Net Zero Energy Roadmapping for Your School

2025

A Comprehensive Introduction to Net Zero Energy Planning for K-12 Schools

Net Zero Energy: The amount of energy used by a building (for heating, cooling, etc.) is balanced by the amount of energy it generates over the course of a year.

- Schools produce as much energy as they consume
- Schools are highly energy efficient
- Electrification strategies displace fossil fuels
- Generates its own energy on-site

Why Go Net Zero?

Financial Benefits

- Lower operating costs
- Long-term savings on energy bills
- Energy expenses are more predictable
- Less prone to impact of rising energy $

Health and Environment

- Improved air quality
- Lower carbon footprint & emissions
- Offsets fossil fuel consumption

Learning & Engagement

- Hands-on learning & real-world lessons
- Community leadership and engagement
- Education around electrification, renewable energy, and decarbonization

Steps of Involvement

1. **Benchmark Energy Use** - Meet with school learn priorities, understand needs, and to collect current building, energy, and utility data.
2. **Develop Custom Net Zero Energy Pathway Report** - Includes low and no-cost energy saving recommendations, and outlines electrification strategies.
3. **Deliver Custom Resource Packet** - Includes recommended local contractors, funding opportunities, engagement ideas for teachers and students, and more.
4. **Conduct a Request for Information** - Provide market-based pricing and financial performance of proposed upgrades. Support school in moving forward.
5. **Support Education & Outreach Activities** - Ongoing in the community & classroom.

Schools are Provided With:

Net Zero Energy Pathway Report

Summary of school building's current energy consumption and current energy systems and technologies.

Immediate actions the school can take to save energy and long-term energy efficiency & electrification recommendation.

(RFI) Requests for Information Offer

Language to assist in the development of request for information (RFIs) for installing energy-saving improvements.

MREA can solicit details from potential vendors on prices, products, capabilities, and potential savings.

Customized Support & Assistance

Meetings with school administrators/staff to discuss options and answer questions.

Presentations and materials to support information sharing and storytelling.

Individualized technical assistance.

In-Depth Resources & Tools

Engagement opportunities for teachers and students.

Future funding opportunities.

Additional resources and tools to learn more, and to support energy efficiency upgrades.


BENCHMARKING
Track utility data
Set a baseline and goals
Engage Stakeholders
STEP 01
ENERGY EFFICIENCY
Get an energy audit
Upgrade building envelope, lighting and HVAC
Train and involve staff and students
STEP 02
ELECTRIFICATION
Replace gas-fired systems
Utilize Geothermal Heating and Cooling
Ensure grid compatibility
STEP 03
RENEWABLE ENERGY
Install Solar PV
Offset Remaining Grid Energy with Renewable Energy Credits (REC's)
STEP 04

Funding & Incentive Opportunities

WI PSC Energy Innovation Grant Program (EIGP)	This grant program funds projects related to energy storage, solar PV systems, other renewable energy systems, energy efficiency, and demand response.
Direct Pay - Inflation Reduction Act	Public schools can receive payment from the IRS equivalent to the value of the tax credit for qualifying clean energy projects. **Solar projects must begin construction by July 4, 2026, or be placed in service by December 31, 2027 to be eligible.**
Focus on Energy	This organization provides a variety of financial support services and opportunities for schools: – Financing and Funding Resources – No-cost 123 Energy Audit – Utility Bill Energy Savings

Engagement Ideas for Teachers & Students

CREATE

Offers fully virtual hands-on energy workshops for teachers, along with a variety of classroom lessons and resources.

Teachers can also receive over $100 in classroom gear.

---

focus on energy®
Partnering with Wisconsin utilities

Monitor electricity use and compete against other schools in energy conservation for cash & prizes.

Get toolkits, lesson plans, and resources.

Covers up to $1,200 for an eGauge monitor that schools keep.

KEEP - Wisconsin's K-12 Energy Education Program
College of Natural Resources
University of Wisconsin-Stevens Point

Provides professional development, lessons, kits, student engagement opportunities, and robust partnerships to support teaching energy and renewable energy concepts to all grade levels.

Energy Upgrade Resources

KL Note - This page could use work....
Do we even want to include?
(also its missing solar resources rn)

Find Contractors

- Focus on Energy Advisors
- National Association of Energy Service Companies

Tools

- Energy Star Portfolio Manager
- True Cost of Energy Comparison Tool

Upgrade Guidance

- HVAC and Indoor Air Quality Design Tools
- Commercial Heat Pumps Video
- Integrating Lighting and HVAC Controls
- Lighting Specification Guidance
- Trane Thermal Energy Storage
- Modeled Retrofit Package Performance
- Submeter Guide

Schools MREA has Worked With

1. Mineral Point Elementary & Middle/High Schools
2. Dodgeville Elementary & High School
3. Beloit College - Powerhouse and ‘64 Halls
4. Menominee Nation High School
5. Green Bay Area Public Schools

Recommendations:

- Smart building controls and VFDs
- HVAC and building envelope updates
- Upgrade LED lighting and sensors

Recommendations:

- Smart building controls and VFDs
- Upgrade LED lighting and sensors
- Install solar PV

Recommendations:

- Smart building controls and VFDs
- Upgrade LED lighting and sensors
- Install solar PV

Recommendations:

- Smart building controls and VFDs
- Demand-controlled ventilation and heat recovery ventilation
- Install solar PV

Recommendations:

- Smart building controls and VFDs
- Geothermal heating and cooling or dual fuel heat pump
- Install solar PV

Interested in partnering with MREA for Net Zero Roadmapping for Your School?

Get In Contact With Us:

Evonne Waugh, MREA Solar Program Manager
evonne@midwestrenew.org

mrea
midwest renewable energy association

Acknowledgement

This work was made possible through support from the Public Service Commission and the Office of Energy Innovation.