



**United Electric Cooperative Services**  
**Energy Efficiency Programs**  
**2014**

**EnergySmarts Grants**

***Residential Grants*** — Members at or below 200% of the federal poverty level, and own or are in the process of purchasing a home, are eligible to apply for one residential grant. Renters are ineligible to receive grants. The home undergoing retrofit/new construction *must* be served by United. Energy audits are *required* to identify and/or validate potential energy conservation measures, respective costs, energy savings and payback periods. Projects must be completed prior to receiving the grant. The member must demonstrate a financial need to qualify for a grant and must select the vendor responsible for completing the work. Grants are capped at \$1,000.

***Residential DG Grants*** — Residential members who install approved renewable DG systems at the residence in which they receive electric service from United are eligible for one grant per unit at a maximum of two grants per member. The DG installation must be completely installed and operational in 2013, meet United's DG specifications and inspected by a United representative prior to receiving a grant. The DG installation must be on property served by United. Existing DG units and rental properties are not eligible for grant funding. Invoices are required for grant funding approval. Grants will be capped at \$500 for wind applications and \$1,000 for solar applications. The interconnected DG capacity must exceed 500 watts.

***Commercial & Industrial or Agricultural DG Grants*** — Commercial & Industrial, as well as Agricultural members who install approved renewable DG systems at the location in which they receive electric service from United are eligible for one grant per unit at a maximum of two grants per member. The DG installation must be completely installed and operational in 2011, meet United's DG specifications and inspected by a United representative prior to receiving a grant. The DG installation must be on property served by United. Existing DG units and rental properties are not eligible for grant funding. Invoices are required for grant funding approval. Grants will be capped at \$2,000 for per application, maximum of two grants. The interconnected DG capacity must exceed 4 kilowatts.

***Commercial Grants*** — Commercial and Industrial members seeking to implement energy-saving measures (e.g., energy efficient lighting, etc.) may apply for a grant. Grants will be capped at \$1,000. The facility in which the energy-saving measures are being implemented must be served by United. Energy audits are required to identify and validate potential energy conservation measures, respective costs, energy savings and payback periods. Projects must be completed prior to receiving the grant. Grants are limited to one grant per year, and one grant per project. For example, a business' lighting retrofit project this year would qualify only for one grant even if the project was completed in phases over several years because the project objective is "lighting retrofit".

## **LED Area Lights**

United is testing new light emitting diode (LED) fixtures/bulbs to determine if it would be economically viable to offer an LED area light option to members. United has tested 7 different LED fixtures, and has narrowed the choice down to two products to run a pilot with. United will install 20 of each type of light to evaluate

## **Home Energy Audits**

United performs about 900 home energy audits every year. During the audit, United's energy experts evaluate the home for possible energy efficiency upgrades, and arm the member with energy efficiency information and energy savings items such as CFLs, water heater blankets and low-flow faucet aerators as detailed in the Brazos EERP summary. Also, for an additional cost, United will perform a blower door analysis to identify air leaks in the home.

## **Distributed Generation at United's Offices**

In order to demonstrate its commitment to renewable, distributed generation (DG), United has undertaken a project to install several DG systems at its different office sites. The objective of this project is for United to gain insight into the installation, maintenance and performance of these systems, and to pass that information along to members who may be interested in installing a system of their own.

## **Energy Efficiency Rebates**

United Cooperative Services' commitment to Energy Innovation continues to grow stronger and this year that's being demonstrated through an expanded rebate program that paves the way for members to waste less energy and hold onto precious energy dollars. United Energy Innovation Rebate Program is more robust than ever, now including substantial monetary rebates, complimentary energy-saving resources and a dedicated team of Energy Innovation experts prepared to perform free energy analyses at member homes. The program has something for just about everyone, so take advantage of these generous member benefits.

Energy Innovation rebates are available only for qualifying purchases and/or services. The availability of the Energy Innovation Rebate Program is limited and rebates will be processed on a first-come, first-served basis. When funds have been depleted, the Energy Innovation Rebate Program will no longer be available until the next year, pending board approval. Members must submit this form and required documentation to be eligible for rebates within 60 days of the completion of construction and/or installation. Documentation (receipts, invoices, insulation label, etc.) verifying insulation levels and window types must accompany this rebate form in order to receive the TOTAL NEW HOME REBATE incentive. Receipts for every rebate must be submitted with an application! By signing this form, the member agrees the equipment listed on this form has been selected and installed in accordance with United Cooperative Services' Energy Innovation Rebate Program guidelines. Homeowners and/or contractor(s) understand that

prior to issuance of payment, the equipment's efficiency rating will be verified and approved by a United representative using ARI & GAMA equipment directories. Homeowners and contractors also acknowledge there is a \$1,200 cap on the total rebate amount per home. United reserves the right to conduct on-site inspections.

#### ***HVAC Rebates – Air-Source Heat Pump***

- Minimum SEER of 15.0 — \$100
- Minimum SEER of 16.0 — \$200
- Minimum SEER of 17.0 — \$300
- Minimum SEER of 18.0 — \$400
- Minimum SEER of 19.0 or higher — \$500
- Dual Fuel Incentive — \$75

\*No rebates are given for central air/strip heat systems (Electric Furnaces). Complete system change-outs required for retrofit rebates.

\*\*Rebate amounts include the Brazos \$100 for 15 SEER and \$200 for 16 SEER and above.

***Geothermal/Ground Source Heat Pump*** – The temperature underground is nearly constant year-round, which makes ground source heat pumps very efficient even in weather extremes. Members that install geothermal heat pumps are eligible for rebates of \$200/ton for units with an EER of 11.0 or greater.

***Digital Programmable Thermostat*** – Residential only. Member must replace an analog mercury thermostat with digital or programmable thermostat. Not available for new homes. Energy audit required and/or provide United with invoice proving that prior thermostat was analog mercury. Rebate is up to \$50.

***Water Heaters*** – The water heater is the second highest user of energy in the home, so efficiency is extremely important for this appliance. Members are eligible for a rebate of \$50 for installing a water heater that meets the following requirements.

40-gallon minimum capacity

0.92 GAMA efficiency factor

5-Year Tank, 1-Year Parts Warranty

Dual 4,500-watt elements

\*Rebates only given for NEW HOME CONSTRUCTION and Retrofit electric water heaters (No rebates are offered for gas, tankless and retrofit water heaters).

***Attic Insulation Retrofit Rebate*** – A free energy audit is required prior to installation for all retrofit insulation rebates. If during the energy audit, the member is found to have 8 inches or

less of attic insulation, then they are eligible for rebates of \$0.02 per inch installed per square foot. Insulation depth over 12 inches is not eligible for rebate.

***Total Home Rebate Incentive*** – New homes built to the following standards or higher are eligible to receive a \$150 rebate.

- R-13 WALL INSULATION if framed 2×4
- R-19 WALL INSULATION if framed 2×6
- R-38 ATTIC INSULATION
- 100% Storm or Double-Pane Windows with Low E Glass
- Weather Stripping and Caulking at Soleplate, Wiring and Plumbing Entries.

### **Cumulative Energy Savings of Energy Innovation Programs**

Many energy efficiency measures continue saving beyond the year of implementation. Increased insulation, for example, continues saving energy every year for the life time of the home. When this effect is taken into account, the annual energy savings is greater than just the programs that were implemented that year. Below is a table of the expected useful life times of different residential energy efficiency measures that United uses to determine the cumulative energy savings in a year.

<b>Initiative</b>	<b>Useful Life</b>
CFL	1
Energy Audits	3
Heat Pump Rebate	10
HVAC	10
HVAC Tune-Up	3
Insulation Upgrade	20
LED	12
Low Flow Faucet	10
Low Flow Showerhead	10
Total Home EE Upgrade	20
Water Heater	10
Water Heater Blanket	20

The useful lifetimes in the table are based on typical manufacturer quoted life, and are capped at 20 years for practical purposes. Since United began tracking in 2007, its energy innovation programs in combination with Brazos' programs have saved a cumulative 53,137,303 kWh. The breakout of these numbers is contained in the table below.

### Energy Savings Due to Accumulated Effects

		Annual Savings (MWh)*	Cumulative Savings (MWh)*
United Initiatives	LEDs	15	72
	Rebates	4,476	23,805
	Energy Audits	1,810	17,236
	Distributed Generation	636	2,163
	Voltage Reduction	234	544
Brazos Sponsored Initiatives	CFL	530,000	7,055
	Low Flow Showerhead	465	1,860
	Low Flow Faucet	168	746
	Water Heater Blanket	100	600
	HVAC Tune-Up	1,400	8,359
	Insulation Upgrade	116	370
	Heat Pump Rebate	964	3,734
TOTAL:		11,867	56,161

Note: The Annual Savings is the total amount of savings realized in the program year alone. The Cumulative Savings is the total savings realized in all of the program years since 2007.

# **Energy Efficiency Rebate Program**

## **Purpose**

Brazos Electric's Energy Efficiency Rebate Program ("EERP") is designed to encourage member cooperatives ("Members") to promote energy efficiency measures that will reduce energy consumption and support a Participating Member's individual energy innovation<sup>1</sup> goals. Brazos Electric's EERP rewards energy efficient practices by paying incentive rebates to Participating Members when retail members install more efficient lighting, HVAC, insulation and other various qualifying equipment that reduces energy consumption.

## **Introduction**

After reviewing an independent consultant's recommendation of energy efficiency programs in January 2009, the Members reached consensus on trying to develop an EERP with an assortment of energy efficiency measures and programs. In June 2009, the Brazos Electric Board of Directors approved implementation of the EERP with a September 2009 start date.

Some of the identified benefits and program assumptions at the inception of the EERP were as follows:

1. Provide the Participating Members with cost effective energy efficiency programs for use by their respective retail members.
2. Brazos Electric to document the program design, develop forms, and provide education of available programs for Participating Members.
3. A Participating Member may select from the approved list of cost effective energy efficiency programs included in the EERP that the Participating Member wants to offer and market to its retail members.
4. Currently include only those programs that have a positive benefit/cost ratio as determined by GDS' analysis of specific measures included in its study.
5. Limit the administrative costs of the programs and maximize the incentives to the end-use retail member that participates in the energy efficiency program.
6. Enables Participating Members to choose eligible programs they prefer to include in their respective member services program.
7. A rebate program is easier to administer at the G&T level resulting in lower costs with a larger percentage of funds available for incentive rebates.
8. Centralized measurement, verification and incentive rebate processing.
9. Potential for economies of scale purchasing.
10. Incentive rebates and administrative costs limited to the allocated EERP annual budget for each Participating Member based on the Participating Member's previous year's MWh sales multiplied by the applicable surcharge rate.

## **Eligible Energy Efficiency Measures**

Below are the specific energy efficiency measures that have been approved for the Brazos Electric EERP for 2014. The incentive levels developed by the independent consultant in its Energy

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<sup>1</sup> NRECA's adoption of resolution 09-f-1, Wise and Innovative Energy Use, details energy innovation as a four-legged platform consisting of conservation, energy efficiency, demand response and distributed resources.

Efficiency Study were based on a 30% reimbursement of the incremental cost of the energy efficient measure.

**CFL and LED Lighting (Bulbs)**

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2014	Summer Pk MW Savings 2014
CFL/LED	\$1.25	\$0.50	\$1.75	5.66	3,850	0.73

Compact Fluorescent & LED Lighting: Residential and commercial application of compact fluorescent lighting (“CFL”) and light-emitting diode (“LED”) bulbs present a significant opportunity for energy and maintenance savings. On a per lamp basis, CFL/LED lamps are generally 75 percent more efficient and can last up to ten times longer than incandescent bulbs. In addition, CFL/LED bulbs produce about 75 percent less heat, so they are safer to operate and can cut energy costs associated with home cooling. Dimmable and 3-way CFL/LED bulbs are also eligible.

The Member can submit a RRR to Brazos Electric for the incentive rebate after CFL/LED bulbs are *purchased* for distribution to retail members.

**HOME ENERGY AUDIT**

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2014	Summer Pk MW Savings 2014
Home Energy Audit				2.08	7,588	2.02
CFL/LED	\$1.25	\$0.50	\$1.75			
Low Flow Showerhead	\$10.00	\$5.00	\$15.00			
Low Flow Faucet Aerators	\$5.00	\$2.50	\$7.50			
Water Heater Blanket	\$15.00	\$7.50	\$22.50			
Pipe Wrap	\$10.00	\$5.00	\$15.00			
HVAC Tune-up	\$100.00	\$50.00	\$150.00			

All incentive rebates for the Home Energy Audit (excluding the HVAC Tune-up) will only apply for those homes that have **residential electric water heating only**. The eligible energy efficiency measures are: Low Flow Showerhead, Low Flow Faucet Aerators, Water Heater Blanket and Pipe Wrap. While Brazos Electric has no specific information or knowledge on this issue, some have raised a concern that some manufacturers may consider the use of a water heater blanket to void the warranty for the hot water heater. Members can submit a RRR to Brazos Electric for reimbursement after Low Flow Showerhead, Low Flow Faucet Aerators, Water Heater Blanket and/or Pipe Wrap are *purchased* for distribution to retail members. Members can submit a RRR to Brazos Electric for the incentive rebate for the HVAC Tune-up program after the Member determines that the tune-up was completed at the retail member’s residence in accordance with the tune-up requirements described below, as applicable.

Low Flow Showerheads: An existing showerhead is replaced with a new unit that has a low-flow rate (less than 2.0 gallons/minute). Significant savings in hot water use can be achieved by installing low-flow showerheads and faucets. The single best action is to replace old showerheads as showers use 37% of the hot water in typical U.S. homes. Members should procure and install the replacement showerheads in the home. Retired showerheads should be removed and retained by the Member.

Low Flow Faucet Aerators: An existing faucet is replaced with a new unit that has a low-flow rate (less than 1.5 gallons/minute in bathrooms and less than 2.2 gallons/minute in kitchens). Members should procure and install the replacement aerators in the home.

Water Heater Blanket: Water heater blankets are designed to wrap around an existing water heater tank to improve insulation, prevent heat loss, and save energy. Installing an insulating blanket can reduce standby loss (heat lost through the walls of the tank) by as much as 25-40%. Members should procure and install the water heater blanket.

Pipe Wrap: Insulating hot water pipes will reduce losses as the hot water is flowing to the faucet and, more importantly, it will reduce standby losses when the tap is turned off and then back on within an hour or so. Pipe wrap will conserve energy and water that would normally be lost waiting for the hot water to reach the tap. Energy loss still occurs after pipe wrap has been installed, though to a smaller degree than the losses observed in non-insulated pipes. Members should procure and install the pipe wrap on all exposed and accessible hot water lines.

HVAC Tune-Up: HVAC tune-up and maintenance helps to keep heat pump and central air conditioning units running at top efficiency, prevent equipment failures, and extend the life of the equipment. A tune-up by a service professional can improve unit efficiency by as much as 20%. An annual HVAC tune up includes: checking and correcting the unit’s refrigerant pressure and tubing, checking and adjusting belt tension, cleaning and lubricating the indoor blower unit, replacing filters, cleaning inside the “A” coil, and checking the thermostat, wiring, and other electric parts. A receipt from a qualified contractor stating that the above work was completed should be provided to the Member.

**ENERGY EFFICIENT NEW HOME CONSTRUCTION**

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2014	Summer Pk MW Savings 2014
Energy Star	\$500.00	\$50.00	\$550.00	1.00	663.00	0.15

Energy Efficient New Home Construction: The Residential Energy Services Network (“RESNET”) Home Energy Rating Standards (“HERS”) of Practice establish minimum and uniform standards for home energy raters who are certified by RESNET- accredited rating providers. Home energy ratings performed to these standards of practice are intended to provide the home owner/builder with a certified rating according to the RESNET’s Mortgage Industry National Home Energy Rating Standard. These standards are posted at <http://www.resnet.us/standards/mortgage>.

(HERS RESNET Certified Rating) - Nationally, for a home to be labeled as ENERGY STAR®, it must achieve a HERS score of 86 or lower to qualify or be at least 15% more efficient than the local minimum energy code.

(Energy Star® Home Rating) - New homes are designed to be built to Energy Star® standards: at least 15 percent more energy efficient than those built to the **2009** International Energy Conservation Code (“IECC”).

Savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of the following: high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, high efficiency water heating equipment, and high efficiency building envelope standards. Energy Star® homes also encourage the use of energy-efficient lighting and appliances. These features contribute to improved home quality and homeowner comfort, and to lower energy demand and reduced air pollution. The Member should receive an Energy Star® Certificate or an HERS Certificate with an overall score of 86 or less to qualify a new home for the program. Members can submit a RRR to Brazos Electric for the incentive rebate for the Energy Efficient New Home Construction program after receipt of verification that the new home meets the standards set forth above for the residential retail member’s served by the Member.

**CEILING INSULATION (SPACE HEATING & COOLING)**

<b>Program</b>	<b>Incent</b>	<b>Admin</b>	<b>Total</b>	<b>Measure B/C Ratio</b>
Insulation Upgrade	\$275.00	\$25.00	\$300.00	1.16

Ceiling Insulation: Ceiling insulation levels vary greatly depending on the age of the home, type of insulation, and activity in the attic (*i.e.*, using the attic for storage and HVAC equipment). To be eligible for this rebate, the existing insulation must be less than or equal to R8 (3.75 inches of insulation or less) and must be improved to R38 or greater (approximately 17 inches or greater of insulation). Incentive rebates for this program are limited to ceiling insulation upgrades for single family homes and not for mobile homes; further, the upgrades only apply to electric air conditioners with electric resistance heating and cannot be used in situations where a heat pump is installed as a primary heating source. Members can submit a RRR to Brazos Electric for the incentive rebate for the Ceiling Insulation program after the Member determines that the installation was completed at the retail member’s residence in accordance with the preceding requirements.

**HIGH EFFICIENCY ELECTRIC HEAT PUMP (SPACE HEATING & COOLING)**

<b>Program</b>	<b>Incent</b>	<b>Admin</b>	<b>Total</b>	<b>Measure B/C Ratio</b>
High Efficiency Heat Pump				
15 SEER Heat Pump	\$100.00	\$50.00	\$150.00	
16+ SEER Heat Pump	\$200.00	\$100.00	\$300.00	

High Efficiency Electric Heat Pumps: Electric heat pumps operate by transferring heat from one place to another. In the heating mode, a heat pump extracts heat from outside a residence and delivers it to the house. Like a furnace, most heat pumps work with forced warm-air delivery systems. Heat pumps can also be operated to cool a house during summer months. In the cooling

mode, the cycle is reversed and heat is taken from the house and transferred to the outside air. Because heat pumps rely on the outside air as the heat source in the wintertime, they are much more common in warmer climates.

Heat pumps are rated for both heating and cooling – both in terms of capacity and efficiency. Heating efficiency is indicated by the heating season performance factor (“HSPF”). Cooling efficiency is indicated by the seasonal energy efficiency rating (“SEER”). Both indicate the relative amount of energy needed to provide a specific heating or cooling output.

15 SEER High Efficiency Heat Pumps: For this program, the baseline replacement model remains at HSPF 8.2 and SEER 14. The 15 SEER High Efficiency Heat Pump must have a HSPF of 8.2 or greater and a SEER of 15.

16 SEER High Efficiency Heat Pumps: For this program, the baseline replacement model remains at HSPF 8.2 and SEER 14. The 16 SEER High Efficiency Heat Pump must have a HSPF of 9.0 or greater and a SEER of 16 or greater.

The incentive rebates for this program apply for replacement of existing HVAC equipment at any residential home (including mobile homes) and new home construction. The retail member must obtain a receipt with the Air-Conditioning Heating and Refrigeration Institute (“AHRI”) designation of the qualifying installation from the retail member’s contractor to present to the Member for verification purposes. This incentive rebate is not applicable for homes that use natural gas, propane or other fossil fuel for heating.

The incentive rebates for this program are as follows: (1) the 15 SEER rebate is applicable to any unit purchased and installed with (a) a SEER equal to or greater than 15, and (b) a HSPF equal to or greater than 8.2; and (2) the 16 SEER rebate is applicable to any unit purchased and installed with (a) a SEER equal to or greater than 16, and (b) a HSPF equal to or greater than 9.0. Members can submit a RRR to Brazos Electric for the incentive rebate for the High Efficiency Heat Pumps program after the Member determines that the installation was completed at the retail member’s residence in accordance with the preceding requirements.

**ENERGY STAR ROOM AIR CONDITIONERS**

<b>Program</b>	<b>Incent</b>	<b>Admin</b>	<b>Total</b>	<b>Measure B/C Ratio</b>
Energy Star Room A/C	\$30.00	\$0.00	\$30.00	2.11

Energy Star Room Air Conditioners: Room air conditioner units are typically mounted in a window so that part of the unit is outside and part is inside. An insulated divider to reduce heat transfer losses typically separates the two sides. The outdoor portion generally includes a compressor, condenser, condenser fan, fan motor, and capillary tube. The indoor portion generally includes an evaporator and evaporator fan. The minimum federal standard used in this analysis (based on model type and capacity) is an Energy Efficiency Ratio (EER) of at least 9.8. Currently, units with an EER of 10.8 are eligible for the ENERGY STAR® label. This analysis assumed a room air conditioner cooling capacity of 8,000 Btu/hr and 1,926 full-load cooling hours (Dallas climate zone).

**ENERGY STAR DISHWASHER (Electric Water heating Only)**

Program	Incent	Admin	Total	Measure B/C Ratio
Energy Star Dishwasher	\$15.00	\$0.00	\$15.00	1.29

Energy Star Dishwasher: Dishwashers exceeding minimum qualifying efficiency standards established under Energy Star Program with an Energy Factor (EF)  $\geq .65$  (versus the current federal standard energy factor  $\leq .46$ ). Energy Star labeled dishwashers save energy by using both improved technology for the primary wash cycle, and by using less hot water to clean. Construction includes more effective washing action, energy efficient motors and other advanced technology such as sensors that determine the length of the wash cycle and the temperature of the water necessary to clean the dishes. In addition, a high efficiency dishwasher can save approximately 635 gallons of water a year if used to run an average of 4 loads per week. This measure is limited to homes having electric water heating and dishwashers.

### **HIGH EFFICIENCY WATER HEATER**

Program	Incent	Admin	Total	Measure B/C Ratio
High Efficiency Water Heater	\$25.00	\$0.00	\$25.00	1.10

High Efficiency Water Heater (stand-alone): In this measure, baseline replacement stand alone electric water heaters are replaced with high efficiency stand alone storage tank water heaters. Storage water heaters work by heating up water in an insulated tank. However, because heat is lost through the walls of the storage tank, energy is consumed even when no hot water is being used. New high-efficiency storage water heaters contain higher levels of insulation around the tank, reducing standby losses. In this analysis a baseline replacement model (EF=.90) is replaced with a high efficiency model (EF=.94). This measure applies to homes operating primarily electric heating systems and electric water heaters. Heat pump water heaters qualify for this rebate since they have an efficiency greater than .94. (Note: Does not apply to electric tankless water heaters.)

### **COMMERCIAL LIGHTING (T-8 BULB REPLACEMENT)**

Program	Incent	Admin	Total	Avg Measure B/C Ratio
32w to 28w Bulb Upgrade	\$1.00	\$.50	\$1.50	1.09
32w to 25w Bulb Upgrade	\$1.50	\$.75	\$2.25	1.91

T-8 Commercial Bulb Replacement: A variety of high efficiency fixtures, ballasts and lamps exist in the market today, producing the same amount of lumens, while consuming less electricity. Deemed lighting savings are mature components of utility-sponsored demand-side management offerings around the country. This measure considers BULB REPLACEMENT only, not replacement of fixtures or ballasts.

Numerous commercial and industrial buildings already have T8 bulbs and ballasts, but are looking for a low-cost way to save energy. Standard T8 bulbs typically sold as 32 watt bulbs, but can be replaced with 28 watt or 25 watt bulbs to save energy immediately. Utilities that are currently

running these programs offer a \$1.00 incentive to change out to a 28 watt bulb and a \$1.50 incentive for a 25 watt bulb.

**COMMERCIAL LIGHTING (FIXTURE UPGRADES)**

Program	Incent	Admin	Total	Avg Measure B/C Ratio
Fixture Upgrade(per watt saved)	\$ .20	\$ .10	\$ .30	2.95

A variety of high efficiency fixtures, ballasts and lamps exist in the market today producing the same amount of lumens while consuming less electricity. Deemed lighting savings are mature components of utility sponsored demand-side management offerings around the country.

Many different types of energy efficient fixtures exist today. The Commercial Lighting Fixture Upgrade program measures the difference between the original fixture and the new fixture in base wattage. Incentive rebates are calculated based on this difference. Due to the many potential variations of fixture upgrades for lighting, this program does not specifically designate the eligible incentive rebate for a particular fixture types. Rather, the incentive rebate is calculated using the savings in base wattage comparison between the original and new fixture.

The Member should work with its commercial retail member to perform a detailed pre- and post-audit to verify base wattage differences and upgrade verification. Members can submit a RRR to Brazos Electric for the incentive rebate for the Commercial Lighting Fixture Upgrade program after the Member determines that the installation was completed at the commercial member’s location in accordance with the preceding requirements.

A non-exclusive list of potential upgrade items are listed below:

Super T8 Fixture - from 34W T12; from standard T8: High-Performance or Super T8 lamp/ballast systems have higher lumens per watt than standard T8 systems. This results in lamp/ballast systems that produce equal or greater light than standard T8 systems, while using fewer watts. When used in a high-bay application, high-performance T8 fixtures can provide equal light to high intensity discharge high-bay fixtures, while using fewer watts.

T5 Fluorescent High-Bay Fixtures; Troffer/Wrap; Industrial Strip; Indirect: A T5 high-bay fixture has a fixture efficiency of over 91%, while a metal-halide fixture has a fixture efficiency of approximately 70%. By using a more efficient fixture, a space can be lit with fewer watts or fixtures. Typically, a 4-lamp F54T5HO system using 240 watts will provide as much light on a target surface as a standard 400 watt metal-halide fixture using 455 watts.

Induction Fluorescent 23W: Inductive fluorescent lamps are white light sources with very good color rendering and color temperature properties. These lamps are energy efficient and offer extremely long life (over 100,000 hours), good lumen maintenance characteristics, and instant-on capability. The lamp enclosure is called a "vessel" that varies in shapes and is coated on the inside with phosphor. Dimming capability is already available in Europe and will be available in the near future in the United States. They are powered by a small generator (about the size of a fluorescent ballast) attached to the lamp via a short fixed-length cable. The generator induces a current in the lamp which causes it to glow (there are no electrodes to wear out). The larger, diffuse nature of

these sources makes them excellent for lighting larger volumes and surfaces. They are often used in place of low- to medium-wattage high intensity discharge sources because of the instant-on capability and reduced maintenance associated with the longer lamp life. This lamp source has promising application for indoor and outdoor lighting applications.

Exterior High Intensity Discharge: Exterior metal halide (“MH”) or high-pressure sodium (“HPS”) high intensity discharge fixtures less than or equal to 100 watts. Assumes an efficient high intensity discharge 90 W bulb replaces a baseline quartz halogen 200 W bulb.

Electronic High Intensity Discharge Fixture Upgrade: This measure assumes that a 320 W Pulse Start Metal Halide (MH) high intensity discharge light fixture replaces a standard 400 W high intensity discharge fixture.

Halogen Infra-Red Bulb: A new development in halogen technology is the advent of Infra-Red bulbs. Available only in PAR30, PAR38, and MR16 type bulbs, it is used for spot-lighting, often in museums, retail establishments, and restaurants. The technology generally offers around 20% energy-savings, and longer lamp life.

Metal Halide Track: A metal-halide track head produces equal or more light as compared to halogen track head(s), while using fewer watts. Typically, a 39 watt PAR20 metal-halide track head using 43 watts can be used in place of three 50 watt halogen PAR20 track heads.

Integrated Ballast MH 25W: Integrated ballast 25W Par 38 metal halide lamps are three times more efficient than the Par 38 halogen lamps that they replace. Light output is comparable and the 10,500 hour life of the metal halide lamps is up to three times longer than standard halogens. Very good color rendering of 87 and a crisp white light (3000K) make this a good replacement lamp for general, ambient or accent lighting. The integrated ballast allows for an easy upgrade from a halogen Par 38. Due to the high pressure and operating temperature of metal halide lamps, there are some safety considerations concerning these efficient lamps.

Lighting Power Density: Efficient lighting with a reduced wattage compared to the baseline, other than controls. This methodology is generally applied to commercial new construction and remodel or renovation of existing buildings, including both facilities that are and are not subject to Act 250 review.

LED Exit Sign: Exit signs illuminated with light emitting diodes (“LEDs”).

Traffic Signal Upgrades: Traffic signals illuminated with LEDs save energy over the traditional light bulb traffic signals. Several utilities across the country have initiated programs for this type of upgrade.

LED Freezer/Display Lighting: Replacing standard bulbs in freezer display departments with LEDs allows both energy savings from light and heat. Further, several studies indicate that LED lighting in freezer sections actually provide better lighting colors for consumers.

# RETURN COMPLETED APPLICATION TO:

UNITED COOPERATIVE SERVICES  
Attn: SETH ROSSER  
P.O. Box 16  
Cleburne, Texas 76033



## GRANT APPLICATION

United Cooperative Services is committed to helping members use energy more wisely through Energy Innovation. Through an expanded EnergySmarts Grant Program, United Cooperative Services in 2014 provides grant funding to eligible members served by United for the installation and implementation of energy efficiency measures and some renewable distributed generation applications. All prospective applicants should refer to the EnergySmarts Grant Guidelines in the Energy Innovation section at [www.united-cs.com/conservation.aspx](http://www.united-cs.com/conservation.aspx)

### GRANT TYPE:

Residential Energy Efficiency  Commercial Energy Efficiency  Residential Distributed Generation

APPLICANT NAME: \_\_\_\_\_

ACCOUNT NUMBER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_ e-mail address: \_\_\_\_\_

## Please Complete the Following for Grant Consideration

- Location of the proposed energy efficiency or distributed generation (DG) installation (must be on property served by United Cooperative Services. NOTE: EXISTING DG UNITS & RENTAL PROPERTIES ARE NOT ELIGIBLE. \_\_\_\_\_)
- Description of the project for which United EnergySmarts Grant funding is requested, including costs (for DG projects, provide the system output per unit). SPECIAL NOTE: INVOICES REQUIRED FOR GRANT FUNDING APPROVAL. \_\_\_\_\_)
- Statement of purpose: Briefly explain why the proposed project is needed and what problems or opportunities it will address. \_\_\_\_\_)
- Have you applied for any other grant that is related to this proposed project? (CIRCLE ONE) YES / NO  
If Yes, please give details below. \_\_\_\_\_)

**(Residential Grant applicants must provide verifiable income information to prove extent of need)**

Signature: \_\_\_\_\_

#### IN SIGNING THIS APPLICATION, YOU ARE ACKNOWLEDGING THREE THINGS:

- a) that the information provided in the completed application is true and correct to the best of your knowledge; and,
- b) that you understand that United Cooperative Services has no obligation to fund this Application until and unless there is a written and executed grant agreement between the Applicant and United Cooperative Services; and,
- (c) that you understand United Cooperative Services has no affiliation with the vendor providing your energy efficiency or DG project, and shall not be held liable for the work done at your residence.



# 2014 Energy Innovation Rebate Program Member Application Form

## ▼ MEMBER INFORMATION

Energy Innovation rebates are available only for qualifying purchases and/or services. The availability of the Energy Innovation Rebate Program is limited and rebates will be processed on a first-come, first-served basis. When funds have been depleted, the Energy Innovation Rebate Program will no longer be available until the next year, pending board approval. Members must submit this form and required documentation to be eligible for rebates within **60 days** of the completion of construction and/or installation. **Documentation (receipts, invoices, insulation label, etc.) verifying insulation levels and window types must accompany this rebate form in order to receive the TOTAL NEW HOME BONUS incentive. Receipts for every rebate must be submitted with an application!**

By signing this form, the member agrees the equipment listed on this form has been selected and installed in accordance with United Cooperative Services' Energy Innovation Rebate Program guidelines. Homeowners and/or contractor(s) understand that prior to issuance of payment, the equipment's efficiency rating will be verified and approved by a United representative using **AHRI & GAMA** equipment directories. Homeowners and contractors also acknowledge there is a \$1,200 cap on the total rebate amount per home. United reserves the right to conduct on-site inspections.

REBATE HOME TYPE: NEW  EXISTING

MEMBER NAME: \_\_\_\_\_

UNITED ACCOUNT NO. \_\_\_\_\_

MEMBER PHONE: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

SERVICE ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

*I understand that a rebate may not be processed until all rebate checklists have been fulfilled.*

HOMEOWNER SIGNATURE: \_\_\_\_\_

To process this application, please send it and the required documentation to:

**United Cooperative Services  
Attn. Seth Rosser  
P.O. Box 16  
Cleburne, TX 76033  
or / FAX: 817-556-4068  
e-mail: seth@united-cs.com**

**TOTAL REBATES PER HOME ARE CAPPED AT \$1,200.**

**IMPORTANT: All rebate requests must be received within 60 days of construction completion or installation, and all items in the appropriate rebate checklist must be completed to qualify for the rebate.**

UNITED APPROVAL: \_\_\_\_\_

TOTAL REBATE AMOUNT: \_\_\_\_\_ DATE: \_\_\_\_\_

## CURRENT REBATE OFFERINGS

The following items are eligible for rebates under United's 2014 Energy Innovation REBATE PROGRAM and are based on individual pieces of equipment for new residential construction, and full replacement upgrades made to existing HVAC equipment.

## ▼ EnergyStar® HOME REBATE

Members who build EnergyStar rated homes are eligible to receive up to a \$500 rebate. Home financing must have closed after January 1, 2014. Members must submit to United the Energy Star Certificate for the new home to qualify for the rebate. Independent Home Energy Raters must conduct onsite testing and inspections to verify the energy efficiency measures, as well as insulation, air tightness, and duct sealing details. Either the builder or homeowner is responsible for obtaining the rating from a certified Energy Star rater.

Qualified EnergyStar® Home Energy Rater Name: \_\_\_\_\_

Energy Star Rater Signature: \_\_\_\_\_

**Checklist for this rebate:** \* Energy Star Rater Name \* Energy Star Rater Signature \* Energy Star Certificate

## ▼ ATTIC INSULATION RETROFIT REBATE\*

► **FREE ENERGY AUDIT** required prior to installation for ALL Retrofit insulation Rebates.

► \$.02 per inch earned per square foot of installed insulation. Upon inspection, attic must have 8 inches or less of insulation.

Insulation Contractor Signature: \_\_\_\_\_

Is Home Heated with Electric Resistance Heat? YES\_\_\_ NO\_\_\_

**Checklist for This Rebate:** \* Energy Audit Before Insulation Install \* Insulation Contractor Signature \* Receipt for Insulation Install \* Fill Out Member Information On This Form

\*Rebates paid only up to a maximum depth of 12 inches.

## ▼ HVAC TUNE-UP

Residential members who own their homes are eligible for one rebate (up to \$100) per unit in 2014. Tune-ups must be performed by a qualified service professional and must include the following criteria: checking and correcting the unit's refrigerant pressure and tubing, checking and adjusting belt tension, cleaning and lubricating the indoor blower unit, replacing filters, cleaning inside the "A" coil, and checking the thermostat, wiring, and other electric parts. A copy of the itemized receipt from a qualified contractor, showing all work that was performed, **must be submitted to United within 60 days of completion.** Members should request a pre or post tune-up energy audit conducted by United's energy innovation experts.

Technician Signature: \_\_\_\_\_

**Checklist for this rebate:** \* Technician Signature \* Copy of Itemized Receipt \* Fill Out Member Information On This Form

More information about all United Cooperative Services rebates may be obtained at:

**www.united-cs.com**

## ▼ HEAT PUMP REBATE\*

### Air Source Heat Pumps

- ▶ Minimum SEER of 15.0 — \$100
- ▶ Minimum SEER of 16.0 — \$200
- ▶ Minimum SEER of 17.0 — \$300
- ▶ Minimum SEER of 18.0 — \$400
- ▶ Minimum SEER of 19.0 — \$500

## Geothermal/Ground Source Heat Pumps

- ▶ Minimum EER of 11.0 — \$200/Ton

- ▶ Duel Fuel Incentive — \$75

\*No rebate incentives are given for central air-strip heat systems (Electric Furnaces). Complete system change-outs are required for retrofit rebates.

### HVAC DATA

(PLEASE INDICATE TYPE)

Air Source Heat Pump  Geothermal/Ground Source Heat Pump   
 DUAL FUEL: YES  NO

AHRI Certification Number(s): \_\_\_\_\_

Contractor Signature: \_\_\_\_\_

#### Checklist for this rebate:

- \* Contractor Signature
- \* Copy of Receipt With Model Numbers Listed
- \* AHRI Certification Number
- \* Fill Out Member Information On This Form

## ▼ EnergyStar® ROOM AIR CONDITIONER REBATE—\$30

**Residential Only!** Room air conditioner units are typically mounted in a window so that part of the unit is outside, and part is inside. An insulated divider to reduce heat transfer losses typically separates the two sides. To be eligible for this rebate, the unit must be EnergyStar rated and have a

#### Checklist for this rebate:

- \* Copy of Receipt With Listed Model Numbers
- \* Proof of 10.8 EER Rating
- \* Fill Out Member Information On This Form

## ▼ DIGITAL/PROGRAMMABLE THERMOSTAT REBATE—UP TO \$50

**Residential only!** Member must replace an analog mercury thermostat with digital or programmable thermostat. Not available for new homes. **Energy audit required and/or provide United with invoice proving that prior thermostat was analog mercury.**

If Applicable/  
Contractor Signature: \_\_\_\_\_

#### Checklist for this rebate:

- \* Energy Audit Before Changing Thermostat
- \* Contractor Invoice Verifying Change From Analog to Digital Thermostat
- \* Copy of Receipt
- \* Fill Out Member Information On This Form

## ▼ WATER HEATER REBATE\*

- ▶ \$50 per unit
- ▶ 40-gallon minimum capacity
- ▶ 0.92 GAMA efficiency factor

\*Rebates given only for **NEW HOME CONSTRUCTION** and **Retrofit** electric water heaters. No rebates are offered for gas, tankless or LP water heaters.

GAMA Certification Number: \_\_\_\_\_

Contractor Signature: \_\_\_\_\_

#### Checklist for this rebate:

- \* Contractor Signature
- \* Copy of Receipt With Listed Model Number
- \* Gama Certification Number
- \* Fill Out Member Information On This Form

## ▼ TOTAL HOME REBATE INCENTIVE

**NEW HOME —\$150 REBATE WHEN THE FOLLOWING HAVE BEEN INSTALLED**

- ▶ R-13 WALL INSULATION if framed 2x4
- ▶ R-19 WALL INSULATION if framed 2x6
- ▶ R-38 ATTIC INSULATION

\***SPECIAL NOTE:** ATTIC INSULATION VALUE IS THE MOST COMMONLY OVERLOOKED CATEGORY FOR THIS REBATE!

Contractor Signature: \_\_\_\_\_

- ▶ 100 percent Storm or Double-Pane Windows with Low E Glass
- ▶ Weather Stripping and Caulking at Soleplate, Wiring and Plumbing Entries

#### Checklist for this rebate:

- \* Contractor Signature Verifying Rebate Qualification
- \* Receipts for Insulation, Windows and Weatherstripping
- \* Fill Out Member Information On This Form

## ENERGY STAR NEW HOME CONSTRUCTION

REBATE \$500

\*Separate from Total Home Rebate



Members must submit to United the Energy Star Certificate for the new home to qualify for the rebate. With the help of independent Home Energy Raters, Energy Star builder partners choose appropriate energy-saving features for their homes. Raters conduct on-site testing and inspections to verify the energy efficiency measures, as well as insulation, air tightness, and duct sealing details. Either the builder or homeowner is responsible for obtaining the rating from a certified Energy Star rater. Obtain more information at [www.energystar.gov](http://www.energystar.gov). Any **newly constructed** home three stories or less can earn the Energy Star label if it has been verified to meet EPA's guidelines, including: single family, attached, and low-rise multi-family homes; manufactured homes; systems-built homes; log homes, concrete homes; and even existing retrofitted homes.

## ENERGY INNOVATION MEMBER RESOURCES

To assist members in achieving energy saving goals, United offers a number of energy innovation products. These products are **FREE** and **available only while supplies last**. Typically, these products can be obtained during a Free Home Energy Audit. Compact Fluorescent Light bulbs (CFLs) are available in a range of styles and wattages.

- Low Flow Shower Head (to reduce hot water heater energy consumption)
- Low Flow Faucet Aerator
- Water Heater Blanket (Energy Audit Required)

# Leading the Way in Energy Innovation



Your Touchstone Energy® Cooperative 

[www.united-cs.com](http://www.united-cs.com)



## A Wealth of Savings Opportunities

# ENERGY INNOVATION REBATES

United Cooperative Services' commitment to Energy Innovation continues to grow stronger and this year that's being demonstrated through an expanded rebate program that paves the way for members to waste less energy and hold onto precious energy dollars. The 2014 Energy Innovation Rebate Program, in cooperation with Brazos Electric Cooperative, is more robust than ever and now includes substantial monetary rebates, complimentary energy-saving resources and a dedicated team of Energy Innovation experts prepared to perform FREE energy analyses at member homes. The program has something for just about everyone, so take advantage of these generous member benefits.

## HVAC REBATES

The following items are eligible for rebates under **United's 2014 Energy Innovation REBATE PROGRAM** and are based on individual pieces of equipment for new residential construction, and full replacement upgrades made to existing HVAC equipment. **TOTAL REBATES PER HOME ARE CAPPED AT \$1,200.**

### AIR-SOURCE HEAT PUMP

- Minimum SEER of 15.0 — \$100
- Minimum SEER of 16.0 — \$200
- Minimum SEER of 17.0 — \$300
- Minimum SEER of 18.0 — \$400
- Minimum SEER of 19.0 — \$500
- Dual Fuel Incentive — \$75

\*No rebates are given for central air/strip heat systems (Electric Furnaces). Complete system change-outs required for retrofit rebates.

### GEOHERMAL/GROUND-SOURCE HEAT PUMP

REBATE: \$200/ton  
Minimum EER of 11.0

### HVAC TUNE-UP

REBATE: UP TO \$100 (One Rebate Per Unit Per Year)

An annual tune-up by a HVAC professional can improve unit efficiency by as much as 20 PERCENT.

### EnergyStar®

#### ROOM AIR CONDITIONER

REBATE: \$30 Residential only! Room air conditioner units are typically mounted in a window so that part of the unit is outside, and part is inside. An insulated divider to reduce heat transfer losses typically separates the two sides. To be eligible for this rebate, the unit must be EnergyStar rated and have minimum EER of 10.8.

#### DIGITAL/PROGRAMMABLE THERMOSTAT

REBATE: UP TO \$50 Residential only! Member must replace an analog mercury thermostat with digital or programmable thermostat. This offer is **NOT** available for new homes. **Energy audit required and/or provide United with invoice proving that prior thermostat was analog mercury.**

#### WATER HEATERS

REBATE: \$50

- 0.92 GAMA efficiency factor
- 40-Gallon minimum capacity

\*Rebates given for NEW HOME CONSTRUCTION AND RETROFIT electric water heaters (No rebates are offered for gas, tankless and LP water heaters).

#### FREE Insulated Water Heater Blanket

While supplies last—Water heater must be electric and in an unconditioned space. A Free Energy Audit is also required to be eligible.

### ATTIC INSULATION RETROFIT REBATE

- FREE ENERGY AUDIT required prior to installation for ALL retrofit insulation rebates.
- \$.02 per inch installed per square foot
- Upon inspection, must have 8 inches or less
- Rebates paid only up to a max. depth of 12 inches

### TOTAL HOME REBATE INCENTIVE NEW HOME — \$150 REBATE

- R-13 WALL INSULATION if framed 2x4
- R-19 WALL INSULATION if framed 2x6
- R-38 ATTIC INSULATION

**SPECIAL NOTE:** Attic insulation is the most overlooked criteria for this particular rebate.

- 100% Storm or Double-Pane Windows with Low E Glass
- Weather Stripping and Caulking at Soleplate, Wiring and Plumbing Entries.

## VERIFICATION & PAYMENT

#### REBATE APPLICATION REQUIREMENT

REBATES WILL NOT BE GIVEN **unless** ALL DOCUMENTATION (**receipts, invoices, insulation label, etc.**) verifying insulation levels and window types accompany all rebate applications; including those qualifying for the **TOTAL NEW HOME REBATE** incentive.

Energy Innovation rebates are available only for qualifying purchases and/or services. The availability of the Energy Innovation Rebate Program is limited and rebates will be processed on a first-come, first-served basis. To be eligible for the rebate program, all rebate forms and accompanying documentation must be submitted within **60 days**

of the completion of construction and/or installation. **Rebates are capped at \$1,200 per home.** The rebate will be paid after United has received completed forms and verification (which includes an insulation card or invoices detailing the purchase). United reserves the right to make on-site inspection of any equipment submitted for a rebate. Payment is made to the person who filed for program participation. Any other payment arrangements must be submitted in writing by the homeowner or developer.

All water heater efficiency ratings are based on the ratings shown in the GAMA directory. A licensed dealer or contractor must install the heating/cooling systems. **SEER ratings are based on the Air-Conditioning and Refrigeration Institute Directory of equipment for single-family residential use. To qualify for United's HVAC equipment rebate, both heat pump components—indoor (coil) unit and outdoor (condenser) unit—must be properly matched and determined by the AHRI guide. Rebates will not be considered when only one component is replaced.**

► See More Details