## **Utility Bill Summary**



#### How much are you spending on gas and electricity per year?

This chart shows how much you're spending annually on utility bills and the amount that's being spent on gas vs. electricity. Your utility costs are an important factor when deciding which efficiency measures make the most sense for your home.

#### **Gas & Electric Costs**

Total kWh* Consumed	2,677
Average Cost Per kWh	\$0.14
Total Electric Cost	\$378
Total Therms Consumed	324
Average Cost Per Therm**	\$1.16
Total Gas Cost	\$376

\*kilowatt/hour. Used to quantify the amount of electrical energy delivered by electric utilities to consumers

\*\*a unit of heat energy equal to 100,000 BTUs. Therms are used to quantify the amount of natural gas or liquid propane delivered by utilities to consumers.

#### Cost of Gas & Electricity per month from March 2010 through February 2011



**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064

## **Energy Loss**



#### Where is energy being lost in your home?

We have calculated your home's actual performance through a method known as Air Conditioning Contractors of America (ACCA) Manual J. This process allows us to precisely understand how each component of your building affects your heating load, and identify which areas are most appropriate to improve based on your health, comfort and efficiency goals.

#### **Energy Loss in Your Home**

Energy loss, in BTUh\* by building component, on the coldest night of the year

	Duct Leakage	19,923
	Air Leakage	11,347
	Attic	6,427
	Windows	3,782
	Floors	3,665
	Walls	2,856
	Duct Insulation	2,452
	Skylights	1,632
Тс	otal	52,085

\*British Thermal Unit, a unit of energy. BTUh is used to quantify the heat loss or heat gain through the building envelope, as well as the power needed for domestic hot water

## Energy loss by building component, on the coldest night of the year in your area



#### GGR Energy Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

# **Cooling Energy Loss**



#### Where is energy being lost in your home?

We have calculated your home's actual performance through a method known as Air Conditioning Contractors of America (ACCA) Manual J. This process allows us to precisely understand how each component of your building affects your cooling load, and identify which areas are most appropriate to improve based on your health, comfort and efficiency goals.

#### **Energy Loss in Your Home**

Energy loss, in BTUh\* by building component, on the hottest day of the year

	Duct Leakage	15,341
	Attic	11,490
	Windows	10,890
	Skylights	4,206
	Duct Insulation	2,693
	Appliance Load	2,400
	Walls	1,809
	Air Leakage	1,340
	Occupant Load	860
Тс	otal	51,030

\*British Thermal Unit, a unit of energy. BTUh is used to quantify the heat loss or heat gain through the building envelope, as well as the power needed for domestic hot water

## Energy loss by building component, on the hottest day of the year in your area



#### GGR Energy Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

# **Estimated Lighting Cost**



#### How much do you pay to light your home?

Lighting can be a major energy drain. While incandescent bulbs continue to be the most common lighting source in homes today, they are the least efficient and shortest-lasting option. 90% of the energy used to light an incandescent bulb is released as heat instead of light. Compact Fluorescent (CFL) bulbs provide very comparable light quality as compared with traditional incandescents, but only use 25% of the energy.

## Estimated annual cost of lighting your home

\$88

## Estimated percentage of your electric bill

Lighting 23%

#### Lighting cost per room

Location	Annual Cost
Kitchen	\$38
Family Room	\$16
Entry	\$13
Office	\$13
Dining Room	\$5
Bathroom, Guest	\$2
Front Hall	\$0
Bedroom, Master	\$0
Bathroom, Master	\$0
Total	\$88

**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064

## Air Leakage

### GGRenergy

#### How drafty is your home?

Reducing air leakage is often the single most effective step you can take towards a more efficient, healthy and comfortable home. Minimizing air leakage can reduce heating and cooling bills, and improve indoor air quality and comfort. During your energy audit we used a blower door to determine the percentage of air your home exchanges with the outdoors per hour.

#### Air Changes Per Hour

Envelope leakage at CFM50*	1,960
Natural ACH** (Air Change Per Hour)	0.36
ASHRAE*** Recommended Level	0.35

Equivalent to a 10 x 10 in<sup>2</sup> hole in your home

## Energy lost by air leakage, on the coldest night of the year in your area



 $^{\ast}\mbox{Cubic Feet per Minute.}$  Used to quantify the air flow through duct work, air infiltration, or ventilation.

\*\*Air Changes per Hour. The number of times the home's air is replaced from outside in an hour.

\*\*\*American Society of Heating, Refrigerating, and Air Conditioning Engineers.

#### GGR Energy Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

## **Cooling Windows**



#### How efficient are your windows?

Windows are an important component of a well performing building envelope. It's important, however, to consider the energy savings potential of window replacement compared to other building envelope improvements as steps like building envelope sealing and insulation are typically more cost effective and will have a greater impact on improving comfort and health.

## Energy lost by windows, on the hottest day of the year in your area



#### **Window Information**

Qty	Panes	Window	Frame Type
1	Double, Clear Glass	Operable Window or sliding glass door	Wood (including Metal Clad) or Vinyl
4	Single, Clear Glass	Operable Window or sliding glass door	Metal No Break

#### **GGR Energy**

Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

## **Cooling Attic Insulation**



#### How well is your attic insulated?

After air sealing, attic insulation is typically one of the best "bang for your buck" steps you can take towards a more efficient and comfortable home. Well installed attic insulation acts as a barrier to summer and winter heat loss to and from your attic. It's like a nice thick, winter hat for your home that saves you money all year round.

#### **Insulation Type & R-Value**

59% has Fiberglass, batts R-18 Poor installation quality
41% has no insulation
R-4

Recommended R-Value: R-30 or greater

## Energy lost by attic, on the hottest day of the year in your area



GGR Energy	12147 Kirkham Rd.	858.217.5800 Phone
Assess. Improve. Generate.	Suite C	858.953.7321 Fax
www.ggrenergy.com	Poway, CA 92064	infor@ggrenergy.com

## **Duct Leakage & Insulation**



#### How leaky is your ductwork?

Duct leakage is a major contributor to energy waste and poor indoor air quality. A duct system should act as a closed loop in which no indoor air is lost to the outdoors and no outdoor air is introduced into your home. A well sealed and insulated duct system is a key component to a healthy and efficient home.

#### **Duct Leakage & Insulation**

% of Energy Lost Through Duct Leakage38.25%% of Energy Lost from Duct Insulation4.71%

Insulation Level

R-4

## Energy lost in your ducts, on the coldest night of the year in your area



**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064

# Savings Prediction (Energy)



# Gas Electricity

#### Savings

Electricity Usage	8%	234 kWh/yr
Gas Usage	27%	89 therms/yr
Total Savings	23%	9,660 kBTU/yr

#### Basic

#### **Included Improvements**

- Air Sealing
- Attic Insulation
- Duct Sealing

GGR Energy

Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

# Savings Prediction (Energy)



#### Deluxe

#### **Included Improvements**

- Air Sealing
- Attic Insulation
- Duct Sealing
- Water Heater Replacement
- Window Replacement



#### **Savings**

Electricity Usage	10%	266 kWh/yr
Gas Usage	34%	111 therms/yr
<b>Total Savings</b>	29%	12,030 kBTU/yr

#### GGR Energy Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

# Savings Prediction (\$)



#### **Included Improvements**

- Air Sealing
- Attic Insulation
- Duct Sealing



#### Savings

Electricity Usage	10%	\$36 /yr
Gas Usage	28%	\$98 /yr
<b>Total Savings</b>	<b>19%</b>	\$134/yr

**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064



# Savings Prediction (\$)



#### Deluxe

#### **Included Improvements**

- Air Sealing
- Attic Insulation
- Duct Sealing
- Water Heater Replacement
- Window Replacement



#### Savings

Electricity Usage	12%	\$41 /yr
Gas Usage	35%	\$122 /yr
<b>Total Savings</b>	23%	\$162/yr

#### GGR Energy Assess. Improve. Generate. www.ggrenergy.com

12147 Kirkham Rd. Suite C Poway, CA 92064

# **Everyday Energy Savers**



#### **Adjust Ceiling Fan Settings**

This winter, set your fan settings to "low," and set the fan to turn clockwise to pull warm air from the ceiling back towards the floor.

In the summer, the fan should turn counterclockwise to keep air moving across your skin, keeping you more comfortable through evaporative cooling. This will enable you to turn up your thermostats a few degrees in summer to save on cooling costs without over heating.

Remember to turn off the fan when you are not in the room, because fans cool people, not rooms

Replace the fan's incandescent bulbs with CFL's if possible.

When shopping for a new fan keep in mind that ENERGY STAR fans circulate air up to 20% more efficiently than conventional models, and select models with Energy Star lighting as well.

#### **Clean or Replace HVAC Filters**

If your HVAC system is trying to circulate air through dirty filters, it works harder and costs you more to heat or cool your home.

Change or clean 1" filters monthly - or at least every three months. Change or clean 4" pleated filters every 6 months - or as recommended by the manufacturer.

Clean filters will make it easier on your heating and cooling system and will even make the air in your home cleaner and healthier for your family.

Also, don't ignore HVAC system maintenance. Servicing your heating and cooling system every one or two years can cut your bills by 3% to 10%.

**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064

# **Everyday Energy Savers**

#### **Replace Incandescent Bulbs with CFLs**

Standard incandescent light bulbs use more than 90% of their energy to generate heat, not light.

An ENERGY STAR compact fluorescent bulb (CFL) is one of the most energyefficient of all light bulbs, using 75% less energy and lasting up to 10 times longer than an incandescent bulb.

Replacing an incandescent bulb with a CFL can save about \$30 or more in electricity costs over the bulb's lifetime.

#### **Use Power Strips**

Even when they are turned "off," many products are still using energy.

Plug all of these devices into power strips or surge protectors, and when not in use, simply flip the switch on each strip to deactivate everything at once.

Turn off your computer and monitor when you are not using them.

**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064



# **Everyday Energy Savers**

#### **Install Timers**

A timer can cut back on energy costs by turning your electrical devices off at a predetermined time.

Much like a power strip, a timer can help also help eliminate phantom energy, which accounts for 5% of your annual energy usage. Instead of going into a standby mode, your devices are completely powered down when controlled by a timer.

If you have a continuously operating hot water recirculation pump, you should plug it onto a timer and set it to turn off when you are sleeping and away from your home. This will save energy used to heat the water flowing through the pipes and electricity to run the pump.

#### **Save Water**

Install a low-flow shower head, which uses about 2.5 gallons of water per minute (GPM) as opposed to 6 GPM from old showerheads. That means you can save 35 gallons of water during a 10-minute shower, which saves your furnace from heating more water, too.

Install an aerator on your kitchen faucet - this will also reduce water use greatly (faucets made after 1994 already have these).

Lower the temperature on your water heater to 120 degrees.

**GGR Energy** *Assess. Improve. Generate.* www.ggrenergy.com 12147 Kirkham Rd. Suite C Poway, CA 92064

