
ENERGY EFFICIENCY AND HOUSING RESILIENCE

MIDDLETON, WISCONSIN



MIDDLETON | WI



ELEVATE

WHAT IS THE EFFICIENCY NAVIGATOR?

The Efficiency Navigator helps small to medium-sized apartment housing become more efficient, affordable, and resilient while reducing operating costs for owners and energy cost burden for residents.

The Efficiency Navigator addresses **housing resilience, equity, and climate change**.

The program is for renter-occupied buildings with rents affordable to residents at or below 80% Area Median Income. This housing stock is known as naturally occurring affordable housing (NOAH).

The program core services include providing complimentary efficiency assessments and step-by-step navigation of implementation of eligible measures. Participants agree to maintain affordable rents for at least five years.

Funding for Efficiency Navigator in Middleton is paid for by American Rescue Plan Act The Coronavirus State and Local Fiscal Recovery Funds and the Healthy Babies Bright Futures Grant.

SUPPORTING MIDDLETON

The Efficiency Navigator supports the City of Middleton's sustainability and housing goals. It advances Middleton's community sustainability goal to reach 100% renewable energy for the community by 2050, as well as increase energy efficiency. The Efficiency Navigator also contributes to Middleton's housing goal to rehabilitate and preserve the affordability of existing housing.



Lakeview Village Beneficial Electrification and Solar + Storage Project

THE PROCESS: FROM IDEA TO IMPACT



“Rising rent is affecting seniors, utilities are tied to rent, their total housing costs just keep going up.”

– Middleton Senior Center

To identify community needs, we engaged the Senior Center and WayForward Resources to hear from those directly affected in Middleton. We prioritized the voices of resource providers, property owners and residents. They identified health and safety issues and opportunities for energy savings that reduced costs as important needs. We applied this to the work of the Efficiency Navigator. For example, a building on Oakwood Place had inadequate electrical infrastructure, poor heating/cooling systems, pest management needs, and gas stoves which created health risks for residents. We addressed those issues to ensure a safe, healthy, and comfortable home. There is also an estimated reduction in the cost of monthly energy bills after the work.

Collaboration with property owners who care deeply about their communities has been at the heart of the program. The process starts with a building efficiency assessment to identify the most impactful measures at a building. Then the program provides technical support to navigate obtaining bids from contractors and Focus on Energy incentives. Finally, we help navigate the timely implementation of the identified measures, and tracking the impact.

The Efficiency Navigator is able to cover the cost of building upgrades, removing the financial barrier to action and making improvements possible at scale.

Our whole home approach guides every decision. Rather than focusing on one measure at a time, we emphasize addressing energy efficiency, health & safety, and comfort needs all at once. This strategy maximizes opportunities and prevents residents from facing additional disruptions or costly repairs in the future. The program prioritizes reducing utility costs for renters and improving housing stability.

How the Process Works

Assessment

We offer building assessments to identify energy, health & safety, and solar opportunities

Scope of Work

We provide step-by-step technical support to navigate contractor engagement and incentive programs

Implement Measures

We help owners navigate the timely implementation of the identified efficiency measures

CASE STUDIES



Location: **Middleton, Wisconsin**



Cost savings 10-year: **\$23,910.00**



Avoided CO₂ emissions 10-year: **41,980 kg**



CO₂ equivalent vehicle miles traveled 10-year: **15,881**



Total project cost: **\$70,948.30**



Completed Improvements:

- Air Sealing
- Furnace Upgrade
- Attic Insulation
- Dual Fuel Air Source Heat Pump
- Solar Installation



Location: **Middleton, Wisconsin**



Cost savings 10-year: **\$24,910.00**



Avoided CO₂ emissions 10-year: **64,610 kg**



CO₂ equivalent vehicle miles traveled 10-year: **20,094**



Total project cost: **\$74,735.44**



Completed Improvements:

- Attic Insulation
- Solar Installation
- Bath Fans
- Dual Fuel Air Source Heat Pump
- Electrical Upgrades

IMPACTS AND ACCOMPLISHMENTS 2023-2025

\$8,476.00

Annual Total Cost Savings

30,004 kg

Yearly CO₂ Emissions Savings

12

Health & Safety Measures

42

Energy Efficiency Measures

32

Families



This is a great program – the tenants are much better off than before. They are saving hundreds of dollars, and I'd recommend this program to anyone.

– Middleton Property Owner



LAKEVIEW VILLAGE BENEFICIAL ELECTRIFICATION AND SOLAR + STORAGE PROJECT

The Wisconsin Housing Preservation Corporation (WHPC) through the Wisconsin Office of Energy and Innovation Energy Innovation Grant Program, in partnership with the City of Middleton and Elevate, has designed a first-of-its-kind electrification retrofit at Lakeview Village Apartments, which is an affordable housing community at 6223-6233 Maywood Avenue. The project will install **9.1 kW of solar and 27 kWh of battery storage for each resident meter in a six-unit townhome**, paired with electrical upgrades and air-source heat pumps to replace fossil-fuel space and water heating.

With a \$525,000 investment in solar + storage and \$230,000 in heat pump equipment, this initiative will **reduce energy bills, improve indoor air quality, and enhance resilience** during power outages or extreme weather.

Affordable housing residents are often last to access clean energy technologies. This project demonstrates that innovative, equitable electrification and renewable energy upgrades are both feasible and impactful, setting a model for other municipalities to advance energy equity and climate resilience.

Key partners include the City of Middleton, WHPC, Elevate, MG&E, Focus on Energy, and community organizations such as WayForward Resources, Middleton Senior Center, and Kiwanis.

ANNUAL IMPACTS

62,294 kWh

Estimated Annual Savings

\$11,400

Average Estimated Annual Cost Savings

52

Metric Tons of Carbon Reduction Per Year

75%

Electricity Offset

132,400

Vehicle Miles Travel Equivalent Reduced Annually



KEY ADVICE FOR OTHERS

- **Engage community ambassadors** early. Local partners such as the Middleton Senior Center and WayForward Resources were key to identifying properties most in need and ensuring resident voices guided the work.
- **Embrace a whole-home approach.** Addressing energy efficiency, health, and safety together minimizes lost opportunities and prevents costly disruptions later.
- **Build strong relationships with contractors** early and provide clear program specifications to ensure alignment and quality.
- **Incorporate field mentoring and hands-on support** to help new contractors meet program standards and expand the local energy workforce.
- **Maintain balance** with adding properties and the availability of project-ready contractors.
- **Plan for contingency funding** to address unforeseen additional safety or infrastructure needs once the building work begins.
- **Track the impact** of the work such as CO2 reductions, cost savings, and health/safety improvements in order to share benefits with others.





LOOKING FORWARD

As Middleton moves toward its goal of 100% renewable energy for the community by 2050 and rehabilitation/preservation of the affordability of existing homes, continued investment and partnership are essential. We invite city leaders, community organizations, and residents to stay engaged, to share their lived experiences, support local initiatives, and champion efforts that ensure every household will live in an comfortable, efficient, safe and resilient home.

OUR PARTNERS & ROLES



- The City of Middleton: Engagement & Funding
- Elevate: Technical Expertise & Implementation
- Sustain Dane: Engagement, Partnerships & Education
- The Middleton Senior Center: Community Partner & Outreach
- WayForward Resources: Community Partner & Outreach