



# Energy Saving Scams

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## Introduction

For almost any legitimate service or product imaginable, there are unscrupulous characters who try to make money by scamming consumers. The energy savings field is no exception. With recent increases in energy prices there has been a corresponding increase in energy savings device scams. This relationship between energy price increases and energy savings scams is somewhat cyclic and occurred during the first energy crisis of the 1970s as well. This fact sheet is designed to help consumers spot potential energy savings scams and avoid losing hard-earned money.

## How to Identify a Potential Scam

Understanding how many scams work helps us to spot possible problem areas. A good scam plays off of a combination of knowledge and emotions and can be packaged quite convincingly. However, there are certain characteristics that quite often appear in scams that can tip us off to possible problems. Interestingly, reviewing old energy scams from years ago shows they also seem to have these same characteristics. What follows is a list of the more common components of these deceptions.

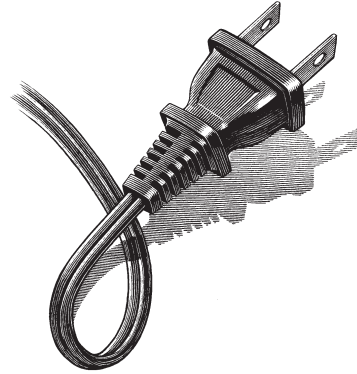
## Grabbing your interest immediately (playing to the fears of the general public)

### Some big organization is plotting against you

This applies to electric and gas utilities, automakers, appliance makers, state and federal government. Any organization that we pay money to is a good target to begin a scam. Having to pay utility bills to large utilities introduces the possibility of mild resentment already in-place to exploit. Large companies and organizations sometimes seem distant and unapproachable and therefore are easy to vilify. This might give the consumer a feeling of "us versus them" and is fertile ground for a scam.

### There is a conspiracy

To add to the adversarial atmosphere, the concept of a conspiracy is often attached to business transactions between the consumer and the large energy related organization. People find conspiracies interesting and they are often used to explain the motivations behind the walls of these large organizations. Examples include: The electric utility is hiding



a simple device that will save 40 percent on your utility bills so that they can sell more power. The automotive manufacturers and large petroleum companies are working together to keep a simple technology that could increase fuel economy in cars out of the hands of consumers. The conspiracy and adversarial components of the scam try to bring emotion into play and cloud the consumer's ability to use logic.

## Drawing you in to their idea with "factual" and logical arguments

### The technology used in the energy saving device has some merit in other applications

A good energy scam will use key words describing functions or parts that are associated with legitimate energy devices. For example, residential electrical energy scam devices will often describe "power factor" correction which is a legitimate energy issue with large industrial energy consumers. Therefore a search on the web for "power factor" will indeed produce articles describing energy cost savings, etc. Never mind that power factor doesn't apply to residential billing. The *hydrogen from water for your car* scam has bits and pieces that are legitimate. For example, you can make hydrogen from water and you can burn hydrogen in your car's engine. However, you cannot make enough hydrogen in a mason jar of water powered by your alternator to save fuel (actually your fuel economy gets slightly worse). In both examples, the consumer may notice things that are legitimate but might miss the fact that they do not work together in a meaningful way to provide any benefit.



### **The technology is difficult to understand without training**

Good scams have an air of complication to them - whether it is card tricks, change from \$20, or bogus energy saving devices. This complication is used for several things. First off it shrouds what is actually going on – or is even possible. Secondly, the complication puts the consumer in a position of ignorance and therefore they feel they must trust the person who can understand the complication. For example, one of the reasons the power factor device scam is so popular is that the concept of power factor is difficult to understand unless the person has some education in electrical power and circuits. The hydrogen from water for your car involves electrolysis and combustion dynamics of engines. One has to also understand the energy content of hydrogen, the amount that can be produced, and the electrical energy needed to produce it prior to seeing that the device will not work as claimed.

### **The Internet is full of “articles” and testimonials praising the device**

The web has been a boon in the scam world. The internet is so saturated with scams in certain areas as to render it highly suspect for good information. Some of the more clever energy scams set up many seemingly unrelated websites where all sorts of consumer testimonials are found praising the devices. When a new scam hits the internet the first several pages of website hits in the web search engine are sometimes fabricated by the scammers. One has to be aware of the resourcefulness of some of these people. Some fake websites even go so far as to mimic “scam-buster” consumer protection sites – only to announce that the scam device or product “appears to work as advertised after we tested it”. Considering that it doesn’t take much time or money to make a website, this probably is effort well worth it to these criminals.

### **Other Possible Energy Scam Clues**

The energy management field has been around for years, and it is unusual to find processes or devices that can save much more than 20 percent without major rework and equipment replacement. That is not to say it is not possible

to have large energy savings by replacing or adding a single device – just unusual. If you reflect on some of the claims, you often find they are bordering on absurdity. For example: Any simple bolt-on device that could save 40 percent on a car’s fuel economy would be a global game changer and on the evening news immediately. The car manufacturing companies would be scrambling to install such a device on their cars first – not hide it. Actually, this did happen in the 1970s and 1980s, it was called *fuel injection* and did result in better fuel economy. However, fuel injection is not a simple \$39.95 bolt-on device the automakers were trying to keep from the public, it was a competitive advantage. Therefore, any claim of large energy savings should trigger a very measured response (if any).

### **Borderline Problem Areas**

Some devices or services are, in themselves, legitimate but may be over-advertised. This characteristic is sometimes seen with some renewable energy systems where the advertising makes special claims, such as: “you can live completely off the electrical and natural gas grids,” “Electrical suppliers will pay you handsomely for electricity you put back on the grid,” “you will be putting money back in your pocket in less than a year by installing our energy saving device,” etc. You probably can power a home with these systems but the costs might be prohibitive, or your quality of life might be affected. Amenities like air conditioning draw very large electrical power requirements of several kilowatts when running. Therefore, when the sun is down or the wind is not blowing and air conditioning is needed you will also need large battery banks and the associated costs and complications of such a setup. Simpler systems that integrate easily with the utilities (grid-tie) might be a better option. Renewable energy systems will be a beneficial part of the future energy landscape, but the systems will need to be appropriate for your particular application. You can’t blame a company for touting all the potential benefits of a product or service. However, realism is needed in determining the true costs of ownership and the performance you should expect.

### **Conclusion**

If you spot an energy saving device or service that seems almost too good to be true, try to determine if the components of a typical scam are present. Is the product trying to imply it will help you fight a large organization? Does there seem to be a conspiracy component in the advertising? Is the service or product so complicated at some level you are not sure how it really works? Is the internet brimming with glowing reviews in multiple “forum” type websites? Is the energy saving promised extremely high? An advertised product or service with some of these characteristics should alert the consumer to potential problems.

If you are not sure if an energy saving product or service is legitimate, contact your local extension office and ask for help. The extension office may direct you on to other experts. You could end up discussing the product or service at the university level. Regardless, the Oklahoma Cooperative Extension Service is here to assist you.

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