

## Your guide to heating and cooling

### AIR SOURCE HEAT PUMP (ASHP)

- It's the best of both worlds. ASHPs provide home cooling and supplemental heating with 72% less electricity than conventional air conditioners and furnaces.
- ASHPs are measured by:
  - 1) Heat Seasonal Performance Factor (HSPF). HSPF/HSPF2 is the most commonly used measure of a heat pumps heating efficiency. The higher the HSPF/HSPF2, the more efficient the heat pump.
  - 2) Seasonal Energy Efficiency Ratio (SEER). The SEER/SEER2 rating most accurately reflects overall system cooling efficiency on a seasonal basis.
  - 3) Energy Efficiency Ratio (EER). EER/EER2 reflects the system's cooling energy efficiency at peak day operations.
- You can switch between cooling and heating directly from the thermostat, putting you in complete control.



Brown County Rural Electrical Association (REA)  
24386 State Hwy 4, PO Box 529  
Sleepy Eye, MN 56085  
800-658-2368 507-794-3331  
[www.browncountyrea.coop](http://www.browncountyrea.coop)



### CAC AND ASHP TUNE UP

- The best way to ensure efficient operation of your cooling system is by having a tune-up every two years.
- A tune-up by a service expert can improve your unit's efficiency by as much as 20% and extends equipment life.
- Equipment must be at least three years old and not received a tune-up rebate in two years to qualify.

### DUCTLESS/MINI-SPLIT ASHP

- Use 60% less energy than standard home electric resistance-based heating systems, because they transfer instead of generate heat.
- Use sophisticated compressors and fans that can adjust speeds to save energy. You can cut cooling costs by 30% compared to conventional room air conditioners.
- To qualify for a rebate this equipment must be Energy Star certified.

### ELECTRONICALLY COMMUTATED MOTOR (ECM) FOR YOUR FURNACE

- ECMs are standard in new construction. Rebates are available only for replacement.
- ECMs help save energy and money by running at the best speed, opposed to traditional motors that always run at top speed.
- Furnaces equipped with an ECM have lower annual operating costs and can save you \$40 to \$300 per year depending on how you use the furnace fan.

### GROUND SOURCE HEAT PUMP

- The most efficient residential heating and cooling system available today.
- Provide energy savings of 20-50%, which results in recouping your investment in only a few years.
- Heating efficiencies 50-70% higher than other heating systems and cooling efficiencies 20-40% higher than available air conditioners.



**Choosing higher efficiency heating and cooling equipment can have a big impact on your comfort while helping you save money.**

## Rebate Application

### MEMBER INFORMATION

Name \_\_\_\_\_ Account # \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_

Member Type ☐ Homeowner ☐ Renter ☐ Landlord ☐ Builder ☐ Other

By signing this application, I certify the appliances for which I am claiming a rebate are qualifying products and are installed at the address listed above which represents a valid cooperative account.

Signature \_\_\_\_\_ Today's date \_\_\_\_\_

### EQUIPMENT – TUNE UPS, ECMS AND GSHPS, DUCTLESS ASHPS

#### Cooling Equipment Tune Up

Equipment Brand \_\_\_\_\_ Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_

Approx. age of unit \_\_\_\_\_ yrs. Size in tons \_\_\_\_\_ SEER/SEER2 rating \_\_\_\_\_ ☐ SEER ☐ SEER2

#### For Central Air or ASHP Tune Ups:

I certify that I have completed the following on this unit.

- ☐ clean condenser coil & check belt, if needed
- ☐ test all controls & blow out drain lines
- ☐ check coolant level & lube motor, if needed
- ☐ check indoor furnace filter & educate homeowner on system operation
- ☐ check coolant pressure visually & inspect entire system

#### Replacement furnace with ECM Motor qualifying criteria – must be ENERGY STAR listed

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_ AHRI Number \_\_\_\_\_

Manufacturer \_\_\_\_\_

#### Ground Source Heat Pump (GSHP) or Ductless ASHP qualifying criteria – must be ENERGY STAR listed

Manufacturer \_\_\_\_\_ Model Number \_\_\_\_\_ Tons \_\_\_\_\_

AHRI Number \_\_\_\_\_ Backup heat source: Electric resistance \_\_\_\_\_ KW \_\_\_\_\_ Fossil fuel (LP, fuel oil, natural gas) \_\_\_\_\_

Contractor Name \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Contractor signature \_\_\_\_\_ Contractor company \_\_\_\_\_

### IMPORTANT:

- Check with cooperative for qualifying rebate amounts.
- Product(s) must be installed within the cooperative's service territory.
- Include a copy of the original dated sales receipt(s) and AHRI certificate.
- Submit to: Brown County REA, PO Box 529, Sleepy Eye, MN 56085 Email [m.solie@bcrea.coop](mailto:m.solie@bcrea.coop) FAX 507-794-4282
- To verify specific model efficiency ratings or ENERGY STAR certification status please visit the following resources
  - Ductless ASHPs – <https://www.ahridirectory.org/Search/SearchHome?ReturnUrl=%2f>
  - Replacement furnaces
    - <https://www.energystar.gov/productfinder/product/certified-furnaces/results>
    - <https://www.ahridirectory.org/Search/SearchHome?ReturnUrl=%2f>
    - GSHPs – <https://www.energystar.gov/productfinder/product/certified-geothermal-heat-pumps/results>

Rebate program is subject to change or cancellation without notice. Call the cooperative to verify rebate program status

800-658-2368 or 507-794-3331

# Air Source Heat Pumps & Hybrid Systems



## Rebate Application

### MEMBER INFORMATION

Name \_\_\_\_\_ Account # \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_

Member Type ☐ Homeowner ☐ Renter ☐ Landlord ☐ Builder ☐ Other

### EQUIPMENT AND INSTALLATION INFORMATION

Equipment SEER rating ☐ 14.5 SEER/13.8 SEER2 ☐ 15 SEER/14.3 SEER2 ☐ ≥ 16 SEER/15.2 SEER2

Equipment HSPF rating ☐ ≥ 8.2 HSPF/7.0 HSPF2 ☐ ≥ 9 HSPF/7.7 HSPF2 ☐ ≥ 9.5 HSPF 8.1 HSPF2

ASHP alternate/backup heating system type \_\_\_\_\_ Electric Resistance \_\_\_\_\_ Total KW \_\_\_\_\_ Propane/Nat Gas/Fuel Oil

Manufacturer \_\_\_\_\_ Heat pump AHRI number \_\_\_\_\_

Condenser model number \_\_\_\_\_ Condenser serial number \_\_\_\_\_

Evaporator coil model number \_\_\_\_\_ Evaporator coil serial number \_\_\_\_\_

Furnace model number (if new) \_\_\_\_\_ Furnace AHRI number \_\_\_\_\_

Installation date \_\_\_\_\_ Startup/testing date \_\_\_\_\_ Outdoor temp\* \_\_\_\_\_ ° F

\* Follow minimum as set by manufacturer

### EQUIPMENT VERIFICATION

A completed load calculation is on file (initial here) \_\_\_\_\_

- The outdoor unit is matched to the appropriate indoor coil. AHRI reference number \_\_\_\_\_ (initial here) \_\_\_\_\_
- Airflow is appropriate for the installation. (initial here) \_\_\_\_\_  
Airflow depends on the manufacturer, and should not be too high or too low – approximately 300 – 400 CFM per ton of cooling capacity.
- Refrigerant charge has been tested and found to be appropriate for the installation. (initial here) \_\_\_\_\_
- Total size of the system in tons. (initial here) \_\_\_\_\_

### CONTRACTOR INFORMATION

NOTE: An invoice showing the purchase date, equipment manufacturer, model numbers and serial numbers along with the AHRI certificate must be submitted with the application.

Contractor Company Name \_\_\_\_\_

Installation Technician \_\_\_\_\_ Phone \_\_\_\_\_

HVACR Contractor ID # \_\_\_\_\_ OR NATE Certification # \_\_\_\_\_

I hereby certify that all information is accurate, including claims of efficiency, size and member information.

Contractor Signature \_\_\_\_\_ Date \_\_\_\_\_

# Heating and Cooling

## 2024 Reference and Conversion Sheet

**Notice:** On January 1, 2023 the Department of Energy (DoE) began using a new testing procedure to rate the efficiency of air conditioners and air source heat pumps. These changes require new metrics (SEER2/EER2/HSPF2) that were derived from the DoE's new test procedure (M1) rather than the historical metrics (SEER/EER/HSPF) from the old test procedure (M).

The simple conversion table below will help you to identify air conditioning (AC) and air source heat pump (ASHP) equipment that qualifies for ENERGYWISE rebates in 2023 using the following steps.

**Step 1:** Determine what ratings system was used for the equipment model that you plan to purchase.

**Step 2:** Confirm that the efficiency ratings of the new equipment exceeds the requirements for the rebate measure you are applying for using the table below to convert between the old and new efficiency ratings when needed.

SEER	DUCTED SEER2	DUCTLESS SEER2
14.0	13.4	14.0
14.5	13.8	14.5
15.0	14.3	15.0
15.5	14.8	15.5
16.0	15.2	16.0
17.0	16.2	17.0
17.5	16.7	17.5
18.0	17.2	18.0
19.0	18.1	19.0
20.0	19.0	20.0

EER	DUCTED EER2	DUCTLESS EER2
10.2	9.8	10.2
11.0	10.5	11.0
11.5	11.0	11.5
11.7	11.2	11.7
12.0	11.5	12.0
12.2	11.5	12.2
12.5	12.0	12.5
13.0	12.5	13.0

HSPF	DUCTED SPLIT HSPF2	DUCTED PACKAGE HSPF2	DUCTLESS HSPF2
8.0	6.8	6.7	7.7
8.2	7.0	6.9	7.9
8.8	7.5	7.4	8.4
9.0	7.7	7.6	8.6
9.5	8.1	8.0	9.1
10.0	8.5	8.4	9.5
11.0	9.4	9.2	10.4

NOTE: The cross references for efficiency in the above tables should be noted as approximate.

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