Draft Recommendations Under Review by the Mitigation Working Group

Final and to-be-finalized recommendations as of Sept 18, 2024

1. Maryland Must Adopt a Climate Investment Strategy

Maryland is not on track to meet its legal requirement to reduce greenhouse gas emissions by 60% by 2031 and has little chance of meeting this goal without a permanent source of revenue targeted to this goal. Therefore, the state must immediately implement an equitable strategy to raise revenue for ~~make targeted, equity-centered~~ climate programs and investments that decrease emissions, ~~and~~ reduce energy costs for businesses and families, and promote equity.

Recommendation: The General Assembly should pass legislation in 2025 to authorize the development of at least three climate investment mechanisms.

A. Authorize a Cap-and-Invest Program

Maryland should explore following ~~follow~~ the lead of California, New York, and Washington in developing an economy-wide cap-and-invest program to build on Maryland's successful cap-and-invest program for fossil fuel power plants. As described in Maryland's Climate Pathway Report and Maryland's Climate Pollution Reduction Plan, a~~the state has no path to achieve its climate goals without~~ cap-and-invest or a similar policy that puts a regulatory cap on emissions from major polluters and invests approximately $1 billion annually in priority decarbonization projects can put the state on a pathway to achieve its climate goals. Maryland's Climate Pollution Reduction Plan shows that without additional policies ~~cap-and-invest~~, the state will fall short of its emissions reduction requirements by approximately 3.5 million tons of carbon dioxide equivalent (MMTCO2e) in 2031 and 15.6 MMTCO2e in 2045. The Plan further shows that Maryland can eliminate this shortfall and keep pace with ~~In addition to not complying with state law, Maryland will fall further behind~~ other climate-leading states by adopting a cap-and-invest policy ~~if it fails to implement this increasingly utilized policy~~.

The General Assembly should authorize MDE to develop (but not yet implement) an economy-wide cap-and-invest program modeled after and working alongside Maryland's successful cap-and-invest program for fossil fuel power plants. For over a decade, fossil fuel power plants in Maryland and other states participating in the Regional Greenhouse Gas Initiative (RGGI) have performed under a declining~~n~~ emissions cap and sold emissions allowances at auctions. To date, Maryland has received approximately $1.3 billion in proceeds from the sale of allowances, including $214 million in FY24 alone, while power plant emissions plummeted due to the program's success. Legislation should require MDE to expand this successful model to cover additional major sources of greenhouse gas emissions.

Once the program is developed, and details determined, MDE should present the draft program

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to the Maryland Commission on Climate Change for approval and subsequent submittal to the General Assembly.

The General Assembly should direct a sufficient portion of the revenues toward rebates for low- and moderate-income households, sufficient to eliminate net cost increases to those households, with the remaining revenues from the program going toward the following strategic investments while applying a Justice40 approach across these investments:

- *Carbon Dividends* - Providing funds to low- and moderate-income households to mitigate increases in the cost of energy and other cost-of-living increases associated with the cap-and-invest program.
- *Home Energy Efficiency and Electrification (20%)* - Providing up to $14,000 per household to help low-, moderate-, and middle-income families replace fuel-burning equipment with zero-emission electric alternatives such as heat pumps, heat pump water heaters, and induction cooktops.
- *Electric Vehicles and Transit (20%)* - Providing up to $7,500 per household to help low-, moderate-, and middle-income families replace fuel-burning vehicles with zero-emission electric vehicles (EVs); and increasing access to mass transit.
- *Commercial, Multifamily, and Institutional Buildings (20%)* - Providing grants and subsidized loans to reduce the cost of energy efficiency and electrification projects in commercial, multifamily, institutional, and other types of buildings including those covered by the Building Energy Performance Standards.
- *Infrastructure (20%)* - Providing grants and subsidized loans for projects that reduce GHG emissions from industrial facilities, landfills, and wastewater treatment plants, and constructing new infrastructure including EV charging stations, transit lines, bike lanes, etc.
- *Natural and Working Lands (105%)* - Supporting tree plantings, forest management, wetland management, soil management, and other projects that store carbon and help the state achieve its net-zero emissions goals.
- *Program Administration (~~9~~5%)* - Funding for MDE, MEA, MDOT, and other relevant agencies to cover the costs of administering the program.
- Public Awareness Campaign (1%) - Funding outreach, education, and advertising to promote the availability of clean energy incentives to consumers.

MDE should use its existing authority to adopt a reporting rule in 2025 to require major polluters to begin reporting data in 2026. ~~Data would be used to establish the baseline performance of major polluters, as described in Regulatory Options for an Enforceable Emissions Cap-and-Invest Program in Maryland and Cap-and-Invest for Maryland: A Primer. Legislation in 2025 should require MDE to adopt regulations in 2026 to begin enforcing a regulatory cap on~~

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~~emissions in 2027.~~ Proceeds from the program would be available for strategic climate investments beginning no later than 2028.

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B. Authorize a Fossil Fuel Transport Fee and Mitigation Fund

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The General Assembly should pass the Fossil Fuel Transport Fee and Mitigation Fund, introduced as HB 1008 in 2024. The bill would allow the state to collect a small fee from major companies that transport coal and natural gas through Maryland, similar to a small fee currently paid by carriers of petroleum products. The main benefit of the bill is that most of the revenue would be paid by the companies around the world that import the coal and natural gas that pass through and are exported from fuel terminals in Maryland. Marylanders get all of the benefits of the fee and pay little of the financial cost. An average Maryland household that still uses natural gas for heating would see an average monthly bill impact of around $2, assuming all costs are passed on to consumers. In exchange for a $2 bill impact, Marylanders would benefit from approximately $300 million annually for investments that improve health outcomes and help Marylanders transition from fossil fuels to clean energy. The legislation will also enable the Maryland Clean Energy Center to leverage a portion of these funds to issue low-interest bonds for additional near-term climate investments.

The bill should make the fee effective starting July 1, 2025, and require revenue collected in FY26 to be programmed starting in FY27. Revenue would go to the Fossil Fuel Mitigation Fund and be directed to the following investments with a Justice40 application to these investments:

- Home Energy Efficiency and Electrification (23%)
- Commercial, Multifamily, and Institutional Buildings (23%)
- Electric Vehicles, Charging Equipment, and Electric School Buses (22%)
- Mass Transit (20%)
- Asthma Treatment for Communities Affected by Coal Dust (2%)
- Program Administration (9%)
- Public Awareness Campaign (1%)

C. Pass the RENEW Act

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The General Assembly should pass the Responding to Emergency Needs From Extreme Weather (RENEW) Act, introduced as HB 1438/SB 958 in 2024. The RENEW Act would require the largest international fossil fuel companies to pay a one-time fee for their historical emissions. Because the law would likely be challenged in court by the fossil fuel industry, the state should not expect to receive revenue from this action in time to implement emissions reduction

programs before 2031. The state should instead plan to use future revenues from this action to pay for the unknown but surely enormous cost of adapting and becoming more resilient to the impacts of climate change.

2. Transition from One-Way Air Conditioners to Two-Way Heat Pumps

A. [Insert heading after amendments are settled]

The federal Inflation Reduction Act provides incentives for Marylanders to replace on-way air conditioners with heat pumps. Other state policies under consideration – such as an economy-wide cap-and-invest program – would expand funding for such incentives. The General Assembly should accelerate ~~facilitate~~ the transition from one-way air conditioners (ACs) to two-way heat pumps (HPs) by ensuring that heating and cooling contractors have adequate education and training concerning HPs – and that they provide accurate information about HPs to their customers. This is an important emissions reduction and consumer production measure.

Emissions Reductions - HPs are more efficient at cooling than ACs and more efficient at heating than fuel-burning systems, resulting in emissions reductions throughout the year. Getting more HPs installed at the point of AC replacement would help the state accelerate emissions reductions.

Consumer Protection - HPs replace ACs, so when consumers install new ACs and then install HPs when their boilers or furnaces fail, the new ACs are replaced and the residual value is lost. MDE's forthcoming Zero-Emission Heating Equipment Standards (ZEHES) will require the installation of zero-emission equipment like HPs when fuel-burning heating equipment like boilers and furnaces need to be replaced. In the absence of measures to promote or require HPs as replacements for AC, ~~Many~~ consumers who have recently paid ~~pay~~ to install new ACs could find themselves needing to pay to replace their new ACs with HPs as soon as their heating systems fail. Legislation could prevent many consumers from double paying for systems that provide cooling.

Option 1 (Coble amendment): The General Assembly should require heating and cooling contractors to provide their customers with cost estimates for HP installation when customers request cost estimates for AC installation. The cost estimate should include information comparing the installation and projected lifetime operating cost of an HP with the same costs associated with the replacement of separate AC and heating equipment ~~for an HP should be compared with the cost of an AC and a replacement heating system~~. ~~Customers who choose to proceed with AC installation must sign an affidavit saying they received estimates to compare the costs of AC and HP, their contractor explained the differences between AC and HP, and they are aware that the AC may need to be replaced with an HP when their heating system needs to be replaced.~~ Contractors must submit their ~~customers' signed affidavits and~~ cost estimates to the state, which will use the documents to determine if contractors need additional

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education about existing incentives and if the state should adjust its incentive programs to minimize costs to customers ~~track and report on the success of the program~~.

Option 2 (Szybist amendment): Maryland has a licensing and oversight program for heating and cooling contractors (Title 9A of the State Business Regulation Code, "Heating, Ventilation, Air-Conditioning, and Refrigeration Contractors") that is administered by the State Board of Heating, Ventilation, Air-Conditioning, and Refrigeration Contractors. The purpose of the program, among other things, is to "protect the public" and "provide and maintain efficient and safe systems" for Marylanders.

The Board should establish policies to ensure that heating and cooling contractors have adequate education and training concerning HPs and provide accurate information about HPs to their customers. Such policies could be included in a Climate Implementation Plan developed by the Board pursuant to Executive Order 01.01.2024.19. If the Board does not establish such policies, the General Assembly should enact amendments to Title 9A that direct the Board to do so.

One particular measure the Board should consider is requiring ~~The General Assembly should require~~ heating and cooling contractors to provide their customers with cost estimates for HP installation when customers request cost estimates for AC installation. The cost estimate for an HP should be compared with the cost of an AC and a replacement heating system~~. Customers who choose to proceed with AC installation must sign an affidavit saying they received estimates to compare the costs of AC and HP, their contractor explained the differences between AC and HP, and they are aware that the AC may need to be replaced with an HP when their heating system needs to be replaced. Contractors must submit their customers' signed affidavits and cost estimates to the state, which will use the documents to track and report on the success of the program~~.

B. Focus Incentives on Heat Pumps rather than AC and Fuel-Burning Heating Systems

The General Assembly should direct the Public Service Commission to focus publicly funded incentives on driving customer adoption of efficient heat pump equipment rather than and as a replacement to traditional air conditioning and space heating equipment. Heat pumps can offer cost savings in situations involving the replacement of both air conditioning and furnace equipment. More significant incentives may be necessary to catalyze heat pump adoption at a time when customers are only considering replacement of one traditional piece of equipment. Incentives for traditional air conditioning and furnace equipment should be phased out of the EmPOWER Maryland program and other publicly funded incentive programs. This will allow heat pump incentives to expand without necessarily increasing overall program costs or ratepayer impact. Incrementally higher incentives should be offered for heat pumps meeting certain efficiency criteria that will better support peak electrical demand reduction.

3. Shift Funding to Limited-Income Electrification Programs

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Maryland's RGGI proceeds have increased in recent years, rising from $140 million in FY23 to $214 million in FY24, a $74 million increase in one year. Meanwhile, the funding provided to the Department of Housing and Community Development (DHCD) is not sufficient to satisfy the demand for new heating and cooling systems from limited-income families. As a result, many families struggle to maintain safe living conditions in the cold of the winter and heat of the summer. Maryland has the opportunity to help more limited-income families replace old AC and heating systems with new heat pumps, which would reduce emissions, lower energy costs, and improve the quality of life for some of the most vulnerable members of our community.

The General Assembly should add electrification as an explicitly allowed use of RGGI proceeds and direct MEA to collaborate with DHCD to replace old heating and cooling systems with heat pumps and replace old water heaters with heat pump water heaters as soon as possible.

4. The State Should Take Action to Increase the Pace of Solar Power Development

A. *Option 1 (original recommendation):* The General Assembly should require each county to designate renewable energy development to sites adequate to implement at least their projected (population-based) share of the state's legislated solar energy targets. County plans should designate sites for utility-scale solar according to zoning. The county should take into account soil classification with a priority on Class 3 soils or lower. County planning processes should include a stakeholder engagement process for affected parties, including agriculture.

Option 2 (Campbell amendment): The General Assembly should require each county to designate renewable energy development to sites adequate to implement at least their projected (population-based) share of the state's legislated solar energy targets. County plans should designate sites for ~~utility-~~2 MW+ solar according to zoning. The county should take into account prime farmland currently used for agricultural production, targeted ecological areas, and forests and wetlands in Maryland's Habitat Connectivity Network, in order to minimize impacts to natural resources, agricultural industry, and outdoor recreation. ~~soil classification with a priority on Class 3 soils or lower~~. County planning processes should include a stakeholder engagement process for affected parties, including agriculture.

Option 3 (Fitzgerald amendment): The General Assembly should help to accelerate the development of large solar projects throughout the state by reducing local land use barriers and standardizing livability conditions and permitting processes to provide more market certainty for project developers. Local governments should be prohibited from imposing barriers on new solar projects proposed for development within a certain proximity of existing transmission infrastructure, and should be required to apply standard conditions regarding setbacks and visual buffers through an efficient permitting approval process. ~~require each county to designate renewable energy development to sites adequate to implement at least their projected (population-based) share of the state's legislated solar energy targets.~~ Counties should be

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encouraged and supported by the Maryland Energy Administration to develop solar strategic plans including the identification of areas that may be more and less preferable for solar development. These plans may be useful in the design of future incentive programs and issuance of development approvals through the CPCN process. Solar projects developed in designated preservation areas should be required to provide compensation to counties to be used for agricultural preservation purposes. ~~County plans should designate sites for utility solar according to zoning. The county should take into account soil classification with a priority on Class 3 soils or lower. County planning processes should include a stakeholder engagement process for affected parties, including agriculture.~~

B. The legislature should act to support the added cost of developing low- and moderate-income community solar projects, especially those in preferred locations (brownfields, rooftops, parking lots, etc.) through improved financing incentives.

C. The General Assembly should provide additional incentives for solar development on "preferred sites" including residential and commercial rooftops, parking lots, abandoned sites, grayfields, and brownfields.

i) Substantial (e.g., 25% of project cost) refundable state tax credit for new solar arrays on these sites.

ii) Increasing the cost of Solar Alternate Capacity Payments beyond the low and declining levels set by 2021 SB65, to increase SREC value. There are many examples of "upfront" incentives from other states that could be drawn on.

D. MEA should work toward developing a program/policy in coordination with the PSC and PJM to link interconnection service agreement timelines and incentives to ensure that developers can access funding in a timely manner. Require utilities to complete review and estimate costs of interconnection within 6 months of project proposal receipt.

E. The State should incorporate project "readiness" or maturity into solar project siting, and permitting (similar to what PJM is doing with "first-ready, first-serve").

~~F. The State should require long-term contracts for renewable energy to support a portion of the Standard Offer Service in the state.~~

G. The Building Codes Administration should adopt solar-related provisions in the draft 2024 International Energy Conservation Code.

H. The General Assembly should consider revisions to the RPS to encourage more solar through SRECs and more ambitious carveouts. These measures should seek to stabilize SREC prices relative to other PJM states. SRECs should incentivize projects on developed and brownfield sites and limit use for projects on sensitive lands.

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I. The PSC in collaboration with MEA ~~Power Plant Research Program (PPRP)~~ should report annually on ~~in their State Agency Reports,~~ the amount of new solar production (by project, including acres of prime farmland developed) in the previous year and report on opportunities for solar development on rooftops, parking lots, disturbed land, and less productive farmland.

J. New construction – both residential and commercial – codes should be updated to require electrical wiring and panels that are both solar- and EV-ready.

K. Any changes to the process for developing solar energy projects should result in faster and more efficient issuance of permits.

L. Maryland DNR in consultation with MDE, MDP, and MDA, should develop a map and online mapping platform displaying areas preferential for utility-scale solar development, considering existing natural resources, conserved lands, agriculturally important areas and prime agricultural soils, historic resources, brown/gray fields, military assets, and transmission lines location. Commercial or community solar project location would determine the SREC formula.

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