

# 2020-2021 Implementation Manual

Programs Presentation of Changes

August 8, 2019



# General IM Changes

Corinne Mauck, Implementation Manual Coordinator

# Universal Changes

Changes made throughout the Implementation Manual:

- All edits from the 2017-2019 rate period incorporated
- References to fax submission pathway removed
- AP Style Guide edits have been made throughout
- Revised Requirements and Specification sections to be more concise
- Used a standard format for Payment summary tables

# Changes to Sector Chapters

- Chapter 13 new measures incorporated into sector sections
- Sector section renumbering
- Multisector offerings updated

# Changes made to non-Sector Chapters

- 0.0 Definitions:
  - Update to Manufactured Home
  - Added Third Party Implementers
- 2.2 Funding Sources and Savings Allocation
  - Non-Reportable and Reportable savings must be submitted separately
  - Added information for SEM and Self Funding
- 3.1 General Documentation Requirements
  - Added language regarding customer created forms
- 3.2 General Reporting Requirements
  - Clarified that for standard protocol measures, customers must use the calculator in effect at the time of submission

# Changes made to non-Sector Chapters

- 4.1 Custom Project Payments
  - + Commercial HVAC
  - - Non-Res Lighting
- 4.3.1 Custom Projects Process
  - Clarified Implementation Assistance requirements
- 4.3.2 Custom Project General Requirements
  - Clarified requirements for Nonresidential Lighting projects
- 5.0 Custom Programs
  - Custom Programs are on hold for the 2020-2021 rate period.

# Industrial

Todd Amundson, Acting Industrial Sector Lead

# Industrial Themes

Clarified language throughout chapter/section

Energy Management

Strategic Energy Management

Added clarity to both Savings and Payments

**BPA-Qualified**

*New measures!* High-Frequency Battery Charger Upgrade, Welder Upgrade, and Water System Leak Abatement



# Energy Management

# **9.2.1 Energy Management: Energy Project Manager (Optional ESI Component)**

- Decoupled Energy Management and Strategic Energy Management into separate sub-sections
- Clarified document submittal language
- In the Payment table, added the language allowing utilities to cap the payment smaller than the calculated payment (elaborates the original <sup>ii</sup> footnote)

# Strategic Energy Management

# 9.2.2 Strategic Energy Management: Strategic Energy Management Projects (Optional ESI Component)

- Created a new sub-section
- Clarified document submittal language
- Performance Period clarified savings language
- Components Implementation, removed table and simplified language
- Savings Reports (table)
  - M&V Protocol requirement, clarified re-enrollment period's baseline and re-baselining.
  - Performance Period requirement, clarified re-enrollment.
- Payment (table) replaced with a more clear table showing re-enrollment period

## **9.2.3 Industrial Custom Projects (Optional ESI Component)**

- Created a separate section for industrial custom projects.

## **9.2.4 Small Industrial Projects (Optional ESI Component)**

- Clarified Small Industrial Projects:
  - Requirements and Specifications
  - Payment table

# Renumbered Remaining Sub-sections

- 9.2.5 BPA-Funded Technical Service Providers
- 9.3 Variable Frequency Drives (VFD) for Fans in Potato and Onion Storage Facilities
- 9.4 Small Compressed Air Systems (shortened the section title)

***New!***  
**BPA-Qualified Measures**

## **9.5 High Frequency Battery Charger Upgrade**

## **9.6 Welder Upgrade**

## **9.7 Water System Leak Abatement**

- These multisector measures have applications in Agriculture and Commercial sectors
- Customers must use the specific calculator/tool to calculate savings and incentives
- Customers to manually enter energy savings into BPA UES Measure Upload Template's calculator results fields
- Specific documentation requirements for each measure



# Multisector Changes

Dave Moody, Programs Supervisor

# Multi-Sector Changes

DISTRIBUTION TYPE	REQUIREMENTS AND SPECIFICATIONS	DOCUMENTATION DESCRIPTION (RETAIN IN CUSTOMER FILE)
Retail	<p>Includes Simple Steps Smart Savings and utility-run retail programs. Mechanisms may include in-store markdowns, midstream/upstream promotions and coupons.</p> <p>See specific measure for complete requirements and specifications.</p>	<p>For in-store markdowns, online markdowns, or midstream/upstream promotions customers must submit a store sales report or invoice detailing: the date period for sales, sales by store location, qualified product make, model and manufacturer sufficient to assign corresponding energy efficiency measure. Reports must document the allocation methodology when a store serves multiple customers. Retail measures (both Simple Steps Smart Savings and utility-run programs) must be reported using the Retail Sales Allocation Tool, or an alternate methodology must be provided to BPA for review and approval to mitigate the possibility of double counting.</p> <p>Coupons must contain the (utility) customer name and end-user address, and require the customer to (1) document that the product meets BPA's requirements; and (2) provide store name and address.</p>
By Request and Mailed By Request	<p>Applies to delivery mechanisms that include distributing products "over the counter," at events, or otherwise directly to the end-user upon their request.</p> <p>Also applies to reimbursing end-users for a qualified purchase.</p> <p>The customer must document the request by the end-user.</p> <p>Additional requirements such as: documenting water heater fuel for showerheads may apply.</p> <p>See specific measure for complete requirements and specifications.</p>	<p>Product invoice documenting that the product meets BPA's requirements.</p> <p>Completed Measure Distribution Log (available in the <a href="#">IM Document Library</a>) or equivalent form with required information.</p> <p>The customer must document the request by the end-user. Examples of end-user requests may be postcards, <del>signatures on a</del> the Measure Distribution Log (available in the <a href="#">IM Document Library</a>), or an equivalent form with required information.</p> <p>Mailed By Request also requires documentation of mailing, air waybill, or bill of lading to document the date the product entered the mail stream (i.e., for drop shipments,</p>

Original

		Methodology Allocating Savings	End-user identifying information	Documentation of request	Sales report	Equipment/contractor invoice	Documentation of mailing
Distribution Channel	Mailed <del>Nonrequest</del>		X			X	X
	By Request		X	X		X	X (when distributed by mail)
	Simple Steps By Request		X	X		X	X (when distributed by mail)
	Coupon or Instant Rebate		X		X		
	Simple Steps or other BPA midstream	X			X		
	Retail	X			X		
	Direct Install		X			X	
	Standard Rebate Payment		X			X	

Revised

# Commercial

Nonresidential Lighting, Dave Murphy Program Manger

# 4.0 Custom Projects Payments

- Nonresidential Lighting custom project requirements moved to this section; updated payments
- Decreased payment from \$0.18 to \$0.13/kWh (same as LC 5.0)
- Must follow Custom Project M&V protocols

## 7.3 Nonresidential Lighting

1. Updated IM language
  - Promote clarity and ease of understanding
  - Reordered sections
  - Numbered for quick reference
  - Incorporated requested clarifications
2. New Construction projects
  - Added new invoice documentation requirement
  - Provided guidance on calculating incremental cost

## 7.3 Nonresidential Lighting

Effective Date/Retirement Date table updated

- Queues up LC 5.1 but does not commit to dates

Lighting Calculator Series Name	Calculator Version	Effective Date	Lighting Calculator Retirement Date
Lighting Calculator Series 4	LC 4.0	October 1, 2017	December 31, 2019
Lighting Calculator Series 5	LC 5.0	April 1, 2019	December 31, 2021
	LC 5.1	TBD	TBD

# **Residential Sector Changes**

# Residential Themes

## Documentation Requirements

Clarified documentation requirements in measure distribution log and measures

## HVAC Qualification

Added measure eligibility tables to clarify which measure to use when

## PTCS

Separated PTCS into individual measures to clarify qualification and documentation

## RTF Updates

Responded to RTF updates and measure changes



# Single Family Homes

Added clarification that accessory dwelling units with separate plumbing systems and or separate HVAC systems qualify for applicable measures even if they are on the same electrical meter.

# **New Manufactured Homes**

Added clarification that a new manufactured home once sited with an occupancy permit qualifies for existing manufactured home incentives.

# Lighting and Retail

Dave Murphy, Program Manager

Claire Gleason, Program Support Specialist

## **10.2.2 ENERGY STAR Lighting, Solid-State Lighting/LEDs/Bulbs and Fixtures**

- Payments and savings changing October 1, 2019
  - Most savings went down, but a few went up
  - All payments went down or holding steady
- Decorative & Minibase and Globes – mid and upper lumen bin measures expired, no products on the market
  - Formerly on the measure list with zero savings
  - Combined three lumen bins into one 250-2600
  - Payment and savings set for lowest lumen bin
- No longer utilizing the Lighting Design Lab (LDL) qualified lamps list

# 10.3.1-10.3.2

## Advanced Power Strips

Name changes from Tiers to Control Methodology

Former Name	New Name
Tier 2 Home Entertainment Center	Infrared Sensing
Tier 2 PC Interaction Sensing	PC Interaction Sensing
Tier 1	Load Sensing

## 10.3.1-10.3.2

# Advanced Power Strips (Infrared and PC Interacting)

- RTF cut savings on Tier 2 (infrared and PC interaction)
- BPA will no longer offering payments for Tier 2 APS (infrared and PC interaction) as of October 1, 2019, but the measure is not expiring
  - Customers can still report savings as a measure with zero payment
  - Keeping measure on the books to assist collecting data for RTF

# 10.4 Appliances

- Washers
  - Most savings went up, two went down slightly
  - Payments mostly increased \$5-\$10, the rest remain unchanged
  - Permanently adopted new CEE Tier structure:
    - Tier 1, Tier 2, Advanced Tier
  - Requirement for top loaders changed
    - Top loaders must be a minimum of CEE Tier1
- Dryers
  - BPA Tier 1 savings increased, payment increased from \$50 to \$75
  - BPA Tier 2 and 3 savings increased, payment unchanged
  - ENERGY STAR savings decreased, payment unchanged
  - BPAQ measures to collapse 10 RTF Tiers into 3

# 10.5.1-10.5.2 Showerheads & Thermostatic Shut-Off Valves (TSVs)

- Expired primary and secondary showerhead measures
  - These measures allow choice of a more frequently used or less frequently used shower
  - RTF has expired measures, BPA is following suit
- Left any showerhead measures
  - Either more or less equally used shower, no difference
- No changes to showerhead savings or payments
- Savings decreased for most TSV, payments staying the same



# 10.5.3-10.5.4 Heat Pump Water Heaters Measure Changes

- HPWH measures both Unitary and Split
  - RTF no longer differentiates between manufactured and single family homes
  - Added identifiers for retail
  - Expired separate Manufactured Home REFNOs and renamed Single family to any residential
  - Measure is now available for commercial installations
- Savings are lower for new measures due to measure structure and energy savings changes
  - Partly overall decrease from RTF
  - Partly structural changes listed above
- Added requirement that only one HPWH may be incentivized per home

# 10.5.3-10.5.4 Heat Pump Water Heaters Measure Changes

- Unitary HPWH measures
  - Tier 2 and 3 payment increased from \$500 to \$600
- Split system measures
  - Payment increased from \$700 to \$800
- Why? Actual cost of units have increased
  - Tax credits expired
  - NEEA transitioning from incentive model, phased out \$200 payment
  - Tariffs have added to cost
  - Lowest cost unit discontinued

# 10.6 Simple Steps, Smart Savings Program Update

- The current Simple Steps contract is scheduled to end in March 2020 but BPA is working with supply chain to *potentially* extend it until September 30, 2020
- The program *may* not continue beyond that time, BPA will update customers when more information is available

**Questions?**

# General HVAC

Amy Burke, Program Support Specialist

# HVAC Cold Climate Specification

- BPA now offers access to the Northeast Energy Efficiency Partnership (NEEP) Cold Climate heat Pump Product List for variable speed heat pumps (ductless and ducted). Utilities will not be required to utilize models on this list.
- BPA created a guide to navigate the public version of the Cold Climate Product List in the IM document library; for access to the full list please contact your EER.

This applies to:	
10.7.1.1& 10.7.1.2	Ductless and Ducted Mini-Split Heat Pumps
10.7.2.2	PTCS Variable Speed Air Source Heat Pumps
10.7.5	Variable Speed Heat Pump Conversion without PTCS

# Ductless & Ducted Air Source Heat Pumps

- Only one ductless heat pump may be claimed per home, regardless of the home’s square footage
- Homes with less than 4,500 sq ft may qualify for only one heat pump payment. This may be one ducted (PTCS or non-PTCS) or one ductless heat pump, but not both. Two exceptions:
  1. With two separate duct systems, the home is eligible for two ASHP payments but no more
  2. If home's duct work hasn't been extended to an addition, a DHP may be installed and the home may be eligible for a ducted ASHP (PTCS or non-PTCS) and one DHP payment.
- Homes with greater than 4,500 sq ft of heated floor area may qualify for up to two heat pump measures and no more.

This applies to:	
10.7.1.1 & 10.7.1.2	Ductless and Ducted Mini-Split Heat Pumps
10.7.2.1, 10.7.2.2, & 10.7.2.3	PTCS Air Source Heat Pumps and Variable Speed Heat Pumps
10.7.4 & 10.7.5	Air Source and Variable Speed Heat Pump Conversions without PTCS

# Variable Speed Air Source Heat Pumps (VSHPs)

BPA clarified that for variable speed air source heat pump measures, the outdoor compressor must be variable speed or inverter-driven. A variable speed indoor air handler does not meet the requirements for this measure.

## This change applies to:

10.7.2.2 & 10.7.2.3	PTCS Variable Speed Air Source Heat Pumps
10.7.5	Variable Speed Heat Pump Conversion without PTCS



# Measure Eligibility Tables

BPA developed and incorporated Measure Eligibility Tables for Residential HVAC Measures

## Measure Eligibility Tables were added to sections:

10.7.1.1 & 10.7.1.2	Ductless and Ducted Mini-Split Heat Pumps
10.7.2.1 – 10.7.2.4	PTCS Air Source, Variable Speed, CC&S, and Ground Source Heat Pumps
10.7.2.5 & 10.7.3	PTCS Duct Sealing & Prescriptive Duct Sealing
10.7.4 & 10.7.5	Air Source & Variable Speed Heat Pump Conversions without PTCS

# Example: Measure Eligibility Table

## PTCS Ducted Variable Speed Heat Pumps: Eligibility Table

Primary Residential Heating System	Home Type				
	Single Family: Existing	Single Family: New	Manufactured: Existing	Manufactured: New	Multifamily: Existing
Electric Forced-Air Furnace*	Conversion	Upgrade	Conversion	Treat as manufactured existing once located on site for occupancy	Not eligible
Ducted Heat Pump**	Upgrade		Upgrade		
Ductless Mini-Split Heat Pump	Upgrade		Upgrade		
Zonal (Electric)***	Upgrade		Upgrade		
Wood	Upgrade		Upgrade		
Oil/Propane/Gas	Upgrade		Upgrade		
None existing	Upgrade		Upgrade		

\*If home is hydronically heated, an electric water heater serving a forced-air hydronic coil is considered equivalent to an electric furnace.

\*\*Replacing a PTCS variable speed heat pump that is no longer functioning with a new PTCS certified heat pump would qualify for an upgrade.

\*\*\*Zonal includes zonal hydronic systems that do not utilize a duct system for distribution.

**Questions?**

# Ductless Heat Pumps

Paul Hawkins, Program Support Specialist

# 10.7.1.1 Ductless and Ducted Mini-Split Heat Pump(s)

- This measure (10.7.1.1) was modified to include systems with multiple indoor heads and/or multiple outdoor compressors and consolidated measure numbers
  - The outdoor compressor must meet a minimum HSPF of 9.0
  - BPA will make only one DHP payment regardless of the number of outdoor or indoor units
- Multi-head DHPs and systems with multiple outdoor compressors are reportable under measure 10.7.1.1 with corresponding energy savings and incentive payments
  - BPA expired 10.7.1.2 for multi-head systems as it is duplicative

# 10.7.1.1 Ductless and Ducted Mini-Split Heat Pump(s)

- The measure name was updated to *Ductless and Ducted Mini-Split Heat Pump(s)* to include systems with multiple indoor heads or one or more outdoor compressors.

Former Name	New Name
Single Interior Head and Single Outdoor Compressor Ductless and Ducted Mini-Split Heat Pump(s)	Ductless and Ducted Mini-Split Heat Pump(s)

# 10.7.1 Residential Ductless Heat Pumps

- BPA removed the requirement that DHPs be installed by a HVAC company listed on the Northwest Ductless Heat Pump Installer [GoingDuctless.com](http://GoingDuctless.com) website.
  - BPA no longer distinguishes between single-head and multi-head installations. The Northwest Ductless Heat Pump installer website promotes single-head applications of DHPs
  - BPA will continue to coordinate with NEEA on DHP offerings
- The DHP must be installed by a licensed contractor. Use the COTR Request and Acknowledgment Procedure for a partial self-install; these will only be considered when a contractor has installed the fittings and refrigerant.

# 10.7.1 Residential Ductless Heat Pumps

Clarification - Variable Refrigerant Flow (VRF) technologies (also known as VRV) do not qualify for the residential Ductless Heat Pump measures.

- BPA understands that the cost and energy savings for VRFs differ significantly from a standard residential ASHP or VSHP configuration.
- This information was previously included in the DHP Qualified Applications List and has been incorporated into the Implementation Manual.



# 10.7.1.1 Ductless and Ducted Mini-Split Heat Pump(s)

- In *new* single-family homes, DHP energy savings:
  - Declined in ID, MT, NV, WY and CA
  - Increased in Oregon
- Incentive payments converged at \$500
  - **Note:** this measure is not available for new single-family homes in Washington
  - Updated energy savings and incentive payments reflect new energy savings adopted by the RTF

# 10.7.1.1 Ductless and Ducted Mini-Split Heat Pump(s)

- Energy savings and incentive payments declined in existing single family homes and both new and existing manufactured homes with electric forced-air furnaces
  - Incentive payments reduced from \$1,000 to \$800
  - Updated energy savings and incentive payments reflect new energy savings adopted by the Regional Technical Forum

# 10.7.1.1 Ductless and Ducted Mini-Split Heat Pump(s)

- *New single-family homes in Oregon: DHP installations require documentation that a high efficiency water heater is installed in order to qualify for incentive payment*
  - This new requirement will be included on the updated DHP Project Information Form (PIF)
  - Why? Oregon building code requires either a DHP or a high efficiency water heater in new single-family homes. BPA incentives can not be used to meet building code requirements.

**Questions?**

# **PTCS Ducted Heat Pumps and Duct Sealing**

Gary Smith, Program Manager

Maitri Dirmeyer, Program Support Specialist

## 10.7.2 PTCS

The PTCS section has been reorganized and re-written to improve clarity and better align the measure suite. Each measure has been separated into individual sections:

- 10.7.2.1 Air Source Heat Pumps
- 10.7.2.2 Variable Speed Heat Pumps
- 10.7.2.3 Commissioning, Controls and Sizing
- 10.7.2.4 Ground Source Heat Pumps
- 10.7.2.5 PTCS Duct Sealing
- 10.7.3 Prescriptive Duct Sealing

## **10.7.2.1 & 10.7.2.2 Performance Tested Comfort Systems (PTCS) Air Source Heat Pumps (ASHPs) and Variable Speed Heat Pumps (VSHPs)**

Clarified that in single-family new construction, PTCS heat pump installations qualify for the “upgrade” measure only.

## 10.7.2.1 & 10.7.2.2 Performance Tested Comfort Systems (PTCS) Air Source Heat Pumps (ASHPs) and Variable Speed Heat Pumps (VSHPs)

- Clarified that when replacing a PTCS air source or variable speed heat pump that is no longer functioning with a new PTCS heat pump, the “upgrade” measure should be used.
- Clarified what measure should be used when replacing an ASHP with a PTCS ASHP
  - A non-PTCS ASHP being replaced with a PTCS ASHP is an **upgrade**
  - A PTCS ASHP being replaced with a PTCS ASHP is an **upgrade**



## **10.7.2.1 & 10.7.2.2 Performance Tested Comfort Systems (PTCS) Air Source Heat Pumps (ASHPs) and Variable Speed Heat Pumps (VSHPs)**

- Clarifying - At this time Variable Refrigerant Flow (VRF) technologies (also known as VRV) do not qualify for the residential ASHP or VSHP measures.
- Why? BPA understands that the cost and energy savings for VRFs differ significantly from a standard residential ASHP or VSHP configuration.

## **10.7.2.2 PTCS VSHPs**

Clarified that Variable Speed Air Source Heat Pumps must be 9.0 HSPF or higher.

# **10.7.2.4 PTCS Ground Source Heat Pump**

BPA clarified that PTCS Ground Source Heat Pumps installed in new construction single family homes qualify for the upgrade measure.

# 10.7.2.4 PTCS Ground Source Heat Pump

BPA clarified the following items for the “compressor only” replacement measure:

- \$500 payment
- Loop design documentation is not required for the “compressor only” replacement measure.  
Note: Heat load/ heat loss calculation and balance point worksheet are still required.

# 10.7.2.5 & 10.7.3 PTCS & Prescriptive Duct Sealing

For single-family: savings changed slightly to align with recent RTF changes

- Heating Zone 1 savings increased slightly
- Heating Zones 2 and 3 savings decreased slightly
- Payments did not change

# 10.7.3 Prescriptive Duct Sealing

Online PTCS Registry entry is no longer required for Prescriptive Duct Sealing installation information

- Instead, utilities will be required to keep the Prescriptive Duct Sealing Installation Form in the customer file

Note:

- Utilities may still use the registry but must also print the report for the customer file
- For PTCS Duct Sealing, project information will still be required to be entered to the Online Registry.

**Questions?**

# **Thermostats, NEEM, New Construction and Montana House**

Jess Kincaid, Residential Sector Lead

Maitri Dirmeyer, Program Support Specialist



## **10.8.2 Advanced Smart Thermostats – BPA-Qualified**

Renamed the measure “Advanced Smart Thermostats” to clarify that the requirements are more stringent than for standard “smart thermostats”

Corrected IM to include required specification that Smart Thermostats must have occupancy detection set to on in order to qualify for payments

# **10.9.1 Northwest Energy Efficient Manufactured Housing (NEEM 1.1 and NEEM 2.0)**

To respond to RTF measure changes:

- Energy savings declined slightly
- Measure structure changed from current structure which uses specific heating types, to an "any electric"
- Payments did not change

# **10.9.3 – 10.9.6 All Single Family and Multifamily New Construction measures**

Clarified that the permit date is the date to be used to determine code compliance for single family and multifamily new construction measures

# **10.9.3 – 10.9.6 All Single Family and Multifamily New Construction measures**

Clarified that either whole home package measures may be claimed, or stand alone measures, not both for new construction

## 10.9.4 Montana House

- BPA adopted RTF changes to the Montana House measure, including:
  - SEEM and Montana Building Code updates
  - No longer having measure identifiers by cooling zone
  - Collapsing vented and unvented crawlspace measures into a single measure
  - Adding Montana House measures for Idaho, Wyoming and Nevada designated "Montana House Single Family . . . ID/ WY/ NV"
- Note: energy savings changes were significant in some cases

**Questions?**

# Weatherization

Paul Hawkins, Program Support Specialist

# 10.10 Weatherization

BPA developed and incorporated a Measure Eligibility Table for Residential Weatherization measures to outline eligibility based on home and heat type

Primary Residential Heating System	Home Type				
	Single Family: Existing	Single Family: New	Manufactured: Existing*	Manufactured: New	Multifamily: Existing*
Electric Forced- Air Furnace	Eligible	Not eligible	Eligible	Not eligible	Eligible
Ducted Heat Pump	Eligible		Eligible		Eligible
Ductless Mini-Split Heat Pump	Eligible		Eligible		Eligible
Zonal (Electric)	Eligible		Eligible		Eligible
Wood or Pellet Stove	Eligible when accompanied by any electric heating system		Eligible when accompanied by any electric heating system		Eligible when accompanied by any electric heating system
Oil/Gas/Propane	Eligible as supplementary heat for a heat pump system.  Eligible if accompanied by an electric heat system, however, the nonelectric heating system must be decommissioned.		Eligible as supplementary heat for a heat pump system.  Eligible if accompanied by an electric heat system, however, the nonelectric heating system must be decommissioned.		Eligible as supplementary heat for a heat pump system.  Eligible if accompanied by an electric heat system, however, the nonelectric heating system must be decommissioned.
None existing	Not eligible		Not eligible		Not eligible



# 10.10 Weatherization

BPA clarified eligible primary heating systems for Weatherization.

- Clarification that a wood furnace as a primary heating system does not need to be decommissioned and removed when accompanied by an electric heat system
- Clarification that a propane furnace as a primary heating system that accompanies an electric heat system must be removed and decommissioned for the home to qualify for weatherization measures
- This requirement ensures energy savings over the life of weatherization measures
- See section 10.10, sub-bullet 4

# 10.10 Weatherization

BPA introduced an *optional* weatherization data collection form to clarify measure requirements and provide a documentation checklist. This form is available in the IM document library.

# 10.10 Weatherization

Energy savings changes for low-rise multifamily:

- BPA incorporated an RTF update that corrected a SEEM error
- Energy Savings in low-rise multifamily buildings increased slightly for Floor and Wall Insulation, Exterior Insulated Doors, Low-E Storm Windows, and Single Pane Prime Window and Patio Door Replacement
- Energy Savings in low-rise multifamily buildings decreased slightly for Attic Insulation and Double Pane Prime Window and Patio Door Replacement

# 10.10.1 Insulation

BPA tripled most incentive payments for attic, floor, and wall insulation when reported with the “Any Electric” heat type.

- Applies to single-family, manufactured and multifamily
- Payments increased to three times the current “Any Electric” payments **except** for the following measures which are closer to two times current payments due to incremental cost limitations:
  - Single Family Attic
    - From R-0 to R-38
    - From R-0 to R-49
  - Single Family and Multifamily Wall
    - From R-0 to R-11

# 10.10.1 Insulation

Clarification: The sloped surface of an A-frame home should be insulated and invoiced as an unvented attic

- For more detail, refer to section 4.6 Unvented Attics in the BPA Residential Weatherization Specifications

## 10.10.2 Prime Window & Patio Door Replacement

BPA doubled incentive payments for prime window and patio door replacement when reported with the “Any Electric” heat type.

- Applies to single-family, manufactured and multifamily
- Note: BPA may need to reduce payments for prime windows if future evaluation results demonstrate lower energy savings
- Note: payments did NOT change for 10.10.3 Low-E Storm Windows

## 10.10.3 Low-E Storm Windows

All Low-E Storm Windows must be ENERGY STAR certified to qualify for BPA incentives

- BPA discontinued the former storm window specification and QPL and will instead utilize the new ENERGY STAR Storm Window Certification
- BPA expects that all products on the current QPL will qualify for ENERGY STAR certification
- A copy of the ENERGY STAR product list showing the product or the product information insert or packaging that includes the ENERGY STAR logo is required in the customer file

# 10.10.4 Exterior Insulated Doors

- BPA published ENERGY STAR U-value requirements for exterior insulated doors in the Implementation Manual. Customers may still follow the ENERGY STAR list.
- In the customer file, utilities must document:
  - Proof of the ENERGY STAR certification, **OR**
  - Proof that doors meet U-value requirements:

Exterior Insulated Doors		
Glazing Level	U-Factor	Solar Heat Gain Coefficient
Opaque	≤ 0.17	No Rating
≤ ½-Lite	≤ 0.25	≤ 0.25
>½-Lite	≤ 0.30	≤ 0.40



# 10.10.7 Low-Income Energy Efficiency Measures

BPA updated this measure name from *Low Income Weatherization, Ductless Heat Pumps and Duct Sealing* to *Low-Income Energy Efficiency Measures*.

- The new measure name more accurately describes BPA's low income energy efficiency offerings.

For Low E Storm Windows, BPA requires a copy of the ENERGY STAR product list showing the product or the product information insert or packaging that includes the ENERGY STAR logo in the customer file

**Questions?**

**Thank you  
for your time**

[www.bpa.gov/goto/ImplementationManual](http://www.bpa.gov/goto/ImplementationManual)

