focus on energy®
Partnering with Wisconsin utilities

FUTURE FOCUS

QUARTERLY NEWSLETTER
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Contents

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
Natural Gas Leak Detection Pilot	Proposes a pilot or conducting research on a small effort focused on behind-the-meter natural gas leak survey and repair.
Preparing Builders for Future Grid Optimal Buildings	Aims to help project participants during the design phases of a project. Metrics are provided to measure building summer and winter peak demand savings during grid peak hours, quantify hourly upstream grid carbon emissions, characterize renewable self-utilization efficiency, predict demand flexibility potential, and/or evaluate building resilience.
Thermentor Heating and Cooling Load	Thermentor is a web-based tool empowering homeowners and contractors to make informed decisions about heat pump adoption and weatherization. It estimates heating and cooling loads and predicts billing impacts using historical energy usage, local weather data, and utility rates—without requiring in-person audits or complex modeling.
System Health Check Hydronic	This idea proposes cleaning and treating hydronic systems to minimize corrosion and scale buildup which reduces the energy needed to transfer heat.

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	Start Date	End Date	Q3 Project Activities
Accessible Efficiency	The accessibility pilot aims to enhance energy efficiency and quality of life for low-income senior citizens (ages 65+) and individuals with accessibility challenges through smart products. Potential participants will be recruited via partnerships with community-based organizations (CBOs). Once enrolled, participants will receive a free consultation to assess their specific needs and how the program's products can help reduce their energy burden and improve their quality of life. The products will be installed directly in their homes to ensure proper setup, followed by post-installation surveys to gauge satisfaction with the program.	Jan 2025	Dec 2025	• Enrolled 2nd CBO to provide leads to the program. • Received final leads to fulfill program project target. • Completed post project QA/QC and began analyzing data.
Air-to-Water Heat Pump (AWHP) Field Study	This field study is to assess 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 2025	• Continued monitoring at the multifamily site. • Continued monitoring of heating and cooling at one single-family retrofit site. • Investigated and addressed system failures affecting heating and cooling at various times during the quarter. • Resolved installation and operational issues with the contractor, manufacturer, and distributor. • Continued monitoring of heating only at the second single-family retrofit site. • Completed installation at the new construction site with monitoring of

				the heating and cooling systems.
Community Impact	The Community Impact Pilot targets Community-Based Organizations (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. A secondary intent is to demonstrate the success of partnerships between Focus on Energy, CBOs, utilities, and small businesses.	Jan 2023	Dec 2025	• Launched the final communities of Eagle River and Rice Lake. • Drafted success story for Cargo Coffee business. • Completed all projects and closed out Black River Falls and Madison southside communities.
Empowering Faith Communities	This pilot aims to expand Focus' customer base by partnering with places of worship. The initiative involves conducting energy assessments at 20 places of worship and recommending energy efficiency upgrades using Focus measures. During this process, the implementation team will host workshops for congregations to educate them about energy efficiency improvements. Additionally, congregation members will receive a coupon for the Focus on Energy marketplace, allowing them to order a free pack and enabling Focus to track the number of new customers reached through these interactions.	Oct 2024	Dec 2026	• Completed all scheduled 2025 assessments. • The first place of worship completed energy efficiency upgrades in Q3. • Seven workshops were held at places of worship, educating congregation members on opportunities available with Focus on Energy.
Focus Force Milwaukee	The Focus Force Milwaukee pilot launched in 2023 and aims to transition displaced workers into energy efficiency careers. The pilot offers technical training—including Building Performance Institute (BPI) certification, Building Sciences Principles (BSP), or Building Analyst Technician (BAT) and manufacturer certifications—and wraparound services such as transportation, childcare, case management, and cohort support. This pilot demonstrates how CBOs and state energy programs can collaborate to build a more	Oct 2023	Jul 2026	• SSNC connected with six employers, initiated outreach to public sector entities (City of Milwaukee, Milwaukee Metropolitan Sewage District, and Veolia), and began forming an employer advisory board. • Met with ~10 CBOs and workforce agencies to identify job seekers with

	inclusive and skilled workforce. Currently in year two of implementation in the field, this pilot offers numerous 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.			foundational skills in construction/ manufacturing for upskilling. • Hosted two on-site events with Quad Graphics and Veolia. Planning more with community partners. • Prioritized candidates with strong work histories, minimal barriers, valid licenses, and transportation. • Addressing lack of hands-on BPI training) by interviewing construction trainers. • 11 participants were placed in roles such as energy auditors, warehouse workers, and forklift operators—6 completed BAT, all employed; 11 completed BSP, all employed. • 18 of 37 participants have a driver's license; lack of licenses remains a major employment barrier due to fines, DMV access, and Milwaukee's limited transit system.
Home Energy Upgrades	This community-focused pilot provides whole home retrofits at no cost to single- and multi-family 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	Jul 2024	Aug 2026	• Updated program implementation plan for phase II delivery in Racine and Kenosha. • Conducted post project interviews with participating

	partnerships with advocates, CBOs, and local contractors to serve qualified customers.			customers for Phase I. • Recruited two Trade Allies and two CBOs for Phase II participation. • Created memo requesting new measures to Phase II.
Integrated Controls	The pilot seeks to complete five demonstration projects. This includes both full retrofits involving lighting retrofit plus HVAC control integration and integration-only projects, where networked lighting controls have already been installed but the system needs to be integrated with HVAC controls.	Nov 2022	Nov 2026	• Completed data monitoring and analysis to determine savings achieved. • Submitted research paper about program findings. • Submitted program summary report.
Life Sciences Midstream	This pilot incentivizes the purchase of energy-efficient ultra-low temperature (ULT) freezers. Standard larger capacity ULT freezer models consume nearly as much energy as the average U.S. household, whereas an ENERGY STAR® unit can cut this usage by more than half. Wisconsin fosters a dynamic biosciences growth market with 350+ biotech and pharma businesses, 150+ hospitals and medical centers, and more than 7 universities/colleges engaged in life sciences research making it an ideal market for this technology. The pilot is targeting sales of just over 500 units.	Jan 2023	Dec 2025	• Paid incentives on 68 units, though the Q3 forecast was missed by approximately 24%. The pilot experienced slower market activity during the summer due to reduced university staffing. • Observed upticks in Q3 sales for projects anticipated to close in Q4 2025. Many signs point to continued growth in Wisconsin biotech. • Planned conclusion of the pilot in Q4 2025 and will transition to the Instant Discounts Program to maintain market momentum.

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 residential and commercial businesses, and the **Industrial Technology Accelerator**, which focuses on understanding technologies 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	Target Customer	Status
HVAC Smart Tools	Contractor-held tools to improve heat pump performance and maintenance through qualifying installation checks, and real-time field analysis. Project is intended to profile existing tools, how they fit into the current suite of offerings, and potential contractor trainings.	Residential	Active
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. This project will address the potential of Secondary Window Systems as a cost-effective, high-performance alternative to a full window replacement.	Residential	Active
Alternate Form Factor Heat Pumps	Market characterization of cold climate saddlebag and two-way window units, portable units, packaged terminal units, and vertical stack system heat pump technologies. Potential for a phase 2 field study.	Residential, Commercial	Active
Cloud Based Smart HVAC Monitoring Systems	A Cloud-based Residential HVAC Monitoring System includes a cloud-connected smart thermostat that, through telemetry, collects real-time data from multiple sensors to monitor performance, predicts and diagnoses operational faults of system components. This project aims to understand the capabilities, performance and energy savings potential of this technology.	Residential	Active
Dual-Fuel Roof Top Units (RTUs)	Market characterization of commercial heat pump RTUs.	Commercial	Active

Industrial Technology Accelerator Projects

Technology	Description	Target Customer	Status
Industrial Steam Generation	Industrial steam-generating heat pumps that capture low temperature heat rejected from industrial processes.	Industrial	Ideation
Flat Plate Heat Pipe	A flat plate heat pipe claiming a faster equalization of temperature or a faster movement of heat.	Industrial	Ideation
Nixtamal Process	Process to produce Masa flour which reduces water usage by 84% and energy usage by 52%.	Industrial - Food	Review complete
Hydrogen Flexible Flame	Advanced high hydrogen flexible flame 3D printed low emissions matrix burner technology for the food industry.	Industrial - Food	Ideation
Vacuum Blower	Compared with water ring pumps, vacuum blowers need 30% less energy and use no water. In addition, the heat exchanger ensures that the hot waste air can be fed back into the energy cycle – leading to a reduction in energy consumption of up to 60%.	Industrial - Paper	In Review
UV LED	UV LED curing technology using LED chips mounted directly onto an aluminum/copper heat sink leading to lower energy demands and operation at lower temperatures.	Industrial - Printing	In Review
Motor Technology	New motor technology with speed control to maintain energy efficiency at low motor loadings. Applications include RTU circulation fans, pumps, and other cases where motor heat pumps are ≤15 and motor loads are substantially reduced.	Industrial, Commercial	In Review
Milled Refiner Plate	These plates use less horsepower to refine paper stock, and, in some cases, smaller diameter plates (which also reduces "no-load" heat pump requirements).	Industrial - Paper	In Review
Vapor Recovery	Reconfiguration for Delta T ethanol plants utilizing vapor from molecular sieves more efficiently.	Industrial - Ethanol	In Review
Cast Metal Ladle	Ladle heater technology using a flameless oxidation (FLOX) type burner with a metal recuperator.	Industrial – Cast Metals	In Review

Technology	Description	Target Customer	Status
Heat Transfer	High emissivity coating that increases heat transfer, leading to energy savings, increased productivity and reduced carbon emissions.	Industrial - Ethanol	In Review
Wireless Steam Trap Monitor	Wireless steam trap monitors efficiently detect failed steam traps and allow quicker repair or replacement reducing the steam loss from the failed trap.	Industrial, Commercial, Schools & Government	In Review
Steam Trap Technology	Venturi steam traps do not contain any moving parts leading to reduced failure rates and longer operational life than currently deployed technology.	Industrial, Commercial, Schools & Government	In Review

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. Additional information on each of the projects listed below is available on the Future Focus webpage.

Active EERD Projects currently include two projects:

Trade Ally Technical Assistance Research

Description: The primary objective of this research is to explore how Focus could support a stronger, more skilled energy efficiency workforce through targeted training resources. Feedback from Trade Allies, training providers, apprenticeship sponsors, and workforce development programs helped shape recommendations for a potential technical assistance program.
Project Timeline: Mar 2025 – Aug 2025

Q3 Project Updates

- A total of 30 Workforce Partner and Trade Ally interviews were completed.
- The Trade Ally Technical Assistance Research Final Report and presentation were completed, which included recommendations for the Program Administrator and key findings from interviews.

Emerging/Transitional Priorities Research

Description: This research project will deliver a transitional roadmap, with the goal of supporting Focus on Energy's statutory obligations and objectives established during the Quadrennial IV period and informing the Quadrennial V (2027-2030) planning process. The research will result in a package of high-leverage interventions and a tactical implementation plan that can best achieve high-level goals for the EERD program and Focus on Energy broadly.
Project Timeline: Nov 2024 – Dec 2025

Q3 Project Updates

- The research team finalized the empower phase and transitioned to systematically evaluating each intervention. The research team defined and used eight evaluation criteria (i.e., energy savings, GHG reduction, grid benefits, equity benefits, other benefits, equity flags, implementation cost, implementation difficulty) to evaluate and prioritize interventions. The ultimate objective of the evaluation and prioritization was to identify the top priority interventions, for which the research team would develop written implementation plans.
- Once all interventions were fully characterized and evaluation criteria were rated, the research team developed a Tableau dashboard to visualize the results. The dashboard was designed to have sorting and filtering options to facilitate the selection of criteria weights, and display the resulting top interventions.
- The Tableau dashboard is available online: Focus on Energy Interventions | Tableau Public.
- The research team held a two-session workshop attended by the Focus on Energy team and the Public Service Commission of Wisconsin team during which the draft recommendations for Proceed to Next Phase were reviewed. Fourteen interventions were selected as top interventions and for subsequent implementation plans development. These interventions are being further researched and developed into implementation plans, which will be incorporated into the final project report.

OTHER INNOVATION INTIATIVES

Combined Heat and Power Research Project

Description: The Combined Heat and Power Research Project will explore the potential for natural gas combined heat and power (CHP) in Wisconsin. This will involve gathering and analyzing data on several high-potential customer segments and a focused policy review to map out where CHP currently fits within Wisconsin's regulatory and program landscape.
Project Timeline: Sep 2025 – Q4 2025

Q3 Project Updates

- Subject matter experts were identified, and the project kicked off.

MARKET ANALYTICS

Market Analytics in Q3 consisted of the development of one memo.

Focus on Energy Workforce Development Strategy Memorandum

The draft version of the Focus on Energy Workforce Development Strategy Memorandum (memo) was completed in Q3. The memo examines workforce development opportunities aligned with Focus on Energy's goals, highlighting opportunities to engage with CBOs, Trade Allies, training providers, and other partners in workforce development. The research and analysis conducted in preparing for this memo revealed an industry need for a more coordinated workforce development approach that not only enhances current workforce development efforts but also addresses existing gaps in soft and technical skill training. The workforce development strategy recommendation centers on increasing Trade Ally capacity to complete energy efficiency projects while maximizing benefits for all key stakeholders, including Trade Allies, training providers, customers, and CBOs-ultimately creating an additional pathway to achieving energy savings.

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 webpage:
Future Focus Initiative

Contact Us

Any questions about Future Focus projects may be directed to:
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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.