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# 2019 Home Rebates Guidelines Single Upgrade & Multiple Upgrades

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**2019 Home Rebates Guidelines**

PSO Home Rebates provide up to \$5,000 per home for efficiency upgrades installed between February 1, 2019, and December 31, 2019, or until funds are exhausted.

Upgrades		Single Upgrade Rebates	Multiple Upgrades Rebates
HVAC	Air Conditioner/Heat Pump Replacement <sup>1</sup>		
	ENERGY STAR SEER 16 – 16.99	\$500	\$750
	ENERGY STAR SEER 17 – 17.99	\$550	\$825
	ENERGY STAR SEER 18 – 19.99	\$600	\$900
	ENERGY STAR SEER 20+	\$800	\$1200
	Ground Source Heat Pump	\$800 + \$350 per ton	\$1200 + \$525 per ton
	Furnace Electronically Commutated Motor (ECM)	Not Eligible	\$25
	Duct Sealing <sup>2</sup>	Not Eligible	1.5 ton – 2 ton: \$500 2.5 – 3 ton: \$600 3.5 ton – 4 ton: \$700 4.5 - 5 ton: \$800
	Duct Replacement <sup>2</sup>	Not Eligible	1.5 ton – 2 ton: \$1,000 2.5 – 3 ton: \$1,200 3.5 ton – 4 ton: \$1,400 4.5 - 5 ton: \$1,600
Pool Pump	ENERGY STAR Certified Pool Pump Replacement	\$400	Not eligible
Insulation	Attic/Ceiling Insulation (R-22 or less existing)	\$400	\$600
	Knee Wall Insulation <sup>2</sup>	Not Eligible	\$525
	Wall Insulation (R-0 existing) <sup>2</sup>	Not Eligible	\$450
	Floor/Crawlspace Insulation (R-0 existing) <sup>2</sup>	Not Eligible	\$450
Air Sealing	Air Infiltration 20% Reduction <sup>2</sup>	Not Eligible	\$500
	Air Infiltration 10% - 19.99% Reduction <sup>2</sup>		\$150
<sup>1</sup> HVAC replacement in Multiple Upgrades must be combined with Duct Sealing or Replacement for that system			
<sup>2</sup> Multiple Upgrades requires a minimum of three measures and mandatory third-party verification. Testing fees are deducted from final rebate payment to Service Provider.			Test-In Fee \$150 Test-Out Fee \$150 Re-test/Visual Insp \$150



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## Eligibility Guidelines

PSO is sponsoring a U.S. Department of Energy Home Performance with ENERGY STAR® Program. This aligns you, homeowners and PSO's objective to reduce energy and costs while developing a new, profitable, and differentiated line of business for participating Service Providers.

### **The following rules, conditions and limitations apply to rebates paid under this service:**

- This service runs through December 31, 2019, or until funds are exhausted.
- PSO customers can qualify for rebates of up to \$5,000 per home.
- Homes must be located within the PSO electric service territory, have a valid PSO meter number or account number and proposed upgrades have not been previously incentivized by a PSO energy efficiency service.
- Mobile Homes, Manufactured Homes, New Construction, and Multifamily installations do not qualify.
- Upgrades must be installed and verified to meet guidelines.
- Rebates can be submitted for payment only after project completion.
- Payments to Service Providers are processed within three to four weeks of application approval.
- Rebates may not exceed the value of installed upgrades (individually or collectively).
- More than one upgrade can be installed in a home and still qualify as a Single Upgrade project.

### **Additional Multiple Upgrades Eligibility Guidelines**

- Projects must be completed prior to December 31, 2019 or before funds exhausted deadline; at least three (3) eligible energy efficiency upgrades must be installed to qualify for the Multiple Upgrades Rebate levels.
- Multiple Upgrades projects with HVAC equipment replacement must include duct sealing or duct replacement on the system being replaced.
- Pre-existing conditions must be verified according to established eligibility guidelines. Rebates for upgrades requiring performance testing are contingent upon a complete home performance energy assessment pre and post diagnostic testing, Beacon models, submitted and approved scopes of work and eligibility pre-approval.
- A \$150 test-in fee and \$150 test-out fee (\$300 total) will be deducted from the final rebate amount paid to the Service Provider. Should a project be cancelled after a test-in has been performed, the Service Provider is responsible for paying the full \$300 test amount to PSO/ICF.
- A retest fee of \$150 will be deducted from the final rebate amount paid to the Service Provider for any retest and/or visual re-inspection of failed upgrades.
- Service Providers have seven (7) calendar days to correct a failed upgrade(s) and submit for re-test. If re-test request is not received within seven (7) calendar days, or if the upgrade(s) fails twice in a row, the Service Provider will forfeit the rebate for the failed upgrade(s). At our discretion or upon homeowner request we will hire another Service Provider to correct the failed upgrade(s).
- All projects must be completed (rebates paid) within 60 days of the signature date on the Homeowner Participation Agreement. Projects that have reached 45 days without a test-out audit request will automatically be cancelled unless an exception has been granted and documented in the project's notes by the TPV or Account Manager.

## Single Upgrade Submittal Process

**All projects must be submitted through the Power Rebate mobile application.** Location services must be enabled on the mobile device and all photos must be geotagged.

## Multiple Upgrades Submittal Process

**All projects must be submitted through the TPV inspection request system.**



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### Air Conditioner and Heat Pump Replacement Guidelines

- Rebates are for system replacements only; new construction system installations are not eligible.
- Existing systems must meet one of the following: 12 SEER or lower, failed, or 8+ years old.
- Replacement systems may not exceed the tonnage size of the removed equipment. Exception is granted for a half-ton increase for variable speed equipment.
- Central air conditioning and heat pump systems must be 65,000 Btu/h or less.
- Equipment must be installed per the manufacturer’s guidelines and according to building code.
- Equipment must surpass current minimum ENERGY STAR SEER and EER ratings.
- All units must have AHRI verified equipment or ratings verifiable at: [www.ahridirectory.org](http://www.ahridirectory.org)
- HVAC fuel switching (e.g. converting from a gas to electric furnace) installations are not eligible (exceptions are ground source heat pumps and other renewable energy equipment).
- Multiple Upgrades HVAC replacement must include duct sealing or duct replacement on the system being replaced. Duct systems testing “too tight” to qualify for the rebates are exempt from this requirement but projects must still include a minimum of three measures.

We recommend using industry best practices when designing and installing new HVAC systems, including ACCA Manual J for proper load sizing and meeting manufacturer static pressure guidelines.

Minimum Requirements - Central Air Conditioners & Air Source Heat Pumps				
Product Type	SEER	EER	HSPF	Additional Requirements
Split System	≥ 16.0	≥ 12.5	≥ 8.5	Must be a matched set, documented by an AHRI number
Package System	≥ 16.0	≥ 12.0	≥ 8.2	Gas/electric package units and all electric package units

Rebates – Central Air Conditioners & Air Source Heat Pumps					
SEER	16-16.99	17-17.99	18-19.99	20+	ECM
Single Upgrade	\$500	\$550	\$600	\$800	Not Eligible
Multiple Upgrades	\$750	\$825	\$900	\$1200	\$25

Minimum Requirements – Ground Source Heat Pumps		
Product Type	EER	COP
Closed Loop Water-to-Air	17.1	3.6
Open Loop Water-to-Air	21.1	4.1
Closed Loop Water-to-Water	16.1	3.1
Open Loop Water-to-Water	20.1	3.5
Direct Geo Exchange (DGX)	16.0	3.6
Multistage equipment must use the full-load EER and COP to meet the minimum criteria.		

Rebates - Ground Source Heat Pumps	
Single Upgrade	\$800 + \$350 per ton
Multiple Upgrades	\$1200 + \$525 per ton



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### Duct Sealing and Replacement Guidelines

- Equipment must be installed per the manufacturer’s guidelines and according to building code.
- Mastic should be used to seal all joints and plenums and using a non-hardening putty (such as Mortite or Thumb Gum) to seal serviceable cabinet penetrations for wiring, condensate drains and refrigerant lines
- Adhesive backed cloth duct tape is not allowed
- CFM leakage to outside will be measured with duct blaster equipment using BPI standards
- CFM is calculated based on assumption of 400 CFM per ton
- Post (test-out) qualifying CFM leakage and rebate amount is based on size of the new replacement unit, not the size of the existing removed unit.
- Duct upgrades require a minimum of 20% total pre leakage. Ducts testing less than 20% but more than 100 CFM may be allowed to participate on an exception basis. The target test-out CFM leakage will be 50% reduction. The exact test-out CFM target will be provided by the TPV at the time the exception is granted.
- Duct systems that test-in with a pre-leakage number less than 100 CFM are not eligible.
- Duct sealing test-out must achieve 15% of fan flow leakage or better.
- Duct replacement test-out must achieve 10% of fan flow leakage or better.

Duct Sealing				Duct Replacement			
Tonnage of HVAC Unit	Minimum Pre Total (CFM)	Maximum Post Total (CFM)	Rebate Amount	Tonnage of HVAC Unit	Minimum Pre Total (CFM)	Maximum Post Total (CFM)	Rebate Amount
1.5	120	90	\$500	1.5	120	60	\$1,000
2.0	160	120	\$500	2.0	160	80	\$1,000
2.5	200	150	\$600	2.5	200	100	\$1,200
3.0	240	180	\$600	3.0	240	120	\$1,200
3.5	280	210	\$700	3.5	280	140	\$1,400
4.0	320	240	\$700	4.0	320	160	\$1,400
4.5	360	270	\$800	4.5	360	180	\$1,600
5.0	400	300	\$800	5.0	400	200	\$1,600

### Ducts in Slab Foundations

- All duct systems installed in slab foundations must meet the same pre-leakage and post-leakage rates listed above for rebate eligibility.
- Retaining any slab ducts will qualify for Duct Sealing rebates.
- Removing all slab ducts and moving them to the attic will qualify for Duct Replacement rebates.

PSO’s preference would be to replace deteriorated, improperly designed, improperly sized or poorly installed ducts that cannot be successfully repaired with approved duct sealing methods. We recommend using industry best practices when designing and installing new HVAC systems, including ACCA Manual J for proper load sizing, ACCA Manual D for duct sizing and meeting manufacturer static pressure guidelines.



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## Air Infiltration Guidelines

- Air infiltration will be measured using Building Performance Institute (BPI) standards
- Air infiltration upgrades should be permanent solutions.
  - Examples of material and strategies that are prohibited include (but not limited to) peel and stick weather-stripping and taped or Velcro covers for whole house fans.
- To claim Air Infiltration, a minimum of two (2) or more of the following prescriptive upgrades must be completed:
  - Seal attic hatch and scuttle openings in conditioned space
  - Seal/caulk around all ceiling fixtures, all plumbing penetrations and breaker boxes
  - Repair/patch holes in dry wall
  - Replace door weather stripping, add door sweeps and seal thresholds
  - Caulk/seal around windows and door assemblies on the interior and exterior
  - Insulation gaskets installed to light switches/receptacles
  - Seal heater/domestic hot water closet in conditioned space
  - Seal top plate penetrations
  - Seal can lights or replace with sealed units
  - Add attic fan cover or remove attic fan
  - Seal around the fireplace and mantel
  - Seal attic bypasses and fur downs

It is recommended to target an optimal .35 air changes per hour (ACH). Homes below 0.35 ACH will be encouraged to add mechanical ventilation according to the ASHRAE 62.2 standard. Homes that test in below .35 ACH are not eligible for an air infiltration rebate.

## Combustion Appliance Zone (CAZ) Guidelines

When air sealing is performed and CAZ is located in conditioned space, the following requirements must be completed:

- Isolate the CAZ from conditioned space
  - Weatherstrip/jamb-up/door sweep the mechanical room door to stop air-infiltration
  - Seal CAZ penetrations that leak directly into conditioned space
  - Outside sourced combustion air must meet building code requirements
- A carbon monoxide alarm(s) must be installed outside each separate sleeping area in the immediate vicinity of the bedrooms.
  - CO alarm must be Underwriters Laboratory (UL) listed
  - If the carbon monoxide alarm is not installed at the time of final test-out, the TPV will install the detector and a \$30 per alarm fee will be deducted from the Service Provider's final rebate



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## Insulation Guidelines

- Insulation rebates are only available for homes with existing central AC or heat pumps. Homes with only window units and/or floor furnaces do not qualify for insulation rebates.
- Existing attic insulation must be R-22 or less to qualify
- Final attic insulation must be R-38 minimum
- Foam insulation is only available as a Multiple Upgrade rebate

Equivalent Inches to Meet Maximum Existing R-22 Value		
Material	R-Value Per Inch	Existing Inches
Blown-In Fiberglass	2.8	7 inches or less
Cellulose	3.7	6 inches or less
Rockwool	2.8	7 inches or less
Open Cell Foam	3.7	0 inches
Closed Cell Foam	6.0	0 inches

## Attic Floor Insulation

- Attic floor area must be a minimum 500 square feet
- New insulation must be a blown material (new batts are not allowed). Install blown insulation at appropriate air pressure and material quantity to ensure complete coverage of the entire ceiling plane, and manufacturer’s recommended density to achieve a uniform R-38 minimum.
- Rulers must be installed in a visible location, one for every 300 sq.ft. of attic area or more frequent if required by building code.
- All attic accesses and open areas above the furnace or water heater closets must have insulation dams installed to prevent insulation from falling through the attic access.
- Where soffit vents are present and access is viable, appropriate blocking or baffles are required to provide protection from wind-washing where insulation exists.
- Insulation may not be installed in areas of homes where live knob and tube wiring exists.

## Attic Walls (Knee Wall, Hot Wall, Pony Wall) Insulation – Multiple Upgrades Only

- Attic wall must have R-11 or less existing condition to qualify
- Attic wall area must be a minimum of 75 square feet
- Insulate cavities to R-19 with spray foam and cover all framing members.
- All open cavities at the bottom of the wall must be blocked for air infiltration.

## Wall Insulation – Multiple Upgrades Only

- Minimum 500 square feet
- Walls must have R-0 existing condition to qualify
- Insulate 2x4 cavities to R-13 with spray foam and 2x6 cavities to R-21 spray foam

## Spray Foam Attic – Multiple Upgrades Only

- Entire attic must be remediated; foam attic and knee-wall rebates cannot be combined.
- Foam must fully cover the roof rafters with a minimum of one inch on and around the rafters.
- Duct upgrades cannot be claimed for rebates when attic encapsulation is performed.
- Cavities must meet R-21 minimum.
- Existing fiberglass/cellulose insulation on the floor must be removed.
- All exhaust fans and combustion intakes must be ducted and terminate outside (not attic space).
- **Natural draft space or water heating equipment is not allowed in unvented attics.**
- All equipment must be fully sealed combustion with intakes and exhaust vented to the outside.

## ***Insulation Guidelines Continued***

### **Crawl space - Multiple Upgrades only**

#### ***Required crawl space under floors application***

- Crawlspace must have R-0 existing condition to qualify
- Crawlspace must be sprayed with closed cell foam
- The crawlspace floor must have a minimum of 2.25 inches installed.
- All of the framing members must be completely covered with a minimum of 2.25 inches.
- Maintain 24-inch clearance to ground

#### ***Required crawl space walls application***

- The vapor barrier that is installed must achieve a 0 Perm rating.
- The vapor barrier must be installed to manufacturer's specifications.
- The vapor barrier must overlap a minimum of 12 inches and sealed at the seams with an approved material for that product.
- The vapor barrier must be adhered to the walls of the crawlspace a minimum of two feet up the wall and framing pillars.
- A minimum of 2.25 inches of closed cell foam must be applied or 2.25 inches of polystyrene sheets mechanically attached to the crawl space walls. The proper heights at the top and bottom must be determined to allow for insect inspection and drainage issues.
- A drain must be installed in the crawlspace to the outside for condensation and other moisture that gathers on top of the vapor barrier.

## **ENERGY STAR certified Pool Pump Guidelines**

- The new pool pump must be fully variable speed and replace an existing single speed pool pump (new construction is not eligible).
- PSO rebates are available for only one primary pump per pool. Pumps for fountains, spas, water features or other auxiliary pumps are not eligible.
- The pool pump must be ENERGY STAR certified and listed on the ENERGY STAR certified products list (found at <https://www.energystar.gov/productfinder/product/certified-pool-pumps/results>).
- The new pool pump must also be equipped with a timed control system and scheduled for optimal energy efficiency. For most pools, the pump should be scheduled to clean at full speed for a total of two hours per day and at low speed the remainder of the time.
- The timer control schedule must be programmed by a participating PSO Service Provider.