



Building Energy Performance Standards (BEPS) and Building Energy Transition Implementation Task Force

Education, Energy, and Environment Committee
Environment and Transportation Committee
January 25, 2024



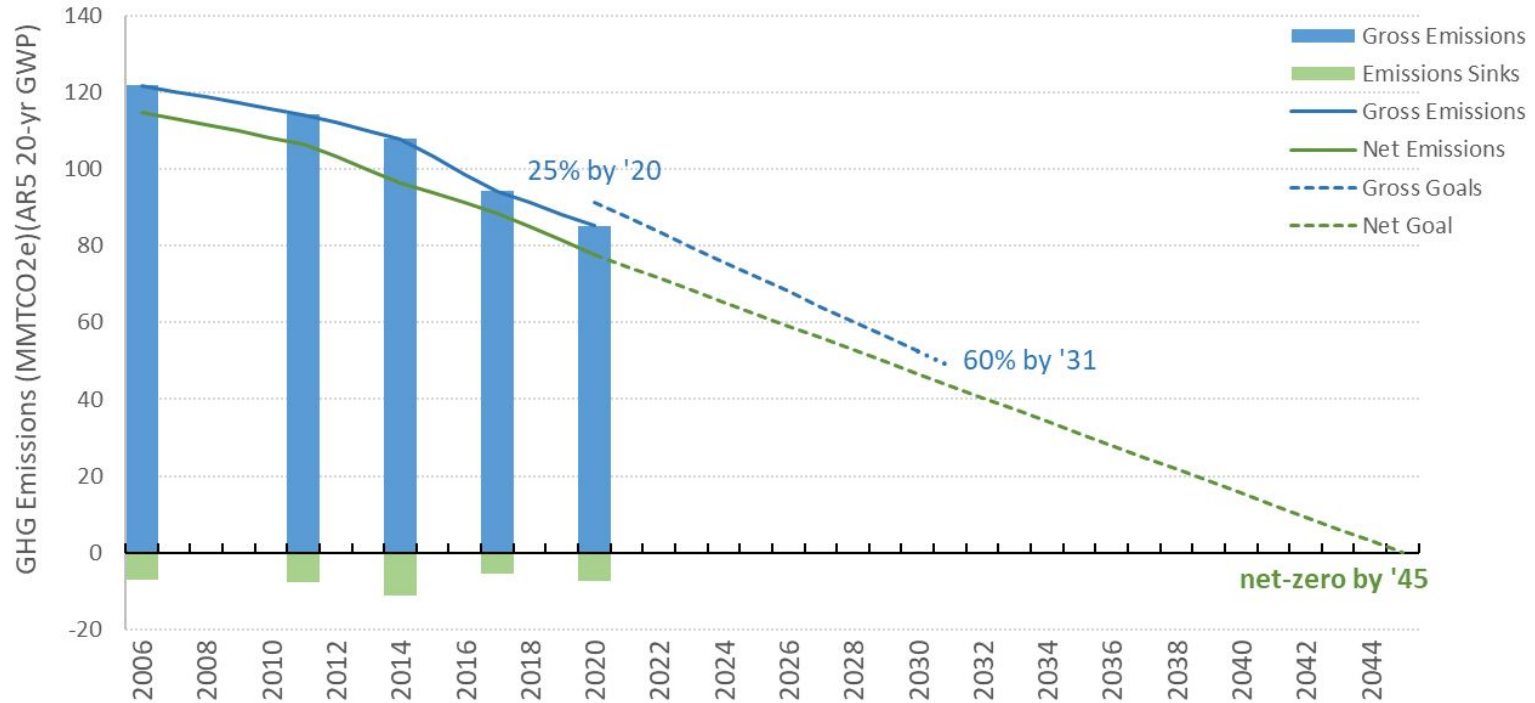
Background

- Building Energy Performance Standards (BEPS) and Building Performance Standards (BPS) are emerging in cities, counties, and states across the nation
- The typical goal of a BEPS/BPS is to guide large buildings to higher levels of energy efficiency and/or lower levels of greenhouse gas emissions
- The Climate Solutions Now Act of 2022 requires the Maryland Department of the Environment (MDE) to develop BEPS regulations that cover most large buildings in the state. MDE proposed BEPS regulations in December of 2023.
- Decarbonizing large buildings is an important step toward achieving Maryland's greenhouse gas reduction goals



Maryland's Greenhouse Gas Reduction Goals

Maryland GHG Emissions & Goals





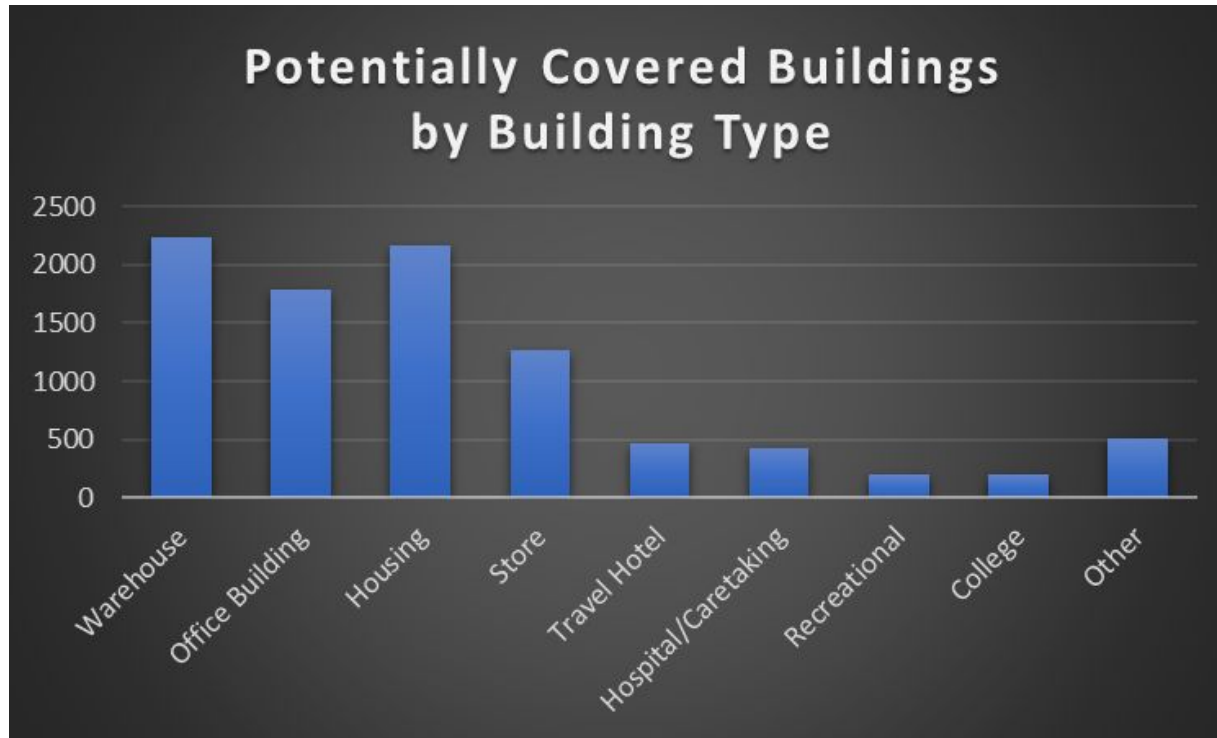
Maryland BEPS Covered Buildings

- A covered building is a building that has a gross floor area of 35,000 square feet or more, excluding the parking garage
- Exempt buildings:
 - Buildings smaller than 35,000 sq ft;
 - Historic buildings;
 - Public or nonpublic elementary and secondary school buildings;
 - Manufacturing buildings; and
 - Agricultural buildings.



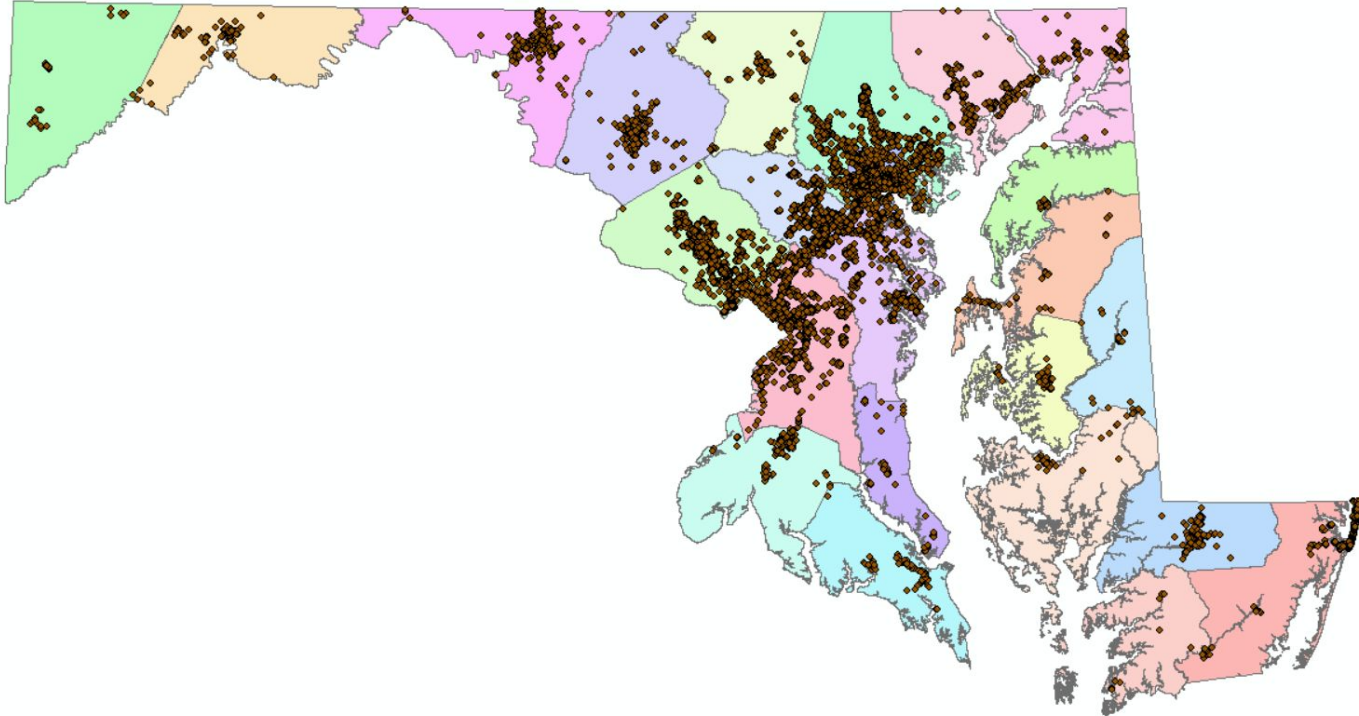


Distribution of Covered Building Types





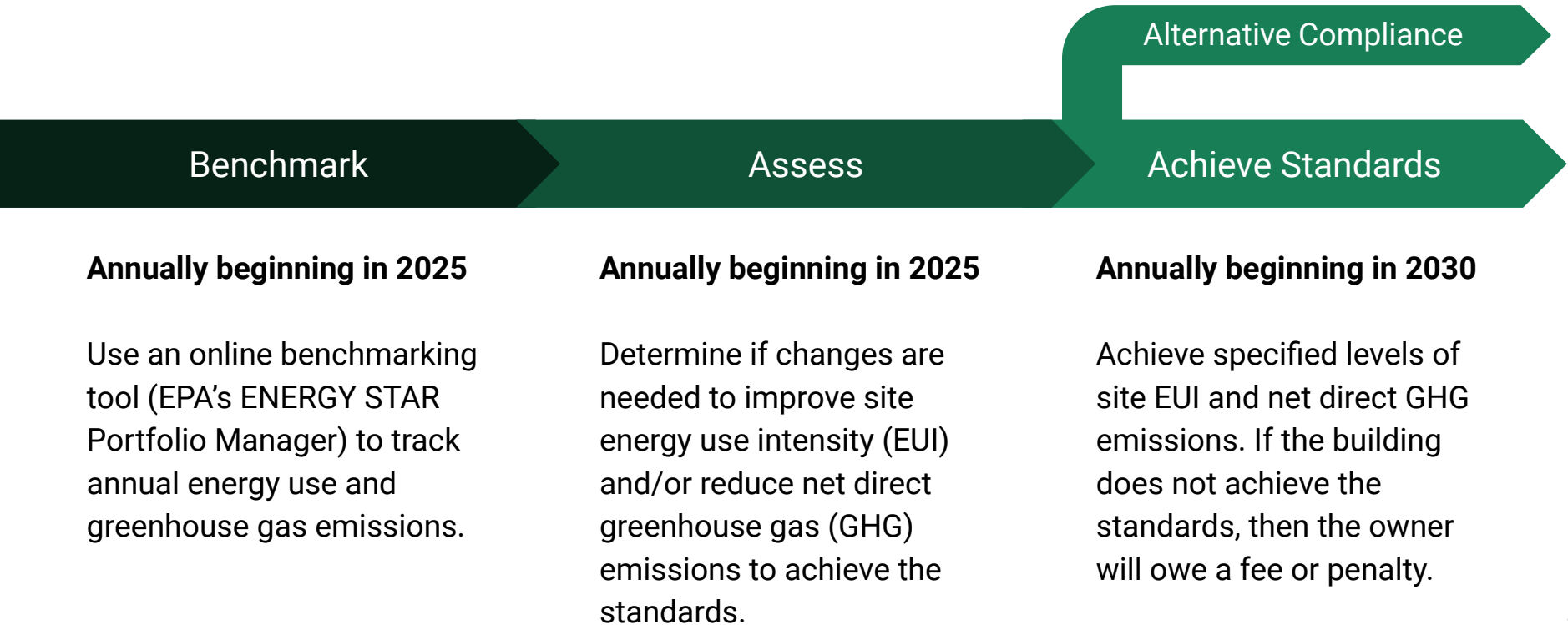
Location of Covered Buildings



Preliminary analysis



BEPS Regulation Deadlines





BEPS Performance Standards

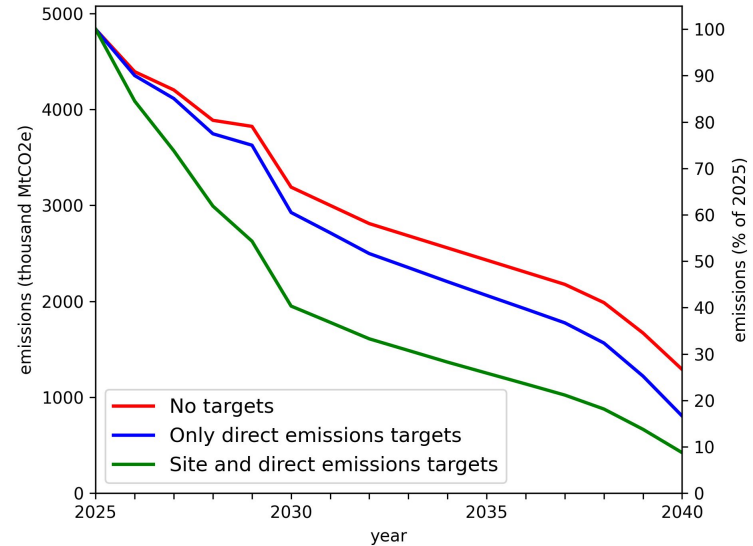
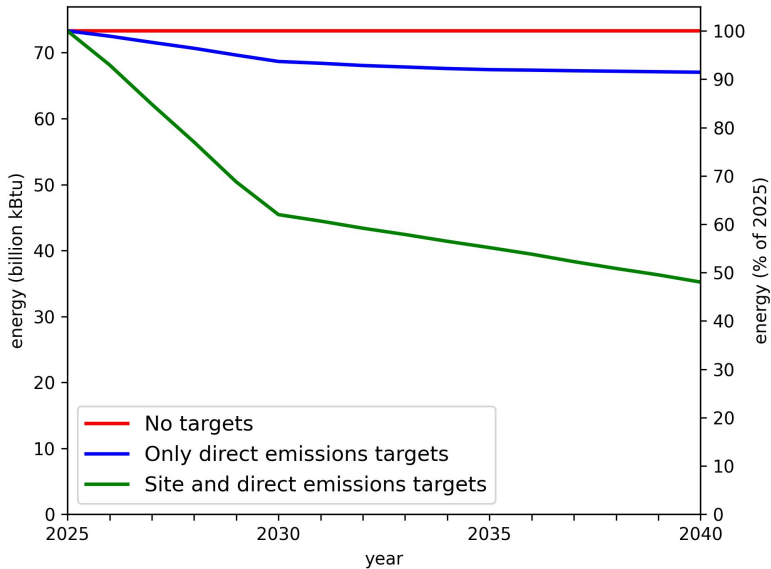
The Maryland BEPS has two types of performance standards:

- Net Direct Greenhouse Gas Emissions Standards (“emissions standards”):
 - 20% reduction by 2030
 - 60% reduction by 2035
 - Net-zero by 2040
- Site Energy Use Intensity Standards (“site EUI standards”):
 - Achieve progress by 2030 and 2035 on a straight line trajectory between the covered building’s baseline (2025) performance and the final standard
 - Achieve the final standard by 2040

Approximately 33% of covered buildings already achieve the final emissions standards or site EUI standards that are set for 2040. Others will need to make improvements.

BEPS Energy and Emissions Reductions

- Inclusion of EUI standards enables GHG-reducing electrification by managing electricity demand and preventing peak demand increase.



Maryland BEPS Cost/Benefit Analysis

2025 – 2050*

- ◆ Total Building Area Covered: ~990MM SqFt
- ◆ Baseline Energy Costs: \$68.9B
- ◆ BAU System Replacement Costs: \$0.9B
- ◆ Total Efficiency Investments: \$8.8B
- ◆ Total Electrification Investments: \$6.4B
- ◆ Total Energy Cost Savings from Baseline: \$22.3B
- ◆ **Net Cost Savings of All Investments: \$4.5B**

*All metrics shown aggregated over 2025-2050 time period
Does not include any energy efficiency/electrification incentives



BEPS Status, Support, and Funding

Key Dates:

- **December 15, 2023**- MDE proposed the BEPS regulations
- **January 18, 2024**- MDE held a public hearing on the BEPS regulations and accepted written comments
- **May 2024**- MDE is currently reviewing comments on the BEPS regulations and working to finalize them by May of 2024

Support/Funding:

- **MDE Technical Support:** MDE published a BEPS technical support document and MDE will conduct outreach to covered building owners to provide training and support
- **MDE is working with Governor Moore's Federal Investment Team,** a centralized structure for pursuing federal investment opportunities and collaboration between agencies.
- [Climate Pollution Reduction Grant](#)/**IRA Funding** will consider decarbonization priorities.



Building Energy Transition Implementation Task Force



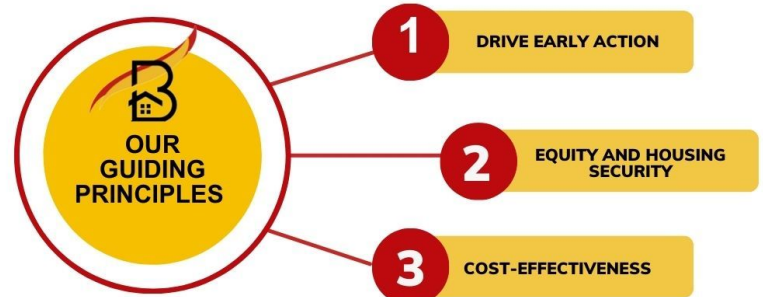
- The purpose of the [Building Energy Transition Implementation Task Force](#) (“Buildings Task Force”) was established by the Climate Solutions Now Act of 2022, including:
 - Study and make recommendations regarding the development of complementary programs, policies, and incentives aimed at reducing GHG emissions from the building sector in accordance with the Act;
 - Make recommendations on targeting incentives to electrification projects that would not otherwise result in strong returns on investment for building owners; and
 - Develop a plan for funding the retrofit of covered buildings to comply with building emissions standards.
- Membership included appointments by the Governor, General Assembly, and the Public Service Commission, Secretaries, Directors, or designees of several state government agencies, and other actors representing their area of expertise such as architects, engineers, developers, and organized labor.



Buildings Task Force (cont.)



- Co-chaired by MDE Secretary and Maryland Energy Administration (MEA) Director to recommend programs, policies, and incentives in the buildings sector, including BEPS.
- Held 19 public meetings that began on June 29, 2023 and ended on January 8, 2024.
- Final report was originally due December 1, 2023, but was delayed due to increased need for collaboration and discussion. The report will be submitted to the General Assembly by the end of January.





Buildings Task Force Recommendations



- **Workforce Development:** Subsidize and expand pre-apprenticeship and apprenticeship programs to build a strong and equitable decarbonization workforce.
- **One Stop Shop to Support Limited Income Housing:** Fund the Maryland Department of Housing and Community Development (DHCD), to provide a one-stop shop service that provides tailored support and funding to all types of affordable housing through a whole-home approach, and would consult with the [Green and Healthy Task Force](#).
- **Grow the Clean Energy Transition Hub:** Ensure Maryland Energy Administration (MEA) has a well staffed and funded [Hub](#) to provide education, BEPS support, and connection for all building owners in the state.
- **State Funding for Building Sector Transition:** Create new statewide revenue mechanisms to fund these recommendations, including mechanisms to price greenhouse gas emissions from fossil fuel sources.
- **Provide Medicaid Funding for Building Improvements:** Examine potential Medicaid funding interventions to improve indoor air quality through installation of household non-fossil fuel appliances.



Buildings Task Force Recommendations

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- **Financing Building Energy Transitions:** Expand and support financing options for building owners through programs such as [on-bill repayment \(with inclusion of consumer protections\)](#), state interest rate buydowns for Commercial Property Assessed Clean Energy (C-PACE), and credit enhancements such as loan loss reserves.
- **End Investment in New Fossil Fuel Equipment and Infrastructure:** Redirect existing and significant funding and incentives from fossil fuels, including [STRIDE](#) and EmPOWER, towards electrification.
- **Tax Incentives:** Investigate and analyze new tax incentives to facilitate decarbonization projects and project components that are harder to finance.
- **Fund Electrification Projects for Low and Moderate Income Residents:** State should cover project costs for these residents in recognition of limited ability to pay.
- **Support BEPS Compliance:** Create early-adopter incentives to support compliance with the Building Energy Performance Standards (BEPS), similar to Washington State Department of Commerce [Early Adopter Incentive Program](#).



Resources

- MDE BEPS website: <https://mde.maryland.gov/programs/air/ClimateChange/Pages/BEPS.aspx>
- MDE BEPS email: BEPS.MDE@maryland.gov
- MEA Buildings Hub website: <https://energy.maryland.gov/Pages/MDCleanBuildingsHub.aspx>
- MEA Buildings Hub email: building.decarbonization@maryland.gov