

Energy Efficiency Consumer Tips



Why should I care?

With more emphasis on efficiency, numerous new devices appear in the market place. Some have value, others do not. You might lose money on purchases of some alleged energy-saving devices. You may not get what you are paying for. Some products in the market place may not work or the savings may be exaggerated. In some cases the device or technology may be misapplied.

What do I need to know to avoid becoming a victim?

If it sounds too good to be true, proceed with much caution. Look for independent third-party validation such as *Consumer Reports* testing and product reviews as well as any university and government agency reports. Vendor-supplied testimonial letters tend to be biases in favor of the vendor and application proposed. Use the references listed at the end of this fact sheet to obtain unbiased, objective information on recommended devices.

Check with the City Business License Department to verify the company is properly licensed. Call 435-627-4740 or by email at laura.woolsey@sgcity.org.

What products and services should I be wary of?

- **Transient Voltage Surge Protection (TVSP)** – Surge protection is important to protect electronics from damage from surges caused by lightning or equipment being switched on and off. The type of voltage surges these devices protect from lasts a few milliseconds and any incidental savings which may occur would be insignificant. Surge protectors are *protective devices*, not energy-saving devices.
- **“Black Box Device”** is a phrase used to describe a range of products that tout some new proprietary technology to save energy. Often, these devices target motors and may claim to condition, filter or control an appliance motor to reduce energy consumption. Frequently, the appliance is plugged into the device or wired it in front of the motor to get the desired results. Be aware that these devices may void the appliance warranty. A qualified electrical engineer can provide guidance on this type of device. As a sales technique, the “black box” approach allows the vendors to avoid answering technical questions and concerns about the produce application. Frequently, the black box devices use old, widely distributed technology. Worse case, some have no inherent value and may waste energy or damage equipment.
- **Power factor (PF) correction-** Power factor correction devices typically use capacitors to reduce line current. Sometimes vendors try to give the impression that reducing current by perhaps 10 – 20 percent or more will lead to the same reduction in utility bills. This is not true. Most electrical devices require energy to be temporarily stored in magnetic and electric fields. This energy is only stored and then returned to the utility. It is not used and since utilities only charge customers for the power that they actually use, there is no bill reduction from improvements to the power factor. Generally, only large industrial customers with large inductive or capacitive loads are metered and billed for having poor power factors.
- **Underwriters Laboratories (UL)** listings mean that a device is safe to use; it does not imply that the device meets any performance standard. A specific listing like UL 1449 indicates the device complies with that specific standard. In the case of UL 1449, that is the standard for surge protection devices.

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- **“Insulating” paints** – Makers of these paints often claim very large radiant heat reductions, but do not address convection or conductive heat gain or loss. Generally, heat rejection from walls is a small percentage of the heat transfer in a home, so savings tend to be small to moderate in nature.
- **Guaranteed savings** – Some devices are backed by insurance policies that guarantee savings. Often times these have a lot of fine print and special conditions that make it very difficult to file a claim. Remember, overall energy usage is impacted by weather conditions, which cause bills to vary throughout the year and from one year to the next.
- **Exaggerated claims**, e.g. “Savings may exceed 75 percent!” Be aware that many times these claims are based on one extreme example, which is often not typical for that device. A large variety of space heaters fall into this category. For example, radiant (electric or gas) heaters are more efficient because they heat people not the space they are in. That is true, but what gets de-emphasized is that they do not heat or warm the space. Because they are radiant, you cannot have anything between you and the heater that might block the heat radiation.
- **Power filtering devices** – These devices may filter electromagnetic field, radio frequency or harmonics. These filters have no impact on electric consumption for residential or small commercial customers. Harmonic filters can provide some benefits to larger commercial and industrial customers, but these filters must be part of an integrated facilities plan to control harmonics in a plant distribution system.
- **Beware of sales pitches** through unsolicited letters and phone calls that promise to save energy and big bucks by reviewing your utility bill for erroneous charges and rates. You could sign up only to find that you are committed to share the savings for several years. You may be able to get the same savings just by contacting the Utility Billing Office. Check out the company with the Better Business Bureau. Even if the offer is legitimates, read all the fine print.

Options for finding quality, unbiased information:

There are several unbiased sources of information. Below are some examples:

- Consumer Reports – greenerchoices.org
- Better Business Bureau - utah.bbb.org
- Utah Department of Consumer Protection - www.consumerprotection.utah.gov/
- City of St. George Utility Billing Office 435-627-4700
- City of St. George Business Licensing 435-627-4740

To learn more useful ways to save energy:

- EnergyStar – energystar.gov
- Energy Information Center www.eere.energy.gov/
- City of St. George Energy and Water Conservation Programs www.sgcity.org/conservation