

# RESTART

A Roadmap for Affordable Green Energy in Michigan



## WHO WE ARE



RESTART@LTU — short for Retired Engineers, Scientists, Technicians, Administrators, Researchers, and Teachers — is a partnership between the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Lawrence Technological University (LTU). RESTART is also a partner of the U.S. Department of Energy’s Industrial Training & Assessment Center (ITAC) program, which allows our clients to apply for up to \$300,000 in federal funding for implementation assistance.

## WHAT WE DO

RESTART offers energy efficiency, sustainability, and waste reduction assessments and services, at no cost to qualified businesses and public institutions.

## 2024 SNAPSHOT

100

Number of commercial and manufacturing buildings assessed

9.7M

Total square footage of building floor space assessed

\$416M

Expected lifetime savings of all 2024 assessments

**BUILDING  
ENVELOPE**



**PROCESS  
EFFICIENCY**



**BEHIND  
-THE-  
METER  
GENERATION**



**RECYCLING**



## Supporting energy-efficiency and sustainability in small businesses and commercial buildings.

This year, RESTART helped Michigan's business community reduce operating costs, enhance competitiveness, and improve environmental impact. By implementing energy-efficient technologies such as LED lighting, high-performance HVAC systems, and smart energy management tools, businesses can lower their utility bills and allocate resources to other critical areas.

We also helped integrate renewable energy and waste reduction into building operations. These initiatives help lower carbon footprints, attract environmentally conscious consumers and investors, foster brand loyalty, and differentiate the market. Furthermore, they improve employee productivity and satisfaction by creating healthier and more comfortable work environments.

RESTART believes that, in the long run, prioritizing energy efficiency and sustainability helps businesses become more resilient against rising energy costs and stricter environmental regulations. These strategies are essential for growth and lessen the effects of climate change.



# RESTART — A Catalyst for Change

## OUR GOALS

- Offer technical assistance for energy-waste reduction and sustainability projects
- Help our clients meet decarbonization goals
- Encourage procurement and use of low-carbon products
- Increase the pace and adoption of decarbonization solutions
- Connect with partner organizations and to identify funding opportunities

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## OUR PARTNERS



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## KEY TERMS

**energy-waste reduction:** reducing energy that is produced but not used or used inefficiently, which cause carbon emissions and other environmental pollution

**sustainability:** preventing the depletion of natural resources to maintain an ecological balance so they will remain available for the long term

**decarbonization:** improvements through which an entity reduces its carbon footprint, primarily its greenhouse gas emissions, carbon dioxide, and methane, to reduce its impact on the climate

9.7M

Total square  
footage of  
buildings  
assessed

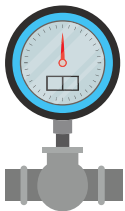


72M

Projected total  
electricity  
savings (kWh)

2.8M

Projected  
total fuel  
savings  
(CCF)



## 2024 SUCCESSES

The theme of 2024 was improving indoor air quality, energy efficiency, grid reliability, and competitive advantage in Michigan's commercial buildings and manufacturing facilities:

- RESTART conducted assessments in 92 commercial buildings and eight manufacturing facilities.
- About 80 percent of these buildings were found to be in need of envelope updates.
- RESTART made nearly 100 recommendations.
- If all recommendations are completed, we estimate a potential first-year savings of \$66.5M and lifetime savings of \$416M.

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## TOP RECOMMENDATIONS

**Update HVAC systems:** Replace old and inefficient heating, air conditioning, and ventilations systems as needed, and run them optimally.

**Implement behind-the-meter solar:** Install solar panels, fuel cells, and energy-efficient appliances.

**Modernize lighting systems:** Upgrade LED systems. Where there are windows, consider adding 'daylighting' controls. Ensure exterior lighting photo-cell controls are operational.

**Integrate BMS systems:** Install and update computer-based building management systems to control mechanical and electrical operations, enhancing safety and efficiency.

**Install heat pumps:** Improve energy efficiency, reduce emissions, and Increase occupant comfort.

*"The assessment has been incredibly insightful and beneficial to our operations. The detailed analysis of our energy consumption patterns and the comprehensive recommendations provided have already given us a clear roadmap to optimize our energy usage. We are confident that implementing these changes will significantly impact our operations, both financially and environmentally."*



— BEL GROUP



— GRAND RAPIDS CHAIR

*"Your team's expertise and thorough assessment provided valuable insights into our energy usage and opportunities for efficiency improvements. The detailed recommendations you shared will help us reduce our operational costs and align with our commitment to sustainability and responsible energy use. We appreciate the professionalism and clarity you brought to this process, making it easy for us to identify actionable steps."*

*"We had an outside-the-box issue we needed help with regarding electric capacity on some electric panels. The most valuable thing was the realization that we know our issues the best and can trust our own expertise. It was a really good learning experience and confidence booster for us."*



— CAMP FRIEDENSWALD



## 2025 PRIORITIES

- Perform 100 assessments to help Michigan small businesses transition to a low-carbon future
- Encourage the use of carbon-neutral fuels in industrial and commercial building operations
- Help partners find funding to implement RESTART recommendations
- Where feasible, encourage the adoption of early-stage energy waste reduction technologies
- Offer more technical assistance in communities facing environmental injustice (including toxin exposure and poor air and water quality)
- Implement a food waste program by partnering with experts to determine how companies can reduce food waste
- Entered into new partnerships and potential partnerships
- I-seed DOE money: train the trainer on shop floors of small manufacturers

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*“RESTART provides a critical service to small businesses throughout Michigan. Thoughtful investment in facilities helps manage operating costs and make organizations more stable and sustainable for the long term. This not only improves the environmental footprint of these facilities but supports the local economy and the jobs dependent on the continued success of these businesses.”*



— MI DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES,  
AND ENERGY (EGLE)

# THANK YOU

Working Together to Ensure a Green Future for Michigan



## Communities

EGLE assists, educates, and encourages Michigan communities to advance conservation and efficient use of energy resources so they may provide for a healthier environment and achieve greater energy security for future generations.



## Industry

EGLE is working towards a low-carbon future through programs and policies intended to drive environmental sustainability in industry through energy efficiency, renewable energy and climate resiliency, while accelerating economic growth, creating jobs and reducing greenhouse gas emissions.



## Renewable Energy

EGLE strives to achieve clean energy for all through programs that provide access to renewable energy for Michiganders regardless of income.



## Technical Assistance - RESTART

RESTART offers free onsite energy efficiency and sustainability technical assistance and assessments to small and medium-sized commercial businesses headquartered in Michigan with 500 or fewer employees, and public entities including K-12 schools, municipalities, and not-for-profits.



## Transportation

EGLE is working with businesses, townships, counties, cities and villages in the state to help them become EV ready.



## Funding Opportunities

EGLE has State and Federal funding available for various energy related projects, such as energy efficiency upgrades and renewable energy installations (non-residential), clean technology development, as well as funding for research and reports.

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## CONTACT US

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