



Raccoon Valley Electric Cooperative

A Touchstone Energy® Cooperative
Reliable • Affordable • Responsible

Mail to: PO Box 486 – Glidden, IA 51443

For more information: 712-659-3649

www.rvec.coop

Geothermal and Air Source Heat Pump Check-Up Rebate

For Office Use Only

Total Rebate Amount:

Program Criteria

- **ALL INFORMATION MUST BE COMPLETED TO RECEIVE REBATE**
- Rebate application along with required documentation must be submitted within 6 months of purchase.
- This rebate can be submitted every three years.
- Contractor must complete and sign the rebate checklist for the type of system checked.
- By signing below, the contractor certifies that the items on the checklist were examined and adjusted as required to provide optimal system performance.

Member or Business Name

Account Number

1. Existing Heat Pump Unit Type

- Geothermal with electric resistance backup \$50/unit
- Geothermal with gas backup\$ 50/unit
- Air source with electric resistance backup \$50/unit
- Air source with gas back-up \$50/unit
- Mini split or hotel type ductless air source \$50/unit

3. Geothermal System Type

- Open
- Closed loop

4. Gas Back-Up

Switchover Temperature (°F)

5. Check List Sheet Used by Contractor

- Contractor Checklist (Attach Completed List)
- REC Checklist (Attach Completed List)

7. Water Heater Type

- Electric
- Natural gas/propane

2. Heat Pump Unit Specifications

Make

Model

Serial No.

Auxiliary Resistance (kW)

Contractor Signature

Date

DATED COPY OF ITEMIZED SALES RECEIPT MUST BE INCLUDED. Member certifies that the service in this application has been performed at the member's location served by REC. REC reserves the right to inspect home/equipment and verify this information before issuing a rebate. REC reserves the right to modify (including incentive levels) or terminate this program at any time without prior or further notice.

Member Signature

Date



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Rebate Application

For Office Use Only

Total Rebate Amount:

Program Criteria

- **ALL INFORMATION MUST BE COMPLETED TO RECEIVE REBATE**
- Complete this form along with the specific product rebate form.
- Rebate application along with required documentation must be submitted within 6 months of purchase.

Member Information

Member Name

Address

City - State - Zip

Account Number

Phone (include area code: sample - 999-999-9999)

Email

Rebate Unit Installation Information

Please answer questions based on the location where the unit was installed.

Location Installed

- Same as above Other
(complete below)

Address

City - State - Zip

Install (Service) Date

Structure Type

- Single Family Residence
 Farm Outbuilding
 Business
 Multi-Family Unit: apt/condo/duplex/etc.

Rebate Unit Installed In

- New Construction Existing Structure

Ownership

- Owned Leased

Installer (if applicable) or Purchased From

Business Name

Contact Name

City - State - Zip

Phone



Geothermal Heat Pump with Gas Back-Up - Check List

Member/Customer Name			
Member/Customer Address			
Make		Model #	Serial #
Contractor Name		Service Date	Gas Furnace (Btu/hr)
Check Off If Done	If any item cannot be checked or recorded, please provide an explanation. (For example, "No temperature/pressure Pete's plugs in loop piping.")		
	Check air filter and change if required.		
	Check relays and contactors and for loose electrical connections.		
	Calibrate thermostats.		
	Clean Indoor coil.		
	Check drain pan and trap for blockage or leaks. Flush the condensate drain.		
	Check blower assembly for proper operation, or damage, and lubricate as required.		
	Check static air pressure and record.		in. WC
	Check air supply temperature in heating mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check air supply temperature in cooling mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in cooling mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Compare static pressure and temperatures to manufacturer specifications and adjust blower speed settings if required and record final pressure and temperatures.		
	Check water pump for proper operation, or damage, and lubricate as required.		
	Measure water pump volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure water pump amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Clean water strainer.		
	If open loop and economically available, record dynamic water level of production well and record.		ft.
	If open loop and economically available, record dynamic water level of injection well and record.		ft.
	If open loop and economically available, record static water level of production well and record.		ft.

Geothermal Heat Pump with Gas Back-Up - Check List

	If open loop and economically available, record return pressure to injection well and record.		ft.
	Check loop water pressure in and record.		psi
	Check loop water pressure out and record.		psi
	Calculate loop water flow rate and record. Compare to manufacturer specifications.	GPM	Mfg. Spec. GPM
	Check loop supply temperature in heating mode and record.		°F
	Check loop return temperature in heating mode and record.		°F
	Calculate the heat of extraction and record. Compare to manufacturer specifications.	Btu/hr	Mfg. Spec. Btu/hr
	Check loop supply temperature in cooling mode and record.		°F
	Check loop return temperature in cooling mode and record.		°F
	Calculate the heat of rejection. Compare to manufacturer specifications.	Btu/hr	Mfg. Spec. Btu/hr
	If air or water temperature deltas are not per manufacturer specifications, measure refrigerant levels and charge as required. Recheck and record temperatures if charged.		
	If closed loop, check water loop PH, antifreeze, and corrosion inhibitor. Correct if necessary.		
	If closed loop, repressurize water loop to manufacturer specifications.		
	Measure compressor volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure compressor amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Check loop supply temperature and record.		°F
	Check loop return temperature and record.		°F
	Inspect heat exchanger.		
	Check and clean pilot light or igniter, flame sensor and gas valves.		
	Check operation of the safety limit switch.		
	Check the gas burner flame and adjust the flame height as required.		
	Check back-up gas heat staging.		
	Check air supply temperature in back-up heating mode and record. Calculate supply – return temperature difference.	°F	Supply-Return Δ °F
	Check air return temperature in in back-up heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check and record cut-out or switch over temperature if applicable.		°F
	If humidifier, clean, check control and adjust as required.		

Air Source Heat Pump with Electric Back-Up - Check List

Member/Customer Name			
Member/Customer Address			
Make		Model #	
		Serial #	
Contractor Name		Service Date	Auxiliary Resistance (kW)
Check Off If Done	If any item cannot be checked or recorded, please provide an explanation. (For example, “No temperature/pressure Pete’s plugs in loop piping.”)		
	Check air filter and change if required.		
	Check relays and contactors and for loose electrical connections.		
	Calibrate thermostats.		
	Clean outdoor coil.		
	Check outdoor fan for proper operation, or damage, and lubricate as required.		
	Clean Indoor coil.		
	Check drain pan and trap for blockage or leaks. Flush the condensate drain.		
	Check blower assembly for proper operation, or damage, and lubricate as required.		
	Check static air pressure and record.		in. WC
	Check air supply temperature in heating mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check air supply temperature in cooling mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in cooling mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Compare static pressure and temperatures to manufacturer specifications and adjust blower speed settings if required and record final pressure and temperatures.		
	If air temperature deltas are not per manufacturer specifications, measure refrigerant levels and charge as required. Recheck and record temperatures if charged.		
	Measure compressor volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure compressor amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Check back-up resistance heat staging.		
	Check air supply temperature in back-up heating mode and record. Calculate supply – return temperature difference.	°F	Supply-Return Δ °F
	Check air return temperature in in back-up heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F

Air Source Heat Pump with Electric Back-Up - Check List

	Check and record cut-out or switch over temperature if applicable.	°F
	If humidifier, clean, check control and adjust as required.	



Air Source Heat Pump with Gas Back-Up - Check List

Member/Customer Name			
Member/Customer Address			
Make		Model #	Serial #
Contractor Name		Service Date	Gas Furnace (Btu/hr)
Check Off If Done	If any item cannot be checked or recorded, please provide an explanation. (For example, “No temperature/pressure Pete’s plugs in loop piping.”)		
	Check air filter and change if required.		
	Check relays and contactors and for loose electrical connections.		
	Calibrate thermostats.		
	Clean outdoor coil.		
	Check outdoor fan for proper operation, or damage, and lubricate as required.		
	Clean Indoor coil.		
	Check drain pan and trap for blockage or leaks. Flush the condensate drain.		
	Check blower assembly for proper operation, or damage, and lubricate as required.		
	Check static air pressure and record.		in. WC
	Check air supply temperature in heating mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check air supply temperature in cooling mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in cooling mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Compare static pressure and temperatures to manufacturer specifications and adjust blower speed settings if required and record final pressure and temperatures.		
	If air temperature deltas are not per manufacturer specifications, measure refrigerant levels and charge as required. Recheck and record temperatures if charged.		
	Measure compressor volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure compressor amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Inspect heat exchanger.		
	Check and clean pilot light or igniter, flame sensor and gas valves.		

Air Source Heat Pump with Gas Back-Up - Check List

	Check operation of the safety limit switch.		
	Check the gas burner flame and adjust the flame height as required.		
	Check back-up gas heat staging.		
	Check air supply temperature in back-up heating mode and record. Calculate supply – return temperature difference.	°F	Supply-Return Δ °F
	Check air return temperature in in back-up heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check and record cut-out or switch over temperature if applicable.		°F
	If humidifier, clean, check control and adjust as required.		



Ductless/Mini-Split Heat Pump with Electric Back-Up - Check List

Member/Customer Name			
Member/Customer Address			
Make		Model #	Serial #
Contractor Name		Service Date	Auxiliary Resistance (kW)
Check Off If Done	If any item cannot be checked or recorded, please provide an explanation. (For example, “No temperature/pressure Pete’s plugs in loop piping.”)		
	Check air filter and change if required.		
	Check relays and contactors and for loose electrical connections.		
	Calibrate thermostats.		
	Clean outdoor coil.		
	Check outdoor fan for proper operation, or damage, and lubricate as required.		
	Clean Indoor coil.		
	Check drain pan and trap for blockage or leaks. Flush the condensate drain.		
	Check blower assembly for proper operation, or damage, and lubricate as required.		
	Check static air pressure and record.		in. WC
	Check air supply temperature in heating mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check air supply temperature in cooling mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in cooling mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Compare static pressure and temperatures to manufacturer specifications and adjust blower speed settings if required and record final pressure and temperatures.		
	If air temperature deltas are not per manufacturer specifications, measure refrigerant levels and charge as required. Recheck and record temperatures if charged.		
	Measure compressor volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure compressor amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Check back-up resistance heat staging.		
	Check air supply temperature in back-up heating mode and record. Calculate supply – return temperature difference.	°F	Supply-Return Δ °F

Ductless/Mini-Split Heat Pump with Electric Back-Up - Check List

	Check air return temperature in in back-up heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check and record cut-out or switch over temperature if applicable.		°F
	If humidifier, clean, check control and adjust as required.		



Geothermal Heat Pump with Electric Back-Up - Check List

Member/Customer Name			
Member/Customer Address			
Make		Model #	Serial #
Contractor Name		Service Date	Auxiliary Resistance (kW)
Check Off If Done	If any item cannot be checked or recorded, please provide an explanation. (For example, “No temperature/pressure Pete’s plugs in loop piping.”)		
	Check air filter and change if required.		
	Check relays and contactors and for loose electrical connections.		
	Calibrate thermostats.		
	Clean Indoor coil.		
	Check drain pan and trap for blockage or leaks. Flush the condensate drain.		
	Check blower assembly for proper operation, or damage, and lubricate as required.		
	Check static air pressure and record.		in. WC
	Check air supply temperature in heating mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check air supply temperature in cooling mode and record. Calculate supply – return temperature difference.	°F	Sup-Ret Δ °F
	Check air return temperature in cooling mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Compare static pressure and temperatures to manufacturer specifications and adjust blower speed settings if required and record final pressure and temperatures.		
	Check water pump for proper operation, or damage, and lubricate as required.		
	Measure water pump volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure water pump amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Clean water strainer.		
	If open loop and economically available, record dynamic water level of production well and record.		ft.
	If open loop and economically available, record dynamic water level of injection well and record.		ft.
	If open loop and economically available, record static water level of production well and record.		ft.

Geothermal Heat Pump with Electric Back-Up - Check List

	If open loop and economically available, record return pressure to injection well and record.		ft.
	Check loop water pressure in and record.		psi
	Check loop water pressure out and record.		psi
	Calculate loop water flow rate and record. Compare to manufacturer specifications.	GPM	Mfg. Spec. GPM
	Check loop supply temperature in heating mode and record.		°F
	Check loop return temperature in heating mode and record.		°F
	Calculate the heat of extraction and record. Compare to manufacturer specifications.	Btu/hr	Mfg. Spec. Btu/hr
	Check loop supply temperature in cooling mode and record.		°F
	Check loop return temperature in cooling mode and record.		°F
	Calculate the heat of rejection. Compare to manufacturer specifications.	Btu/hr	Mfg. Spec. Btu/hr
	If air or water temperature deltas are not per manufacturer specifications, measure refrigerant levels and charge as required. Recheck and record temperatures if charged.		
	If closed loop, check water loop PH, antifreeze, and corrosion inhibitor. Correct if necessary.		
	If closed loop, repressurize water loop to manufacturer specifications.		
	Measure compressor volts and record. Compare to manufacturer specifications.	Volts	Mfg. Spec. Volts
	Measure compressor amps and record. Compare to manufacturer specifications.	Amps	Mfg. Spec. Amps
	Check air supply temperature in back-up heating mode and record. Calculate supply – return temperature difference.	°F	Supply-Return Δ °F
	Check air return temperature in in back-up heating mode and record. Compare temperature difference to manufacturer specifications.	°F	Mfg. Spec. Δ °F
	Check and record cut-out or switch over temperature if applicable.		°F
	If humidifier, clean, check control and adjust as required.		