

GORDON FEINBLATTILC ATTORNEYS AT LAW

HOW NEW EMISSIONS AND CLIMATE CHANGE REGULATIONS WILL AFFECT THE WAY YOU DO BUSINESS

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AGENDA

- GREENHOUSE GAS REDUCTION TARGETS
- NEW BUILDING CODES
- ENERGY PERFORMANCE STANDARDS
- FUTURE PROVISIONS
- QUESTIONS

EVOLVING STANDARDS

REDUCTIONS COMPARED TO 2006 BASELINE

2009 GGRA

25% REDUCTION BY 2020

2016 AMEND.

25% REDUCTION
BY 2020 AND
40% BY 2030

GOAL

OF **80-95**%

BY 2050

2020 MCCC

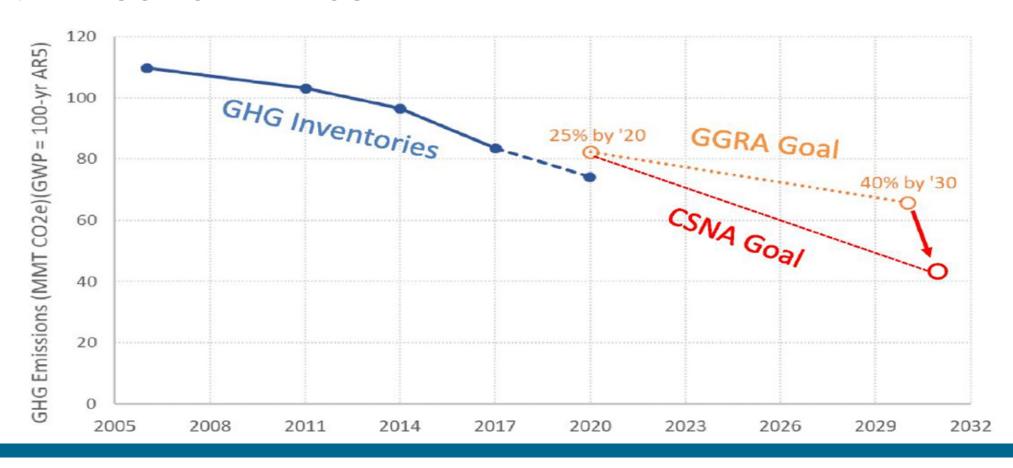
25% REDUCTION BY 2020 AND 50% BY 2030 AND NET 100% BY 2045

2022 CSNA

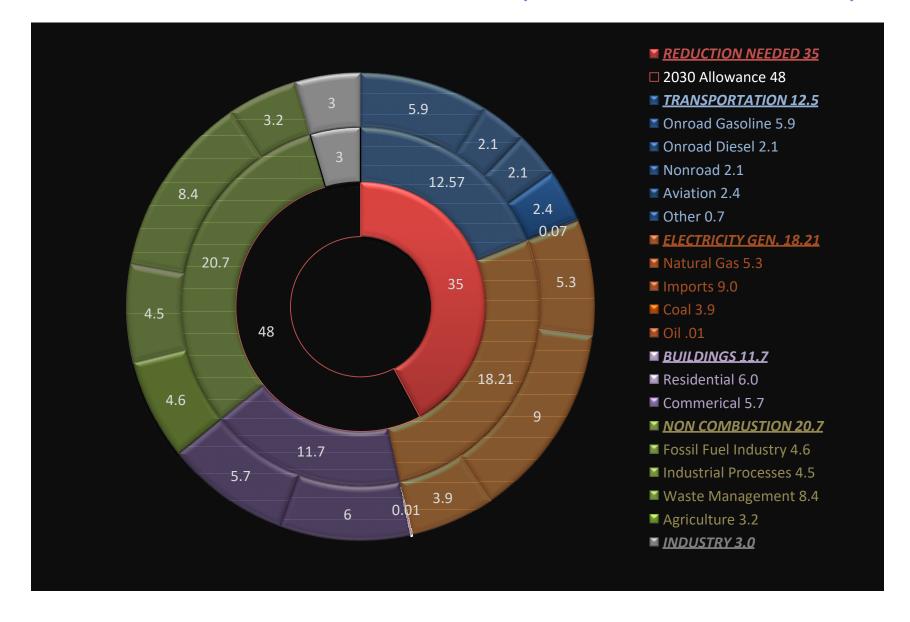
60% BY 2031 AND NET 100% BY 2045

CLIMATE SOLUTIONS NOW ACT

60% REDUCTION BY 2031



2020 INVENTORY AND REDUCTIONS NEEDED BY 2030 (APPROXIMATE MILLION METRIC TONS)

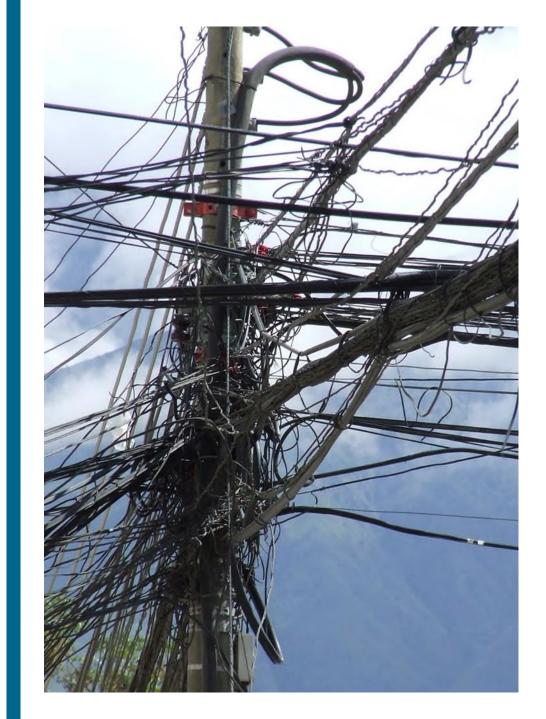


CLIMATE SOLUTIONS NOW ACT OF 2022

ELECTRIFY EVERYTHING

The bill sets out an overall plan that can be summarized simply:

- Substitute electricity for fossil fuel consumption.
- Replace fossil fuel electric generation with "clean" energy (solar, wind, nuclear, hydro).
- Meet a very difficult transition milestone in eight years (by 2031).
- Eliminate (or offset) *all* fossil fuel use and, instead, generate all energy by renewable electricity within 33 years (by 2045).



NEW BUILDING CODES PART I

MANDATORY ADOPTION OF INTERNATIONAL CODE



- The Department must adopt the International Building Code including the International Energy Conservation Code – as the "Maryland Building Performance Standards."
- The new Code must be adopted by January 1, 2023.
- Any new updates of the International Building Code must be adopted in Maryland within 18 months unless:
 - The Department decides to adopt changes to "enhance energy conservation and efficiency" or
 - The Department allows an "innovative" method that provides an equivalent performance.
- The Department may adopt energy conservation requirements that are *more* stringent that the International Energy Conservation Code but not less stringent.

NEW BUILDING CODES PART II

BUILDING CODE ADMINSTRATION REPORT



- The Building Code Administration must develop recommendations for "an all-electric building code" for the state during 2023 (interim by January, final by December).
- The recommendations may include "appropriate exemptions" for
 - "particular industries, including life sciences"
 - "local conditions" and
 - "sectors vital to natural security as identified by the US Department of Homeland Security."
- The recommendations are for the "fastest and most cost-efficient methods for decarbonizing buildings"
- Must include a report to the Public Service Commission on the projected electric loading impacts; and consider the use of renewable, low-carbon biofuels.

CAN THE GRID HANDLE THE LOAD?

PSC PLANNING STUDY



- Maryland has always been a "summer peak" state. Greatest electricity demand was during summer months. Moving from heating oil, natural gas and propane to electric will make Maryland a "winter peak" state.
- Eliminating fossil fuels will increase the load as energy is transferred by electric lines instead of pipelines and delivery trucks.
- Highest demand for winter peaks is during cold winter nights when solar production is low.
- Results of the study are due back to the General Assembly by September 30, 2023.











ENERGY PERFORMANCE STANDARDS

COVERED BUILDINGS

- New standards will be applicable only to "covered buildings" which means:
 - Is a commercial or multi-family building or owned by the state; and
 - Has a gross floor area (excluding parking garage) of 35,000 sq. ft. or more.
- Excluded from the definition are:
 - Historic properties
 - Schools
 - Manufacturing buildings
 - Agricultural buildings
- The new standards will apply to both new and existing buildings.



DIRECT GREENHOUSE GAS EMISSIONS

ONLY EMISSIONS FROM THE BUILDING ARE COVERED

- The standards will regulate "Direct Greenhouse Gas Emissions":
 - Regulations will require reporting starting in 2025,
 - Reductions starting on January 1, 2030, and
 - Net zero emissions starting on January 1, 2040 (unless the Assembly sunsets the requirement)
- The standards only apply to "greenhouse gas emissions produced on-site".
- Emissions from natural gas, propane and oil burning on site are covered by the standard.
- Emissions from fossil fuel burned by utilities at off-site power plants are not covered.
- Emissions from a Tenant Food Service Facility engaged in commercial cooking and water heating is not counted.



DEVELOPMENT OF STANDARDS – PART I

REGULATIONS FROM MDE BY JUNE 1, 2023

- The regulations will establish "energy use intensity targets by building type."
- Special provisions "as necessary" will account for:
 - Building age
 - Regional differences
 - "Unique needs of particular building types" including
 - Health care facilities
 - Laboratories
 - Assisted living and nursing facilities
 - Military buildings
 - Critical infrastructure
 - o Buildings used in life sciences



DEVELOPMENT OF STANDARDS – PART II

REGULATIONS FROM MDE BY JUNE 1, 2023

- Special provisions "as necessary" will also account for:
- The use of direct energy systems
- Landlords who:
 - are not responsible for the equipment of tenants,
 - do not have control over the tenant's energy systems or
 - the commercial tenant is responsible for all maintenance and repairs.
- The department is required to "provide maximum flexibility" for owners to comply with the new standards.
- The bill sets up a task force to consider financial incentives.



COMPLIANCE WITH EPS

BUILDINGS MUST EXCEED THE STANDARDS OR PAY A FEE

- Starting in 2025, each covered building owner must report Direct Greenhouse Gas Emissions.
- It is possible that the utilities and other fuel suppliers will provide the information to the owner for reporting to the state.
- Starting on January 1, 2030, the covered buildings' net Direct Greenhouse Gas Emissions
 must be 20% less than the 2025 levels for an average building of similar construction.
- Starting on January 1, 2040, the covered buildings must achieve net-zero Direct Greenhouse Gas emissions.
- Failure to meet the requirements results in a compliance fee.
- The Net-Zero 2040 requirement is subject to a sunset provision.

COMPLIANCE FEE

\$ \$ \$

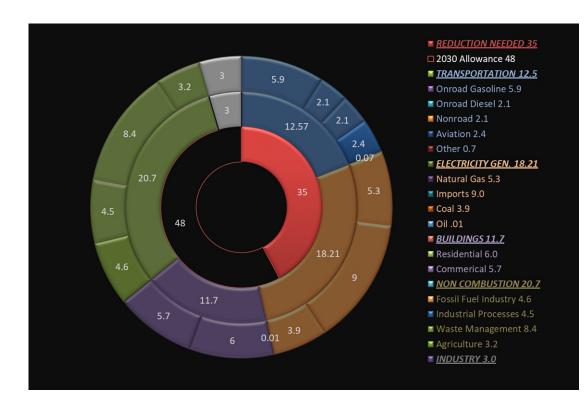
BASED ON "SOCIAL COST OF CARBON"

- The Department will establish an "alternative compliance fee" based on the extent that the emissions exceed the requirement.
- The fee cannot be less than the "social cost of carbon" established by the U.S. EPA.
- The social cost of carbon is a hypothetical rate representing the assumed harm to society from each ton of carbon dioxide equivalents released into the atmosphere.
- The calculated cost has varied based upon the politics of the administration in power and the status of scientific research. Suggestions have varied from \$1 (Trump Admin. to \$245 United Nations IPCC).
- The current EPA number is \$51 per ton. It will likely be raised to around \$120 a ton.
- One million BTUs of natural gas produces about 120 pounds of CO2.

WAIT THERE IS MORE!

THE ENERGY PERFORMANCE STANDARDS WILL NOT GET US TO THE 2030 GOAL.

A 20% reduction for covered buildings (with some exceptions) will not achieve a 60% reduction in greenhouse gases by 2030.

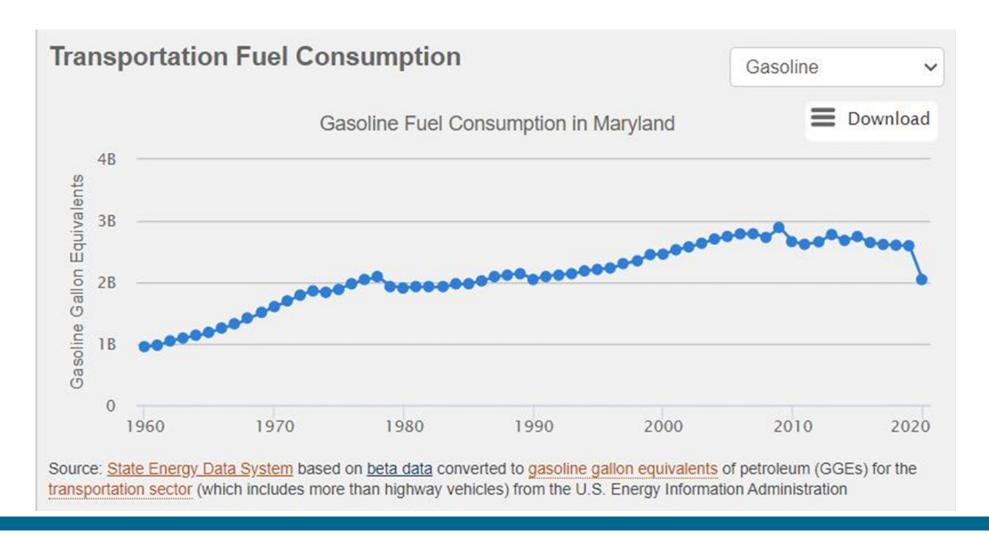


60% reduction by 2030 Net Zero by 2045

POSSIBLE FUTURE PROVISIONS

- Electric car charging:
 - Transportation produces a bigger share of greenhouse gas than buildings.
 - Currently, less than 1% of Maryland vehicles are all electric or plug-in hybrids (48,391 out of 5,228,965).
 - To achieve the required greenhouse gas reductions, the number of electric vehicles will need to increase by orders of magnitude.
 - Federal financial incentives are concentrated on charging stations along major transportation routes, but most charging will be at home or work.
 - New building codes are likely to require accommodations for home charging.
- Significant increases in renewable energy will be required and, to avoid stress on the electric grid, a significant portion of the new generation will need to be near the point of consumption.
 - New building codes are likely to require provisions for the installation of solar panels.

GASOLINE CONSUMPTION IN MARYLAND





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THANK YOU!

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