


The logo for the Michigan Office of Future Mobility & Electrification is centered on a white rectangular background. The background of the entire page is a dark blue aerial photograph of a city skyline. The text is arranged in three lines: the first line is 'MICHIGAN OFFICE OF' in white, uppercase letters inside a green rectangular box; the second and third lines are 'FUTURE MOBILITY' and '& ELECTRIFICATION' respectively, in bold, dark blue, uppercase letters.

MICHIGAN OFFICE OF
**FUTURE MOBILITY
& ELECTRIFICATION**



Office of Future Mobility & Electrification (OFME) Overview

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& ELECTRIFICATION



Mobility refers to technologies and services that enable people and goods to move around more freely.

Electrification refers to the range of technologies that use electricity to propel a vehicle.



At the end of 2019, a decade's worth of effort across state government had helped position Michigan as the global mobility leader.

To further support and solidify those efforts, Governor Whitmer created the Michigan Office of Future Mobility and Electrification (OFME) in February 2020.

OFME was designed to be both an air traffic controller, and a rocket booster, for all the good work already happening in mobility across the state.

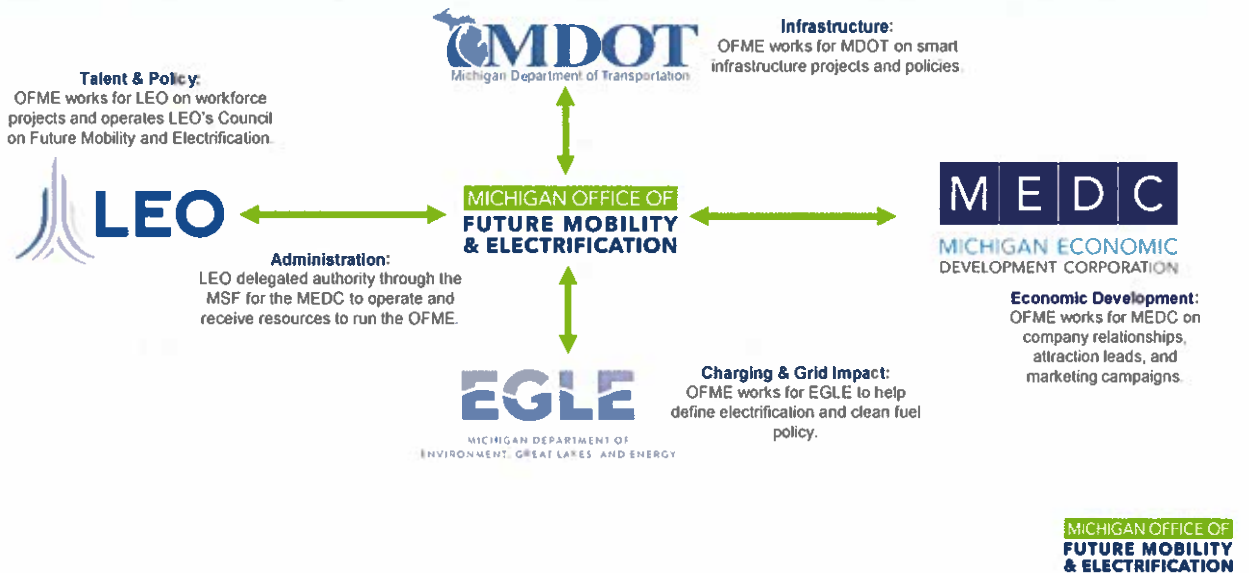
OFME Vision:

A stronger state economy through safer, equitable, and environmentally-conscious transport for all Michigan residents.

OFME Objectives:

- Increase Mobility **Investment** in MI.
- Lead the World in Mobility and EV **Startups and R&D**.
- Expand MI's Smart **Infrastructure**.
- Grow **EV Adoption** in MI.
- Further Enable MI's Mobility **Workforce**.
- Bolster MI's Mobility **Manufacturing** Core.

Executive Directive 2020-1 from the Governor Whitmer charged the OFME with coordinating a statewide approach for future mobility and electrification that bolsters Michigan's economy, workforce, environment, and infrastructure priorities. That is why OFME is nestled between the four departments responsible for these priorities, creating the "tools" and "extra hands" necessary to help these teams maintain mobility leadership.



Connectivity

Expand the networks of industry players and government partners.

- Over the past two years, OFME has made over **2,000** qualified introductions for **416** Michigan industry, university, and government partners.
- On average, OFME has made **4 introductions per business day** for Michigan stakeholders since October 2020.

Partnership

Mine newly-expanded networks for partnership opportunities between the public and private sectors.

- OFME worked with MEDC, LEO, EGLE, MDOT, and EOG to generate **89 public-private partnerships** around the state. This comes to **3 per month since October 2020**.
- Deployments included rural **EV charging** solutions, **EV workforce training**, **drone deliveries** of food and medicine, **better transit options**, **grid resiliency innovations**, and **AI for safer traffic intersections**.

Investment

Use new partnerships to develop projects that attract investors.

- Working with MEDC, LEO, MDOT, EGLE and EOG, OFME uncovered **nearly a half-billion (\$478,585,473)** to support future mobility projects in Michigan.
- On average, for every grant dollar OFME has awarded to deploy a new technology in a Michigan community, **\$3,500 has been provided by industry as match to sustain the deployment**.

Innovation

Turn new investment into statement wins for Michigan.

- Deep collaboration between OFME, MEDC, LEO, MDOT, EGLE, and EOG to design the future of mobility has created **several dynamic firsts in only two years**.

OFME collaborations with MEDC, LEO, MDOT, EGLE, and EOG have averaged **one published article per business day** since October 2020. This amounts to over **500 local and national articles**.

 CBS NEWS

A road in Detroit will charge an electric car while driving

 CAR AND DRIVER

Michigan Will Build Out EV Charging Stations for Lake Michigan Road Trips

 FAST COMPANY

Why e-bike maker Vela is ditching China for Detroit

 Forbes

5 Reasons Michigan Has Become The "Silicon Valley Of Mobility Tech"

 MLIVE EV charging infrastructure proposed for 7 Michigan highways

 CNN

Michigan plans to redesign a stretch of road for self-driving cars

 engadget

Detroit lets automakers test smart parking technology in a real garage

 yahoo!finance

Ford International Airport Launches FLITE to Develop, Introduce New High-Tech Air Travel Solutions

 The Detroit News

Council recommends steps for Michigan to bolster mobility

 Detroit Free Press

National Park Service partners with Michigan to provide equitable access to national parks

 n p r

5 Midwestern governors agree to create a network to charge electric vehicles

 CBC

Ontario and Michigan partner on cross-border drone study

 c|net

Ford, Google are founding partners in Michigan Central Innovation District

 holland sentinel.com

Whitmer helps launch EV charging stations at State Parks

 Automotive News

Why FLO chose Michigan to build EV chargers

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Michigan's
mobility sector
has momentum.

Under Governor Whitmer's Leadership, Michigan has:

- **Over 28,000 new jobs in the auto industry** and maintained Michigan's position as America's #1 automotive R&D and manufacturing state.
- Made the **largest education investment in state history** to prepare future generations of Michiganders for careers in mobility and EVs.
- Set Michigan on a **path to carbon neutrality by 2050**, which includes a worry-free, statewide electric vehicle charging network before 2030.
- Continued to fix Michigan's roads, while also **futureproofing with multiple American firsts** like the first AV vehicle corridor, and first wireless charging corridor for electric vehicles.
- Led national mobility policy conversations that included the creation of the **first 5-state compact in the Midwest to focus on EV adoption** and **7-state compact in the Midwest to focus on the development of a hydrogen economy**.

But there are
challenges ahead.

Michigan's Biggest Mobility Challenges This Decade:

- Fierce **competition for new mobility jobs**.
- Fierce **competition for new R&D and risk capital** investment.
- **Transitioning Michigan's workforce** from traditional ICE skillsets to emerging AV and EV skillsets.
- **Transitioning Michigan's infrastructure and grid** from primarily serving ICE vehicles to also serving EVs and AVs.
- Ensuring that **state regulatory environments keep pace** with the domestic and global markets.
- As the lead source of emissions pollution, **decarbonizing the transportation sector** is key to fighting climate change.

An aerial, night-time view of a city skyline, likely Detroit, with several prominent skyscrapers. A futuristic, white flying car with four rotors is shown in flight in the center of the frame. The entire scene is overlaid with a semi-transparent blue filter. The text "MI Future Mobility Plan" is centered in white, bold font.

MI Future Mobility Plan

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To address these challenges, state leaders, with guidance from industry and academia, came together to construct the MI Future Mobility Plan.

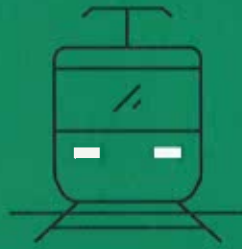
- Executive Office of the Governor
- Michigan Office of Future Mobility and Electrification
- Michigan Council on Future Mobility and Electrification
- Michigan Department of Labor and Economic Opportunity
- Michigan Department of Environment, Great Lakes and Energy
- Michigan Department of Transportation
- Michigan Department of Natural Resources
- Michigan Department of Insurance and Financial Services
- Michigan Department of Treasury
- Michigan State Police
- Michigan Economic Development Corporation
- Michigan Public Service Commission

Michigan's Vision for Mobility and Electrification: Build a strong, vibrant economy through safer, more equitable and environmentally-conscious transportation for all people.

Transition and Grow
Our Mobility Industry
and Workforce



Provide Safer, Greener
and More Accessible
Transportation

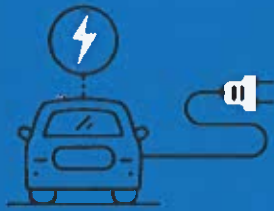


Lead the World in
Mobility Policy and
Innovation



Michigan's Vision for Mobility and Electrification: Build a strong, vibrant economy through safer, more equitable and environmentally-conscious transportation for all people.

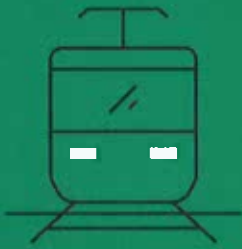
Transition and Grow
Our Mobility Industry
and Workforce



- Create 20K new jobs by 2026 while increasing the median wage of mobility sector jobs.
- Add 7K workers with mobility credentials by 2030 — while increasing diversity in the sector's workforce.
- Ensure Michigan maintains a resilient automotive manufacturing sector that supports at least 170K jobs through 2030.

Michigan's Vision for Mobility and Electrification: Build a strong, vibrant economy through safer, more equitable and environmentally-conscious transportation for all people.

Provide Safer, Greener
and More Accessible
Transportation



- By 2030, deploy 100K EV chargers to support 2M EVs and improve access to hydrogen infrastructure.
- Maintain at least 80% of EV charging off-peak to minimize impacts on the grid.
- Reduce congestion and traffic crash rates statewide by 2026.
- Provide residents with consistent access to mobility-as-a-service options across Michigan's 77 transit agencies by 2025.

Michigan's Vision for Mobility and Electrification: Build a strong, vibrant economy through safer, more equitable and environmentally-conscious transportation for all people.

Lead the World in
Mobility Policy and
Innovation



- Maintain #1 state ranking for mobility and electrification R&D spend.
- Become a top 10 state for growth in venture capital funding by 2026.
- Become a top 10 state for federal investments related to mobility and vehicle electrification.
- Lead the nation in electric and automated vehicle friendliness through responsive policies.



Investments

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Detroit Free Press

*GM to invest historic \$7 billion
in 4 facilities across Michigan,
creating 4,000 jobs*

INSIDEEVs

*LG Energy Solution
Announces \$1.7 Billion
Plant Expansion In Michigan*



REUTERS

*Ford to invest \$2 billion in Michigan,
create 3,200 jobs*

The Detroit News

*Canadian EV charging company
opens Auburn Hills production facility*

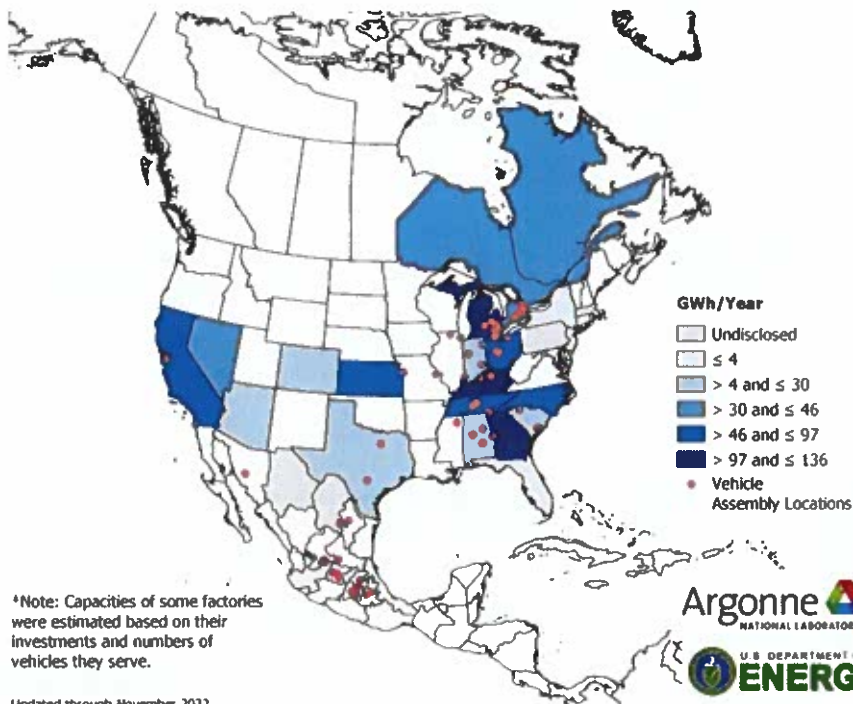
THE WALL STREET JOURNAL.

*Former Apple Car Executive's Battery Startup
Plans \$1.6 Billion Factory in Michigan*

Automotive News

*Details emerge on \$2.4 billion
EV battery plant in West Michigan*

Planned Battery Plant Capacity in North America by 2030



*Note: Capacities of some factories were estimated based on their investments and numbers of vehicles they serve.

Updated through November 2022



These states will dominate EV battery manufacturing in 2030

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An aerial night view of a city with illuminated buildings and streets. A futuristic, white flying car is shown in flight in the dark blue sky above the city. The overall scene is bathed in a deep blue light.

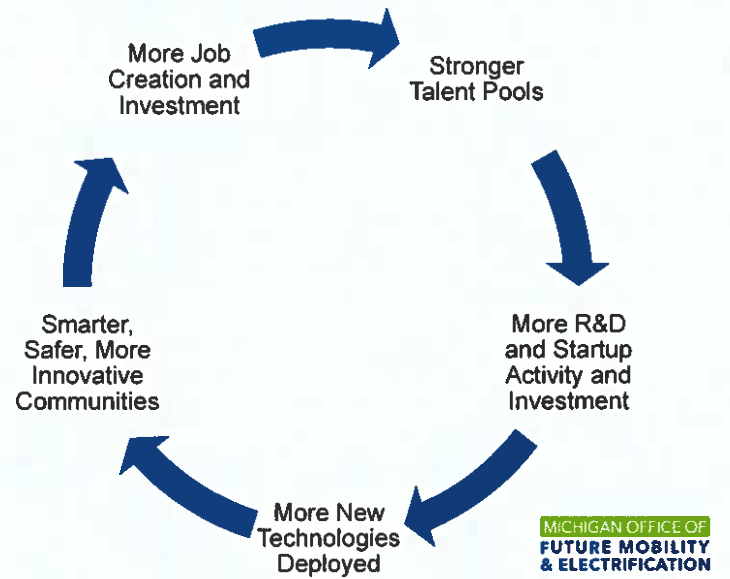
Projects & Partnerships

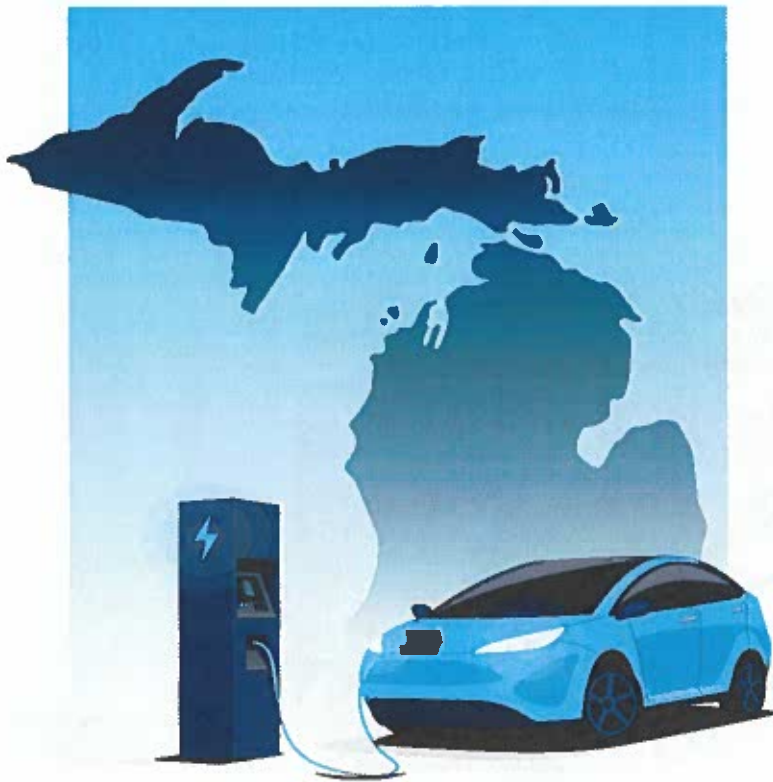
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Implementation Approach

Our Approach is to launch and grow programs that create the right set of conditions for economic and community development





The EV Jobs Academy

(EVJA)

An employer-led collaborative comprised of over 100 stakeholder partners to identify the electrified vehicle and mobility-related occupational skill needs, develop and scale postsecondary credentialing programs 32 colleges and universities statewide.

University of Michigan Battery Lab

\$130 Million for new EV Training and Battery Fabrication Center



Lake Michigan Circuit

Partnership Between Indiana, Illinois, Wisconsin and Michigan



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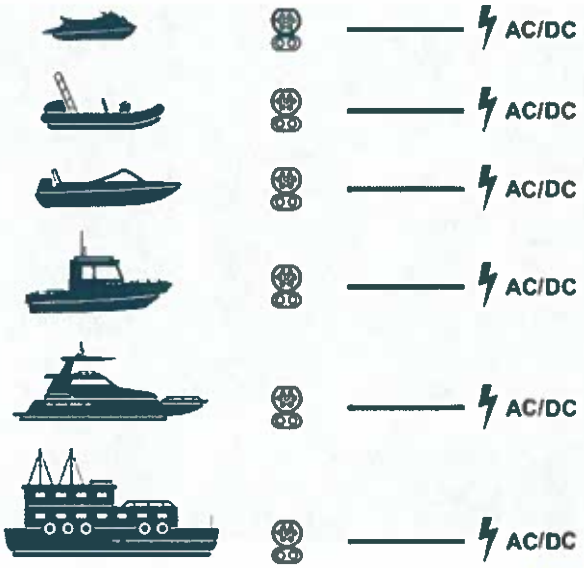
Michigan, NPS to partner on Transportation Innovation Projects





Marine Electrification & Innovation

On Northern Lake Michigan Waterways



Inductive Charging Roadway

First in North America on a Public Road



REV Midwest

Five-State Regional Partnership



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EV Ready Communities



The Michigan Mobility Funding Platform





Policy & Funding

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The Council on Future Mobility & Electrification

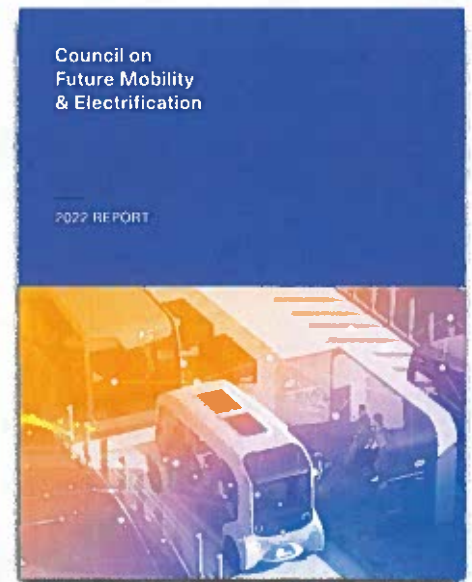
2022 Report & Recommendations

Public Members

- State Dept. – Labor (LEO)
- State Dept. – Transportation (MDOT)
- State Dept. – Environment (EGLE)
- State Dept. – Energy (MPSC)
- State Dept. – Insurance (DIFS)
- State Dept. – Police (MSP)
- State Dept. – Investments (Treasury)
- Senate Majority and Minority
- Legislators
- Clean Fuels Michigan

Private and University Members

- University of Michigan
- Michigan State University
- United Auto Workers
- Ford Motor Company
- General Motors
- Stellantis
- Toyota
- Rivian
- Waymo



A photograph of Joe Biden speaking at a podium during the Detroit Auto Show. He is wearing a blue suit and holding a microphone. The background features a large American flag and a sign that reads "A FUTURE MADE IN AMERICA".

yahoo!finance

Biden touts EV leadership, approves \$900 million for charger spending at Detroit Auto Show

"We're approving funding for the first 35 states, including Michigan, to build their own electric charging infrastructure throughout their state, and you all are going to be part of a network of 500,000 charging stations," Biden said.

A FUTURE
**MADE IN
AMERICA**

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Fiscal Year 2023 Executive Budget

\$500M SOAR Fund
\$230M Transformational Education Infrastructure
\$50M Electric Vehicle Rebates
\$23M Energy Efficiency Grants
\$25M Mobility Futures Initiative (*supplemental*)
\$10M State Fleet Electric Vehicles


Fiscal Year 2024 Executive Budget Recommendation

\$500M SOAR Fund
\$350M BIL, CHIPS, & IRA Match
\$200M Onshoring Clean Energy Supply Chain Tax Credit
\$160M Intermodal Capital Investment Grants
\$150M School Bus Electrification
\$65M Electric Vehicle Charging Infrastructure
\$45M Michigan Clean Fleet Initiative
\$10M State of Michigan Fleet Transition
\$48.4M Electric Vehicle Sales and Use Tax Exemption
\$15M Critical Mineral Recycling Research
\$5M EDA Global Epicenter of Mobility (*supplemental*)
\$2M Arsenal of Innovation Fund



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Thank you!



www.michiganbusiness.org/ofme