



ENERGY EFFICIENCY PROGRAM

Available Residential Measures Guide (RM-23)

Specifications for the Residential Program Measures

5-1-23

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RM-23 - 2023 Program Year Available Residential Measures

Description: The intent of this document is to provide information regarding the energy savings measures that are part of the Ameren Illinois Residential Energy Efficiency Programs to better guide Program Allies on their requirements. All incentivized measures are required to be installed by a registered Program Ally unless otherwise noted.

Items listed as *Allowed Materials* found in this document supersede information found in the Residential Field Guides (Health & Safety, Building Envelope, and HVAC) and are to be considered Program-approved for use with each measure. This document informs on allowed materials while the Residential Field Guides discuss installation procedures.

Throughout this document the term “Program” is utilized to conserve space, but the term directly represents the Ameren Illinois Energy Efficiency Programs.

Acronyms possibly Utilized by this Document:

AFUE = Annual Fuel Utilization Efficiency
AMI = Average Median Income
ASHP = Air Source Heat Pump
ASTM = American Society for Testing Materials
BPM = Brushless Permanent Magnet
CAC = Central Air Conditioner
CFM50 = Cubic Feet per Minute @ 50 Pascals
DIM = Direct Install Measure(s)
DHP = Ductless Heat Pump
ECM = Electronically Commutated Motor
EER = Energy Efficiency Ratio
HE = Home Efficiency
HEIQ = Home Efficiency Income Qualified

HVAC = Heating, Ventilation, and Air Conditioning
IRA = Inflation Reduction Act
IQ = Income Qualified
LED = Light Emitting Diode
MF = Multifamily
OBF = On-Bill Financing
PA = Program Ally
PH = Public Housing
PSC = Permanent Split Capacitor
PY = Program Year
SDS = Safety Data Sheet (formerly MSDS)
SEER = Seasonal Energy Efficiency Ratio
SPF = Spray Polyurethane Foam
UL = Underwriter’s Laboratories

RM-23.1 Home Efficiency Income Qualified Initiative Measures

Description: General requirements reminder for the Single Family Initiatives:

- Customers must complete income verification by Program Staff
- Customers must have their primary heating fuel delivered by Ameren Illinois; existing heating and cooling equipment data is required for all reservation requests and incentive payment requests. At the minimum, this includes: manufacturer name, model number, capacity, and efficiency
- Reservation Request applications are required for all measures along with written Program approval for reservations prior to work commencement and are subject to pre-work inspection by Program staff

When specifying Building Envelope Measures for a project, keep the following requirements in mind:

- All HVAC equipment, ductwork, supply registers, and return registers within an attached garage (a room with an overhead door still present) must be sealed (registers sealed over) if they are also a part of the system conditioning the dwelling space (i.e., home, residence) air
- Review the Energy Audit Disclaimers form for site considerations that may disqualify the residence from certain building envelop measures
- Health & Safety Measure funding may be available to overcome identified project hurdles for Tier 1 and Tier 2 customers please review the Health & Safety Measure Guide and consult your Program point of contact with any questions

For further details for installation practices, techniques, and allowed materials please consult the Building Envelope Field Guide along with the Health & Safety Field Guide.

All Program Ally incentivized measures are listed below and must be installed by a registered Program Ally in good standing with the Program.

Participants with out-of-pocket costs (generally Tier 2) on building envelope measures may be eligible for the Income Tax Credit outlined in the Inflation Reduction Act, please consult a tax professional for further details.

For details on how to reserve incentive funds using Program forms, request payment of incentive funds using Program forms, current measure availability, and current incentive amounts please go to [AmerenIllinoisSavings.com](https://www.AmerenIllinoisSavings.com) or consult your Program point of contact.

RM-23.1.1 - Air Sealing

Description: The Air Sealing measure provides incentive for the energy savings generated by reducing uncontrolled air leakage into and out of the home by sealing gaps in the building envelope and/or properly aligning the pressure boundary with the thermal boundary.

Objective: Reduce airflow through leaks, penetrations, and bypasses found in the attic, basement, crawl space, living space, and exterior pressure boundaries

Initial Conditions: Heating fuel delivered by Ameren Illinois. No Health and Safety concerns that prohibit the use of a blower door for air infiltration testing; an initial single-point infiltration test depressurizing the home by 50 Pascals with results in CFM50 provided on Program paperwork

Final Conditions: A CFM50 result that is numerically less than the initial test result; all exhaust equipment (kitchen, bath, dryer, etc.) venting terminated to the exterior of the home through R-7 or greater insulated ducting (soffit vent terminations are not permitted); moisture source prevention (crawl space vapor barrier, downspout, grading concerns, etc.) steps have been taken; ASHRAE 62.2-2016 Standard has been followed for indoor air quality ventilation requirements

Allowed Materials: A variety based upon installation location, intent, and safety; see the Building Envelope Field Guide

Additional Considerations and Specifications: This measure requires Blower Door Testing (including ventilation testing) and Combustion Safety Testing. Primary Target area will be the attic plane, followed by area at grade, and finally in the main living area (as is cost effective). The pressure boundary between an attached garage and the home should be air sealed and connection reduced. Air sealing may include but is not limited to attic top plates, chases, registers, vents, boots, plumbing stacks, wiring penetrations, attic accesses of any type, whole-house fans, drop soffits, can lights, bath fans, fireplaces, fireplace chases, balloon framing, windows, doors, and bathtubs. Additionally, contaminant source control and ventilation for Indoor Air Quality must be addressed which may include but is not limited to: bulk water control, vapor control, local exhaust ventilation, and others

Photos of installed air sealing measures should be taken prior to being covered by any insulation. These will aid with quality control-related questions from Program staff

A minimum pressure of 30 Pascals must be achieved to utilize any “can’t reach 50” factor for a given blower door flow reading. If you cannot, please reach out to your Field Energy Specialist for assistance

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.2 - Attic Insulation (R-11 or less)

Description: The Attic Insulation measure provides incentive for the energy savings generated by increasing the insulation in a ceiling located beneath the residence's roof to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the attic and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The attic must have an effective thermal resistance (R-value) of R-11 or less as per the Insulation Grading Guide

Final Conditions: Attic and any horizontal entry point must have a final thermal resistance of R-49 (or greater) using Program approved materials; including installation of baffles and any needed blocking or dams including but not limited to areas around attic accesses of any type, porches, whole-house fans, metal flues, masonry chimneys, and other high-temperature penetrations; use of one (1) attic ruler per 300 square foot of insulated attic is requested

Allowed Materials: Loose Fiber Cellulose meeting ASTM C739, Loose Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam (SPF); see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.3 - Attic Insulation (R-12 to R-19)

Description: The Attic Insulation measure provides incentive for the energy savings generated by increasing the insulation in a ceiling located beneath the residence's roof to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the attic and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The attic must have an effective thermal resistance (R-value) between R-12 and R-19 as per the Insulation Grading Guide

Final Conditions: Attic and any horizontal entry point must have a final thermal resistance of R-49 (or greater) using Program approved materials; including installation of baffles and any needed blocking or dams including but not limited to areas around attic accesses of any type, porches, whole-house fans, metal flues, masonry chimneys, and other high-temperature penetrations; use of one (1) attic ruler per 300 square foot of insulated attic is requested

Allowed Materials: Loose Fiber Cellulose meeting ASTM C739, Loose Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam (SPF); see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.4 - Wall Insulation

Description: The Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation in an exterior wall (a wall with unconditioned space on one side) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of walls and knee walls and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The cavity must have no effective thermal resistance

Final Conditions: The installed cavity insulation must achieve a thermal resistance of R-11 or greater using Program approved materials and methods

Allowed Materials: Dense Packed Fiber Cellulose meeting ASTM C739, Dense Packed Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray

Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location. This measure can also handle areas in attics with sloped ceilings to complete the building envelope as much as is possible with construction allowances (living space converted from attic space and cape cod-style upper floors)

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.5 – Knee Wall Insulation

Description: The Knee Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation in an exterior open-faced wall cavity (a wall with unconditioned space on one side) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of knee walls and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The knee wall must have a no effective thermal resistance in the cavity

Final Conditions: The installed insulation in the knee wall (open-faced wall cavity) must achieve a thermal resistance of R-12 (or greater) using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location or in contact with the pressure plane of the building envelope

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.6 - Rim Joist Insulation

Description: The Rim Joist Insulation measure provides incentive for the energy savings generated by increasing the insulation in the exterior perimeter of the floor framing system (rim joist, band board, bond board, etc.) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the rim joist and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The rim joist must have a no effective thermal resistance in the cavity

Final Conditions: The installed insulation in the rim joist must achieve a thermal resistance of R-10 (or greater) using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane

Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.7 - Crawl Space Wall Insulation

Description: The Crawl Space Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation of the vertical, exterior perimeter of the crawl space foundation wall to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the crawl space wall and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The crawl space wall must have no effective thermal resistance on its surface and be a component of the defined building envelope

Final Conditions: The installed insulation of the crawl space wall must achieve a thermal resistance of R-10 (or greater) and seal to any required water vapor management systems, using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location. For it to be consider as the defined building envelope, there must be zero effective insulation on any floor systems adjacent to this area

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.8 – Duct Sealing

Description: The Duct Sealing measure provides incentive for the energy savings generated by increasing the efficiency of the existing heating duct work system by reducing conditioned air leakage from it.

Objective: To reduce energy losses from air leakage outside of conditioned space on a forced air system through a prescriptive approach

Initial Conditions: 50% or more of the existing forced air duct system currently being used for the heating of the residence is located in unconditioned space

Final Conditions: An increase in duct efficiency through the use of the BPI Distribution Look- Up Table and the Duct Sealing Work Specification found on AmerenIllinoisSavings.com

Allowed Materials: Water-based (latex) mastics conforming to UL-181A-P, UL-181A-M, UL-181A-H, and UL-181B-M; mesh tape; 1-part or 2-part spray foam; and 100% silicone caulk as installed according to the Building Envelope Field Guide

Additional Notes: Ductwork contained within the crawl space or basement of the home does not qualify for this measure as they will be brought into the building envelope by completion of the project

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.9 – Continuous Exhaust Ventilation

Description: The Continuous Exhaust Ventilation measure provides incentive for the energy savings generated by installing an ENERGY STAR® certified high efficiency exhaust fan instead of one that is not ENERGY STAR® certified when fulfilling the ASHRAE ventilation standards.

Objective: To satisfy ASHRAE 62.2-2016 requirements through exhaust ventilation

Initial Conditions: Electricity delivered by Ameren Illinois; Residence must require continuous mechanical ventilation as indicated by ASHRAE 62.2-2016 for a project including building envelope measures

Final Conditions: The installed exhaust-only fan must be [ENERGY STAR® certified](#) and meet all ASHRAE 62.2-2016 requirements. Fan must be properly terminated to the exterior with a damper termination and ducting insulated to R-7 minimum as necessary

Additional Notes: This measure exists to capture savings when installation of new exhaust ventilation is necessary to meet ASHRAE 62.2-2016 ventilation standards but is not required. It is of more importance to meet the ventilation standards through the most cost-effective strategy for a particular project.

Inflation Reduction Act Income Tax Credit Eligibility: Further details coming soon

RM-23.1.10 – Smart Thermostat

Description: The Smart Thermostat measure provides incentive for the energy savings generated from installing an ENERGY STAR® certified smart thermostat with the ability to adapt to the occupant's needs.

Initial Conditions: The primary heating fuel for the residence must be delivered by Ameren Illinois to a residential account (GS1 or DS1) to a permanent appliance not already controlled by a smart thermostat

Final Conditions: Installed smart thermostat is [ENERGY STAR® certified](#)

RM-23.1.11 – Heat Pump Water Heater (Energy Star)

Description: The Heat Pump Water Heater measure provides incentive for the energy savings generated from installing an ENERGY STAR® certified heat pump water heater.

Initial Conditions: Electricity delivered by Ameren Illinois. The primary source of domestic hot water to the dwelling unit must be an electric resistance storage water heater

Final Conditions: New Installed (per manufacturer's instructions unless superseded by Program guidelines) operable Heat Pump Water Heater and is [ENERGY STAR® certified](#); installation includes all associated items for change-out and may also include but is not limited to: thermal expansion tank, condensate removal, electric, accommodations for unrestricted airflow space, removal of old equipment, fasteners, screws, brackets, and hangers

Inflation Reduction Act Income Tax Credit Eligibility: At base Program requirements, this unit does not qualify for the income tax credit; this measure meets requirements for equipment

RM-23.1.12 - Natural Gas Furnace 95% AFUE

Description: The Natural Gas Furnace measure provides incentive for the energy savings generated by the installation of a new, high efficiency forced-air natural gas furnace that is replacing an existing lower efficiency forced-air natural gas furnace that is still in service.

Initial Conditions: Verifiably operable natural gas furnace with fuel delivered by Ameren Illinois with an AFUE of less than 80% as determined by Preston's Guide Online, through the use of the HVAC Performance Toolkit, or utilizing age-based efficiency as defined in the Illinois Technical Reference Manual version 11

Final Conditions: New Installed (per manufacturer's instructions unless superseded by Program guidelines), operable natural gas fueled forced-air furnace with a minimum efficiency rating of 95% AFUE as proven by AHRI; unit must be sized according to ACCA Manual J and ACCA Manual S with load calculation software documentation provided accompanying Program paperwork; installation includes all associated items for change-out and may also include but is not limited to: re-work of supply plenum, re-work of return drop, re-work of filter cabinet, filter slot cover, air handler, properly sized blower and motor, venting of products of combustion, intake of combustion air from outside the home, condensate removal, electric, gas piping, gas pipe sediment trap, removal of old equipment, fasteners, screws, brackets, and hangers

Inflation Reduction Act Income Tax Credit Eligibility: At base Program requirements, this unit does not qualify for the income tax credit; a 97% AFUE is required to qualify

RM-23.1.13 - Natural Gas Boiler 90% AFUE

Description: The Natural Gas Boiler measure provides incentive for the energy savings generated by the installation of a new, high efficiency boiler that is replacing an existing lower efficiency boiler that is still in service.

Initial Conditions: Verifiably operable natural gas boiler with fuel delivered by Ameren Illinois with an AFUE of less than 80% as determined by Preston's Guide Online

Final Conditions:-New installed (per manufacturer's instructions unless superseded by Program guidelines), operable boiler with a minimum efficiency rating of 90% AFUE as proven by AHRI; unit must be sized according to ACCA Manual J and ACCA Manual S with load calculation software documentation provided accompanying Program paperwork; installation includes all associated items for change-out and may also include but is not limited to: re-work of water supply, water piping connections, properly sized circulator pump(s), venting of products of combustion, intake of combustion air from outside the home, electric, gas piping, gas pipe sediment trap, condensate removal, removal of old equipment, fasteners, screws, brackets, and hangers

Inflation Reduction Act Income Tax Credit Eligibility: At base Program requirements, this unit does not qualify for the income tax credit; a 95% AFUE is required to qualify for the income tax credit

RM-23.1.14 - Central AC SEER 16.0 or greater [High-Need Only]

Description: The Central AC, for high-need customers, measure provides incentive for the energy savings generated by the installation of a new, high efficiency central air conditioner that is replacing an existing lower efficiency central air conditioner that is still in service.

Initial Conditions: Electricity delivered by Ameren Illinois; verifiably operable CAC with a SEER of 10.0 or less as determined by Preston's Guide Online, not Type "CB" match; customer must meet "high need" criteria listed below; replacement only available between May 1 to September 15

High-Need Occupant Criteria: Senior (age 60 years and older), Expectant Mothers, Children (age 6 years or less), or living with disability

Final Conditions: New installed (per manufacturer's instructions unless superseded by Program guidelines), operable CAC unit with minimum efficiency ratings of 12.5 EER and 16.0 SEER as proven by AHRI. The unit must be sized according to ACCA Manual J and ACCA Manual S with load calculation software documentation provided accompanying Program paperwork; installation includes all associated items for change-out and may also include but is not limited to: re-work of supply plenum, re-work of return drop, re-work of filter cabinet, filter slot cover, properly sized blower and motor, replacement of line set (or flush), pad, refrigerant, disconnect, condensate removal, electric, recovery of old refrigerant, removal of old equipment, fasteners, screws, brackets, and hangers

Inflation Reduction Act Income Tax Credit Eligibility: At base Program requirements, this unit does not qualify for the income tax credit; a 16 SEER2 and 12 EER2 is required to qualify

RM-23.1.15 - Air Source Heat Pump SEER 16.0 or greater

Description: The Air Source Heat Pump measure provides incentive for the energy savings generated by the installation of a new, high efficiency air source heat pump that is replacing either an existing lower efficiency air source heat pump; or that is replacing permanent appliance electric resistance as the primary heating method, all existing equipment must still be in service.

Initial Conditions (if ASHP): Electricity delivered by Ameren Illinois; Existing, verifiably operable ASHP with a SEER of 10.0 or less as determined by Preston's Guide Online, not Type "CB" match

Initial Conditions (if Electric Resistance Heating): Electricity delivered by Ameren Illinois; Existing, verifiably operable electric resistance heating (forced-air furnace, baseboard, or an electric boiler)

Final Conditions: New installed (per manufacturer's instructions unless superseded by Program guidelines), operable ASHP with minimum efficiency ratings of 16.0 SEER and 9.0 HSPF as proven by AHRI. The unit must be sized according to ACCA Manual J and ACCA Manual S with load calculation software documentation provided accompanying Program paperwork; installation includes all associated items for change-out and may also include but is not limited to: re-work of supply plenum, re-work of return drop, re-work of filter cabinet, filter slot cover, properly sized blower and motor, replacement of line set (or flush), pad, refrigerant, disconnect, condensate removal, electric, recovery of old refrigerant, removal of old equipment, fasteners, screws, brackets, and hangers

Special Note Regarding Mini-Split Heat Pumps: Above and beyond the Final Conditions listed for a new ASHP, a ductless mini-split heat pump must also be variable capacity (typically "inverter-driven" DC motor)

Inflation Reduction Act Income Tax Credit Eligibility:

For ducted units: at base Program requirements, this measure meets requirements for equipment

For non-ducted units: at base Program requirements, this unit does not qualify for the income tax credit; a 16 SEER2 and 9.5 HSPF2 is required to qualify

RM-23.1.16 – Room Air Conditioner (Energy Star) [High-Need Only]

Description: The Room Air Conditioner, for high-need customers, measure provides incentive for the energy savings generated by the installation of a new, high-efficiency room air conditioner that is replacing an existing lower efficiency room air conditioner that is still in service.

Initial Conditions: Electricity delivered by Ameren Illinois; verifiably operable room air conditioner that is non-ENERGY STAR® certified or greater than 10 years old; customer must meet “high need” criteria listed below; replacement only available between May 1 to September 15

High-Need Occupant Criteria: Senior (age 60 years and older), Expectant Mothers, Children (age 6 years or less), or living with disability

Final Conditions: New installed (per manufacturer's instructions unless superseded by Program guidelines), operable room air conditioner that is [ENERGY STAR® certified](#); Removed unit(s) must be recycled through Program authorized methods

Inflation Reduction Act Income Tax Credit Eligibility: Further details coming soon

RM-23.1.17 - High Efficiency Blower Motor w/ New Gas Furnace

Description: The New High Efficiency Blower Motor measure provides incentive for the energy savings generated through the installation of a Brushless Permanent Magnetic (BPM) blower motor along with a qualified, incentivized furnace replacement.

Initial Conditions: Electricity delivered by Ameren Illinois; gas furnace to be replaced whether incentivized through the Program or not

Final Conditions: New installed (per manufacturer's instructions unless superseded by Program guidelines), operable natural gas furnace with a high efficiency blower motor included as certified by AHRI

Additional Notes: Electronically Commutated Motors (ECMs) qualify for this incentive. This measure is not eligible for use when replacing inoperable furnaces

Inflation Reduction Act Income Tax Credit Eligibility: Further details coming soon

RM-23.2 Home Efficiency Market Rate Initiative Measures

Description: General requirements reminder for the Single Family Initiatives:

- Customers must have their primary heating fuel delivered by Ameren Illinois; existing heating and cooling equipment data is required for all reservation requests and incentive payment requests. At the minimum, this includes: manufacturer name, model number, capacity, and efficiency
- Reservation Request applications are required for all measures along with written Program approval for reservations prior to work commencement and are subject to pre-work inspection by Program staff

When specifying Building Envelope Measures for a project, keep the following requirements in mind:

- All HVAC equipment, ductwork, supply registers, and return registers within an attached garage (a room with an overhead door still present) must be sealed (registers sealed over) if they are also a part of the system conditioning the dwelling space (i.e. home, residence) air
- Review the Energy Audit Disclaimers form for site considerations that may disqualify the residence from certain building envelop measures

For further details for installation practices, techniques, and allowed materials please consult the Building Envelope Field Guide along with the Health & Safety Field Guide.

All Program Ally incentivized measures are listed below and must be installed by a registered Program Ally in good standing with the Program.

Participants with out-of-pocket costs on building envelope measures may be eligible for the Income Tax Credit outlined in the Inflation Reduction Act, please consult a tax professional for further details

For details on how to reserve incentive funds using Program forms, request payment of incentive funds using Program forms, current measure availability, and current incentive amounts please go to [AmerenIllinoisSavings.com](https://www.amerenillinoisavings.com) or consult your Program point of contact.

RM-23.2.1 - Air Sealing

Description: The Air Sealing measure provides incentive for the energy savings generated by reducing uncontrolled air leakage into and out of the home by sealing gaps in the building envelope and/or properly aligning the pressure boundary with the thermal boundary.

Objective: Reduce airflow through leaks, penetrations, and bypasses found in the attic, basement, crawl space, living space, and exterior pressure boundaries

Initial Conditions: Heating fuel delivered by Ameren Illinois. No Health and Safety concerns that prohibit the use of a blower door for air infiltration testing; an initial single-point infiltration test depressurizing the home by 50 Pascals with results in CFM50 provided on Program paperwork

Final Conditions: A CFM50 result that is numerically less than the initial test result; all exhaust equipment (kitchen, bath, dryer, etc.) venting terminated to the exterior of the home through R-7 or greater insulated ducting (soffit vent terminations are not permitted); moisture source prevention (crawl space vapor barrier, downspout, grading concerns, etc.) steps have been taken; Program allowance regarding the application of ASHRAE 62.2-2016 Standard has been followed for indoor air quality ventilation requirements

Allowed Materials: A variety based upon installation location, intent, and safety; see the Building Envelope Field Guide

Additional Considerations and Specifications: This measure requires Blower Door Testing (including ventilation testing) and Combustion Safety Testing. Primary Target area will be the attic plane, followed by area at grade, and finally in the main living area (as is cost effective). The pressure boundary between an attached garage and the home should be air sealed and connection reduced. Air sealing may include but is not limited to attic top plates, chases, registers, vents, boots, plumbing stacks, wiring penetrations, attic accesses of any type, whole-house fans, drop soffits, can lights, bath fans, fireplaces, fireplace chases, balloon framing, windows, doors, and bathtubs. Additionally, contaminant source control and ventilation for Indoor Air Quality must be addressed which may include but is not limited to: bulk water control, vapor control, local exhaust ventilation, and others

Photos of installed air sealing measures should be taken prior to being covered by any insulation. These will aid with quality control-related questions from Program staff

A minimum pressure of 30 Pascals must be achieved to utilize any “can’t reach 50” factor for a given blower door flow reading. If you cannot, please reach out to your Field Energy Specialist for assistance

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.2 - Attic Insulation (R-19 or less)

Description: The Attic Insulation measure provides incentive for the energy savings generated by increasing the insulation in a ceiling located beneath the residence’s roof to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the attic and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The attic must have an effective thermal resistance (R-value) of R-19 or less as per the Insulation Grading Guide

Final Conditions: Attic and any horizontal entry point must have a final thermal resistance of R-49 (or greater) using Program approved materials; including installation of baffles and any needed blocking or dams including but not limited to areas around attic accesses of any type, porches, whole-house fans, metal flues, masonry chimneys, and other high-temperature penetrations; use of one (1) attic ruler per 300 square foot of insulated attic is requested

Allowed Materials: Loose Fiber Cellulose meeting ASTM C739, Loose Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam (SPF); see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Considerations: Please enter that actual thermal resistance (R-value) for the insulation as found during the site assessment into the reservation request form.

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.3 - Wall Insulation (including Knee Wall)

Description: The Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation in an exterior wall (a wall with unconditioned space on one side) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of walls and knee walls and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The cavity must have no effective thermal resistance

Final Conditions: The added cavity insulation must achieve a thermal resistance of R-11 or greater using Program approved materials and methods

Allowed Materials: Dense Packed Fiber Cellulose meeting ASTM C739, Dense Packed Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location. This measure can also handle areas in attics with sloped ceilings to complete the building envelope as much as is possible with construction allowances (living space converted from attic space and cape cod-style upper floors)

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.1.4 – Knee Wall Insulation

Description: The Knee Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation in an exterior wall (a wall with unconditioned space on one side) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of knee walls and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The knee wall must have a no effective thermal resistance in the cavity

Final Conditions: The installed insulation in the knee wall must achieve a thermal resistance of R-12 (or greater) using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location or in contact with the pressure plane of the building envelope

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.5 - Rim Joist Insulation

Description: The Rim Joist Insulation measure provides incentive for the energy savings generated by increasing the insulation in the exterior perimeter of the floor framing system (rim joist, band board, bond board, etc.) to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the rim joist and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The rim joist must have a no effective thermal resistance in the cavity

Final Conditions: The added insulation in the rim joist must achieve a thermal resistance of R-10 (or greater) using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.6 - Crawl Space Wall Insulation

Description: The Crawl Space Wall Insulation measure provides incentive for the energy savings generated by increasing the insulation of the vertical, exterior perimeter of the crawl space foundation wall to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the crawl space wall and decrease the energy loss of the residence

Initial Conditions: Heating fuel delivered by Ameren Illinois. The crawl space wall must have no effective thermal resistance on its surface and be a component of the defined building envelope

Final Conditions: The added insulation of the crawl space wall must achieve a thermal resistance of R-10 (or greater) and seal to any required water vapor management systems, using Program approved materials

Allowed Materials: Preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam; see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

Additional Notes: No effective thermal resistance generally means that there is no physical insulation in the location. For it to be considered as the defined building envelope, there must be zero effective insulation on any floor systems adjacent to this area

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.7 – Duct Sealing

Description: The Duct Sealing measure provides incentive for the energy savings generated by increasing the efficiency of the existing heating duct work system by reducing conditioned air leakage from it.

Objective: To reduce energy losses from air leakage outside of conditioned space on a forced air system through a prescriptive approach

Initial Conditions: 50% or more of the existing forced air duct system currently being used for the heating of the residence is located in unconditioned space

Final Conditions: An increase in duct efficiency through the use of the BPI Distribution Look-Up Table and the Duct Sealing Work Specification found on AmerenIllinoisSavings.com

Allowed Materials: Water-based (latex) mastics conforming to UL-181A-P, UL-181A-M, UL-181A-H, and UL-181B-M; mesh tape; 1-part or 2-part spray foam; and 100% silicone caulk as installed according to the Building Envelope Field Guide

Additional Notes: Ductwork contained within the crawl space or basement of the home does not qualify for this measure as they will be brought into the building envelope by completion of the project

Inflation Reduction Act Income Tax Credit Eligibility: This measure meets requirements for insulation & air sealing work

RM-23.2.8 – Continuous Exhaust Ventilation

Description: The Continuous Exhaust Ventilation measure provides incentive for the energy savings generated by installing an ENERGY STAR® certified high efficiency exhaust fan instead of one that is not ENERGY STAR® certified when fulfilling the ASHRAE ventilation standards.

Objective: To satisfy ASHRAE 62.2-2016 requirements through exhaust ventilation

Initial Conditions: Electricity delivered by Ameren Illinois; Residence must require continuous mechanical ventilation as indicated by ASHRAE 62.2-2016 for a project including building envelope measures

Final Conditions: The installed exhaust-only fan must be [ENERGY STAR® certified](#) and meet all ASHRAE 62.2-2016 requirements. Fan must be properly terminated to the exterior with a damper termination and ducting insulated to R-7 minimum as necessary

Inflation Reduction Act Income Tax Credit Eligibility: Further details coming soon

RM-23.2.9 – Smart Thermostat

Description: The Smart Thermostat measure provides incentive for the energy savings generated from installing an ENERGY STAR® certified smart thermostat with the ability to adapt to the occupant's needs.

Initial Conditions: The primary heating fuel for the residence must be delivered by Ameren Illinois to a residential account (GS1 or DS1) to a permanent appliance not already controlled by a smart thermostat

Final Conditions: Installed smart thermostat is [ENERGY STAR® certified](#)

Inflation Reduction Act Income Tax Credit Eligibility: Further details coming soon

RM-23.3 Multifamily Initiative Incentivized Measures

Description: General Requirements reminder for the Multifamily Initiative:

- All Multifamily projects are required to have a One Stop Shop Assessment performed prior to any progression through the Program
- All Multifamily projects require approved reservations prior to project commencement
- Quality control site inspections performed in the Multifamily Initiative require coordination between the Program inspection team and the Program Ally; the inspector may need to be onsite with the Program Ally's testing agent; please allow for this coordination with the Program. Target inspection rate for the Multifamily Initiative is 100%
- All HVAC equipment, ductwork, supply registers, and return registers within an attached garage (a room with an overhead door still present) must be sealed (registers sealed over) if they are also a part of the system conditioning the dwelling space (i.e. home, residence) air
- Review the Energy Audit Disclaimers form for site considerations that may disqualify the building/dwelling unit from certain building envelop measures
- Health & Safety Measure funding may be available to overcome identified, project hurdles please review the Health & Safety Measure Guide and consult your Multifamily Initiative point of contact with any questions

RM-23.3.1 - Air Sealing

Description: The Multifamily Air Sealing measure provides incentive for the energy savings generated by reducing uncontrolled air leakage into and out of the dwelling units by sealing gaps in the building envelope and/or properly aligning the pressure boundary with the thermal boundary.

Objective: Reduce airflow through leaks, penetrations and bypasses found in the attic, basement, crawl space, living space, and exterior pressure boundaries

Eligible Properties: Income Qualified properties, Public Housing Authority managed properties

Initial Conditions: Primary heating fuel delivered by Ameren Illinois, No Health and Safety concerns that prohibit the use of blower door testing. Initial Blower Door test result in Pascals CFM50

Final Conditions: A CFM50 result that is numerically less than the initial test result

Allowed Materials: A variety based upon installation location, intent, and safety; see the Building Envelope Field Guide

Additional Considerations: This measure requires Infiltration Testing verified through a depressurization Blower Door test; Combustion Safety testing for each unit with atmospherically vented appliances. Primary Target area will be the attic plane, followed by area at grade, and finally in the main living area (as is cost effective). This is a single-point depressurization test on the building and/or individual units in contact with the attic based upon the existence of a common entry; All exhaust fans terminating into the attic are required to be ducted to the gable end or out through the roof with a proper termination and

insulated to a R-7 minimum; Infiltration test sampling is allowed as per the document titled 'Multifamily Major Measures Sampling Procedure PY9'; the sampling process is not allowed for combustion safety evaluations, every unit must be tested; If the building has a crawlspace or other unfinished floor, a vapor barrier may be required

A minimum pressure of 30 Pascals must be achieved to utilize any "can't reach 50" factor for a given blower door flow reading. If you cannot, please reach out to your Field Energy Specialist for assistance

RM-23.3.2 - Attic Insulation (R-19 or less)

Description: The Multifamily Attic Insulation (R-19 or less) measure provides incentive for the energy savings generated by increasing the insulation in a ceiling located beneath the residence's roof to reduce the rate of heat transfer.

Objective: To increase the thermal resistance (R-value) of the attic and decrease the energy loss of the building

Eligible Properties: Income Qualified properties, Public Housing Authority managed properties

Initial Conditions: Primary heating fuel delivered by Ameren Illinois; the attic must have an effective thermal resistance (R-value) of R-19 or less

Final Conditions: The attic and any horizontal entry point must have a final thermal resistance of R-49 (or greater) using Program approved materials; including installation of baffles and any needed blocking or dams including but not limited to areas around attic accesses of any type, porches, whole-house fans, metal flues, masonry chimneys, and other high-temperature penetrations. The use of one (1) attic ruler per 300 square foot of insulated attic is requested

Allowed Materials: Loose Fiber Cellulose meeting ASTM C739, Loose Fiberglass meeting ASTM C764, preformed polystyrene boards meeting ASTM C578, preformed polyurethane/polyisocyanurate boards meeting ASTM C591, and Spray Polyurethane Foam (SPF); see the Building Envelope Field Guide for more information regarding more specifications for SPF and installation techniques of other insulation materials

RM-23.3.3 – Ductless Mini-Split Heat Pump

Description: The Ductless Mini-Split Heat Pump measure provides incentive for the energy savings generated by the installation of a new, high efficiency heat pump that is replacing lower efficiency baseboard electric resistance heating.

Eligible Properties: Any Multifamily Property

Initial Conditions: Electricity delivered by Ameren Illinois; customer's primary heating is provided by an operational, permanently installed electric resistance baseboard fixture(s)

Final Conditions: New installed (per manufacturer's instructions unless superseded by Program guidelines), operable, DHP with minimum efficiency ratings of 16.0 SEER and 9.0 HSPF as proven by AHRI. The new unit must also provide variable capacity (typically "inverter-driven" DC motor). The unit must be sized according to ACCA Manual J and ACCA Manual S with load calculation software documentation provided accompanying Program paperwork; installation includes all associated items for change-out and may also include but is not limited to: line set, pad, refrigerant, disconnect, condensate removal, electric, recovery of old refrigerant, removal of old equipment, fasteners, screws, brackets, and hangers.