



# MICHIGAN'S CLEAN ENERGY ECONOMIC COMEBACK:

How Local Economies in Michigan Are Benefitting from State and Federal Climate Policies

Analysis by 5 Lakes Energy

Case Studies and Business Surveys by the Michigan Energy Innovation Business Council

Prepared for Evergreen Collaborative

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# Executive Summary

Powered by the Biden-Harris administration's Inflation Reduction Act (IRA), Michigan is experiencing an economic resurgence, [ranking among the top five states](#) in the US for new clean energy projects and jobs. The state has attracted 62 major projects, created 21,748 jobs, and received over \$26.6 billion in new investments.

The IRA represents the largest federal investment in clean energy and energy efficiency in US history. To capitalize on this investment at the state level, Michigan Governor Gretchen Whitmer signed [a series of laws in November 2023](#)— policies that are designed to accelerate the state's transition to clean energy by setting clean energy generation targets, streamlining renewable energy siting processes, improving energy efficiency statewide, and preparing the workforce and communities for clean energy reindustrialization.

The policies were designed to leverage federal IRA funding to communities across the state— helping Michigan grow its economy, create jobs, lower costs, and reduce emissions in line with Gov. Whitmer's [MI Healthy Climate Plan](#).

Overall, this analysis finds that the combined effects of federal and state climate policies in Michigan are projected to:

- Reduce energy costs across the whole economy, including lowering Michigan families' energy bills by an average of **\$297 per year by 2030 and \$713 per year by 2040**, relative to the baseline expected energy cost (if federal and state climate policies were not in place).
- Bring the state **\$15.6 billion in IRA investments cumulatively by 2030 and \$30.7 billion cumulatively by 2040** (broken down by prosperity region in the full report).
- Reduce **Michigan's greenhouse gas emissions from the electric power sector by at least 65% by 2030 and 88% by 2040**.
- Save **Michigan \$7.3 billion by 2030 in avoided public health costs** (deaths, hospitalizations, lost school & work days, and more) and **\$27.8 billion cumulatively by 2040**.

The report also includes real-world testimonials from companies within each prosperity region and a survey of businesses with operations in Michigan— illustrating the tangible effects of these legislative measures on local economies, job markets, and quality of life.

By examining these impacts, this report provides a clear understanding if and to what extent federal and state clean energy policies are driving economic growth and quality of life benefits in the state of Michigan.

# Introduction

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The Biden-Harris administration's [Inflation Reduction Act](#) (IRA) and the state of Michigan's recent passage of a [suite of clean energy legislation](#) represent a transformative approach to expanding clean energy and progressing climate action. Utilizing the financial opportunities offered by the IRA, Michigan's laws focus on stimulating economic growth, creating jobs, lowering energy costs for residents, and reducing greenhouse gas emissions. These initiatives are intended to accelerate clean energy development and improve public health across Michigan, with substantial support through federal and state tax credits, grants, and rebates.

This report examines the effect of the combination of both federal (IRA) and state climate policies on Michigan's prosperity regions—ten distinct geographic areas defined by the state to organize and streamline economic development efforts. We use these districts as a way to measure the impact of new federal and state climate and clean energy policies on a more local, tangible level.

This analysis outlines the expected impacts of federal and state policies at both the state and regional (prosperity region) levels from 2030 to 2040, focusing on:

1. **State-level impacts:** Effects on energy costs greenhouse gas emissions reduction.
2. **Regional-level impacts:** Job creation, GDP growth, federal investments in the state, and reductions in costs associated with negative health outcomes.

It also incorporates local company testimonials and a survey of businesses with operations in Michigan to illustrate the tangible effects of these legislative measures on local economies, jobs, and quality of life.

Overall, this analysis finds that the combined effects of federal and state climate policies in Michigan are projected to:

1. Reduce energy costs across the whole economy, including lowering Michigan families' energy bills by an average of \$297 per year by 2030 and \$713 per year by 2040, relative to the baseline expected energy cost (if federal and state climate policies were not in place).
2. Bring the state \$15.6 billion in IRA investments cumulatively by 2030 and \$30.7 billion cumulatively by 2040 (broken down by prosperity region in following sections).
3. Reduce Michigan's greenhouse gas emissions from the electric power sector by at least 65% by 2030 and 88% by 2040.
4. Save Michigan \$7.3 billion cumulatively by 2030 in avoided public health costs (deaths, hospitalizations, lost school & work days, and more) and \$27.8 billion cumulatively by 2040.



This report focuses on and is organized in the following manner:

1. An analysis of assumptions used to inform this analysis—including the IRA and new electricity-sector-focused policies from a package of clean energy legislation the Michigan Legislature passed in November 2023.
2. The quantified impact of federal policies and Michigan’s clean energy sector policies on statewide outcomes.
3. The quantified impact of federal policies and Michigan’s clean energy sector policies on Michigan’s ten prosperity regions (Upper Peninsula, Northwest, Northeast, West, East Central, East, South Central, Southwest, Southeast, and Detroit Metro), including testimonials from businesses with operations in the respective regions.
4. A survey of clean energy businesses focused on how recent federal funding and state policies are affecting their business operations. The survey also asked for their projections on how the implementation of the policies in this report will impact them in the future.
5. Suggested policy recommendations for Michigan to expand on its progress in clean energy to other economic sectors and continue growing a clean energy economy for communities and businesses across the state.



# Assumptions Used in the Analysis: State and Federal Clean Energy Policies

## State Policy: Michigan's Clean Energy Laws

In 2023, Michigan's Legislature passed a [comprehensive package of clean energy laws](#) aimed at reducing climate pollution from the state's electricity sector. This legislation includes a 100% Clean Energy Standard by 2040, enhanced energy efficiency programs, expanded access to solar energy development on farmland, and more. Our analysis incorporates these new state laws to examine their interaction with the IRA, evaluating their combined impact on Michigan's transition to clean energy, job growth, public health, and economic benefits.

The policies included in this analysis are:

- **Public Act 235 of 2023: Clean Energy, Storage and Distributed Generation Policies:** Sets a 100% clean energy standard by 2040, expands renewable energy standard to 60% by 2035, establishes a 2,500-megawatt storage standard by 2030, and increases access to rooftop solar from 1% to 10% of peak electricity load.
- **Public Act 229 of 2023: Energy Efficiency Programs:** Requires all utilities to offer energy efficiency programs and mandates increases in energy efficiency standards. Electricity energy waste reduction standards will rise from 1% to 1.5%, and natural gas efficiency standards will increase from 0.75% to 0.875% by 2026. The bill also allows for electrification and fuel switching, and it sets a requirement for utilities to provide low-income energy efficiency programs.
- **Public Act 231 of 2023: Equitable Clean Energy Transition:** Allows and encourages the Michigan Public Service Commission to consider climate, environmental justice, and affordability in energy planning.
- **Public Act 232 of 2023: Worker and Community Protection:** Creates the Office of Worker and Community Economic Transition to protect workers and communities during the energy transition.
- **Public Act 233 of 2023: Streamlined Renewable Energy Deployment:** Streamlines the process for deploying renewable energy projects and supports local governments. The reformed process also sets strong labor standards for new renewable energy projects, including prevailing wage and project labor agreements on specific developments.

## Federal Policy: The Inflation Reduction Act

The IRA represents an unprecedented level of federal support for clean energy, especially in terms of the resources the law provides to states. It covers every sector of the economy from the electricity to transportation sector. As part of this analysis, we look at the elements of the IRA to understand how they interact with new state laws, evaluating their combined impact on Michigan's transition to clean energy, job growth, and economic benefits.

## **IRA Impact: Electricity Sector Assumptions**

The IRA extends the eligibility timeline for tax credits for the investment and production of solar and wind energy and increases the value of the production tax credits. It also offers a new production tax credit for nuclear resources and a new investment tax credit for standalone energy storage resources. Combined, these provide the most robust discounts for producing and using carbon-free power in US history.

The IRA also has several programs to encourage the growth of clean energy sources– including rooftop and community solar. These programs especially prioritize low-income communities and communities of color. Some of these programs include, but are not limited to:

- The \$27 billion Greenhouse Gas Reduction Fund
- The \$3 billion Environmental and Climate Justice Block Grants program

The [Energy Policy Simulator](#) (EPS) has existing assumptions that quantify how much a given level of tax credits and rebates would reduce the cost of constructing distributed generation energy technologies (like rooftop solar and home battery storage systems). We included the IRA's new grant programs that offer robust incentives for the buildout of these technologies and then analyzed the aggregate impact it would have on lowering costs to construct more of these systems in Michigan in line with the state's own clean energy targets.

The IRA also incentivizes the construction of more interstate transmission electricity lines to transport clean power for electricity end-use. We modeled the effects of IRA Section 50151 (Transmission Facility Financing), Section 50152 (Grants to Facilitate the Siting of Interstate Electricity Transmission Lines), and Section 50153 (Interregional and Offshore Wind Electricity Transmission Planning, Modeling, and Analysis) by increasing the amount of new transmission lines assumed to be built in the EPS.

In addition to clean electricity incentives from the IRA included in this analysis, the Environmental Protection Agency (EPA) recently finalized [new power plant rules](#) that aim to reduce carbon dioxide emissions by requiring power plants to either adopt carbon capture and storage technology or transition to cleaner fuels. These rules, included in our analysis, are part of a broader effort to achieve significant emission reductions from the electricity sector by 2035, aligning with President Biden's climate goals.

## **IRA Impact: Building Decarbonization Assumptions**

The IRA has several rebates, tax credits, and grants for retrofitting existing residential and/or commercial buildings with energy efficiency measures, electrifying building components and systems, and constructing highly efficient new buildings. We used an analysis from the American Council for an Energy-Efficient Economy to estimate the energy efficiency impact of these provisions. We then aligned the EPS' assumptions about the amount of energy savings in the building sector with the expected increase in energy efficiency savings specific to that provision.





### **IRA Impact: Transportation Sector Assumptions**

We focused on the IRA provisions that offer credits for the purchase of new or previously-owned electric passenger vehicles and commercial vehicles that qualify as “clean” under the law. For each of these credits, we reduced the EPS’ assumed cost of the corresponding vehicle type to match the tax credit’s provided discount.

The IRA also includes the Advanced Technology Vehicle Manufacturing Program, which provides loans for manufacturing facilities that emit low- or zero-greenhouse-gas emissions, and the Domestic Manufacturing Conversion Grant Program, which provides grants for domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and hydrogen fuel cell vehicles. We reduced the assumed cost of low-emissions vehicles in accordance with the amount of funding offered by these programs.

The effects of the EPA’s pollution rules for cars and trucks are also considered in our analysis. We adjusted the EPS to account for an increase in the share of electric vehicles in the US fleet that results from both these rules and IRA provisions. The increase in EV sales over the next decade is approximated by the EPA and used to inform the assumptions in this report.

### **IRA Impact: Industrial Sector Assumptions**

We modeled the IRA’s Advanced Industrial Facilities Deployment Program, which provides funding to projects at industrial facilities that reduce emissions. To account for this program, we increased the EPS assumption for the amount of industrial carbon capture and sequestration deployed.



# Geographies Used in the Analysis: Michigan's Prosperity Regions

## Michigan's Prosperity Regions

Michigan's prosperity regions are ten distinct geographic areas defined by the state of Michigan to organize and streamline economic development efforts. Each region has unique economic characteristics, challenges, and strengths, which help tailor specific policies and initiatives to maximize local benefits. Using these regions allows for a more focused and efficient approach to implementing state and federal programs, ensuring that the distinct needs of each area are met and that resources are distributed equitably across the state.

In addition, examining the local impact of these policies is crucial to understanding and addressing distributive and environmental justice priorities— a focus of both Gov. Whitmer's MI Healthy Climate Plan and the IRA. This analysis offers a deeper understanding of how federal and state policies are beginning to make economic development more equitable, benefitting low-income communities, Tribal nations, and environmental justice communities. For instance, the advantages of lower energy costs and improved public health outcomes will benefit places like Region 1 (Upper Peninsula), Region 5 (East Central), and Region 7 (Southeast Michigan)— areas that have historically faced significant disinvestment, job losses, and high energy burdens. When implemented equitably and effectively, Michigan's new laws could reverse these trends and address the longstanding inequities in these regions, laying the groundwork for benefits that did not exist under previous policies.

This report uses these districts as a way to measure the impact of new federal and state climate and clean energy policies on a more local, tangible level.

These ten regions are:

**Region 1 (Upper Peninsula):** Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, Schoolcraft Counties

**Region 2 (Northwest Lower Peninsula):** Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, Wexford Counties

**Region 3 (Northeast Lower Peninsula):** Alcona, Alpena, Arenac, Cheboygan, Crawford, Iosco, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon Counties

**Region 4 (West Michigan):** Allegan, Barry, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa Counties

**Region 5 (East Central Michigan):** Arenac, Bay, Clare, Gladwin, Gratiot, Huron, Isabella, Midland, Saginaw, Sanilac, Tuscola Counties

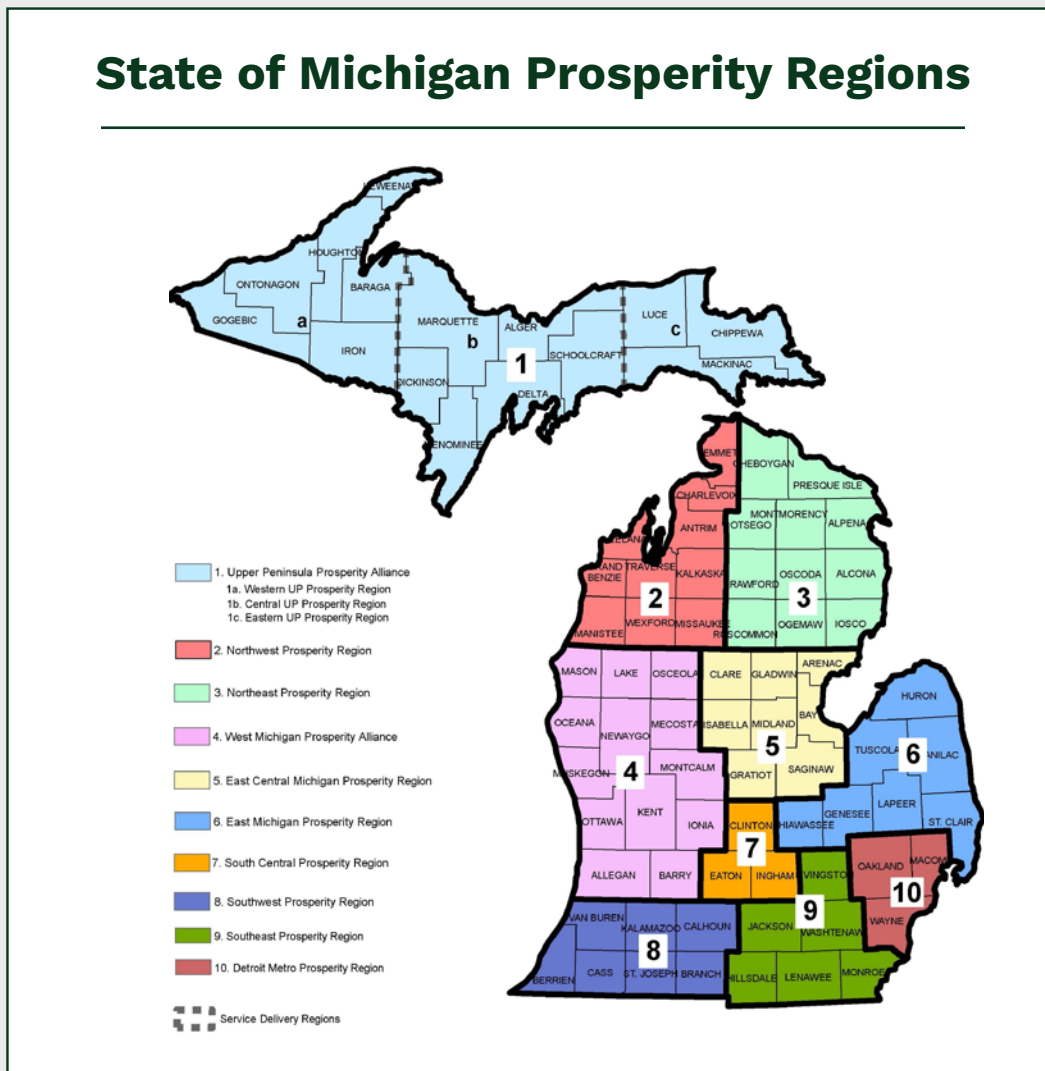
**Region 6 (East Michigan):** Genesee, Huron, Lapeer, Sanilac, Shiawassee, St. Clair, Tuscola Counties

**Region 7 (South Central Michigan):** Clinton, Eaton, Hillsdale, Ingham, Jackson, Lenawee, Livingston Counties

**Region 8 (Southwest Michigan):** Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, Van Buren Counties

**Region 9 (Southeast Michigan):** Hillsdale, Jackson, Lenawee, Livingston, Monroe, Washtenaw Counties

**Region 10 (Detroit Metro):** Macomb, Oakland, Wayne Counties



**Figure 1**

## Modeling Tools and Methods:

5 Lakes Energy’s economic modeling in this report was performed using the [EPS](#), a free, open-source, peer-reviewed model developed by Energy Innovation Policy & Technology LLC® and RMI.

This report uses several key metrics derived from EPS: GDP and job growth, household energy costs, public health benefits, and federal investment numbers. Here’s how each was calculated:

1. **GDP and Job Growth:** These figures are directly available from the EPS model outputs.
2. **Public Health Cost Savings:** The health cost savings modeling was done using emissions reduction outputs from EPS as inputs into the EPA’s Co-Benefits Risk Assessment Health Impacts and Screening Tool ([COBRA](#)), which estimates the air quality and health benefits of different emissions scenarios and associated public health savings.
3. **Household Energy Costs:** To calculate this, we combined the EPS outputs for spending on residential building fuels and passenger vehicle fuels, including electricity. We then divided the total by the number of households in Michigan.
4. **Federal Investment Numbers:** These figures are derived from EPS outputs that detail subsidies for various initiatives, such as capacity construction, electricity generation, building retrofits, electric vehicles, and distributed solar.

In this report, we assess the specific impacts of the federal and state policies by comparing these key metrics— GDP, jobs, energy costs, health outcomes, and federal investments— against a business-as-usual EPS scenario where no such policies were implemented. The difference between these two scenarios highlights the impacts directly attributable to the policies, showing what would not have occurred in their absence.



## Results: Statewide Impact

While this analysis primarily measures impacts on Michigan’s local economies, some important indicators were not able to be modeled on the prosperity district level given their aggregate statewide effect. Since these are critical indicators of the impact of federal and state policies—and namely their combined effect—we analyzed some statewide effects.

### Energy Bill Cost Savings:

- Michigan households will save \$296.84 on their annual household energy costs by 2030, \$713.10 annually by 2040 as a result of Michigan’s new energy efficiency standards (Public Act 229), clean electricity standard (Public Act 235), and IRA clean electricity incentives.

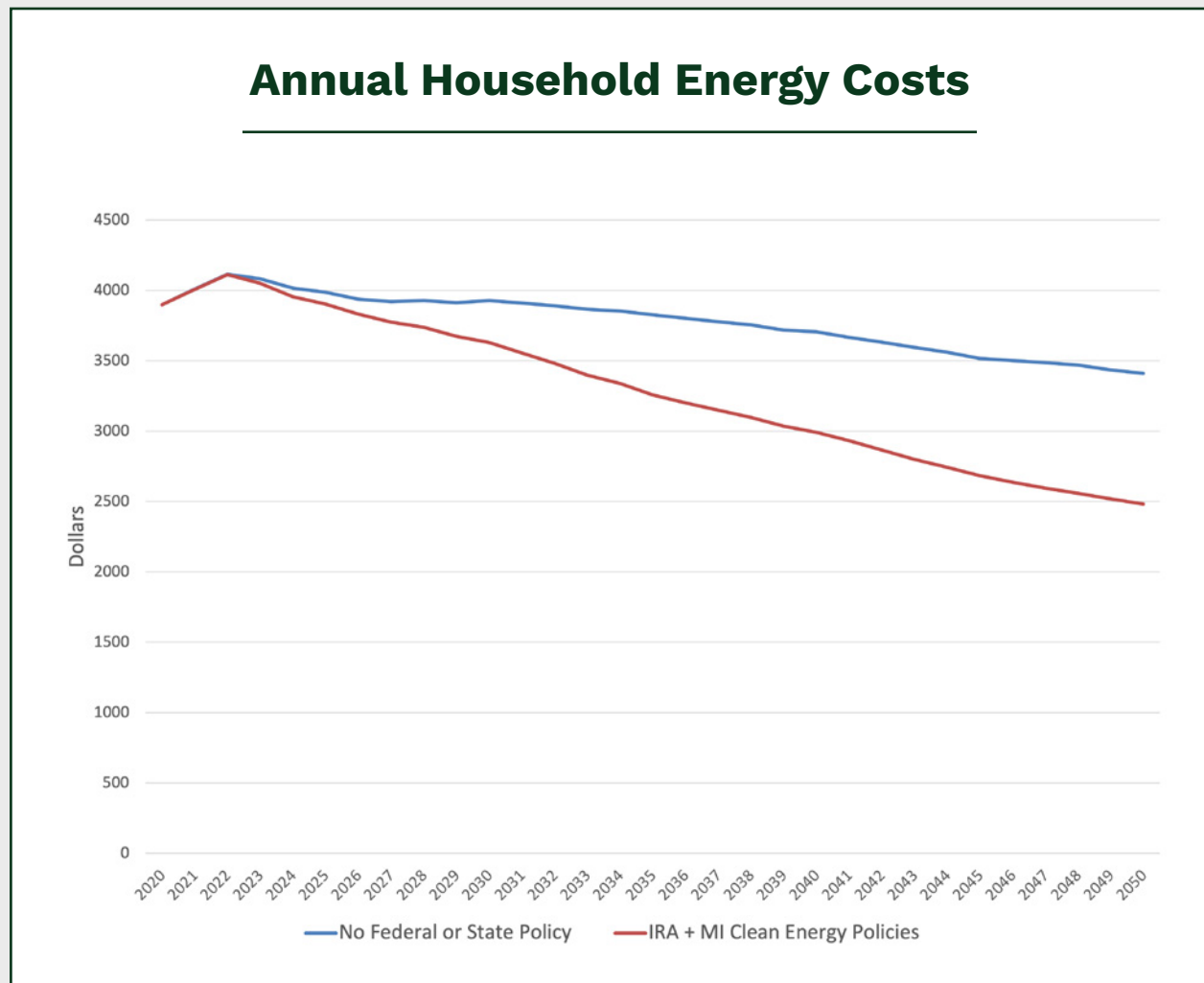


Figure 2



### Greenhouse Gas Emissions Impact:

- State and federal policies will result in at least a 64.85% reduction in the state’s electric power sector greenhouse gas emissions by 2030 and 87.91% by 2040.

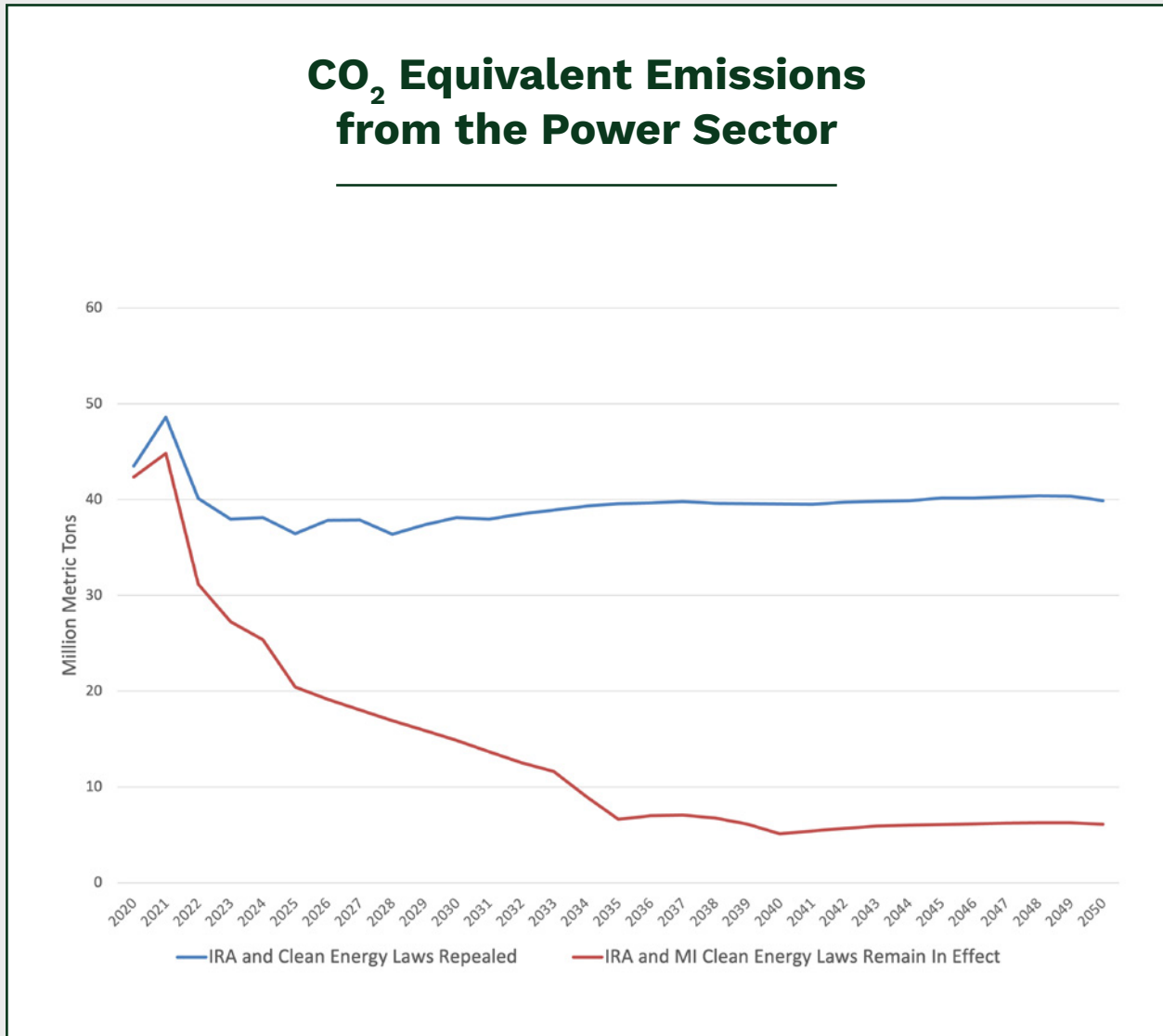


Figure 3

## **Ability to Meet Michigan’s Clean Energy Standard:**

In line with Governor Whitmer’s MI Healthy Climate Plan and efforts to reduce greenhouse gas emissions, negative public health outcomes, and focus on generating energy in-state, the state set the goal to generate 50% of its electricity from renewable sources (wind, solar, storage, geothermal, biomass and hydroelectric) by 2030 and 60% of its electricity from renewable sources by 2035. As part of the legislative package, policymakers included a critical mechanism that would allow Michigan, namely farmers and landowners on a volunteer basis, to more easily and freely host renewable energy projects.

The reduction in greenhouse gas emissions (Figure 3) as a result of these policy changes underscore the pivotal role of both federal and state policies in catalyzing investments, lowering costs, and improving health outcomes across Michigan. While the IRA delivers substantial incentives, it’s Michigan’s proactive standards and legislative measures that secure tangible benefits for its residents. These findings highlight how Michigan’s dual approach keeps the state at the forefront of the clean energy transition, with a particular focus on enhancing the quality of life. This is especially true for communities that can gain the most from fair economic growth, reduced pollution, and lower energy costs.





# Results: Findings by Prosperity Region

The report breaks down the impacts of the IRA and Michigan's clean energy laws by each of Michigan's prosperity regions, focusing on the projected increases in jobs, GDP, and health-related costs in 2030 and 2040 as a result of the federal climate policies and state clean power laws.

## **Our analysis examines:**

- **Job growth:** The number of job years added to the prosperity region's economy in 2030 and 2040 respectively.
- **Gross domestic product (GDP) growth:** The dollar amount added to the prosperity region's GDP in 2030 and 2040 respectively. GDP serves as a measure of the region's overall economic activity and an indicator of economic health.
- **Health savings:** The monetized benefit from avoided deaths, hospitalizations, lost school and work days, and other negative public health outcomes resulting from pollution.
- **Federal investment:** Anticipated IRA tax credits deployed in the state— specifically energy efficiency tax credits, rooftop solar tax credits, home energy retrofits tax credits, clean energy investment tax credits, clean energy production tax credits, and electric vehicle purchase tax credits.





## Region 1: Upper Peninsula

This region includes the counties of Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, and Schoolcraft.

	By 2030	By 2040
<b>Job Growth</b> (annual number of new jobs)	1,462	2,510
<b>GDP Growth</b> (annual number of new \$ in GDP)	\$187,859,771	\$356,761,950
<b>Federal tax credit Investment</b> (cumulative federal investment)	\$415,340,156	\$802,696,824
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$33,631,666	\$122,854,874

**Upper Peninsula project highlight:** [Elevate](#) is a nonprofit that ensures clean, affordable heat, cooling, power, and water for all by designing and implementing programs that reduce costs and ensure the benefits of renewable energy reach those that need them most.

"Our whole-home retrofit in Watersmeet, a town within the tribal land of Lac Vieux Desert Band of Lake Superior Chippewa, is a perfect example of what is possible with modern energy efficiency upgrades. We began with a house in need of serious and extensive repair, and were able to convert it into an energy efficient home with lower, more affordable energy costs. Michigan's new EWR standard will support many more projects like the one in Watersmeet across the state," said Brittany Turner, Associate Director of Tribal Programs at Elevate.



## Region 2: Northwest Michigan

This region includes the counties of Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford.

	By 2030	By 2040
<b>Job Growth</b> (annual number of new jobs)	1,909	3,386
<b>GDP Growth</b> (annual number of new \$ in GDP)	\$246,569,065	\$470,690,538
<b>Federal tax credit Investment</b> (cumulative federal investment)	\$526,761,315	\$1,029,558,930
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$95,189,941	\$350,626,533

**Northwest prosperity region business highlight:** Harvest Solar is a Michigan-based solar energy developer focused on making agricultural, residential, and commercial customers more efficient and independent through renewable energy. The company has several projects in the Northwest region of Michigan.

“In the past, numerous agricultural and commercial projects were undersized due to statutory limitations and arbitrary caps placed on solar projects. Following the passage of PA 235, these limits have been raised, allowing us to build solar arrays more suited for these sites and more financially reasonable for our customers. There are several projects in northwest Michigan that could have built– and now can build– a larger solar array to fit the needs of their large facilities, but were limited to 150 kW at the time, including a large cherry processor and a local culinary campus,” said Luke Olinyk, President at Harvest Solar.



### Region 3: Northeast Michigan

This region includes the counties of Alcona, Alpena, Arenac, Cheboygan, Crawford, Iosco, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, and Roscommon.

	By 2030	By 2040
<b>Job Growth (annual number of new jobs)</b>	959	1,748
<b>GDP Growth (annual number of new \$ in GDP)</b>	\$127,802,450	\$254,851,302
<b>Federal tax credit Investment (cumulative federal investment)</b>	\$290,480,046	\$561,760,064
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$107,961,978	\$405,031,534

**Northeast prosperity region business highlight:** CBS Solar is a Michigan-based residential solar developer that has been in the renewable energy business for over 40 years. They have several projects in the Northeast prosperity region.

“The raising of Michigan’s distributed generation cap has eliminated an artificial barrier to our industry that has been stifling business and innovation for years. Before this legislation, our market was uncertain even for the next 6 months; and while the cap really should be entirely eliminated, we now foresee almost a decade of growth and business,” Allan O’Shea, President of CBS Solar.

### Region 4: West Michigan

This region includes the counties of Allegan, Barry, Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, and Ottawa.

	By 2030	By 2040
<b>Job Growth (annual number of new jobs)</b>	10,602	17,090
<b>GDP Growth (annual number of new \$ in GDP)</b>	\$1,409,423,991	\$2,391,054,542
<b>Federal tax credit Investment (cumulative federal investment)</b>	\$3,129,407,446	\$6,160,006,137
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$671,232,279	\$2,554,893,947

**West Michigan prosperity region business highlight:** EVgo is one of the nation’s largest public fast charging networks, owning and operating a charging network that includes around 900 fast charging locations in 60 metropolitan areas in 30 states.

“EVgo is excited to be one of the first companies to be selected for a preliminary award in Michigan's NEVI program, and with more than 45 fast charging stalls already operational in the state, we look forward to continuing to expand our network to meet Michigan's growing demand,” said Lindsey Stegall, Senior Manager, Market Development & Public Policy at EVgo.

### Region 5: East Central Michigan

This region includes the counties of Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Midland, and Saginaw.

	By 2030	By 2040
<b>Job Growth (annual number of new jobs)</b>	2,732	4,956
<b>GDP Growth (annual number of new \$ in GDP)</b>	\$364,684,806	\$736,094,240
<b>Federal tax credit Investment (cumulative federal investment)</b>	\$861,035,978	\$1,676,693,490
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$299,825,992	\$1,172,171,908

**East Central prosperity region business highlight:** [Apex Clean Energy](#) is an independent renewable energy developer, hosting one of the nation’s largest portfolios of utility-scale generation and storage. The company developed and built the Isabella Wind Farm in Isabella County, which generates enough clean energy to power over 90,000 homes annually.

“With a robust, pro-investment policy environment, Michigan is positioned to lead our nation’s transition to clean energy. The growth in this sector will drive the deployment of capital and job creation across the state, while also enabling leading Michigan companies to meet their clean energy and sustainability goals,” said Chris Kunkle Senior Director of Government Affairs for Apex Clean Energy.

## Region 6: East Michigan

This region includes the counties of Genesee, Huron, Lapeer, St. Clair, Sanilac, and Tuscola.

	By 2030	By 2040
<b>Job Growth</b> (annual number of new jobs)	3,608	6,430
<b>GDP Growth</b> (annual number of new \$ in GDP)	\$468,432,470	\$905,568,594
<b>Federal tax credit Investment</b> (cumulative federal investment)	\$1,060,206,892	\$2,082,255,266
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$557,961,577	\$2,201,722,744

**East Michigan prosperity region business highlight:** GEM Energy provides comprehensive services and technologies to improve customer business performance and reduce facility operation costs through services including solar development for commercial and industrial customers.

“Although the state's new energy storage requirements and raised distributed generation cap are bringing an increase in business for behind the meter projects, GEM primarily works in community solar, which is still not enabled by state law. Our community solar projects in Illinois employ several hundred people and bring energy savings to more; I wish to bring those same results to Michigan,” said Jason Slattery, Director of Solar at GEM Energy.

## Region 7: South Central

This region includes the counties of Clinton, Eaton, Hillsdale, Ingham, Jackson, and Livingston.

	By 2030	By 2040
<b>Job Growth</b> (annual number of new jobs)	2,481	4,003
<b>GDP Growth</b> (annual number of new \$ in GDP)	\$296,793,115	\$509,513,179
<b>Federal tax credit Investment</b> (cumulative federal investment)	\$524,342,631	\$1,038,813,578
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$248,081,173	\$948,546,917



**South Central prosperity region business highlight:** [Michigan CAT Power Systems](#) is Michigan’s premier provider of turnkey Combined Heat and Power systems with locations across the state including in Lansing.

“The energy laws have really changed the dynamic of our market,” Kevin O’Connell, Advanced Energy Systems Manager at Michigan CAT. “We have seen some lag in the utility space as compliance with the new statute gets figured out, but we have also seen some expansion in the commercial and industrial space.”

**Region 8: Southwest**

This region includes the counties of Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren.

	By 2030	By 2040
<b>Job Growth (annual number of new jobs)</b>	4,316	7,294
<b>GDP Growth (annual number of new \$ in GDP)</b>	\$591,682,572	\$1,104,041,476
<b>Federal tax credit Investment (cumulative federal investment)</b>	\$1,454,673,839	\$2,824,111,362
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$251,577,331	\$988,726,103

**Southwest prosperity region business highlight:** Based in Baroda, Michigan, [Lakeshore Die Cast, Inc.](#) is a manufacturer of aluminum and zinc die castings that has been serving all industries since 1959.

“Increasing the cap on distributed generation system size has allowed me to vertically integrate my business in some really exciting ways. I have been able to expand my solar array and replace my natural gas powered melters with electric powered melters. Now I can use the electricity I generate on-site instead of buying natural gas from a utility,” said Adam Schaller, Vice President at Lakeshore DieCast.

## Region 9: Southeast

This region includes the counties of Monroe and Washtenaw, as well as the non-Detroit portions of Wayne County.

	By 2030	By 2040
<b>Job Growth (annual number of new jobs)</b>	5,060	8,383
<b>GDP Growth (annual number of new \$ in GDP)</b>	\$632,005,149	\$1,155,429,644
<b>Federal tax credit Investment (cumulative federal investment)</b>	\$1,349,084,389	\$2,824,111,362
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$758,240,947	\$2,710,711,798

**Southeast prosperity region business highlight:** [Ventower Industries](#) is a leading manufacturer of wind turbine towers, based in Monroe, Michigan, specializing in the production of utility-scale towers for the renewable energy sector.

“The manufacturing industry is still catching up from the supply chain shortages brought on by the Covid-19 pandemic; however, Michigan's new renewable portfolio standard has set in motion an uptick in demand for energy components like those made by Ventower, hastening the industry's recovery and propelling it onward,” said Ventower Vice President Scott Viciano.

## Region 10: Detroit Metro

This region includes the counties of Macomb, Oakland, and Wayne, focusing on the densely populated urban and suburban areas surrounding Detroit.

	By 2030	By 2040
<b>Job Growth</b> (annual number of new jobs)	24,073	40,240
<b>GDP Growth</b> (annual number of new \$ in GDP)	\$2,956,361,610	\$5,224,596,535
<b>Federal tax credit Investment</b> (cumulative federal investment)	\$5,988,427,342	\$11,862,700,515
<b>Monetary Savings (cumulative avoided public health costs)</b>	\$4,272,351,284	\$16,318,402,980

**Detroit Metro prosperity region business highlight:** Founded in 2000 and based in Detroit, MI, [Walker-Miller Energy Services](#) (WMES) is a woman & minority-owned urban energy waste reduction company focusing on empowering people and enriching communities by delivering multiple energy efficiency services.

"Many households in Detroit have historically struggled with the high cost of energy - which can often be attributed to older and inefficient homes. Legislation like Michigan's new energy waste reduction standard, bolstered by resources from the Inflation Reduction Act and other federal policy will expedite the ability for organizations like Walker-Miller to provide relief to energy burdened households across the state," said Ben Dueweke, Director: State and Local Government at Walker-Miller Energy Services.

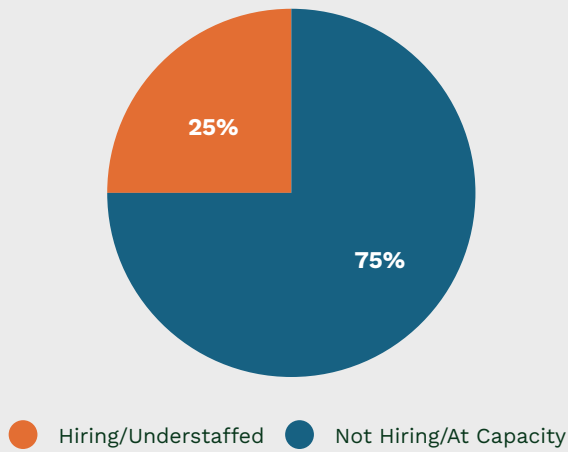
## Company Surveys

### Methodology

Michigan Energy Innovation Business Council (Michigan EIBC) conducted a survey of its members and a series of one-on-one interviews with advanced and clean energy companies across Michigan's prosperity regions. Questions in both the survey and interviews were designed to glean the impact of Michigan's new clean energy legislation. Several questions also measured how Michigan's legislation complimented federal policies such as the IRA and the Infrastructure Investment and Jobs Act (IIJA).

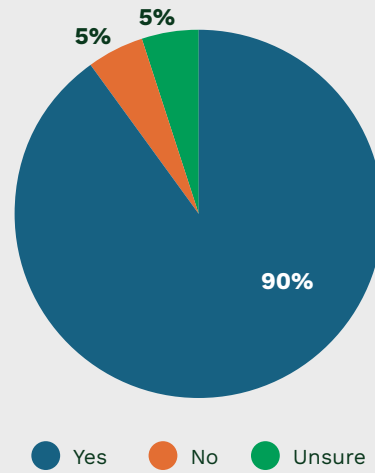
A 33-question survey (Appendix A) was sent to all Michigan EIBC member companies in March 2024. Twenty Michigan EIBC member companies filled out the survey. Among them were two

**Workforce Needs  
Over Past 3 Years**



**Figure 4**

**Companies with Majority  
of Employees Paid at or  
Above Prevailing Wage**



**Figure 5**

companies in behind-the-meter/distributed energy resource sector, six in the utility-scale generation/energy storage sector, one in financial services, three in manufacturing, four in engineering, procurement, construction, and consulting, one in transmission, two in energy efficiency/building decarbonization, and one in community solar.

## Survey Results and Discussion

### Workforce Needs

When survey respondents were asked to describe their previous workforce needs within the past three years, 75% of participating companies (n = 15) indicated that they were either actively hiring or understaffed (Figure 4). Nearly all of participating companies (90%, n = 18) pay a majority of their employees at or above prevailing wages (Figure 5). These data suggest that jobs in Michigan’s clean energy industry are well-paying. When asked to describe their workforce needs over the next three years, 90% of companies (n = 18) indicated they would need to hire or be understaffed, indicating an existing/future increase in labor demand (Figure 6).

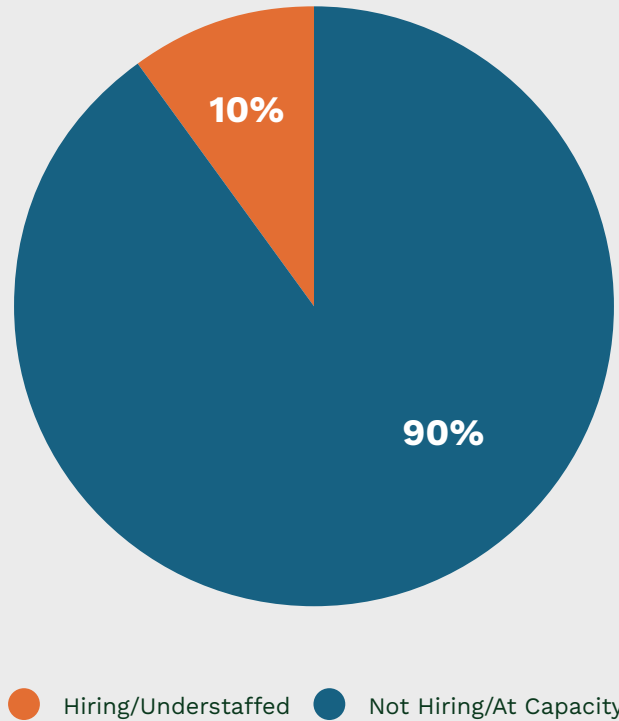
In addition to the noted strong wages in the industry, there is a significant opportunity for new jobs and a strong need for workforce and talent development. While 39% of respondents (n = 7; Figure 7) indicated they can attract enough talent to meet the growing demand, others highlighted a need for more workers than previously projected. Most respondents indicated a strong demand for new workers, with 44% (n = 8) unsure if they could attract enough talent to meet their needs and 17% (n = 3) believing they might not meet their hiring goals.

These data are likely generally reflective of regional labor scarcity and the broad need for increased talent attraction. Michigan policymakers have taken actions to combat these issues



## Anticipated Workforce Needs Over Next 3 Years

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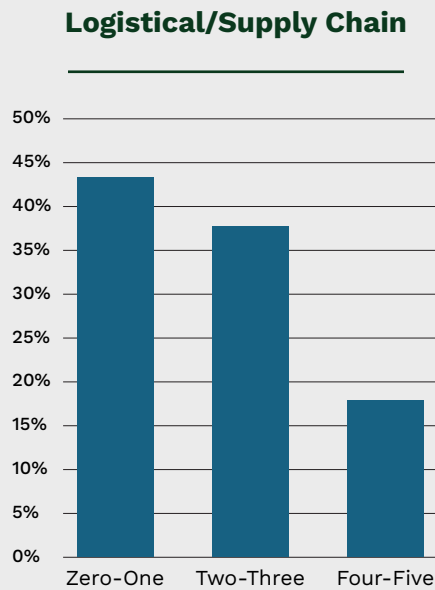
**Figure 6**

in recent years, such as creating the “Growing Michigan Together Council” aimed at talent attraction, but the problem of low labor supply persists. Thus, Michigan will need to continue its investment in workforce training programs that prepare workers for high-wage jobs in the growing clean energy sector.

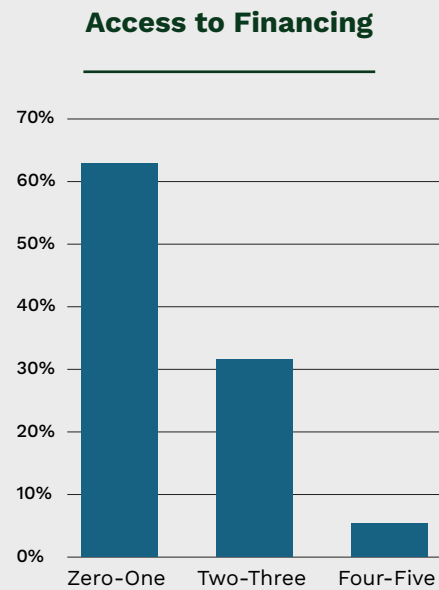
While interest in project development is high across the entire state, three regions had the greatest percentage of desired development (Figure 11): Regions 4, 7, and 9. Each of these regions were selected as targets for business expansion by 71% (n = 10) of respondents. The region demonstrating the lowest interest in business expansion was the Detroit Metro region (Region 10 on Figure 11) but still almost half (43%) of respondents indicated plans to develop projects there.



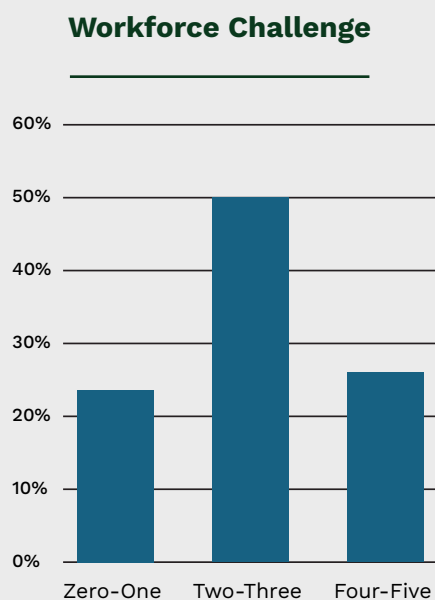
rated Michigan wind projects as “most contentious.” The passage of PA 233 of 2023 marks a turning point, establishing a state siting option that enhances the feasibility of utility-scale wind, solar, and storage projects, especially in areas where local siting was previously difficult. This new law is expected to significantly improve the prospects for renewable energy development in Michigan. In contrast, statutory changes were not made to allow for third-party community solar ownership models in Michigan and, as a result, the community solar industry does not expect to see significant opportunities for expansion in the immediate future.



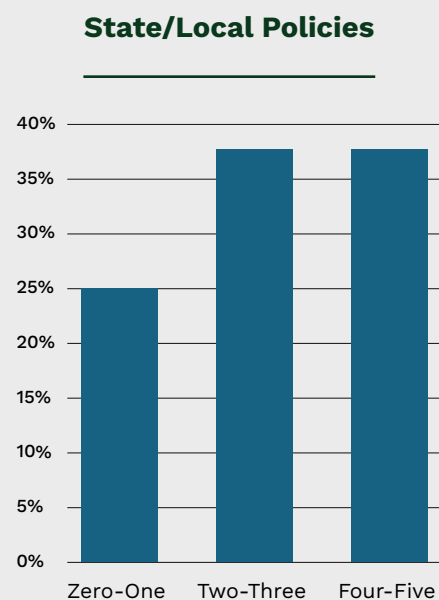
**Figure 12**



**Figure 13**



**Figure 14**



**Figure 15**



# Policy Recommendations

Michigan's significant progress in the clean energy sector— enhanced by federal funding and a newly-aligned regulatory framework— can be further strengthened through continued and targeted actions. As Michigan advances on its trajectory of reducing greenhouse gas emissions and adapting its business landscape to meet regional economic needs, the findings in this report—both quantitative and qualitative— highlight key areas where focused efforts could yield substantial benefits. To capitalize on this momentum and address the unique challenges and opportunities within Michigan's prosperity regions, the following policy recommendations are proposed:

- **Additional state policies:** Continue advancing the growth of clean energy and decarbonizing the buildings and transportation sectors to fully implement the governor's MI Healthy Climate Plan.
- **Continued Investment:** Encourage ongoing investment in clean energy projects to leverage the full scope of economic and health benefits.
- **Monitoring and Evaluation:** Regularly assess policy impacts to ensure goals are met and to inform necessary adjustments.
- **Cumulative Impact Assessments:** Enact a policy to conduct cumulative impact assessments to evaluate the impact of retiring existing energy assets and constructing new energy projects— helping ensure that the benefits of clean energy projects reach communities across the state, particularly in areas that have historically faced disinvestment. Focus on an approach that helps to address inequities and ensures that the transition to clean energy contributes to environmental justice.
- **Reducing Energy Burdens:** Ensure that cost reductions in energy supply for utility companies translate to lower energy bills for ratepayers, especially for communities with historically higher energy burdens.
- **Workforce Development Planning:** Develop comprehensive workforce training programs that prepare workers for high-wage jobs in the growing clean energy sector, with a focus on ensuring opportunities for underrepresented groups and those transitioning from traditional energy industries.



# Conclusion

This comprehensive analysis statewide and by prosperity region highlights the vast benefits that federal and state clean energy policies have brought and continue to bring to Michigan's diverse economic landscape. By strategically aligning historic federal funding with strong state action, Michigan is poised for substantial economic growth and improved health outcomes across all regions. The combined efforts of federal and state policies—plus additional efforts by the state to codify the governor's MI Healthy Climate Plan—not only ensure significant cost savings and emissions reductions but also foster job creation and economic development, securing a sustainable and prosperous future for Michigan.