

THE WHITE HOUSE

A CLEANER, MORE EFFICIENT POWER SECTOR IN MICHIGAN

We have a moral obligation to leave our children a planet that's not polluted or damaged. By taking action now to combat climate change, including developing homegrown clean energy and cutting energy waste, we can help protect our kids' health, cut carbon pollution, and begin to slow the effects of climate change so we leave a cleaner, safer environment for future generations.

We are already feeling the dangerous and costly effects of a changing climate across the nation. In the past three decades, the percentage of Americans with asthma has more than doubled, and climate change is putting those Americans at greater risk of landing in the hospital. And extreme weather events – from more severe droughts and wildfires in the west to more powerful hurricanes and record heat waves – are affecting communities across the country. Now is the time to act. We have already made progress by moving to cleaner sources of energy and improving the energy efficiency of our cars, trucks, and buildings.

The Clean Power Plan, a key part of the President's Climate Action Plan, cuts harmful carbon pollution from the power sector that's fueling climate change. By setting the first-ever national standards to limit carbon pollution from power plants, the largest single source of U.S. carbon pollution, it will improve the health of Americans across the country, create clean energy jobs, and help households and businesses save on their energy bills. The final plan takes into account the more than 4 million comments received from states and stakeholders across the country, creating strong but achievable standards for power plants that provide flexibility and choices for states and utilities on how to achieve their clean energy future.

The Clean Power Plan Will Improve the Health of Michigan Residents

We know climate change will put vulnerable populations at greater risk – including the elderly, our kids, and people already suffering from burdensome allergies, asthma, and other illnesses. According to the Centers for Disease Control and Prevention, 11.5 percent of Michigan's adult population and 10.9 percent of children in the state suffer from asthma. The sooner we act, by taking responsible steps to cut carbon pollution from existing power plants, the more we can do to prevent impacts that affect all Americans – especially the most vulnerable.

In 2013, 67 million metric tons of carbon pollution were emitted from power plants in Michigan — equal to the yearly pollution from over 14 million cars. In addition to reducing a portion of this carbon pollution, EPA's guidelines will also cut other forms of air pollution like soot and smog. Overall, these reductions will provide significant health benefits.

Since the Clean Air Act was implemented more than 40 years ago, the EPA has continued to protect the health of communities, in particular those vulnerable to the impacts of harmful pollution, while growing the economy. In fact, since 1970, air pollution has decreased by nearly 70 percent while the economy has tripled in size. The Clean Power Plan builds on this progress, while providing states the flexibility to have clean, reliable, and affordable electricity.

Reducing Carbon Pollution Lowers Risks and Costs for Michigan

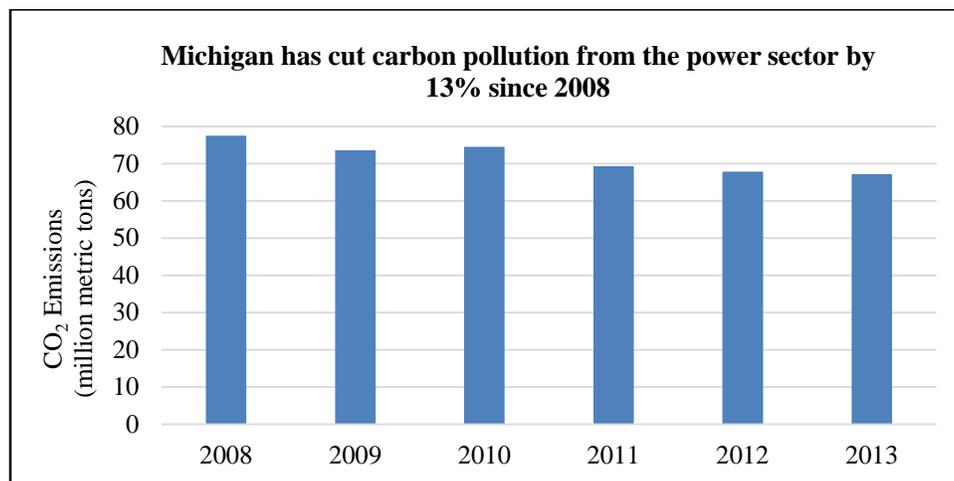
Michigan is part of the U.S. National Climate Assessment's Midwest Region. The findings in the National Climate Assessment underscore the need for urgent action to combat the threats from climate change, protect American citizens and communities today, and build a sustainable future for our kids and grandkids. According to the third U.S. National Climate Assessment Highlights report, regional and state-specific

impacts include:

- *Climate:* Between 1900 and 2010, the average Midwest air temperature increased by more than 1.5°F. Since 1991, the amount of rain falling in very heavy precipitation events has been significantly above average. This increase has been greatest in the Northeast, Midwest, and upper Great Plains – more than 30 percent above the 1901-1960 average.
- *Health:* Summer heat waves in the state are already more intense, with heat-related illness and death projected to increase. Since the hottest days are often associated with high concentrations of ground-level ozone and other pollutants, the combination of heat stress and poor air quality can pose a major health risk to vulnerable groups: young children, the elderly, and those with pre-existing health conditions including asthma. More than 20 million people in the Midwest experience air quality that fails to meet national ambient air quality standards. Degraded air quality due to human-induced emissions and increased pollen season duration are projected to be amplified with higher temperatures, and pollution and pollen exposures, in addition to heat waves, can harm human health.
- *Great Lakes:* The Great Lakes, North America’s largest freshwater feature, have recently recorded higher water temperatures and less ice cover as a result of changes in regional climate. Higher temperatures, increases in precipitation, and lengthened growing seasons favor production of blue-green and toxic algae that can harm fish, water quality, habitats, and aesthetics, and could heighten the impact of invasive species already present.

Michigan is Already Reducing Carbon Pollution and has Many Tools to Meet its Clean Power Plan Goals

Michigan has already reduced its power sector carbon pollution by 13 percent since 2008. Mayors in over 30 cities in Michigan have joined the Mayors Climate Protection Agreement, committing to take action in their communities to reduce greenhouse gas emissions. In 2014, there were approximately 6,100 people employed in the wind and solar industries in Michigan.



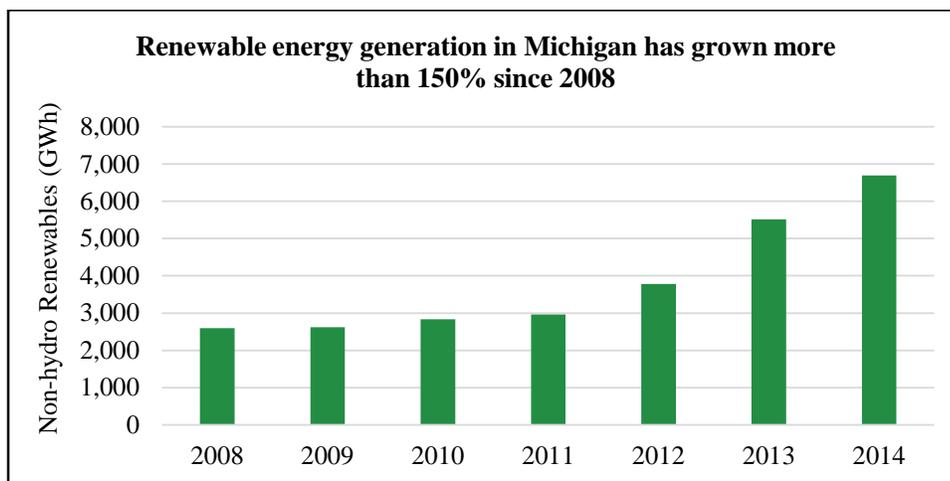
Michigan, like all states, will have flexibility to meet EPA’s goal by using the energy sources that work best for it and by cutting energy waste. To date, all 50 states have demand-side energy efficiency programs, 37 have implemented renewable portfolio standards or goals, and 10 have adopted market-based greenhouse gas emissions programs. Michigan is no exception. The state has a goal to generate 10 percent of its electricity from renewable energy resources by the end of 2015 and a goal to cut retail electricity sales

by 1 percent each year, beginning in 2012. EPA's rule builds on progress already underway in each state and provides guidelines for states to develop plans to meet their carbon pollution reduction goals. It lets states work alone to develop plans or work together with neighboring states to develop multi-state plans, creating thousands of good jobs for Americans who are making our electricity system cleaner and our homes and businesses more energy efficient.

Cutting Carbon Pollution and Saving on Energy Bills in Michigan

Through the President's leadership, and the initiative of the state of Michigan, local communities, and the private sector, a number of common sense measures to combat carbon pollution in Michigan are already in place. EPA's flexible guidelines for power plants will continue driving cost-effective measures to reduce carbon pollution in Michigan, building off of recent progress:

- **Increasing the Deployment of Clean Energy:** Since President Obama took office, the United States has more than doubled its use of renewable energy from wind, solar, and geothermal sources, including tripling wind energy generation and increasing solar generation by more than twenty times. In Michigan, renewable energy generation from these sources increased by more than 150 percent since 2008. The Administration has supported tens of thousands of renewable energy projects throughout the country, including 204 in Michigan, generating enough energy to power over 120,000 homes. Furthermore, the U.S. produces more natural gas than ever before - and nearly everyone's energy bill is lower because of it.



- **Improving Energy Efficiency:** Using less energy to power our homes and businesses is critical to building a clean and secure energy future. President Obama has made essential investments in research and development to advance energy efficiency, and set new standards to make the things we use every day more efficient. Since October 2009, the Department of Energy and the Department of Housing and Urban Development have jointly completed energy upgrades for more than 1.5 million homes across the country, saving many families more than \$400 on their heating and cooling bills in the first year alone. Already, local communities are taking initiative. As part of the President's Better Buildings Challenge, Michigan State University committed to reducing energy intensity 20 percent by 2020 in 20 million square feet of campus buildings. To date, Michigan State University has achieved improved energy performance of 10 percent.