successor benchmarking tool guidance and update the Department’s Building Energy Performance Standards website.
- E. The Department calculates final performance standards based on the covered building’s most recent annual energy use benchmarking report. If a building’s type changes from the prior benchmarking report, then the Department will provide the owner with updated standards to align to the updated square footage breakdown following annual energy use benchmarking.

18A.43A.01.06 Determination of the Final Performance Standard for a Covered Building

- A. Except as described in subsection C, if a covered building consists of one building type, then its

¹ Although final performance standards are established per building type in this regulation, the Department is not able to provide a unique area-weighted final performance standard for a mixed-use building until the building owner submits the first energy use benchmarking report for the mixed-use building.



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final performance standard is the final performance standard for the building type in which it belongs as described in Section 18A.43A.01.04.

B. Except as described in subsection C, if a covered building is made up of a mix of building types, then its final performance standard is determined as described in Section 18A.43A.01.05.

C. A covered building’s final performance standard will not require a reduction of greater than 30% from the covered building’s performance baseline.

18A.43A.01.07 Determination of the Interim Performance Standard for a Covered Building

A. The Department calculates a covered building’s interim performance standard as halfway between the covered building’s performance baseline and its final performance standard.

B. If a covered building’s performance baseline is already below its final performance standard, the covered building’s interim standard is equal to its final performance standard.

18A.43A.01.08 Department Factors for Normalized Site Energy Use

A. The Department will provide covered buildings with parking that is not sub-metered and included as part of the building energy use benchmarking report with a parking adjustment to the building’s normalized site energy use by deducting current or successor benchmarking tool estimates of parking site energy use. The Department calculates parking adjusted normalized site energy use as normalized site energy use minus the benchmarking tool estimates of parking site energy use.

B. The Department will provide buildings with electric vehicle (EV) charging stations that are not sub-metered and included as part of the building energy use benchmarking report with an electric vehicle charging station adjustment to the building’s normalized site energy use by deducting current or successor benchmarking tool estimates of electric vehicle charging station energy use. The Department calculates EV charging station adjusted normalized site energy as normalized site energy use minus benchmarking tool estimates of electric vehicle charging station energy use.

C. For any additional adjustments to normalized site energy use, the Department will follow current or successor benchmarking tool guidance and update the Department’s Building Energy Performance Standards website.

D. The Department will calculate normalized site energy use annually based on the covered



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building’s energy use benchmarking report.

18A.43A.01.09 Renewable Energy Allowance

- A. The renewable energy allowance will credit all electricity generated from onsite renewable energy systems, whether used onsite or exported back to the grid.
- B. Owners of covered buildings must follow the guidance of the benchmarking tool to report renewable energy produced by the onsite renewable energy system. To receive a renewable energy allowance, inputs must include:
 - 1. grid energy sent to the building;
 - 2. total renewable energy generated on site;
 - 3. renewable energy used on site; and
 - 4. any renewable energy generated on site and exported back to the grid.
- C. Entering net-grid delivered electricity alone is not sufficient for energy benchmarking or to calculate a renewable energy allowance.

18A.43A.01.010 Demonstration of Compliance – Interim and Final Performance Standards

- A. Covered buildings must demonstrate compliance with the interim and final performance standards by reporting building energy use benchmarking data to the Department using the benchmarking tool.
- B. The Department will determine compliance by comparing the covered building’s performance metric to the interim or final performance standard for each covered building.
- C. Each covered building’s performance metric accounts for the renewable energy allowance, using the following formula:

$$EUI_{PM} = \frac{(EU_N - REA)}{Building\ GFA}$$

Where:

EUI_{PM} is the performance metric, expressed in kBtu per square foot

EU_N is normalized site energy use, expressed in kBtu, including any normalization as described in Section 18A.43A.01.08

REA is the renewable energy allowance, expressed in kBtu as described in Section 18A.43A.01.09

Building GFA is the covered building’s gross floor area



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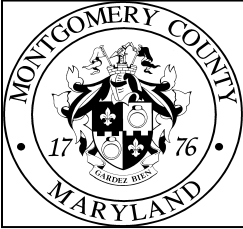
- D. The Department will consider a covered building to be in compliance with this Section if the covered building's performance metric is at or below the covered building's interim or final performance standard at the covered building's interim or final performance standard deadline as applicable.

18A.43A.01.11 Building Performance Improvement Plans

- A. If a covered building owner cannot reasonably meet one or more of the applicable interim or final performance standards due to economic infeasibility or other circumstances beyond the owner's control, the owner may submit a proposed building performance improvement plan to the Department.
- B. Circumstances outside the owner's control may include characteristics inherent to the building or the building's operations or may involve timing events in the building's equipment lifecycles, occupancy, or financing

18A.43A.01.12 Building Performance Improvement Plan Submission

- A. The owner must submit, on a form prescribed by the Director, a building performance improvement plan to the Department no later than 90 days before the deadline for submitting documentation of compliance with interim or final performance standards as applicable.
- B. A building performance improvement plan must satisfy all of the following the requirements:
1. The plan must include supporting documentation that demonstrates economic infeasibility or circumstances outside of the owner's control preventing the building from reaching the interim or final standard.
 2. The building performance improvement plan must include the results of an energy audit that was performed not more than four years earlier that follows the Level 2 Procedures defined in the most current version of ASHRAE Standard 211, or a comparable standard as approved by the Director, and contains engineering calculations of energy savings and a simple payback analysis of each potential energy improvement measure covering, at a minimum:
 - (a) operational improvements;
 - (b) low and no-cost energy improvement measures;
 - (c) retro-commissioning or recommissioning of existing equipment that is planned to remain in service past the final performance standard deadline; and



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- (d) replacement of existing equipment that is planned to be replaced before the final performance standard deadline.
- 3. The plan must contain an assessment that evaluates the initial cost and annual energy savings of potential energy upgrades that include:
 - (a) replacement options of existing equipment that is planned to remain in service past the final performance standard deadline;
 - (b) electrification feasibility for replacement of fossil fuel combustion equipment; and
 - (c) onsite renewable energy systems.
- 4. The plan must be completed by a recognized energy auditor that possesses an active credential in good standing of one of the following:
 - (a) a credentialing program approved by the U.S. Department of Energy Better Buildings Workforce Guidelines for Building Energy Auditors or Energy Managers;
 - (b) a Professional Engineer license; or
 - (c) another professional license or building energy training program credential recognized by the Director.
- C. The building performance improvement plan must contain a retrofit plan identifying the cost-effective energy improvement measures to be implemented in the building, the calendar year or qualifying event during which such energy improvement measures will be made, and the predicted annual energy savings resulting from implementing the energy improvement measures. The retrofit plan must also:
 - 1. address all building systems, including, where applicable, envelope, heating, cooling, ventilation, domestic hot water, lighting and electrical, elevators, motors, and pumps;
 - 2. if applicable, address building systems located in tenant spaces owned and maintained by the owner;
 - 3. detail energy improvement measures that include operational improvements, equipment retro-commissioning or recommissioning, and equipment replacement; and
 - 4. consist of a package of cost-effective energy improvement measures that maximize energy savings.



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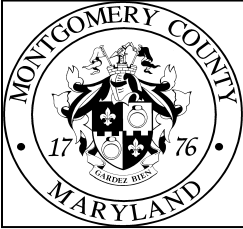
- D. The building performance improvement plan must include an executive summary in a form approved by the Director.
- E. The plan must acknowledge, on a form approved by the Director, that to demonstrate ongoing compliance, the building owner must fulfill the requirements contained in Section 18A.43A.01.13 and that an accepted building performance improvement plan does not guarantee compliance with State building energy performance standards.

18A.43A.01.13 Building Performance Improvement Plan Evaluation

- A. The Director must evaluate a building performance improvement plan based on the completeness of materials submitted and the resulting energy savings, taking into consideration the factors of economic infeasibility or circumstances beyond the owner’s control documented in the building performance improvement plan.
- B. The Director may require that additional systems and measures be assessed and included in the retrofit plan if determined to be cost effective or that additional documentation be provided. The building owner may then submit an updated building performance improvement plan that addresses the Director’s requirements for review.
- C. If, after consulting with the Building Performance Improvement Board, the Director approves the building performance improvement plan, the owner must record the building performance improvement plan as a covenant in the County land records and deliver a certified copy of the building performance improvement plan to the Department. In accordance with Section 40-10B(a)(3)(C) of the County Code, before a buyer signs a contract for the sale of a covered building the seller must provide the building performance improvement plan to the prospective buyer.
- D. If the Director does not approve the plan, the Director must provide the applicant with a written summary of the grounds for denying the building performance improvement plan and the covered building owner must either submit a new building performance improvement plan that satisfies the Director’s written conditions as described in subsection B or satisfy the applicable interim or final standard or be considered noncompliant.

18A.43A.01.14 Demonstration of Compliance – Building Performance Improvement Plans

- A. After the Director receives the certified copy of the recorded plan, the covered building will be deemed to be in compliance with the applicable interim or final performance standards as long as the owner fulfills the terms of the building performance improvement plan.



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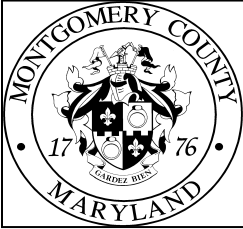
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- B. Building owners must demonstrate fulfillment of the terms of the building performance improvement plan by reporting annually on June 1, on a form prescribed by the Director, on energy improvement measures implemented and of the progress of the building improvement plan in the previous calendar year.
- C. Annual building performance improvement plan reporting must also provide information on correcting any noncompliance with or deviation from the plan.
- D. The owner must notify the Director if schedules or measures identified within the building performance improvement plan change. If there is a change, the Director may require revisions to the building performance improvement plan under the process described in Section 18A.43A.01.13.B and C.
- E. If the building owner has used a building performance improvement plan to comply with the interim performance standard, all energy improvement measures in the retrofit plan with a simple payback of 5 years or less must be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard.
- F. If, by the final performance standard deadline, the building's performance metric is below the final performance standard, or the building has fulfilled all of the requirements of the approved building performance improvement plan, the building owner may submit to the Department a request to terminate the covenant recorded under Section 18A-42B(d) of the County Code for review and approval. If approved by the Department, the County will release the covenant.
- G. If the covered building has not fulfilled the requirements of the approved building performance improvement plan by the final performance standard deadline, the owner must continue to submit annual building performance improvement plan reports as described in subsection B and C.

18A.43A.01.15 Extensions and Adjustments

In addition to the extensions and adjustments criteria listed in Section 18A-42C of the County Code, the Department may grant an extension to an interim or final performance standard for a covered building whose owner submits a request along with documentation at least 90 days before the deadline for submitting documentation of compliance with an interim or final performance standard as applicable if any of the following conditions apply:

- A. on average, less than one full-time equivalent employee occupied the building during the



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calendar year being reported;

- B. a change of building ownership where the new building owner cannot obtain necessary data to submit the energy use benchmarking report for the year culminating in the applicable interim or final performance standard deadline;
- C. affordable housing refinancing timelines or low-income housing tax credit availability timelines that do not align with interim or final performance standard deadlines as applicable; or
- D. a building is subject to historic preservation requirements.

18A.43A.01.16 Severability

If a court holds that part of this regulation is invalid, the invalidity does not affect other parts.

18A.43A.01.17 Effective Date

This regulation takes effect upon approval by the County Council.

Approved:

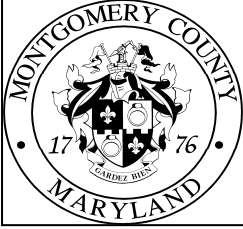
Marc Elrich
County Executive

Date

APPROVED AS TO FORM AND LEGALITY
OFFICE OF THE COUNTY ATTORNEY:

Assistant County Attorney

Date



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Montgomery County Regulation on:

BUILDING ENERGY PERFORMANCE STANDARDS

Issued by: County Executive

Regulation No. 17-23AM

COMCOR No. 18A.43A.01

Authority: Code Section 18A, Article 6

Council Review: Method (2) under Code Section 2A-15

Register Vol. 40 No. 11

Comment Deadline: 11/30/2023

Effective Date: _____

Sunset Date: None

Summary: This regulation implements Article 6, Building Energy Use Benchmarking and Performance Standards, of Chapter 18A, Environmental Sustainability.

Staff Contact: For further information or to obtain a copy of this regulation, contact:
Emily Curley at energy@montgomerycountymd.gov or 240-777-7707.

Address: Written comments on this regulation should be sent to:

energy@montgomerycountymd.gov

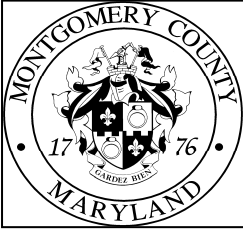
or

Emily Curley

Department of Environmental Protection

2425 Reedy Drive, 4th Floor

Wheaton, Maryland 20902



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COMCOR 18A.43A.01 Building Energy Performance Standards

18A.43A.01.01 General Provisions

Authority. In accordance with the authority conferred under Chapter 18A, Section 18A-43A, of the Montgomery County Code, 2014, as amended (hereinafter referred to as the “Code”), the County Executive hereby promulgates this regulation to implement County law pertaining to building energy performance standards for covered buildings.

18A.43A.01.02 Definitions

Definitions of the terms used in the regulation are provided in Section 18A-38A of the County Code. For the purpose of this regulation, the following additional words and phrases will have the meaning respectively ascribed to them in this regulation:

- A. *Area-weighted final performance standard* means a final performance standard that is calculated based on the floor area proportion of each building type [the three largest building types]-within a covered building, as reported ~~indetermined by~~ the benchmarking tool.
- ~~B. *Communications facility* includes any use defined under Section 3.5.2 of the Zoning Ordinance.~~
- ~~C. *Cost-effective energy improvement measures* means a package of energy improvement measures that are economically feasible.~~
- (1) circumstances in which the simple payback of the energy improvement measure package required to meet the interim or final standard is more than 25 years is less than or equal to ~~than~~ the effective useful life of the measure based on a broadly accepted industry standard approved by the Director, after considering all possible incentives and including avoided penalties for non-compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission; or
- (2) for specially designated buildings, circumstances in which the simple payback of the energy improvement measure package required to meet the interim or final standard is less than or equal to the effective useful life of the measure based on a broadly accepted industry standard approved by the Director or is ~~more than~~ 10 years or less, whichever is less, after considering all possible incentives and including avoided penalties for non-



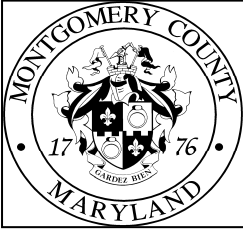
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compliance with Article 6 of Chapter 18A at the time of building performance improvement plan submission.

- ~~DC.~~ *Economic infeasibility* means circumstances in which the interim or final performance standard cannot be met by implementing a package of cost-effective energy improvement measures.:
- (1) ~~— circumstances in which the simple payback of the energy improvement measure package required to meet the interim or final standard is more than 25 years, after considering all possible incentives and including avoided penalties defined in program guidance at the time of building performance improvement plan submission; or~~
- (2) ~~— for under-resourced buildings, circumstances in which the simple payback of the energy improvement measure package required to meet the interim or final standard is more than 10 years, after considering all possible incentives and including avoided penalties defined in program guidance at the time of building performance improvement plan submission.~~
- ~~ED.~~ *Energy improvement measure* means any installation or modification of equipment, devices, or other materials intended to decrease energy consumption or improve energy performance of a covered building.
- ~~FE.~~ *Final performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its final performance standard as defined in Section 18A-42(d)(3) of the County Code.
- F. *Full-time equivalent employee* means the sum of employees or occupants occupying the building for 40-person hours per week/2080-person hours per year, exclusive of security guards, janitors, construction workers, landscapers, and other maintenance personnel.
- F. *kBtu* means thousand British thermal units.
- ~~G.~~ ~~*Industrial use* includes any use defined under Division 3.6 of the Zoning Ordinance.~~
- HG. *Interim performance standard deadline* means the end of the calendar year used to compare each covered building's performance metric to its interim performance standard as defined in Section 18A-42(d)(3) of the County Code.



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- H. *Local small business* means local small business as defined in Section 11B-65 of the County Code.
- ~~I.~~ ~~*Manufacturing* includes any use defined under Section 3.6.4 of the Zoning Ordinance.~~
- J. *Mixed-use building* means a building that contains two or more building types.
- K. *Normalized site energy use* means the site energy use by the covered building normalized for weather and other characteristics within the limits of the capabilities of the benchmarking tool and normalized for other factors as determined by the Department.
- L. *Onsite renewable energy system* means a renewable energy system physically located on the covered building or covered building site that produces ~~electricity~~renewable energy ~~for use in the building.~~
- ~~M.~~ ~~*Parking gross floor area* means the gross floor area of the completely enclosed and/or partially enclosed parking garages.~~
- N. *Renewable energy allowance* means all electricity generated from onsite renewable energy systems.
- O. *Renewable energy system* means ~~a system generating~~ electricity generated from a source that is not depleted when used.
- P. *Simple payback* means the estimated initial energy improvement measure cost divided by the energy improvement measure's calculated annual cost savings.
- Q. ~~*Specially designated building* means a qualified affordable housing building, a common-ownership community, a multifamily building subject to rent stabilization under Section 29-58 of the Code, a non-profit owned building, or a local small business owned building.~~
- ~~R.~~ ~~*Transportation* includes any use defined under Section 3.6.6 of the Zoning Ordinance.~~
- ~~S.~~ ~~*Under resourced building* means a qualified affordable housing building, a common-ownership community, a non-profit owned building, or a local small business owned building.~~



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~~S. — Utility infrastructure includes any terms or uses defined under Section 3.6.7 of the Zoning Ordinance.~~

~~18A.43A.01.03 Applicability~~

~~A. — This regulation does not apply to a covered building for which more than 50% of the total gross floor area is used for a public assembly in a building without walls; industrial uses where the majority of energy is consumed for manufacturing, the generation of electric power or district thermal energy to be consumed offsite, or for other process loads; or transportation, communications facilities, or utility infrastructure.~~

~~18A.43A.01.04-03 Establishment of Building Types~~

- ~~A. Building type categories are defined mean property types as defined by in the benchmarking tool ENERGY STAR Portfolio Manager definitions of property types.~~
- ~~B. If a building type is designated as “Other” in the benchmarking tool or if evidence suggests that the incorrect building type was entered into the benchmarking tool, the Department must will assign the most accurate building type. The Department must reassign a building type that the Department determines to be more accurate based on available data. The owner will have the opportunity to dispute the building type after the Director’s decision on the building type.~~
- ~~C. The Department has the final authority to assign a building type to a covered building.~~

~~18A.43A.01.05-04 Establishment of Final Performance Standards by Building Type~~

~~A. The following table sets forth the building types and the final performance standard for each building type. If additional building types are created or changed in the benchmarking tool, the Department must set performance targets-standards for those building types based on best available local and national data and update the building types and targets-standards on the Department’s Building Energy Performance Standards website.~~

| Building Type | Final Performance Standard (kBtu/ <u>sq-ft.</u>) <u>gross floor area</u> |
|-----------------------------------|--|
| Adult Education | 46 |
| <u>Ambulatory Surgical Center</u> | <u>63</u> |
| Aquarium | 145 |



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| Automobile/Vehicle Dealership | 61 |
| Bank Branch | 85 |
| Bar/Nightclub | 220 |
| Barracks | 38 |
| Bowling Alley | 84 |
| Casino | 41-75 |
| College/University | 57 |
| Convenience Store with Gas Station | 137 |
| Convenience Store without Gas Station | 137 |
| Convention Center | 40 |
| Courthouse | 47 |
| Data Center | 145-206 |
| Distribution Center | 19 |
| Enclosed Mall | 44 |
| Fast Food Restaurant | 220 |
| Financial Office | 58 |
| Fire Station | 47 |
| Fitness Center/Health Club/Gym | 59-69 |
| Food Sales | 137 |
| Food Service | 220 |
| Hospital (General Medical & Surgical) | 144-173 |
| Hotel | 60 |
| Ice/Curling Rink | 84 |
| Indoor Arena | 41-75 |
| K-12 School | 36-38 |
| Laboratory | 144-212 |
| Library | 55 |
| Lifestyle Center | 58-121 |
| Mailing Center/Post Office | 48 |
| <u>Manufacturing/Industrial Plant</u> | <u>95</u> |
| Medical Office | 70 |

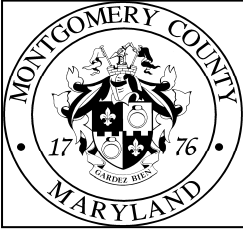


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| Mixed Use Property | Area-weighted final performance standard, see 18A.43A.01. 06-05 Mixed-Use Buildings |
|---|---|
| Movie Theater | 57 |
| Multifamily Housing | 37 |
| Museum | 29-40 |
| Non-Refrigerated Warehouse | 30 |
| Office | 55 |
| Other - Education | 45 |
| Other - Entertainment/Public Assembly | 48 |
| Other - Lodging/Residential | 37 |
| Other - Office | 55 |
| Other - Other | 54 |
| Other - Public Service | 61 |
| Other - Recreation | 78 |
| Other - Restaurant/Bar | 219 |
| Other - Retail/Mall | 81 |
| Other - Services | 51 |
| Other - Specialty Hospital | 144-165 |
| Other - Stadium | 23 |
| Other - Technology/Science | 183 |
| Outpatient Rehabilitation/Physical Therapy | 46-63 |
| Performing Arts | 57-90 |
| Personal Services (Health/Beauty, Dry Cleaning, etc.) | 47 |
| Police Station | 54 |
| Pre-school/Daycare | 48 |
| Prison/Incarceration | 38 |
| Race Track | 41-75 |
| Refrigerated Warehouse | 38 |
| Repair Services (Vehicle, Shoe, Locksmith, etc.) | 52 |
| Residence Hall/Dormitory | 38 |



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| Residential Care Facility | <u>50-69</u> |
| Restaurant | 219 |
| Retail Store | 48 |
| Roller Rink | 84 |
| Self-Storage Facility | 7 |
| Senior Living Community | 50 |
| Social/Meeting Hall | 39 |
| Stadium (Closed) | 23 |
| Stadium (Open) | 21 |
| Strip Mall | 58 |
| Supermarket/Grocery Store | 137 |
| Transportation Terminal/Station | 56 |
| Urgent Care/Clinic/Other Outpatient | <u>46-66</u> |
| Veterinary Office | <u>46-63</u> |
| Vocational School | 46 |
| Wholesale Club/Supercenter | 48 |
| Worship Facility | 32 |
| Zoo | <u>41-75</u> |

B. If a covered building consists of one building type, then its final performance standard is the final performance standard for the building type in which it belongs.

18A.43A.01.06-05 Establishment of Final Performance Standards for Mixed-Use Covered Buildings

A. Mixed-use covered buildings have an area-weighted final performance standard based on the percentage of gross floor area (GFA) assigned to each building type.

B. ~~If a covered building consists of more than one building type, the~~ The Department will calculate an area-weighted final performance standard for mixed-use covered buildings that averages based on the gross floor area of each property type reported final performance standards of each building type as calculated by the benchmarking tool, excluding parking, and each building type's final performance standard,. ~~The~~ using the following formula ~~which illustrates, for example, illustrates this calculation a mixed-use building that contains three building types:~~



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$$EUI_{AW} = \frac{[(GFA_1 \times EUI_1) + (GFA_2 \times EUI_2) + \dots + (GFA_n \times EUI_n)]}{GFA_S}$$

Where:

EUI_{AW} is the area-weighted final performance standard of the covered building

n = The total number of building types within the covered building

GFA_S is the sum of the gross floor area of all building types in the building

GFA₁ is the gross floor area of the largest building type within the covered building

GFA₂ is the gross floor area of the second largest building type within the covered building

GFA_n is the gross floor area of the nth largest building type within the covered building

EUI₁ is the final performance standard for the building type corresponding to GFA₁

EUI₂ is the final performance standard for the building type corresponding to GFA₂

EUI_n is the final performance standard for the building type corresponding to GFA_n¹

$EUI_{AW} = [(GFA_A / GFA_S) \times EUI_A] + [(GFA_B / GFA_S) \times EUI_B] + [(GFA_C / GFA_S) \times EUI_C]$

Key:—

EUI_{AW} is the area-weighted final site EUI standard

GFA_A is the gross floor area of the largest building type within the covered building

GFA_B is the gross floor area of the second largest building type within the covered building

GFA_C is the gross floor area of the third largest building type within the covered building

GFA_S is the sum of the gross floor area of a GFA_A, GFA_B, and GFA_C

EUI_A is the final performance standard for the building type corresponding to GFA_A

EUI_B is the final performance standard for the building type corresponding to GFA_B

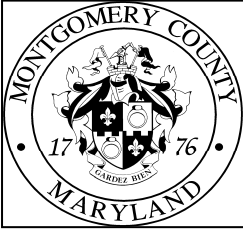
EUI_C is the final performance standard for the building type corresponding to GFA_C²

C. — Buildings with completely enclosed and/or partially enclosed parking are provided a parking adjustment of 6 kBtu per square foot of parking gross floor area using the following formula:

D. — For covered buildings that consist of one building type:

¹ Although final performance standards are established per building type in this regulation, the Department is not able to provide a unique area-weighted final performance standard for a mixed-use building until the building owner submits the first energy use benchmarking report for the mixed-use building.

² Although final performance standards are established per building type in this regulation, the Department may not be able to provide a unique area-weighted final performance standard for a mixed-use building until the building owner submits the first benchmarking report for the mixed-use building.



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~~E. — Parking adjusted final performance standard = [(Final performance standard x building GFA) + (6 kBtu per GFA x parking GFA)] / building GFA~~

~~F. — For mixed-use buildings that have an area-weighted final performance standard:~~

~~G. — Parking adjusted final performance standard = [(Area weighted final performance standard x building GFA) + (6 kBtu per GFA x parking GFA)] / building GFA~~

C. The Department provides covered buildings with heated swimming pools are provided with a kBtu pool adjustment based on current or successor EPA Portfolio Manager benchmarking tool estimates of heated swimming pool site energy use Technical Reference: Swimming Pools and the ENERGY STAR Score in the United States and Canada using the following formula:

For covered buildings that consist of one building type:

$$\text{Pool adjusted final performance standard} = \frac{[(\text{Final performance standard} \times \text{building GFA}) + \text{pool kBtu adjustment}]}{\text{building GFA}}$$

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

For mixed-use covered buildings that have an area-weighted final performance standard:

$$\text{Pool-adjusted final performance standard} = \frac{[(\text{Area weighted final performance standard} \times \text{Building GFA}) + (\text{pool kBtu adjustment})]}{\text{Building GFA}}$$

~~Pool adjusted final performance standard = [(Area weighted final performance standard x building GFA) + pool kBtu adjustment] / building GFA~~

~~H. — Buildings with completely enclosed and/or partially enclosed parking and heated swimming pools are provided both adjustments according to the following formula:~~

~~I. — For covered buildings that consist of one building type:~~

~~J. — Adjusted final performance standard = [(Final performance standard x building GFA) + (6 kBtu per GFA x parking GFA) + pool kBtu adjustment] / building GFA~~

~~K. — For mixed-use buildings that have an area-weighted final performance standard:~~

~~L. — Adjusted final performance standard = [(Area weighted final performance standard x building GFA) + (6 kBtu per GFA x parking GFA) + pool kBtu adjustment] / building GFA~~



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D. For any additional adjustments to final performance standards for covered buildings, the Department will follow current or successor benchmarking tool guidance and update the Department’s Building Energy Performance Standards website.

M.E. The Department calculates ~~f~~Final performance standards ~~are calculated~~ based on the covered building’s most recent ~~benchmarking submission~~annual energy use benchmarking report. If a building’s type changes from the prior benchmarking ~~submission~~report, then the Department will provide the owner with updated ~~targets-standards~~ to align to the updated square footage breakdown ~~following annual energy use benchmarking~~.

18A.43A.01.06 Determination of the Final Performance Standard for a Covered Building

- A. Except as described in subsection C, if a covered building consists of one building type, then its final performance standard is the final performance standard for the building type in which it belongs as described in Section 18A.43A.01.04.
- B. Except as described in subsection C, if a covered building is made up of a mix of building types, then its final performance standard is determined as described in Section 18A.43A.01.05.
- C. A covered building’s final performance standard will not require a reduction of greater than 30% from the covered building’s performance baseline.

18A.43A.01.07 Determination of the Interim Performance Standard for a Covered Building

- A. The Department calculates a covered building’s interim performance standard as halfway between the covered building’s performance baseline and its final performance standard.
- B. If a covered building’s performance baseline is already below its final performance standard, the covered building’s interim standard is equal to its final performance standard.

18A.43A.01.08 Department Factors for Normalized Site Energy Use

- A. The Department will provide covered buildings with parking that is not sub-metered and included as part of the building energy use benchmarking report with a parking adjustment to the building’s normalized site energy use by deducting current or successor benchmarking tool estimates of parking site energy use. The Department calculates parking adjusted normalized site energy use as normalized site energy use minus the benchmarking tool estimates of parking site energy use.
- B. The Department will provide buildings with electric vehicle (EV) charging stations that are not



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sub-metered and included as part of the building energy use benchmarking report with an electric vehicle charging station adjustment to the building's normalized site energy use by deducting current or successor benchmarking tool estimates of electric vehicle charging station energy use. The Department calculates EV charging station adjusted normalized site energy as normalized site energy use minus benchmarking tool estimates of electric vehicle charging station energy use.:

- C. For any additional adjustments to normalized site energy use, the Department will follow current or successor benchmarking tool guidance and update the Department's Building Energy Performance Standards website.
- D. The Department will calculate normalized site energy use annually based on the covered building's energy use benchmarking report.

18A.43A.01.09 Renewable Energy Allowance

- A. The renewable energy allowance will credit all electricity generated from onsite renewable energy systems, whether used onsite or exported back to the grid.
- B. Owners of covered buildings must follow the guidance of the benchmarking tool to report renewable energy produced by the onsite renewable energy system. To receive a renewable energy allowance, inputs must include:
 - 1. grid energy sent to the building;
 - 2. total renewable energy generated on site;
 - 3. renewable energy used on site; and
 - 4. any renewable energy generated on site and exported back to the grid.
- C. Entering net-grid delivered electricity alone is not sufficient for energy benchmarking or to calculate a renewable energy allowance.

18A.43A.01.0107 Demonstration of Compliance – Interim and Final Performance Standards

- A. Covered buildings must demonstrate compliance with the interim and final performance standards by reporting building energy use benchmarking data to the Department using the benchmarking tool.



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B. The Department ~~must will~~ determine compliance by comparing the covered building's performance metric ~~against~~ to the interim or final performance standard for each covered building.

C. ~~The Each covered building's~~ performance metric ~~is normalized net site EUI and~~ accounts for the renewable energy allowance, using the following formula:

$$EUI_{NPMN} = \frac{(EU_N - REA)}{\text{Building GFA}} \quad (\text{EU}_N - REA) / \text{GFA}$$

Key Where:

~~EUI_{NPMN}~~ is the ~~normalized net site EUI~~ performance metric, expressed in kBtu per square foot

~~EU_N~~ is normalized site energy use, expressed in kBtu, including any normalization as described in Section 18A.43A.01.08

~~REA~~ is the renewable energy allowance, expressed in kBtu as described in Section 18A.43A.01.09

Building GFA is the covered building's gross floor area

D. The Department will consider a covered building to be in compliance with this Section if the covered building's performance metric is at or below the covered building's interim or final performance standard at the covered building's interim or final performance standard deadline as applicable.

18A.43A.01.08 Renewable Energy Allowance

~~1) The renewable energy allowance will credit all electricity generated from onsite renewable energy systems, whether used onsite or exported back to the grid.~~

~~2) Owners of covered buildings must follow the guidance of the benchmarking tool to report renewable energy. To receive a renewable energy allowance, inputs must include:~~

~~1. grid energy sent to the building;~~

~~2. total renewable energy generated on site;~~

~~3. renewable energy used on site; and~~

~~4. any renewable energy generated on site and exported back to the grid.~~

~~3) Entering net grid delivered electricity alone is not sufficient for energy benchmarking or to calculate a renewable energy allowance.~~

18A.43A.01.09-11 Building Performance Improvement Plans



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- A. If a covered building owner cannot reasonably meet one or more of the applicable interim or final performance standards due to economic infeasibility or other circumstances beyond the owner’s control, the owner may submit a proposed building performance improvement plan to the Department.
- B. Circumstances outside the owner’s control may include characteristics inherent to the building or the building’s operations or may involve timing events in the building’s equipment lifecycles, occupancy, or financing ~~cycles~~.

18A.43A.01.120 Building Performance Improvement Plan Submission

- A. The owner must submit, on a form prescribed by the Director, a building performance improvement plan to the Department no later than 90 days before the deadline for submitting documentation of compliance with interim or final performance standards as applicable in a form prescribed by the Director.
- B. A building performance improvement plan must satisfy all of the following the requirements:
 1. The plan must include supporting documentation that demonstrates economic infeasibility or circumstances outside of the owner’s control preventing the building from reaching the interim or final standard. _____
 2. The building performance improvement plan must include the results of an energy audit that was performed not more than four years earlier that follows the Level 2 Procedures defined in the most current version of ASHRAE Standard 211, or a comparable standard as approved by the Director, and contains engineering calculations of energy savings and a simple payback analysis of each potential energy improvement measure covering, at a minimum:
 - (a) operational improvements;
 - (b) low and no-cost energy improvement measures;
 - (c) retro-commissioning or recommissioning of existing equipment that is planned to remain in service past the final performance standard date deadline; and
 - (d) replacement of existing equipment that is planned to be replaced before the final performance standard date deadline.
 3. The plan must contain an assessment that evaluates the initial cost and annual energy savings of potential energy upgrades that include:



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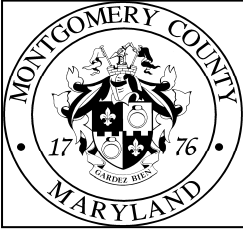
- (a) replacement options of existing equipment that is planned to remain in service past the final performance standard dated deadline;
 - (b) electrification feasibility for replacement of fossil fuel combustion equipment; and
 - (c) onsite renewable energy systems.
4. The plan must be completed by a recognized energy auditor that possesses an active credential in good standing of one of the following:
- (a) a credentialing program approved by the U.S. Department of Energy Better Buildings Workforce Guidelines for Building Energy Auditors or Energy Managers;
 - (b) a Professional Engineer license; or
 - (c) another professional license or building energy training program credential recognized by the Director.

B-C. The building performance improvement plan must contain a retrofit plan identifying the cost-effective energy improvement measures to be implemented in the building, the calendar year or qualifying event during which such energy improvement measures will be made, and the predicted annual energy savings resulting from implementing the energy improvement measures. The retrofit plan must also:

- 1. address all building systems, including, where applicable, envelope, heating, cooling, ventilation, domestic hot water, lighting and electrical, elevators, motors, and pumps;
- 2. if applicable, address building systems located in tenant spaces owned and maintained by the owner;
- 3. detail energy improvement measures that include operational improvements, equipment retro-commissioning or recommissioning, and equipment replacement; and
- 4. consist of a package of cost-effective energy improvement measures that maximize energy savings.

D. The building performance improvement plan must include an executive summary in a form approved by the Director.

E-E. The plan must acknowledge, on a form approved by the Director, that to demonstrate ongoing compliance, the building owner must fulfill the requirements outlined contained in Section



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18A.43A.01.13 and that ~~an~~ accepted building performance improvement plan does not guarantee compliance with ~~County or~~ State building energy performance standards.

18A.43A.01.13 ~~1~~ Building Performance Improvement Plan Evaluation

- A. The Director must evaluate a building performance improvement plan based on the completeness of materials submitted and the resulting energy savings, taking into consideration the factors of economic infeasibility or circumstances beyond the owner’s control documented in the building performance improvement plan.
- B. The Director may require that additional systems and measures be assessed and included in the retrofit plan if determined to be cost effective or that; additional documentation be provided, ~~or that additional energy performance improvements be included in the plan.~~ The building owner may then submit an updated building performance improvement plan that addresses the Director’s requirements for review.
- C. If, after consulting with the Building Performance Improvement Board, the Director approves the building performance improvement plan, the owner must record the building performance improvement plan as a covenant in the County land records and deliver a certified copy of the ~~recorded building performance improvement~~ plan to the Department. PerAs required underIn accordance with Section 40-10B(a)-(3)3(C) of the County Code, before a buyer signs a contract for the sale of a covered building the seller must provide the building performance improvement plan to the prospective buyer.
- D. If the Director does not approve the plan, the Director must provide the applicant with a written summary of the grounds for denying the building performance improvement plan and the covered building owner must either submit a new building performance improvement plan that satisfies the Director’s written conditions as described in 18A.43A.01.13-subsection B or satisfy the applicable interim or final standard or be considered noncompliant.

18A.43A.01.14 ~~2~~ Demonstration of Compliance – Building Performance Improvement Plans

- A. After the Director receives the certified copy of the recorded plan, the covered building will be deemed to be in compliance with the applicable interim or final performance standards as long as the owner fulfills the terms of the building performance improvement plan ~~within the timeline specified in the plan.~~
- B. Building owners must demonstrate fulfillment of the terms of the building performance improvement plan by reporting annually on June 1, on a form prescribed by the Director, on



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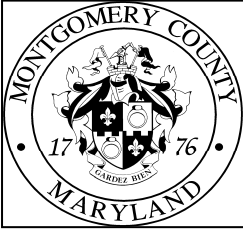
energy improvement measures implemented and of the progress of the building improvement plan in the previous calendar year ~~in a form approved by the Director.~~

- C. Annual building performance improvement plan reporting must also provide information on correcting any noncompliance with or deviation from the plan.
- ~~C.D.~~ The owner must notify the Director if schedules or measures identified within the building performance improvement plan change. Should this happen If there is a change, the Director may require revisions to the building performance improvement plan, ~~which then follows under the process outlined~~ described in Section -18A.43A.01.13.B and C.
- E. If the building owner has used a building performance improvement plan to comply with the interim performance standard, all energy improvement measures in the retrofit plan with a simple payback of 5 years or less must be implemented before the Department will approve a subsequent building performance improvement plan for compliance with the final standard.
- ~~D.F.~~ If, by the final performance ~~target standard date~~ deadline, the building's performance metric ~~EUI~~ is below the final performance standard ~~EUI target~~, or the building has fulfilled all of the requirements of the approved building performance improvement plan, the building owner may submit to the Department a request to terminate the covenant recorded under Section 18A-42B(d) of the County Code for review and approval. If approved by the Department, the County will release the covenant.
- ~~E.G.~~ If the covered building has not fulfilled the requirements of the approved building performance improvement plan by the final performance ~~target standard date~~ deadline, the owner must continue to submit annual building performance improvement plan reports as described in subsection B and C.

18A.43A.01.15~~3~~ Extensions and Adjustments

In addition to the extensions and adjustments criteria ~~outlined~~ listed in Section 18A-42C of the County Code, the Department may grant an extension to an interim or final performance standard for a covered building whose owner submits a request along with documentation at least 90 days before the deadline for submitting documentation of compliance with an interim or final performance standard as applicable if any of the following conditions apply:

- A. on average, less than one full-time equivalent employee occupied the building during the calendar year being reported;



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- B. a change of building ownership where the new building owner cannot obtain necessary data to submit the energy use benchmarking data report for the year culminating in the applicable interim or final performance standard year deadline;
- C. affordable housing refinancing timelines or low-income housing tax credit availability timelines that do not align with interim or final performance standard dates deadlines as applicable; or
- D. a building is subject to historic preservation requirements.

18A.43A.01.~~14~~16 Severability

If a court holds that part of this regulation is invalid, the invalidity does not affect other parts.

18A.43A.01.~~15~~17 Effective Date

This regulation takes effect upon approval by the County Council.

Approved:

Marc Elrich
County Executive

Date

APPROVED AS TO FORM AND LEGALITY
OFFICE OF THE COUNTY ATTORNEY:

Assistant County Attorney

Date