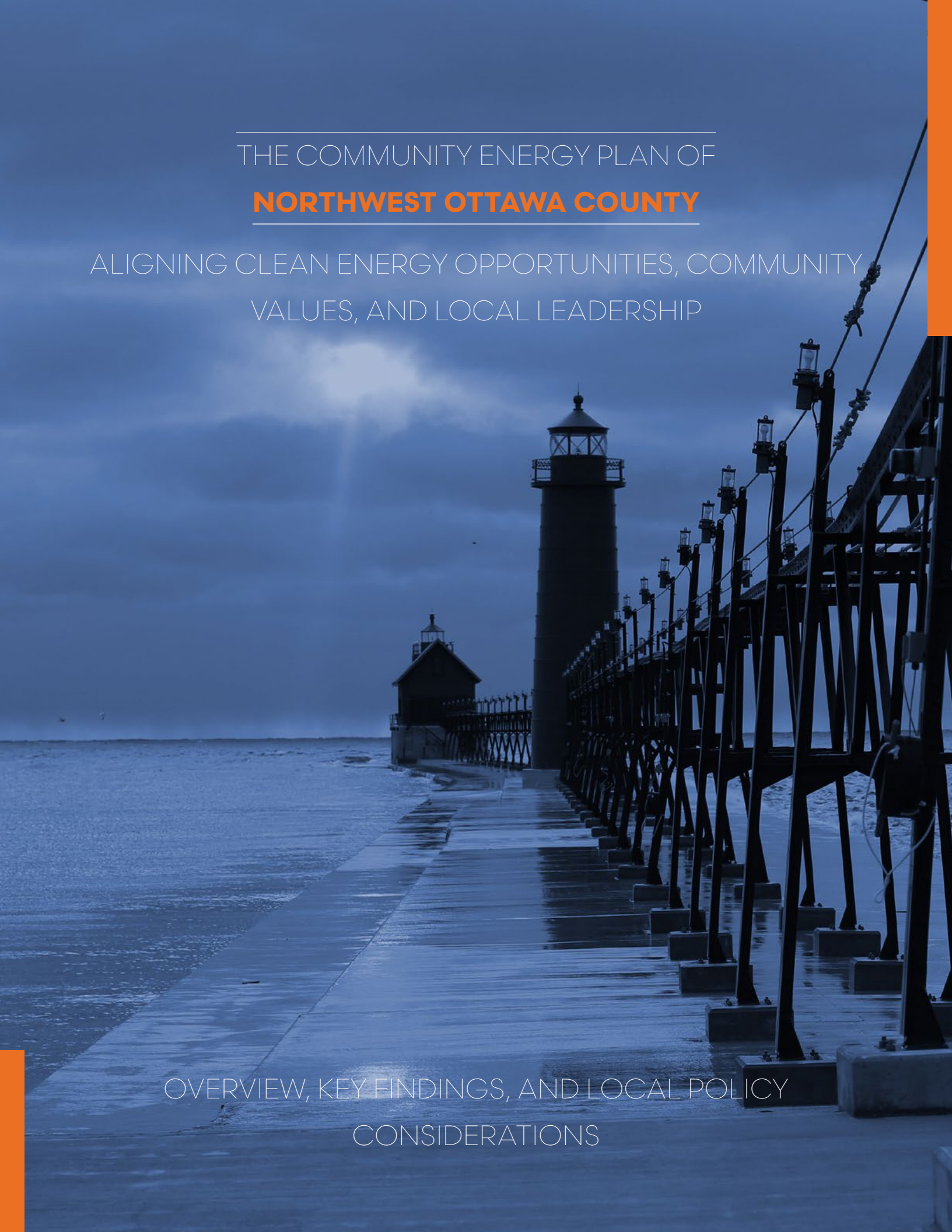


THE COMMUNITY ENERGY PLAN OF NORTHWEST OTTAWA COUNTY

ALIGNING CLEAN ENERGY OPPORTUNITIES, COMMUNITY VALUES, AND LOCAL LEADERSHIP

OVERVIEW, KEY FINDINGS, AND LOCAL POLICY CONSIDERATIONS

THANK YOU TO FUNDERS AND
LOCAL UNITS OF GOVERNMENT

Much gratitude goes to the financial supporters of this work, which include the City of Grand Haven, City of Ferrysburg Grand Haven Township, the Grand Haven Area Community Foundation, the Loutit Foundation, and the State of Michigan Department of Environment, Great Lakes and Energy.

The motivation for developing this Community Energy Plan for Northwest Ottawa County began in the Grand Haven Sustainability and Energy Commission. The Plan's Steering Committee has also moved this process forward, opened doors and provided direction.

Others have given their input to and reviewed this plan over the last year. They are too numerous to name, nonetheless, such feedback and expertise has been invaluable.

Thank you, all.

GUIDING
THE PROCESS

The local governments and their constituents have been represented in this process by a Steering Committee, whose members include the elected and appointed officials, staffs of the City of Grand Haven, City of Ferrysburg, and Grand Haven Township. Joining these representatives have been residents and business leaders from these communities, and staff, as well, from the incumbent utilities as technical liaisons that service the region: The Grand Haven Board of Light and Power and Michigan Gas Utilities.

The Steering Committee Members are:

- Craig Bessinger, Ferrysburg City Manager
- Deanne Brink, Grand Haven Township Citizen
- Maria Boersma, Grand Haven City Clerk
- Erik Booth, BLP Technical Advisor
- Bill Cargo, Grand Haven Township (ex-officio)
- Paul Cederquist, BLP Technical Advisor
- Ryan Cotton, Grand Haven Citizen
- Mike Fritz, Grand Haven City Council
- Derek Gajdos, Grand Haven Public Works Director
- John Job, Grand Haven Township Citizen
- Ashley Latsch, Grand Haven City Manager
- Eric Law, Grand Haven Water Filtration Plan Superintendent
- David Mann, Grand Haven Citizen
- Will Montgomery, Ferrysburg City Council
- Steve Nagen, Owner MACKite
- John Nash, Grand Haven Citizen, former BLP Board Member
- Patti Nelsen, Grand Haven Citizen
- Nancy O'Neill, Grand Haven Citizen
- Dr. Nick Pietrangelo, Ferrysburg Citizen
- Garry Post, Ferrysburg Citizen, Steering Committee Chair
- Karen Sherwood, Grand Haven Township Assistant Manager
- Jerry Sias, Ferrysburg City Council

THE COMMUNITY ENERGY PLAN OF
NORTHWEST OTTAWA COUNTY

WELCOME TO THE NORTHWEST OTTAWA COMMUNITY ENERGY PLAN

During 2023 and 2024, the City of Grand Haven, the City of Ferrysburg, and Grand Haven Township, aided by additional grants, funded the development of a community energy plan. The resultant Northwest Ottawa Community Energy Plan provides strategies and directions to reduce carbon emissions and wasted energy in the area by increasing efficiency and transitioning from oil and gas to electricity wherever possible. An important next step is to fund a community energy advisor position to lead the effort to make significant energy-use improvements in the Board of Light and Power service area.

LEADING BY DOING

Local governments can lead by setting carbon goals, updating policies for clean energy, supporting clean tech businesses, and investing in sustainable operations.

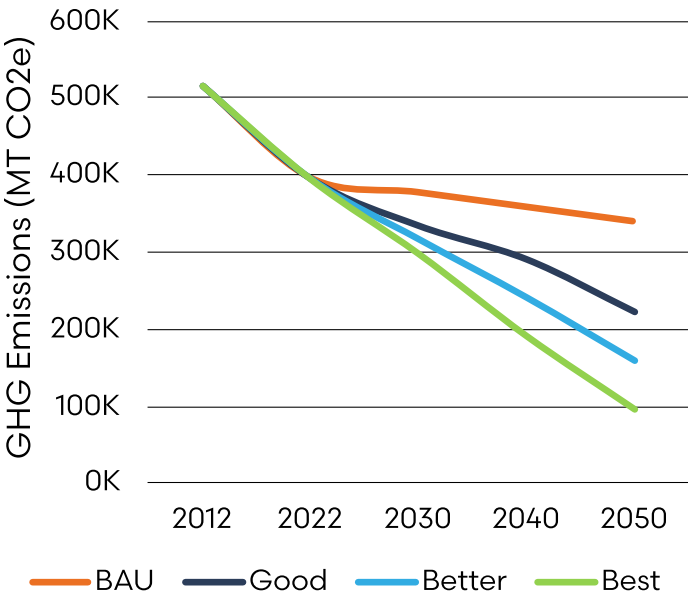
THREE EMISSION REDUCTION PATHWAYS

The Plan offers three pathways for reducing emissions by 2050:

Good: 56% reduction, aligning with Michigan's decarbonization goals.

Better: 60% reduction through increased electrification, efficiency, and adoption of electric vehicles.

Best: 76% reduction through renewable energy expansion, full electrification of residential buildings, and widespread adoption of electric vehicles.



Total Greenhouse Gas Emissions By Pathway

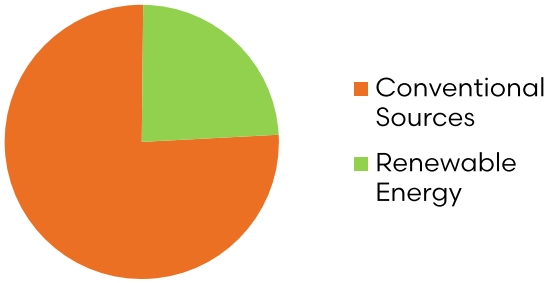
The "Business As Usual" (BAU) line represents a national benchmark, showing how Grand Haven's 2022 baseline emissions might decrease if they followed the U.S. energy-related CO_2 reduction trend projected by the Energy Information Administration.

BUILDING ON A POSITIVE TREND

Per person emissions in the Grand Haven Region dropped from **19.7 tons in 2012** to **14.5 tons in 2022**, which is close to the U.S. national average of 14.9 tons in 2024. If the "Best" plan is followed, emissions could fall even further to just **3.5 tons per person by 2050**. This reduction reflects the region's ongoing shift toward cleaner energy sources and more sustainable practices.

REDUCING ENERGY WASTE, INCREASING ELECTRIFICATION, AND RENEWABLES ARE KEY

Using less energy and electrifying buildings and transportation is key to cutting emissions, so too is adding more renewable energy. Currently, **24%** of the region's power is renewable, but this will need to increase to **100% by 2050** to achieve the Best scenario emissions reductions. Reaching this goal will depend on the actions of attuned local policymaking and collaboration with the BLP to expand clean energy infrastructure.



Grand Haven Regional Energy Mix, 2024

COMMUNITY ENGAGEMENT AND SUPPORT

Input from a diverse group of stakeholders from Grand Haven, Ferrysburg, and Grand Haven Township shaped this plan. Led by a Steering Committee of local officials, BLP representatives, and community members, the plan was developed through open houses, listening sessions, and a community survey. Survey results from 378 respondents showed strong support for local action on climate change, energy-efficient buildings, and affordable clean energy.

STRATEGIES TO GET THERE—STARTING TODAY

The region's **Emissions Reduction Strategies** provide a roadmap for meaningful decarbonization. Divided into **Direct** and **Supportive** Strategies, they work together to build local capacity and deliver practical solutions to reduce greenhouse gas emissions.

DIRECT STRATEGIES

Direct strategies are the direct actions, such as energy efficiency projects and renewable energy adoption, that are cost-effective and reduce on-site emissions.

- Reduce Energy Usage and Emissions in Buildings
- Accelerate Local Renewable Energy Use
- Make transition to Electric Vehicles and Enhance Other Mobility Options
- Protect and Restore Land and Water Resources
- Improve Sustainable Food Systems

SUPPORTIVE STRATEGIES

Supportive strategies focus on building the expertise and support necessary to implement clean energy solutions.

- Support Ongoing Community Energy Engagement, Education, and Equity
- Adopt Local Clean Energy Policies
- Invest in Clean Energy Projects
- Track Results and Update Plan

GOING FORWARD

After the Northwest Ottawa Community Energy Plan has been adopted locally and an area Community Energy Advisor hired, we will need to keep all the energy-saving possibilities in mind during annual planning and budget approval processes as well as in daily staff decision making. Additionally, we must be flexible and prepared to respond to new developments in solar panel technology and other energy-saving innovations in the future. Moreover, the Northwest Ottawa area will have beneficial opportunities to coordinate with other communities and agencies to share best practices and to pursue grants and joint funding to reach our energy goals.

DIRECT

STRATEGIES

1. REDUCE EMISSIONS IN BUILDINGS

Enhance energy efficiency, electrify heating, integrate renewables, and adopt green building standards.

1.1 Implement Home Retrofits
1.2 Hire a Community Energy Coordinator
1.3 Retrofit Commercial Buildings
1.4 Encourage Building Electrification and EV Integration
1.5 Establish Green Standards for New Projects
1.6 Educate Commercial Sector
1.7 Promote Renewable Integration
1.8 Support Sustainable Mobility

2. ACCELERATE LOCAL RENEWABLE ENERGY

Promote local solar and renewable energy to reduce emissions and boost community resilience.

2.1 Facilitate Community Solar Programs
2.2 Conduct Solar Feasibility Study
2.3 Update Solar Policies
2.4 Track Financial Incentives
2.5 Engage Community on Solar

3. TRANSITION TO ELECTRIC VEHICLES AND ENHANCE MOBILITY

Reduce transportation emissions through EV adoption, public transit, and sustainable mobility options.

3.1 Encourage Multi-Modal Transportation
3.2 Support Fleet Electrification
3.3 Consider Managed Fleet Leasing
3.4 Expand EV Charging Infrastructure
3.5 Incentivize EV Charging
3.6 Engage Community on EVs

4. PROTECT AND RESTORE LAND AND WATER RESOURCES

Preserve natural assets to reduce emissions, improve resilience, and enhance community well-being.

4.1 Manage Stormwater and Urban Runoff
4.2 Implement Regional Sustainable Land Use Principles and Planning
4.3 Support Reforestation and Afforestation Projects

5. IMPROVE SUSTAINABLE FOOD SYSTEMS

Reduce food waste and emissions, enhance local food systems, and promote sustainability in food production.

5.1 Collaborate on Food Waste Reduction
5.2 Encourage Waste Tracking
5.3 Develop Food Waste Infrastructure
5.4 Incentivize Sustainable Investment
5.5 Expand End-of-Life Food Waste Solutions
5.6 Establish Food Rescue Program
5.7 Improve Energy Efficiency in Food Systems

SUPPORTIVE STRATEGIES

6. SUPPORT COMMUNITY ENERGY ENGAGEMENT, EDUCATION, AND EQUITY

Empower the community to participate in clean energy initiatives through sustained engagement and education.

6.1 Create a Community Energy Advisor Position

6.2 Utilize Sustainability and Energy Commission

6.3 Foster Regional Partnerships

7. INVEST IN CLEAN ENERGY PROJECTS

Support economic, community, and environmental benefits through clean energy investments.

7.1 Create a Grant-Writing Team

7.2 Conduct SWOT Analysis for Funding Competitiveness

7.3 Set Clean Energy Priorities

7.4 Use Cost-Benefit Analysis for Projects

7.5 Promote Clean Energy Innovation Economy

8. ADOPT ENABLING CLEAN ENERGY POLICIES

Establish clear emissions reduction goals and supportive policies to guide clean energy efforts in local communities.

8.1 Adopt Zoning for Distributed Energy

8.2 Update Master Plans to Include Energy Goals

8.3 Adopt Sustainable Purchasing Policies

8.4 Integrate Energy Considerations into Decision-Making Processes

8.5 Encourage Distributed Solar Policies

8.6 Foster Regional Collaboration to Achieve Climate Goals

9. TRACK RESULTS AND UPDATE PLAN REGULARLY

Ensure goals are met and strategies remain effective by tracking progress and updating the plan as needed.

9.1 Establish Key Performance Indicators (KPIs)

9.2 Monitor Progress and Performance

9.3 Conduct Periodic Evaluations

9.4 Hold Regular Reporting and Communication Sessions

9.5 Adapt to Changing Conditions and Priorities

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OVERVIEW OF THE COMMUNITY ENERGY PLAN

Local governments and community stakeholders can use the [community energy planning] framework to build on initial energy successes by moving from single projects and programs to a comprehensive, long-term energy strategy that delivers benefits for years to come.

U.S. Department of Energy

The present opportunity is unprecedented for municipal governments in the United States to act locally to address the impacts of global climate change on their communities now and for the future.

In Michigan, in particular, a confluence of drivers is underway:

- Federal and state funding and policies aligning to catalyze clean energy projects and programs;
- Cost-effective advancements in distributed and utility-scale clean energy technologies, such as solar;
- Businesses establishing robust sustainability metrics, requiring local clean energy supplies; and
- Residents advocating for a greener community where they live and work.

Any one or two of these opportunities can spur change. In Northwest Ottawa County—including Grand Haven, Ferrysburg, Grand Haven Township, and Spring Lake—all four of these drivers for change are coalescing now. One key policy driver is the State's MI Healthy Climate Plan and recent legislation requiring more energy efficiency and renewable energy in the utility sector, including a "renewable energy standard of 50% by 2030 and 60% by 2035." Another driver has been the Michigan Green Communities Challenge, of which Grand Haven has earned gold.

This statewide policy provides impetus to local efforts, where the work will happen when it comes to electric vehicle charging infrastructure, solar deployment, and greater energy efficiency in buildings.

Beyond the federal or state level, local governments are also leading change. In Traverse City, Ann Arbor, and Detroit, for example, officials are setting ambitious decarbonization goals, incentivizing community programs, and adopting

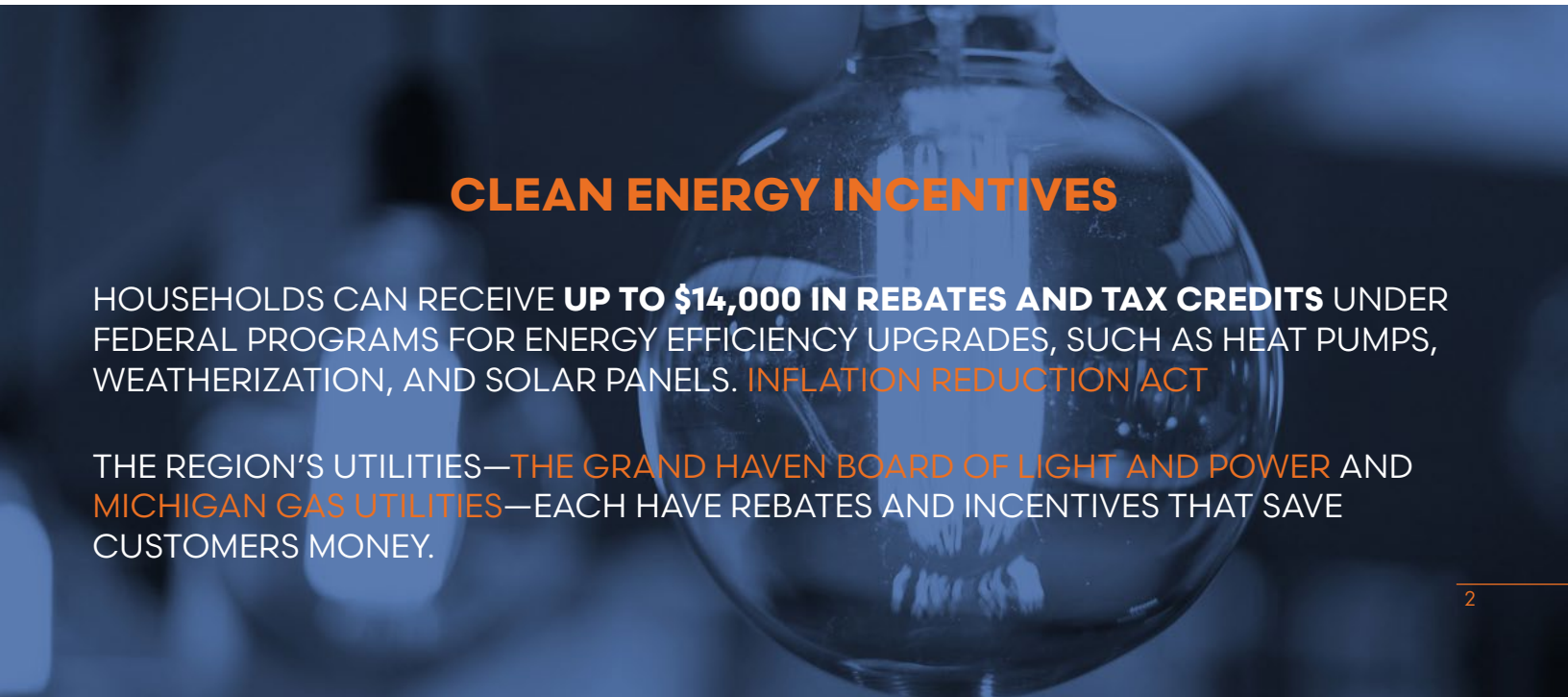
renewable energy resources. Moreover, nearby Holland has had a community energy action plan for more than a decade.

The focus and benefits of such energy plans are not just about carbon; they are also about the economy—and quality of life.

A recent analysis by 5 Lakes Energy finds that the combination of federal funding and Michigan's policy actions are having positive impacts on local and regional economies across the state. "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."

Opportunities exist for the individual local governments in Northwest Ottawa County to lead by setting goals for carbon reduction for themselves and their communities. These municipalities can update and amend policies and codes to encourage more "distributed energy resources" like infill solar projects. Working with economic development agencies, they can be prepared for clean tech enterprises, including retooling manufacturing for the electrification of the automobile industry. And, importantly, local governments can demonstrate leadership by investing in a clean energy future for their own operations. The City of Ferrysburg's solar array on its city hall roof signals such a civic commitment and example.

The area's municipal electricity utility, the Grand Haven Board of Light & Power (BLP), is also a key driver of an emerging clean energy future. The BLP has made significant strides in reducing its greenhouse gas emissions since 2005 by 75% through efficiency programs, closing its coal plant, and adopting transmission-based renewable energy. It has also kept affordability a hallmark of its service. Even greater goals



CLEAN ENERGY INCENTIVES

HOUSEHOLDS CAN RECEIVE **UP TO $14,000 IN REBATES AND TAX CREDITS** UNDER FEDERAL PROGRAMS FOR ENERGY EFFICIENCY UPGRADES, SUCH AS HEAT PUMPS, WEATHERIZATION, AND SOLAR PANELS. INFLATION REDUCTION ACT

THE REGION'S UTILITIES—THE GRAND HAVEN BOARD OF LIGHT AND POWER AND MICHIGAN GAS UTILITIES—EACH HAVE REBATES AND INCENTIVES THAT SAVE CUSTOMERS MONEY.

for "energy optimization" for BLP's customers is coming in the years ahead.

Michigan Gas Utilities also has been providing its customers rebates and incentives to reduce their consumption and save on their bills.

One condition for successful community energy planning and implementation, as demonstrated by similar plans around the country, is a strong utility, such as BLP.

The Community Energy Plan arrives at a pivotal moment: Northwest Ottawa County local governments and their constituents can build on previous local energy successes and move from the occasional energy project to a more sustained and strategic approach with local economic, environmental, and social benefits.

Ultimately, the adoption of a plan ultimately is the decision of the elected officials of the participating governments. These bodies are given the option of "good, better, best" scenarios—and allowing for a customizable group of decarbonization strategies to reduce emissions by as much as 75% by 2050. These representatives will determine the most appropriate way forward for their communities.

SAVE $750

PURCHASING ENERGY STAR-CERTIFIED CLOTHES WASHERS, DRYERS, DISHWASHERS, AND REFRIGERATORS SAVES ABOUT $750 OVER THE PRODUCTS' LIFETIMES.
ENERGY STAR/U.S. ENVIRONMENTAL PROTECTION AGENCY

ELEMENTS OF THE
COMMUNITY ENERGY PLAN

The Community Energy Plan of Northwest Ottawa County is comprised of three major elements:

Technical Analysis of energy resources in the region and their related output of greenhouse gases over time, and scenario modeling for future carbon reductions.

Strategies for deploying clean energy solutions to reduce emissions and foster a local clean energy economy over time.

Community Engagement on awareness, interest, and desire to have local solutions to address climate change.

The strategies are based, in part, on the combination of community input, the findings of the technical analysis, and industry-proven actions. The plan overall is intended to guide the community toward achieving meaningful decarbonization during the coming decades.

The Summary provided at the beginning of this document is also available as a stand-alone document for a quicker read.

GREENHOUSE GAS
EMISSIONS TRENDS

TECHNICAL REPORT

The technical report describes the quantitative modeling and analysis conducted to support the area's energy planning efforts. In Phase 1, two separate annual baseline inventories of greenhouse gases (GHG) emissions, 10 years apart, were developed to understand emissions caused by activities within the Grand Haven Board of Light & Power (BLP) service territory. The U.S. EPA's Local GHG Inventory Tool (Community Module) provided emissions from multiple source categories, which were calculated and assigned to the Residential, Commercial/Institutional, and Industrial sectors.

GHG EMISSIONS 2012-2022

Between 2012 and 2022, Northwest Ottawa County significantly reduced its GHG emissions by approximately 24%. This reduction resulted primarily from the retirement of the J.B. Sims coal plant and a shift toward cleaner energy sources.

- In 2012, the region's total emissions were 517,085 metric tons of carbon dioxide equivalent (MTCO2e)[1]
- By 2022, emissions had decreased to 395,795 MTCO2e, illustrating the positive impact of transitioning away from fossil fuels, increasing energy efficiency, and adopting renewable energy.

CURRENT LOCAL PER CAPITA EMISSIONS

Per capita emissions in the Grand region have decreased from 19.7 MTCO2e in 2012 to 14.5 MT in 2022, close to the U.S. national average of 14.9 metric tons per person in 2024. If the "best" scenario for decarbonization in the plan is pursued here, per capita emissions are projected to drop further to 3.5 MTCO2e by 2050, which would be a reduction of a local person's "carbon footprint" by 75% over the next 25 years.

1 Measurement that represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO2), based on the global warming potential of the gas.

FUTURE EMISSIONS
REDUCTION PATHWAYS

THREE EMISSION REDUCTION PATHWAYS (GOOD, BETTER, BEST)

While the region has made progress in reducing greenhouse gases, greater decarbonization in the future is possible. The plan outlines three potential pathways for reducing emissions through 2050:

- **Good:** A 56% reduction in emissions by 2050 compared to 2022 levels, reflecting the State of Michigan's decarbonization goals.
- **Better:** A 60% reduction by 2050, achieved through increased electrification, energy efficiency, and the adoption of electric vehicles.
- **Best:** The most ambitious scenario, achieving a 76% reduction by 2050 through renewable energy expansion and full electrification of residential buildings and widespread adoption of electric vehicles.

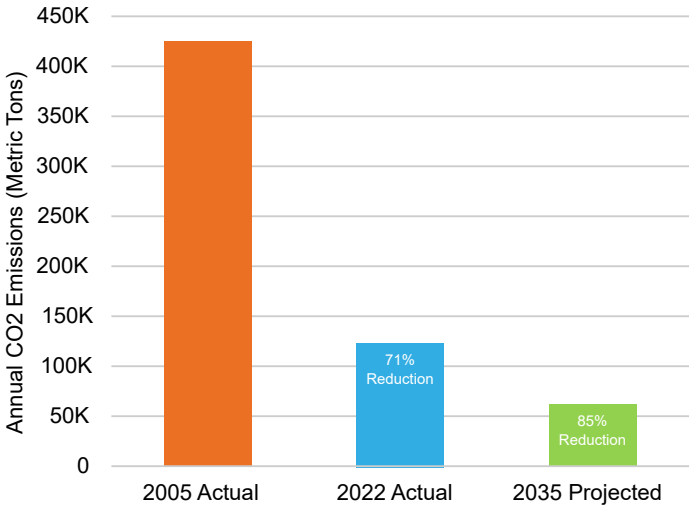
The strategies, in turn, provide pathways—and options to those pathways—to address energy and emissions issues locally. An example is provided on the next page.

IMPORTANCE OF ELECTRIFICATION

Electrification of buildings and transportation is a key strategy for achieving significant emissions reductions. Transitioning from fossil fuel heating systems to heat pumps, along with increasing the number of electric vehicles (EVs), will further reduce carbon emissions. To fully benefit from electrification, the region must increase the percentage of renewable energy in its electricity mix.

RENEWABLE ENERGY EXPANSION

Currently, renewable energy sources provide 24% of the region's electricity. In the Best scenario, this amount must reach 100% by 2050, requiring strong local policies and collaboration with the BLP to expand clean energy infrastructure. A balanced mix of local renewables and Renewable Energy Credits (RECs) will be essential for supporting economic growth, providing affordable rates, and ensuring grid resiliency.



Note: 2035 Projected Emissions based on current energy input with no additional EWR reductions.

Grand Haven BLP Carbon Emissions

EXAMPLE OF OPTIONS IN A STRATEGY

1.1 IMPLEMENT HOME RETROFITS

GOOD

- Continue utilizing existing utility energy efficiency programs, which will be increasing savings goals in 2026.
- Aim for a 15% energy waste reduction by offering basic weatherization incentives to homeowners and landlords.
- Provide rebates for upgrades such as insulation, energy efficient appliances, and simple retrofits through local utility programs.
- Look to exemplary programs, such as Holland, Green Mountain Power, and Burlington for ideas.

BETTER

- Launch a home energy waste reduction program in partnership with the Board of Light & Power (BLP) modeled on Holland's "Energy 101" initiative.
- Expand the program by exploring grants, loans, tax credits, and low interest financing options for deeper retrofits across all income levels.
- Collaborate with local agencies like the Community Action Agency and Salvation Army to promote energy efficiency resources for low income residents.
- Work with MI Saves and utilities to offer OnBill Financing programs to reduce upfront costs for participants.
- Build a network of qualified contractors by partnering with organizations like the Michigan Energy Efficiency Contractors Association (MEECA).

BEST

- Implement a comprehensive energy retrofit program with the goal of reducing energy waste by 50% in participating homes.
- Introduce on bill financing options to cover retrofits and code upgrades.
- Request funding support from BLP and Michigan Gas Utilities to provide matching incentives.
- Focus on deep energy retrofits, including solar integration, high performance HVAC systems, and whole home upgrades, to maximize carbon and cost savings.

OVERVIEW OF **STRATEGIES**

SUPPORTIVE STRATEGIES AND DIRECT STRATEGIES

Two kinds of strategies have been identified to make future actions impactful in the region: Supportive and Direct Strategies. Support Strategies build local capacity, and Direct Strategies implement tangible solutions that reduce greenhouse gas emissions.

Supportive Strategies focus on capacity building: creating the expertise, infrastructure, and community engagement necessary to implement clean energy solutions. These strategies help to ensure that the community has the resources, knowledge, and support to carry out the more direct emissions-reducing actions. Local governments have a crucial role in adopting policies, securing grants, and leading community education initiatives to enable Supportive Strategies.

Direct Strategies, on the other hand, are the actionable projects and programs that directly reduce emissions. These strategies involve hands-on implementation of clean energy solutions such as retrofitting homes for energy efficiency, increasing local renewable energy generation, and building out electric vehicle infrastructure. While the Supportive Strategies create the conditions for success, the Direct Strategies are the on-the-ground efforts that deliver measurable emissions reductions.

HOW THE STRATEGIES COME TOGETHER

Together, these nine strategies form a cohesive plan for decarbonizing the Northwest Ottawa

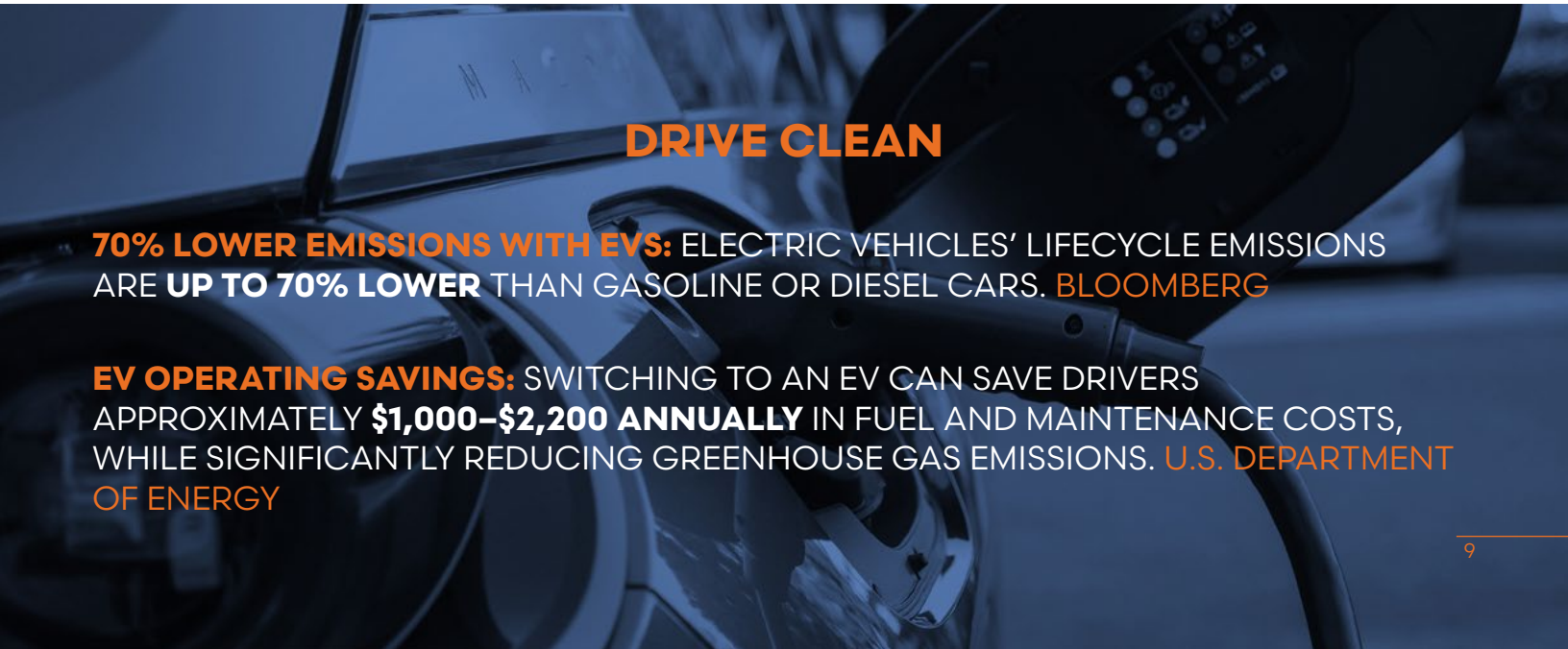
DIRECT STRATEGIES

1. Reduce Emissions in Buildings
2. Accelerate Local Renewable Energy
3. Transition to Electric Vehicles and Enhance Mobility
4. Protect and Restore Land and Water Resources
5. Improve Sustainable Food Systems

SUPPORTIVE STRATEGIES

6. Support Community Energy Engagement, Education, and Equity
7. Invest in Clean Energy Projects
8. Adopt Enabling Clean Energy Policies
9. Track Results and Update Plan Regularly

County region. This integrated approach allows the region to act strategically, using available resources efficiently while maintaining a long-term vision for decarbonization. At its core, this Plan outlines a sustainable future where clean energy is accessible, emissions are reduced across all sectors, and the community is resilient to climate change.



DRIVE CLEAN

70% LOWER EMISSIONS WITH EVS: ELECTRIC VEHICLES' LIFECYCLE EMISSIONS ARE **UP TO 70% LOWER** THAN GASOLINE OR DIESEL CARS. BLOOMBERG

EV OPERATING SAVINGS: SWITCHING TO AN EV CAN SAVE DRIVERS APPROXIMATELY **$1,000–$2,200 ANNUALLY** IN FUEL AND MAINTENANCE COSTS, WHILE SIGNIFICANTLY REDUCING GREENHOUSE GAS EMISSIONS. U.S. DEPARTMENT OF ENERGY

DIRECT

STRATEGIES

1. REDUCE EMISSIONS IN BUILDINGS

The purpose of this strategy is to retrofit buildings for energy efficiency, electrifying heating systems, and integrating renewable energy systems like solar. Buildings account for a significant portion of emissions (one-third), and improving their efficiency will yield immediate and long-term energy and cost reductions, as well as higher occupant comfort.

Opportunity: Utilities, State of Michigan and federal agencies are offering rebates and incentives for energy efficiency in residential and commercial buildings. Rewiring America provides a clearinghouse and calculator for efficiency improvements in the residential sector. Grand Haven Board of Light & Power, Michigan Gas Utilities and Consumers Energy also have residential and commercial programs.

2. ACCELERATE LOCAL RENEWABLE ENERGY

This strategy includes promoting community solar programs, conducting solar feasibility studies, and revising policies to support local renewable energy projects. Expanding renewable energy is a cornerstone of decarbonization plans like this one, as it reduces reliance on fossil fuels and drives progress toward a clean energy economy.

Opportunity: Programs, rebates, and incentives exist for local solar installations, including the Investment Tax Credit. Michigan will soon launch the Solar For All program, which includes funding for developing community solar.

3. TRANSITION TO ELECTRIC VEHICLES AND ENHANCE MOBILITY

This strategy involves expanding electric vehicle infrastructure, incentivizing off-peak charging, and promoting integrated, multi-modal transportation systems. Reducing transportation emissions is critical, as this sector is one of the largest contributors to regional pollution.

Opportunity: Funding and technical assistantance programs exist for municipalities doing infrastructure and fleet planning for electric vehicles in their communities. One such program is Charging Smart, which is no-cost and now operating in Michigan.

4. PROTECT AND RESTORE LAND AND WATER RESOURCES

This strategy promotes green infrastructure, sustainable land use planning, and reforestation projects to protect ecosystems and enhance carbon sequestration. It is important because natural resources are both vulnerable to and vital in mitigating the impacts of climate change.

Opportunity: Northwest Ottawa County has a strong tradition of environmental stewardship, inspired by the Grand River flowing into Lake Michigan here. The Grand Valley Metro Council is active in environmental, community, and economic initiatives, including programs with climate as a focus. GVMC is a key planning partner in the region.

5. IMPROVE SUSTAINABLE FOOD SYSTEMS

This strategy focuses on supporting local food production, reducing food waste, and encouraging sustainable agricultural practices. It addresses the environmental impacts of food systems, which are often overlooked but crucial for reducing emissions and promoting a sustainable lifestyle.

Opportunity: Food waste is second only to the energy sector for its contribution to greenhouse gases. People in Michigan throw 1.5 million tons of food away each year. Increasingly, the nexus between energy and food and water requires integrated solutions. Michigan Food Waste Roadmap seeks to reduce loss and waste by half of the 2021 baseline. This sector is an important component to the State's overall healthy climate planning and funding.

ENERGY EFFICIENCY SAVINGS

INSULATION SAVINGS: ADDING INSULATION AND SEALING AIR LEAKS CAN CUT UP TO **20% OF HEATING AND COOLING COSTS** OR UP TO **10% OF TOTAL ENERGY COSTS**. U.S. DEPARTMENT OF ENERGY

COST-EFFECTIVE HEATING: AN ENERGY STAR-CERTIFIED AIR-SOURCE HEATPUMP CAN HEAT YOUR HOME FOR **1/3 THE COST OF ELECTRIC BASEBOARD HEATING AND 1/2 THE COST OF OIL HEATING**. ENERGY STAR

MINI-SPLIT HEAT PUMPS: MINI-SPLIT HEAT PUMPS TRANSFER HEAT INSTEAD OF GENERATING IT, USING **UP TO 60% LESS ENERGY** THAN ELECTRIC RADIATORS. ENERGY STAR

COOLING SAVINGS: ENERGY STAR-CERTIFIED DUCTLESS MINI-SPLITS CAN **CUT COOLING COSTS BY 30%** COMPARED TO STANDARD ROOM AIR CONDITIONERS, THANKS TO ADVANCED COMPRESSORS AND VARIABLE-SPEED FANS. ENERGY STAR

SUPPORTIVE STRATEGIES

6. SUPPORT COMMUNITY ENERGY ENGAGEMENT, EDUCATION, AND EQUITY

This strategy focuses on sustaining community participation by fostering education about clean energy solutions and ensuring equitable access, especially for underserved groups. It is important because broad engagement and inclusivity will be critical in driving long-term support for decarbonization efforts.

Opportunity: A new community energy coordinator position (see sidebar) would focus region-wide efforts that include seeking funding for programs and projects. This position has the possibility of being funded by a grant, such as those from the State of Michigan's Community Energy Management Program.

7. INVEST IN CLEAN ENERGY PROJECTS

This strategy involves creating a dedicated team to secure grants and prioritize clean energy investments through careful planning and budgeting. Accessing diverse funding sources ensures the region can implement the projects necessary to meet its decarbonization goals. The clean energy economy has been a boon for established and start-up companies in West Michigan.

Opportunity: Northwest Ottawa County has experts in securing grants, in energy planning, in community development, and governmental management. A team approach harnesses individual expertise and creates a pro-active mechanism for pursuing outside funding.

8. ADOPT ENABLING CLEAN ENERGY POLICIES

This strategy focuses on updating zoning ordinances, adopting emissions reduction goals, and implementing sustainable purchasing policies to encourage renewable energy projects and energy-efficient practices. Local governments play a key role here, as policy changes can make clean energy adoption easier and more widespread.

Opportunity: The speed of the clean energy transition in recent years has all but guaranteed that local and regional ordinances, permitting processes, and other policies have not kept pace. Updating local policies can be moved along with no-cost resources from the Michigan Green Communities and other nonprofits and universities.

9. TRACK RESULTS AND UPDATE PLAN REGULARLY

By establishing performance indicators and conducting periodic evaluations, this strategy ensures that progress is continuously monitored, and adjustments are made as needed. Regular updates are vital to maintaining momentum and adapting to new challenges and technologies.

Opportunity: The dynamism in the clean energy and decarbonization sector is such that a plan finished in 2024 will need to be revisited regularly to adapt to changes in the future. A body such as the Grand Haven Sustainability and Energy Commission could be tasked with periodic reviews and updates of the plan.

ROLE AND IMPACT OF THE
COMMUNITY ENERGY ADVISOR

IMPACT	DIFFICULTY	IMPLEMENTATION	DURATION
		Immediate	Ongoing

EXAMPLE: AN ACTION A GOVERNMENT CAN TAKE NOW

While community energy plans around the country have distinctions based upon the unique character of their communities, almost all share one quality: the need for a person dedicated to spearheading the work. A community energy coordinator is tasked with both the long-term and day-to-day actions that deliver the transition to clean energy within a community. Much of this person's initial work would be focused on advancing strategies of this Plan.

REGIONAL COOPERATION

Intergovernmental cooperation already happens in certain regional planning and projects, such as creating more than 100 miles of shared bike paths among the communities in the Grand Haven area. In a similar vein, a Community Energy Advisor could represent the interests of the three participating communities, engaging and educating stakeholders across the region on current and emerging clean energy opportunities. This person would liaise with the energy efficiency team at the BLP, enhancing their efforts to meet ambitious goals and state mandates.

POSITIONING FOR SUCCESS

Grant funding has been available for a position, which could be structured as an independent contractor with key performance indicators to determine impact, such as operational cost savings for local governments. Nearby Holland has been a pioneer of this model: a community energy coordinator with strong municipal and utility support realizing the ambitious, ongoing goals of a community energy plan, which began in 2012.

RESOURCES

- Holland Energy Fund
- NREL Executive Energy Leadership Academy

FUNDING SUPPORT

- EGLE Community Energy Management Program

STAKEHOLDER INPUT AND COMMUNITY ASPIRATIONS

STEERING COMMITTEE AND STAKEHOLDER ENGAGEMENT

The Grand Haven Region Community Energy Plan has been a community-led initiative that involved stakeholders from Grand Haven, Ferrysburg, and Grand Haven Township. A Steering Committee, consisting of municipal staff, BLP representatives, and other community stakeholders, directed the efforts of Michigan Energy Options, the consultant.

COMMUNITY OUTREACH EFFORTS

Over the last year, extensive outreach was conducted to gather input from the community. Open houses, presentations to municipal councils and civic groups, meetings with nonprofits and businesses, social media, and a project website are among outreach efforts. The community survey, which had 378 respondents, was well-received, and its results helped shape the direction of the plan.

COMMUNITY SENTIMENT ON DECARBONIZATION

Although opinions varied, a majority of community members were enthusiastic about a collaborative, long-term approach to decarbonization. More than 70% of survey respondents believe local action can effectively address climate change, and over 83% supported a plan to make buildings more energy-efficient and comfortable.

PRIORITIES FOR AFFORDABLE CLEAN ENERGY

Around 80% of respondents expressed concern about energy affordability, particularly for low-income households. There is strong community support for solutions that make clean energy accessible and affordable, such as community solar programs and weatherization assistance.

PLANT MORE TREES

EXPANDING URBAN TREE CANOPY CAN **SEQUESTER 48 POUNDS OF CARBON PER TREE ANNUALLY** WHILE PROVIDING SHADE AND REDUCING THE URBAN HEAT ISLAND EFFECT. U.S. FOREST SERVICE

CLEAN ENERGY POLICIES AND LOCAL GOVERNMENT ROLES

THE ROLE OF LOCAL GOVERNMENTS IN CLEAN ENERGY

Local governments in the Grand Haven Region are uniquely positioned to lead the clean energy transition by setting policies that create favorable conditions for energy efficiency and renewable energy adoption. Through actions such as updating zoning regulations, encouraging energy-efficient building standards, and streamlining the permitting process for renewable energy projects, municipalities can make a significant impact. These governments can also model sustainability by integrating clean energy technologies into their own operations, thus showcasing the benefits of these practices to the broader community.

Local government leadership in clean energy can reduce emissions and foster economic growth by attracting clean energy businesses and encouraging innovation. By creating a supportive policy environment, municipalities can open the door to new opportunities in the clean tech sector and establish the Grand Haven Region as a forward-thinking leader in sustainability.

FOSTERING COMMUNITY COLLABORATION

While local governments play a key role in setting policies and creating a supportive environment for clean energy, the success of these initiatives depends on broad community collaboration. The next section examines how community input and aspirations have shaped

SAVE WITH SOLAR

30% TAX CREDIT: HOMEOWNERS AND BUSINESSES CAN CLAIM A FEDERAL TAX CREDIT EQUAL TO **30% OF THE COST** OF INSTALLING SOLAR PANELS AND RELATED EQUIPMENT. THE 30% CREDIT IS AVAILABLE THROUGH 2032. U.S. DEPARTMENT OF ENERGY

DIRECT PAY: NONPROFITS, SCHOOLS, TRIBAL ENTITIES AND GOVERNMENTS ARE NOW ELIGIBLE FOR A CASH PAYMENT EQUIVALENT TO THE **30% OF PROJECT COSTS** FOR SOLAR AND OTHER CLEAN ENERGY PROJECTS. INFLATION REDUCTION ACT

the Grand Haven Region Community Energy Plan, highlighting the critical role of municipal officials, stakeholders, and residents in ensuring that clean energy efforts align with the values and needs of the entire population.

COLLABORATION AND POLICY SUPPORT

Collaboration among local governments, stakeholders, and utilities such as the Grand Haven Board of Light and Power (BLP) is crucial for achieving the region's clean energy goals. Local efforts must align with state and federal policies, such as Michigan's MI Healthy Climate Plan, to maximize the impact of decarbonization initiatives and access funding opportunities.

Neighboring municipalities can pool resources, share knowledge, and develop coordinated projects such as shared EV infrastructure and renewable energy initiatives, which lead to more efficient and high impact outcomes than isolated efforts. As the region progresses, local governments must engage the wider community, fostering partnerships and building support to ensure the long-term success of clean energy projects. Achieving a sustainable future will require both top-down policies and bottom-up participation.

HIGHLIGHTS

Significant GHG Emissions Reduction:
The Grand Haven Region reduced its greenhouse gas emissions by 24% between 2012 and 2022, largely caused by the retirement of the J.B. Sims coal plant and a shift toward cleaner energy sources by the incumbent utilities. Total emissions dropped from 517,085 to 395,795 metric tons of CO2e.

Per Capita Emissions Progress:
Per capita emissions in the region fell from 19.69 metric tons of CO2e in 2012 to 14.48 metric tons in 2022, aligning closely with the U.S. national average. Under the "best" decarbonization scenario, emissions could drop further to 3.54 metric tons per person by 2050.

Future Pathways for Emissions Reduction:
The plan offers three pathways for reducing emissions by 2050: the Good scenario (56% reduction), the Better scenario (60% reduction), and the Best scenario (76% reduction), which relies on renewable energy expansion and electrification.

PRIORITIES AND RECOMMENDATIONS

DECISION-MAKING TOOLS

The Community Energy Plan of Northwest Ottawa County provides local leaders and stakeholders with tools to support future decision-making.

- The technical report, which has created an emissions baseline, establishes a quantifiable foundation upon which decisions can be "grounded" in the data. Further, the tool is available to the local participating government and can be updated and modified in the future as progress is achieved.
- The good, better, best scenarios allow for customizable plans particular to individual community values, interest, and capacity.
- Many of the strategies—and attendant sub-strategies—include directives for good, better, best results. Not all strategies lend themselves to quantitative measures as to impact; some are more qualitative, reflecting industry best practices or principles of community engagement in the sustainability sphere.
- Our team has created an "Investment Impact Index" for this plan. The Investment Impact Index (III) is intended to provide a relative sense of how much positive impact can be expected from the five Direct Strategies:

1. Reduce Emissions in Buildings
2. Accelerate Local Renewable Energy
3. Transition to Electric Vehicles and Enhance Other Mobility
4. Protect and Restore Land and Water Resources
5. Improve Sustainable Food Systems

THE INVESTMENT IMPACT INDEX (III)

The Investment Impact Index, in this instance, is composed of five evenly weighted inputs. An additional sixth input (Energy Impact) is relevant only to strategies 1-3.

1. Carbon Reduction Potential
2. Cost Effectiveness
3. Social, Economic, and Environmental Co-Benefits
4. Time to Impact
5. Funding Availability
6. Energy Impact

The III is an example of a structured decision-making framework that enhances the transparency and rigor of evaluating various strategies. By incorporating a weighted decision matrix approach, the III allows decision-makers to assign different levels of importance to each input based on their specific priorities. This means the inputs can be adjusted to reflect

what decision-makers value most, ensuring the evaluation aligns with local goals and contextual needs. Such flexibility enables complex considerations to be distilled into clear, comparable outcomes, supporting more objective and informed choices. As a result, the III serves as a practical tool for strategic planning while providing a transparent, data-driven foundation for addressing local contributions to global challenges like climate change.

This index is based on established *global* methodologies to measure emissions reductions that result from taking specific actions. Determining the equivalent state or regional indexes for these categories may be possible, but not with the level of data available now. It would take more work to accomplish such an index for Northwest Ottawa County. That said, as climate change is a global problem with local solutions, the results of the five strategies do provide useful touchstones for decision makers.

	Buildings	Renewable Energy	Mobility	Land & Water	Food Systems	Average
Carbon Reduction	4	2	3	2	5	3.2
Cost Effectiveness	4	3	1	2	5	3.0
SEE Co-benefits	2	2	3	4	3	2.8
Time to Impact	5	3	3	1	5	3.4
Funding Availability	3	5	4	1	1	2.8
Energy Impact Score	2	5	3	N/A	N/A	3.3
Total Score (without Energy Impact)	3.6	3.0	2.8	2.0	3.8	3.0
Total Score (with Energy Impact)	3.3	3.3	2.8	2.0	3.8	3.0

FIVE IMMEDIATE **ACTIONS**

GRANT-WRITING TEAM

COMMUNITY ENERGY COORDINATOR

DEEP ENERGY RETROFITS

COMMUNITY BASED SOLAR

ZONING FOR LOCAL DERS

These five strategies emerge as priority recommendations for the local governments in Northwest Ottawa County to consider acting on as soon as possible. Near-term opportunities exist in this group based on the timing of outside funding and programs, the necessity of building local competitive capacity for future funding, community interest and benefits, and actions that are in the purview of local governmental leaders.

1. **Establish a grant-writing team to respond to grant opportunities for clean energy programs and projects.** This team would be composed of city staff, community volunteers, industry content experts, and a professional grant-writer or firm. By working with government, quasi-government, and nonprofit coalitions, this team can align local initiatives with broader regional strategies, increasing the likelihood of securing funding and maximizing impact. **Strategy 7.1**.

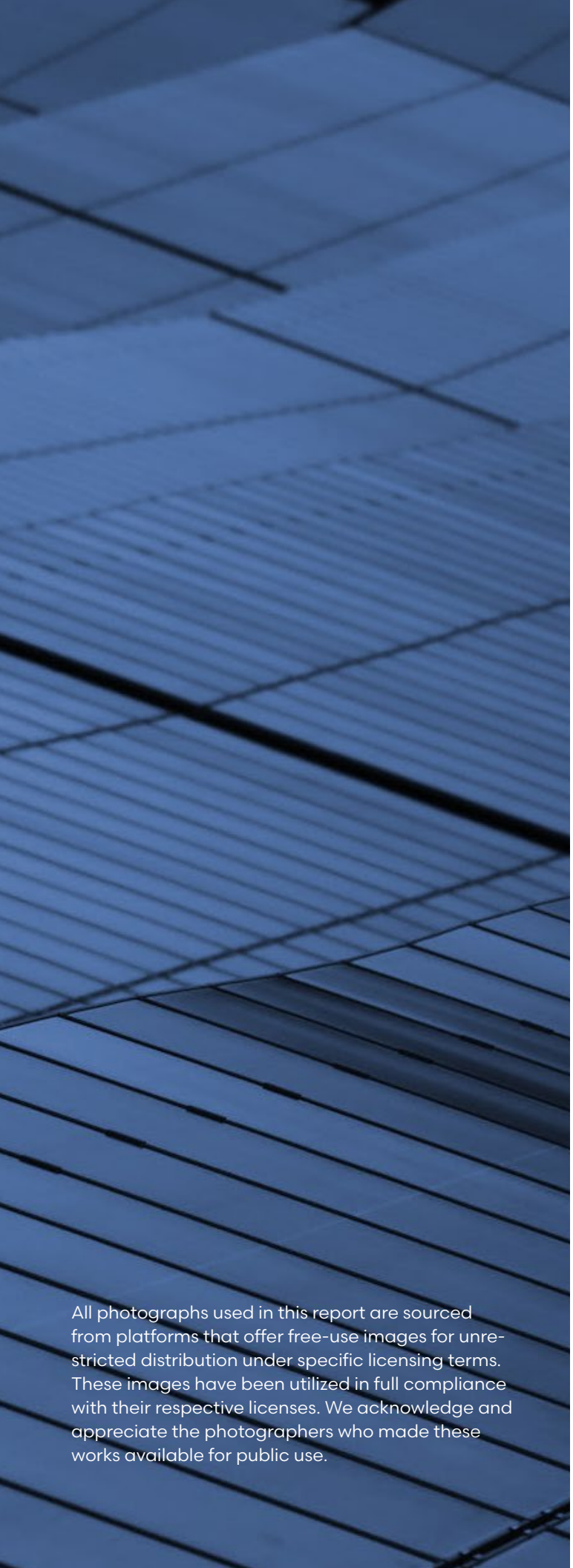
2. Secure available grant funding, such as that from the State of Michigan, **contract a Community Energy Plan Coordinator** for one year to educate the community on energy savings, local renewable energy, and carbon reduction opportunities; seek grant funding for programs and projects; liaise with utilities and local units of government on projects and programs; engage with Michigan Green Communities and other statewide clean energy sector experts to advance this plan. **Strategy 6.1**.

3. **Implement Home Deep Energy Retrofits and Expand Weatherization Programs** that not only improve energy efficiency but also create a more comfortable and healthier living environment, often with an emphasis on long-term savings, increase home value, and local sustainability benefits. Rebates and incentives are available through the local utilities. Additional resources coming available through the

State of Michigan's Home Energy Rebates (MiHER) program starting in 2025. Also, low-interest loans for energy efficiency upgrades will be widely available through the Greenhouse Gas Reduction Fund soon. **Strategy 1.1**.

4. **Facilitate Community-based Solar Programs** by investigating the feasibility of local community solar programs and residential "group buy" discount programs with an installer to reduce the cost of rooftop solar. Additionally, the region should consider applying for a low-income solar program, such as "Solar for All," which is being launched by the State of Michigan in late 2024. The probable success of programs/projects such as these depends on the trusted local government being an engaged participant on behalf of their residents' best interests. **Strategy 2.1**.

5. Local policies addressing energy likely need to be updated given how rapid the changes are taking place in this sector. **Adopting Zoning Ordinances and Permitting that Encourage Local Distributed Energy Resources (DERs)** can provide multiple benefits by removing outdated statutes, eliminating confusion, and streamlining the permitting work needed both for government oversight staff and community stakeholders. This exercise, importantly, can also align consistent policies across regional local jurisdictions. Possibly Grand Haven's Sustainability and Energy Commission could undertake this task for its municipality and perhaps others.



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Michigan Energy Options and 5 Lakes Energy led the process that has resulted in this plan and other related work available at:
www.cepnoc.org

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