



EGLE Classroom EnviroSchool Webinar Series

February 21, 2023: Charting Michigan's Course Toward Carbon Neutrality, Clean Energy, and Sustainability

For further resources on Climate, Energy, and Sustainability in Michigan, check out these links shared by our presenters.

EGLE Classroom Environmental Education Resources:

- EGLE [Lending Station](#)
- [MEECS](#)
- EGLE [Career Series](#)
- [EGLE Classroom](#)

[MEECS Climate Change Unit](#): Fourteen full lessons on the impacts of climate change in Michigan are available via the Michigan GoOpen platform

- Teachers can see video examples of how to lead these lessons for free on [PBS Learning Media](#)
- ***New edition of this unit being released Summer 2023!***

[MEECS Energy Unit](#): Eight full lessons on Michigan's Energy sources, uses, and conservation are available via the Michigan GoOpen Platform

- Teachers can see video examples of how to lead these lessons for free on [PBS Learning Media](#)

Upcoming Events

[MI Healthy Climate Conference](#) – April 11-12, 2023 – Detroit

[MI Environmental Justice Conference](#) – June 21-22, 2023 – Detroit

Recordings of 2021 EJ Conference: [2021 Michigan Environmental Justice Conference](#)

Michigan Healthy Climate Plan: Guidance document for achieving 100% economy-wide carbon neutrality by 2050

[Full MI Healthy Climate Plan](#)

[MI Healthy Climate Plan Annual Report](#)

Action Areas

- Commit to Environmental Justice and Pursue a Just Transition
- Clean the Electric Grid
- Electrify Vehicles and Increase Public Transit
- Repair and Decarbonize Homes and Businesses
- Drive Clean Innovation in Industry
- Protect Michigan's Land and Water



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Links from the Presentation

Energy Planning & Policy

- Resources to help communities prepare for clean energy development
 - [Michigan Zoning Database](#)
 - [Clean Energy in Michigan Series](#)
 - [Solar Resources](#)
 - [Wind Resources](#)

Roadmaps and Accelerators – Planning tools to develop recommendations and inform investment and policies

- [Energy Storage Roadmap](#)
- [Clean Energy Assets Page, including](#)
 - Geothermal Market Assets Roadmap
 - Solar Market Assets Roadmap
 - Wind Market Assets Roadmap
- [Cleantech, Climatech, and Circular Economy \(C3\) Accelerator](#)

Building Operator Training & Codes

- [Michigan Energy Codes Compliance Collaborative](#)
- [Building Operator Training](#)
- [Battle of the Buildings](#) – Fun energy saving competition for well operated buildings

Small Manufacturers Retooling & Agriculture

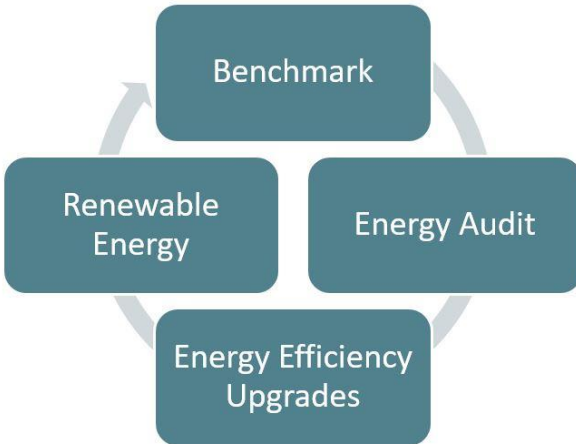
- [Small Manufacturers Retooling](#) (incentives for efficiency)
- [AgriEnergy & Sustainable Farming](#) (incentives for energy related projects)
- Save the date for EGLE's [Agriculture & Environmental Education Institute](#) July 18-19, 2023!

Clean Energy for Low-Income & MI Solar

- [Clean Energy for Low Income Communities](#)
- [MI Solar Communities](#)
- Michigan [Office of Environmental Justice Public Advocate](#)
 - MiEJScreen – mapping tool
 - Michigan Advisory Council on Environmental Justice (MAC-EJ)



Community Energy Management



Example of youth action: Students can make a big difference in promoting energy efficiency - check out this cool example of a Florida middle school where students conducted an energy audit and educated their district on changes that ended up saving the district \$53,000! <https://youtu.be/yIOVx2NMQWw>

- [Catalyst Communities](#) (resources to aid communities with decarbonization)
- [Charge Up Michigan](#) (plan and deploy light duty electric vehicle infrastructure network)



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Federal Programs Relevant to K-12

	Legislation	Administering Agency	Total Funding	Previous Deadlines
<u>Clean School Bus Program</u>	Bipartisan Infrastructure Law	Environmental Protection Agency	\$5 billion available through FY26	Round 1 closed August 2022; 25 Michigan school districts were awarded
<u>Grants for Energy Improvements at Public School Facilities</u>	Bipartisan Infrastructure Law	Department of Energy	\$500 million available through FY26	Round 1 will close April 2023 (concept papers were due in Jan 2023); awards will be announced Summer 2023
<u>School Air Quality Grants and Technical Assistance (pg. 9)</u>	Inflation Reduction Act	Environmental Protection Agency	\$50 million	Not yet launched

* In 2022, the EPA funded 138 school buses across 25 school districts in Michigan through the Clean School Bus Program [Clean School Bus Program | US EPA](#)

Helpful Resources

- [Federal Resources for Addressing School Infrastructure Needs](#)
- [Local Infrastructure Hub Search Tool](#)
- [Technical Assistance Program](#)
- [Michigan Clean Diesel Program](#) (replacing diesel buses with electric is eligible for funding)



Other Recommended Climate and Energy Educational Resources

[Climate Kids](#) is a NASA affiliated website used as a fun education resource for children to easily understand climate change and other environmental issues. It includes games, short videos, information about common green careers and green technologies, and other environmental topics kids can learn about. There is also an Educator Resources section with interactive activities to help families and teachers explain these topics to children.

[NOAA's Toolbox for teaching Climate and Energy](#) provides supporting resources and programs for those who want to teach climate and energy science.

- Interact with climate projections using [NOAA's Climate Explorer](#)
- NASA Global Climate and Energy Resources: To increase awareness and interest in climate science, NASA has developed a series of educator resources for all grades:
 - Grades K-5: Guide to Climate Change for Kids
 - Grades 5-12: Graphing Global Temperature Trends
 - Grades 9-12: Future Temperature Projections Unit
 - Learn about climate resilience, view climate maps and data, and explore resilience case studies with the [U.S. Climate Resilience Toolkit](#)

[CLEAN: Climate Literacy and Energy Awareness Network](#) – Free teaching resources, curated by scientists, designed to step students through the key principles of climate and energy. For grades K-12 through college.

Energy Resources

[DTE Virtual Wind and Solar Park Field Trip](#) - The 27-minute virtual field trip takes students to Michigan's largest wind and solar parks to help students learn about how these clean energy technologies work and the important role they play in helping reduce carbon emissions.

[The U.S. Energy Information Administration's Energy Kids program](#) provides energy related stories, hands-on activities, and research articles for your classroom! These curriculum-based lessons are separated by age-grade.

[The PBS Energy Lab](#) investigates what energy is, how it can be converted into useful forms, and why some sources are running low.

The [U.S. Office of Energy Efficiency and Renewable Energy's Educator Resources page](#) offers videos, 360 degree virtual tours, curriculum, coloring books, and other educational resources in English and Spanish.



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The U.S. Department of Energy's [Solar Decathlon Program](#) works with [National Energy Education Development \(NEED\)](#) to provide free, Next Generation Science Standards (NGSS) aligned curriculum on energy topics. Explore resources by grade level or by topic on the [NEED Educator Resources page](#).

- Topics include: the science of energy, energy sources, transportation, climate science, energy efficiency, and careers in energy.

[rEV Education](#) provides an electric vehicle (EV) education program designed to educate students on the benefits of EVs through a STEM-based multimedia curriculum.

- Students can participate in the national level rEV Challenge, creating a video to compel their friends and family to learn more about the benefits and technology of EVs. Two Michigan students won national awards in 2022!

[Square One Network's Innovative Vehicle Design Challenges](#) engage students in active engineering practices as they design and build a variety of electric vehicles from miniature to full size.

By participating in the [Michigan Battle of the Buildings](#), schools can compete with other buildings across the state to see who can reduce their energy usage by the greatest amount in this friendly competition that encourages energy-efficient practices.

[Sustainability Fact Sheets](#) - University of Michigan's Center for Sustainable Systems maintains a set of peer-reviewed factsheets that cover important patterns of use, life cycle impacts and sustainable solutions around topics including energy, water, food, waste, buildings, materials, and transportation systems.

Students can also make a big difference in promoting energy efficiency - check out this cool example of a Florida middle school where students conducted an energy audit and educated their district on changes that ended up saving the district \$53,000! <https://youtu.be/yIOVx2NMQWw>

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