focus on energy®
Partnering with Wisconsin utilities

# FUTURE FOCUS

QUARTERLY NEWSLETTER
Quarter 3 2026

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The FOCUS ON ENERGY® Future Focus Initiative reviews new concepts and technologies that have the potential to expand the range and value of services available to Wisconsinites, as well as help the program achieve desired outcomes of energy savings, customer satisfaction, and/or market transformation. The process also helps test offerings for future expansion/inclusion in the Focus on Energy Program portfolio. The Future Focus team screens new ideas every quarter and administers pilot programs, demonstration projects, emerging technology accelerators, and Environmental and Economic Research and Development projects.

# IDEA SUBMISSIONS IN REVIEW

| Name | Description |
|---|---|
| **Battery-Enabled HVAC/Heat Pump Systems** | Research would explore an emerging technology: battery-enabled HVAC systems to test how they can store and shift energy from the grid. |
| **Home Medical Devices as an Emerging Energy Efficiency Opportunity** | Research to characterize the prevalence of key home medical equipment devices, estimate their energy consumption, evaluate operational practices (including ownership models such as working with insurers that lease equipment to patients), and identify practical savings opportunities that do not compromise health or safety. |
| **HVAC Controls: Smart Thermostat Integration and Best Practices for Heat Pumps** | Research to evaluate how different thermostat types, including conventional 24V smart thermostats and communicating controls, interact with centrally ducted variable-speed heat pumps and integrated dual-fuel systems. |
| **Automatic Recirculation Valves for Central Heating** | Research addresses an alternative to recirculation loops in large heating and cooling systems. The technology uses a mechanical valve calibrated to close the recirculation leg once demand from the system exceeds the minimum (safe) continuous flow rating of the pump. |
| **Radiative Cooling Rooftop Panels** | Demonstration to evaluate performance of a passive radiative cooling technology that uses specialized rooftop panels to reject heat into space, improving the efficiency of air conditioning and refrigeration systems without compressors or additional energy inputs. |
| **Residential Heat Pump Commissioning Pilot** | Pilot a retro-commissioning program for existing installed residential heat pumps. The pilot will start with low-cost diagnostics and actions and progress through to more in-depth interventions as needed. |

# CURRENT PILOT PROGRAM AND DEMONSTRATION UPDATES

The Future Focus team continually engages in experimenting and researching new ideas, pilot programs, technologies, and delivery methods to support the viability of Focus on Energy into the future. Additional information on each of the projects listed below is available on the Future Focus webpage.

| Pilot | Description | Timeline | Q3 Project Activities |
|---|---|---|---|
| **Air-to-Water Heat Pump (AWHP) Field Study** | This field study assesses AWHP retrofits in existing and new construction residential single-family and multifamily buildings in Wisconsin. The field study will consist of two phases. The first phase includes identifying candidate buildings and then sourcing bids and modeling energy savings for an AWHP system in each building. The second phase will include procurement, installation, and monitoring of AWHP systems in each building. | Oct 2023 - Sep 2026 | • Ended data collection at all sites, removed monitoring equipment, and interviewed installers and participants to understand experiences with equipment.<br>• Continued conversations with the AWHP manufacturer about how to improve controls.<br>• Received a draft Final Project Report and a Technical Reference Manual workpaper. |
| **Community Impact** | The Community Impact Pilot targets CBOs, utilities, and small businesses who service and impact their respective communities. The Program's intent is to provide community small businesses with the means to install energy-efficient solutions, increase their ROI, and better serve community members. | Jan 2023 - Nov 2026 | • Twenty-two projects were completed during Q3.<br>• Two blogs featuring participating small businesses were published, and four videos were produced in Q3. |
| **Empowering Faith Communities** | This pilot seeks to broaden Focus' customer base by partnering with places of worship. The initiative will include conducting energy assessments and recommending energy-efficiency upgrades using Focus measures. During this process, the implementation team will | Oct 2024 - Dec 2026 | • Four in-person workshops were held at participating places of worship, with a total attendance of 53 parishioners.<br>• By the end of Q3, eight projects have been completed, and 33 additional projects are in progress. |

| Pilot | Description | Timeline | Q3 Project Activities |
|---|---|---|---|
| | host workshops for congregations to educate them about energy-efficiency improvements. | | |
| **Focus Force Milwaukee (FFMKE)** | The FFMKE pilot aims to transition displaced workers into energy-efficiency careers. The pilot offers technical training—including Building Performance Institute (BPI) certification, Building Science Principles, or Building Analyst Technician and manufacturer certifications. Wraparound services such as transportation, childcare, case management, and cohort support are also provided. This pilot demonstrates how CBOs and state energy programs can collaborate to build a more inclusive and skilled workforce, including insights into workforce development implementation, program design, and relationship building. Silver Springs Neighborhood Center (SSNC) will provide a roadmap to show how similar organizations can support the energy efficiency workforce based on their findings from the pilot. | Oct 2023 - Dec 2026 | • Sixty-six participants enrolled in the pilot with 24 placed in jobs related to energy efficiency.<br>• Thirty-nine participants have completed BPI's Building Science Principles training.<br>• Ten employers are engaged in the pilot with four providing employment. |
| **Home Energy Upgrade** | This community-focused pilot provides whole-home retrofits at no cost to single-family and multifamily customers. The pilot targets residential customers in selected communities facing high energy burden and offers comprehensive energy efficiency and safety upgrades to save energy and money on utility bills. The pilot will build partnerships with advocates, CBOs, and local contractors to serve qualified customers. | Jul 2024 - Dec 2026 | • Ten new leads were provided to the program by partnering CBOs.<br>• In Racine, 49 out of 50 projects were completed by the end of Q3.<br>• In Kenosha, 20 out of 50 projects were completed by the end of Q3. |

# EMERGING TECHNOLOGY UPDATES

The Emerging Technology initiative seeks to identify emerging technologies new to Wisconsin that could benefit utility customers. It includes the **Emerging Technology Accelerator**, which looks at new technologies for homes and businesses, and the **Industrial Technology Accelerator**, which focuses on understanding technologies that are most beneficial to industrial operations. Technologies identified undergo an initial screening and if they meet the opportunity threshold, they advance to comprehensive review. Additional information on each of the projects listed below is available on the Future Focus webpage.

## Emerging Technology Accelerator Projects

| Technology | Description | Timeline | Status |
|---|---|---|---|
| **High Performance and Secondary Windows** | Secondary windows are attached to the interior or exterior of existing windows, creating an insulating pocket of air that reduces air leakage and heat transfer.<br>Target customer: residential. | Apr 2025-Dec 2026 | Active |
| **Waterpark Energy Efficiency** | Identify the current energy-efficiency opportunities of energy-consuming systems in Wisconsin aquatic facilities, especially where commercial heat pump water heaters could reduce peak demand and offer scalable energy savings.<br>Target customer: commercial. | Sep 2026-Dec 2026 | Active |
| **Advanced Refrigeration Control** | Advanced refrigeration controls add an advanced monitoring and control layer to existing refrigeration systems for better capacity utilization, control optimization, and peak demand reduction. These controls also enable fault detection for proactive operation and maintenance.<br>Target customer: commercial. | July 2026-Dec 2026 | Active |
| **AI-Enabled HVAC Systems** | Energy savings technology that is customizable to occupancy behavior and changing environmental conditions through the regulation of heating, cooling, ventilation, and energy consumption in buildings.<br>Target customer: commercial. | June 2026-Dec 2026 | Active |

## Industrial Technology Accelerator Projects

| Technology | Description | Target Customer | Status |
|---|---|---|---|
| **Induction Heating** | Replaces conventional electric resistance heating with electromagnetic induction heating to provide faster heating, improved temperature control, and reduced energy use. | Industrial | Initial review complete. Under evaluation through DOE Validation Program. Status review planned for July 2027. |
| **Steam Energy Recovery Turbine** | Recovers energy otherwise lost through steam pressure reduction and converts it into electricity using a compact steam turbine. | Commercial & Industrial | Initial review complete. Under evaluation through DOE Validation Program and included as a technology option in the CHP RFP. |
| **Electric Ladle Preheating** | Replaces gas-fired ladle preheaters with electric heating to improve process efficiency and casting quality while reducing energy use and preheating time. | Foundries | Initial review complete. Under evaluation through the DOE Validation Program. Status review planned for July 2027. |
| **3D-Printed Sand Molds and Cores** | Uses additive manufacturing to produce sand molds and cores for metal casting applications. | Foundries | Initial review complete. Technology will be archived due to cost and applicability constraints. |
| **Passive Radiative Cooling** | Circulates water through outdoor panels that reject heat through passive radiative cooling, reducing reliance on conventional refrigeration. Cooled water can be stored in a thermal energy storage system or used directly for cooling loads. | Commercial & Industrial | Initial screening in progress. |
| **Spool-Type Pulse-Jet Valves** | Replaces conventional diaphragm pulse-jet valves in baghouse systems with faster-acting valves that reduce compressed-air use | Industrial | Demonstration site approved. Measurement |

| Technology | Description | Target Customer | Status |
|---|---|---|---|
| | per cleaning pulse and associated electricity consumption. | | and verification study in progress. |
| **Low-Energy Ethanol Distillation** | Reconfigures the ethanol distillation process to recover and reuse thermal energy across multiple process stages, reducing overall energy consumption. | Ethanol Production | Project under construction at Didion Ethanol. |
| **AI-Driven Refrigeration Controls** | Uses machine-learning-based controls to optimize the operation and energy use of large-scale refrigeration systems. | Industrial Refrigeration & Cold Storage | Demonstration site nearing completion. Performance evaluation to follow. |
| **Air-Assisted Doctor Blades** | Combines mechanical and air-assisted dewatering to reduce energy use in tissue manufacturing processes. | Paper Manufacturing | Demonstration site under construction. |
| **Advanced Compressor Controls** | Optimizes compressor operation in rooftop units, chillers, and refrigeration rack systems using advanced controls and remote monitoring to reduce energy use. | Commercial & Industrial | Initial review complete. Evaluating opportunity for M&V study. |
| **High-Efficiency Polymer Drying** | Reduces polymer drying time and energy use in extrusion and injection molding operations and can be applied to new equipment or retrofit applications. | Plastics Manufacturing | Updated information under review to identify the most appropriate applications. |

# ENVIRONMENTAL AND ECONOMIC RESEARCH AND DEVELOPMENT PROGRAM

The Environmental and Economic Research and Development (EERD) program seeks to support energy efficiency and renewable energy research that allows Wisconsin to further its efforts towards reducing energy waste, costs, and environmental impacts.

There are currently no active EERD projects.

You can learn more about completed EERD projects at the Future Focus webpage.

# OTHER INNOVATION INITIATIVES

## Pitch Day 2026

**Description**: Pitch Day 2026 is an opportunity for industry partners and stakeholders to showcase energy efficiency pilot program ideas to a panel of judges in an interactive way. Focus on Energy released a Request for Concepts (RFC) seeking pilot programs addressing concept categories in June with submissions due in July. The Future Focus team will review ideas and select concepts for Pitch Day which will take place in October.

**Q3 Project Updates**

- Continued coordination of Pitch Day 2026 RFC, which included the following tasks:
  - Scored all Pitch Day idea submissions.
  - Selected teams to present their ideas at Pitch Day.

# MARKET ANALYTICS

Market Analytics consisted of the development and completion of two market scans.

## Refrigeration/Refrigerant Management Market Scan

This market scan explored opportunities for increased energy efficiency in refrigeration systems, specifically focusing on the commercial sector. It investigated what opportunities exist in Wisconsin's commercial refrigeration sector, the regulatory and code landscape, the energy demand and emissions impacts, and commercial leak detection and repair. National program models were also researched to develop Focus-specific program design recommendations.

## Complementing Weatherization Programs with Energy Efficiency Programming Design Market Scan

This market scan explored the potential for Focus and Weatherization programs to combine efforts with the statewide Weatherization Assistance Program (WAP). It investigated how Focus and WAP have interacted or complemented one another historically and how income-qualified programs can be coordinated across Focus and WAP. National examples of how other programs have complemented WAP were also explored.

# GET INVOLVED WITH FUTURE FOCUS

**Submit Your Ideas**

The Future Focus Initiative seeks to improve the Focus on Energy Program and promote a sustainable future for Wisconsin residents and businesses. This initiative is not possible without the support of your ideas and feedback. You can help accelerate energy and money savings by submitting your ideas for a research topic, pilot proposal, program suggestions, or energy-saving measures.

**Learn More**

For more details on active or completed projects, emerging technology reviews, and past newsletters, please visit our website:
Future Focus Initiative

**Contact Us**

Any questions about Future Focus projects may be directed to:
futurefocus@focusonenergy.com

REDUCING ENERGY WASTE ACROSS WISCONSIN

Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources, and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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