



Climate Action at the State Level Increased Ambition in Michigan and New Jersey



May 2023

Josh McBee and Anna Mervosh

Acknowledgements



This briefing was prepared under the Transatlantic Climate Bridge project, which is supported by the German Federal Government. The briefing is the independent work and sole responsibility of adelphi (coordinator of the Transatlantic Climate Bridge Program Office) and Climate Advisers and was neither commissioned by nor necessarily reflects the views of the Federal Government.

Table of Contents



INTRODUCTION 2

SECTION I: MICHIGAN 3

Democrats' Trifecta 4

IRA to Boost Michigan's Climate Ambition 4

SECTION II: NEW JERSEY 6

Governor Murphy Accelerates Climate Action 7

IRA Supports Increased Climate Action 8

CONCLUSION 9

Introduction

It has been clear for some time that efforts at the state level will play a crucial role in getting the United States to its goal of cutting emissions in half by 2030. Now, however, provisions of the Inflation Reduction Act (IRA) specifically targeted toward investments at the state level are posed to super-charge these efforts.¹ Among these provisions are the following:

- **\$27 billion** for states and other entities to deploy zero-emission technologies and reduce climate pollution in disadvantaged communities through a Greenhouse Gas Reduction Fund.
- **\$8.6 billion** for state energy offices to help consumers retrofit their homes through High-Efficiency Electric Homes Rebates (HEEHRA) and a Home Energy Performance-Based, Whole-House Rebates (HOMES) program.
- **\$5 billion** for states, municipalities, and tribal governments to develop and implement plans to reduce climate pollution through Climate Pollution Reduction Grants.
- **\$2.2 billion** for state and private forestry conservation programs to plant trees and undertake land acquisition projects.
- **\$1 billion** for state and local governments to adopt building energy codes, including \$670 million for zero energy codes.
- **\$5 million** for states to adopt and implement clean vehicle standards.²

In addition to these state-specific provisions, states will benefit from other provisions of the IRA, such as the tax credits for wind and solar installations and electric vehicles (EVs) that bring construction and maintenance jobs. The domestic content requirements associated with this latter set of credits should also spur significant growth in domestic mining, battery and vehicle manufacturing, iron and steel production, and wind turbine and solar panel manufacturing.³ All of these provisions will and in fact have already begun to benefit states across the political spectrum, but they are likely to have the biggest impact in states where Democrats hold power and climate action is popular, particularly those with pre-existing climate targets.

¹ Joselow, Maxine, "State climate action could be supercharged by the Inflation Reduction Act," *The Washington Post*, August 17, 2022, <https://www.washingtonpost.com/politics/2022/08/17/state-climate-action-could-be-supercharged-by-inflation-reduction-act/>

² This summary comes from United States Climate Alliance, "U.S. Climate Alliance Applauds Final Passage of the Inflation Reduction Act of 2022," August 12, 2022, <http://www.usclimatealliance.org/publications/2022/8/12/inflation-reduction-act-passage>.

³ For details regarding these domestic content requirements, see Ariel Debin and Ryan Roberts, "Domestic Content Requirements of the Inflation Reduction Act: Basic Requirements, Qualification Analysis, and Lingering Questions," J.D. Supra, February 2, 2023, <https://www.jdsupra.com/legalnews/domestic-content-requirements-of-the-5954792/> and U.S. Department of the Treasury, "Treasury Releases Proposed Guidance on New Clean Vehicle Credit to Lower Costs for Consumers, Build U.S. Industrial Base, Strengthen Supply Chains," March 31, 2023, <https://home.treasury.gov/news/press-releases/jy1379>.

To illustrate this dynamic, as well as to give some sense of what is possible at the local level and how states can help to meet the U.S. 2030 target with help from the IRA, this analysis focuses on two of the biggest states catalyzing climate action, Michigan and New Jersey. New Jersey, a solidly Democratic state whose experience with Superstorm Sandy in 2012 has made its residents particularly sensitive to the dangers of climate change, recently strengthened its already ambitious climate targets. By contrast, Michigan is a swing state that voted for Republican Donald Trump in 2016 but Democrat Joe Biden in 2020. Currently, Democrats hold both houses of the legislature and the governor's mansion for the first time in nearly 40 years. Despite these differences, the IRA is expected to accelerate climate action in both states, a trend expected at the state level across the United States in the coming years.

Michigan

Michigan has taken important steps to reduce emissions under the leadership of Governor Gretchen Whitmer, who took office in 2019. Shortly after Governor Whitmer came to power, the state joined the U.S. Climate Alliance, a group of 24 governors representing both Republican and Democratic states committed to meeting the goals of the Paris Agreement.⁴ In joining the Alliance, Governor Whitmer committed the state to pursuing at least a 26-28 percent reduction below 2005 levels in greenhouse gas emissions by 2025. More recently, in an executive order issued in September 2020, the Governor committed the state to two far more ambitious targets: a 52 percent reduction from 2005 emissions levels by 2030 and "economy-wide carbon neutrality" by 2050.⁵ In the same executive order, Governor Whitmer directed the Department of Environment, Great Lakes, and Energy to develop a plan to achieve these goals. The resulting document, The Michigan Healthy Climate Plan, highlights the buildings, energy, and transportation sectors as areas where there are opportunities to make substantial progress in the next few years.⁶ An outside analysis confirmed that, if the Plan were to be fully implemented, Michigan would nearly achieve its 2030 goal, falling short by only a couple of percentage points.⁷ This same analysis found that the vast majority of these emissions reductions result from just four policy measures in the Plan: a clean energy standard, measures to phase out coal-fired power plants by 2030, building electrification and energy efficiency measures, and incentives for consumers to purchase EVs. See Figure 1 below.⁸

⁴ "Executive Directive 2019 - 12," February 4, 2019, <https://www.michigan.gov/whitmer/news/state-orders-and-directives/2019/02/04/executive-directive-2019-12>.

⁵ "Executive Directive 2020 - 10," September 23, 2020, <https://www.michigan.gov/whitmer/news/state-orders-and-directives/2020/09/23/executive-directive-2020-10>.

⁶ Michigan Department of Environment, Great Lakes, and Energy, "MI Healthy Climate Plan," April 2022, <https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climature-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbffa>.

⁷ 5 Lakes Energy, Michigan Environmental Council, NRDC, Energy Innovation, and RMI, "2030 Report: How Michigan Should Achieve Its Climate Change Goals," April 2022, <https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climature-Plan.pdf?rev=d13f4adc2b1d45909bd708cafccbffa>.

⁸ Ibid.

FIGURE 1: EMISSIONS REDUCTIONS FROM FOUR KEY POLICIES IN THE MICHIGAN HEALTHY CLIMATE PLAN



Figure 1. Source: RMI.

The Michigan Healthy Climate Plan was an important step forward to reach the state’s long-term goals. Nevertheless, it is still just a plan; to fully implement it the legislature will need to act. Lawmakers in the state have been able to advance some climate measures on a bipartisan basis, such as the energy efficiency measures in the Building Michigan Together Plan passed in the spring of 2022.⁹ Even so, when the Michigan Healthy Climate Plan was released, there was little chance that the legislature would implement it to any significant degree since Democrats did not control the legislature.

Democrats’ Trifecta

Now that Democrats hold majorities in both houses of the state legislature along with the governorship (referred to as a trifecta), a real window of climate opportunity has opened. Nevertheless, the Plan faces several obstacles in the legislature. For one thing, with Democrats in control of the policy agenda for the first time in many years, they will have many competing priorities, and climate action may not top the list. Second, legislative majorities are slim in both houses—in the Senate, Democrats hold 20 of 38 seats, while in the House of Representatives they hold 56 of 110—so even the slightest dissension among Democrats could block the path forward. Third, some climate advocates have suggested that some state Democrats’ ties to industry may make progress difficult. For instance, Charlotte Jameson, chief policy officer at the Michigan Environmental Council, told reporters that “[t]here are a lot of Democrats in Michigan who have very strong relationships with our incumbent utilities, and there are things in a climate package that the utilities won’t like.”¹⁰

IRA to Boost Michigan’s Climate Ambition

Regardless of what happens in the legislature, recent federal legislation will support Michigan’s climate ambition. The Governor herself has not only ordered state departments and agencies

⁹ “Whitmer to Sign Building Michigan Together Plan,” March 28, 2022, <https://www.michigan.gov/whitmer/news/press-releases/2022/03/28/whitmer-to-sign-building-michigan-together-plan>.

¹⁰ Jeffrey Tomich, “Midwest trifectas bolster Democrats’ climate ambition,” *E&E News*, November 10, 2022, <https://subscriber.politicopro.com/article/eenews/2022/11/10/midwest-trifectas-bolster-democrats-climate-ambition-00066021>.

to look for opportunities to use resources from the IRA to implement the Healthy Climate Plan but has also personally courted investment by European companies, an effort that led to the recent announcement of a \$400 million investment by Norway's Nel Hydrogen in a new Michigan plant.¹¹ Many more such investments are likely to be announced in the coming years. In fact, the Rocky Mountain Institute and Energy Innovation estimate that Michigan could see as much as \$26 billion invested in the state as a result of the IRA by 2030, creating up to 34,000 new jobs.¹² An additional \$375 million from the CHIPS and Science Act to accelerate semiconductor manufacturing and around \$110 million from the Infrastructure Investment and Jobs Act for EV charging infrastructure will complement funds from the IRA.¹³ Already, the IRA has made the economics of building out solar, wind, and battery storage capacity so much more favorable that one of the state's largest utilities, DTE Energy, has proposed quadrupling its renewable energy capacity and battery storage over 2019 levels.¹⁴

Of particular interest for Michiganders, given the state's history, is the expected growth of the EV industry. Michigan has long been the heart of America's automotive industry. In fact, so strongly identified in the American consciousness are the industry and the state that "Detroit," one of the state's biggest cities and home to the so-called "Big Three" manufacturers (Ford, GM, and Chrysler), is often treated as a metonym for the entire auto industry (as in "Detroit is not happy about these new fuel efficiency rules," for example). The region's dominance in the industry has declined somewhat as foreign cars have become more popular and other brands, like Tesla, that are based elsewhere have increased their market share. Now, however, with new incentives from the IRA for consumers to buy EVs and American manufacturers to produce EVs and EV components, the Big Three stand ready to capitalize on the opportunity. Before passage of the IRA, modeling by Climate Advisers and the University of Maryland already indicated that the state would add around 15,000 jobs in the clean vehicle industry between 2021 and 2025.¹⁵ With new federal incentives, Detroit is well positioned to reclaim its status as the nation's premier auto manufacturing region.

With that said it must be noted that the new EV tax credits in the IRA also introduce substantial challenges for EV manufacturers by way of their quite demanding requirements regarding assembly in North America and sourcing of critical minerals and battery components. In the

¹¹ Kathleen Achtenberg, "Michigan Wins More than 500 Jobs, Up to \$400 Million Investment from Norway's Nel Hydrogen," Michigan Economic Development Corporation, May 3, 2023, <https://www.michiganbusiness.org/press-releases/2023/05/nel-hydrogen/>.

¹² Ashna Aggarwal, Jacob Corvidae, Wendy Jaglom-Kurtz, "The Economic Tides Just Turned for States," Rocky Mountain Institute, February 6, 2023, <https://rmi.org/economic-tides-just-turned-for-states/>; Office of Governor Gretchen Whitmer, "Gov. Whitmer Signs Executive Directive Utilizing the Inflation Reduction Act to Create Jobs, Strengthen Michigan's Economic Competitiveness," September 7, 2022, <https://www.michigan.gov/whitmer/news/press-releases/2022/09/07/whitmer-signs-executive-directive-utilizing-the-inflation-reduction-act>.

¹³ Office of Governor Gretchen Whitmer, "Governor Whitmer Announces Michigan Will Receive \$110 Million to Expand Electric Vehicle Charging Infrastructure," February 10, 2022, <https://www.michigan.gov/whitmer/news/press-releases/2022/02/10/announces-michigan-will-receive-110-million-to-expand-electric-vehicle-charging-in>; Conness, Jack, "Inflation Reduction Act (IRA) + CHIPS and Science Act (CHIPS) Manufacturing Investment Announcements," Jack Conness, <https://www.jackconness.com/ira-chips-investments>.

¹⁴ Dennis Wamsted, "Transformative impact of Inflation Reduction Act is coming into focus," *Institute for Energy Economics and Financial Analysis*, December 7, 2022, <https://ieefa.org/resources/transformative-impact-inflation-reduction-act-coming-focus>; The White House, "The Inflation Reduction Act Delivers Affordable Clean Energy for Michigan."

¹⁵ "Michigan," part of Climate Advisers' *U.S. Green Economy Report*, available here: <https://usgreeneconomy.com/michigan/>.

short term, these requirements will limit the number of EVs that qualify for the full credit, likely raising prices and putting a damper on demand. In the longer term, however, these content requirements appear likely to spur significantly more investment in American manufacturing. Indeed, Ford, Tesla, GM, and other car companies have already made big investments in battery manufacturing, EV R&D, and other related activities.¹⁶ In Michigan specifically, Chinese firm Gotion is opening a new \$2.36 billion battery plant that Governor Whitmer has called the “biggest ever economic development project in Northern Michigan,” and Michigan-based startup Our Next Energy has announced a \$1.6 billion investment in a new battery cell plant that will be operating at full capacity by the end of 2027.¹⁷

New Jersey

In New Jersey, as in many other parts of the United States, shifting political winds blunted early climate momentum. In 2005, New Jersey co-founded the Regional Greenhouse Gas Initiative (RGGI), a regional cap and trade program that includes a number of Northeastern and Mid-Atlantic states. Two years later, in 2007, it became one of the first states in the country to set a climate target when the legislature passed the Global Warming Response Act (GWRA), setting a goal of reducing the state’s emissions by 80 percent from 2006 levels by 2050 (a goal widely referred to as “80x50”).¹⁸ After this auspicious start, however, progress halted when Republican Governor Chris Christie took office in 2010. In addition to gutting many GWRA programs, Governor Christie withdrew the state from RGGI in 2011. Over the next several years, New Jersey mostly sat on the sidelines as a series of severe hurricanes made clearer than ever the need for ambitious climate action. The most devastating of these by far was Superstorm Sandy in 2012, which damaged or destroyed 346,000 homes, flooded subway lines, deprived 2 million people of power, and caused an estimated \$37 billion dollars in damages.¹⁹ Finally, in 2018, when New Jersey’s current governor, Democrat Phil Murphy, took office, New Jersey refocused on raising climate ambition.

Shortly after he took office, Governor Murphy signed a bill adding New Jersey to the U.S. Climate Alliance, thereby committing the state to a goal of reducing greenhouse gas emissions by at least 26-28 percent below 2005 levels by 2025.²⁰ Then, in 2021, Governor Murphy supplemented the GWRA with a considerably more ambitious interim target of achieving a 50 percent reduction in emissions by 2030 and a goal of achieving 100 percent clean energy by 2050.²¹ He also tasked the New Jersey Board of Public Utilities to develop a roadmap to achieve

¹⁶ Michele Ma, “Companies are finally investing in making EVs in the US. Here’s a running list,” *Protocol*, October 10, 2022, <https://www.protocol.com/climate/ira-ev-tax-credits-us>.

¹⁷ *Ibid.*

¹⁸ Molly Freed, “New Jersey Just Announced Big Climate Actions. How Far Do They Go?,” Rocky Mountain Institute, March 6, 2023, <https://rmi.org/new-jersey-just-announced-big-climate-actions-how-far-do-they-go/>.

¹⁹ “Remembering Superstorm Sandy,” New Jersey Department of Environmental Protection, <https://dep.nj.gov/sandy-10/>; Stephanie Hoopes Halpin, “The Impact of Superstorm Sandy on New Jersey Towns and Households,” Rutgers University, <https://rucore.libraries.rutgers.edu/rutgers-lib/44886/PDF/1/play/>, p. 5.

²⁰ U. S. Climate Alliance, “New Jersey Governor Phil Murphy Joins U.S. Climate Alliance,” February 22, 2018, <http://www.usclimatealliance.org/publications/2018/2/22/new-jersey-governor-phil-murphy-joins-us-climate-alliance>.

²¹ Freed, “New Jersey Just Announced Big Climate Actions. How Far Do They Go?”

this goal.²² The resulting Energy Master Plan includes provisions for electrification of the buildings and transportation sectors and energy efficiency measures.²³ In addition, under Murphy's leadership, New Jersey has rejoined the RGGI.

Governor Murphy Accelerates Climate Action

Most recently, in perhaps his most impactful move to date, Governor Murphy issued a set of six executive orders to raise climate ambition in the state:

- **Pillar 1** moves the 100 percent clean energy target from 2050 to 2035 and includes support for a statewide clean energy standard;
- **Pillar 2** sets a 2030 target to install electric space heating and cooling systems in 400,000 homes and 20,000 commercial properties and to prepare 10 percent of all low-to-moderate income (LMI) properties for electrification;
- **Pillar 3** tasks the New Jersey Board of Public Utilities with planning for the future of natural gas in the state;
- **Pillar 4** steers RGGI auction proceeds towards medium- and heavy-duty EV incentives;
- **Pillar 5** begins the process to harmonize New Jersey's car and light-duty truck rules with California's, known as Advanced Clean Cars II. These rules would require all new cars and light-duty truck sales to be zero-emission vehicles (ZEV) by 2035; and
- **Pillar 6** proposes measures that would enhance flood protection for homeowners, businesses, and infrastructure in riverine and coastal areas.²⁴

A number of these provisions will not go into effect without additional action by the state legislature, including the state clean energy standard and adoption of Advanced Clean Cars II. Since, according to analysis by the Rocky Mountain Institute, these two policies are among the highest-impact policies that a state can enact to achieve its climate goals, this means that the impact of the governor's recent orders on emissions is still somewhat uncertain, albeit somewhat less so than in Michigan, given New Jersey's generally more climate-friendly political environment.²⁵ If the governor's orders are fully implemented, the associated emissions reductions will be substantial, as shown in the figure below.

²² Ibid.

²³ "2019 New Jersey Energy Master Plan: Pathway to 2050," https://nj.gov/bpu/pdf/publicnotice/NJBPU_EMP.pdf.

²⁴ Freed, "New Jersey Just Announced Big Climate Actions."

²⁵ Ibid.

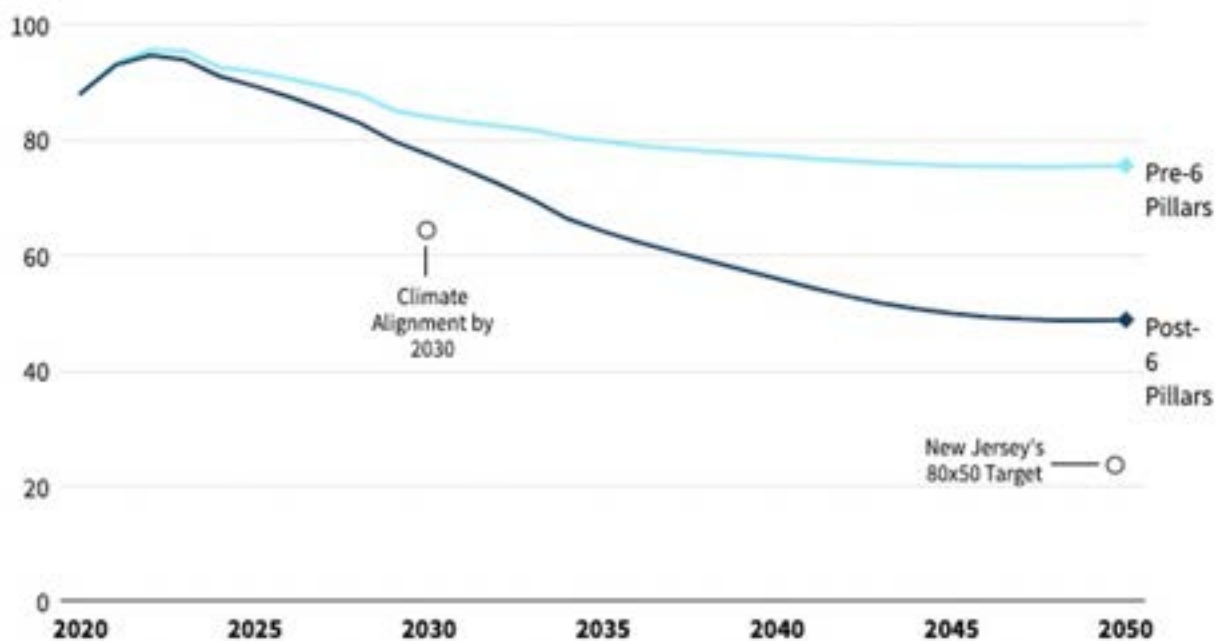
FIGURE 2: POTENTIAL EMISSIONS REDUCTIONS FROM GOVERNOR MURPHY'S SIX PILLARS

Figure 2. Source: RMI.

IRA Supports Increased Climate Action

As in Michigan, New Jersey's effort to meet its climate targets will be aided by provisions in the IRA. According to modeling by the Rocky Mountain Institute and Energy Innovation, the state could see as much as \$20 billion of investment and as many as 33,000 new jobs as a result of the Act.²⁶ Thanks to the new Residential Clean Energy tax credit, an estimated 270,000 New Jersey homes will be outfitted with solar panels, and homeowners could save an average of \$397 each year on their utility bills.²⁷ Coastal states with large urban populations, like New Jersey, also stand to benefit from the IRA's multipronged approach to increasing climate action, particularly its dedicated funds for enhancing wetlands restoration along New Jersey's vulnerable coast and investments in air pollution reduction around the state's highly-trafficked ports.²⁸

In addition, with its long coastline, New Jersey is particularly well positioned to benefit from the expected growth of the offshore wind industry in the Northeastern United States. In fact, joint analysis by Climate Advisers and the University of Maryland School of Public Policy found that, in the period 2021-2025, New Jersey was likely to add anywhere from 11,577 to 23,657

²⁶ Aggarwal, et al., "The Economic Tides Just Turned for States."

²⁷ "The Inflation Reduction Act Delivers Affordable Clean Energy for New Jersey," *The White House*, August 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/08/New-Jersey.pdf>

²⁸ Oglesby, Amanda, "How millions from the Inflation Reduction Act will help fight climate change in NJ," Ashbury Park Press, August 31, 2022, <https://www.app.com/story/news/local/land-environment/2022/08/31/new-jersey-inflation-reduction-act-ira-money-biden-climate-change-bill/65463565007/>

jobs in the industry.²⁹ As of this writing, there are three offshore leases with projects in development off the coast of New Jersey.³⁰ The companies involved include Equinor, Ørsted, and Atlantic Shores Offshore Wind, LLC (a partnership between Shell New Energies US LLC and EDF Renewables North America).³¹ Given the IRA's domestic content requirements, these companies will need to source at least 20 percent of their products' components from U.S. manufacturers if they want to qualify for the full credit, meaning that these investments—some of them by foreign firms—could be a significant boon for domestic manufacturers.

Conclusion

As federal support reduces the costs of transitioning to clean energy, states are directing their own resources toward enacting climate policies, and progress on curbing climate change in Michigan and New Jersey offers a roadmap for other states to follow, with help from the IRA. As of January 2023, 15 states and territories have committed to generating 100 percent of their electricity from clean sources, and more states are expected to follow suit as a result of Democratic control of many state-level seats after last November's midterm elections.³² Given that their executive and legislative branches are now all controlled by Democrats, Maryland, Massachusetts, and Minnesota—along with Michigan—are key states to watch in 2023.³³

Looking forward, here are some issues to continue to watch:

1. The environment in these states is ripe for transatlantic exchange on electric vehicles and related technologies such as batteries (Michigan) and offshore wind deployment (New Jersey). In addition, for both states, there will be opportunities for knowledge sharing around multi-stakeholder processes for policy development and implementation (for example through bringing the private sector, utilities, and other actors to the table).
2. While the trend of increasing state-level climate ambition is supported and encouraged by federal policies that could be affected by shifting political winds, there are two key reasons that a change in the balance of power in Washington in 2024 or later will substantially decrease the level of activity in states. First, the IRA and other supportive federal policies are unlikely to be repealed entirely. For instance, during the 2010s, the Republican party called for the repeal of the Affordable Care Act, but when it finally gained unified control of Congress and the Presidency, the party found itself unable to follow through. While some changes are certainly possible, it is likely that efforts to repeal these pieces of legislation wholesale will be successful. Second, states and cities will continue to move forward on climate action regardless of what happens at the federal level, just as they did during the

²⁹ "New Jersey," part of Climate Advisers' *U.S. Green Economy Report*, available here: <https://usgreeneconomy.com/new-jersey/>.

³⁰ "Offshore Wind Project Areas," New Jersey Department of Environmental Protection, <https://dep.nj.gov/offshorewind/projects/>.

³¹ "Offshore Wind Project Areas."

³² Maxine Joselow, "Three trends to watch in U.S. climate policy in 2023," *Washington Post*, January 3, 2023, <https://www.washingtonpost.com/politics/2023/01/03/3-trends-watch-us-climate-policy-2023/>

³³ Joselow, "Three trends to watch in U.S. climate policy in 2023."

Trump administration. In part, this is due to a commitment by state and local policymakers to climate action, but increasingly it also has to do with a desire on their part to bring the jobs and economic benefits associated with climate transitions to their states. There is no reason to think changes at the federal level will affect these motives.

3. In three states to watch in addition to Michigan and New Jersey, the greatest trade and knowledge exchange opportunities will likely be in offshore wind for Maryland and Massachusetts and onshore wind for Minnesota.



Climate Advisers works to strengthen climate action in the United States and around the world through research, analysis, public policy advocacy and communications strategies. We partner with governments, non-profits, philanthropies, international organizations, financial institutions and companies to help deliver the clean economy. We develop and promote sensible, high-impact initiatives that improve lives, enhance international security and strengthen communities. Climate Advisers currently consists of several independent organizations collaborating to advance the same mission, including: Climate Advisers Trust, a U.S. non-profit, Climate Advisers United Kingdom, a U.K. non-profit, and Climate Advisers Incorporated, a global consultancy. Further information is available at climateadvisers.org.



CLIMATE ACTION AT THE STATE LEVEL:
INCREASED AMBITION IN MICHIGAN AND NEW
JERSEY

May 2023