

MARYLAND'S CLIMATE, OUR ECONOMIC FUTURE:

Building a Cleaner, More Prosperous Maryland





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From the farmlands and waterways of the Eastern Shore to our main streets throughout central Maryland, to the mountains of Garrett County, Maryland has incredible natural resources that make our state a great place to live, work and raise a family. Unfortunately, climate change and its effects continue to pose a tremendous threat to our state and its effects like extreme heat, increasingly severe flooding and storms, poor air quality and sea level rise are jeopardizing our safety, economic prosperity and future. While Maryland once led the nation in the fight against climate change, a failure of executive leadership over the past eight years has set our progress back tremendously.¹

Over the past decade, damage as a result of climate change has cost Maryland over \$10 billion. Today, 81,000 Marylanders are at risk of flooding, and by 2050 that number will increase to nearly 120,000. Experts also predict that by the end of the century 61,000 homes in Maryland could be completely underwater, including nearly 25% of homes on the Eastern Shore, totaling \$19 billion in real estate damage. There are also 110,000 Marylanders today who are at-risk of experiencing extreme heat events, which can lead to serious health consequences and even death. Making matters worse, we know that low-income communities and communities of color - the same communities that lack access to the resources they need to implement climate solutions - have historically borne the brunt of climate change. These communities face higher energy costs, as well as greater exposure to toxic air pollution, exposure to severe weather and flooding.

Wes recognizes that combating climate change is not only key to breaking down disparities and improving the health and well-being of all our residents, but it is also essential to securing our economic future. For too long, we have failed to recognize that we can build a thriving economy and protect our environment and communities. These are not mutually exclusive goals, and in fact, aggressively fighting climate change and adopting more sustainable practices will drive economic growth, spur business and industry advancements, create thousands of great jobs with family-supporting wages and benefits and protect our assets like property, military installations and more. Wes is well-positioned to lead this innovative work because he has done it before. As a former U.S. Army captain, small business owner and CEO of one of the nation's largest anti-poverty nonprofit—overseeing the distribution of more than \$600 million to lift families out of poverty—Wes brings the leadership and unique perspective we need to tackle this crisis.

Wes has proven his ability to bring the public and private sectors together to create change, multiply impact and solve complex challenges. As governor, he will employ an entire-government approach, bringing government agencies, climate experts, our world-class universities, businesses, organized labor, entrepreneurs, nonprofits, philanthropic organizations and other stakeholders together to set aggressive and achievable targets with implementable policies, and he will put necessary enforcement and accountability measures in place to ensure that we are meeting our goals. By leveraging historic new



levels of federal funding, as well as strong partnerships with climate experts, our world-class universities, businesses, organized labor, entrepreneurs and local community groups, we can address climate challenges and finally re-establish Maryland as the global leader we should be.

LEVERAGE A COMPREHENSIVE AND INCLUSIVE APPROACH TO COMBAT CLIMATE CHANGE

Employ an entire-government approach. Climate change impacts every area of Marylanders' lives and as its effects continue to worsen, our economy, health, well-being and safety are all at risk. Wes' first priority as governor will be working with local officials across the state to assess and catalogue vulnerabilities related to climate change. Wes will also require every state agency to conduct a review of their procurement and energy efficiency standards, vehicle fleet and more, and ensure they each set clear annual benchmarks that will reduce their environmental impact and that of the state. This will not only create a greener government, but it will use the state's purchasing power to drive the market to offer cleaner products and services. Additionally, Wes will ensure that every state agency, from transportation, to energy, to natural resources and procurement, works collaboratively to build a greener and more resilient Maryland. To ensure this coordination, accountability and enforcement occurs, Wes will appoint a Chief Sustainability, Mitigation and Resilience Officer. Maryland led the nation in developing Smart Growth and we can build on that success to bring a statewide approach to this fight.

Rely on the expertise of climate scientists, experts and stakeholders. Our ability to address climate change relies on the expertise and collaboration from a wide range of stakeholders, including Maryland's residents, nonprofits, philanthropic organizations, local and state governments, businesses, industry leaders and our university system. Wes recognizes that we are stronger together and cannot be successful in our mission to combat climate change unless all these stakeholders are working together openly and earnestly. As governor, Wes will rely on experts from our world-class universities, economic and business sectors, environment and conservation organizations, and existing community-based groups to inform the state's strategy. Wes will ensure that his Chief Sustainability, Mitigation and Resilience Officer maintains regular communication with stakeholders and coordinates with relevant state and local agencies to implement solutions.





Prioritize Equity, Labor and Justice According to Center for American Progress, nationally, "Family income is one of the strongest predictors of economic mobility; Of those born in the bottom one-fifth of income, 42 percent of children--and 56 percent of African American children--remain in the bottom one-fifth as adults."8 In Maryland, the median income for Black households is \$0.71 per \$1.00 of white households.9 Our burgeoning green economy will not only be an opportunity to right environmental wrongs but to also support equity, labor and justice. We are committed to bringing together organized labor, businesses and training providers to create green apprenticeship programs that lead to quality, green careers. We will create a robust and green economy that supports all workers and families, especially those from communities experiencing the outcomes of decades of poor policies and inaction. The Commission on Environmental Justice and Sustainable Communities in conjunction with the Chief Sustainability, Mitigation and Resilience Officer will play key roles in administering the checks and balances of our green economy. As we build new green infrastructure with thousands of new jobs, we must ensure that existing communities are not harmed in the process and those most vulnerable have a seat at the table as we lay the groundwork for our plans.

REDUCE EMISSIONS AND TRANSITION TO 100% CLEAN ENERGY

Ensure Maryland generates 100% clean energy by 2035. Maryland passed legislation in 2019 requiring 50% clean energy generation by 2030,10 but this goal is insufficient to meet the urgent and worsening effects of climate change. As governor, Wes will ensure that Maryland generates 100% clean energy by 2035 by leveraging billions of incoming federal funds and growing solar installations, supercharging Maryland's wind industry, and investing in battery storage research and development within our university systems. Employers, organized labor and Maryland's robust network of registered apprenticeships will play a vital role in ensuring we have a skilled workforce able and ready to meet these demands. Wes will also focus on reducing energy consumption and the burden on our electric grid by setting aggressive energy efficiency targets for utilities, buildings and industries and putting consumer incentive programs in place that will enable Marylanders to affordably electrify their high-consumption appliances like heat pumps and purchase more efficient products like lightbulbs and smart thermostats. Wes is committed to building an economy that runs on clean energy and establishes itself as an exporter of clean energy, creates good jobs, does not increase energy costs for Marylanders and maintains reliability on the grid. This will require major advancements in battery storage so that we can leverage energy produced by solar and wind 24 hours a day.





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Achieve a 60% reduction in emissions by 2030 and net-zero emissions by 2045. We know that greenhouse gasses (GHGs), whether carbon dioxide, methane, nitrous oxide or others, are produced by every sector of our economy and live in our atmosphere for many years. These dangerous emissions will continue to affect our everyday lives for decades to come and jeopardize our health, safety and well-being, but the good news is that with more sustainable practices we can curb them. Unfortunately, Maryland's current emissions reduction goals are falling short. 11 As governor, Wes will set Maryland on a path to reduce economy-wide GHG emissions 60% by 2030 and achieve netzero emissions by 2045. In order to achieve this goal, Wes will leverage billions in federal infrastructure funds to ensure Maryland generates 100% clean energy by 2035, eliminating emissions from burning fossil fuels. He will also electrify the state's transportation fleet, create incentives for people and companies to use electric vehicles (EVs), invest in energy efficiency through cost-saving programs and accelerate carbon capture and sequestration efforts. Wes will also work with the agriculture and forestry industries to support more sustainable practices to reduce GHG emissions. These efforts will lower costs for consumers and produce tremendous advancements in our fight against climate change.

Expand solar, wind and battery storage in Maryland. To reach our clean energy goals by 2035 and energy independence, Maryland must dramatically increase investments in solar and wind production, as well as prioritize advancements in battery storage. Solar and wind energy are cleaner solutions that also offer lower consumer costs and by advancing battery storage technology, we can harness these energy sources to maintain stability on the grid. In fact, families with solar arrays on their homes can save nearly 50% on energy costs over 25 years, 12 and communities benefiting from community solar arrays can save 10% on their energy costs.13 With offshore wind alone, Maryland has the potential to meet a third of the total energy demand, equivalent to powering every home in the state.¹⁴ As governor, Wes will work to expand the Mid-Atlantic Regional Transformative Partnership for Offshore Wind Energy Resources (SMART-POWER) to more neighboring states and seek federal approval to lease additional sites for development.15 Wes will also work to expand Maryland's battery storage pilot programs and partner with our world-class universities to drive additional research and bring new products to the market, with the goal of bringing manufacturing of advanced gridlevel battery technology to Maryland. Finally, Wes will ensure that additional families and communities, especially low-income communities, can affordably obtain solar installations for their homes or benefit from community solar programs.

Incentivize the electrification of personal and public vehicles. In Maryland, the transportation sector is a major contributor of emissions - producing 36% of our total emissions. A recent study found that over 600 Marylanders die each year from the dangerous effects of vehicle emissions, demonstrating their dangerous health impacts. In 2013, Maryland joined a multi-state task force to increase ownership of zero emissions vehicles (ZEVs) with the goal of registering 300,000 ZEVs in our state by 2025, but as of this year Maryland has only registered 33,000 ZEVS. As governor,





Wes will ensure consumer subsidies for purchasing and maintaining EVs are funded and available in an equitable way and leverage federal funds to deploy a comprehensive network of charging stations. Wes will also explore a remote work tax credit that will help to reduce vehicle travel and reduce commute times, enhancing the quality of life for our workers. Finally, Wes will lead by example and fully electrify the state's fleet of vehicles by the end of his second term.

Invest in cleaner public transit. Access to public transit in Maryland is a significant equity issue that must be addressed. Low-income communities and communities of color are less likely to own vehicles¹⁹ and are more likely to rely on biking or public transit.²⁰ Buses, which are also a primary source of public transportation, are major contributors to air pollution, putting our communities and users at greater risk.21 Investing in public transit will reduce emissions and connect Marylanders with new opportunities. Unfortunately, transit in Maryland has lagged in recent years, and our current governor even returned \$900 million to the federal government that could have been used to expand transit.²² As governor, Wes will never allow federal funds to go unspent, and he will strategically invest the nearly \$2 billion that Maryland will receive from the federal infrastructure bill to make transit more affordable and accessible. Wes will ensure that funding addresses equity issues that make it harder for low-income communities to access opportunity, and he will invest in cleaner forms of transit to get cars off the roads and reduce emissions and air pollution. That means investing in additional routes to reduce commute times and beginning to electrify public transit options like buses and school buses.

Promote sustainable agriculture and forestry practices. Maryland's agriculture and forestry industry is our largest commercial industry, supporting over 80,0000 jobs and producing nearly \$20 billion in economic impact each year.²³ The vast majority of Marylanders agree this industry is vital to our economy and understand the role farmers and foresters play in producing food and other essentials, as well as their role in protecting and conserving our environment.²⁴ Our farm and forest lands need better protection and conservation-based management to store carbon, support low energy, low input production, and weather proofing, including reforestation and maintenance programs. It also means reducing unnecessary waste, finding ways to convert waste into recyclable products, and recovering spent resources. As governor, Wes will work to ensure these industries have dedicated funding sources to promote sustainable practices and continue supporting mitigation and adaptation practices that will prevent the effects of climate change and create resilience. Wes will also increase the number of inspectors that can monitor progress, help the industry to be accountable and identify solutions to challenging issues our farmers and foresters face. Combat the Effects of



COMBAT THE EFFECTS OF CLIMATE CHANGE AND PRIORITIZE ENVIRONMENTAL JUSTICE

Take immediate action to mitigate the effects of sea level rise. Sea level rise is one of the major effects of climate change and Maryland continues to be at significant risk from safety, economic, environmental and health standpoints. Sea levels in Maryland have risen 10 inches since 1950, and experts project that sea levels will rise six inches over the next 13 years, a rate that is twice that of the prior 26 years.²⁵ Paired with the increasing threat of land subsidence, Maryland's communities, from Baltimore, to Annapolis, to the Eastern Shore and beyond, are at risk of increased flooding and storm surge, a deadly consequence of frequent and severe storms. In fact, some experts predict that parts of Dorchester County could be completely underwater by 2100.²⁶ Additionally, over 20,000 properties face the risk of flooding, presenting serious economic consequences, 27 and our military installations are at increased risk, creating national security implications. As governor, Wes will work with climate scientists, local government officials and leading organizations to support projects like constructing and replacing sea walls, creating buffers with natural infrastructure, and piloting programs to inject water underground to prevent land subsidence. Wes will also ensure that future buildings and development are planned with resilience at the forefront and that we focus on relocation planning as a necessary tool for certain communities facing the greatest risks.

Address urban heat islands.²⁸ Baltimore City is ranked as the ninth worst city in the nation for urban heat islands and certain areas may feel up to 7°F hotter than greener parts of the city.²⁹ As climate change continues to produce more frequent and severe extreme heat events,³⁰ urban heat islands present a serious public health threat that must be addressed, especially for low-income communities and communities of color that are more likely to be impacted.³¹ Fortunately, there are effective, low-cost strategies that can dramatically reduce the effects of extreme heat and cool affected areas. These strategies include increasing the tree canopy cover to provide more shade, replacing impervious surfaces with pavers or other materials, installing cool roofs with light-colored paint, rooftop gardens, solar panels, cooling centers and more.³² As governor, Wes will provide funding for local governments to implement these strategies. He will also work with public health officials to increase awareness of extreme heat, ensure that community members are notified of potential events and that resources are provided when they occur.



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Appoint a Statewide Sustainability, Mitigation and Resilience Officer to support local Resilience Authorities. In 2020, the Maryland General Assembly passed legislation allowing local governments to establish and fund Resilience Authorities (RAs) to address pressing climate issues in their communities. These RAs are an important step forward and will have the ability to generate funding for resilience solutions and fund critical projects. Moving forward, it's essential these local authorities also focus on mitigation to prevent additional damage. In order to amplify the impact of these local or regional entities and help expand their work, Wes will appoint a Chief Sustainability, Mitigation and Resilience Officer to increase communications between RAs, share and promote best practices, and work together to increase the state's overall impact on climate change. Wes will also work to secure additional funding to support local efforts.

Reduce air pollution to improve health outcomes. The same GHGs that are worsening the effects of climate change are also impacting air quality and pollution for our most vulnerable communities. Extreme heat events compound the issue of poor air quality, leading to worse health outcomes.³³ In 2017-19, air pollution cost Maryland more than \$2 billion annually in costs that include its effect on increasing rates of heart attacks, asthma, and other health outcomes.34 Additionally, people of color, low-income, and urban residents are disproportionately impacted by poor air quality.35 In addition to statewide strategies to reduce air pollution such as promoting the adoption of electric vehicles, investing in cleaner public transit, and reaching zero-net emissions, Maryland must take a regional approach to improving air quality because as much of 70% of our state's ozone and fine particle air pollution comes from other states.³⁶ As governor, Wes will work to strengthen regional partnerships and implement adaptation solutions that will reduce pollution. Wes will also install air quality sensors in the eight counties in Maryland that lack one to better monitor air quality and alert residents when local air pollution is particularly dangerous and 37 increase canopy cover that will protect against extreme heat and improve natural processing of pollutants.

PROTECT OUR WATERWAYS

Preserve the Chesapeake Bay. The Chesapeake Bay is our greatest natural resource, generating billions in annual economic impact and supporting key industries like tourism, fishing, crabbing and more.³⁸ To protect this invaluable resource, we must remain committed to maintaining a healthy Bay and combating nutrient pollution from nitrogen, phosphorus and sediment that runoff into the vast network of waterways flowing into it. The Chesapeake Clean Water Blueprint has helped to establish goals and kept us moving in the right direction, but we must continue to promote accountability and enforcement within Maryland and among neighboring states. As



Governor, Wes will urge the EPA and other states in the Watershed to hold up their end of the bargain. Wes will use his experience as CEO of a major nonprofit to bring these groups together and ensure their success so that Marylanders can continue to live, work, and play in and around this national treasure. He will also leverage federal funds to improve storm and wastewater management systems and support our agriculture and forestry industries in their efforts to implement sustainable conservation practices to reduce nutrient runoff. Wes will also work to restore our oyster and mussel populations, which are natural water filtration systems for our waterways, a key tool for improving our water quality and a mechanism to create economic opportunities for watermen and aquaculture growers.

Restore the Inner Harbor. Over the past decade, Maryland has made incredible progress cleaning up Baltimore's Inner Harbor, leading to a healthier environment, new recreational opportunities and an enriched culture for the city and our state.³⁹ In fact, a 2020 report published by the Waterfront Partnership demonstrates lower bacterial levels and major reductions in sewer overflows.⁴⁰ The group also indicates the Inner Harbor is regularly tested as safe for recreation, a significant milestone. These efforts are largely attributed to sewer pipe repairs, investments in storm and wastewater management, enhanced street cleaning and the provision of trash cans to all Baltimore residents. As governor, Wes will leverage federal funding to further upgrade storm and wastewater management systems to prevent pollutants from entering our waterways. He will also support efforts to plant trees, gardens and other natural solutions to reduce nutrient pollution and improve water quality.

Invest in wastewater management and water treatment systems. As climate change continues to produce more frequent and severe storms and flooding events, runoff is also increasing, leading to environmental damage and worsening pollution and contamination of our waterways, including the Chesapeake Bay.⁴¹ This increased pollution can lead to serious health consequences for our communities, especially low-income communities.⁴² Storm and wastewater management also present major financial and infrastructural challenges for many communities. Thankfully, the federal infrastructure bill will deliver nearly \$1 billion to improve water infrastructure in Maryland,⁴³ and as governor, Wes will ensure these funds are used to upgrade old and degrading systems to protect the quality of our drinking water, waterways and economy. He will also invest in greener practices and leverage natural resources like more permeable surfaces, green roofs, rain gardens and more to process excess precipitation and runoff.



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DRIVE ECONOMIC GROWTH AND CREATE THOUSANDS OF NEW JOBS IN THE GREEN ECONOMY

Expand clean energy research and commercialize it. Last year, Maryland was named sixth in the nation and "most improved" by the American Council for an Energy-Efficient Economy. 44 Although we have made progress, we cannot grow complacent. We need synchronization and cohesion across government, nonprofit, and research institutions to create tomorrow's solutions for today's climate problems. We will bring together government agencies and offices like the Maryland Clean Energy Center to work with the state's leading universities—like the University System of Maryland's Environmental Sustainability and Climate Change Initiative and Morgan State University's (MSU) Patuxent Environmental Aquatic Research Laboratory. As part of our plan to support MSU ascension to R1 status, we will provide resources for the university's research on urban/shoreline impacts and climate change. Wes' administration will provide a strong foundation for Maryland universities' continued work in developing innovative coursework, programs, and research in science and engineering that will drive forward the clean energy business sector. He will also leverage the Maryland Momentum Fund to support clean technology startups and entrepreneurs.

Create new educational and career training opportunities for clean energy jobs. As Maryland transitions to clean energy, cuts down on dangerous emissions and continues working to restore the Chesapeake Bay, we will see tens of thousands of new job opportunities in our state. To meet this demand and ensure we are able to meet our goals, we will need to train and grow our clean energy workforce. During the COVID-19 pandemic, clean energy industries lost hundreds of thousands of jobs nationwide, and Maryland lost more than 12,000 jobs. As governor, Wes will accelerate Maryland's ability to produce highly-skilled and trained workers to fill these jobs. Wes will leverage partnerships between clean energy businesses and our community colleges to offer relevant credentials, associates degrees, registered apprenticeships and other on the job training programs that will prepare students for the workforce. He will also partner with our world-class universities to ensure they are producing graduates in various fields like engineering that will be essential to our success. Finally, Wes will ensure that his Service Year Option program has a strong focus on climate change, environmental justice and clean energy.

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