

HB0990_Greenhouse_Gas_Reductions_Manufacturers_MLC

Uploaded by: Cecilia Plante

Position: FAV



**TESTIMONY FOR HB0990
ENVIRONMENT - GREENHOUSE GAS EMISSIONS REDUCTIONS -
MANUFACTURERS**

Bill Sponsor: Delegate Stein

Committee: Education, Energy, and the Environment

Organization Submitting: Maryland Legislative Coalition

Person Submitting: Cecilia Plante, co-chair

Position: FAVORABLE

I am submitting this testimony in favor of SB0990 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

When the original Greenhouse Gas Reduction Act was passed in 2009, it required Maryland to reduce state-wide greenhouse gas emissions from all sectors of the economy except for manufacturers. Maryland is the only state to exempt manufacturers from greenhouse gas reduction goals. If we are to achieve the statutory reductions that we declared we would achieve, every sector needs to participate.

This bill, if enacted, would require the Maryland Department of the Environment to consider requiring emissions reductions from manufacturers operating in Maryland in 2023. It also removes the exemption for cement manufacturers and sets a new pollution baseline for existing manufacturers to be regulated at their 2023 emission levels.

Our members believe that we all need to pull together in order to save the planet for our children. No one should get a free pass. We support this bill and recommend a **FAVORABLE** report in committee.

Stein Testimony HB 990 - Senate.pdf

Uploaded by: Dana Stein

Position: FAV

DANA M. STEIN
Legislative District 11B
Baltimore County

—
SPEAKER PRO TEM
—

Environment and Transportation
Committee

Subcommittees

Chair, Environment

Natural Resources,
Agriculture and Open Space



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The Maryland House of Delegates
ANNAPOLIS, MARYLAND 21401

**Delegate Dana Stein Testimony in Support of HB 990
Environment – Greenhouse Gas Emissions Reduction - Manufacturers**

Chairman Feldman, Vice Chairwoman Kagan, and Members of the Education, Energy, and the Environment Committee:

HB 990 would bring the manufacturing sector under the scope of the greenhouse gas law, subject to certain exceptions. As amended, there was no debate in either House committee or on the House floor about the bill.

The first time the legislature committed to reduce state-wide, greenhouse gas (GHG) emissions was in the 2009 Greenhouse Gas Reduction Act. The Act required Maryland to reduce GHG emissions by 25% by 2020. It authorized the Maryland Department of the Environment (MDE) to regulate GHG emissions from all sectors of Maryland’s economy with one exception: the manufacturing sector. When we renewed and expanded our GHG reduction goals in 2016 and 2022, we maintained the manufacturing exemption.

But, according to the National Caucus of Environmental Legislators (NCEL), Maryland is currently the only state with a climate plan that exempts manufacturers from meeting GHG emissions goals. Additionally, this exemption conflicts with the State’s *Climate Pollution Reduction Plan*, which calls for an “all of society approach” to meeting our GHG reduction goals.

This bill would modify the exemption on manufacturing and is based on a recommendation of the Maryland Commission on Climate Change that was approved by a vote of 18 to 1. It’s also one of six legislative actions advanced in the *Maryland Climate Pollution Reduction Plan* released by MDE in December 2023.

HB 990 would do a few things:

- 1) It enables MDE to consider emissions reductions from manufacturers that come to Maryland after 2023.
- 2) It removes the exemption for existing cement manufacturers given their large contribution to the state’s GHG emissions

3) It allows MDE to regulate emissions from existing manufacturers provided the regulations do not require a manufacturer to reduce emissions below its 2023 levels or increase its costs significantly beyond 2023 costs.

Cement manufacturers are brought under MDE regulation because the two highest emitting manufacturing facilities are cement production plants. Fortunately, the cement industry has committed to net-zero emissions by 2050, and one of the plants has already reduced emissions through fuel switching.

As amended in the House, the bill requires MDE, in any regulation of cement production, to consider the extent to which the industry is energy intensive and trade exposed, to provide credit for early action investments made by the industry to reduce emissions, and factor in other considerations. MDE must also consult with cement manufacturers and other stakeholders.

With this amendment, there was no opposition to the legislation in the House.

To sum up - the legislature passed the most aggressive GHG reduction goals in the country and has enacted legislature reducing emissions from the transportation sector and the building industry. It only makes sense that we also consider reduction emissions from the manufacturing sector.

HB0990_Greenhouse Gas Emissions Reductions - Manuf

Uploaded by: Dave Arndt

Position: FAV



Committee: Education, Energy, and the Environment Committee
Testimony on: HB0990 - Greenhouse Gas Emissions Reductions -
Manufacturers
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Dave Arndt, Co-Chair
Position: Favorable
Hearing Date: March 25, 2024

Dear Mr. Chair and Committee Members:

Thank you for allowing our testimony today in support of HB0990. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on HB0990.

The 2009 Greenhouse Gas Reduction Act (GGRA) required Maryland to reduce state-wide greenhouse gas (GHG) emissions by 25% by 2020 using 2006 as a baseline while ensuring a positive impact on Maryland's economy. The Act authorized the Maryland Department of the Environment (MDE) to regulate GHG emissions from all sectors of Maryland's economy with one exception: the manufacturing sector. According to the National Caucus of Environmental Legislators (NCEL), Maryland is currently the only state to exempt manufacturers from meeting GHG emissions goals.

HB0990 corrects this omission by requiring MDE to consider requiring emissions reductions from manufacturers operating in Maryland in 2023. Removes the exemption from GHG emissions for existing cement manufacturers. Sets a new pollution baseline for existing manufacturers to be regulated at their 2023 emissions levels.

This policy has been recommended by the Maryland Commission on Climate Change, and is one of six legislative actions advanced in the Maryland Climate Pollution Reduction Plan released by the Department of the Environment in December 2023.

For all of these reasons, we strongly support HB0990 and urge a **FAVORABLE** report in Committee.

350MoCo
Adat Shalom Climate Action
Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
Chesapeake Earth Holders
Chesapeake Physicians for Social Responsibility
Climate Parents of Prince George's
Climate Reality Project
ClimateXChange – Rebuild Maryland Coalition

Coming Clean Network, Union of Concerned Scientists
DoTheMostGood Montgomery County
Echotopia
Elders Climate Action
Fix Maryland Rail
Glen Echo Heights Mobilization
Greenbelt Climate Action Network
HoCoClimateAction
IndivisibleHoCoMD
Maryland Legislative Coalition
Mobilize Frederick
Montgomery County Faith Alliance for Climate Solutions
Montgomery Countryside Alliance
Mountain Maryland Movement
Nuclear Information & Resource Service
Progressive Maryland
Safe & Healthy Playing Fields
Takoma Park Mobilization Environment Committee
The Climate Mobilization MoCo Chapter
Unitarian Universalist Legislative Ministry of Maryland
WISE

Testimony HB990 Manufacturing and Cement (Senate E

Uploaded by: Debbie Cohn

Position: FAV

Committee: Education, Energy and the Environment
Testimony on: HB990 –Environment – Greenhouse Gas Emissions Reductions - Manufacturers
Submitting: Deborah A. Cohn
Position: Favorable
Hearing Date: March 26, 2024

Chair Feldman and Committee Members:

Thank you for allowing my testimony today in support of HB990.

Maryland has committed to reducing greenhouse gas emissions (GHGs) to 60% of 2006 levels by 2031 and transitioning to a net-zero economy by 2045. Doing so will require not only the building and transportation sectors, but also the manufacturing sector, to reduce GHG emissions.

Problem: In 2009, the Greenhouse Gas Reduction Act (GGRA) authorized the Maryland Department of the Environment (MDE) to regulate GHG emissions from all sectors of Maryland’s economy *other than manufacturing*. In 2016, when GGRA was renewed, the manufacturing sector remained exempt. Even in 2022, when the General Assembly passed the Climate Solutions Now Act, the manufacturing sector remained exempt.

According to the National Caucus of Environmental Legislators, *Maryland is the only state with GHG reduction goals that exempts manufacturing*. The reasons are clear. States cannot adequately reduce GHG emissions without significant reductions in the manufacturing sector. Maryland is no exception. In 2020, the manufacturing sector accounted for *nearly 10%* of Maryland’s GHG emissions.

The two highest emitting manufacturing facilities were cement production plants.

Solution: HB990 would *authorize* (not direct) the Department of the Environment to require GHG emissions reductions from the state’s manufacturing sector. This action was recommended in the Climate Pollution Reduction Plan. HB990 would do three things:

- Set a new pollution baseline for existing manufacturers to be regulated at their 2023 emissions levels.
- Allow MDE *to consider* requiring GHG emissions reductions from the manufacturers that come to Maryland after 2023.
- Require the Maryland Department of the Environment (MDE) to work with cement manufacturers and others to consider several factors that would incentivize this industry to reduce GHG emissions in the production of cement.

Given significant worldwide research and development of various technological advances in the manufacturing of concrete, requiring MDE to work with Maryland industry to take advantage of these technologies, as they mature and are demonstrated to be economically viable is reasonable. Several advances in materials science and new technologies have developed in recent years to reduce the GHG emissions of cement production and reduce the amount of cement needed to product concrete. These include switching from ordinary Portland cement to cement combined with limestone or cement that incorporates CO₂. But newer technologies may even permit [zero-carbon cement](#) that can be used in lieu

of traditional cement. Several technologies, such as adding pozzolans to cement or [recycling concrete](#) can also be used to reduce GHG emissions in the manufacturing sector. New [technologies](#) that allow the production and long term storage of extremely high heat thermal energy produced from wind and solar energy, with the ability to release that heat on demand, are also being developed.

In other words, some GHG reductions in the manufacturing sector are commercially available now, and others may prove economically feasible and commercially available in the next several years, soon enough to make a significant difference in GHG emissions from the manufacturing sector.

Accordingly, I urge a **FAVORABLE** report for HB990 in committee.

CF HB990 - MDLCV SUPPORT_ - Environment-Greenhouse

Uploaded by: Kristen Harbeson

Position: FAV



March 26, 202

Kim Coble
Executive Director

**SUPPORT: HB990- Environment-Greenhouse Gas Emissions Reductions -
Manufacturers**

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Chair Feldman and Members of the Committee:

Maryland LCV and the undersigned organizations support HB990 (Environment-Greenhouse Gas Emissions Reductions - Manufacturers) and thank Delegate Stein for his continued leadership in driving Maryland’s leadership in advancing strong climate policy.

In 2022, the Maryland General Assembly passed the Climate Solutions Now Act (CSNA), which set ambitious goals and put Maryland at the forefront of strong climate policy nationally. In December 2023, the Maryland Department of the Environment released the Climate Pollution Reduction Plan (Climate Plan), outlining the path to reach the goals set by the CSNA - including a series of legislative actions.¹ HB990 advances one of those recommended actions: allowing the Department of the Environment to require greenhouse gas (GHG) emissions reductions from the state’s manufacturing sector. This action is also recommended in the 2023 Annual Report of the Maryland Commission on Climate Change.²

The 2009 Greenhouse Gas Reduction Act (GGRA) required Maryland to reduce state-wide greenhouse gas (GHG) emissions by 25% by 2020 using 2006 as a baseline while ensuring a positive impact on Maryland’s economy. The Act authorized the Maryland Department of the Environment (MDE) to regulate GHG emissions from all sectors of Maryland’s economy with one exception: the manufacturing sector. In 2016, the Act was renewed with new targets of 40% reduction by 2030, but maintained the manufacturing exemption. In 2022, when the General Assembly renewed its commitment to climate emission reduction through the Climate Solutions Now Act, the exemption remained in place - however the Climate Plan is clear that removing this provision is critical reaching our state’s climate goals.

According to the National Caucus of Environmental Legislators (NCEL), Maryland is currently the only state with GHG reduction goals to exempt manufacturers from meeting these goals.

HB00990 does three things:

¹<https://mde.maryland.gov/programs/air/ClimateChange/Maryland%20Climate%20Reduction%20Plan/Maryland%27s%20Climate%20Pollution%20Reduction%20Plan%20-%20Final%20-%20Dec%2028%202023.pdf>

²[https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Pages/MCCCReports.aspx#:~:text=The%202023%20Commission%20on%20Climate,Gas%20\(GHG\)%20reduction%20mitigation](https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Pages/MCCCReports.aspx#:~:text=The%202023%20Commission%20on%20Climate,Gas%20(GHG)%20reduction%20mitigation)

- 1) Directs MDE to consider requiring emissions reductions from manufacturers that come to Maryland after 2023
- 2) Removes the exemption from GHG emissions for existing cement manufacturers given their large contribution to the state's GHG emissions.
- 3) Sets a new pollution baseline for existing manufacturers to be regulated at their 2023 emissions levels.

Emissions from the Manufacturing Sector in Maryland

In 2022, there were 6,693 manufacturing facilities within the state, employing over 100,000 people. They are distributed throughout the state. Maryland's manufacturers accounted for nearly 10% of statewide emissions in 2020. Although the total emissions in the sector has decreased from 2006 levels, there has been a 21% growth in cement facility emissions.

Cement Manufacturers

In Maryland, the two highest emitting manufacturing facilities are cement production plants - Heidelberg Materials' Union Bridge facility and LafargeHolcim's Hagerstown Facility. These two plants accounted for 35% of total industrial emissions in Maryland in 2020. About 67% of the emissions are related to process and 33% are related to fuel emissions. The Union Bridge facility emits about 5x as much as the Hagerstown facility. Although Union Bridge is more efficient and produces less CO₂ per metric ton of cement manufactured.

Both the Union Bridge and Hagerstown facilities have invested in efficiency improvements to reduce CO₂ and non-CO₂ emissions. As a result, emissions from the Hagerstown facility dropped significantly between 2014 and 2017, despite an expansion in production capacity. An investment was also made to provide approximately 25% of the power consumed by the Hagerstown facility from solar.

There are further actions that can be taken to reduce emissions from the cement facilities. Hagerstown can reduce emissions by 87% and Union Bridge by 80% compared to 2006 by product switching from Ordinary Portland Cement to Portland Limestone Cement, fuel switching and carbon capture utilization and storage.³ The cement industry has committed to net-zero emissions by 2050, so state regulations could support the industry's decarbonization commitment.

It is critical to reiterate that this legislation enables the Department of the Environment to regulate the GHG emissions. It does not require them to take any additional actions. As indicated above, many manufacturers have taken steps independently to support the State's climate goals. For these "good actors," the Department may choose to continue working with them to achieve the state goals without further regulations.

Maryland LCV and the following organizations urge a favorable report on this priority bill.

³ *Impacts on Maryland's Manufacturing Sector*, 23 Aug. 2022, mde.maryland.gov/programs/Air/ClimateChange/MCCC/MWG/Manufacturing%20Study%20preliminary%20results.pdf.

Annapolis Green
Audubon Mid-Atlantic
Chesapeake Bay Foundation
Chesapeake Physicians for Social Responsibility
Climate Communications Coalition
Climate Law & Policy Project
Climate Reality Greater Maryland
EarthJustice
Elders Climate Action Maryland
Gnatt Medical Associates
HoCoClimateAction
Maryland Conservation Council
Maryland Legislative Coalition
Maryland Legislative Coalition Climate Justice Wing
Sierra Club Maryland Chapter
Unitarian Universalist Legislative Ministry of Maryland

HB0990 - FAV - Senate.pdf

Uploaded by: Landon Fahrig

Position: FAV



Maryland Energy Administration

TO: Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy, and the Environment Committee
FROM: MEA
SUBJECT: HB 990 - Environment - Greenhouse Gas Emissions Reductions - Manufacturers
DATE: March 26, 2024

MEA Position: FAVORABLE

This bill would exclude cement manufacturing from the definition of “manufacturing” for the purpose of the applicable sections of the Environment Article as it relates to the state’s greenhouse gas emissions reduction goals.

Maryland has enacted one of the most ambitious standards in the country, a 60% reduction in greenhouse gas emissions required by the Climate Solutions Now Act (CSNA), and it cannot be achieved without all sectors of our state playing a role in climate mitigation solutions. Maryland's Climate Pollution Reduction Plan (the Plan) notes that cement plants account for nearly all coal use in the industrial sector, making it ripe for fuel switching to make large emission reductions.¹

Therefore, the Plan calls for the Maryland Energy Administration (MEA) to continue its current practice of providing grants for energy efficiency and decarbonization projects at industrial facilities and for the state to provide additional support for decarbonization activities across Maryland’s industrial sector. Priority investments will include cement manufacturing decarbonization under the Plan. MDE, MEA, and the Maryland Clean Energy Center (MCEC) are to increase staff capacity to partner with industry to streamline access to grants and financing for emissions reduction projects.

The bill also directly reflects a recommendation of the Maryland Commission on Climate Change (MCCC) included in its 2023 annual report.²

For these reasons, MEA urges the committee to issue a **favorable report**.

Our sincere thanks for your consideration of this testimony. For questions or additional information, please contact Landon Fahrig, Legislative Liaison, directly (landon.fahrig@maryland.gov, 410.931.1537).

¹ Maryland's Climate Pollution Reduction Plan, p43-44, mde.maryland.gov/programs/air/ClimateChange/Maryland%20Climate%20Reduction%20Plan/Maryland%27s%20Climate%20Pollution%20Reduction%20Plan%20-%20Final%20-%20Dec%2028%202023.pdf

² See Mitigation Working Group (MWG) recommendation No. 12, mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/MCCC%20Annual%20Report%202023/MCCC%20Annual%20Report%202023.pdf

HB0990_Greenhouse Gas Emissions Reductions - Manuf

Uploaded by: Laurie McGilvray

Position: FAV



Committee: Education, Energy and the Environment
Testimony on: HB0990 - Greenhouse Gas Emissions Reductions -
Manufacturers
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Dave Arndt, Co-Chair
Position: Favorable
Hearing Date: March 26, 2024

Dear Mr. Chair and Committee Members:

Thank you for allowing our testimony today in support of HB0990. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on HB0990.

The 2009 Greenhouse Gas Reduction Act (GGRA) required Maryland to reduce state-wide greenhouse gas (GHG) emissions by 25% by 2020 using 2006 as a baseline while ensuring a positive impact on Maryland's economy. The Act authorized the Maryland Department of the Environment (MDE) to regulate GHG emissions from all sectors of Maryland's economy with one exception: the manufacturing sector. According to the National Caucus of Environmental Legislators (NCEL), Maryland is currently the only state to exempt manufacturers from meeting GHG emissions goals.

HB0990 corrects this omission by requiring MDE to consider requiring emissions reductions from manufacturers operating in Maryland in 2023. It removes the exemption from GHG emissions for existing cement manufacturers and sets a new pollution baseline for existing manufacturers to be regulated at their 2023 emissions levels.

This policy has been recommended by the Maryland Commission on Climate Change, and is one of six legislative actions advanced in the Maryland Climate Pollution Reduction Plan released by the Department of the Environment in December 2023.

For all of these reasons, we strongly support HB0990 and urge a **FAVORABLE** report in Committee.

350MoCo
Adat Shalom Climate Action
Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
Chesapeake Earth Holders
Chesapeake Physicians for Social Responsibility

Climate Parents of Prince George's
Climate Reality Project
ClimateXChange – Rebuild Maryland Coalition
Coming Clean Network, Union of Concerned Scientists
DoTheMostGood Montgomery County
Echotopia
Elders Climate Action
Fix Maryland Rail
Glen Echo Heights Mobilization
Greenbelt Climate Action Network
HoCoClimateAction
IndivisibleHoCoMD
Maryland Legislative Coalition
Mobilize Frederick
Montgomery County Faith Alliance for Climate Solutions
Montgomery Countryside Alliance
Mountain Maryland Movement
Nuclear Information & Resource Service
Progressive Maryland
Safe & Healthy Playing Fields
Takoma Park Mobilization Environment Committee
The Climate Mobilization MoCo Chapter
Unitarian Universalist Legislative Ministry of Maryland
WISE

HB 990 MDE SUP.pdf

Uploaded by: Les Knapp

Position: FAV



The Maryland Department of the Environment
Secretary Serena McIlwain

House Bill 990
Environment - Greenhouse Gas Emissions Reductions - Manufacturers

Position: Support
Committee: Education, Energy, and the Environment
Date: March 26, 2024
From: Hadley Anthony

The Maryland Department of the Environment (MDE) **SUPPORTS** HB 990 as amended.

Bill Summary

House Bill 990 would exclude cement production from the definition of “manufacturing,” which is exempted from certain greenhouse gas (GHG) regulations required pursuant to § 2-1205(g) of the Environment Article. The change in the definition will allow regulations adopted by State agencies to limit GHG emissions from cement manufacturers.

The bill will also modify the application of § 2-1205(g) to only those persons who engaged in manufacturing in 2023, and prohibit regulations adopted pursuant to final statewide GHG reduction plans from requiring any manufacturer to reduce GHG emissions below emission levels for that manufacturer in 2023, or causing an increase in costs to a manufacturer that are “significantly beyond” the costs that were incurred by the manufacturer in 2023.

Position Rationale

The manufacturing sector GHG reduction exemptions detailed in §§ 2–1202 and 2–1205 of the Environment Article constrain the regulatory authority of the State to mandate the reduction of GHG emissions from the manufacturing sector or to issue any regulation that significantly increases the cost of operation for manufacturers. This bill would implement a recommendation from the Maryland Commission on Climate Change by allowing MDE to regulate GHG emissions from the cement industry which was responsible for approximately 1.8 million metric tons of CO₂_e emissions in 2020 and allow MDE to regulate any increase in GHG emissions above 2023 levels for non-cement manufacturers that were operating in the state in 2023, within certain cost parameters.

Maryland’s Climate Pollution Reduction Plan emphasizes the importance of an “all-of-economy” approach to decarbonization. Two cement production facilities in Maryland represent the two largest point-sources of GHG emissions from manufacturing in the State. House Bill 990 would open new regulatory avenues for the state to reduce point-source GHG emissions from cement production.

Accordingly, MDE asks for a **FAVORABLE** report for HB 990.

HB 990 Environment - Greenhouse Gas Emissions Redu

Uploaded by: Mariana Rosales

Position: FAV

Tuesday, March 26th, 2024

TO: Brian Feldman, Chair of the Senate Education, Energy, and the Environment Committee, and Committee Members

FROM: Mariana Rosales, The Nature Conservancy, Director of Climate; Cait Kerr, The Nature Conservancy, State Policy Manager

POSITION: Support HB 990 Environment - Greenhouse Gas Emissions Reductions – Manufacturers

The Nature Conservancy (TNC) supports HB 990 as submitted by its sponsor. This bill directs the Maryland Department of the Environment (MDE) to consider requiring emissions reductions from manufacturers that come to Maryland after 2023. It also sets a new pollution baseline for existing manufacturers to be regulated at their 2023 emissions levels.

According to the National Caucus of Environmental Legislators, Maryland is currently the only state to exempt manufacturers from meeting GHG emissions goals. The Maryland Commission on Climate Change recommended removing this exemption, and it is one of the six legislative actions recommended in MDE's Climate Pollution Reduction Plan. HB 990 is also consistent with Maryland's commitments to address climate change established in the Climate Solutions Now Act of 2022: reducing greenhouse gas emissions by 60% from 2006 levels by 2031 and achieving net-zero statewide greenhouse gas emissions by 2045.

The Center for Climate and Energy Solutions has found that almost a quarter of U.S. greenhouse gas emissions come directly from industrial sources, such as manufacturing, food processing, mining, and construction. While in Maryland the manufacturing sector only represents 10% of emissions, the Center for Global Sustainability (CGS) of the University of Maryland identified in its report, titled "Manufacturing Sector Decarbonization Strategies and Impacts in the State of Maryland," that the manufacturing sector currently has the ability to significantly reduce emissions without compromising economic and social growth.

In 2022, there were 6,693 manufacturing facilities within the state, employing over 100,000 people. The exemption was initially granted in part due to the potential negative impact it could have on this labor-intensive industry. However, the CGS study recognizes that reducing emissions brings economic opportunities. While this legislation enables MDE to regulate the GHG emissions from manufacturing, it does not require them to take any additional actions. Many manufacturers have taken steps independently to support the State's climate goals. The Department may choose to continue working with them to achieve the state goals without further regulations. The transition to a net-zero economy in our state should be inclusive and just. HB 990 is inclusive of these goals.

This bill as originally presented addresses climate change and would align Maryland's manufacturing standards with the rest of the country.

Therefore, we urge a favorable report on HB 990.

Testimony 990 Heidelberg 25 March 2024.pdf

Uploaded by: Neal Karkhanis

Position: FAV



Heidelberg Materials North America

Heidelberg Materials US Cement LLC/North

675 Quaker Hill Road

Union Bridge, MD 21791

Phone (410) 386-1210

**The Honorable Brian Feldman
Chair, Senate Education, Energy, and the Environment Committee
2 West
Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401**

March 26, 2024

RE: HB 990 – Environment – Greenhouse Gas Emissions Reductions – Manufacturers

POSITION: FAVORABLE

Dear Chairman Feldman:

Thank you for the opportunity to testify in support of HB 990 as amended in the House on behalf of Heidelberg Materials. We appreciate that Delegate Stein made the time to meet with us and amend the bill in a manner that Heidelberg Materials can support.

Heidelberg Materials is a leading supplier of construction materials in North America. Our core activities include the production of cement and aggregates, as well as producing ready-mixed concrete, asphalt, and other downstream cement products. The Union Bridge, MD plant dates to 1909, and Heidelberg Materials has supplied the cement supporting Maryland's critical infrastructure needs for nearly 120 years. The Union Bridge plant employs approximately 165 people year-round, and the Union Bridge plant supplies roughly 65 percent of the cement used throughout Maryland.

Prior to the bill being amended, we were concerned that the bill as proposed would create significant uncertainties as it relates to the regulation of greenhouse gas emissions in cement manufacturing plants. The bill as amended addresses these concerns by requiring the Department of Environment ("Department") to take into consideration the following:

- (1) the extent to which cement manufacturing is an energy intensive and trade exposed industry;
- (2) credit for early action investments made by cement producers to reduce emissions;
- (3) the adoption of policies that encourage, facilitate, and offer financial incentives for the use of alternative fuel sources;
- (4) the availability and cost of mature greenhouse gas abatement technologies; and
- (5) advancing policies that provide financial incentives to offset the costs of installing and transitioning to greenhouse gas emissions abatement technologies.

Additionally, the Department in considering the feasibility of regulation, shall consult with impacted cement producers and other stakeholders.

We believe the bill as amended is a thoughtful and collaborative approach. We look forward to partnering with the Department to continue to reduce our carbon footprint in Maryland.

Cement is the primary active ingredient in concrete, the world's most consumed building material behind water. Concrete has a long-proven value as a durable, cost-effective, available material that is resistant to extreme temperatures and resilient against natural disasters, and remains critical to Maryland's infrastructure due to its versatility, durability, resiliency, strength, and its ability to enable construction that is more sustainable.

Heidelberg Materials is committed to supporting Maryland's carbon emissions reduction targets through the Union Bridge plant. We recognize that our facility is a major emitter of carbon dioxide ("CO₂") in Maryland due to the nature of the cement-making process, in particular the chemical conversion emissions required to produce cement. In fact, we share many of the environmental goals of the State of Maryland and have a carbon roadmap that commits to carbon neutral concrete by 2050 at latest.

From 1990 to 2021, we reduced our specific net CO₂ emissions by 25% to 565 kg CO₂ per tonne of cementitious material. In May 2022, we again substantially tightened our emission reduction target. By 2030, our goal is to reduce specific net CO₂ emissions to 400 kg/t of cementitious material. Compared to the base year 1990, this corresponds to a reduction of almost 50 percent.

Starting in January 2023, we transitioned at the Union Bridge plant to producing EcoCem PLCTM, a Portland-limestone Cement ("PLC") that directly lowers the carbon intensity of our cement product, which in turn, translates to carbon intensity reductions across the cement and concrete value chain. This is a critical first step and we are committed to making further changes to reduce carbon emissions in the State. As an innovative leader in sustainability as well as an important part of the Maryland community, we will continue to be an engaged partner with Maryland as we work together to reduce State CO₂ emissions, and welcome our legislative leaders to visit the Union Bridge plant as schedules permit. We appreciated the opportunity to testify on HB 990 in the House, and offered the following points on the bill:

The US cement industry is energy intensive, and trade exposed ("EITE")

The process of manufacturing cement is energy intensive because we require significant amounts of thermal energy to convert limestone and other raw materials into new minerals which ultimately comprise cement. Our product is trade exposed because it can (and is) shipped not only across state lines but internationally as well. We are both trying to manage the energy consumption requirements of manufacturing a necessary commodity while balancing the realities of international trade and competition. We believe it is crucial in our collaboration with policymakers that this baseline of our sector's reality to be understood.

Under a carbon regulation and pricing policy, existing manufacturers, particularly those in EITE sectors (steel/chemical/fertilizer/glass/cement) must not be put at a competitive disadvantage to firms in the same sectors operating in countries and neighboring states without similar restrictions. When not adequately addressed, “leakage” can occur, whereby imports from other states or countries that do not have the same regulatory requirements (and higher CO₂-intensity products) are at a competitive advantage. This results in adverse impacts to local producers, as well as increased overall CO₂ emissions.

This can be addressed via several policy options including:

- Fully or partially exempting vulnerable industries;
- Compensating industries for the costs of GHG regulation through allowance activities or tax rebates;
- Transition assistance to help industries adopt lower-GHG technologies; and
- Implementing border measures such as taxes on EITE imports without GHG controls.

Supplementary Cementing Materials Play A Critical Role in Reducing CO₂ Emissions

In addition to setting aside the industry with specific conditions due to its EITE standing, other policy mechanisms should be implemented. For example, the important role of supplementary cementing materials in reducing GHG emissions must be encouraged and incentivized to reduce the overall CO₂ footprint of both cement as well as concrete. The State of Maryland should work to accelerate the adoption/incorporation of PLC, as referenced above, in projects and specifications.

Performance-Based Specification Approach Should Be Utilized in Driving CO₂ Emissions Goals

The State of Maryland should also consider developing a performance-based specification approach for cement and concrete as opposed to the traditionally prescriptive standards that are largely in place today. This will maintain performance and enable innovation and advancements in other materials that can help extend traditional portland cement and clinker. We believe that the State of Maryland should incorporate full life-cycle assessment and costing principles in their procurement policies, understanding not only the CO₂ intensity of the product inputs, but the overall performance of those assets during their lifetime, including end-of-life recycling. Introduction of circularity into procurement decision-making is critical to helping support a lower carbon-built environment.

The Cement Manufacturing Industry Needs a Collaborative Approach to Driving Down CO₂ Emissions Through Incentivizing the Use of Alternative Energy Sources

Due to the thermally intensive nature of cement manufacturing, increased use of renewable, lower carbon as well as alternative energy sources from biomass, waste, and other combustible by-products must be encouraged and incentivized. While 2/3 of CO₂ emissions from cement manufacturing emanate from the chemical process of converting limestone, work can be done in short order to address the remaining 1/3 from fuel use.

To date, technologies of carbon capture at scale have not been fully vetted for application in the cement sector, and at present are extremely costly and provide their own set of challenges with transport and storage of CO₂. While this ultimately will be a longer-term solution to the process emissions of cement manufacturing, fuel switching and optimization can have an immediate beneficial impact on the process.

When considering biogenic sources such as wood, cellulose and other materials, the biogenic component of any mixed-composition fuel must accurately be considered as “carbon neutral.” Furthermore, all fully renewable energy sources (ex: forestry and agricultural fibers, municipal biosolids) should also have this same designation. Importantly, it is essential to have permitting clarity to integrate these materials into our process, and environmental approval mechanisms must provide the operational flexibility required to maximize opportunities for the use of lowcarbon alternative and renewable fuels.


Other key elements for any carbon policy affecting the cement industry include the principle of Credit for Early Action, the establishment of emission reduction targets at reasonable levels which can be achieved without output reductions, recognizing also that irreducible cement manufacturing GHG process emissions must be exempted or in the absence of such an exemption, a uniform calculation must be adopted.

Heidelberg Materials Requests a Collaborative Approach in Policy Development Regarding CO₂ Emissions Goals

Finally, any policy that is developed for the cement industry must be structured with producers participating in its development. We are focused on reducing our carbon emissions and are committed to working with the State of Maryland to accomplish this substantial task, but it is critical that we are at the table to ensure that the State makes full consideration of the many complex factors in developing such policy.

This is an extremely complicated matter and we believe HB 990 as amended addresses our concerns. We urge this committee to pass HB 990 as amended in the House. We look forward to our collaboration together with the Department of Environment. We appreciate the opportunity to offer this testimony on HB 990. Should you have any questions, please feel free to contact me at paul.rogers@heidelbergmaterials.com.

Sincerely,



Paul Rogers
Plant Manager, Union Bridge
Heidelberg Materials North America

2024 HB0990 Testimony Against 2024-03-26.pdf

Uploaded by: Alan Lang

Position: UNF

Honorable Senators

Please vote against HB0990.

If causing particulates to enter the atmosphere actually causes climate change, then why give cement manufacturers an exception?

On a global basis, this is similar to allowing China and India not to meet standards, while the US and Europe have to enforce tougher standards.

Once again, politicians are selecting winners and losers while claiming that these actions are needed to save the planet. If the situation is so dire, then there should be no exceptions.

Thus, since exceptions are being made, then I believe this bill is not needed at all.

Please vote against HB0990.

Alan Lang, District 31
242 Armstrong Lane
Pasadena, MD 21122
410.336.9745
Alanlang1@verizon.net

HB 990.pdf

Uploaded by: Chuck Thompson

Position: UNF

Charles W. "Chuck" Thompson
7854 Bodkin View Dr.
Pasadena, MD 21122-3639

Written Testimony UNFAVORABLE of House Bill – HB 990 – Environment –
Greenhouse Gas Emissions Reductions – Manufacturers.

Dear Chair Feldman, Vice Chair Kagan, and Honorable Members of the
Senate Education, Energy, and the Environment Committee,

My name is Chuck Thompson and a resident of District 31 in Northeastern
Anne Arundel County.

I am against HB 990 because the premise of Greenhouse Gas Emissions
driving climate change is flawed, and actions taken to force the elimination of
greenhouse gas emissions are detrimental to society.

The Benefits of Fossil Fuels

For most of human history, our ancestors relied on very basic forms of energy:
human muscle, animal muscle, and the burning of biomass such as wood or
crops. But the Industrial Revolution unlocked a whole new energy resource:
fossil fuels. Fossil energy has been a fundamental driver of the technological,
social, economic, and development progress that has followed.

Over the last 100 years or so fossil energy has led to unprecedented growth in
human flourishing, life expectancy, productivity, climate mastery, and has
lifted billions of humans out of poverty.

The Issues with Climate Models

Isolating the contributing variable. The climate system has been described as
an interactive system consisting of five major components: the atmosphere,
the hydrosphere, the cryosphere, the land surface, and the biosphere, forced
or influenced by various external forcing mechanisms, the most important of
which is the Sun. Many physical, chemical and biological interaction
processes occur among the various components of the climate system on a
wide range of space and time scales, making the system extremely complex.

With all these variables and interactions to deal with, why are we going all-in on Greenhouse Gas?

Error in measurement. Ensuring the accuracy of Earth's long-term global and regional surface temperature records is a challenging, constantly evolving undertaking. There are lots of reasons for this, including changes in the availability of data, technological advancements in how land and sea surface temperatures are measured, the growth of urban areas, and changes to where and when temperature data are collected, to name just a few. Over time, these changes can lead to measurement inconsistencies that affect temperature data records. How do we know if the temperature is actually changing or if the adjustments are causing the change?

Results of modeling. There are dozens of climate models, and they all produce different results. In general, the models cannot explain the past and overestimate the future. Factors are used to calibrate the model, but there's no theory behind the factor; it is only used to fit the data to the result. Climate modeling has arguably been worse than nothing because false information has been presented as true and "consensus."

Summary

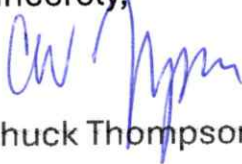
Why are we basing public policy on a false premise. The probability that Greenhouse Gas is the main culprit of climate change is close to zero, and to commit billions of dollars on this premise is a waste of precious taxpayer dollars.

I'm all for a clean environment, but cannot support policies that have no firm basis and harms society.

I request a UNFAVORABLE report for HB 990.

Thank you for your time.

Sincerely,



Chuck Thompson

HB990—OPPOSE.pdf

Uploaded by: Linda Diefenbach

Position: UNF

HB990—OPPOSE

I am opposed to UNAgenda21policies.

Linda Diefenbach
Middletown, MD

HB0990 Oppose.pdf

Uploaded by: Peggy Williams

Position: UNF

HB0990 (Environment - Greenhouse Gas Emissions Reductions –
Manufacturers) OPPOSE

Dear Committee Members:

Please oppose this bill. I do not subscribe to Climate Change fear-mongering policies from the likes of the United Nations <https://news.un.org/en/tags/greenhouse-gas-emissions> and Klaus Schwab's World Economic Forum <https://www.weforum.org/agenda/2022/09/scope-4-emissions-climate-greenhouse-business/> . The goal is not to reduce emissions but to destroy the American economy at any cost. These globalists do not want sovereign countries or borders to exist. They want to be the controlling entity of the world, with NO SOVEREIGN NATIONS. Please do not support any globalist or UNAgenda21 policies.

Peggy Williams
Severna Park
D31

Vote NO on HB 990.pdf

Uploaded by: Stacy Pedersen

Position: UNF

To the Maryland Congress:

This is a globalist bill that will chip away at
our Constitutional Freedoms

Vote NO on HB 990

Sincerely,

Stacy Pedersen

HB0990 Testimony.pdf

Uploaded by: William Love

Position: UNF

I'm Bill Love of 490 Fairoak Dr, Severna Park MD

Concerning HB0990: Environment - Greenhouse Gas Emissions Reductions - Manufacturers

Bill seeks to push the hoax of climate change, UNAgenda21. We must stop the globalist at all cost!

Please, vote unfavorably to this bill.

Thank you