



focus on energy[®]

Partnering with Wisconsin utilities



FOCUS ON ENERGY NEW HOMES

2023 BUILDER PROGRAM GUIDE



OVERVIEW

Mission

To help builders and homebuyers build the most energy-efficient, safe, comfortable, durable, and highest quality homes they can afford.

Eligibility

Any single-family home built in Wisconsin receiving natural gas or electricity from a utility participating in FOCUS ON ENERGY® is eligible. Homes may be stand-alone or part of a multi-unit building three stories or less, and must meet the requirements of the Wisconsin Administrative Code, section 320.04 (6) note 2. Homes must also meet all applicable requirements contained within this document. Townhomes and duplexes are eligible.

Partnership

Participating builders must establish a partnership with a Building Performance Consultant (BPC) and complete a Trade Ally Application to receive incentive payments. A signed and completed W-9 form is also required.

Apply online: focusonenergy.com/trade-allies/

Accreditation

BPCs associated with the Program must be Residential Energy Services Network (RESNET®) certified or possess an approved equivalent.

Energy Modeling

BPCs must use the Wisconsin version of REM/Rate™ energy modeling software to calculate each home's percent more efficient than code and energy savings values. REM/Rate provides the required reports to demonstrate Uniform Dwelling Code (UDC) energy code compliance and provides the documentation required for the Internal Revenue Service's Energy-Efficient Home Tax Credit.*

Learn more online:

energystar.gov/partner_resources/residential_new/homes_prog_reqs/national_page

*Subject to change without notice. See IRS Form 8908.



SITE VISITS

Why Are Site Visits Important?

Verification ensures your homes meet the program's energy efficiency target.

Differentiating Your Business provides proof that builders associated with the New Homes Program build better homes that are more energy efficient, safer, more comfortable, more durable, and of higher quality.

Added Value reduces the likelihood of customer callbacks when all the recommended best practices are incorporated.

Protocols for Site Visits

Initial Site Visit

Framing and Insulation Review

The BPC reviews the framing for potential air bypasses; and the installation of the insulation, ensuring the home is on track to meet all energy efficiency requirements and recommendations. Upon completion, the BPC submits a report to the builder with their findings.

Final Site Visit

Performance Testing

- **Blower Door Test:** A blower door test is conducted to determine the home's air tightness. Refer to air-tightness recommended best practice on page 5.
- **Ventilation Capacity Testing:** All ventilation equipment is tested to ensure it functions properly. Refer to page 6 for additional information.



REQUIREMENTS

Overview

Builders who construct homes that are 30% or more energy efficient than the current UDC are eligible to receive financial incentives up to \$4,000 per home. The performance level is based on the home's estimated annual energy consumption, compared to the same home built to the UDC. Incentives are only awarded to builders. Incentives are available on a first-come, first-served basis, and amounts are subject to change.

Homeowner Eligibility: Homeowners are eligible to receive performance incentives only if they served as the general contractor—meaning they hired and managed the subcontractors who built their home.

How It Works

- 1 Partner with a local participating Building Performance Consultant (BPC).
- 2 The BPC visits the home during construction to verify the home is on track to meet the program requirements and best practices.
- 3 Once construction is complete, the BPC conducts performance testing to verify the home meets program requirements and best practices.
- 4 BPC submits paperwork on your behalf and you receive your incentive check!



INCENTIVES

Incentive Structure for 2023

The incentives¹ for the program are paid to builders and are based on a pay-for-performance philosophy; the more energy efficient the home, the larger the incentive.

To determine the percent more efficient than the code value—the program uses energy modeling software called REM/Rate to compare the energy consumption of the as-built home to the same home built to the current UDC requirements. The difference between these values converts to a percentage representing the percent more efficient than the code value.

Similarly, we use energy modeling software to determine the energy savings by comparing the MMBtu consumption of the as-built home to the MMBtu consumption of a baseline home, resulting in the MMBtu savings value. The MMBtu savings value is multiplied by the applicable incentive amounts in the table below.

Incentive Tiers

Level	Requirement	Per MMBtu Incentive
1	30% Above Code	\$45
2	30% Above Code + ENERGY STAR [®] Certification ²	\$50
3	30% Above Code + ENERGY STAR [®] + Zero Energy Ready Certification ³	\$60
4	Income Qualified Additive Per MMBtu Saved ⁴	\$5

Incentive Example: Level 1 home that has 27 MMBtu savings. $27 \text{ MMBtu} \times \$45 = \$1,215$

Federal Tax Incentives

The federal government also offers incentives for energy-efficient new homes in the form of tax credits up to \$5,000 per home. Please contact your tax professional for additional information.

1. There is a \$4,000 maximum incentive per home and an annual \$400,000 maximum incentive per builder.
2. Refer to ENERGY STAR residential new construction program requirements for additional information.
3. Refer to DOE Zero Energy Ready Home (ZERH) program requirements for additional information.
4. Income-qualified is defined as 80% of Wisconsin's median family income.



BEST PRACTICES

Overview

Focus on Energy highly recommends incorporating the following items to limit the likelihood of customer callbacks.

Note: When Wisconsin UDC requirements exceed Focus on Energy New Homes Program Recommended Best Practices, UDC requirements shall prevail.

Air-Tightness

Building air-tightness plays a significant role in residential energy efficiency. It reduces heating and cooling energy consumption, providing draft-free comfort contributing to overall building durability. An air-tightness value equal to or less than 0.20 CFM50 per sq. ft. of building shell area is highly recommended.

Sealed Sump Pump Basin

All sump pump basins should have an air-tight cover with all piping and electrical penetrations sealed to prevent soil, gas, and moisture from leaking into the home. The recommended method of air-sealing is a sump basin kit with a manufactured air-tight cover or a custom-fit cover caulked in place.

Sealed Plumbing Rough-In

An unsealed plumbing rough-in in the slab may allow unwanted moisture and soil gases to enter the home. It is recommended that plumbing rough-ins be completely air sealed. Rigid code-approved material, such as foil-faced THERMAX™ sheathing or pressure-treated wood cut to fit and caulked in place, are suitable methods of air sealing.

Full Coverage Foundation Insulation

The entire foundation wall surface should be insulated to reduce heat loss and increase comfort. The insulation can be on the interior, exterior, or both. It is recommended that brick ledges and exposed foundation walls inside an attached garage and along the stairway should also be insulated.

Slab-On-Grade Thermal Insulation

A thermal break in the slab reduces heat loss and increases comfort inside the home. Any slab-on-grade between the house and an attached garage should be thermally isolated, with a minimum R-5 thermal break.

Hearth Products

Combustion safety and indoor air quality are very important when hearth products are installed in the home. The following recommendations are strongly encouraged:

- Any gas fireplace should be a direct-vent design.
- Any solid fuel-burning fireplace or stove should be a closed combustion design, with the piping for combustion air connected to the unit per manufacturer recommendations.
- The use of any open-hearth gas or wood fireplace or pellet stove is highly discouraged.



BEST PRACTICES

Whole-House Ventilation

As air leakage is reduced through air sealing, attention to indoor air quality becomes more important; therefore, a mechanical ventilation system ducted to the outdoors to meet the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 62.2-2010 is highly recommended.

- When the tested air tightness value is at or below 0.15 CFM50 per sq. ft. of building shell area, a balanced ventilation system is highly recommended, such as a Heat or Energy Recovery Ventilation system.
- An appropriately sized bathroom exhaust fan can be used to satisfy the whole-house ventilation recommendation. If this is the chosen method of whole-house ventilation, the control device or switch operating the fan must meet RESNET requirements.

Spot Ventilation for Full Bathrooms

Excess moisture can lead to mold, mildew, or rot and should be removed from the home at its source. An exhaust ventilation system ducted to the outdoors is highly recommended in any bathroom with a tub or shower. The exhaust fan should have a minimum tested value of 20 CFM continuous flow, with 50 CFM intermittent “boost” capability.

Spot Ventilation for Gas and Electric Ranges

Cooking can lead to excess moisture and odors in the kitchen, which should be removed from the home at their source. The following ventilation options are highly recommended:

- **Gas cooktops:** A range hood or microwave exhaust system ducted to the outdoors above the cooktop with a minimum rated flow of 100 CFM.
- **Electric cooktops:** A range hood or microwave exhaust system ducted to the outdoors above the cooktop with a minimum rated flow of 100 CFM or a central system ducted to the outdoors with a minimum tested flow of 20 CFM continuous air flow with a pick-up and control switch located in the kitchen.
- **Downdraft ventilation cooktops** with a minimum rated flow of 100 CFM.

Space Heating and Water Heating System Design

- Any fuel-burning, forced-air space heating system should be closed combustion design with the piping for the combustion and exhaust air connected directly to the outdoors.
- Any boiler should be either closed combustion or power vent design.
- Any natural gas or liquid propane water heating system should use either a power or direct vent design with the piping for the exhaust air connected directly to the outdoors.
- In the absence of Time of Use or Load Management utility offerings, electric resistance water heaters are not recommended.
- Heat Pump Water Heaters are highly recommended.

HAVE QUESTIONS?



CONTACT US

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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.

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