Maryland Climate Coalition

Forward with Clean Energy: Health

The Health Benefits of Doubling Maryland's Clean Electricity by 2025

Fossil fuel combustion is a public health crisis. More than 85 percent of Marylanders live in areas that fail to meet the nation's clean air standards, and the state has the notorious distinction of being the worst in the eastern U.S. for ground-level ozone pollution. As a result, Baltimore City has the highest rate of premature death in the nation due to air pollution, and these health burdens harm low-income people and people of color disproportionately.

That's why a broad and diverse coalition of environmental and public health officials, business leaders, faith leaders, academics, low-income advocates and social justice advocates have come together to call on Maryland's leaders to double the state's clean electricity standard to 40% by 2025. The state's current goal is 20% clean power by 2022. For the cost of a cup of coffee per month for an average Maryland ratepayer, 40% clean electricity will significantly improve the state's air quality while preventing 200 to 450 deaths per year and increasing economic growth by $1.8 billion to $4.2 billion annually throughout the region due to better health outcomes.

Fossil Fuel Impacts

When fossil fuels like coal and oil are combusted for energy, toxic air pollutants like nitrogen oxide, sulfur dioxide, carbon monoxide, and particulate matter are released into the air. These dangerous compounds can form ozone, which aggressively attacks lung tissue, and is linked to an array of negative health outcomes such as asthma, cardiovascular disease, heart attacks, cancer, high blood pressure, low birth weights, and neurological, developmental, and behavioral problems. Maryland has six coal plants located in Baltimore County, Anne Arundel County, Prince George's County, Montgomery County, and Charles County. The pollution from these coal plants and from nearby states degrades Maryland's air quality and contributes to the nearly one million Marylanders suffering from asthma, cardiovascular disease, and chronic obstructive pulmonary disease.

> "The burden of environmental degradation still falls disproportionately on low-income communities and communities of color, and most often on their youngest residents: our children, my children. "
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> - U.S. Attorney General, Eric Holder

Clean Energy Solutions

Clean power can deliver lasting benefits to Maryland by reliably generating electricity without any of the associated air emissions. A 40% clean electricity standard would create incentives for enough zero-emissions clean renewable energy—like wind and solar power—to displace the energy equivalent of roughly five typical (500 megawatt) coal-fired power plants. Based on the energy mix of today's electricity grid, that's enough clean power to prevent 11,000 tons of ozone-forming nitrogen oxide emissions, and 29,900 tons of health-hazardous sulfur dioxide per year.

With such clear public health benefits, it's little wonder that the American Heart Association, the American Lung Association, the American Public Health Association, the American College of Preventive Medicine, and many other medical professionals advocate for the need to reduce air pollution through sensible public policy.

Cleaner Air is a Civil Right

"Climate change is about us." That concise statement from the NAACP's Climate Justice Initiative speaks volumes about the urgent reality of fossil fuel pollution—in terms of the havoc it is already wreaking on the health and wellbeing of Marylanders.

The burden of our current reliance on fossil fuels falls disproportionately on Maryland's poorest communities. Nationally, approximately 68% of African Americans live within 30 miles of a coal-fired power plant. Here in Maryland, a full 94% of African Americans and 95% of Hispanic or Latino residents live in counties that fail to meet the nation's clean air standards.

That inequality is reflected in our health outcomes. A 2014 study found that communities of color breathe in nearly 40% more polluted air than whites, and poor white Americans endure 27% heavier pollution than do wealthy white Americans.

A Maryland 40% Clean Electricity Standard:

Better Public Health = More Economic Growth

Regional Annual Emissions Reductions (short tons)	
Sulfur Dioxide (SO_2)	29,881
Nitrogen Oxides (NO_x)	11,043

Regional Annual Health Impacts Avoided		Regional Annual Health Benefit (2014$)
Outcome	**Number**	**Dollar Value**
Mortality	197 - 446	$1.82 billion - $4.11 billion
Asthma Exacerbations	5,389	$337,150
Heart Attacks	24-227	$3.3 million - $30.4 million
Hospital Admissions	130	$4,773,590
Acute Bronchitis	279	$145,130
Respiratory Symptoms	8,640	$264,100
Asthma ER Visits	115	$53,720
Minor Restricted Activity Days	146,231	$10,808,320
Work Days Lost	24,493	$4,269,920
	total	$1.84 billion - $4.16 billion

Recent data from the National Academy of Sciences indicates that health impacts caused by burning fossil fuels for electricity cost the average Maryland household almost $73 per month, creating a drag on Maryland's economy. Studies have shown that high health care costs can reduce employment, decrease employer benefit generosity, and require larger employee health care premium contributions. Those higher costs decrease personal disposable income, meaning that consumers have less money to spend in more productive sectors of the economy.

By reducing pollution throughout our region, a 40% clean electricity standard will reduce health care costs, delivering real economic benefits region wide. The U.S. Environmental Protection Agency's (EPA) Avoided Emissions and Generation Tool (AVERT) and Co-Benefits Risk Assessment Screening (COBRA) Model show that this policy would reduce roughly 11,000 tons of nitrogen oxide emissions and 29,900 tons of sulfur dioxide per year throughout our regional air shed. Those reduced emissions can prevent 200 to 450 deaths per year, 24 to 227 non-fatal heart attacks, 5,389 asthma episodes, and many other adverse health impacts per year. Much of that avoided pollution will come from Maryland and from states upwind from Maryland that currently blow dirty air across state lines. The COBRA model estimates that these avoided annual health impacts will produce $1.8 billion to $4.2 billion annually in economic value through better health outcomes.

THE SOLUTION:

Raising Maryland's clean electricity standard to a robust and achievable 40% by 2025 will improve the environment while delivering significant health benefits to Maryland citizens. For less than the cost of a cup of coffee per month for an average Maryland ratepayer, Maryland can double its commitment to this successful clean energy policy that is already delivering health and environmental gains.

Find out more at http://marylandclimatecoalition.org/ or contact:

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