

Heating, Ventilation & Air Conditioning Equipment

Rocky Mountain Power provides incentives for many types of energy efficient technologies. Please read the following sections carefully to ensure that you follow the appropriate steps for securing your incentive.

Incentives for additional measures may be available. For more information about the FinAnswer Express program, eligibility requirements, incentive levels or other general inquiries, contact your local equipment dealer or Rocky Mountain Power. You can visit the program website at rockymountainpower.net/wattsmart and submit your inquiry online, or you can call our **energy services hotline** at 1-800-222-4335.

HEATING VENTILATION AND AIR CONDITIONING (HVAC)

Measure Description: High-efficiency cooling equipment can significantly reduce annual energy costs compared to standard-efficiency units. Incentives are available for high-efficiency air conditioning, heat pump and evaporative cooling equipment.

Applicability: New construction and retrofit installations are eligible.

Equipment Eligibility: Equipment must be purchased and installed, and meet all other program terms and conditions.

- Incentives for qualifying Room Air Conditioners, Ground-Source or Groundwater-Source Heat Pumps and Loops are available only if purchased and installed on or after October 1, 2011.
- Incentives of \$75/ton and \$100/ton for unitary air conditioning/heat pump equipment and incentives of \$0.06/cfm for evaporative cooling are only available for equipment purchased and installed on or after October 1, 2011.
- Incentives may be available for equipment purchased prior to October 1, 2011. For incentive information regarding equipment purchased prior to October 1, 2011 please call our energy services hotline at 1-800-222-4335.

Incentives are available for equipment meeting or exceeding the efficiency requirements listed in Tables 1, 2, and 3. Efficiency ratings will be determined by the applicable AHRI Standard and reported in the AHRI Directory of Certified Equipment (except evaporative equipment).

This directory is available at www.ahridirectory.org

Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives. Packaged Terminal Heat Pumps (PTHPs) can replace electric resistive heating; however, in such cases, electric resistive heating must be removed.

Items to submit with application:

1. Dated sales receipt/invoice with install date and retailer/contractor name, address and phone number
2. AHRI certificate or other manufacturer information documenting the efficiency and capacity of the equipment.
3. A current copy of the Rocky Mountain Power utility bill for the address where the item(s) are installed.

Prequalification Required? No.

Table 1. Air-Cooled A/C Efficiency Requirements, Incentive Levels, & Equipment Codes

| Equipment Type | Size Category | Sub-Category | Minimum Efficiency Requirement(s) & Customer Incentive | | |
|--|--|------------------------------------|--|---|---|
| | | | \$50/ton | \$75/ton* | \$100/ton* |
| Unitary Commercial Air Conditioners, Air-Cooled | < 65,000 Btu/hr (single phase) | Split system and single package | 15.0 SEER 12.5 EER | -- | -- |
| | < 65,000 Btu/hr (three phase) | Split system and single package | -- | 14.0 SEER 11.6 EER | 15.0 SEER 12.0 EER |
| | ≥ 65,000 Btu/hr and < 135,000 Btu/hr | Split system and single package | -- | 11.5 EER and either 11.9 IPLV or 11.7 IEER | 12.0 EER and either 12.4 IPLV or 12.2 IEER |
| | ≥ 135,000 Btu/hr and < 240,000 Btu/hr | Split system and single package | -- | 11.5 EER and either 11.9 IPLV or 11.7 IEER | 12.0 EER and either 12.4 IPLV or 12.2 IEER |
| | ≥ 240,000 Btu/hr and < 760,000 Btu/hr | Split system and single package | -- | 10.5 EER and either 10.9 IPLV or 10.7 IEER | 10.8 EER and either 12.0 IPLV or 11.0 IEER |
| | ≥ 760,000 Btu/hr | Split system and single package | -- | 9.7 EER and either 11.0 IPLV or 9.9 IEER | 10.2 EER and either 11.0 IPLV or 10.4 IEER |

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for an incentive. Equipment must meet both listed efficiency requirements to qualify for incentives.
2. Equipment size categories and capacities are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units <65,000 Btu/hr, AHRI Standard 340/360 for units ≥65,000 Btu/hr, and AHRI Standard 310/380 for PTAC and PTHP units.

* Equipment must be purchased and installed on or after October 1, 2011 to qualify for this incentive.

EER = Energy Efficiency Ratio

SEER = Seasonal Energy Efficiency Ratio

IPLV = Integrated Part Load Value

IEER = Integrated Energy Efficiency Ratio

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive</u> |
|-----------------------|-------------------------------|------------------|
| HVCSA1 | Single phase split system A/C | See Table 1 |
| HVCPA1 | Single phase packaged A/C | See Table 1 |
| HVCSA3 | Three phase split system A/C | See Table 1 |
| HVCPA3 | Three phase packaged A/C | See Table 1 |

Table 2. Air-Cooled Heat Pump Efficiency Requirements, Incentive Levels, & Equipment Codes

| Equipment Type | Size Category | Sub-Category | Minimum Efficiency Requirement(s) & Customer Incentive | | |
|---|--|---------------------------------|--|---|---|
| | | | \$50/ton | \$75/ton* | \$100/ton* |
| Heat Pumps, Air-Cooled (Cooling Mode) | < 65,000 Btu/hr (single phase) | Split system and single package | 15.0 SEER 12.5 EER | -- | -- |
| | < 65,000 Btu/hr (three phase) | Split system and single package | -- | 14.0 SEER 11.6 EER | 15.0 SEER 12.0 EER |
| | ≥ 65,000 Btu/hr and < 135,000 Btu/hr | Split system and single package | -- | 11.5 EER and either 11.9 IPLV or 11.7 IEER | 12.0 EER and either 12.4 IPLV or 12.2 IEER |
| | ≥ 135,000 Btu/hr and < 240,000 Btu/hr | Split system and single package | -- | 11.5 EER and either 11.9 IPLV or 11.7 IEER | 12.0 EER and either 12.4 IPLV or 12.2 IEER |
| | ≥ 240,000 Btu/hr | Split system and single package | -- | 10.5 EER and either 10.9 IPLV or 10.7 IEER | 10.8 EER and either 12.0 IPLV or 11.0 IEER |
| Heat Pumps, Air-Cooled (Heating Mode) (See Note 2) | < 65,000 Btu/hr (single phase) | Split system | 8.5 HSPF | -- | -- |
| | | Single package | 8.0 HSPF | -- | -- |
| | < 65,000 Btu/hr (three phase) | Split system | -- | 8.5 HSPF | 9.0 HSPF |
| | | Single package | -- | 8.0 HSPF | 8.5 HSPF |
| | ≥ 65,000 Btu/hr and < 135,000 Btu/hr | 47°F db/43°F wb outdoor air | -- | 3.4 COP | |
| | | 17°F db/15°F wb outdoor air | -- | 2.4 COP | |
| | ≥ 135,000 Btu/hr | 47°F db/43°F wb outdoor air | -- | 3.2 COP | |
| | | 17°F db/15°F wb outdoor air | -- | 2.1 COP | |

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for an incentive. Equipment must meet both listed efficiency requirements to qualify for incentives.
2. Incentives for heat pumps are \$50-\$100 per ton of **cooling** capacity ONLY. No incentives are paid per ton of heating capacity. Heat pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
3. Equipment size categories and capacities are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units < 65,000 btu/hr, AHRI Standard 340/360 for units ≥ 65,000 btu/hr, and AHRI Standard 310/380 for PTAC/PTHP units.

* Equipment must be purchased and installed on or after October 1, 2011 to qualify for this incentive.

EER = Energy Efficiency Ratio
SEER = Seasonal Energy Efficiency Ratio
IPLV = Integrated Part Load Value
IEER = Integrated Energy Efficiency Ratio
HSPF = Heating Seasonal Performance Factor
COP = Coefficient of Performance

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive</u> |
|-----------------------|------------------------------|------------------|
| HVCSH1 | Single phase split system HP | See Table 2 |
| HVCPH1 | Single phase packaged HP | See Table 2 |
| HVCSH3 | Three phase split system HP | See Table 2 |
| HVCPH3 | Three phase packaged HP | See Table 2 |

Table 3. Other HVAC Equipment Efficiency Requirements, Incentive Levels, & Equipment Codes

| Equipment Type | Equipment Code | Size Category | Sub-Category | Minimum Efficiency Requirement(s) | Customer Incentive |
|--|----------------|-------------------------------------|---------------------------------|---|--------------------|
| Unitary Commercial Air Conditioners, Water and Evaporatively Cooled | HVCUWC | All Sizes | Split system and single package | 14.0 EER | \$50 / ton |
| Package Terminal Air Conditioners and Heat Pumps (PTAC/PTHP) (Heating & Cooling Mode) | HVCPTA (PTAC) | ≤ 8,000 Btu/hr | Single package | 11.8 EER (Cooling) 3.3 COP (Heating) | \$50 / ton |
| | | > 8,000 Btu/hr and < 10,500 Btu/hr | Single package | 11.4 EER (Cooling) 3.2 COP (Heating) | |
| | HVCPTH (PTHP) | ≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr | Single package | 10.7 EER (Cooling) 3.1 COP (Heating) | |
| | | > 13,500 Btu/hr | Single package | 10.0 EER (Cooling) 3.0 COP (Heating) | |
| Heat Pumps, Water-Source (See note 2) | HVCWSH | < 135,000 Btu/hr | 86°F Entering Water | 14.0 EER (Cooling Mode) | \$50 / ton |
| | | | 68°F Entering Water | 4.6 COP (Heating Mode) | |
| *Heat Pumps, Ground-source or Groundwater-source (Heating & Cooling Mode) – See Note 2 | HVCGSH | All sizes | 77° Entering Water | ENERGY STAR Qualified | \$50 / ton |
| *Evaporative Cooling | HVCEVP | All sizes | Direct or Indirect | Industry Standard Rating (ISR) | \$0.06/ ISR CFM |
| *Room Air Conditioner | RACRES | All sizes | Residential used in a business | ENERGY STAR Qualified | \$25 each |

| Equipment Type | Equipment Code | Size Category | Sub-Category | Customer Incentive |
|---|----------------|---------------|--------------|--------------------|
| *Ground-source or Groundwater-source Heat Pump Loop | HVCHPL | All Sizes | Open Loop | \$25/ton |
| | | | Closed Loop | |

- Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for an incentive. Equipment must meet both listed efficiency requirements to qualify for incentives.
- Incentives for heat pumps are \$50-\$100 per ton of **cooling** capacity ONLY. No incentives are paid per ton of heating capacity. Heat pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
- Equipment size categories and capacities are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units < 65,000 btu/hr, AHRI Standard 340/360 for units ≥ 65,000 btu/hr, and AHRI Standard 310/380 for PTAC/PTHP units.
- Ground and Water Source Heat Pumps must meet or exceed listed efficiency requirements when rated in accordance with ISO-13256-1 to qualify for an incentive.

* Equipment must be purchased and installed on or after October 1, 2011 to qualify for this incentive.

EER = Energy Efficiency Ratio
 COP = Coefficient of Performance
 PTAC = Packaged Terminal Air Conditioner
 PTHP = Packaged Terminal Heat Pump
 ISR = Industry Standard Rating

WATER-CHILLING EQUIPMENT

Measure Description: Water-chilling equipment (e.g., chillers) is commonly used to provide cooling for a variety of building types and process loads. Chillers come in many different types (centrifugal, rotary screw, scroll, and reciprocating) and typically reject heat either through air-cooled or water-cooled condensers. High efficiency chillers can yield significant energy cost savings compared to standard efficiency units.

Applicability: New construction and retrofit installations are eligible. Technical assistance and financial incentives for comprehensive chiller projects are also available through Rocky Mountain Power’s Energy FinAnswer program. For more information about Energy FinAnswer, contact Rocky Mountain Power or your vendor before purchasing your equipment.

Equipment Eligibility: Eligible chiller projects must meet the following requirements:

1. Chillers must exceed the minimum efficiency requirements per Table 4 below;
2. Chiller must not be a backup service unit;
3. IPLV ratings must account for Variable Frequency Drives (VFD) installed on the chiller compressor, if applicable;
4. Chiller loads must not be more than 20% process related;
5. Projects must not incorporate significant deviations from the standard chiller operational practices; (e.g., non-standard chilled water or condenser water set points, ice production during off peak hours, changes in chiller sequencing, etc.);
6. Equipment must be purchased and installed, and meet all other program terms and conditions.

Items to submit with application:

1. Dated sales receipt/invoice with install date and retailer/contractor name, address and phone number.
2. Manufacturer’s equipment specification sheet showing the unit’s Full Load and IPLV ratings and Net Cooling Capacity at AHRI rated conditions (AHRI Standard 550/590).
3. A completed copy of the Chiller Information Table, see Table 5 below.
4. A current copy of the Rocky Mountain Power utility bill for the address where the item(s) are installed.

Prequalification Required? Prequalification is recommended, but not required to receive incentives. Contact your vendor or Rocky Mountain Power for more information.

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive*</u> |
|-----------------------|----------------------------|----------------------|
| HVCCHL | Chiller | \$0.12/kWh + \$50/kW |

*To calculate the project savings and incentives, complete Table 5 and submit a copy with your application via e-mail to: wy.hvacr@rockymountainpower.net. Energy and demand savings are subject to Rocky Mountain Power approval.

Table 4. Chiller Minimum Efficiency Requirements

(IECC 2003 Table 803.3.2(2))

| Heat Rejection | Type | Size Category (tons) | IECC 2003 | |
|----------------|---------------------|----------------------|-------------|--------------|
| | | | Minimum COP | Minimum IPLV |
| Air cooled | Screw | < 150 | 2.80 | 2.80 |
| | | ≥ 150 | 2.50 | 2.50 |
| | Reciprocating | < 150 | 2.80 | 2.80 |
| | | ≥ 150 | 2.50 | 2.50 |
| Water cooled | Reciprocating | All capacities | 4.20 | 4.65 |
| | Rotary/Screw/Scroll | < 150 | 4.45 | 4.50 |
| | | ≥ 150 & < 300 | 4.90 | 4.95 |
| | | ≥ 300 | 5.50 | 5.60 |
| | Centrifugal | < 150 | 5.00 | 5.00 |
| | | ≥ 150 & < 300 | 5.55 | 5.55 |
| ≥ 300 | | 6.10 | 6.10 | |

Table 5. Chiller Information Table

(Submit copy of table with application)

| | | | |
|------------------------------------|---|---------------------|--------------|
| Customer | Customer Name | | |
| | Facility Address | | |
| | Facility City, State, Zip | | |
| | Rocky Mountain Power Account Number | | |
| | Rocky Mountain Power Rate Schedule | | |
| | Facility Type | | |
| Vendor | Company Name | | |
| | Company City | | |
| | Company Contact Name | | |
| Chiller data (see Notes) | Chiller is a Backup Service Unit | YES | NO |
| | Chiller Cost (\$) | | |
| | Cost Adder for Chiller | | |
| | Chiller Heat Rejection (circle one) | AIR | WATER |
| | Chiller Type (from Table 4) | | |
| | Does the Chiller Include a VFD (circle one)? | YES | NO |
| | *AHRI Chiller Capacity (tons) | | |
| | *AHRI Chiller Full Load (COP or kW/ton) | COP kW/ton | |
| *AHRI Chiller IPLV (kW/ton) | | | |

* Refer to cut sheets provided by chiller manufacturer for information on these parameters.

AHRI = Air-conditioning, Heating, and Refrigeration Institute

COP = Coefficient of Performance

IPLV = Integrated Part Load Value

INDIRECT-DIRECT EVAPORATIVE COOLING (IDEC)

Measure Description: Indirect-Direct Evaporative Cooling systems are integrated into air-handling units and use evaporative technologies instead of a chiller to provide cooling for buildings. Evaporative cooling systems work best in dry, arid climates and require much less energy than a chiller. Depending on the climate, IDEC systems can save considerable amounts of energy.

Applicability: New construction and retrofit installations are eligible.

Equipment Eligibility: Equipment must be purchased and installed on or after October 1, 2011, and meet all other program terms and conditions. IDEC systems must be designed as an integral component of the central air-handling unit and air-distribution system. All components must exceed minimum efficiencies required by International Energy Conservation Code 2003 (IECC 2003).

Customer will be required to submit the design parameters of the air-handling system (i.e. supply air flow/temperature, operating set points, fan/pump specifications) and the installed mechanical cooling system. Incentives for IDEC systems are calculated based on climate, building occupancy, and cooling system parameters.

Items to submit with application:

1. Dated sales receipt/invoice with install date and retailer/contractor name, address and phone number
2. Documentation of IDEC/air-handling unit system parameters, documented by specifying engineer in Table 6 below.
3. Manufacturer's equipment specification for the mechanical cooling system showing the unit's COP/EER and IPLV ratings at AHRI rated conditions.
4. IDEC calculator savings/incentive summary, supplied by Rocky Mountain Power.

Prequalification Required? No. Prequalification is recommended, but not required to receive incentives. Contact your vendor or Rocky Mountain Power for more information.

Note: Rocky Mountain Power has a calculation software tool available for vendors participating in our Energy Efficiency Alliance (EEA) to calculate project-specific energy savings, project economics, and eligible incentives for IDEC projects. Visit our website at rockymountainpower.net/wattsmart for a current list of participating vendors.

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive*</u> |
|-----------------------|-------------------------------------|----------------------|
| HVCIDC | Indirect-Direct Evaporative Cooling | \$0.12/kWh + \$50/kW |

*To calculate the project savings and incentives, contact Rocky Mountain Power on our energy services hotline at 1-800-222-4335 or via e-mail to: energy.expert@pacificorp.com. Energy and demand savings are subject to Rocky Mountain Power approval.

Table 6. Indirect-Direct Evaporative Cooling System Information Table
(Submit copy of table with application)

| | | | |
|---|---|-----------------------------|---------------|
| Customer | Customer Name | | |
| | Facility Address | | |
| | Facility City, State, Zip | | |
| | Rocky Mountain Power Account Number | | |
| | Rocky Mountain Power Rate Schedule | | |
| | Facility Type | | |
| IDECE Information (see Footnotes) | IDECE System Cost (\$) | | |
| | Direct Evaporative Installed? (circle one) | YES | NO |
| | Mechanical Cooling Installed? (circle one) | YES | NO |
| | <u>Type of Indirect Evaporative Cooling¹ (check one)?</u> | | |
| | <input type="checkbox"/> Air to Air Indirect (i.e. Crossflow Plate) | | |
| | <input type="checkbox"/> Coil to Coil Indirect (i.e. Heat Pipe) | | |
| | <input type="checkbox"/> Water Cooling Tower to Coil | | |
| | <input type="checkbox"/> None | | |
| Design Air Flow (CFM) | | | |
| Design Supply Air Temperature (°F) | | | |
| Supply Fan Horsepower | | | |
| Design Static Pressure (inches H ₂ O) | | | |
| Mechanical Cooling Information | <u>Proposed and/or Existing Type of Mechanical Cooling (check one)?</u> | | |
| | <input type="checkbox"/> Chilled Water Coil, Water Cooled | | |
| | <input type="checkbox"/> Chilled Water Coil, Air Cooled | | |
| | <input type="checkbox"/> DX Refrigerant Coil, Air Cooled | | |
| | <input type="checkbox"/> None | | |
| | AHRI Mechanical Cooling Nameplate Capacity ² | | tons BTU/hr |
| AHRI Mechanical Cooling Efficiency ² | | EER COP kW/ton | |
| AHRI Mechanical Cooling Part Load Rating ² | | IPLV SEER IEER kW/ton | |

¹For further information or descriptions of indirect evaporative stages, please consult the 2007 ASHRAE Handbook – HVAC Applications, Chapter 51.

²Refer to cut sheets provided by mechanical cooling system manufacturer for information on these parameters. Please circle the correct units associated with the values provided.

AHRI = Air-conditioning, Heating, and Refrigeration Institute

SEER = Seasonal Energy Efficiency Ratio

EER = Energy Efficiency Ratio

IEER = Integrated Energy Efficiency Ratio

COP = Coefficient of Performance

IPLV = Integrated Part Load Value

CFM = Cubic Feet per Minute

PORTABLE CLASSROOM CONTROL

Measure Description: 365/366-day programmable thermostats provide the capability to independently program occupied and unoccupied temperature set points for each day of the year. For portable classrooms unoccupied during summer months and occupied on fixed schedules the rest of the year, 365/366-day programmable thermostats reduce unnecessary heating and cooling during unoccupied periods and offer significant energy savings.

Applicability: New construction and retrofit installations that meet eligibility requirements may qualify for an incentive.

Equipment Eligibility: Equipment must be purchased and installed on or after October 1, 2011, and meet all other program terms and conditions. Thermostats must be installed in a portable classroom that is mechanically cooled, unoccupied during summer months and must have either local or remote 365/366 day programmable thermostatic setback capability.

Items to submit with application:

1. Dated sales receipt/invoice with install date and retailer/contractor name, address and phone number.
2. Manufacturer specification sheet.
3. A current copy of the Rocky Mountain Power utility bill for the address where the item(s) are installed.

Prequalification Required? No.

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive</u> |
|-----------------------|-------------------------------------|--------------------|
| DPRGTH | 365/366 day Programmable Thermostat | \$150 / thermostat |

PROGRAMMABLE THERMOSTATS

Measure Description: ENERGY STAR programmable thermostats provide improved control for HVAC zones where occupancy varies according to a predictable schedule.

Applicability: Prior to October 1, 2011, incentives were available for customers who replaced a non-programmable thermostat with a qualifying ENERGY STAR programmable thermostat in a retrofit application. Incentives were not offered for thermostats installed in new construction applications or where required by International Energy Conservation Code 2003.

Equipment Eligibility: Incentives are not available for ENERGY STAR programmable thermostats purchased on or after October 1, 2011.

OCCUPANCY BASED PACKAGED TERMINAL AC/HP CONTROLS

Measure Description: Occupancy based Packaged Terminal Heat Pump (PTHP) and Packaged Terminal Air-Conditioning (PTAC) controllers are a combination of a control unit and occupancy based sensor that operate in conjunction to provide occupancy controlled heating and/or cooling. The control unit is operated by an occupancy sensor that is mounted in the room and turns the PTHP/PTAC on and off.

Applicability: This incentive is available for installation of new occupancy based control on all sizes of PTHP/PTAC units with no existing occupancy based control. New construction and retrofit applications are eligible for incentives.

Equipment Eligibility: Eligible controller units must include an occupancy sensor and have the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.

Equipment must be purchased and installed, and meet all other program terms and conditions.

Items to submit with application:

1. Dated sales receipt/invoice with install date and retailer/contractor name, address and phone number.
2. Manufacturer's equipment specification sheet.
3. Itemized listing of quantity, description, manufacturer, model number and other identifying information as appropriate.
4. A current copy of the Rocky Mountain Power utility bill for the address where the item(s) are installed.

Prequalification Required? No.

| <u>Equipment Code</u> | <u>Measure Description</u> | <u>Incentive</u> |
|-----------------------|----------------------------|-------------------|
| HVCPTC | PTAC/PTHP Control | \$50 / controller |