

**CONSUMERS  
GUIDE TO ENERGY  
AND UTILITY RESOURCES  
IN HUERFANO AND LAS ANIMAS  
COUNTIES**



## **Preface**

Huerfano/Las Animas Housing Resources is private, non-profit organization with a HUD certification as a Community Housing Development Organization (CHDO). Our mission is to provide decent, affordable housing for the low to moderate income residents of Huerfano and Las Animas counties. Most people think a home is affordable if it can be purchased for a low price. However, there are many other aspects that can make a low-priced home an expensive place to live such as a mortgage with high interest rates, the need for extensive repairs and high utility bills. According to the 2000 U.S. census, 56.5% of the homes in Las Animas County were built before 1959 and 45% of the homes in Huerfano County were built before 1959. Many of these older homes have no insulation, old wooden windows and very old inefficient furnaces.

We also believe it is the responsibility of individuals to decrease the energy they consume. Traditionally the energy used in our homes comes from coal, oil, gas, and other fossil fuels. The electricity we use in our homes comes from power stations that burn fossil fuels. Besides the obvious cost savings involved by upgrading to newer systems or alternative systems of producing energy, we can all contribute to saving our planet by reducing our energy usage.

Our goal in providing this guide is two-fold. First, we want to provide information on how to lower your utilities and we encourage you to shop locally for your energy improvement needs. There are many local sources of energy efficiency products and services that people may not be aware of. By publishing this guide we hope consumers will strongly consider the economic benefits to the community that can be realized by using local providers of products and services to meet their energy needs. When you shop locally your dollars are re-circulated in the community and help promote a strong economy, support and strengthen locally owned independent business and help maintain and create local jobs. Where you spend your money determines what your community will look like in the future.

Throughout this guide you will find:

- ◆ Energy Saving Tips
- ◆ Information about local retailers and suppliers of energy saving items
- ◆ Information about a variety of energy saving products
- ◆ Contact information for resources on energy efficiency

**Disclaimer:** Housing Resources does not recommend and/or endorse any of the products, services, or businesses listed in this booklet. It is our intention is to provide you with information only. We recommend you research energy efficiency products before installing them. Further, we recommend you check references of suppliers before utilizing their services.

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**Energy Outreach Colorado**  
*Together we generate the power to help.*

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## **INTRODUCTION**

**Welcome to the world of Energy Efficiency!!** We hope you will use the tips you find throughout this booklet to reduce your energy costs. Listed at the end of the booklet are many other sources of information concerning energy efficiency.

Although there are a multitude of energy efficiency booklets around and plenty of information available on the Internet, this booklet provides a source of information on local suppliers of energy efficient products.

## **UTILITY ASSISTANCE PROVIDERS**

### **Budget Billing**

Both the City of Trinidad and City of Walsenburg offer budget billing for their customers.

What is Budget Billing? Budget billing is a program established for customers who desire a fixed monthly payment for their utility bill. The budget bill averages the most recent 12 utility bills at your location so you will have a set monthly payment.

### **City of Trinidad**

To be eligible for budget billing in the City of Trinidad, you must be a residential customer receiving City of Trinidad utilities, your utility account must have a zero balance to start, and you must have a 12-month history at your location. Budget billing applications are taken in the month of May each year.

Settle-up is also done during the month of May (or a month determined by the Utility office to be most effective). During the year your budget billing account will carry a deferred balance. The deferred balance is the difference between your actual charges and your budget payment: it may be either a credit or a debit balance. In the settle-up month, the deferred balance will be applied to your account. If you have a deferred credit balance, the amount due will be the settle up month charges less the amount of the deferred credit. Any remaining credit on the account after the settle-up month charges are paid will remain to offset future bills. If you have a deferred debit balance, the amount due will be the settle-up charges plus the amount of the deferred debit. To avoid a large deferred debit balance in settle-up, monitor your consumption. If you consistently use more than you are paying for, your account will develop a deferred debit balance.

With budget billing, payment extensions are not available. Accounts may be discontinued from budget billing at any time at the request of the customer, the City, or when a utility account is terminated. Settle-up occurs with the next billing.

If you are interested in budget billing and your account meets the requirements listed here, call the utility office at 719-846-9843 extension 116.

### **City of Walsenburg**

The City of Walsenburg runs their budget billing cycle from September of one year to August of the following year. Monthly bill is set using an average of the previous twelve months. Due to the anticipated increase in utility costs this winter, the City is adding an additional 10% to the monthly average in an effort to avoid large balances at the end of the budget billing cycle. Any balances that are still pending are payable in full by September 23<sup>rd</sup> so the customer will start the next cycle with a zero balance.

For further information on the City of Walsenburg's budget billing program, call 738-1240 extension 10.

### **LEAP Program**

The Low-Income Energy Assistance Program (LEAP) is a federally funded program that helps needy persons pay their winter utility bills from November 1<sup>st</sup> through April 30<sup>th</sup>. The LEAP program is only meant to *assist* with your heating bills *not pay the entire cost to heat your home*. You should continue to make payments to your utility company even if you qualify for LEAP. Applications are usually taken beginning November 1<sup>st</sup> each year. To see if you qualify contact:

#### **In Las Animas County:**

Las Animas County Dept.  
204 S. Chestnut St.  
Trinidad, CO 81082  
719-846-2276  
719-846-4269 (fax)

#### **In Huerfano County:**

Huerfano County Dept. of Social Services  
121 W. 6<sup>th</sup> Street  
Walsenburg, CO 81089  
719-738-2810  
719-738-2549 (fax)

### **Energy Outreach Colorado**

The mission of Energy Outreach Colorado is to ensure that Colorado's low-income families can meet their home energy needs. Energy Outreach strives to be Colorado's leading organization dedicated to efficient delivery of cost-effective energy assistance, energy conservation and energy education for low-income households to maintain their well being and self-sufficiency.

If you are seeking help between May 1<sup>st</sup> and October 31<sup>st</sup>, when LEAP funds are not available, or if you do not qualify for LEAP assistance or need help in addition to LEAP you may qualify for Energy Outreach Colorado (EOC) funds. To qualify you must owe a past-due balance on your utility bill.

Steps for receiving EOC assistance:

1. You have a letter from LEAP informing you whether you qualified for LEAP assistance or of you were denied. You must have this letter before applying to an EOC partner agency.
2. You are at least one day past due on your energy bill.
3. You have not already received a payment between November 1<sup>st</sup> and October 31<sup>st</sup>. You may only receive one payment from any agency within the EOC network within this time frame.

4. You pay your energy bill directly to your provider and not through another method, such as part of your rent, in order to receive assistance.

During the process of finding assistance you should:

- Contact your energy provider to make payment arrangements on your energy bill.
- Attempt to keep your payment arrangements with your energy provider, but if you can't at least pay something every month on your bill.
- Visit [www.EnergyOutreach.org](http://www.EnergyOutreach.org) to get low cost energy saving tips or to request information on how to weatherize your home at 1-866-HEAT-HELP (1-866-432-8435)

Local EOC partners are:

Las Animas County

Advocates Against Domestic Assault  
721 Madison Street  
Trinidad, CO 81082  
719-846-6665  
719-845-0286 fax

or South Central Council of Governments  
300 Bonaventure Avenue  
Trinidad, CO 81082  
719-845-1133  
719-845-1130 fax

Huerfano County

South Central Council of Governments  
928 Russell Avenue  
Walsenburg, CO 81089  
719-738-2205  
719-738-6898 fax

### **About Energy Outreach Colorado**

Energy Outreach Colorado is the largest organization of its kind in the United States, and the only non-profit in Colorado that raises funds for energy assistance. Energy Outreach also supports longer-term solutions to reduce energy usage by providing grants to organizations to fund energy efficiency measures like Energy Star appliances and energy efficiency upgrades in homes across the state. Educational and weatherization programs are also funded to teach Coloradoans how to manage their home energy.

More than one in five Colorado households qualify as low income and eligible for energy assistance under government guidelines. **Tax deductible contributions can be made by calling toll free to 1-866-432-8435 or visiting [www.EnergyOutreach.org](http://www.EnergyOutreach.org)**

### **South Central Council of Governments Gas Assistance Program (GAP)**

Pioneer Natural Resources has provided funds for senior's utility assistance for the past four years in **Las Animas County**. The program period covers the winter months usually from November till April or as long as funds last. The qualifications are: the applicant must be fifty-five (55) years of age, have a maximum income of \$2,000 a month or less to receive assistance, and complete a short application. Each client receives a 50% reimbursement for gas and electric each month they submit a bill for assistance. Pioneer Natural Resources has

contributed \$1,000,000 to this program and we hope they will continue in the coming years. **This program is not guaranteed funding. Please check each November for availability of funds.**

**For further information contact:**

**John Anderson**  
 Phone: 719-845-1133 Ext 208  
 Email: [janderson@sccog.net](mailto:janderson@sccog.net)

**Stevie Medina**  
 Phone: 719-845-1133 Ext 213  
 Email: [smedina@sccog.net](mailto:smedina@sccog.net)

**Jennifer Byrd**  
 Phone: 719-845-1133 Ext 202  
 Email: [jbyrd@sccog.net](mailto:jbyrd@sccog.net)

**ENERGY EFFICIENCY MEASURES**

**Which Energy Saving Improvements Should You Choose?**

There are many small changes you can make to help save on your utility bill such as switching to *compact fluorescent light bulbs* and installing *low-flow shower heads* in your bathrooms. If you want to make major improvements, a **home energy audit** is the best way to determine which energy saving improvements will benefit you the most. We highly recommend that you have a home energy audit before spending your hard-earned money on energy improvements. An audit that includes a *blower door test* can tell you exactly where you need to seal leaks that cause heat loss. A *duct blaster test* can tell you whether your furnace ducts are sealed properly and carrying the heat to the various rooms in your home or whether they are leaking heat into your basement or crawl space. If you choose not to have an energy audit, you may want to consider the payback time in the table below to help you determine which improvements will give you the best “bang for your buck”. (these times can vary depending on the age and condition of your current items)

<b>Improvement</b>	<b>Typical Payback</b>
Ceiling Insulation.....	3-7 years
Wall Insulation.....	6-12 years
Floor Insulation.....	2-5 years
Seal Large Air Leaks.....	1-2 years
Seal Small Air Leaks.....	1-2 years
Seal Ducts.....	1-2 years
Storm Windows.....	4-10 years
Window Replacement.....	15-30 years
Set back Thermostat.....	1-2 years
Low-flow Showerhead.....	1-3 years
Insulate Water Heater.....	1-2-years
Heating tune up.....	1-3 years
Heating system replacement.....	5-20 years

(Payback information taken from Xcel Energy’s Budget Smart booklet)



## **What is an energy audit?**

A home energy audit is used to identify areas of improvement with regard to home energy usage. Different levels of service are available depending on your needs or budget.

*BASIC ENERGY AUDIT* - A visual observation of the house to identify possible ways to save energy. No actual measurements of the house are performed.

*COMPREHENSIVE ENERGY AUDIT* - Adds blower door testing and duct blaster testing to the Basic Energy Audit. This helps identify where you may have pathways of air infiltration and leaks. This is designed to provide you with the maximum amount of information for the money for your home and what you can do to improve it. We recommend that you accompany your Home Energy Auditor through the home in order to fully understand the issues and solutions. You will receive a comprehensive report on your home outlining what we found and a plan to make your home more energy efficient.

## **What is a home energy rating?**

Home energy ratings provide a standard measurement of a home's energy efficiency. Ratings are used for both new and existing homes. In new homes ratings often verify energy performance for the ENERGY STAR homes program, energy efficient mortgages, and energy code compliance. Homeowners who want to upgrade the home's energy efficiency can use the energy rating to evaluate and pinpoint specific, cost-effective improvements. For existing homes, homeowners can receive a report listing cost-effective options for improving the home's energy rating. An energy rating allows a homebuyer to easily compare the energy performance of the homes being considered.

There are two types of ratings:

*Projected ratings* – Ratings performed prior to the construction of a home or prior to the installation of energy improvements to an existing home.

*Confirmed ratings* – Ratings completed using data gathered from an on-site inspection, which could include performance testing of the home.

Confirmed ratings involve an on-site inspection of a home by a residential energy efficiency professional, a home energy rater. Home energy raters are trained and certified by a RESNET accredited home energy rater training provider.

The home energy rater reviews the home to identify its energy characteristics, such as insulation levels, window efficiency, wall-to-window ratios, the heating and cooling system efficiency, the solar orientation of the home, and the water heating system. Performance testing, such as a blower door test for air leakage and duct leakage, is usually part of the rating.

The data gathered by the home energy rater is entered into a RESNET accredited computer program and translated into rating score. The home receives a score between 1 and 100, depending on its relative efficiency. An estimate of the home's energy costs is also provided in the report. The home's energy rating is then equated to a Star rating ranging from one star for a very inefficient home to five stars for a highly efficient home.

Unlike an energy audit or a weatherization assessment, a home energy rating is a recognized tool in the mortgage industry. Home energy ratings can be used in a variety of ways in the housing industry. The star and the rating score provide an easily understandable means to

compare more efficient homes by their relative energy efficiency, since a rating quantifies the energy performance of a home.

**Blower Door Testing:** A blower door is a large fan in a panel that fits into a doorway. By pulling air from the house, the blower door gauges air flow and pinpoints air leaks throughout the house. The blower door test can determine where your house is leaking air or if energy improvements you have made have caused the home to be too tight and in need of ventilation.



If you cannot afford a home energy audit, we would recommend at least having a blower door test done. If you seal the leaky areas identified in a blower door test, you will easily recoup your money through lower utility bills.

**Local home energy auditor:**

Gordon Inspections 719-845-0222, 407 Kansas Ave., Trinidad, CO 81082

## **Caulking & Weather Stripping**

Caulking and weather-stripping can be the most cost effective way of weatherizing.



As a general rule you should caulk wherever two building materials meet on the interior and exterior of a home such as where the window meets the siding on the exterior. Caulking not only prevents drafts in your home, but keeps moist air from entering the house and keeps rain, moisture, bugs, and rodents from entering and damaging the home.

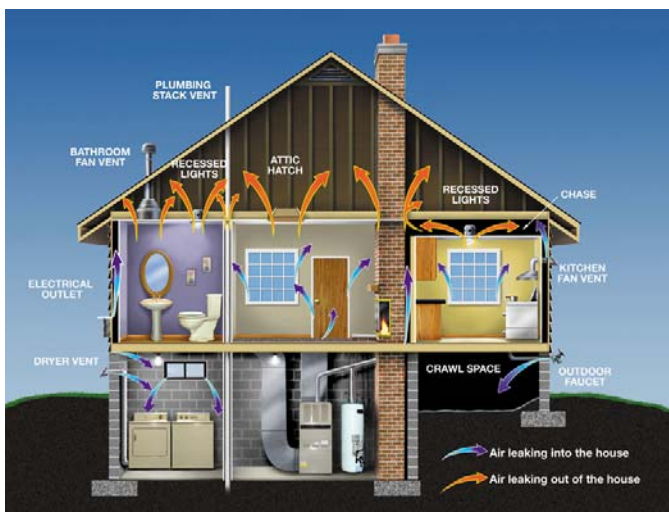
There are a variety of caulking materials available. We recommend you ask your building supply specialist which type of caulk is best for the area you are working on.

Before you apply the caulk, you should remove chipping paint, dirt, or old caulking. Be sure the surface is dry. Wide or deep cracks should be filled in with filler material.

Weather stripping is a narrow strip of metal, vinyl, rubber, or foam that provides a seal between moving parts of doors and windows. If you caulk the back of weather stripping before you screw or tack it to the door frame it will help prevent air from getting through.

## Insulation

Did you know that up to 70% of your cost for electricity and natural gas goes toward heating and cooling your home? By insulating your home well you can reduce the flow of heat in and out of your home.



(photo courtesy of Energy Star, [www.energystar.gov](http://www.energystar.gov). c.2008)

The following table illustrates the recommended values of insulation in this region. Of note is that Huerfano County and Las Animas County are in different zones

IECC Climate Zone 4 – Las Animas County								
Window U-factor	Skylight U-factor	Ceiling R-value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value &	Crawl Space Wall R-Value
0.40	0.60	R-38	R-13	R-5	R-19	R-10/13	R-10, 2ft	R-10/13

IECC Climate Zone 5 – Huerfano County								
Window U-factor	Skylight U-factor	Ceiling R-value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value &	Crawl Space Wall R-Value
0.35	0.60	R-38	R-19 or 13+5	R-13	R-30	R-10/13	R-10, 2ft	R-10/13

Before you insulate your attic you should fix roof leaks and other moisture related problems and repair damaged or outdated electrical wiring making sure all connections are housed in metal or plastic electrical boxes. If your roof is leaking, the moisture will ruin the insulation and exposed or degraded wiring that may become exposed can cause a fire.

We highly recommend that you have your insulation installed by a professional to assure it is installed safely and properly.

## **Local insulation installers:**

Apex Service Company, 719-846-7306 317. S. Maple, Trinidad, CO 81082  
When installing siding, they can install insulation on the home before adding the siding.

B&D Blown Insulation 719-868-3603 Blown-in cellulose insulation with Class I fire rating.

JOA Foam 719-859-0909 Closed cell spray foam insulation

Lock Tight Insulation, LLC 719-845-0601 or 719-680-9525 [www.sealection500.com](http://www.sealection500.com)  
Installs Sealection 500 spray foam insulation

## **Energy \$aving Partners Program**

The Governor’s Energy Office (GEO) offers the Energy \$aving Partners Program to improve the energy efficiency of all residential structures throughout Colorado. Due to their limited income, low-income families face challenges when it comes to investing in energy efficiency. The GEO offers free energy efficiency services for income-qualified households.

The underlying objective of all GEO investments in energy efficiency services is cost-effectiveness. This is measured as return on investment, comparing the cost incurred to deliver the services with the value of the energy not consumed as a result of the service. GEO strives for all investments to achieve at least a 2-to-1 return on investment. This positive margin does not include various non-energy benefits resulting from the services (safer, more comfortable homes; less household disruption/homelessness; fewer utility shut-offs; etc.), while also allowing a margin for non-energy related costs (client eligibility documentation; financial management; etc.).

### **Program Features**

GEO has designed three levels, or “tiers”, of service delivery in order to respond cost-effectively to all low-income energy efficiency needs:

- **Tier 1**  
High efficiency light bulbs and showerheads, combined with consumer education, delivered via mail, during interactions with utility assistance applicants or via home visits by youth corps; the target for these services is average to low consumers.
- **Tier 2**  
In addition to Tier 1 services, focused investments, primarily appliance replacements (furnaces, refrigerators, freezers) in homes where this is the primary energy efficiency need.
- **Tier 3**  
Comprehensive “weatherization” services, generally including insulation of attics/walls and reducing leakage in walls/windows/ducts, in addition to appliance replacements and Tier 1 services. The target here is high consumers.

**How to Participate:**

Participation in the Energy Saving Partners Program is **dependent upon income-level**. To find out if you or someone you know is eligible, call toll-free 1-866-HEAT-HELP (1-866-432-8435), or contact Huerfano/Las Animas Housing Resources at 846-7882 for assistance with the application.

(from the Colorado Governor's Energy office site: [www.colorado.gov/energy/residential/income-upgrades.asp](http://www.colorado.gov/energy/residential/income-upgrades.asp))

## ENERGY EFFICIENT PRODUCTS

This section will give you an introduction to some of the energy efficient products available on the market. We encourage you to research these items further before deciding if they are right for you.

### **Compact Fluorescent Light Bulbs (CFLs)**



According to Energy Star if every household in America replaced just one incandescent light bulb with an Energy Star qualified compact fluorescent light bulb, in one year it would save enough money to light more than 3 million homes for a year.

Switching from traditional (incandescent) light bulbs to CFLs is a simple, yet effective, change everyone can make right now. Lighting accounts for close to 20% of the average home's electric bill. CFLs use up to 75% less energy than incandescent light bulbs and last up to ten times longer. The energy you save provides a quick return on your investment with an estimated savings of about \$30 or more in electricity costs over each bulb's lifetime. Additionally, CFLs produce 75% less heat making them safer to operate and reducing energy costs needed to cool your home in the summer.

CFLs do contain a very small amount of mercury sealed within the glass tubing – about the amount that would cover the tip of a ballpoint pen. By comparison, old thermometers contain the amount of mercury equal to 125 CFLs. Thanks to new technology, the amount of mercury content has dropped at least 20% in the past year.

You should take precautions when using CFLs. Keep in mind that CFLs are made of glass and can break if dropped or roughly handled. When removing the bulb from its package, installing it, or replacing it always screw and unscrew the bulb by its base and not by the glass. Never forcefully twist the CFL into a light socket. If a CFL breaks in your home, follow the clean up recommendations shown in Appendix A.

When your CFLs burn out you should try to dispose of them in an available local recycling center for CFLs. If none exists, you should put the used or broken into two plastic zip lock type bags and place them in the outside garbage. Never try to burn or incinerate a CFL.

For more information about CFLs, visit <http://www.energystar.gov/cfls>

(information from Energy Star website at [www.energystar.gov](http://www.energystar.gov))

**Tip:** By lowering your thermostat from 72 degrees to 65 degrees for 8 hours a day, you can cut your heating bill by 10%.

## **Demand (Tankless or Instantaneous) Water Heaters**



Most of us are familiar with storage tank water heating systems. In these systems the water is kept hot 24 hours a day whether you are using it or not. Demand, or tankless, water heaters heat the water as you use it eliminating the energy waste that takes place with storage tank systems. Europe, Asia, and South America have been using this technology for 75 years. However, most Americans are just now learning of this technology and its benefits.

When you open the faucet, the flow of the water triggers the heater to turn on. The gas burners or electrical elements will turn on and rapidly heat the water as it passes through the unit. Once you turn off the faucet, the unit shuts down so the energy that is consumed is only for the hot water that is being used. This energy savings translates to dollar savings for you and reduced impact on our environment. In addition, since a tankless water heater heats the water as you use it, you can have an endless supply of hot water, provided you have the appropriate size unit installed. Professional installers should know the size of water heater you will need based on the maximum flow of hot water you need at any one time. Some tankless water heaters can even sustain two showers operating at the same time.

Depending on which model of tankless water heater you purchase and what size storage tank you have now and whether you use gas or electricity, you could save anywhere from 5% to 69% off your hot water heating bill.

There are many advantages of having a tankless water heater in your home. Besides the money savings and the endless hot water and small impact on the environment, a tankless water heater:

- Is very small and can hang on the wall, thereby saving you valuable floor space
- Is designed with replaceable parts and is built with such materials as copper, stainless

steel and aluminum so as to last a lifetime. Energy savings is only one segment of savings – with proper care this could be the only water heater one needs in a lifetime.

- Is almost entirely recyclable, so if you ever decide to replace it, it doesn't have to go to the landfill.
- Will not develop a corrosive leak like a storage tank water heater saving you from expensive water damage in your home.

Note: A tankless water heater can leak if it is exposed to freezing temperatures or has a manufacturing defect.

- Maintains its efficiency throughout the lifetime of the unit. Storage tank water heaters decrease in efficiency over time due to mineral build-up inside the tank. This is due to the fact that storage tank water heaters store hot water, giving those minerals a chance to settle out and bake from the heat onto the walls of the tank, and onto the heating element in electrical models, thereby reducing heat transfer.

### **Local suppliers of tankless water heaters:**

(All local suppliers are Rinnai tankless water heater dealers)

Al's Gas 719-846-6022 34400 Highway 12, Jansen, CO

DNV Plumbing & Heating 719-846-0934, 407 W. Colorado Avenue, Trinidad, CO

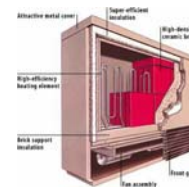
Fernandez Plumbing & Heating 719-846-3814 414 E. Goddard Avenue, Trinidad, CO

KAF Plumbing 719-846-6387 1118 Atchison Avenue, Trinidad, CO

TJ's Refrigeration, Heating and Air Conditioning 719-941-4967, 23003 C.R. 43.7, Aguilar, CO

**Tip:** If you have an electric stove, use lids on your pans and turn the burner off a few minutes before your food is done cooking. Electric burners retain heat and will keep cooking for a few minutes after they are turned off.

### **Electric Thermal Storage Units**



Electric Thermal Storage, or ETS, heating systems store heat in ceramic brick, water or concrete foundations during night time, off peak, hours. The next day when you are awake and need the heat, a fan distributes the stored heat as it is needed.

\*\***San Isabel Electric** offers these units to its customers. Call your local San Isabel Electric office in the bi-county region for more information. A list of the local San Isabel offices can be found in the “Local Providers” section of this booklet. You can calculate your savings now at [www.heatforlessnow.com](http://www.heatforlessnow.com).

## Programmable Thermostats



By properly using a programmable thermostat in your home, you can save energy, money, and help fight global warming. Energy Star programmable thermostats make it easy by offering four pre-programmed settings to regulate your home's temperature in summer and winter and while you are asleep or away from the house.

The average household spends more than \$2,000 a year on energy bills — nearly half of which goes to heating and cooling. Homeowners can save about \$180 a year by properly setting their programmable thermostats and maintaining those settings. Depending on your family's schedule, you can see significant savings by sticking with those settings or adjust them as appropriate for your family. The key is to establish a program that automatically reduces heating and cooling in your home when you don't need as much. Use the ENERGY STAR Programmable Thermostat Calculator to see what you can save with set-back temperatures that work for your family. The pre-programmed settings for an ENERGY STAR qualified programmable thermostat are:

Programmable Thermostat Setpoint Times & Temperatures			
Setting	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)
Wake	6:00 a.m.	≤ 70° F	≥ 78° F
Day	8:00 a.m.	Setback at least 8° F	Setup at least 7° F
Evening	6:00 p.m.	≤ 70° F	≥ 78° F
Sleep	10:00 p.m.	Setback at least 8° F	Setup at least 4° F

(table and information courtesy of [www.energystar.gov](http://www.energystar.gov) c.2008)

Programmable thermostats are available at most building supply stores and at some retail stores such as Wal-Mart.



## **Appliances**

Whenever you are purchasing new appliances, always look for the yellow Energy Star label. Energy Star labeled appliances are top performing products, which saves you money every day. You might save a few dollars up front by purchasing products without the Energy Star label, but by purchasing Energy Star you will save money each month on your utility bills.

Refrigerators: Refrigerators use more energy than any other home appliance. If your refrigerator is over 10 years old, switching to a new Energy Star labeled model could save you \$25 to \$50 per year in electricity. An older refrigerator can use as much as two newer Energy Star labeled models. Also, a full refrigerator costs less than an empty refrigerator to run.

Clothes washers: Clothes washer technology is changing dramatically in the United States for the first time in many years. Newer models are now getting clothes clean while helping to protect the environment. Numerous studies and in-home tests have shown savings of more than 35% on water and 55% on energy by using the new high efficiency washers. You will also save money on utilities by washing in cold water using cold water detergents as much as possible.

Dishwashers: Using a dishwasher can save about 6 gallons of water less per load than washing the same amount of dishes by hand. Always run the dishwasher with a full load. The water that runs through the dishwasher is also much hotter than what you would use by hand, getting the dishes cleaner and removing germs more efficiently.

### **Local suppliers of energy efficient appliances:**

Al's Gas      719-846-6022      34400 Highway 12, Jansen, CO 81082

Big R of Trinidad, 719-846-1864      2202 Freedom Road, Trinidad, CO 81082

San Isabel Electric Association - Walsenburg location only -719-738-1401  
122 W. 6<sup>th</sup> Street, Walsenburg, CO 81089

Sears Authorized Retail Dealer      719-846-1400      2128 Freedom Road, Trinidad, CO 81082  
In addition to Energy Star rated appliances, Sears carries high efficiency clothes washers and dryers that exceed Energy Star standards using 77% less water and 81% less electricity than standard models. Sears also carries Energy Star rated televisions, etc.

<p><b>Quick Tip:</b> Open the curtains on sunny days in the winter to let the sun's warmth naturally warm your home. Close the curtains on cloudy days or at night to keep the cold air out</p>
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## **Whole House Energy Management System**



PowerwoRx e3 is a clean power system based on the same technology that has been used for years by big industry and utility companies. It provides your home with:

- Power conditioning abilities that translate directly into savings by making the the electricity you use more efficient
- Immediate benefits due to the ease of installation
- A cost-effective solution that is amazingly maintenance free
- Unit usually pays for itself in 1-2 years. Expected 20-year lifespan and 10-year warranty
- Comes with a \$25,000 surge protection insurance policy
- Electromagnetic fields are neutralized to protect your health and your appliances

The PowerwoRx e3 can also protect your home from energy surges and spikes as well as electrical noise. The product needs to be installed by a licensed electrician.

Visit [www.ecotrustenergy.com/mbw](http://www.ecotrustenergy.com/mbw) for more information and a video about the product.

Local EcoQuest International business owners are Mel and Emily Williamson, 607 E. 2<sup>nd</sup> Street, Trinidad, CO 719-846-4009 or 719-859-6322 and toll free 1-888-439-3747 and e-mail [mbw@ecoquestintl.com](mailto:mbw@ecoquestintl.com)

## **SOLAR PHOTOVOLTAICS**

Before deciding if solar photovoltaics are right for you, we recommend you research the costs -vs- benefits, payback time, advantages and disadvantages of these systems.

Solar cells produce direct current electricity from light, which can be used to power equipment or recharge batteries in other words, solar photovoltaics allow you to obtain your electricity using the power of the sun. Photovoltaics may be most widely used in areas of the bi-county region that are not connected to the power grid. They can be costly to install and depending on the system you use, they may require that the system be removed and re-installed when you have to replace your roof. In some places where you can connect to the grid, you may be able to take advantage of net-metering. Check with your local electric provider to see if net metering is available. With net metering your local utility gives homeowners credit or buys back excess power produced by your system, which can help to offset the cost of the system.

### **Local installers of solar photovoltaic systems:**

All That is Energy 719-846-1639 725 Smith Avenue, Trinidad, CO 81082

Redwing Electric 719-846-1716 225 E. Goddard Avenue, Trinidad, CO 81082

**Quick Tip:** Repair leaky faucets promptly. A leaky faucet wastes gallons of water in a short period of time.

## **SOLAR HOT WATER AND SOLAR HEATING SYSTEMS**

Rather than try to explain solar hot water and solar heating systems in this small booklet, we recommend you visit <http://www1.eere.energy.gov/solar/> for more information.

### **Local installers of solar hot water systems:**

All That is Energy 719-846-1639 725 Smith Avenue, Trinidad, CO 81082

## **ENERGY STAR QUALIFIED FURNACES AND BOILERS**

If your heating equipment is more than ten years old or not keeping your house comfortable, you should have it checked by a professional. If the heating professional determines the problem is not a maintenance issue or you are not just losing heat through leaky ducts, you might want to consider installing an Energy Star rated forced air or boiler system. It is important that you use the proper size of new equipment. Bigger doesn't always mean better. If the unit is too large, you will be less comfortable and might have higher utility bills. This is due to larger units running in shorter cycles and not allowing the unit to reach efficient operation.

Energy Star qualified boilers have an annual fuel utilization efficiency (AFUE) rating of 85% or greater. They are more efficient due to improved features including: 1) electric ignition, which eliminates the need to have the pilot light burning all the time; 2) new combustion technologies that extract more heat from the same amount of fuel; and 3) sealed combustion that uses outside air to fuel the burner reducing draft and improving safety.

Energy Star qualified gas furnaces have an AFUE of 83% and 90% or higher making them 15% more efficient than standard models.

By choosing Energy Star and taking steps to optimize the performance of your heating equipment, you are helping to prevent global warming and promoting cleaner air.

### **Local installers of Energy Star qualified furnaces:**

Al's Gas 719-846-6022

Apex Services 719-846-7306

Big Tree Heating & Plumbing 719-738-6580

DNV Plumbing & Heating 719-846-0934

Fernandez Plumbing & Heating 719-846-3814

KAF Plumbing 719-846-6387

TJ's Refrigeration, Heating and Cooling 719-941-4967

## **ENERGY STAR QUALIFIED WINDOWS**

Replacement windows are usually high on the list of many owners of older homes. Although replacing windows is usually very expensive and takes a long time to pay back in energy savings, many people still make window replacement a high priority. Be sure to make a wise choice with windows by understanding key items such as Low-E glass, U-value, shading coefficient, and the NFRC label. Before you spend the money for energy efficient windows, we highly recommend you have an energy audit performed to determine whether new windows will pay for themselves.

Visit [www.energystar.gov/index.cfm?c=windows\\_doors.pr\\_windows](http://www.energystar.gov/index.cfm?c=windows_doors.pr_windows) for further information.

The information on the following pages about energy efficient windows, doors, and skylights is taken from the site shown directly above.

Energy efficient windows can be special ordered from local building supply stores and some glass shops including:

Trinidad Builders Supply 719-846-9211

Walsenburg Lumber 719-738-3700

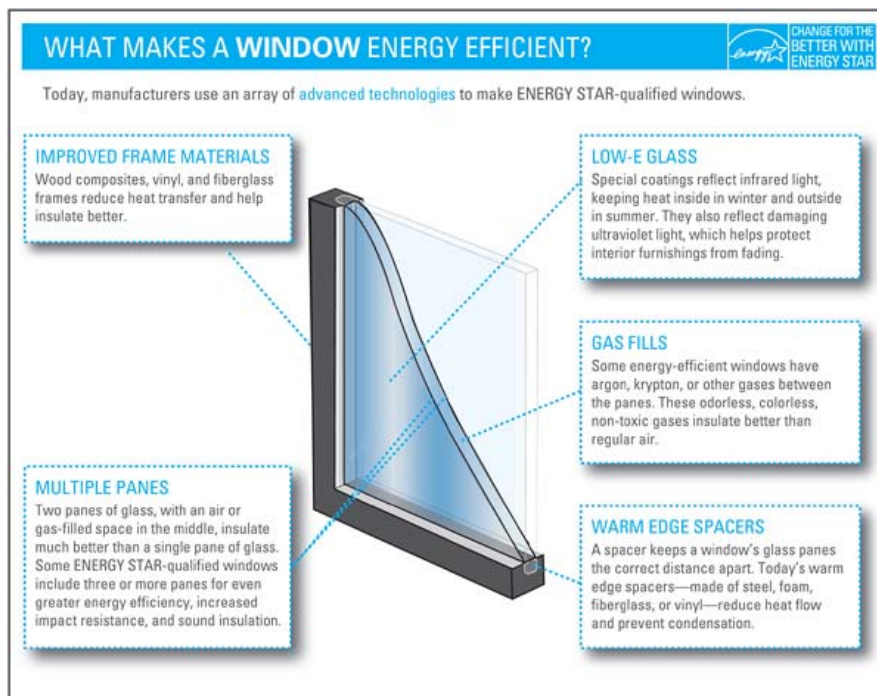
La Veta True Value 719-842-3626

Amato Lumber Company 719-846-2680

The Glass Shop 719-846-4069

Keller Glass 719-845-1111 (windows ordered for homeowner to have installed)

## **Anatomy of an Energy Efficient Window**



## WHAT MAKES A DOOR ENERGY EFFICIENT?

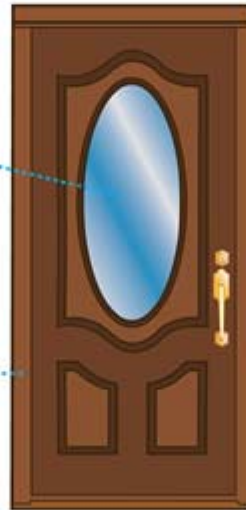


### MULTIPLE GLASS PANES

Double or triple-paned insulating glass is used to reduce heat flow.

### IMPROVED CORE MATERIALS

Fiberglass, wood cladding, and steel with polyurethane foam core are among the most energy-efficient door materials available today.



### TIGHTER FIT AND IMPROVED WEATHER STRIPPING

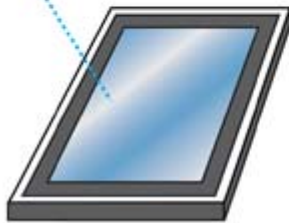
New frames may include a magnetic strip to create a tighter seal that reduces air leakage around the edges.

## WHAT MAKES A SKYLIGHT ENERGY EFFICIENT?



### TRADITIONAL SKYLIGHTS

Skylights use the same technologies as windows. But these technologies are even more valuable for skylights, which receive direct sun in summer and greater outside/inside temperature differentials in winter.



### TUBULAR DAYLIGHTING DEVICES INCREASES DAYLIGHT

Tubular daylighting devices (TDD) gather sunlight at the roof and transmit it down to a diffusing lens mounted in an interior surface, usually a ceiling. The natural light from a TDD can illuminate closets, bathrooms, hallways, or other spaces that typically would not have access to sunlight, decreasing the need for electric lighting.



from [www.energystar.gov/index.cfm?c=windows\\_doors.pr\\_windows](http://www.energystar.gov/index.cfm?c=windows_doors.pr_windows) c.2008

## **ENERGY SAVING TIPS**

Don't forget to turn off your kitchen or bathroom ventilation fan when you are done. Leaving your fan on can draw all the heated air out of your home in as little as an hour.

Every minute you cut from your shower time saves three gallons of water and the energy used to heat the water. You can save hundreds gallons of water every year by taking a shower instead of a bath and save the energy you would use to heat all that water.

Scrape your dishes before putting them in the dishwasher instead of rinsing them. Rinsing wastes water and the energy to heat the water. Also, always run full loads in the dishwasher.

Clean your dryer filter and exhaust vent regularly. When they become clogged with lint, your dryer works harder and uses more energy.

Close your fireplace damper when not in use. Be sure to open it when you light the fireplace.

Sealing leaky ducts with mastic, metal backed tape, or aerosol sealant will reduce heat loss when your furnace is on making your home warmer.

Low-flow shower heads and faucets can reduce water consumption by as much as 10%. With four people in a home you can save as much as 15,000 gallons of water a year.

Every time you open the oven door, the oven temperature can drop 25 degrees. Use the oven light or a timer to avoid wasting energy to reheat the oven and to assure your food cooks in the proper temperature.

Caulk & seal air leaks where plumbing, ducting, or electrical wiring penetrates through exterior walls, floors, ceilings, and soffits over cabinets.

Be sure you are not blocking your heat registers with furniture.

Be sure to place the faucet lever on the kitchen sink in the "cold" position when using small amounts of water. If the lever is in the "hot" position, it will use energy to heat the water even though the water may never reach the faucet.

When shopping for home electronics, keep in mind that you can purchase televisions, computers, fax machines, etc. that are Energy Star qualified.

Microwave food, use a toaster oven, or use a crock pot rather than a conventional oven. Using smaller appliances uses less energy.

Check and replace furnace filters at least once every two months. Dirty filters make your furnace work harder to push air through it.

## LOCAL SUPPLIERS OF PRODUCTS AND SERVICES

As you start working to make your home more energy efficient, consider using the local providers of products and services listed in this booklet. Purchasing the things we need locally:

- Supports existing small businesses
- Creates local jobs
- Encourages new business to meet demand
- Keeps tax dollars in the local community for much needed services and community growth
- Saves you money on gas

We hope you will take advantage of the products and services available locally by checking with the businesses listed below before shopping out of town. We have attempted to contact all local businesses who may offer energy efficiency items and apologize if we have missed someone. In addition to the businesses listed here you may also contact general contractors. In most cases, general contractors will work to install whatever energy saving items you may need including insulation and windows. You should check with your local building department to be sure the contractor you select is licensed and insured in the area you live.

\$\$ -- denotes specials or reduced billing

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### **All That is Energy 719-846-1639 725 Smith Avenue, Trinidad, CO 81082**

Sells and installs cast iron, steel, and soap stone wood burning stoves

Sells and installs photovoltaic systems

Sells and installs solar hot water systems

\*\*\*\*\*

### **Al's Gas 719-846-6022 34400 Highway 12, Jansen, CO 81082**

Dealer of Rinnai tankless water heaters

Energy Star rated Whirlpool and Frigidaire appliances -- If you purchase an appliance from

Al's gas, they will haul away your old appliance for a small fee.

90% Energy efficient furnaces

Energy efficient boiler heating systems

Energy efficient storage tank type water heaters

\$\$ -- A five cent per gallon discount is given to customers who pay their propane bill within 15 days of delivery.

Al's Gas supplies propane in most of Las Animas County. They will also install gas lines, replace the lines, or bring existing lines to code. All lines are pressure tested.

\*\*\*\*\*

### **Apex Service Company 719-846-7306 317 S. Maple, Trinidad, CO 81082**

Installs high efficiency forced-air furnaces, up to 95% efficient

Furnace and duct cleaning

High efficiency condensers (up to 16 SEER) for central air systems

Can install insulation to the exterior of your home before they add new siding to the home

Apex Service Company has been locally owned by John Sanchez since 1979. John reminds you that if your furnace is over 10 years old it is most likely only 30% to 40% effective. Replacing your old furnace with a new high efficiency furnace may save you up to 50% on your energy bills.

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**B&D Blown Insulation 719-868-3603 Trinidad**

Blown in cellulose insulation with Class I fire rating

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**Big R of Trinidad 719-845-1864 2202 Freedom Road, Trinidad, CO 81082**

Energy Star rated appliances

Solar powered electric fencing

Pipe insulation

Heat tape for crawl space pipes

Water heater blankets

Wood burning stove and Pellet stoves (no installation provided)

**Big Tree Heating & Plumbing 719-738-6580 P.O. Box 30, Walsenburg, CO 81089**

Installation of energy efficient boilers/hot water heating systems

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**DNV Plumbing & Heating 719-846-0934 407 W. Colorado Avenue, Trinidad, CO 81082**

Dealer of Rinnai tankless water heaters

Energy Star storage tank type water heaters

Energy Star boilers

Pipe insulation

Hook up to solar systems (does not provide the system itself)

Installation of in-floor radiant heating and baseboard hot water heating systems

Furnace and boiler maintenance

Serves mainly Las Animas County, but has also done work in La Veta and Walsenburg.

\*\*\*\*\*

**EcoQuest International 719-846-4009 or 719-859-6322 and toll free 1-888-439-3747  
607 E. 2<sup>nd</sup> Street, Trinidad, CO or e-mail Mel and Emily Williamson,  
mbw@ecoquestintl.com**

Local dealer of Ecoquest International products including the PowerwoRx e3 Whole House Energy Management System. See section above about the Whole House Energy Management System for further information or visit [www.ecotrustenergy.com/mbw](http://www.ecotrustenergy.com/mbw)

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**Fernandez Plumbing & Heating, 719-846-3814 414 E. Goddard Avenue, Trinidad, CO 81082**

Dealer of Rinnai tankless water heaters

Energy Star storage tank type water heaters

Energy Star boilers and forced air furnaces

Radiant in-floor heating systems

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**The Glass Shop, 719-846-4069 730 Stonewall Avenue, Trinidad, CO 81082**

Sells and installs insulated glass and thermal pane & Low-E windows  
Installs window film that can be applied to the inside of your windows to keep the heat in your home

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**JOA Foam 719-859-0909 Trinidad**

Closed cell spray foam insulation (walls and ceilings done)

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**KAF Plumbing 719-846-6387 1118 Atchison Avenue, Trinidad, CO 81082**

Dealer of Rinnai tankless water heaters

Energy Star boilers installed

Energy Star storage tank type water heaters

\*\*\*\*\*

**Keller Glass 719-845-1111 13850 Highway 350, Trinidad, CO 81082**

Low-E windows can be ordered and installed by the contractor of your choice.

Insulated units are available for some types of windows. Keller Glass can tell you whether these units will work on your existing window frames.

\*\*\*\*\*

**La Veta Propane 719-742-3291 132 W. High, La Veta, CO 81055**

Installation and delivery of propane in La Veta and Cuchara. Accepts Visa, Mastercard, and Discover card.

Also supplies motor fuel and grill bottles.

\*\*\*\*\*

**Lee Adams Construction 719-989-8497 La Veta, CO**

General contractor

Installs energy efficiency items as requested by the homeowner such as Energy Star windows, doors, insulation, etc.

\*\*\*\*\*

**Lock Tight Insulation, LLC 719-845-0601 or 719-680-9525 334 Garrett Drive, Trinidad, CO 81082**

Sealection 500 spray foam insulation see [www.sealection500.com](http://www.sealection500.com)

\*\*\*\*\*

**Ludvik Propane Gas Service 719-738-1141 326 Main, Walsenburg, CO 81089**

Supplies propane gas in Huerfano County as well as the Rye and Colorado City areas.

\*\*\*\*\*

**Redwing Electric 719-846-1716 225 E. Goddard Avenue, Trinidad, CO 81082**

Installs Solar Photovoltaic systems

Complies with U.S. Department of Energy recommendations to promote and install energy efficient products and educates their customers about the availability of these products.

\*\*\*\*\*

**Rosebud Propane 719-643-5258 P.O. Box 70, Kim, CO 81049**

Supplies propane in much of Las Animas County including Trinidad, Starkville, Aguilar, Kim, Branson, and Hoehne.

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**San Isabel Electric Association various locations in Las Animas & Huerfano Counties**

**Trinidad** – 1930 E. Main Street 719-846-2287

**Walsenburg** – 122 W. 6<sup>th</sup> Street 719-738-1401

**Aguilar** – 108 N. Romero 719-941-4406

**La Veta** – 207 S. Main Street 719-742-3686

Electricity supplier in Huerfano County and Las Animas County

Energy saving Electrical Thermal Storage (ETS) space heaters

Energy saving Electric Thermal Storage (ETS) furnaces

ETS space heaters and furnaces make it possible for customers to use off peak rates to meet their heating needs. *(See separate section in booklet for information about ETS furnaces and space heaters)*

Marathon brand water heater dealer. We recommend you visit [www.marathonheaters.com](http://www.marathonheaters.com) for further information on these environmentally friendly water heaters.

Energy Star appliances are offered in the Walsenburg location. If you purchase an appliance from San Isabel, they will take your old appliance away for a small fee.

\$\$ - San Isabel offers rebates if you install air-to-air heat, efficient water heaters, geothermal heat pumps, ETS units, and some air conditioning units. Your local office can provide you with additional information on possible rebates.

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**TJ's Refrigeration, Heating and Cooling, 719-941-4967 23003 C.R. 43.7, Aguilar, CO 81020**

Dealer of Rinnai tankless water heaters

Installation of energy efficient forced air furnaces

Authorized TRANE dealer

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**Local Building Supply Stores**

If you haven't been to your local building supply store lately, you may not know they carry a large inventory of competitively priced building supplies. If you don't see the item you are looking for in this list, ask your local supplier if they carry it or if they can order the item for you. If you find something advertised at a lower price out of town, show the ad to your local supplier and see if they can match or beat the price. This helps promote local business and keeps jobs in your community.

Ask your store if they carry:

Compact fluorescent light bulbs

Caulking supplies

Weather stripping materials

Programmable thermostats

Electrical outlet insulators

Furnace filters

Water heater insulation blankets

Energy Star rated exterior doors

Low flow shower heads

Low flow toilets

Energy efficient water heaters

Insulation

Energy star rated windows

Ceiling fans

Window sealing kits

Solar products (lighting, etc.)

**Trinidad Builders Supply 719-846-9211 108 W. Colorado Ave., Trinidad, CO 81082**

**Walsenburg Lumber 719-738-3700 403 W. 7<sup>th</sup>, Walsenburg, CO 81089**

**Amato Lumber 719-846-2680 224 E. Godding, Trinidad, CO 81082**

**La Veta True Value 719-742-3626 1010 Cherry Street, La Veta, CO 81055**

**Quick tip:** When you need to replace your appliances and electronics, be sure to replace them with Energy Star® qualified items.

### **South Central Council of Governments Housing Rehabilitation Program**

If you meet the qualifications for the SCCOG Housing Rehabilitation Program, you may be able to get a discounted price on the cost of installing energy saving items such as insulation, refrigerators, furnaces, doors, and windows. Funds for energy improvements are provided by Energy Outreach Colorado. The grant funds will cover the difference between efficient items and standard items: such as the difference between the price of an 80% efficient furnace –vs- a 92% furnace.

Housing rehabilitation consists of repairing or updating the existing system or structural components of the property, including: electrical, plumbing, heating system, foundation repair, roof, etc. The actual amounts of repairs your home will need is determined from an inspection and evaluation report. Major emphasis is given to housing problems that affect your health and safety.

#### **Program's Financing Methods**

(Subject to availability of funds)

Loan/Grant Combination—Meet HUD income guidelines. Deferred Loans under certain special circumstances, to be determined by the Advisory Loan Committee. HPG Grant—(Subject to availability of funds) at zero percent interest. Deferred Loan—Loan balance at zero percent interest rate.

Loan/Grant Combination—Meet HUD income guidelines. HPG Grant—(Subject to availability of funds). Direct installment loan—computed on ability to pay. Pay principal plus varying interest rate 0% up to prevailing commercial interest rates.

Essential Repairs Loan— Meet HUD income guidelines pay principal and varying interest rate 0% up to prevailing commercial interest rates.

Not all homes can be repaired. If your home has too many problems, it may not qualify for our rehab/repair program. However, this can only be determined by an inspection done by a housing specialist.

#### **Eligibility Criteria**

- Property must be within the Huerfano/Las Animas Counties.
- Your name(s) must be on the Title and you must live in the home as your sole residence.
- You must meet HUD income guidelines.
- Your property must be free of all judgments and liens except for a first mortgage.

### **Things You Should Know**

Owner's previous regard for financial obligation will be strongly considered. Rehab loans are secured by a Deed of Trust against the rehabilitated property. On loans with partial grants, when the home is sold or occupancy changes before the expiration of the maturity date the loan must be paid in full before the lien is released by the South Central Council of Governments.

Rehab work will be supervised by a licensed General Contractor who will be awarded the project for the most responsible bid, through a formal competitive bidding procedure. The South Central Council of Governments Housing Rehab will disburse all rehab funds on behalf of the owner and will also oversee the construction. Owners are urged to discuss any problems or questions with the contractor and the Rehab Specialist prior to the rehabilitation process. The contractor must follow the work write up as approved. Changes cannot be made without the advance authorization of the Program Rehab Specialist.

### **This Program Will Not...**

Make your home BRAND NEW. The work done is different from house to house and sometimes cannot be easily seen.

Repairs are mainly done to eliminate unsafe and hazardous conditions.

Be advised that this work may increase your property taxes. Also, the cost of utilities may increase.

### **This Program Will...**

Improve your living conditions and extend the life of your house by bringing it up to minimum safety standards and local codes, whenever possible, with a limited amount of money.

Funding is provided by Colorado Department of Local Affairs through the Division of Housing Community Development Block Grant (CDBG) and Rural Development Housing Preservation Grant (HPG) Program.

#### **John Anderson**

Phone: 719-845-1133 Ext 208

Email: [janderson@sccog.net](mailto:janderson@sccog.net)

#### **Jennifer Byrd**

Phone 719-845-1133 Ext 202

Email: [jbyrd@sccog.net](mailto:jbyrd@sccog.net)

#### **Stevie Medina**

Phone: 719-845-1133 Ext 213

Email: [smedina@sccog.net](mailto:smedina@sccog.net)

### **Energy Star Qualified Homes**

Energy Star qualified homes are significantly more efficient than standard homes. These homes incorporate a variety of features including effective insulation, high-performance windows, tight construction and tight ducts, and more efficient heating & cooling equipment. An Energy Star home is at least 15% more energy efficient than a home built to the 2004

International Residential Code. In some cases Energy Star qualified homes may be as much as 20% to 30% more efficient than standard homes.

If you plan to have a home built, we encourage you to seek an Energy Star qualified builder who works with a RESNET certified energy auditor.

## **ENERGY EFFICIENT MORTGAGES**

When you are buying, selling, refinancing, or remodeling your home, you can increase your comfort and actually save money by using the Energy Efficient Mortgage (EEM). It is easy to use, federally recognized, and can be applied to most home mortgages. EEMs provide the borrower with special benefits when purchasing a home that is energy efficient, or can be made efficient through the installation of energy-saving improvements.

Home owners with lower utility bills have more money in their pocket each month. They can afford to allocate a larger portion of their income to housing expenses. If you have more cash, why not buy a better, more comfortable home? There are two options with the Energy Efficient Mortgage.

### **THE TWO SIDES OF THE EEM COIN**

#### **Finance energy improvements!**

- ◀ Cost-effective energy-saving measures may be financed as part of the mortgage!
- ◀ Make an older, less efficient home more comfortable and affordable!

#### **Increase your buying power!**

- ◀ Stretch debt-to-income qualifying ratios on loans for energy-efficient homes!
- ◀ Qualify for a larger loan amount! Buy a better, more energy efficient home!

### **WHO BENEFITS FROM THE ENERGY EFFICIENT MORTGAGE?**

#### ***Buyers:***

- ◀ Qualify for a larger loan on a better home!
- ◀ Get a more comfortable home NOW.
- ◀ Save money every month from Day One.
- ◀ Increase the potential resale value of your home.

#### ***Sellers:***

- ◀ Sell your home more quickly.
- ◀ Make your house affordable to more people.
- ◀ Attract attention in a competitive market.

#### ***Remodelers/Refinancers:***

- ◀ Get all the EEM benefits without moving.

- ◀ Make improvements which will actually save you money.
- ◀ Increase the potential resale value of your home.

Pay for energy improvements easily, through your mortgage. Your lender can increase your loan to cover energy improvement costs. Monthly mortgage payments increase slightly, but you actually save money because your energy bills will be lower!

An EEM can only be done if an official home energy rating, or HERS Report, indicates that it will save you money.

**HERS, or Home Energy Rating Systems** A HERS report is similar to a miles-per-gallon rating on a car. HERS are programs which provide evaluations of individual homes energy efficiency. A HERS report is prepared by a trained Energy Rater. Factors such as insulation, appliance efficiencies, window types, local climate, and utility rates are used to rate the home and calculate energy costs.

**A HERS Report includes:**

- ◀ Overall Rating Score of the house as it is.
- ◀ Recommended cost-effective energy upgrades.
- ◀ Estimates of the cost, annual savings, and useful life of upgrades.
- ◀ Improved Rating Score after the installation of recommended upgrades.
- ◀ Estimated annual total energy cost for the existing home before and after upgrades.

Rating scores are between 1 and 100. Higher scores indicate greater efficiency. Cost-effective upgrades are those which will save more money through energy savings than they cost to install.

U.S. Department of Energy recommended Home Energy Ratings contain a numerical score from 1 to 100, a one to five star-plus rating, and the estimated energy costs. Higher scores indicate greater efficiency. Cost-effective upgrades are those which will save more money through energy savings than they cost to install.

Sometimes the cost of the rating may be financed as part of the mortgage. No matter how the rating is paid for, it is a very good investment because an EEM could save you or your buyer hundreds of dollars each year.

**AVAILABLE ENERGY EFFICIENT MORTGAGE LOANS**

Federal Housing Administration (FHA) EEMs

The FHA Energy Efficient Mortgage covers upgrades for new and existing homes and is now available in all 50 states. Key features includes:

- ◀ Loan limits may be exceeded
- ◀ No re-qualifying

- ◀No additional down payment
- ◀No new appraisal
- ◀\$4,000 or 5% of the property value (up to \$8,000) may be financed

### **Eligibility Requirements Taken from [www.hud.gov](http://www.hud.gov)**

- ▶ The borrower is eligible for maximum FHA financing, using standard underwriting procedures. The borrower must make a 3-percent cash investment in the property. This 3- percent cash investment is based on the sales price. Closing costs are not included in the 3- percent calculation but may be used to satisfy the requirement. Any upfront mortgage insurance premium can be financed as part of the mortgage.
- ▶ Eligible properties are one- to four-unit existing and new construction.
- ▶ The cost of the energy-efficient improvements that may be eligible for financing into the mortgage is the greater of 5 percent of the property's value (not to exceed \$8,000), or \$4,000.
- ▶ To be eligible for inclusion in this mortgage, the energy-efficient improvements must be cost effective, meaning that the total cost of the improvements is less than the total present value of the energy saved over the useful life of the energy improvement.
- ▶ The cost of the energy improvements and estimate of the energy savings must be determined by a home energy rating report which is done by a home energy rating system or energy consultant. The cost of the energy rating may be financed as part of the cost-effective energy package.
- ▶ The energy improvements are installed after the loan closes. The lender will place the money in an escrow account. The money will be released to the borrower after an inspection verifies that the improvements are installed and the energy savings will be achieved.
- ▶ The maximum mortgage amount for a single-family unit depends on its location, and it is adjusted annually. As of January 1, 2001, for most parts of the country it was \$132,000 for single-family homes. In high-cost areas it can be as much as \$239,250. The cost of the eligible energy-efficient improvements is added to the mortgage amount. The final loan amount can exceed the maximum mortgage limit by the amount of the energy-efficient improvements.

### **203(k) FHA Home Rehabilitation Loans**

The FHA 203(k) program enables a home buyer or investor to obtain a single loan to finance both property acquisition and complete major improvements after the time of loan closing. Can be used in conjunction with the FHA EEM. Key features include:

- ◀Loan limits may be exceeded
- ◀Total cost of improvements must exceed \$5,000

**Eligibility Requirements taken from [www.hud.gov](http://www.hud.gov):** The purchase of a house that needs repair is often a catch-22 situation, because the bank won't lend the money to buy the house until the repairs are complete, and the repairs can't be done until the house has been purchased.

HUD's 203(k) program can help you with this quagmire and allow you to purchase or refinance a property plus include in the loan the cost of making the repairs and

improvements. The FHA insured 203(k) loan is provided through approved mortgage lenders nationwide. It is available to persons wanting to occupy the home.

The down payment requirement for an owner-occupant (or a nonprofit organization or government agency) is approximately 3% of the acquisition and repair costs of the property.

The 203(k) loan includes the following steps:

- ▶ A potential homebuyer locates a fixer-upper and executes a sales contract after doing a feasibility analysis of the property with their real estate professional. The contract should state that the buyer is seeking a 203(k) loan and that the contract is contingent on loan approval based on additional required repairs by the FHA or the lender.
- ▶ The homebuyer then selects an FHA-approved 203(k) lender and arranges for a detailed proposal showing the scope of work to be done, including a detailed cost estimate on each repair or improvement of the project.
- ▶ The appraisal is performed to determine the value of the property after renovation.
- ▶ If the borrower passes the lender's credit-worthiness test, the loan closes for an amount that will cover the purchase or refinance cost of the property, the remodeling costs and the allowable closing costs. The amount of the loan will also include a contingency reserve of 10% to 20% of the total remodeling costs and is used to cover any extra work not included in the original proposal.
- ▶ At closing, the seller of the property is paid off and the remaining funds are put in an escrow account to pay for the repairs and improvements during the rehabilitation period.
- ▶ The mortgage payments and remodeling begin after the loan closes. The borrower can decide to have up to six mortgage payments (PITI) put into the cost of rehabilitation if the property is not going to be occupied during construction, but it cannot exceed the time estimated to complete the rehab.
- ▶ Escrowed funds are released to the contractor during construction through a series of draw requests for completed work. To ensure completion of the job, 10% of each draw is held back; this money is paid after the lender determines there will be no liens on the property.

## Veterans Affairs (VA) EEMs

The VA Energy Efficient Mortgage is available to qualified military personnel, reservists and veterans in all 50 states for energy improvements when purchasing an



existing home. Key features include:

- ◀ \$3,000 of upgrades may be financed based solely on documented costs
- ◀ Up to \$6,000 may be financed if upgrades are deemed cost effective

See [www.va.gov](http://www.va.gov) for further information

## **WHICH BUYERS AND HOMES ARE ELIGIBLE?**

All buyers who qualify for a home loan qualify for the EEM. The EEM is intended to give the buyer additional benefits on top of their usual mortgage deal. The lender will use the energy-efficiency of the house, as determined by a HERS rating, to determine what these benefits will be.

Energy Efficient Mortgages can be done on most homes. Availability is not limited by location, home price or utility company. EEMs can be done on government (FHA and VA) conventional, Portfolio and Jumbo Loans. Your lender will help you choose which loan type is best for you.

### **Get an EEM on:**

- ◀ Older homes qualifying for upgrades
- ◀ New or old homes not requiring upgrades
- ◀ New construction

**SOME THINGS TO KEEP IN MIND:** It is best to have the HERS Rating done as early in the loan process as possible. This way, the Rating can be performed while other aspects of the loan are being processed. Closing the loan should not be delayed.

You may get a larger tax deduction with the EEM because the interest on mortgage payments is tax deductible. This can save you more money than paying for energy upgrades with a credit card, bank loan, or cash, none of which are usually tax deductible.

Each house is as unique as its owner. Benefits derived from the EEM will vary from one house to another. Your lender will be your best source of information on your own EEM benefits.

Ask your lender about an Energy Efficient Mortgage. If they are not knowledgeable about the EEM, encourage them to learn about it.

## **Additional Resources**

We have only touched the surface of the new technologies that are available in the energy efficiency world. We recommend you visit the sites below to learn about websites you can visit for further information on items such as geothermal energy, wind energy, energy efficient landscaping, etc.

[www.energyoutreach.org](http://www.energyoutreach.org)

[www.energystar.gov](http://www.energystar.gov)

[www.buildingamerica.org](http://www.buildingamerica.org)

[www.eere.energy.gov/buildings/building\\_america/for\\_builders\\_top25.html](http://www.eere.energy.gov/buildings/building_america/for_builders_top25.html)

[www.nrel.gov](http://www.nrel.gov)

[www.siea.com](http://www.siea.com)

[www.colorado.gov/energy](http://www.colorado.gov/energy)

[www.e-star.com](http://www.e-star.com)

[www.ase.org](http://www.ase.org)

[www.homeenergy.org](http://www.homeenergy.org)

[www.homepower.com](http://www.homepower.com)

[www.eeba.org](http://www.eeba.org)

[www.cres-energy.org/techbasics/geothermal\\_div1.html](http://www.cres-energy.org/techbasics/geothermal_div1.html)

[www1.eere.energy.gov/geothermal/gpw/profile\\_colorado.html](http://www1.eere.energy.gov/geothermal/gpw/profile_colorado.html)

[www.coopext.colostate.edu/WR/windbooklet.pdf](http://www.coopext.colostate.edu/WR/windbooklet.pdf)

[www.colorado.gov/energy/renewables/wind.asp](http://www.colorado.gov/energy/renewables/wind.asp)

[http://apps1.eere.energy.gov/consumer/your\\_home/landscaping/index.cfm/mytopic=11910](http://apps1.eere.energy.gov/consumer/your_home/landscaping/index.cfm/mytopic=11910)

# APPENDIX A

## How to clean up a broken compact fluorescent light bulb

Because CFLs contain a small amount of mercury, the Environmental Protection Agency (EPA) recommends the following clean up and disposal guidelines:

### **1. Before clean up: Air out the Room**

- Have people and pets leave the room. Don't let anyone walk through the breakage area on their way out.
- Open a window and leave the room for 15 minutes or more.
- Shut off the central forced-air heating/air conditioning system if you have one.

### **2. Clean up Steps for Hard Surfaces**

- Carefully scoop up glass fragments and powder using stiff paper or cardboard and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass pieces and powder.
- Wipe the area clean with damp paper towels or disposable wet wipes. Place towels in the glass jar or plastic bag.
- Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

### **3. Clean up Steps for Carpeting or Rug**

- Carefully pick up glass fragments and place them in a glass jar with a metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken.
- Remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed plastic bag.

### **4. Clean up for Clothing, Bedding, etc.**

- If clothing or bedding materials come in direct contact with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, the clothing or bedding should be thrown away. Do not wash such clothing or bedding because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.
- You can, however, wash clothing or other materials that have been exposed to the mercury vapor from a broken CFL, such as the clothing you are wearing when you

cleaned up the broken CFL, as long as that clothing has not come into direct contact with the materials from the broken bulb.

- If shoes come into direct contact with broken glass or mercury-containing powder from the bulb, wipe them off with damp paper towels or disposable wet wipes. Place the towels or wipe in a glass jar or plastic bag for disposal.

### **5. Disposal of Clean-Up Materials**

- Immediately place all clean-up materials outdoors in a trash container or protected area for the next normal trash pickup.
- Wash your hands after disposing of the jars or plastic bags containing clean-up materials.
- Check with your local or state government about disposal requirements in your specific area. Some states do not allow such trash disposal. Instead, they require that broken and unbroken mercury-containing bulbs be taken to a local recycling center.

### **6. Future Cleaning of Carpeting or Rug: Air Out the Room During and After Vacuuming**

- The next several times you vacuum, shut off the central forced-air heating/air conditioning system and open a window before vacuuming.
- Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after vacuuming is completed.

### **What is mercury?**

Mercury is an element (Hg on the periodic table) found naturally in the environment. Mercury emissions in the air can come from both natural and man-made sources. Coal-fired power plants are the largest man-made source because mercury that naturally exists in coal is released into the air when coal is burned to make electricity. Coal-fired power generation accounts for roughly 40% of the mercury in the U.S.

For more information about mercury, visit <http://www.epa.gov/mercury>

