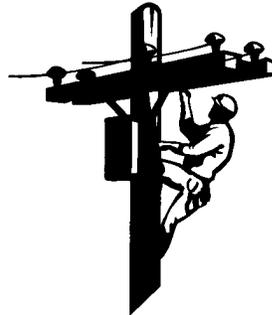
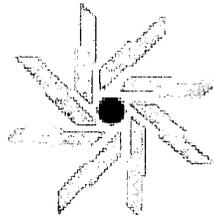


Brazos Electric Power Cooperative, Inc.

Energy Efficiency Rebate Program

2011



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Energy Efficiency Rebate Program

Purpose

Brazos Electric's Energy Efficiency Rebate Program ("EERP") is designed to encourage member cooperatives ("Members") to promote cost effective energy efficiency measures that will reduce wholesale power costs and support a Member's individual energy innovation¹ goals. Brazos Electric's EERP is a program to reward 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 GDS Associates, Inc.'s ("GDS") recommended energy efficiency programs on January 15, 2009, the Demand Response and Energy Efficiency Ad Hoc Committee ("DREEAHC") reached consensus on trying to develop an EERP with an assortment of energy efficiency measures and programs. On June 24, 2009, the Brazos Electric Board of Directors approved the EERP with a September 21, 2009 billing period start date, and providing eligibility for rebates to Members for any program-eligible purchases or installations occurring on or after June 24, 2009, subject to presentation and approval by the Brazos Electric Board of the final program description and requirements and any required tariff(s). On July 24, 2009, the Brazos Electric Board approved that the staff revise the EERP and any required tariff(s) to suspend implementation of a \$0.146 per MWh surcharge to fund the EERP until such time that the Brazos Electric Board approve to begin billing the Monthly EERP Surcharge as specified in Rider EERP (as defined below).

Some of the identified benefits and program assumptions of the EERP are as follows:

1. Provide the 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 Members.
3. A Member may select from the approved list of cost effective energy efficiency programs included in the EERP that the 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. Members able 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.

¹ 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.

10. Incentive rebates and administrative costs limited to the allocated EERP annual budget for each Member based on the Member's previous year's MWh sales multiplied by the applicable surcharge rate.

EERP Surcharge and Off-set Allowance

The Brazos Electric Board approved a monthly surcharge rider ("Rider EERP") as part of Brazos Electric's Wholesale Power Supply and Delivery Service Rate ("Rate WPSDS") to provide the mechanism to fund the EERP through a "Monthly EERP Surcharge". However, the Monthly EERP Surcharge will be reduced or off-set by a specified allowance (the "Off-set Allowance") until such time that the Brazos Electric Board approve to begin billing the total Monthly EERP Surcharge not including the Off-set Allowance (as defined below).

During the period ("Period 1") beginning with the month that Rider EERP is initiated and each January thereafter while Brazos Electric charges Members the CEPF Surcharge Rider under Rate WPSDS, each Member shall be charged a Monthly EERP Surcharge based on a specified "Member's Surcharge Rate". The Off-set Allowance will effectively eliminate or reduce the Monthly EERP Surcharge during Period 1 (as further described below). Beginning the first billing month after the Brazos Electric Board approves to begin billing the total Monthly EERP Surcharge not including the Off-set Allowance and thereafter ("Period 2"), each Member shall be charged a Monthly EERP Surcharge as specified below for Period 2.

The Monthly EERP Surcharge is similar to the opt-in portion of the Monthly Support Service Charge ("MSSC") under Rate WPSDS that was previously used to fund the back-office support function for Members that were considering participation in customer choice. By way of example, the \$0.146 per MWh portion of the MSSC surcharge would result in an energy efficiency budget of approximately \$1.9 million based on an estimated 13,354,446 MWh of sales in 2009.

The Monthly EERP Surcharge will be based on the Member's wholesale energy purchases during the previous year multiplied by the Member's Surcharge Rate (all as further described below). Additionally, the Brazos Electric Board established the \$0.146 per MWh as the minimum rate for any Member's Surcharge Rate with an annual option for each Member to elect a Member's Surcharge Rate in any value up to two times the minimum rate or \$0.292 per MWh. This will allow those Members that want to increase funding for energy efficiency programs to do so through Rider EERP.

Incentive rebates are eligible to be redeemed from Brazos Electric for qualifying energy efficiency activities and programs. The EERP has been designed to generally limit the amount of qualifying incentive rebates reimbursed to each Member up to the annual amount the Member will pay and/or the Off-set Allowance provided under Rider EERP. The Member may pass through the Brazos Electric Monthly EERP Surcharge using the Member's Power Cost Recovery Factor ("PCRF") adjustment to such Member's retail customers.

Monthly EERP Surcharge Calculation

Brazos Electric will charge, collect, and account for the Monthly EERP Surcharge for each Member. The Off-Set Allowance of \$0.146 per MWh shown below in the formula for Period 1 will remain in effect until such time that the Brazos Electric Board approves to terminate Period 1 and begin billing the Monthly EERP Surcharge as specified below for Period 2. By way of example,

any Member electing the minimum Member's Surcharge Rate of \$0.146 per MWh will incur a Monthly EERP Surcharge equal to zero during any Period 1 billing month. Beginning with Period 2, each Member shall be charged the total Monthly EERP Surcharge as specified in the Rider EERP formula below for Period 2.

(A) Monthly EERP Surcharge for Period 1

During Period 1, each Member's **Monthly EERP Surcharge** shall be a fixed monthly amount charged by Brazos Electric and payable by each Member that shall be calculated as follows:

$$\text{Monthly EERP Surcharge} = [\text{PYEP} \times (\text{Member's Surcharge Rate} - \$0.000146^*)] / 12$$

Where:

PYEP shall be equal to the Member's wholesale energy purchases made by the Member under all applicable Brazos Electric rates and tariffs for the 12 consecutive months through the billing period ending December 20 of the immediately preceding year (expressed in kWh); and

Member's Surcharge Rate shall be equal to \$0.000146 per kWh, subject to an annual election option by each Member to be exercised in writing to Brazos Electric by December 20 of the then current year to increase or decrease its respective **Member's Surcharge Rate** to any value from \$0.000146 up to and including \$0.000292 per kWh to become effective for invoices for the next calendar year. Notwithstanding such annual election, a Member shall have the right to increase its **Member Surcharge Rate** once during a current calendar year with such increase to be billed equally over the remaining months in such current calendar year, provided the Member exercises such right to increase its **Member Surcharge Rate** in writing to Brazos Electric by June 20 of the current calendar year.

$$* \text{Off-Set Allowance} = \$0.000146$$

(B) Monthly EERP Surcharge for Period 2

During Period 2, each Member's **Monthly EERP Surcharge** shall be a fixed monthly amount charged by Brazos Electric and payable by each Member that shall be calculated as follows:

$$\text{Monthly EERP Surcharge} = [\text{PYEP} \times \text{Member's Surcharge Rate}] / 12$$

Where:

PYEP shall be equal to the Member's wholesale energy purchases made by the Member under all applicable Brazos Electric rates and tariffs for the 12 consecutive months through the billing period ending December 20 of the immediately preceding year (expressed in kWh); and

Member's Surcharge Rate shall be equal to \$0.000146 per kWh, subject to an annual election option by each Member to be exercised in writing to Brazos Electric by December 20 of the then current year to increase or decrease its respective **Member's Surcharge Rate** to any value from \$0.000146 up to and including \$0.000292 per kWh to become effective for invoices for the next calendar year. Notwithstanding such annual election, a Member

shall have the right to increase its **Member Surcharge Rate** once during a current calendar year with such increase to be billed equally over the remaining months in such current calendar year, provided the Member exercises such right to increase its **Member Surcharge Rate** in writing to Brazos Electric by June 20 of the current calendar year.

A Member may submit a written request on or before December 20 to adjust such Member's current year's kWh wholesale purchases to be used in the calculation of the **Monthly EERP Surcharge** for the next calendar year for any permanent change in the Member's kWh wholesale purchases made by the Member under all applicable Brazos Electric rates and tariffs due to the loss or addition of a significant retail load that is estimated to result in a change of more than 20% of the Member's previous year-to-date kWh wholesale purchases.

Annual EERP Budget

A Member's "Annual EERP Budget" available for energy efficiency rebate incentives for a new calendar year beginning in January is determined by multiplying the Member's previous 12 months of kWh purchases from Brazos Electric for the billing period ending December 20 multiplied by the applicable Member's Surcharge Rate. The actual Monthly EERP Surcharge billed to each Member will depend upon the application of the appropriate Period 1 or Period 2 formula.

The Annual EERP Budget for 2009 ranges from \$14,119 to \$526,692 for Members based on 2008 MWh sales and a Member's Surcharge Rate of \$0.146 per MWh. Members have the ability to plan for their respective Annual EERP Budget and related energy efficiency activities for the upcoming year once the Member decides on its Member's Surcharge Rate to be applicable for the upcoming year.

A Member may want to structure its program(s) to be able to limit the participation in the program in the event the Member receives an overwhelming response. Once a Member's Annual EERP Budget and any applicable Carryover Balance (as defined below) have been rebated for a particular year, the Member will have to fund its own program(s) until the Member can request incentive rebates in future years.

Carryover Balance Provision

Each Member's Annual EERP Budget will be accounted for by Brazos Electric on a calendar year basis (*i.e.*, January 1 – December 31) to determine any unused balance from the Member's Annual EERP Budget. Any unused balance ("Carryover Balance") of such Member's Annual EERP Budget will be carried over to the subsequent calendar year (the "Carryover Year"). The Carryover Balance will be available for use by such Member during the Carryover Year based on a first-in, first-out basis applied to the Carryover Balance first and then to the Annual EERP Budget for that Member.

After the Carryover Year, any unused Carryover Balance for the Member would then be forfeited. The forfeited Carryover Balance will be allocated and transferred to all Members (including the Member that forfeited the Carryover Balance) based on a pro-rata share of the Members' aggregated total Annual EERP Budget for all Members' use at the beginning of the year following the applicable Carryover Year. Once the forfeited Carryover Balance has been allocated and transferred to all Members, such amounts shall be deemed to be a Carryover Balance for the

Members for the calendar year transferred and subject to the requirements of use for the Carryover Balance.

Rebate Reimbursement Request

Members can obtain its incentive rebate by submitting a Rebate Reimbursement Request (“RRR”), including the signed affidavit by the Member’s General Manager, for energy efficiency measures purchased or implemented, depending upon the program, during the month or since the last RRR was made (see sample RRR in Appendix I). A member may only submit one RRR in any calendar month. Brazos Electric will process and remit payment to a Member from the submitted RRR provided that requested amount does not exceed the Member’s Annual EERP Budget for that year plus any applicable Carryover Balance (subject to the first year implementation provision described below). Brazos Electric will retain and accumulate data from the Members’ RRRs to calculate the estimated impact of energy savings from the EERP implemented by the Members.

Initial Implementation and Start-up Expenditures

The first year of implementation of the EERP is a partial calendar year beginning with the billing period starting on September 21, 2009. As a result of this partial year, the EERP will be effective for the three months of October, November and December in 2009. The calculation of the Monthly EERP Surcharge for these three months will be in accordance with the Rider EERP formula based on the Member’s 2008 MWh purchases from Brazos Electric. For purposes of the RRR, the total amount of all incentive rebates, including qualified start-up expenditures, that will be reimbursed for 2009, will be limited to 25% (*i.e.*, 3 months / 12 months) of the 2009 Annual EERP Budget for each Member. Additionally, any unused portion of the 25% total Annual EERP Budget from 2009 that is not requested for authorized energy efficiency reimbursements or qualified start-up expenditures will be subject to the Carryover Balance provision for 2010. The Member must request the Carryover Balance during 2010 or any remaining Carryover Balance will be subject to forfeiture and allocation in accordance with the requirements in the section above entitled “Carryover Balance Provision” at the beginning of 2011.

A Member may request an incentive rebate for qualified start-up expenditures related to that Member’s energy efficiency programs. The Member will be required to include, as a part of the RRR, an explanation of the start-up costs for which the Member is seeking the incentive rebate. Qualified start-up expenditures may include marketing brochures, training material, tools and/or equipment necessary to administer a Member’s programs. Any such incentive rebate for the qualified start-up expenditures can only be requested during 2009 and 2010. No incentive rebate for start-up expenditures shall be allowed beginning January 1, 2011. Each Member shall be limited to a total maximum amount for start-up expenditures that it can request for all of 2009 and 2010. Such total maximum amount shall be limited to the greater of (i) \$7500 or (ii) 10% of the 2009 Annual EERP Budget for such Member; provided, however, that the amount requested during 2009 for start-up expenditures and incentive rebates can not exceed 25% of the 2009 Annual EERP Budget.

Annual Discretionary Rebate

On November 24, 2010, the Brazos Electric Board approved to add an Annual Discretionary Rebate (“ADR”) provision to the 2011 EERP. This provision is similar to the Start-up Expenditure

provision described above that expired on December 31, 2010.

The ADR allows each member cooperative to utilize a portion of their Annual EERP Budget to reimburse expenditures incurred that are related to marketing brochures, training, tools, equipment, and other administrative costs to administer a Member's energy efficiency program. A Member will be required to include, as a part of the RRR Form, an explanation of the ADR for which the Member is seeking reimbursement.

Each Member shall be limited to a total annual maximum ADR reimbursement each year equal to the greater of (i) \$3,000 or (ii) 5% of the Members Annual EERP Budget for that year. A Member may request all of its eligible ADR at any time during the calendar year or may make multiple requests on its monthly RRR Form up to the annual limit of such Member's ADR. The ADR is not required to be utilized by a Member and is subject to the availability of the remaining Annual EERP Budget for that year.

Eligible Energy Efficiency Programs

Table-1 below is a list of the energy efficiency measures that were approved for the 2009 EERP. The incentive levels shown below were calculated by GDS in its Energy Efficiency Study and were based on a 30% reimbursement of the incremental cost of the energy efficient measure. The recommended administrative budget for each program below is approximately 50% of the incentive level (or lower) which is considerably less than the administrative budget recommended by GDS in its analysis. By using the GDS recommended incentive amount and lower administrative budget, the benefit-to-cost ratios ("B/C Ratio") that GDS calculated for its recommended programs are maintained or improved in the recommended Brazos Electric EERP.

The Ceiling Insulation and High Efficiency Electric Heat Pump measures were not included in any specific program recommendations by GDS. However, due to the interest of the Members, these measures were evaluated by the DREEAHC and were included in the EERP recommendation after evaluation of the GDS Measure B/C Ratios that do not include program administration costs. GDS also concluded that its source information could be viewed as conservative for the percentage of savings used in calculating the B/C Ratios for these measures when considering the Texas climate.

Table-2 below is a list of additional energy efficiency measures added to the 2011 EERP as approved by the Brazos Electric Board on November 24, 2010.

Table-1

Program Description	Incentive	Admin	Total	GDS Program B/C Ratio	GDS Measure B/C Ratio	Notes
Residential						
1. CFL's (Per Bulb)	\$1.25	\$0.50	\$1.75	5.66		GDS B/C Ratio w/ 100% Admin Costs
2. Home Energy Audit				2.08		GDS B/C Ratio w/ 118% Admin Costs
CFLs	\$1.25	\$0.50	\$1.75			
Low Flow Showerhead	\$10.00	\$5.00	\$15.00			
Low Flow Faucet Aerator	\$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			
3. Residential New Home Const 15% More Efficient Energy Star Rating	\$500.00	\$50.00	\$550.00	1.00		GDS Recommended 3 Tier Program w/ 200% Admin Costs
4. Ceiling Insulation R0-R8 upgrade to R38+ (Resistance Heat only)	\$275.00	\$25.00	\$300.00		1.16	BC Measure Ratio doesn't include Admin Costs
5. Heat Pump Installation						BC Measure Ratio doesn't include Admin Costs
14 SEER Heat Pump	\$100.00	\$50.00	\$150.00		1.64	
15 SEER Heat Pump (Total Electric Only)	\$200.00	\$100.00	\$300.00		1.73	
Commercial						
6. Commercial Light Upgrade Fixture Upgrade(per watt Saved)	\$0.20	\$0.10	\$0.30		2.95	Avg BC Measure Ratio and doesn't include Admin Costs

Table-2

Program Description	Incentive	Admin	Total	TRC B/C Ratio Base Case	TRC B/C Ratio Low Case	Notes
Residential						
1. Energy Star Room A/C ⁽¹⁾	\$30.00	\$0.00	\$30.00	3.96	2.11	GDS B/C Ratio per Measure
2. High Efficiency Water Heater ⁽¹⁾ (.94 EF or higher)	\$25.00	\$0.00	\$25.00	2.10	1.10	GDS B/C Ratio per Measure
3. Energy Star Dishwasher ⁽¹⁾	\$15.00	\$0.00	\$15.00	2.57	1.29	GDS B/C Ratio per Measure
Commercial						
4. Commercial Bulb Replacement T-8 ⁽²⁾						Incentive is Reimbursed on a per Bulb basis
32w to 28w Bulb Upgrade	\$1.00	\$0.50	\$1.50	2.00	1.09	
32w to 25w Bulb Upgrade	\$1.50	\$0.75	\$2.25	3.50	1.91	
(1) - GDS Analysis from June 2009 (2) - GDS Analysis from November 2010 (3) - Recommendation from DREEAHC						

COMPACT FLUORESCENT LIGHTING (“CFL”)

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2013	Summer Pk MW Savings 2013
CFL	\$1.25	\$0.50	\$1.75	5.66	39,396	4.03

Compact Fluorescent Lighting: Residential fluorescent bulbs and fixtures present a significant opportunity for energy and maintenance savings. On a per lamp basis, compact fluorescent lamps are generally 75 percent more efficient than incandescent bulbs and last up to ten times longer. In addition, CFL bulbs produce about 75 percent less heat, so they are safer to operate and can cut energy costs associated with home cooling. CFL bulbs vary in size and shape. Their appearance can be a spiral-shaped fluorescent tube or they can appear as a standard shape, such as the R-30 floodlight used in recessed cans. Dimmable CFL bulbs and 3-way CFL bulbs are also eligible.

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

HOME ENERGY AUDIT

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2013	Summer Pk MW Savings 2013
Home Energy Audit				2.08	5,575	1.27
CFLs	\$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 STAR RATED NEW HOME CONSTRUCTION

Program	Incent	Admin	Total	Program B/C Ratio	MWH Savings 2013	Summer Pk MW Savings 2013
Energy Star	\$500.00	\$50.00	\$550.00	1.00	4,908	1.10

Energy Efficient New Homes Construction (Energy Star Home Rating - 15% more efficient): New homes are designed to be built to Energy Star standards: at least 15 percent more energy efficient than those built to the **2004** International Residential Code (“IRC”).

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 the Energy Star Certificate for the new home for the program. Members can submit a RRR to Brazos Electric for the incentive rebate for the Energy Star New Home Construction program

after receipt of verification that the new home meets the standards set forth above for residential retail member's served by the Member.

CEILING INSULATION (SPACE HEATING & COOLING)

Program	Incent	Admin	Total	Measure B/C Ratio
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)

Program	Incent	Admin	Total	Measure B/C Ratio
High Efficiency Heat Pump				
14 SEER Heat Pump	\$100.00	\$50.00	\$150.00	1.64
15 SEER Heat Pump	\$200.00	\$100.00	\$300.00	1.73

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. New residential heat pump standards went into effect in January 2006. Heat pumps manufactured after January 2006 must achieve a HSPF of 7.7 and a SEER of 13 or higher.

14 SEER High Efficiency Electric Heat Pumps: For this program, the baseline replacement model has a HSPF of 7.7 and a SEER of 13. The 14 SEER High Efficiency Heat Pump has a HSPF of 8.2 and a SEER of 14.

15 SEER High Efficiency Heat Pumps: For this program, the baseline replacement model remains at HSPF 7.7 and SEER 13. The 15 SEER High Efficiency Heat Pump has a HSPF of 9.0 and a SEER of 15.

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 14 SEER rebate is applicable to any unit purchased and installed with (a) a SEER equal to or greater than 14 but less than 15, and (b) a HSPF equal to or greater than 8.2; and (2) 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 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

Program	Incent	Admin	Total	Measure B/C Ratio
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) >= .65 (versus the current federal standard energy factor <=.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. (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.

Appendix I

Brazos Electric Energy Efficiency Rebate Program

Rebate Reimbursement Request Form

Member Cooperative: Any Member Electric Cooperative
 Date Submitted to Brazos [1]: 3-Sep-09
 Contact Email: John@XYXCoop.com

Member Contact Name: John Smith
 Contact Phone Number: 254-911-1111

Program Description	Incentive	Admin	Total	Items	Requested Reimbursement
Compact Fluorescent Bulbs	\$ 1.25	\$ 0.50	\$ 1.75	1	\$ 1.75
Home Energy Audit - Electric Water Heater					
Low Flow Showerhead	\$ 10.00	\$ 5.00	\$ 15.00	1	\$ 15.00
Low Flow Faucet Aerator	\$ 5.00	\$ 2.50	\$ 7.50	1	\$ 7.50
Water Heater Blanket	\$ 15.00	\$ 7.50	\$ 22.50	1	\$ 22.50
Pipe Wrap	\$ 10.00	\$ 5.00	\$ 15.00	1	\$ 15.00
Home Energy Audit - HVAC Tune-up	\$ 100.00	\$ 50.00	\$ 150.00	1	\$ 150.00
Residential New Home Construction					
Energy Star Home - 15% More Efficient	\$ 500.00	\$ 50.00	\$ 550.00	1	\$ 550.00
Ceiling Insulation					
R0-R8 upgrade to R38 + (A/C & Resistance Htg)	\$ 275.00	\$ 25.00	\$ 300.00	1	\$ 300.00
Heat Pump (Total Electric Only)					
14 SEER Heat Pump	\$ 100.00	\$ 50.00	\$ 150.00	1	\$ 150.00
15 SEER Heat Pump	\$ 200.00	\$ 100.00	\$ 300.00	1	\$ 300.00
Energy Star Room A/C	\$ 30.00	\$ -	\$ 30.00	1	\$ 30.00
Energy Star Dishwasher	\$ 15.00	\$ -	\$ 15.00	1	\$ 15.00
High Efficiency Water Heater (.94 EF or >)	\$ 25.00	\$ -	\$ 25.00	1	\$ 25.00
Commercial Lighting					
Fixture Upgrade (per watt saved)	\$ 0.20	\$ 0.10	\$ 0.30	1	\$ 0.30
T-8 Bulb Replacement - 32w to 28w (per bulb)	\$ 1.00	\$ 0.50	\$ 1.50	1	\$ 1.50
T-8 Bulb Replacement - 32w to 25w (per bulb)	\$ 1.50	\$ 0.75	\$ 2.25	1	\$ 2.25
Annual Discretionary Rebate [2]	See Note [2]				\$ 3,000.00
TOTAL REBATE REIMBURSEMENT REQUESTED					\$ 4,585.80

[1] A Member is limited to one Rebate Reimbursement Request in any calendar month.

[2] Attach an explanation of the Annual Discretionary Rebate expenditures for which you are seeking reimbursement. Limited to greater of \$3,000 or 5% of the Member's Annual EERP Budget for marketing, training, equipment & admin for energy ef

[3] To qualify for the EERP incentive rebate, the Member must fully complete this Rebate Reimbursement Request form.

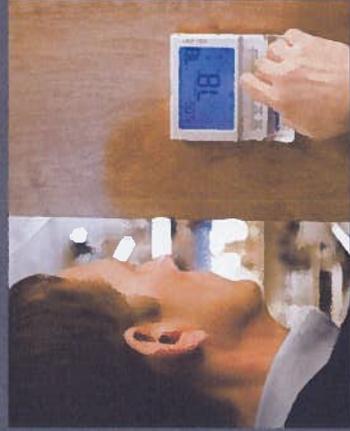
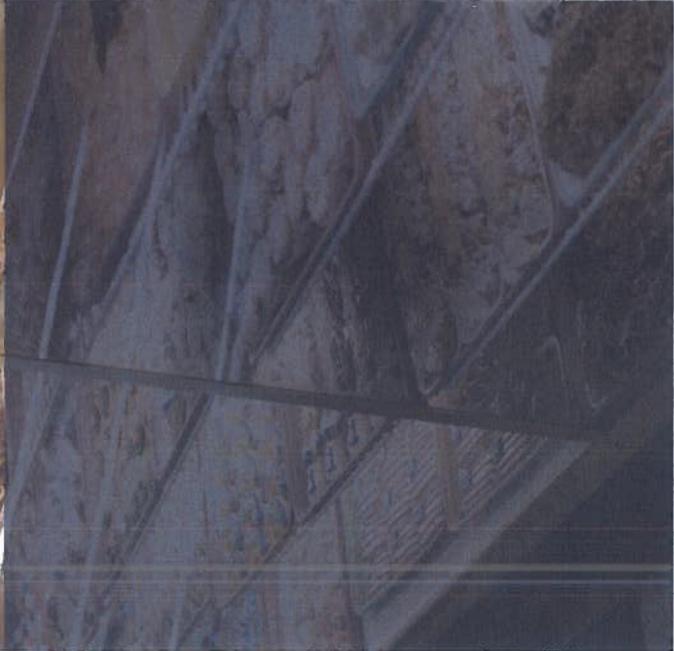
[4] Send an electronic copy of the signed Rebate Reimbursement Request to: eerprebate@brazoselectric.com, or mail a copy to Brazos Electric Cooperative, Attn: General Accounting, P.O. Box 2585, Waco, TX 76702-2585.

General Manager Certification:

I certify this Rebate Reimbursement Request is a correct and true record of energy efficiency activities completed by _____ Electric Cooperative as detailed above.

General Manager Signature: _____

Date: _____



COMMERCIAL ENERGY SAVINGS GUIDE



Touchstone Energy[®]
Cooperatives



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REDUCING ENERGY USAGE REDUCES ENERGY COSTS. AND WHEN IT COMES TO COMMERCIAL ENERGY, THE SAVINGS ADD UP QUICKLY. TOUCHSTONE ENERGY COOPERATIVES ARE COMMITTED TO SAVING OUR MEMBERS MONEY BECAUSE THE MORE YOUR BUSINESS SAVES, THE MORE WE ALL SAVE.

PLEASE CONTACT YOUR LOCAL TOUCHSTONE ENERGY COOPERATIVE FOR MORE INFORMATION.

OR, VISIT TOGETHERWESAVE.COM.



TIP 1: CHECK YOUR RATE

- Even if you were on the correct rate last year, things can and do change.
- If your operating hours change, or you add equipment or other load, your electric usage profile will change. A different rate could save money.
- Your electric provider may have added rates that are more suitable for your usage profile and could save your business money.
- Review your operation's usage pattern. A change in when you operate can result in savings on your utility bill.

TIP 2: MAINTAIN YOUR HVAC SYSTEMS

HVAC equipment that is properly maintained will use less energy and enjoy a longer life. The greatest cost associated with an unscheduled HVAC breakdown may be in lost production - NOT in the repair cost.

- Keep indoor/outdoor coils and filters clean.
- Ensure that your HVAC system circulates the correct airflow.
- Lubricate. Check electrical connections and pulleys.
- Maintain correct refrigerant charge.
- Minimize duct leakage.
- Provide adequate ventilation in compliance with local applicable standards.
- Minimize HVAC runtime while facility is closed.
- Protect temperature-sensitive materials.



ELECTRICAL TERMS

- **VOLT** - A unit of electrical force equal to that amount of electromotive force that will cause a steady current of one ampere to flow through a resistance of one ohm.
- **AMPERE** - A unit of measure for an electrical current; the amount of current that flows in a circuit at an electromotive force of one volt and at a resistance of one ohm.
- **VA** = Volts x Amps
- **KVA** = (Volts x Amps) / 1000
- **WATT** = Volts x Amps x Power Factor (Single Phase)
- **WATTS** = Volts x Amps x Power Factor x 1.73 (Three Phase)
- **POWER FACTOR** - The ratio of actual power being used in a circuit, expressed in watts or kilowatts, to the power that is apparently being drawn from a power source, expressed in volt-amperes or kilovolt-amperes.
- Electric resistance lamp:
117.5 volts x 0.31 amps = 36 VA, 36 watts (36 watts / 36 VA = 100% Power Factor)
- Electric compact fluorescent lamp:
117.8 volts x 0.16 amps = 19 VA, 12 watts (12 watts / 19 VA = 63% Power Factor)
- **KWH** - A unit of measure of electricity supply or consumption of 1,000 Watts over the period of one hour, or 100 watts over 10 hours; equivalent to 3.413 Btu.
- **KW** - A standard unit of electrical power equal to one thousand watts. A unit of demand.

TIP 3: VENTILATE PROPERLY

- Meet OSHA standards for occupancy numbers.
- Kitchens should run at a slightly negative pressure.
- Bathroom ventilators should be off when building is closed – if permissible with local codes.
- Ensure make-up air is drawn from an appropriate location. (For example, don't pull from a dumpster area.)
- Ensure that kitchens have adequate air circulation.
- Do not over-ventilate. It is a waste of energy.

TIP 4: WATER HEATING

- Locate water heaters for most efficient delivery.
- Insulate water heaters.
- Ensure that the heating temperature is correct based on local requirements.
- Control water heaters based on actual periods of need during the day.
- Explore opportunities for heat recovery.
- Be familiar with your state's Board of Health requirements before making any changes that could affect hot water delivery temperatures. For example:
 - There are strict requirements for MINIMUM and MAXIMUM water temperatures for nursing homes.
 - There are strict requirements for MINIMUM water temperatures for manual and automated dish washing in retail food establishments.

TIP 5: REFRIGERATION

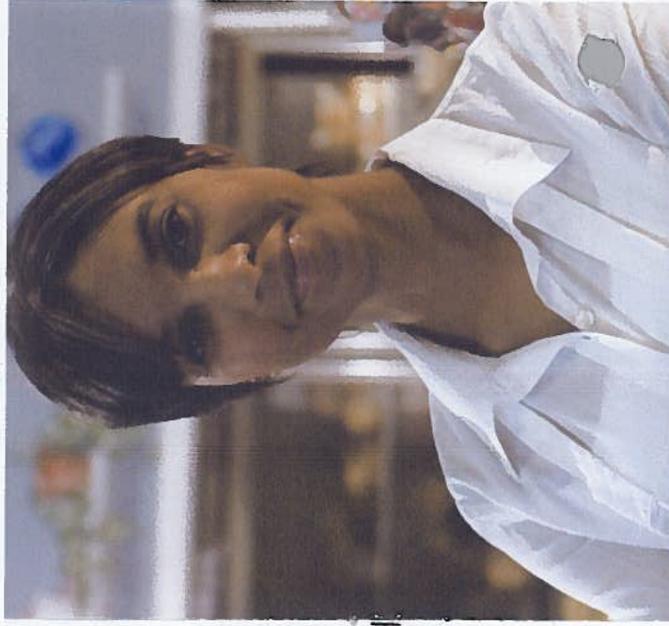
- Clean refrigeration coils regularly.
- Doors and seals on walk-in units should be kept in good repair.
- Make sure that refrigeration units are properly charged with refrigerant.
- Ensure units are properly defrosting. Check for ice buildup.

CALCULATE YOUR SAVINGS, AND ADD THEM DIRECTLY TO YOUR BOTTOM LINE.

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FUEL UNIT BTU VALUES

- Electric **KWH = 3,413 BTU**
- Natural Gas **THERM = 100,000 BTU**
- Natural Gas **CCF = 103,000 BTU**
- Propane **GALLON = 91,600 BTU**
- #2 Fuel Oil **GALLON = 140,000 BTU**
- **MMBTU = 1,000,000 BTU**
- **One ton of refrigeration = 12,000 BTUs**

Comparing cost effectiveness of different fuels

$$\text{Cost per delivered MMBTU} = \frac{1000 \times \text{Fuel Unit Cost}}{\text{Fuel Unit BTU value} \times \text{COP}}$$

Fuel Unit Cost = Cost in \$ per KWh, MMBTU, gallon or diesel etc.

Fuel Unit BTU value – see above

COP = Coefficient of Performance

COPs for Different Systems:

- Heat Pump – Use published COP
- Strip Heat – Use COP of 1
- Fossil Fueled Furnace or Fossil Fired Boiler – Use published Steady-state Efficiency



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TIP 6: INDOOR LIGHTING

- Depending on your electric rate and hours of operation, switching from magnetically ballasted T-12 fluorescent lamps to electronically ballasted T-8 lamps may save. (T-12 = 1.5" in diameter, T-8 = 1" in diameter)
- Consider switching from incandescent to compact fluorescent in canisters.
- Consider LED exit lighting instead of incandescent.
- Assess lighting levels after closing and explore opportunities to reduce lighting levels in other areas of your business. It may be more than you need.
- Group re-lamping may save on labor costs when compared to spot re-lamping.
- Explore opportunities to switch to high-pressure sodium or metal halide lighting in warehouses.

TIP 7: OUTDOOR LIGHTING

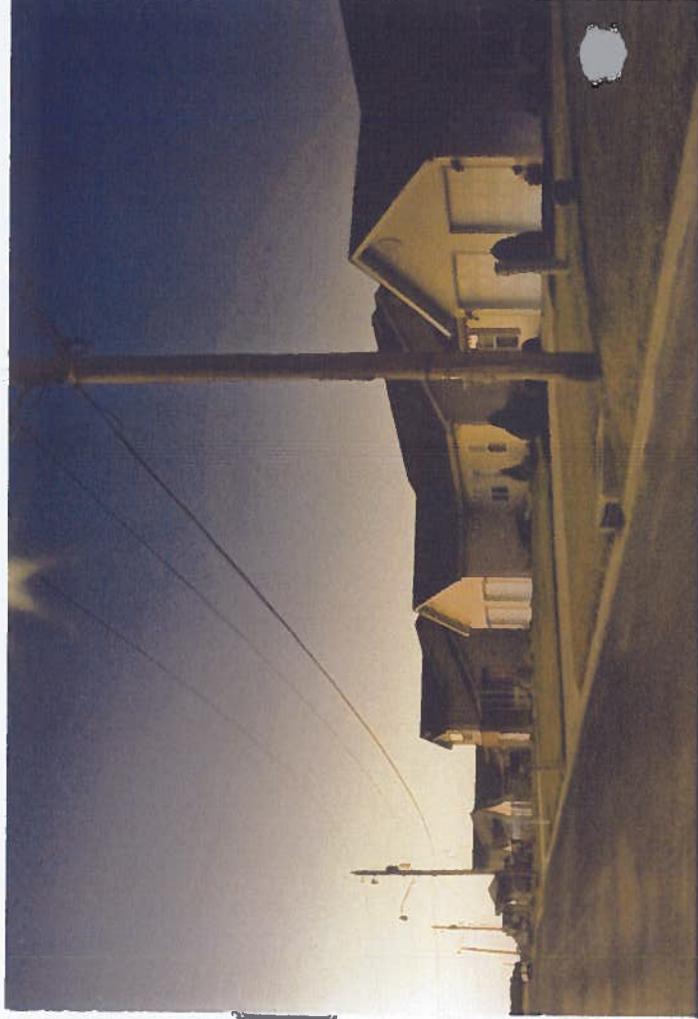
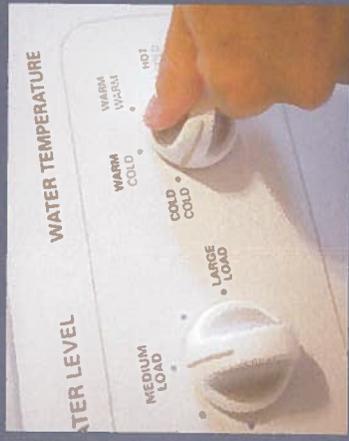
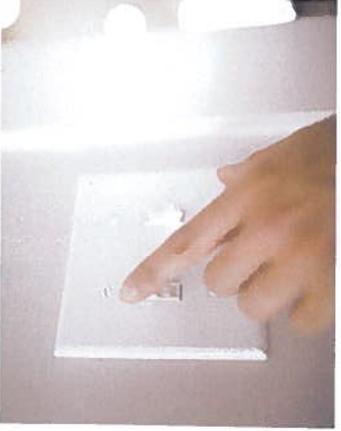
- Make sure lighting is adequate for safety.
- Make sure lighting timers are set only for hours needed.
- Consider using sun trackers or photocells in conjunction with electronic timers on outdoor lighting.
- Evaluate converting incandescent or mercury vapor lighting to high-pressure sodium or metal halide lighting.
- Ensure adequate turn-in lighting off of the highway.

The best source of outdoor lighting design, installation and maintenance may be your electric



BASIC LIGHTING TERMS

- Man-made devices that produce light are called **LAMPS**.
- The amount of light emitted by a lamp is measured in **LUMENS**.
- When one lumen of light falls uniformly on 1 square foot of surface, the surface is illuminated to a level of 1 **FOOTCANDLE**.
- A complete lighting unit including lamp, fixture and electric components is called a **LUMINAIRE**.
- A lamp's ability to bring out the true colors of what it is lighting is called its **COLOR RENDERING INDEX (CRI)**.
 - A scale of 0 to 100 is used.
 - The higher the CRI, the more color it will show.



HOME ENERGY SAVINGS GUIDE



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For more information, please contact your local Touchstone Energy cooperative or visit TogetherWeSave.com.

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FIND OUT HOW THE LITTLE CHANGES ADD UP.

FLIP THE SWITCH. LOWER THE BLINDS. INSULATE YOUR ATTIC. LOWER THE TEMPERATURE ON YOUR THERMOSTAT. THESE SOUND LIKE SIMPLE TASKS. TAKE ALL OF THESE STEPS AROUND YOUR HOME AND YOU CAN RACK UP BIG SAVINGS.

TOGETHER WE SAVE.

THIS HOME ENERGY SAVINGS GUIDE CONTAINS VALUABLE TIPS ON HOW TO IMPROVE YOUR HOME'S EFFICIENCY.

FOR MORE INFORMATION, PLEASE CONTACT YOUR LOCAL TOUCHSTONE ENERGY COOPERATIVE AND VISIT TOGETHERWESAVE.COM.

HOME ENERGY SAVINGS

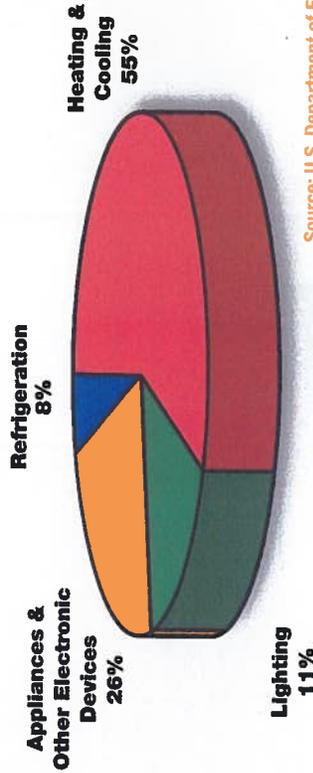
Your Touchstone Energy cooperative works hard to hold down energy prices. You, too, can play an important role in controlling your energy costs by evaluating your home and taking simple steps to trim unnecessary energy use. The following are some tips to help you reduce your energy costs.

HOME ENERGY COSTS

Get a clear picture of which parts of your home use the most energy.

- The first step in reducing home energy costs is to review last year's utility bills. Using the below national "percentage" averages, a homeowner who spent \$1,900 a year for home energy would have paid roughly:
 - \$1045 for heating and cooling
 - \$494 for appliances and other electronic devices
 - \$209 for lighting
 - \$152 for refrigeration
- When implementing energy-saving measures, remember, you cannot save more than you are spending.
- Contact your local Touchstone Energy cooperative to review your bills and receive a more accurate estimate. Go to TogetherWeSave.com for more information.

AVERAGE HOME ENERGY USAGE



Source: U.S. Department of Energy

HOME ENERGY SAVING TIPS

Assess how your family uses energy in your home.

- Leaving unnecessary lights on increases energy costs.
- Turn off computers and other office equipment when they're not being used, especially overnight and on weekends.
- Heating your home to higher than 68° in the winter or cooling it below 75° in the summer costs more.
- Taking long showers runs up the water heating (and water/sewer) bills.

INSULATION

- If you have insulation in your attic graded at R-19 or less, consider bringing it up to R-38 in moderate climates and R-49 in cold climates.
- In cold climates, if you have floor insulation graded at R-11 or less, consider bringing it up to R-25.

WINDOWS

Windows leak heat. If you have single-pane windows, consider doing the following:

- Tighten and weather-strip your old windows and then add storm windows.
- Replace your old single-glazed windows with new double-glazed windows.
- In colder climates, "low-e" coatings on glass can help reduce heat loss through windows.
- In hot climates, consider adding solar screening to west-facing windows that catch a lot of heating late in the day. Solar screening is sold at many home improvement stores.

AIR INFILTRATION

Air that transfers in and out of homes through cracks, crevices and holes increases energy consumption. Here are some helpful tips to avoid air infiltration:

- Seal around pipe penetrations coming through walls.
- During hot and cold weather, ensure windows are closed tightly and locked.
- Ensure weather-stripping around doors and windows is tight.
- When your fireplace is not operating, its flue should be closed tightly, with a sign hanging from the flue handle warning it is closed.
- Check the ceiling behind the cornice of built-in bookshelves for holes cut during construction.
- Drop-down stairways should fit tightly into the ceiling and be carefully weather-stripped.
- Whole-house attic fans should be sealed tightly during the winter.
- Make sure your outside dryer vent door closes when the dryer is not in use. This requires cleaning away lint accumulation periodically.



DRYERS

Drying clothes uses a lot of energy.

- Don't over-dry your clothes. If 50 minutes works, don't set to 70 minutes.
- Make sure to clean the inside lint filter before each drying cycle.
- Periodically check your flexible metal dryer vent hose to ensure it is still tightly connected and not kinked.

WATER TEMPERATURE

SMALL LOAD
WARM COLD
COLD COLD
LARGE LOAD
WARM WARM
HOT COLD

WATER HEATER

Your water heater works with many of your home's other systems.

- Make sure your water heater is set at the lowest point. Try setting it to 120°.
- Washing clothes with warm water and rinse with cold water.
- Overfilling your washer can increase your energy use.
- If your water heater is located in an unconditioned space, consider installing a thermal wrap around it. Take care to install it in accordance with the tank and wrap manufacturer instructions.



REFRIGERATION

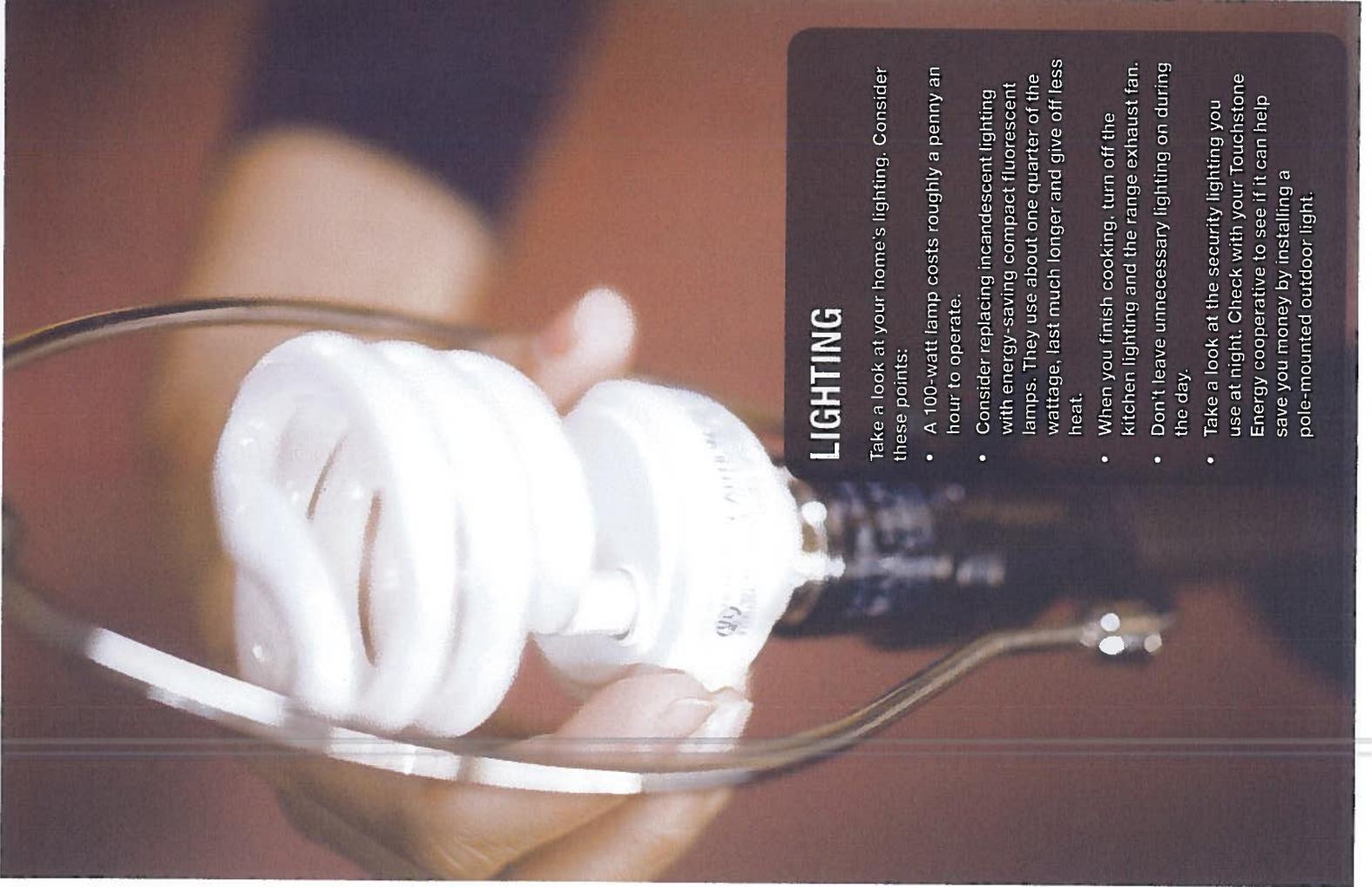
Trim your refrigerator's energy use.

- Make sure refrigerator and freezer seals fit tightly when doors close.
- Keep outside coils clean. Dirty coils make your refrigerator compressor work longer to remove heat.
- Setting your freezer below 0° uses extra energy.
- Setting your refrigerator below 37° uses extra energy.

HEATING & AIR CONDITIONING

Heating, ventilating, and air conditioning (HVAC) uses the largest chunk of your home energy dollar. Keep it running "lean and mean."

- HVAC systems should be checked to verify they are moving the correct amount of air. An HVAC technician can tell you if it is.
- Heat pump and air conditioning systems should be checked annually to verify they are properly charged, strictly in accordance with manufacturer guidelines.
- Inside and outside coils should be kept clean and free of debris.
- Gas furnaces should be tuned for maximum combustion efficiency.
- Return filters should be changed monthly.
- Have an HVAC technician check carefully for duct leaks. Leaks that are found should be sealed with fiberglass mesh and mastic sealant.



LIGHTING

Take a look at your home's lighting. Consider these points:

- A 100-watt lamp costs roughly a penny an hour to operate.
- Consider replacing incandescent lighting with energy-saving compact fluorescent lamps. They use about one quarter of the wattage, last much longer and give off less heat.
- When you finish cooking, turn off the kitchen lighting and the range exhaust fan.
- Don't leave unnecessary lighting on during the day.
- Take a look at the security lighting you use at night. Check with your Touchstone Energy cooperative to see if it can help save you money by installing a pole-mounted outdoor light.



SELECTING A CONTRACTOR

Some of the work you will want to complete will require the services of a contractor. When selecting a contractor, keep in mind that the best price is not always the best value. Here are some questions to ask when deciding who to use:

- How long have you been in business?
- Can you provide proof that you are state-licensed and carry workers' compensation insurance?
- Can you provide the names of neighbors who have used your services?
- Are you a member of the Better Business Bureau?



South Plains Electric Cooperative, Inc. shared a link.

Posted by Whitney Bryant [?] · April 7

Happy Monday! Here is today's money saving tip: Don't let water run while brushing your teeth. For more tips to help save money, check out our website. #moneysavingmonday #saveenergy #savemoney

<http://www.spec.coop/v/energy-tips/>

Energy Tips
www.spec.coop

Like · Comment · Share



This post was served to 109 people

Boost Post



South Plains Electric Cooperative, Inc.

Posted by HootSuite [?] · April 22

Happy Earth Day! Remember that the cleanest, greenest energy is the energy that we don't use! Visit <http://www.spec.coop/> and <http://www.togetherwesave.com/> for ways to become more energy efficient-saving energy, money and the environment at the same time. #EarthDay #saveenergy



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This post was served to 141 people

Boost Post



South Plains Electric Cooperative, Inc.

Posted by HootSuite [?] · April 28

Here is today's money saving tip: only run your dishwasher when it is fully loaded. For more tips to help save money, check out our website. #moneysavingmonday #saveenergy #savemoney

http://www.spec.coop/media/docs/101Ways_LoRez.pdf



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Boost Post



South Plains Electric Cooperative, Inc.

Posted by HootSuite [?] · May 6



National Electrical Safety Month

Tip of the Day

Check ceiling fans regularly for a wobble, which will wear out the motor over time. To fix the wobble, turn off power to the ceiling fan, and tighten the screws.

Source: Electrical Safety Foundation International

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Cindy Ray Hendley, Kelby Doss and 2 others like this.



Write a comment...



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Boost Post



South Plains Electric Cooperative, Inc. shared a link.

Posted by HootSuite [?] · May 12

As winter transitions into spring, there are a few key tasks homeowners can tackle that could add up to big savings when the temperatures warm up. Besides an air conditioner tune up, seal air leaks, check the roof for damage and look in the attic for proper insulation levels. Visit <http://www.togetherwesave.com/> to find more ways to save this summer. An energy audit is also highly recommended. Access Home Inspections and JFerg Energy Pros are two Co-op Connections participating businesses that perform these audits! #moneysavingmonday, #saveenergy #savemoney



Touchstone Energy | Together We Save

www.togetherwesave.com

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South Plains Electric Cooperative, Inc., Cindy Ray Hendley, Carey Hewett and 2 others like this.



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This post was served to 157 people

Boost Post



South Plains Electric Cooperative, Inc.

Posted by HootSuite [?] · May 19 

- Use shade trees in landscaping design to block the sun and reduce cooling costs. Deciduous trees shed leaves in winter to let heat in. #moneysavingmonday #saveenergy #savemoney

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 Zach Bean, Carey Hewett, Debby Duncan Ketchersid and 2 others like this.



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Boost Post 



South Plains Electric Cooperative, Inc.

Posted by Whitney Bryant [?] · May 20



National Electrical Safety Month

Tip of the Day

Place lamps on level surfaces, away from things that can burn and use bulbs that match the lamp's recommended wattage.

Source: National Fire Protection Association

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10-15

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Kids Only

LED LUCY

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NOTES:

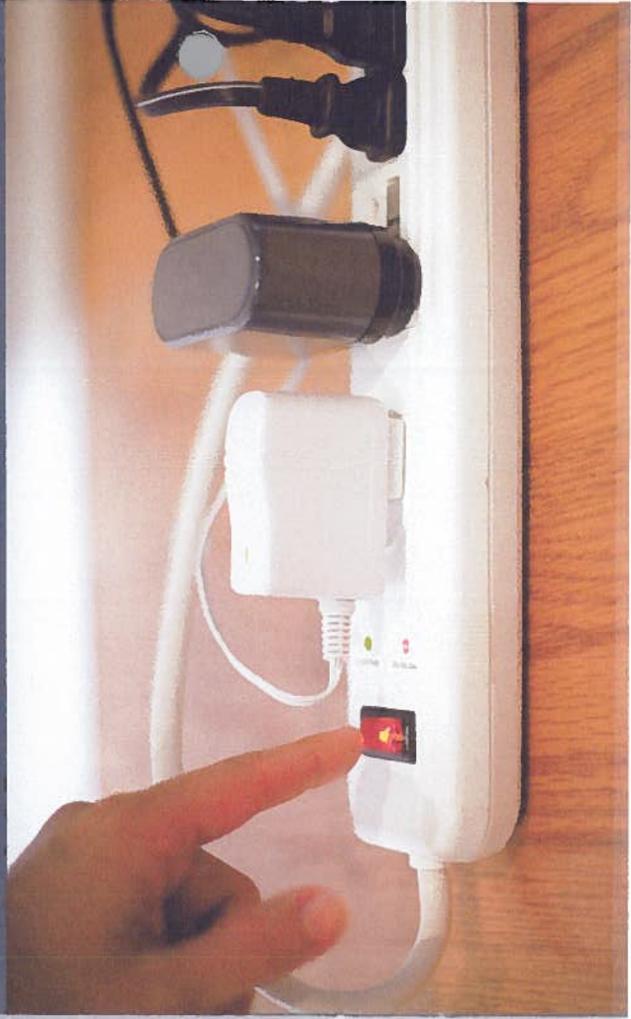


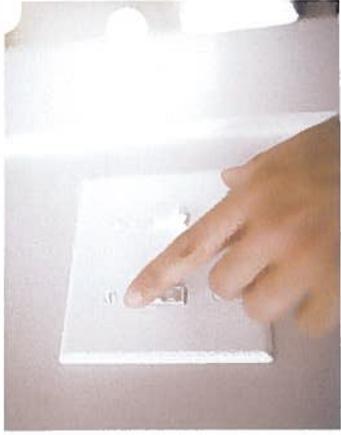
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- U.S. DEPARTMENT OF ENERGY – ENERGY.GOV/YOURHOME.HTM
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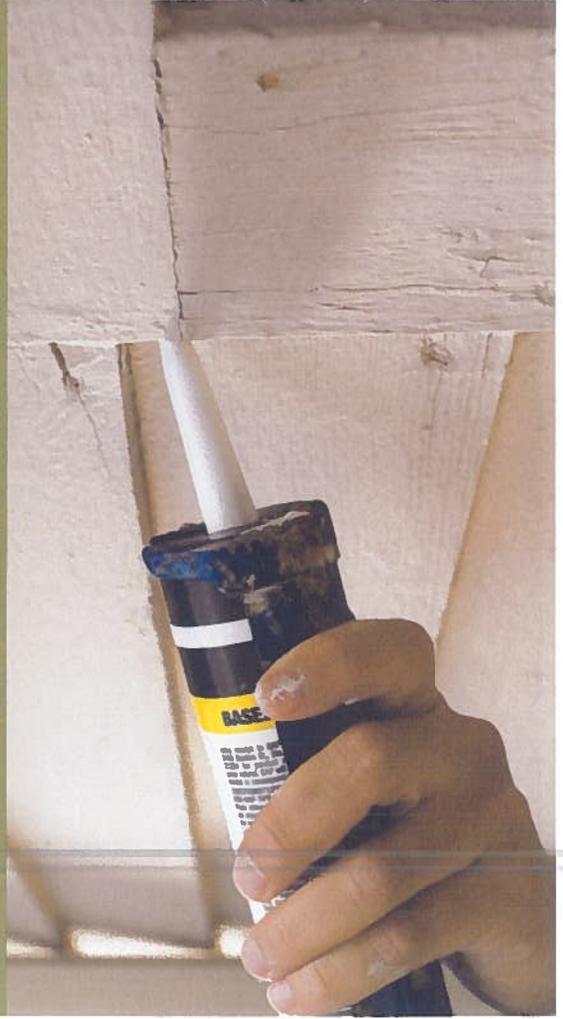


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TO UPGRADING TO CFLs. SO TAKE YOUR PICK,
AND SAVE YOUR MONEY.

FIND OUT HOW THE LITTLE CHANGES ADD UP AT TOGETHERWESAVE.COM.



WATER HEATING

1. Set water heater temperature no higher than 120°F.
2. For households with 1 or 2 members, a 115°F setting may work fine.
3. Install water-heater wrap per manufacturer's instructions.
4. Drain 1-2 gallons from bottom of water heater each year to reduce sediment build up.
5. Install heat traps on hot and cold water lines when it's time to replace your water heater.
6. Insulate exposed hot water lines.
7. Limit shower length to 5-7 minutes.
8. Install low-flow shower heads.
9. Fix dripping faucets.
10. Don't let water run while you are shaving.
11. Don't let water run while brushing your teeth.

**LARGE
LOAD**

**COLD
COLD**

COLD

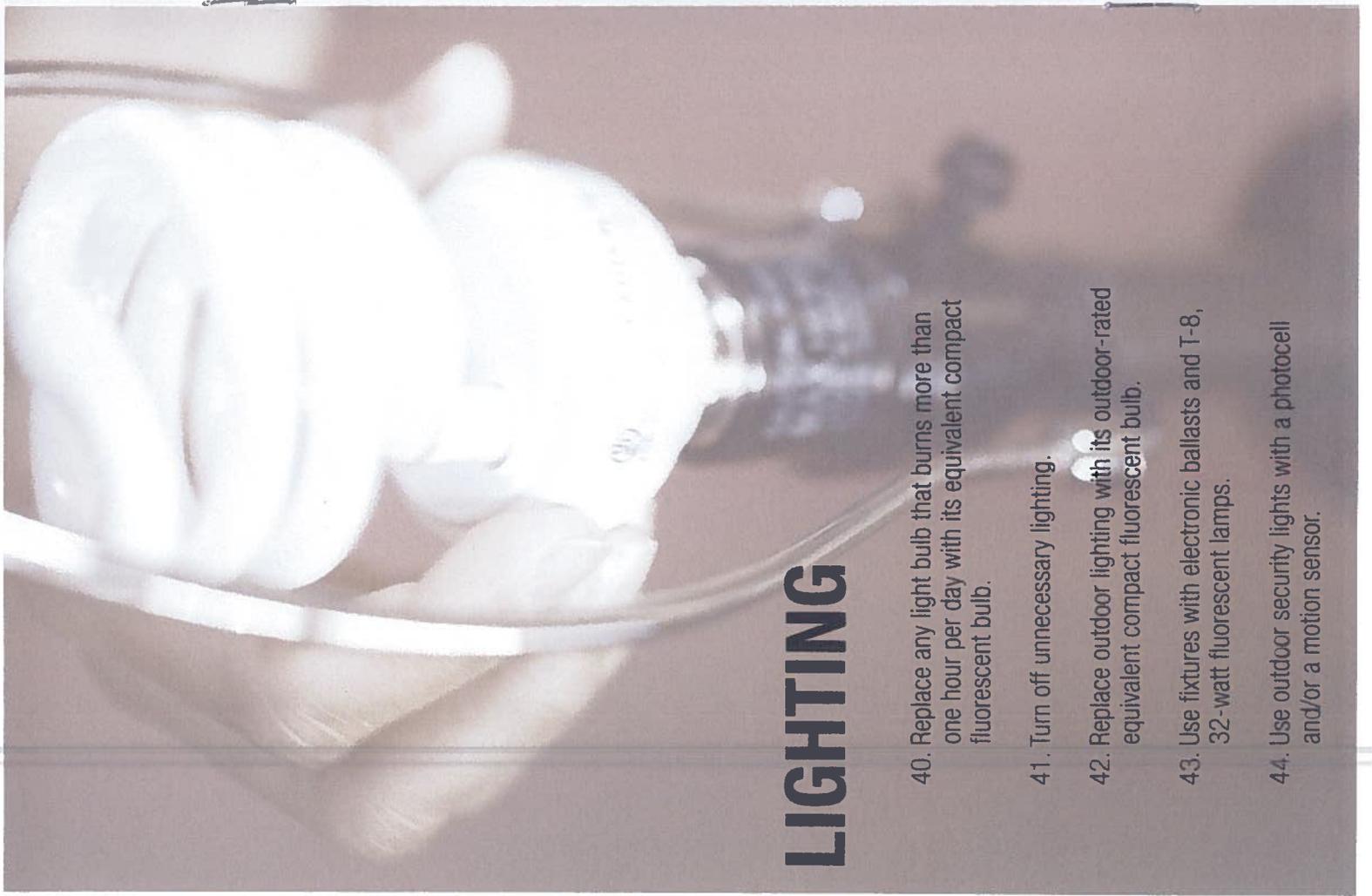
**HOT
COLD**

LAUNDRY

12. Wash clothes in cold water. Use hot water only for very dirty loads.
13. Only do full laundry loads.
14. If you must do smaller loads, adjust the water level in the washing machine to match the load size, especially when using hot water.
15. Always use cold-water rinse.
16. Use bath towels at least twice before washing them.
17. Clean your dryer's lint trap before each load.
18. Make sure the outdoor dryer exhaust door closes when the dryer is off.
19. Verify dryer vent hose is tightly connected to inside wall fitting.
20. Check that the dryer vent hose is tightly connected to dryer.
21. Make sure dryer vent hose is not kinked or clogged.
22. Minimize clothes drying time; use moisture sensor on dryer if available.
23. Dry consecutive loads to harvest heat remaining in dryer from last load.
24. Consider using a "solar-powered" clothes dryer, an old fashioned clothes line.

KITCHEN

25. Use your refrigerator's anti-sweat feature only if necessary.
26. Switch your refrigerator's power-saver to "ON," if available.
27. Clean refrigerator coils annually.
28. Set the refrigerator temperature to 34° - 37°F and freezer temperature to 0° - 5°F.
29. Ensure gaskets around door seal tightly.
30. Unplug unused refrigerators or freezers.
31. Use microwave for cooking when possible.
32. When cooking on the oven range, use pot lids to help food cook faster.
33. If you are heating water, use hot tap water instead of cold.
34. Remember to use the kitchen exhaust fan when cooking and turn it off after cooking.
35. Use a crockpot instead of simmering foods on the stove.
36. Rinse dirty dishes with cold water before putting them into the dishwasher.
37. Use cold water for garbage disposal.
38. Only run dishwasher when fully loaded.
39. Use air-dry cycle instead of heat-dry cycle to dry dishes.

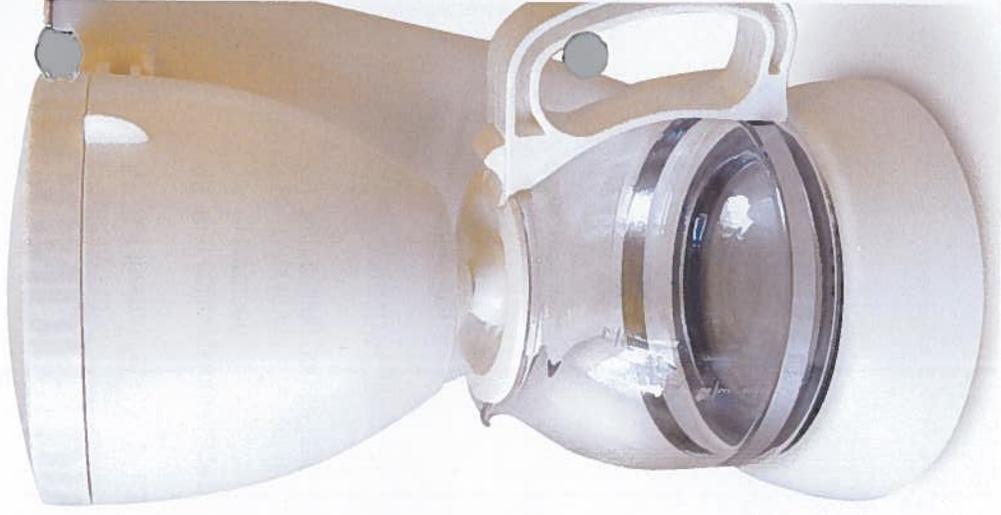


LIGHTING

- 40. Replace any light bulb that burns more than one hour per day with its equivalent compact fluorescent bulb.
- 41. Turn off unnecessary lighting.
- 42. Replace outdoor lighting with its outdoor-rated equivalent compact fluorescent bulb.
- 43. Use fixtures with electronic ballasts and T-8, 32-watt fluorescent lamps.
- 44. Use outdoor security lights with a photocell and/or a motion sensor.

MISCELLANEOUS

- 45. Turn computers and monitors off when not in use.
- 46. Make sure electric blankets are turned off in the morning.
- 47. Turn waterbed heater off when not needed.
- 48. Turn large-screen TV's off completely when not in use.
- 49. Turn off stereos and radios when not in use.
- 50. Remember to turn off hair curling irons and hot rollers.
- 51. Turn off coffee makers when not in use.
- 52. Turn off pool pump and/or heater when not needed.
- 53. Verify livestock water tank heaters are off when not needed.
- 54. Make sure heat tape is off when not needed.
- 55. Unplug battery chargers when not needed.
- 56. Ensure all new appliances purchased are Energy Star approved.





HEATING & AIR CONDITIONING

57. Set thermostats to 78° F in summer, 68° F in winter.
58. Run ceiling paddle fans on medium, blowing down in summer.
59. Run ceiling paddle fans on low, blowing up in winter.
60. Change HVAC filters monthly.
61. When installing new air filters, make sure they are facing in the correct direction (look for arrow on side of filter).
62. When heating or cooling, keep windows locked.
63. Insulate electric wall plugs and wall switches with foam pads.
64. Caulk along baseboards with a clear sealant.
65. Close fireplace dampers when not burning a fire.
66. Caulk around plumbing penetrations that come through walls beneath bathroom and kitchen sinks.
67. Caulk electrical wire penetrations at the top of the interior walls.

68. Close shades and drapes at night to keep heat in during the winter.
69. Make sure drapes and shades are open during the day to catch free solar heat in winter.
70. Close shades and drapes during the day to help keep heat out in summer.
71. Ensure attic access door closes tightly.
72. Insulate attic access door.
73. Make sure insulation in your attic does not block soffit vents.
74. Do not close off unused rooms that are conditioned by forced-air systems.
75. Do not close supply air registers.
76. Check to be sure return air grilles are not blocked by furniture or bookcases.
77. Ensure windows and doors are properly weather-stripped.
78. Make sure outside soffit vents are not blocked.
79. Do not use roof-top power ventilators for attic exhaust as they may evacuate conditioned air from your home.
80. Have your HVAC system serviced once per year by a NATE-certified technician.

95. Verify your supply air duct "boots" (behind supply air registers) are caulked to your ceiling or wall sheetrock or flooring.

96. If in unconditioned space, verify your ducts are tightly connected to your HVAC equipment.

97. Verify all outdoor doors (including storm doors) close and seal tightly.

98. In two-story homes serviced by one HVAC system, a paddle fan at the top of the stairs can push down hot, second-floor air.

99. Install 15 minute, spring-wound timers on bathroom ventilator fans.

100. Always run your HVAC system fan on "AUTO." Running it on "ON" uses more electricity and can decrease your air conditioner's ability to remove moisture.

101. Keep your garage door down. A warmer garage in the winter and cooler garage in the summer will save energy.

81. Monitor your home's relative humidity in the summer. If it consistently stays in the 60 percent range or higher, ask your HVAC technician about lowering your central air conditioning unit's indoor fan speed.

82. Ensure window A/C units are weather-stripped.

83. Ensure windows with window mounted A/C units have weather-stripping between the middle of the top and bottom pane.

84. Remove and clean window A/C filter monthly.

85. Keep "fresh-air" vents on window A/C units closed.

86. Use heavy-duty, clear sheets of plastic on the inside of windows to reduce the amount of cold air entering your home.

87. Minimize use of electric space heaters.

88. Ensure your outdoor heat pump/air conditioning unit is kept clean and free of debris.

89. When using the fireplace, reduce heat loss by opening damper in the bottom of the firebox (if provided) or open the nearest window slightly.

90. In a basement, seal the sill and band joint with durable caulking or foam sealant.

91. Ensure floor registers are not blocked with rugs, drapes or furniture.

92. Outside your home, caulk around all penetrations including telephone, electrical, cable, gas, water spigots, dryer vents, etc.

93. Caulk around storm windows.

94. Caulk around basement windows.