MOU/CO-OP Energy Efficiency Programs Reporting Form

For: Electric Cooperatives that had retail sales of more than 500,000 megawatt hours in 2005, and Municipally-Owned Utilities

Form# 50-814

Energy Systems Laboratory

SECO State Energy Conservation Office

This form is intended to partially fulfill the reporting requirement. Please provide all the information requested below.

Purpose of this document: *As mandated by the 82nd Legislature (2011), beginning April 1, 2012, all electric cooperatives that had retail sales of more than 500,000 megawatt hours in 2005 and all municipally owned utilities must report each year to the State Energy Conservation Office (SECO), on a standardized form developed by SECO, information regarding the combined effects of the energy efficiency activities of the electric cooperative/utility from the previous calendar year, including the annual goals, programs enacted to achieve those goals, and any achieved energy demand or savings goals. [Sections 39.9051 and Section 39.9052 of the Utilities Code].*

Data for a consecutive 12-month period. *Beginning:* January 1, 2014 *Ending:* December 31, 2014

Guadalupe Valley Electric Cooperative (GVEC)
MOU/Co-op

Darren Schauer, General Manager & CEO
Contact Person (Name & Title)

P.O. Box 118, Gonzales, TX 78629
Address

830-857-1152
Phone

dschauer@gvec.org
Email

Please attach a copy of the detailed report containing the below information.

Energy Efficiency Program	Estimated Electric Peak Demand Savings (kW)	Estimated Electricity Use Savings (kWh)	Estimated Natural Gas Increase From Fuel Switching – If Applicable *Specify Units:* ☐CCF ☐MCF ☐Therms	Other Program Performance Metric
*Please see attached document for details.				
Totals:				

Email completed forms to SECO at SB924.Reporting@cpa.state.tx.us

For more information on Senate Bill 924 Requirements visit: http://seco.cpa.state.tx.us/energy-reporting/utilities.php

Guadalupe Valley Electric Cooperative's submission to the State Energy Conservation Office on its corporate practices, both current and future, related to energy efficiency, conservation, and renewable technologies.

P.O. Box 118 825 E. Sarah DeWitt Drive Gonzales, TX 78629

Guadalupe Valley Electric Cooperative, Inc.

Report to the State Energy Conservation Office (SECO)
on corporate practices of Energy Efficiency, Conservation,
and Renewable Technologies.

Submitted April 10, 2015

Current practices

In September 2009, GVEC prepared and submitted its first report to SECO regarding its corporate practices in energy efficiency, conservation, and renewable technology. Over the last several years many practices essentially remain the same, yet GVEC continues to refine its programs to best meet the need of its members.

Energy Efficient Rebate Program

Initially launched in March of 2009, the Energy Efficiency Rebate program has been refined several times to ensure that the rebate amounts are properly allocated to the areas that most benefit the Cooperative and the members making the investment. Rebates are available to active GVEC members in a multitude of areas, ranging from Energy Star New Homes to rebates for small, residential size wind turbines. Since the program's inception, GVEC has issued over $9,349,912.46 in rebates, with $1,639,347.47 in 2014. We have issued 10,073 total rebates from January 2009 to December 2014.

More information on the Energy Efficient Rebate Program is available at the following link:

http://www.maximrewards.com/gvec/default.aspx

Examples of the promotions of these rebates are attached, marked as exhibits A through I.

New Home Rebates

GVEC is offering the New Home rebate program designed to encourage builders and contractors to use energy efficient building materials and appliances. Homeowners will be eligible up to a $3,200 rebate if the home meets certain criteria, such as: effective insulation, high-performance windows, efficient heating and cooling, and efficient appliances, lighting, and water heaters, Square footage of the home, and the square footage of window space. The Homes must be all electric.

Home Improvement Rebates

GVEC is providing incentives for our existing home owners as well. Members can apply for rebates on the purchase of energy efficient appliances, insulation for walls and attics, efficient windows, water heaters, duct replacement, and heating and cooling systems. Heating and cooling unit rebates are based on the Seasonal Energy Efficiency Ratio, or SEER, of the unit. The higher the SEER rating of the unit, the higher the rebate. During 2012, GVEC made the decision to no longer offer a rebate for Energy Star appliances due to the increasing efficiencies of all new appliances.

- Duct Replacement: 20% of cost, up to $500.00
- Energy Efficient Window: $2.00/ sq. ft. of window openings
- Heat Pump, Cooling/ Heating system:
  - SEER > 16- $550 per unit
  - SEER >17 - $650 per unit.
- Heat Pump Water Heater: $300 per Heat pump water heater
- Insulation:
  - Attic Insulation - $0.20/sq. ft. of installed insulation
  - Wall Insulation - $0.20/sq. ft. of installed insulation
- Solar Screens and/ or film: $0.50/sq. ft. of window

Renewable Rebates

In addition to the New Home and Home Improvement rebates currently being offered, a member can apply for a Renewable Rebate if they have an interest in a solar system for their home. Rebates are currently available for solar photovoltaic systems, solar water heaters and solar water wells. GVEC modified the solar rebate due to the continued decrease in the cost of solar panels and equipment as well as to align with other area utilities offering similar rebates.

- Solar Photovoltaic Systems: $1.00/ Watt, not to exceed $4,000
- Solar Water Heating Systems: $1,000 per installed system
- Solar Water Pumps: $750 per system

Demand Response Program

GVEC is currently still in the investigative stage of a Demand Response Program and the potential that it has for our members.

Residential Renewable Generating Installation Tariff

Originally approved in February of 2008 and revised in January 2009, the Residential Renewable Generating Installation Tariff was designed to outline GVEC's policy regarding renewable installations. Under this tariff, a member can apply for interconnection of a renewable installation with a rated capacity of 20 kW's or less. This tariff also allows for the member to be paid GVEC's average wholesale power cost for any generation above the home's energy requirements.

A copy of the Residential Renewable Generating Installation Tariff is attached, marked as exhibit J.

Conservation Plan 7

Conservation Plan 7 was a financing option available to GVEC members who were interested in investing in energy efficiency or renewable technology, but who may not have the financial resources to purchase them outright. The plan provided funds for up to $7,000 for the purchase of insulation, new doors and windows, heating and cooling systems, and other energy efficient products. The term was for 7 years at an interest rate of 7%. A member who signed up for Plan 7 had the option to add the monthly payment to their monthly electric bill.

For the 2014 year, GVEC had 53 active loans, leaving a remaining balance of $144,864.41.

Conservation Plan 7 is no longer available to GVEC members as of January 1, 2015.

Energy Saving Tips

GVEC offers energy saving tips on its corporate website as well as periodic articles and advertisements in Texas Coop Power magazine. These tips range from temperature settings on heating and cooling systems, insulation, appliances, water heating, and home lighting. In addition, GVEC sponsors the POWERHOUSE program which is focused on educating middle school students on ways to save energy in their own homes.

Examples of these Energy Saving Tips are available at the following link:

http://www.gvec.org/yeLifestyleChanges.aspx

http://www.gvec.org/ycSafetyEducationPresentations.aspx

Home Energy Audit

Provided as a free service to all GVEC members, Home Energy Audits are an important part of ensuring a member's home is running in the most efficient manner possible. Once requested by a member, a Member Service Advisor will examine the energy efficiency of the entire home by checking for adequate insulation, and ventilation in attics and floor areas, inspecting the heating and cooling system, and inspecting efficiency of large appliances. GVEC's

Member Service Advisors are trained and certified in the use of Infrared cameras. The infrared Camera is a valuable tool that is used to detect areas that are lacking insulation, and in locating leaks in doors and windows as well as holes or leaks in air conditioning duct work.

More information on Home Energy Audits is available at the following link:

http://www.gvec.org/yeFreeHomeEnergyAudit.aspx

GVEC Home

In existence in some fashion for over 40 years, GVEC Home offers energy efficient appliances to GVEC members, as well as the general public. Originally operated as an appliance repair service, GVEC Home, formerly GVEC Home Services was formed to provide energy efficient appliances to areas of the GVEC service territory where such products would not have been available otherwise. GVEC Home has locations in Seguin, LaVernia, Gonzales, and most recently now in Cuero. GVEC Home is also involved in the renewable energy field servicing and installation residential sized wind turbines and solar systems.

More information on GVEC Home is available at the following link:

http://gvechome.com/

Wind Turbine Dealership

GVEC Home is an authorized dealer of Southwest Windpower's Skystream unit which is a small residential model that has a capacity rating of 2.4 kW. In 2011, GVEC Home installed two skystream units within the service territory. From 2009 to December of 2011 GVEC home has installed 10 wind generators in varies locations throughout the territory and has been monitoring production of these units with the use of a monitoring meter. GVEC believes renewable technology is a product that can play a part to help members meet their energy needs. Including units installed by Home, over 30 accounts with a total capacity 119.6 KW of wind generation on GVEC's system.

Currently we have halted all promotions and sales of the Skystream 3.7, due to issues with the Southwest wind power.

More information on Wind Generation is available at the following link:

http://www.gvec.org/documents/BROCHURE_WIND_WEB.pdf

Solar Installation Partnership

GVEC Home has partnered with IES Residential Inc. to be our provider for Solar PV equipment and installations. IES Residential Inc. is Texas based and provides turnkey services including design, installation, and engineering services.

GVEC home is responsible for the promotion for the initial contact with the member, scheduling, performing site surveys, creating estimates and designs for the member.

More information on Solar is available at the following link:

http://www.gvec.org/documents/BROCHURE_SOLAR_WEB.pdf

Helping you save time and money.

GVEC offers an array of products and services that can save you time and money. Our goal is to make it easy and convenient for you to do business with us.

Find out more inside about these services:

Conservation Plan 7 - financing for energy efficient home improvements

Power Availability Monitoring - verifies power is reaching your meter

Security Light Installation - added security for your family

Home Energy Audit - a professional evaluation of your home's energy efficiency

Energy Efficient Rebates - making energy efficient upgrades and renewable alternatives more affordable

Online Tools - free energy-saving tips and activities that can help you save energy and money

Gonzales
825 E. Sarah DeWitt Dr.

Cuero
909 E. Broadway

La Vernia
13849 U.S. Hwy 87 W.

Schertz
908 Curtiss Ave.

Seguin
927 N. Highway 46

gvec™ Your kind of power.™

Guadalupe Valley Electric Cooperative, Inc.
800.223.GVEC (4832) | www.gvec.org

Member Services

Guadalupe Valley Electric Cooperative, Inc.

gvec™ Your kind of power.™

Save Energy & Money

Home Energy Checkup

Let a trained GVEC professional provide a complimentary evaluation of the energy efficiency of your home and give you some tips and recommendations to lower your energy usage and costs. Call GVEC at 1-800-223-4832 to make an appointment for a Home Energy Checkup.

Energy Efficiency Rebate Program

GVEC can help with the costs associated with building an energy efficient home, remodeling or upgrading your current home, or installing renewable technologies. Visit www.gvec.org to learn about applications, contractors and program details – or call a Member Service Advisor for more information at 1-800-223-GVEC (4832) or email info@gvec.org.

Power Availability Monitoring

Do you have a lake house or a hunting cabin that you use only occasionally? Do you have a water well for cattle at a remote location that is not convenient for you to check regularly? If so, the Power Availability Monitoring (PAM) Program can help you.

- GVEC will check multiple times every day to verify that power is reaching your meter.
- If we find a problem, we'll automatically address it without the need for notification from you.
- The PAM Program can offer you peace of mind when you have to be away from your property at any time.

Helpful Tools

Conservation Plan 7

GVEC can also help finance certain energy efficient upgrades for your home. The Conservation Plan 7 Program loans up to $7,000, at a 7% interest rate, for up to a 7-year term. Credit approval is needed to qualify. Stop by any GVEC office and visit with a GVEC Member Services Advisor today, or call 1-800-223-4832 and get all the details about GVEC's Conservation Plan 7.

Security Lights

Keeping your family secure around your home is a priority. From rural ranches to urban neighborhoods, wherever you are – lighting is an important factor in safety. Let GVEC install a security light for you. Call a Customer Service Representative at 1-800-223-4832 today for more information on rates.

Online Tools

Find free energy-saving features for your home, educational activities for the kids, and community links online at www.gvec.org.

- Click on the Home Energy Suite to learn ways to conserve energy in your home.
- Use the Kids Korner to explore fun energy-related games, experiments, and more.
- Access member recipes and an online trading post.
- Keep up to date with GVEC and industry news that affects you and your family.

Appliances and Internet

gvechome

Your kind of power.

GVEC Home is your one-stop shopping location for major brand electric home appliances from the budget models to the latest energy efficient styles. We're also an authorized dealer for Trane and Bryant heating and cooling units. Our licensed HVAC technicians install, repair, and service central electric heating and cooling units and offer additional assistance to help you save energy in your home.

And, if you'd like to explore renewable alternatives, we have wind and solar solutions, too.

To learn more, visit www.gvec.org, stop in at any one of our three locations in Gonzales, La Vernia and Seguin, or call 1-800-223-GVEC (4832).

gvec.net

Your kind of power.

GVEC.net is an Internet Service Provider serving parts of the GVEC service territory and surrounding areas. GVEC.net commits to providing the highest quality of Internet service regardless of where you live.

GVEC.net offers:

- Dial-Up
- Residential High Speed Wireless
- Commercial High Speed Wireless
- Web Site Hosting

For more details, visit us at www.gvec.net, at any GVEC location, or call us at 1-800-699-GVEC (4832).

TACLB016098E

2014 Rebate Program Totals

Home Improvement Rebate Program	# Approved	Rebate Offered	Total $ Given
Heat Pump HVAC	199	Up to $650.00	$116,750.00
Attic Insulation	78	$0.20/sq ft	$26,927.90
EE Windows	46	$2.00/sq ft	$19,272.25
Wall Insulation	2	$0.20/sq ft	$346.30
Solar Screens/Film	148	$0.50/sq ft	$14,761.02
Duct Replacement	19	Up to $500.00	$9,300.00
Heat Pump Water Heater	57	$300.00	$17,100.00
TOTAL	**549**		**$204,457.47**
New Home Program			
New Home Rebate	1	$1,500.00	$1,500.00
TOTAL	**1**		**$1,500.00**
Renewable Rebate Program			
Solar PV	179	Up to $8000.00	$1,429,640.00
Solar Water Heater	0	$1,000.00	$0.00
Solar Water Well	5	$750.00	$3,750.00
Wind Generator	0	$1.00/Watt	$0.00
TOTAL	**184**		**$1,433,390.00**
GRAND TOTAL	734		$1,639,347.47

Rebate Program Totals

	2009	2010	2011	2012	2013	2014	2015	TOTALS
Home Improvement								
ES Appliance	886	1,712	1,097	884	28	-		4,607
Heat Pump HVAC	295	636	161	169	223	199		1,683
Attic Insulation	75	103	80	57	55	78		448
EE Windows	42	92	57	45	42	46		324
Wall Insulation	2	5	5	4	1	2		19
Solar Screens/Film	133	140	117	146	152	148		836
Duct Replacement	16	30	9	14	6	19		94
Heat Pump Water Heater	-	-	34	78	66	57		235
Radiant Barrier	63	60	-	-	-	-		123
								8,369
New Home								
Energy Star New Home	194	440	126	118	21	-		899
New Home Rebate	-	-	-	-	4	1		5
								904
Renewable								
Solar PV	11	9	41	265	179	179		684
Solar Water Heater	5	5	2	1	0	0		13
Solar Water Well	5	1	14	5	10	5		40
Wind Generator	3	8	5	0	0	0	-	16
Solar Attic Fan	16	31	-	-	-	-		47
								800
Total Rebates								**10,073**

Exhibits A-I

Regarding Rebate Programs

ENERGY EFFICIENCY NEW HOME PROGRAM

GENERAL QUALIFICATIONS

- Must be a GVEC member
- Home receiving a rebate shall be served by GVEC
- Please allow 8 weeks after final approval to receive rebate.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Home shall qualify for GVEC's All Electric Rate
- Properly sized Energy Efficient Heat Pump system is required, AHRI rated 16 SEER Minimum from current Edition Manual J
- Electric water heater with a minimum Energy Factor (EF) rating of ≥.94 is required. (Note: Heat pump water heaters or solar water heaters are recommended, but not required.)
- Open-cell spray foam roof deck or Structurally Insulated Panels (SIP) required with an R Value ≥30
- All HVAC equipment and ducts shall be located in conditioned space
- Energy efficient windows shall have a Solar Heat Gain Co-efficient of ≤.27 and a U-Factor of ≤.39
- A sole plate gasket shall be installed on exterior walls.
- Walls shall be insulated with a fiberglass "BIB" type system, blown cellulose, or spray foam to a total wall value ≥R-14.
- All venting shall vent to the outside of the building structure i.e., bathroom exhaust fan, laundry exhaust fans, vent hood over range or cook top.
- All builder-installed appliances shall be ENERGY STAR qualified. (Example: dish washer, refrigerator, freezer)
- **GVEC shall be contacted prior to the beginning of construction for participation.**
- The New Home Agreement Form shall be completed and signed prior to the beginning of construction.
- **A pre-sheetrock and final inspection shall be completed by GVEC to participate.**

SUPPORTING DOCUMENTATION

- New Home Agreement Form
- A set of scaled home and elevation plans must be provided.
- Mechanical and building specifications must be provided.

REBATE AMOUNT

- $3200

DUCT REPLACEMENT REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Improvement shall require a GVEC listed contractor.
- Only full duct system replacement will qualify for rebate, partial duct systems will not be eligible.
- Duct material shall be insulated with R-8.
- ONLY DUCTS IN UNCONDITIONED SPACE WILL QUALIFY (Any discrepancies of unconditioned or conditioned area to be determined by GVEC).
- Invoice shall include: R-value of material used.
- Dampers shall be installed in order to control room-by-room airflow.
- Adjustable louvered ceiling grilles shall not be a substitution for dampers.
- Contractor must hold a current certification showing proof of training in Blower Door, Duct Blaster or National Comfort Institute (NCI) HVAC air diagnostics and balancing testing. Duct air flow leakage testing results must show final duct leakage in CFM and nominal system tonnage.
- Duct system shall be sealed and tested to have ≤ 7 % CFM of air leakage based on the nominal system's tonnage of 400 CFM per ton.
- Duct system shall be sealed and designed according to manufacturer’s recommended installation practices and procedures, current state and local code requirements, and ACCA Manual D.

- Does not apply to new construction.
- All material shall be new. Air sealants such as mastics and/or foil tape shall be UL 181 approved and designed for air distribution systems.

SUPPORTING DOCUMENTATION

- Duct Design drawing showing damper location, duct size and CFM requirements per room.
- Additional information to include unit's total CFM and CFM of air leakage.
- Signed Invoice showing work completed. No estimates accepted.

REBATE AMOUNT

20% of cost, up to $500.00

ENERGY EFFICIENT WINDOW REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Improvement shall require a GVEC listed contractor.
- WINDOW RATING SHALL HAVE A U-FACTOR OF ≤ .40.
- Windows shall have a solar heat gain co-efficient (SHGC) < .27.
- Windows in Garages and other non-conditioned areas do not qualify.
- Invoice shall include: window manufacturer, model, size, U-Factor and solar heat gain co-efficient (SHGC).
- Window shall be NFRC (National Fenestration Rating Council) Rated
- Does not apply to new construction.
- All material shall be new.
- Manufacturer's installation practices and procedures shall be followed.
- State and local codes shall be followed.

SUPPORTING DOCUMENTATION

- Signed invoice showing work completed. No estimates accepted

REBATE AMOUNT

Energy Efficient Windows

$2.00/sq. ft. of window opening

HEAT PUMP, COOLING/HEATING SYSTEM REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Completed Insulation Acknowledgement Form.
- Improvement shall require a GVEC listed contractor.
- UNIT SHALL BE AN ALL ELECTRIC HEAT PUMP SYSTEM
- Auxiliary heating shall be controlled through an outdoor temperature sensor and set at the system's balance point, preventing unnecessary operation of auxiliary heating.
- Outdoor thermostat setting set above 35° will require a balance point diagram.
- Air distribution system (supply, return, plenum, and cabinet closet) shall be sealed or repaired according to manufacturer's recommended installation practices and current code requirements.
- System shall be a NEW matching system certified by AHRI. Both condensing unit and air handler/ evaporator coil shall be replaced.
- Applicable to new or existing homes.
- Manual J 8th Edition load calculation to be completed showing the sensible load and total BTU gain at Design conditions of: 75° Indoor, 63° Wet Bulb, 97° Outdoor. Equipment sensible not to exceed 15% of the calculated sensible load.
- Manufacturer's installation practices and procedures should be followed
- State and local codes should be followed.

SUPPORTING DOCUMENTATION

- Manual J 8th Edition Load Calculation showing sensible and total BTU gain at Design conditions of: 75° Indoor, 63° Wet Bulb, 97° Outdoor
- Balance Point Diagram (if Required)
- Signed Invoice showing work completed. No estimates accepted.
- AHRI Certificate
- Signed Insulation Acknowledgement Form.

REBATE AMOUNT

SEER ≥ 16 - $550 per unit

SEER ≥ 17 - $650 per unit

HEAT PUMP WATER HEATER REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Applicable to new or existing homes.
- Heat pump water heater units are to be installed according to manufacturer's guidelines and recommendations.
- All Heat pump water heaters shall be new and UL listed.
- Invoice shall include: manufacturer, model number, serial number and energy factor.
- All exposed pipes shall be insulated.
- State and local codes shall be followed.

SUPPORTING DOCUMENTATION

- Receipt/Invoice showing unit purchased

REBATE AMOUNT

$300 per Heat pump water heater

INSULATION REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

Attic Insulation Rebate:

- Improvement shall require a GVEC listed contractor.
- Final insulation level minimum shall be R-38 to qualify.
- (PRIOR TO UPGRADE) INSULATION SHALL BE R-19 OR LESS.
- Garages and other non-conditioned areas DO NOT qualify.
- Invoice shall include: insulation type, square footage of conditioned area, R-Value prior to upgrade and installed R-Value.
- Does not apply to new construction.
- All material shall be new.
- Manufacturer's installation practices and procedures shall be followed.
- State and local codes shall be followed.
- GVEC recommends that the attic have a minimum of 1 sq. ft. of new free area of inlet ventilation and outlet ventilation for every 300 sq. ft. of attic area.

Wall Insulation Rebate:

- Improvement shall require a GVEC listed contractor.
- Rebate is based on the sq. ft. of installed insulation. (Calculated by gross wall area less window and door area, etc.)
- FINAL INSULATION SHALL BE AT LEAST R-13.
- WALL CAVITY TO BE VOID OF ANY INSULATION PRIOR TO UPGRADE IN ORDER TO QUALIFY.
- Garages and other non-conditioned areas do not qualify.
- Shall be installed between conditioned and unconditioned areas to qualify.
- Invoice shall include: insulation type, square footage of conditioned area, R-Value prior to upgrade and installed R-Value.
- Does not apply to new construction.
- All material shall be new.
- Manufacturer's installation practices and procedures shall be followed.
- State and local codes shall be followed.

SUPPORTING DOCUMENTATION

- Signed invoice showing work completed. No estimates accepted

REBATE AMOUNT

- Attic Insulation - $0.20/sq. ft. of installed insulation
- Wall Insulation - $0.20/sq. ft. of installed insulation

SOLAR WATER HEATER REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Improvement shall require a GVEC listed contractor.
- All material shall be new and certified by SRCC (Solar Rating Certification Corporation).
- Solar water heaters shall preheat water for an electric water heater that is permanently installed and is the main source of water heating.
- Invoice shall include: manufacturer, model number and Solar Rating Certification Corporation Number.
- Solar water heater shall have a minimum 5 year warranty on all major components.
- Solar water heater shall also be installed with frost protection and scale elimination.
- Manufacturer's installation procedures and codes shall be followed.

SUPPORTING DOCUMENTATION

- Signed invoice showing work completed. No estimates accepted

REBATE AMOUNT

$1,000 per Solar Water heater

SOLAR WATER WELL REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Improvement shall require a GVEC listed contractor.
- PV panels shall have a minimum 20 year warranty.
- All material shall be new.
- Invoice shall include: manufacturer, model number and pv panel warranty.
- Shall be installed by a licensed contractor.
- Manufacturer's installation procedures and codes shall be followed.

SUPPORTING DOCUMENTATION

- Signed invoice showing work completed. No estimates accepted

REBATE AMOUNT

$750/Unit

WINDOW SOLAR SCREENS AND/OR FILM REBATE

GENERAL QUALIFICATIONS

- Improvements may require a GVEC listed contractor in order to participate in rebate program. See additional program requirements for details.
- GVEC does not assume liability for work completed by a GVEC listed contractor.
- Must be a GVEC member.
- Items receiving a rebate shall be served by GVEC.
- Please allow 8 weeks after receipt of all documents to receive rebate credit.
- Rebates less than $1,501 will be applied as a credit to your GVEC energy bill. Rebates greater than $1,500 will be mailed to the mailing address as submitted on the online application.
- GVEC reserves the right to verify all projects in order to meet minimum program guidelines and requirements.
- Additional supporting documents may be required, see additional program requirements for details.
- Government funded improvements do not qualify for GVEC Rebates.
- GVEC reserves the right to make changes to the program without notice.

REQUIREMENTS

- Improvement shall require a GVEC listed contractor.
- Screens or Films on windows in Garages and other non-conditioned areas do not qualify.
- Screens or Films shall cover entire glass surface area for each fenestration.
- Minimum of 70% reduction of solar heat gain for solar screens and ≥.40 solar heat gain coefficient (SHGC) for films.
- Invoice shall include: manufacturer's data on reflectivity or heat gain co-efficient, product identifiers, and performance rating specifications.
- Does not apply to new construction.
- All material shall be new.
- Manufacturer's installation practices and procedures shall be followed.
- State and local codes shall be followed.

SUPPORTING DOCUMENTATION

- Signed invoice showing work completed. No estimates accepted

REBATE AMOUNT

$0.50/sq. ft. of window

Exhibit J

SECTION IV Service Rules, Regulation and Service Agreement Forms	APPROVAL DATE 02-19-08	EFFECTIVE DATE 02-19-08	PAGE NO. 79

RESIDENTIAL RENEWABLE GENERATING INSTALLATION

23.1 Residential Renewable Generating Installation - Items 23.1 and 23.2 of this tariff apply to the interconnection and parallel operation of a single renewable generating installation that has a rated design capacity of 20kw or less. In order to qualify for this program, the Renewable Generating Installation must utilize renewable technologies (defined as wind, solar or hydro) to produce energy. The Cooperative reserves the right to determine if a Renewable Generating Installation qualifies for this program and may take in to account future renewable technologies.

23.2 Purchases from Producer –

1. Rate – The Utility will pay Producer for all power purchased at the current renewable energy rate, which is calculated by taking an average of the Utility's wholesale power costs

23.3 Metering - In addition to any existing meters, a separate meter will be required to measure output of the renewable generating installation. This meter, as well as all associated wiring and switchgear up to point of interconnection with Utility, will be installed at Member's expense.

*The following exhibits are some of the energy efficient marketing advertisements and articles that were featured in our GVEC Review Magazine during the 2014 year.

GVEC EDITION APRIL 2014

Texas Co-op Power

gvechome Your kind of power. SOLAR DISCOUNT COUPON

GET AN ADDITIONAL

$1,000 DISCOUNT

on top of GVEC rebate!

ON A COMPLETE SOLAR PV SYSTEM

April Only!

Implementing solar is simple! It's easy to install, made to last, and more affordable than you think. Get $1,000 off a 4KW or larger system on top of the instant GVEC rebate now! Offer expires April 30, 2014 and rebates are limited to availability. Cannot be combined with any other GVEC offer. Coupon must be presented at time of purchase. Call 800.223.4832 for more details.

PROMO CODE: GRDCSPV0414

gvechome Your kind of power.

800.223.GVEC | gvechome.com

HEATING & COOLING COSTS ACCOUNT FOR 46% OF YOUR ENERGY BILL.

ENERGY USE IN THE HOME

Be comfortable and cut your electric bill.

SCHEDULE A SPRING COMFORT CHECK FOR YOUR AC SYSTEM

gvechome SAVINGS COUPON

COMFORT CHECK

AC/Heating Service Plan

$50 OFF

Comfort Check (Reg. $150)

Must book an appointment by **April 30, 2014!**

PROMO CODE: GRDCCC0414

gvechome Your kind of power.

Cannot be combined with any other GVEC Home offer.

Texas A/C Contractor License TACLB016098E

Schedule your appointment today!

gvechome Your kind of power.

APPLIANCES | AC/HEATING | SOLAR

SALES | SERVICE | INSTALLATION

Seguin | La Vernia | Gonzales

Serving Surrounding Areas

M-F 9AM - 6PM

SAT 9AM - 1PM

800.223.GVEC | gvechome.com

G&T Rate Adjustment to Take Effect in January

Effective January 2014, the Generation and Transmission rate of member electric bills will increase from $0.06700 to $0.06800 per kilowatt hour. This adjustment will raise the average monthly bill by approximately $1.50 for the typical electric home consuming 1,500 kilowatts of electricity per month. The GVEC Board of Directors made the decision at its October board meeting to implement this strategic step toward continued financial strength and rate stability as the Cooperative prepares to transition from its wholesale power contract with the Lower Colorado River Authority in 2016.

When the transition is complete, GVEC will purchase the power necessary to meet needs directly from the wholesale power market. On the market, purchase prices can vary minute by minute, so they have the potential to be a highly volatile factor in an electric bill. If GVEC were to pass those fluctuations through to the membership as they occurred, rates would follow suit and constantly change from month to month. To avoid large monthly swings in members' bills, GVEC purposely designs its residential rate structure to limit fluctuations as much as possible.

Rates are set according to educated market projections of power purchase costs, and could potentially be higher when market conditions are favorable and lower when they take a turn. Any surplus of G&T funds collected in the interim of market turns is saved and eventually used to offset differences over time. The process makes it possible to deter constant rate changes to members. In fact, the last G&T rate modification GVEC implemented was in 2010, when the Board of Directors lowered rates due to the low market price trend of natural gas at the time.

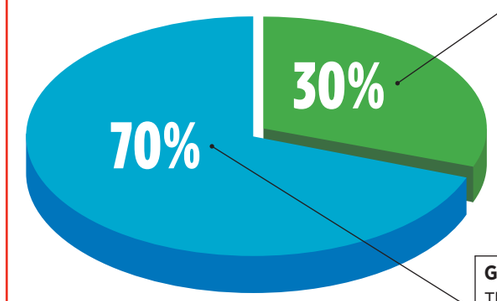
As GVEC General Manager & CEO Darren Schauer mentioned in his December comments to the membership, GVEC transformed from a limited participant in the wholesale power market to an active one as the Cooperative contracted with some of the largest generators and power marketers in the world after the decision to terminate the contract with LCRA effective June 2016. This strategy ultimately gives GVEC more leverage over its wholesale power purchases to contract with multiple providers for long-term stability and to take advantage of favorable market conditions to save on costs when possible. Though 2016 is a couple of years away, preparations are progressively moving forward. As a result of the new direction, GVEC is investing a great deal of focus and time in energy services and proactively planning to ensure that cost-effective resources are secured to meet current and future energy demands.

This slight increase in the G&T rate is part of an overall strategy to balance price consistency with price competitiveness. As a not-for-profit cooperative, GVEC does not raise rates to generate profits. Rates are raised simply to cover the cost of doing business and only when necessary. Looking forward, members can have confidence the GVEC Board of Directors will continue to closely monitor future projections and make the appropriate decisions to keep rates as stable and affordable as possible in the coming years.

Should you have any questions, please phone GVEC at 800.223.4832.

What Goes Into Your Electric Bill?

*Values are approximate



Distribution and Delivery
This portion of your bill represents the cost of making power available to homes and businesses. It includes all support costs from human resources to wire and trucks.

Generation and Transmission (G&T)
This is the portion of your bill that represents the purchase price of wholesale power to meet demand.

Start the New Year Right: Save More Money on Your Energy Bill

When it comes to resolutions, we can't help you lose weight or start an exercise program. But, we can show you some easy ways to reduce your energy bill to save money this year and well beyond. The good news is that many of these projects don't cost much to do—they just require a little time and elbow grease to seal up any air leaks in your home. Your efforts not only will make your home more comfortable, but also help to keep your air conditioning system from working harder than it needs to.

Real Photos, Real Homes

Take a look at these photos—they're thermal images of doors, windows and ceilings taken with an infrared camera at members' homes last summer. They're pretty, but even more important, they show things the naked eye can't see, like hot or cold air leaking in and out of your home.

The different colors represent temperature variations ranging from cool blues and purples to hot yellows and oranges. When you see a hot spot of color in an area, that usually indicates a sudden change in temperature for one reason or another.

It's Just Science

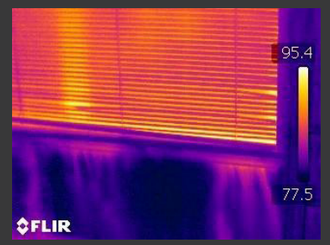
Leaks in your home happen because heat naturally flows from warmer to cooler spaces. In winter, heat moves from heated areas of your home to unheated attics, garages and even the outdoors through gaps, cracks, walls and ceilings. In summer the reverse is true, with hot, outside air moving inside to cool, air conditioned areas. That's why it's so important to caulk windows, add weatherstripping around doors, make sure air conditioning ducts in the attic are properly sealed, and there's adequate insulation where it needs to be.

GVEC Can Help

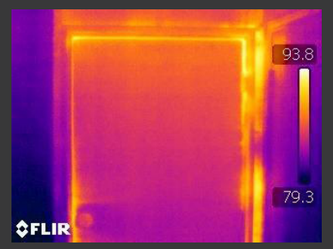
If you're interested in making your home more energy efficient, but don't know where to start, call one of our Member Service Advisors at 800.223.4832 (GVEC). They can work with you to help figure out the most effective steps you can take. They can even perform a complimentary in-home energy audit if you're seriously considering making major improvements. Remember, GVEC also offers energy efficiency rebates. Just go to www.gvec.org and click the Rebate Center icon to see what's available.

It's estimated that 15 percent of a typical home's air leaks are due to air conditioning ducts that are improperly installed, have holes or are coming loose. The purple lines show where cool air is leaking into a hot attic from two different ducts that aren't properly sealed.

The newest trend is to insulate roof decks rather than attic floors so the attic itself becomes part of the home's insulated envelope. This image shows how hot a roof can get during summer.

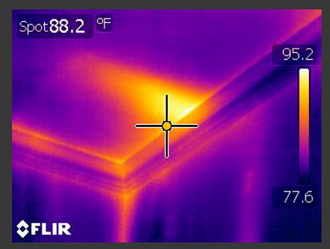


Look at this window sill. The flashes of pink light indicate warm, outside air is leaking in through a gap between the window frame and sill. Caulking will take care of this.



It's not difficult or expensive to add weatherstripping to a door. It helps keep air from leaking in between the frame and the door.

For about $3, you can buy a kit to insulate an electric wall or outlet plate. This image shows how warm air from inside the wall is leaking from around the light switch plate and into the room.



Look what happens when you don't have adequate attic insulation. We pulled back a piece of insulation in the attic and then took a picture from inside the living room. The yellow area indicates attic heat seeping into the living room where the wall and ceiling meet.

Protect Against Power Surges

High-tech gadgets and appliances all have one weakness in common: power surges. But there are measures you can take to protect your sensitive electronics.

What is a Power Surge?

Surges occur when the flow of electricity is interrupted and then started again, or when something sends a boost in the electrical charge of connecting wires.

Although no device can provide 100 percent protection against a power surge, one of the best ways to protect your home or business is by using a two-tiered approach.

1 **Begin with a whole-house surge protection device.** These devices are installed by an electrician and can help protect against external surges that come from outside your home. They're typically mounted at your home's main electric panel and can help stop or lower the voltage that can enter a home as the result of a lightning strike, for example. However, these whole-house devices usually only offer one-time protection against large surges and once triggered, need to be replaced or reset by an electrician.

2 **Then protect specific items with point-of-use surge protectors.** These devices range from electrical power strips with multiple outlets to wall-mount devices for a tight space like that behind a refrigerator. You should consider putting one on anything that's expensive to replace and has a sensitive microprocessor. There are even specialized devices for home theater and computer systems, which also include ports for Ethernet cords, and cable and satellite TV connections since they can also carry surges.

Here are a few more tips to consider:

» Power Strips and surge protectors aren't interchangeable. A true surge protector includes internal components that will divert or suppress the spike from surges. A power strip only provides more outlets for an electrical circuit.

» If an interruption in power will pose a problem such as your losing valuable information on your computer, consider a UPS (uninterruptible power supply) with surge protection. The UPS will provide back up battery power for a short period of time so you can save your work.

» Surge protectors don't last forever. Replace any that are discolored, look melted or have an indicator light that doesn't work.

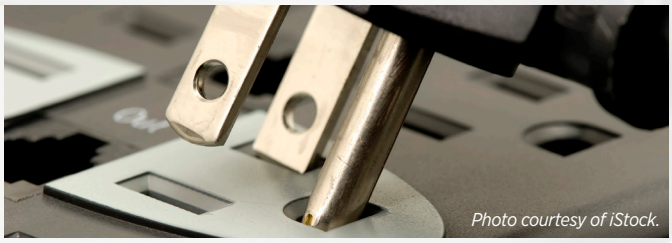


Photo courtesy of iStock.

LOVE YOUR DUCTS!

FIX LEAKS FOR A MORE EFFICIENT, COMFORTABLE HOME!

gvechome Your kind of power.

$89 DUCT INSPECTION

★ LIMITED TIME ★

ORDER YOUR DUCT INSPECTION TODAY!

Includes sealing minor leaks and, if needed, an estimate for repair of any major leaks or problems. Offer may not be combined with any other GVEC Home offer. Coupon valid through February 28, 2014.

PROMO CODE: GRDUCTINSPCT0214

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Ask an HVAC Expert

Miguel Maldonado, GVEC Home® Technician

MAKE SURE YOUR AC IS SIZED RIGHT

Q: I'm ready to replace my central air conditioner. It doesn't cool my house very well—does that mean I need to buy a larger unit? That's what my neighbor did.

A: Before you have a replacement air conditioning unit installed in your home, it's very important your contractor does a "load calculation" to determine the proper size needed—going bigger isn't always the solution. In fact, it's possible you may now need a smaller unit or even a different size than your neighbor's because no two homes or situations are the same—even when neighbors have the same floor plan.

Bigger Isn't Always Better

A bigger unit may blow a greater volume of air, but that doesn't mean it will cool your house more efficiently or increase your comfort.

That's because ACs are also designed to remove humidity (moisture) from your home. When the humidity level is lowered, you'll feel cooler. That means you'll be able to conserve energy during warmer months by being able to run your AC a few degrees higher and still feel comfortable. However, here's a key point: it takes at least 15 minutes or more of run time for an AC to significantly remove moisture from inside your home. That means;

- If an AC unit is too large for your home, it will reach the thermostat set point too quickly and cycle off before sufficient humidity is removed. You'll feel muggy again and your home won't retain its coolness, triggering the AC to kick on again (which uses a lot of energy). If this happens several times an hour on a hot day, it's called short cycling and is a very inefficient and expensive way to cool a home.
- If you keep lowering the thermostat to compensate for short cycling, you'll increase your energy usage even more.
- Short cycling also increases equipment wear and tear, leading to future repair costs.

"Load Calculation" for Proper Sizing

A decade ago, contractors used various rules-of-thumb to size AC units such as a home's square footage. But now, with improved AC technology and energy efficiency home improvements, a more accurate way for sizing is with a load calculation.

This is a scientific formula that takes into account our area's hot weather and your home's variables like: the number of people living in your home (dogs over 60 pounds count as one human!); the number of plants kept indoors (they add to a home's humidity level); the type of windows (single pane vs. insulated); your home's orientation (do you have west-facing windows?); the amount of air infiltration (how tightly sealed is your home?); as well as roof type and amount of attic insulation. This is why no two homes are the same.

Load Calculation is a Must for GVEC Member Rebate

Because a load calculation (also called an engineering analysis) is considered an industry standard, having one is a requirement when applying for the GVEC member rebate for qualifying electric heat pump systems. Since rebate terms and availability are subject to change, make sure you read the rebate information first and contact a Member Service Advisor at 800.223.4832(GVEC) if you have questions. Rebate information is available on www.gvec.org; click the Rebate Center icon.

We'll be answering more of your air conditioning questions in future columns. If you'd like to make an appointment to discuss replacing your AC unit or learn more about our air conditioning sales, maintenance and service, call GVEC Home at 800.223.4832 (GVEC).

gvechome
Your kind of power.®

THE GVEC REVIEW

AUGUST 2014 VOL 40 NO 08

Power Prices and Energy Efficiency

MESSAGE FROM GENERAL MANAGER DARREN SCHAUER

If you recall my comments from last month, they centered on a discussion about the adjustment to the Generation and Transmission (G&T) rate that would be effective on bills generated after August 1, 2014. I mentioned the reason for this was due to a significant rise in prices from one of our major wholesale power suppliers. This expense for power is represented by the G&T rate on member bills and is passed directly to members without any markup. The Board of Directors believed it was prudent to the financial health of the Cooperative to approve this rate adjustment to help compensate for a rate that has not been sufficient to recover rising costs.

Since GVEC is a distribution utility, we do not own any generation sources; rather, we work hard to negotiate the lowest prices possible from our power suppliers and then pass that cost on to our members. While predicting pricing is based on educated estimates, GVEC cannot guarantee when prices will go back down, and in fact, we expect they will remain at this level for a while. Be assured, the Board of Directors and staff will continue to monitor the situation and keep you informed of any necessary changes. In the meantime, there are some steps we can all take to help offset the increase: energy efficiency is the key.

Saving Energy

As our Member Services Advisors work with members on how to save energy by making home efficiency upgrades and modifying lifestyle habits, they discover there are many costly misconceptions about energy use. For example, who isn't tempted to turn the thermostat down several degrees below the usual setting when you first walk into your home at the end of a long, hot day? The problem is this will increase energy usage, and even more importantly, if you forget to turn the thermostat back up, your air conditioner will continue to run at the cooler, more costly temperature. The current rule of thumb: you can shave off up to four percent on cooling and heating costs for each degree you raise your thermostat in summer and lower it in winter.

I focus on air conditioning because it is one of the two appliances that consumes the greatest amount of energy in the typical home. The other is your water heater, and together they account for nearly 60 percent of a home's energy usage. That is why it is important to have regular maintenance performed on your air conditioning system for optimal performance and to set your thermostat at 78 degrees in the summer and 68 degrees in the winter. You can reduce hot water use by washing clothes in cold water whenever possible, taking short showers instead of long hot baths, and setting your water heater thermostat at an energy-efficient 120 degrees, which is recommended by the Department of Energy as sufficient for most people.

There are so many things we all can do to conserve, and I hope you find the information we provide on an ongoing basis to be helpful. I also urge you to take advantage of the many enhanced services GVEC offers, such as the expertise of our Member Services Advisors. They will work with you at no cost to answer your energy efficiency questions. They can also assist with member rebates which can help offset some of the costs from making energy efficiency upgrades.

As your cooperative, please know that we work on behalf of your best interests to keep your electricity reliable and affordable.

Your comments and feedback are welcomed any time. Contact me by phone at 800.223.4832, by email at dschauer@gvec.org, or by mail at P.O. Box 118, Gonzales, TX 78629.

Respectfully,

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Darren Schauer

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CONTACT US

For information during office hours and outages after hours

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Did You Know?

GVEC is continually upgrading and implementing new technologies to minimize outages and provide you with the reliable service you depend on.

8 Tips: Wisely Use That Window Unit

A window or room air conditioner can be a lifesaver when it comes to staying cool during the summer heat. The good news is that it doesn't have to be an energy hog. Here are some energy tips to consider that can help conserve energy and save money on your electric bill.

1 **Consider an Energy Star® model.** If you're ready to purchase a new unit, Energy Star room air conditioners cost at least 10 percent less to operate than conventional models.

2 **Use a timer.** Set the plug-in timer to turn off the air conditioner when you leave home and to turn it on just before you return.

3 **Purchase a unit with varying fan speeds.** This allows faster cooling when needed and quieter, more efficient operation at other times.

4 **Keep the unit centrally located.** To allow better air circulation, install your room air conditioner in the window or area of the wall that is nearest to the middle of the space being cooled.

5 **Seal the unit.** Once a room air conditioner is in place, seal the space around it to prevent warm outside air from leaking in.

6 **Keep the unit out of the sun.** Locate your room air conditioner on the shady side of your home, if possible. It will operate more efficiently in a cooler location.

7 **Pay attention to the fresh-air vent.** When it's hot outside, make sure the fresh-air vent is closed when the room air conditioner is operating so you aren't cooling outside air.

8 **When the hot season is over, cover the outside of your unit.** Use a weatherproof cover and fill in any cracks around the unit with removable caulk. You can also remove your room air conditioner and store it.

Remember, GVEC Home offers a variety of Energy Star room air conditioners. For information, call GVEC Home at 800.223.4832 (GVEC) or visit www.gvechome.com. (If you are interested in an energy-efficient air conditioning system, GVEC Home can help you with that too!)

Cool Savings on Room Air Conditioners

OFFER EXPIRES 8.31.14
CODE: GRRA0814

Friedrich Chill

Model: EP08

- Commercial Chassis
- 3,850 BTU Heating/ 8,000 BTU Cooling
- 24-hour timer
- 4 airflow directions
- Anti-intrusion protection

$459

(AFTER $30 FRIEDRICH REBATE)

Compact Programmable with Remote

$269

(AFTER $30 FRIEDRICH REBATE)

Model: CP06

- Commercial Chassis
- 6,000 BTU's
- Great for bedrooms
- ENERGY STAR® qualified

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APPLIANCES | AC/HEATING | SOLAR
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AC Maintenance: **It's a tag-team effort**

If your AC system seems to be running without a hitch, then why hire an HVAC professional to do regular maintenance?

Like an oil change for your car, getting a regular "tune-up" for your air conditioner can keep it running at peak performance. After all, it's a complicated machine, too. By making sure your system is working properly and efficiently, you'll not only help ensure year-round comfort, but also save energy and extend the life of your equipment.

What you can do

Regularly replace your AC filter. According to the Department of Energy, doing this on a routine basis can lower your air conditioning energy usage by 5 to 15 percent.

- ✓ Check filters monthly. If you hold your filter to the light and can't see through it—it's dirty and needs to be replaced. A dirty filter restricts air flow, which decreases efficiency.
- ✓ Filters need to be replaced more often during high-use months like summer and winter, and in certain situations such as homes with several pets that shed.
- ✓ If foliage or debris is blocking the vents of your condenser (the part that sits outside), remove it. Your condenser needs breathing space.
- ✓ If you're handy you may be able to clean out the condensate drain, but most homeowners leave this to their HVAC professional.

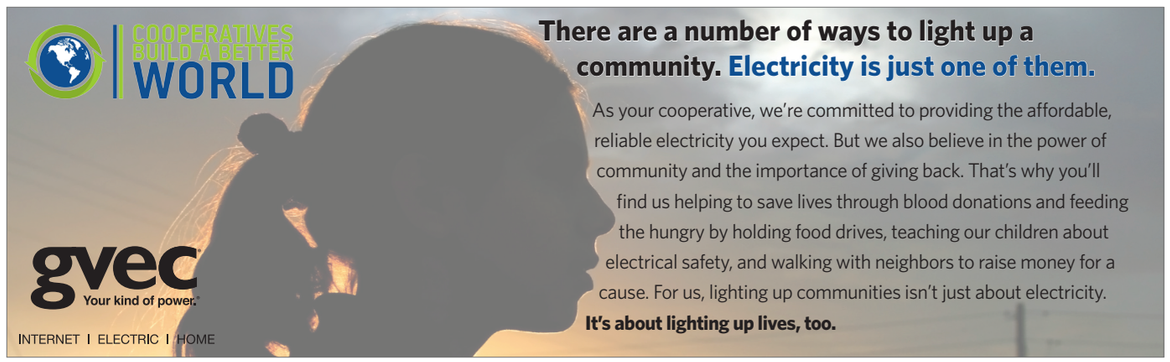
What the professional does

We can't speak for other companies, but GVEC Home's Comfort Check maintenance plan is designed to examine items necessary for keeping your AC operating properly and safely. It's not an excuse to sell you a new unit—it's to help get the maximum life and usage from your current system.

Here's an example of some of the items on our checklist:

- ☐ Check thermostat and calibrate for proper operation.
- ☐ Inspect condensate line for proper drainage.
- ☐ Check blower wheel for cleanliness and balance.
- ☐ Inspect electrical wiring and connections.
- ☐ Check high voltage controller and all controls and safeties.
- ☐ Inspect evaporator coil and condenser coil for cleanliness and damage.
- ☐ Check capacitors for leaking or swelling.
- ☐ Check voltage & amperage readings.
- ☐ Check and record refrigerant charge.
- ☐ Inspect airflow and inspect return air cavity for leakage and dust buildup.
- ☐ And more.

Don't take your AC for granted: keeping it maintained is a tag-team effort between you and your HVAC professional. For more information about our Comfort Check maintenance plan, call GVEC Home at 800.328.0630.



What's Your AC IQ?

Do you know the difference between a compressor and a condenser? Or where the reversing valve is located? Take our quiz to identify the major parts of a heat pump air conditioning system. Find the answers on page 26.

a. **Evaporator Coil**

b. **Fan Motor**

c. **Blower Motor**

d. **Reversing Valve** (found only in heat pumps. It reverses the flow of refrigerant for heating in colder months.)

e. **Refrigerant Lines**

f. **Blower Fan**

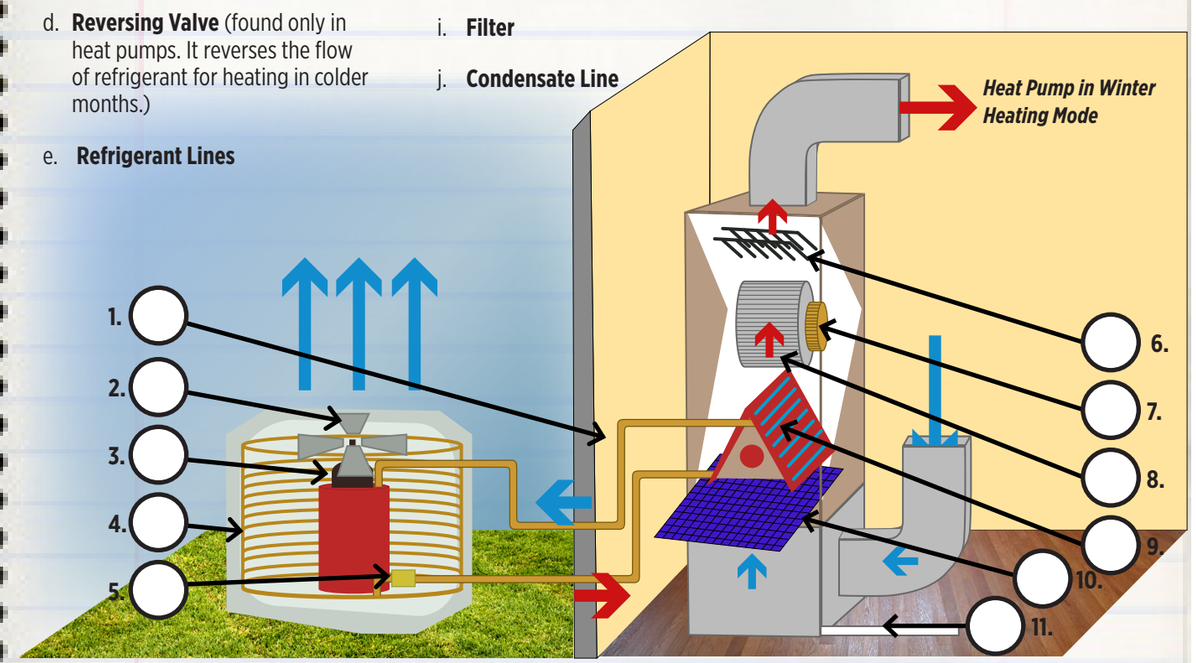
g. **Condenser Coil**

h. **Fan Blade**

i. **Filter**

j. **Condensate Line**

k. **Auxiliary Heating Elements** (Heat pumps use these heat strips only when necessary. However, the typical system (non-heat pump) relies solely on heat strips, which is expensive.)



Hello, Earth Day!

Celebrate with GVEC!

Saturday, April 26, 2014 9 a.m.–2 p.m.

Visit the GVEC booth at Central Park in Seguin

Trade Days, Earth Day—it's a combo celebration in Seguin. GVEC will be there with info on conserving energy and energy-efficiency rebates for members, kids' crafts, and information on solar options so you can see how simple solar can be with GVEC Home.

Recycle Your CFLs, Too

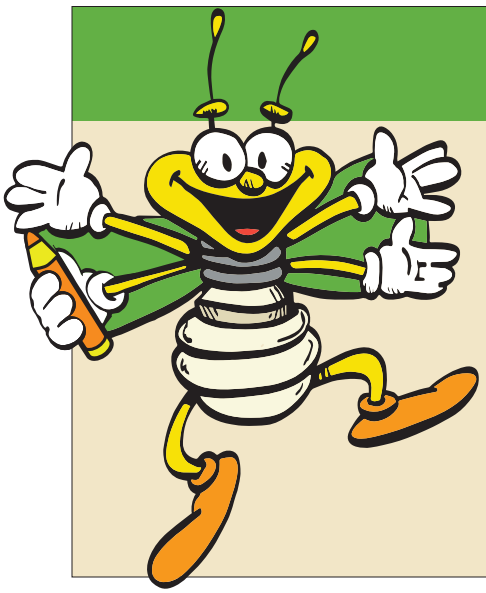
Did you know you're not supposed to throw your CFLs in the trash? Bring them to our booth or any GVEC office and we will recycle them for you. (No tube lights, please.)

Hats Off to 2014's GVEC Scholars!

More than 150 applications were submitted for the GVEC Scholarship Program, proving once again that we have some very talented and committed students in our territory. Fifteen scholarships for $2,500 each were awarded to these students based on scholastic achievement, extracurricular involvement, and a strong desire to continue their education past high school.

Congratulations to:

Carl Clark, *Byron P. Steele II HS*
Cody Garrett, *Cuero HS*
Karlee Krum, *Gonzales HS*
Alicia Grahmann, *Hallettsville HS*
Zachary Balcar, *La Vernia HS*
Rachel Cramblitt, *Lifegate Christian School*
Lorenzo Washington, *Marion HS*
Luke Jasek, *John Paul Catholic School*
Emma Johnson, *Navarro HS*
Jaycie Orsak, *Sacred Heart Catholic School*
Summer Spalding, *Samuel Clemens HS*
Cameron Bargfrede, *Seguin HS*
Ben Janecek, *St. Paul HS*
Shannon Freasier, *Stockdale HS*
Macey Jacobs, *Yoakum HS*



Would you like a GVEC Grow Guy?

Our Earth Day Coloring Celebration Isn't Just for Kids!

Draw a picture illustrating what Earth Day means to you and bring it to any GVEC office by April 15 to get a Grow Guy and a packet of wildflower seeds. Watch GVEC's Facebook and Twitter pages—you may see your name and picture posted in April.

THE GVEC REVIEW

MAY 2014 VOL 40 NO 05

Energy Efficiency This Summer

MESSAGE FROM GENERAL MANAGER DARREN SCHAUER

Although the weather should remain cool for a few more weeks, the one thing we can count on is that summer and higher temperatures are on the way. Staying comfortable while conserving energy is something we all struggle with, and one of the first steps is recognizing the three primary factors that can affect usage patterns.

Weather, Kids, and Your Home's Construction

Since nearly half of the total energy cost for a typical home is due to cooling and heating, it is important for your air conditioning system to be working as efficiently as possible—especially if it is aging. One simple, but effective measure is to change the filter monthly during high-use times like summer; another, which can save money in the long run and help prevent the likelihood of a breakdown, is to have your air conditioner serviced by an HVAC professional who can perform a maintenance checkup. Last but not least, run your system on "auto," not on "fan," and keep an eye on the thermostat. The smaller the difference between your indoor temperature and the outside, the more money you will save.

As for the children in our lives, it is easy to overlook how their being home during summer break can affect energy usage. For one thing, you won't be able to turn the thermostat up because the house no longer will be empty during the day. You can expect more energy will be used for TVs, electronic games and lights, too.

One last factor affecting summer bills is a home's construction materials, amount of insulation and air infiltration. Although these are constants year-round, any deficiencies become more apparent during extreme temperatures. I realize some things can't be easily changed; however, there are many measures GVEC members can take to conserve and GVEC wants to help.

Rebates, Energy Audits and SmartHub®

GVEC has a long history of helping members become more energy efficient through various programs, including rebates which can help offset the cost of making changes. Currently the co-op offers programs for energy efficiency home improvements, new home construction and renewable energy—details can be found by visiting GVEC's online Rebate Center at www.gvec.org.

But even before making an investment toward efficiency, I encourage you to contact a GVEC Member Service Advisor. They are specialists in efficiency and can help save you money with recommendations on how to improve your energy efficiency through lifestyle changes as well as help you determine the right steps for your home, including whether an in-home energy audit is necessary.

Another tool you may find useful is "My Usage," which is new and can be accessed by logging into SmartHub, GVEC's self-service portal. It enables you to view your home's energy usage by the hour and even compare it to the day's temperature. This information can be invaluable in understanding your bill and your energy usage patterns to better conserve energy this summer and beyond.

Solar from GVEC Home

Another way GVEC can help is with solar panels for your home from GVEC Home. With more than 300 sunny days a year in our region, using a solar (PV) photovoltaic system to supplement your home's energy is certainly a viable option. For several years GVEC has consulted with members interested in going solar, providing facts, figures and our energy expertise. Now, you can purchase solar panels with confidence from GVEC Home, making it easier than ever since we can help you with the process from start to finish. The upfront cost for a residential system is almost half of what it was years before with the decreasing cost of technology, government tax credits and GVEC's renewable rebate. I encourage you to contact GVEC Home now if you're interested because the renewable rebate for members is limited.

Remember, GVEC can help you in your effort to weather rising temperatures through knowledge, member services and tools. As your cooperative, we are here to provide you with reliable power and help you use it wisely.

I am always interested in your questions and feedback. Contact me by phone at 830.857.1152, email at dschauer@gvec.org, or by mail at P.O. Box 118, Gonzales, TX, 78629.

Respectfully,

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Did You Know?

GVEC is continually upgrading and implementing new technologies to minimize outages and provide you with the reliable service you depend on.

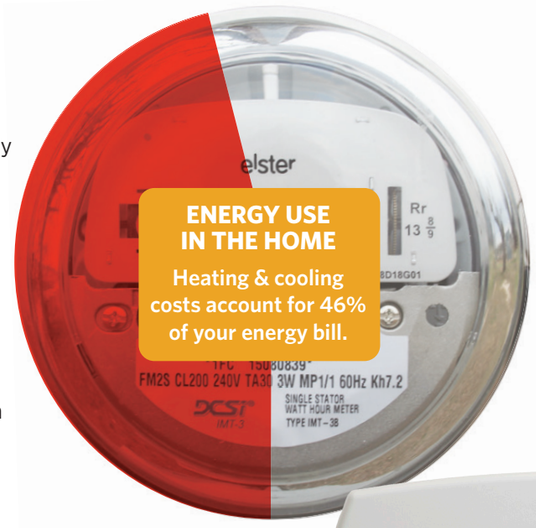
Knowledge Is Power

With NEW "My Usage" Tool in SmartHub®

Have you ever wondered how much more energy you're using when it's hot outside? Or why your energy bill may be higher one month than another? The answers are just a few clicks away with the *My Usage* energy management tool that's available when you log into SmartHub—GVEC's new self-service customer portal on www.gvec.org.

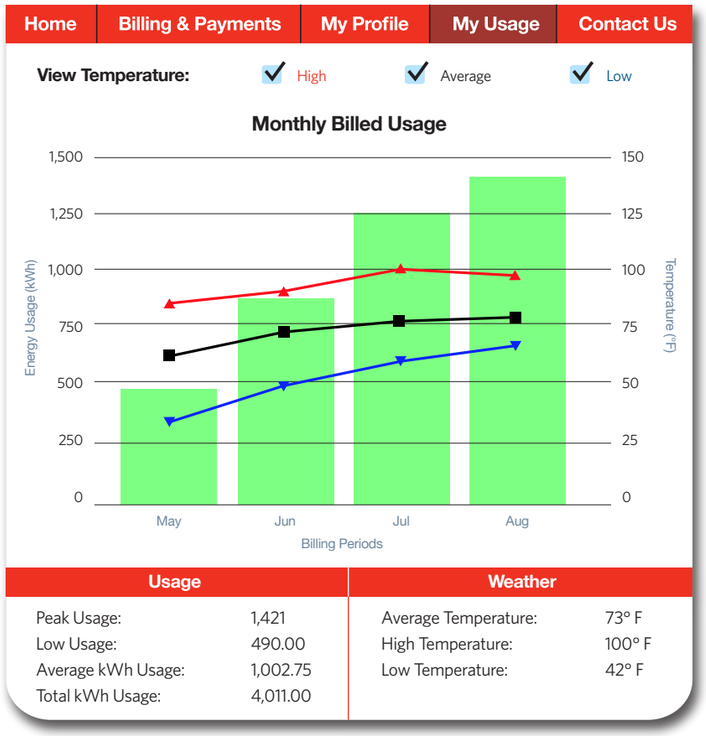
What does it do?

It provides you with detailed graphs that show your monthly, daily and hourly energy usage in comparison with daily temperatures. You'll know when and how much energy is being used, as well as how the weather is affecting your bill. This is valuable to know since heating and cooling costs account for nearly half of the typical home's electric bill.



What can I do with it?

Use the information to make assumptions about your energy usage. This can help you figure out new ways to conserve energy and save money.



How do I get started?

Log into SmartHub at www.gvec.org and click the *My Usage* tab.

- If you have multiple accounts, make sure you select the right one from the dropdown box.
- You'll see your monthly energy usage. To change the view, click one of the graph bars for hourly or daily usage.
- The average daily temperature shows by default. To view high and low temperatures, select the temperature option located above each graph. (Not available on the hourly view.)

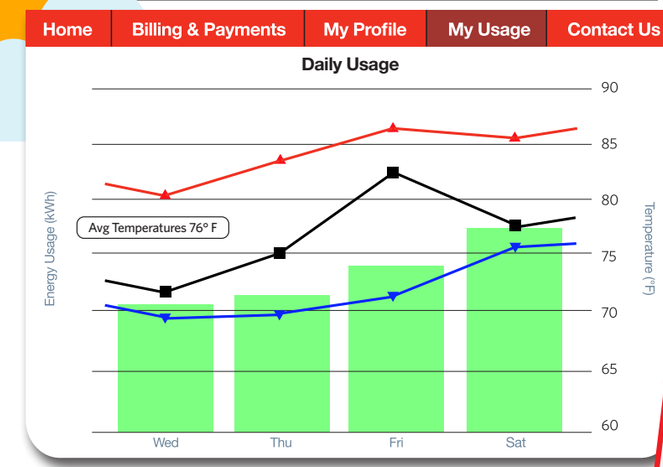
Monthly view of My Usage: Shows usage with the high, low and average temperatures charted in red, blue and black, respectively. Statistics are summed up at the bottom.

Now what?

Here are some ways you can use the information:

- Look for daily usage patterns and compare against the temperature data. As low and high temperatures get closer to each other during summer, homes stay warmer, taking more energy to cool down.

  What you can do: *Keep an eye on your AC thermostat. Keep the temperature between your thermostat and the outside as close as possible to save energy and to reduce AC cycling/equipment wear and tear.*



Daily view of My Usage: Energy usage is going up with summer temperatures, but it's particularly high on Saturday when the family is home staying cool, doing laundry, cooking and using electrical appliances.

- A pattern of usage spikes on certain days may be times when the family is home using electricity. If there's a random spike, that may have been a day you had an event at your home. Children home for the summer also contribute to more usage.

  What you can do: *Lifestyle changes can make a difference: turn off unnecessary lights and appliances and go easy on the thermostat. Since water heating is the second largest energy consumer, take shorter showers instead of hot baths and use cold water whenever possible to wash clothes.*

How else can I use this info?

- Examine the times when energy usage is the highest (use hourly view). If it's when no one is home, consider installing a programmable thermostat that will help you match your needs to your lifestyle. (But, don't turn the AC off on hot days. Generally, it will take longer and use more energy to cool your home and remove humidity once you're home.)
- Think about timing when using high-heat appliances like ovens and dryers during the summer. Use them earlier in the day or later at night when it's cooler—they add heat and humidity to your home.
- If you make energy efficiency improvements like a new AC or add attic insulation, you may be able to compare the difference it's made.

Any other tips?

Go to www.gvec.org to learn about SmartHub, *My Usage*, and even about energy efficiency rebates for members. If you have questions, call a GVEC Member Service Advisor at 800.223.4832.

Click this button on the GVEC home page to see how SmartHub and My Usage work.

Another Kind of Air Conditioner

Let's suppose you're adding a room addition, but your current AC system is insufficient to cool it. Or you're converting a garage or attic, but adding additional ductwork to your AC system isn't practical.

This is when less—as in *ductless* air conditioning—is more. Depending on the circumstances, installing this type of unit can be a more efficient, more practical, and much cooler solution.

If you've never heard of a ductless air conditioner (AKA mini split), you're not alone. They've been used for years to cool commercial buildings in the states as well as homes overseas. Now, manufacturers are making these units more accessible to America's homeowners with a variety of models and options.

The Same, But Different

Similar to a central air conditioning system, mini splits have two main components: an outdoor compressor and an indoor handler unit.

The difference, however, is that mini splits do not have any ductwork. That means they are free from the energy inefficiencies associated with ductwork that may be improperly installed, runs through a hot attic, or has leaks or kinks. Instead, cool air (and heat, if you have a heat pump unit) recirculates through the air handler into your room for zoned, temperature-controlled comfort.

Other Advantages

» Mini splits are very flexible when it comes to heating or cooling individual rooms. Models can have as many as four indoor air handler units to cool four different spaces—each with its own thermostat. All four can be connected to a single outdoor condensing unit. So you only need to cool a space when needed, which saves energy and money.

» Compared to a window unit, mini splits are safer because they don't need to be installed in an open window, which can provide an entry point for intruders.

» Mini splits are quiet because the condenser and evaporator are separate components, unlike a room air conditioner.

» Mini splits offer features like multiple fan speeds, auto-shut flaps on wall units, a reusable filter, auto-change from cool to heat mode (heat pumps), and remote control operation.

The primary disadvantage, however, is the price tag. Like any advanced technology, you may pay a little more, but it may be worth it when you consider your needs and long-term value. In certain situations, installing a mini split can be the economical alternative when you need to cool an extra space.

A Real Work of Art

Can you find the mini split air conditioner?

Although ductless air conditioners are relatively small, they are visible when mounted on a wall or ceiling. But, LG has an answer for that—they've found a way to turn these mini units into a big part of your home's décor. The ART COOL hides the unit behind a picture frame where any drawing, photo or graphic can be displayed—and changed as often as you wish.

That's not just a picture on the wall. It's an ART COOL ductless air conditioner.

This COOL unit and other models are now available at GVEC Home. We can help you determine the right air conditioner for your home, from an energy-efficient central AC system to a window unit or mini split. In addition to sales and installation, GVEC Home also offers AC maintenance and service. Call 800.328.0630 or visit www.gvechome.com.

Ask an Energy Expert

Clint Petras, Member Service Advisor

Q: What kind of savings can I expect on my electric bill if I replace my old water heater with a heat pump water heater?

A: According to the Department of Energy, a new heat pump water heater is two to three times more efficient than a traditional tank water heater. That translates into a savings of $250 to $300 a year in electricity costs, depending on the number of people in your household and the unit you buy.

GVEC also offers members a $300 rebate for heat pump water heaters—providing an opportunity to save even more.

How they Work

Heat Pump Vs. Tank Water Heater

If you're wondering what the difference is:

- Heat pump water heaters use refrigerant and a system of coils wrapped around the interior of the water tank to pull heat from the surrounding air and transfer it to the water in the tank. So, electricity is being used to move heat, rather than create heat, which improves energy efficiency.
- In comparison, traditional tank water heaters use electricity to create heat. Each time the water temperature in the tank drops, it's reheated by electric resistance heating elements located inside the tank.

So, if you're in the market for a new water heater, I encourage you to consider a heat pump model. The GeoSpring is on sale at GVEC Home through September, and if you qualify, the member rebate is instantly credited. When you do the math, a heat pump water heater can pay for itself in about three years for GVEC members.

For more information about GVEC rebates, availability and eligibility, visit www.gvec.org and click the Rebate Center button.

Did You Know?

› Water heating is the 2nd largest expense on the average home's utility bill, accounting for 11 percent of the cost.

Easy Ways to Save Money:

› Turn off the water when scrubbing dishes, brushing your teeth, shaving and washing your hair in the shower.

› Install low-flow faucets and showerheads.

› Insulate the water lines of your electric water heater from the tank to where they enter the wall.

Source: energy.gov

GVEC Home Services, Inc. is a subsidiary of GuadalupeValleyElectricCooperative, Inc.

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Part Science, Part Style

A recent study by the U.S. Department of Energy and the Environmental Protection Agency used rigorous science and analysis to dissect window-covering choices—how you use them, where you install them and whether they really save energy. These days, every penny counts, which is why GVEC recommends ways to be energy efficient around the house.

Windows can account for up to 25 to 40 percent of annual heating and cooling costs, especially in older homes. Blinds, shades, films and drapes are all good options to consider if old or inefficient windows can't be replaced. According to joint government and industry research, window coverings could save significant amounts of energy at a relatively low cost to the consumer. So, you may want to give your window treatments a second look when it comes to cooling, heating and comfort in your home.

Safety is also a concern, as window treatments can pose potential safety hazards to children, who can fall through blinds or screens or get strangled with cords. Window treatments should be inspected and safeguarded against these hazards upon installation.

Also, when planning and installing, remember that location, placement, materials and adjustment are key. Windows facing west let in the hottest light and need the most coverage, while windows facing south are a home's most important natural light source and only need light coverage. Although most people rarely adjust their window coverings—about half stay closed at all times, and more than 75 percent remain in the same position regardless of the season or time of day—adjusting them during the day and depending on the season can make your home more comfortable.

Advantages and Applications

Drapery

During the winter months, draperies work best. Their ability to reduce heat loss depends on fabric type (closed or open weave), color, the season and other factors. Keeping drapes drawn during the winter, especially at night, could save up to 10 percent of heat loss from a warm room. When you're hanging draperies, make sure they are placed as close to windows as possible to reduce heat exchange. Also ensure they are long enough to fall onto a windowsill or floor.

Shades

Shades are one of the simplest choices for insulating rooms. Depending on the material, some are more energy efficient than others. Cellular or pleated shades are one example of an energy-efficient choice. They can help keep air from either entering or escaping your home. Dual shades—highly reflective (white) on one side and heat-absorbing (dark) on the other—are also energy efficient and can be reversed with the seasons. In the summer, lower shades on sunlit windows. In the winter, shades on the south side of a house should be raised during the day, then lowered at night.

Interior Blinds

Because of their spacing and openings, blinds tend to be more effective at reducing summer heat gain than winter heat loss. But the level of cooling and heating can also be influenced by slat position. When completely closed and lowered at a sun-filled window, for example, heat gain can be reduced by about 45 percent, according to industry estimates. Slats can also be adjusted to block and reflect sunlight onto a light-colored ceiling.

Window Film

Residential window films can be a permanent solution to improve the energy efficiency of windows. Clear solar-control window films can block up to 84 percent of the solar energy that would normally enter through windows. When installed well, you may not even know that some types of film have been applied to your interior windows, manufacturers say—but they're still working year-round to block ultraviolet light in summer and retain warmth in the winter. A less expensive, temporary option may be to use plastic shrink wrap to help insulate against drafty windows.

With these and other carefully selected window treatments, you can reduce heat loss in the winter and heat gain in the summer, keeping your house comfortable and your energy bills lower. Make sure to check the available energy efficiency rebates for GVEC members, including those for solar window solar shades/film and energy-efficient windows. For details, eligibility, and availability (which is subject to change) click the Rebate Center button on www.gvec.org.

For do-it-yourself types, plastic shrink window film is applied to the indoor window frame with double-stick tape, and then heated with a hair dryer to shrink the film and remove any wrinkles. This temporary solution may provide some insulation against drafts.

Ask a Solar Expert

William White, GVEC Home Solar Specialist

Q: I'm interested in buying solar panels for my home. What is the process like?

A: We want buying and installation to be as easy as possible, which is why GVEC Home is there for you from start to finish. Once you call for an appointment, our solar expert will visit your home or business to do a site evaluation, free of charge. This first step enables us to custom design your solar photovoltaic (PV) system to help ensure you'll receive maximum sunshine for maximum electricity production.

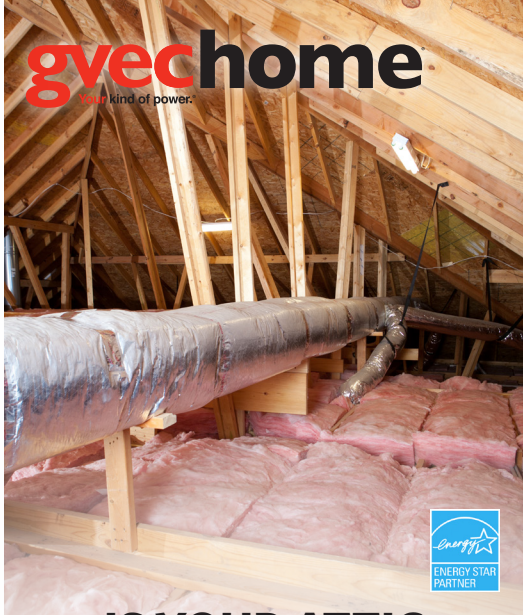
We'll look at things like the slope, direction and condition of your roof (it's preferable for panels to face a southerly direction, for example) and determine the amount of sun or shade you receive. If your roof doesn't offer the ideal situation, we can ground-mount or pole-mount panels, or even put them on the roof of another structure such as a pool house.

We'll also check your electric service, explain the technical requirements of connecting to the electric grid, and help you determine if a solar system would be a good investment for your situation.

Once we have a design and quote, we'll review the information with you. If you decide to purchase a system, we'll take care of everything else: permits, homeowner association approvals, and installation. (Once we have the equipment, installation typically takes one day.)

By the way: This is a great time to get the ball rolling if you're considering buying a system. GVEC will be offering a new round of rebates for renewable energy beginning in January, and there's already a waiting list of members wanting to take advantage of the limited number of available rebates each year.

To make an appointment, call GVEC Home at 800-328-0630. To review rebate qualifications, click on the Rebate Center icon on www.gvec.org: then click on the Renewables dropdown menu.



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FALL BACK!

Daylight Saving Time ends Sunday, November 2.

Set clocks back one hour before bedtime on Saturday. Remember to check batteries in your smoke and carbon monoxide detectors.

Happy Thanksgiving!

GVEC Offices will be closed Nov. 27-28 for Thanksgiving.

Call 800.223.4832 to report outages.

Have a safe and happy holiday!