



ENERGY SAVING IN THE HOME RADIO SHOW



You can cut your energy costs by 30% or more by taking some proven steps on the path to energy savings. Gary Parr and Dennis Celsor have studied expert recommendations, tested the best practices in real-world situations and offer the results of their work to help you reduce energy costs. They applied many of the thirty steps to the Energy Savings Makeover home in 2009 for the Jones Family achieving a reduction of 53% in utility costs and again in 2011 with a 60% reduction for the Garcia family.

You can do it!

Remember, it's not just one step. It's a combination of many steps working together that will make a difference in your energy bills.

Imagine the impact on the planet if every American reduced their energy consumption by 30%!

1 Audit your home's energy use

An **Energy Bill Reduction Plan** from Home Energy Consultants will provide the roadmap to your energy-saving improvements. A certified expert will review your home's attributes, compile it's energy usage history and perform several tests to produce an energy score for your home. The Plan will clearly identify the improvements that will have the greatest impact. Call 281-402-1238.



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2 Install a 5-2-1 Compressor Saver

The 5-2-1 Compressor Saver works like a surge protector for your HVAC system. It provides a slight boost every time the HVAC system starts which is when compressors use the most electricity. The 5-2-1 Compressor Saver lowers the amount of electricity used and extends the life of the compressor. Ask your HVAC contractor to install one on each unit.



5-2-1
COMPRESSOR SAVER®
www.five-two-one.com





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3 Update your HVAC system

Today's HVAC systems are much more energy efficient than older models. For many people, the energy savings offset the costs of the upgrade. Gary Parr recommends Carrier two-stage cooling systems because of their high SEER and EER ratings. Carrier invented air conditioning and has spent 100 years perfecting it.

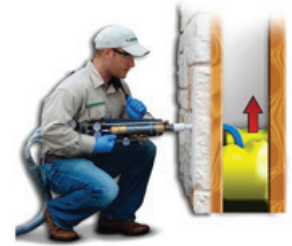


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www.carrier.com



4 Add insulation to exterior walls

Older homes, especially those built before 1975, fall short of Department of Energy recommendations for insulation in exterior walls. Adding foam insulation in exterior walls has shown to reduce energy costs by as much as 50%. It reduces outside noise and serves as a fire retardant.



5 Go Geothermal

Replace your inefficient air source air conditioner with a geothermal system from Water Furnace. It uses the free renewable energy from the ground to cool and heat your home. You could save up to 60% on your electric bills. To find out if your home qualifies for a geothermal system, call Home Energy Consultants at (281) 402-1238.



BOSCH

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6 Install a tankless water heater

About 15% of typical home energy is used to heat water. Tankless water heaters provide a continuous supply of hot water on half as much energy as traditional tanks. The burners heat water only when it is being used, instead of keeping gallons of hot water on "stand by." Tankless water heaters usually save about \$50 a month in energy costs.





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7 Ventilate the attic

Installation of solar attic fans minimize the amount of heat entering the home through the attic and reduce the attic temperature. The solar attic environmentally-friendly and economical solution to the sun's heat penetrating the home. Plus, you don't use additional electricity to do it!



8 Add a radiant barrier

Attic temperatures reach 150 degrees in the summer. A radiant barrier will block the sun's heat from entering the attic, keeping it much cooler and saving you money. Foil radiant barriers qualify for federal tax credits and can be installed on the rafters or over the top of attic insulation.



9 Seal the attic

Finally, a practical way to seal the attic, stop the conditioned air from escaping, and keep outside air from infiltrating the home. It's the Energy Complete system from Owens Corning, installed by Durable Energy Consultants. Energy Complete foam is applied to the floor of the attic sealing openings and stopping the air flow.



10 Give the HVAC system a tune up

Keeping your AC and heating equipment clean, lubricated and properly adjusted will reduce energy use, saving up to 25% of heating and cooling costs. Hire a professional and have them clean the condenser and evaporator coil. Tighten fan belts and keep refrigerant properly charged. Gary Parr recommends a tune up in the spring and fall of each year.





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11 Remodel your home

Use materials and strategies with a payback in energy savings. It rarely costs more to use green materials and the payback is quicker than most people think. Green Remodeling projects result in lower energy costs, water conservation and better indoor air quality.



12 Insulate windows.

The patented magnetic window insulation edging secures a clear sheet of optical grade virgin acrylic inside of the edging. This edging is secured magnetically against a metal frame which is installed on the interior of your existing window casing. They are practically invisible, yet they insulate your home against the outer elements and maintain the interior conditions better than any other insulating alternative.



13 Set your thermostat to 78°

Your HVAC system should keep you cool and comfortable at this temperature in the summer. You can save from 3% to as much as 9% of cooling costs for every degree you turn your thermostat up in the summer. Raising the temperature from 70° to 78° would save you 15% or more! If your AC won't keep you cool at 78, you may have some problems with your system.

78°



14 Change your filters monthly

A dirty air filter can cause a 10% decrease in air flow making the HVAC system work harder and use more electricity. Gary Parr recommends filters with a MERV 8 rating or higher made by Glasfloss, the world's oldest and most respected filter manufacturer.





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15 Seal energy leaks

Air leakage accounts for up to 30% of heating and cooling bills. It pays to seal up gaps with caulking and weatherstripping. Seal holes or cracks around your walls, ceilings, windows, doors, light and plumbing fixtures, switches and electrical outlets that can leak air into or out of your home. Move a lit stick of incense along walls and windows. When you see smoke waiver, you have air coming in. Call Home Energy Consultants at 281-402-1238.



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16 Seal your ducts

Most HVAC systems lose 30% or more of their efficiency through leaky ducts! Ask your Davis AC technician to test the duct system and seal ducts tight with Hardcast sealants. That's the brand that pros like Gary Parr use and recommend. Then, every time your HVAC system is serviced, make sure the contractor inspects the ducts for leakage. The American Solar Energy Society says sealing ducts can save the average home up to \$140.00 each year. The Energy Savings Makeover home will save much more! Plus, you'll see less dust around the house.



17 Boost insulation in the attic

It's step 2 of the Energy Complete system. Boost your insulation levels to R38 or more to keep attic air out of your living space. If you can see the joists in your attic, you don't have enough insulation! Call a professional and ask them to take thermal imaging pictures of your attic space. You'll see where your wasted energy is going.



energyCOMPLETE
with Flexible Seal Technology
Whole Home Insulation and Air Sealing System



18 Install a programmable thermostat

The average family will save \$180.00 per year when they use a programmable thermostat. Gary Parr recommends the new Emerson Blue Easy Reader thermostat. It's easy to operate and easy to read the large one-inch characters. Set the temperature 5° higher when you're not home and start saving money!





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19 Adjust the dishwasher settings

Save up to one-third of the energy used by the dishwasher by making a few key adjustments. Use the “no heat” dry option setting. Avoid the “rise hold” feature. It uses 2 to 5 gallons of hot water every time. Skip pre-rinsing dishes. Consumer Reports’ tests have found that it is unnecessary and consumers can save up to 6,500 gallons of water per year. Finally, keep the drains and filters clean so that the dishwasher can operate as efficiently as possible.



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20 Check the refrigerator

Refrigerators use more energy than any other kitchen appliance. Make sure the door seals are airtight. Close the door on a dollar bill. If it slides out easily, adjust the latch or replace the seal. Set the refrigerator temperature to 37 to 40°. Set the freezer to 5°. Cover liquids and wrap foods. Uncovered foods release moisture and make the compressor work harder. Vacuum the coils ever 3 months to eliminate dirt buildup that reduces efficiency.



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21 Replace your windows

The new energy-efficiency standard is the low-E cubed 366 glass. This new technology delivers the ideal balance of solar control and high visibility. The secret is a triple layer of silver. Old-fashioned conventional materials have steadily gave way to the new vinyl materials with impressive thermal design & glazing. Window systems built with thermal fused, wooded frames will ensure maximum strength and prevent the infiltration of air, water & wise, reduce heat and cold temperature, and provide energy efficiency for your home.



22 Use ceiling fans year round

Ceiling fans make people feel cooler and more comfortable at a higher thermostat setting. During the summer, fans should rotate counter-clockwise to produce a cooling breeze. Switch to a clockwise rotation in the winter to send the warm air back down to the living space. Since ceiling fans cost less to operate than an HVAC system, they can help cut heating and cooling costs by as much as 10 percent. Remember, ceiling fans cool people, not rooms. Turn them off when you're not in the room.





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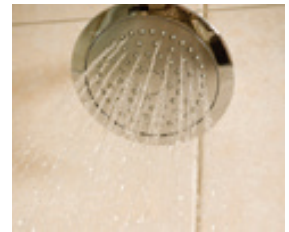
23 Adjust the washer and dryer settings

Water heating consumes 90% of the energy it takes to operate a clothes washer. Wash clothes in warm or cold water and rinse in cold water. Use the automatic dryer sensor control feature. It will shut off the dryer when the clothes are dry. Clean the lint filter after every use. If you use dryer sheets, use a toothbrush to clean the film left on the filter that reduces air flow. Dry your clothes in consecutive loads as most of the energy is used to bring the dryer up to the desired temperature. A clogged dryer exhaust lengthens the drying time and costs you money so keep it clear.



24 Use low-flow shower heads

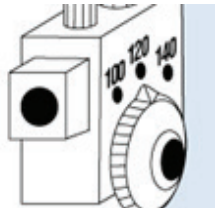
While the plumber is fixing leaks, have them replace your shower heads and toilets. Flow rates of less than two gallons per minute are recommended in showers and can cut hot water use by 50%. More than 30% of the indoor residential water use is flushed down the toilet. Today's low-flow toilets use less than a gallon of water per flush and work great. A low-flow toilet can save 4,000 gallons of water per year.



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25 Lower the water heater temperature

If you have a traditional tank water heater, some simple adjustments can save real money since heating water accounts for 15% of energy use in a typical home. Turn the thermostat down to 120°. Most water heaters are set at 140° but the temperature difference could reduce your water heating costs by 5% and some 25 kilowatt hours of electricity. Add an insulation blanket for additional savings.



26 Turn off and unplug electronics

The latest studies show that all the glowing red dots and flashing digital clocks you never notice are spending your money while you sleep. Average homes spend \$50 to \$70 dollars every year on appliances that leak energy when turned off. Standby energy use averaged 67 watts per household, more than burning a 60 watt bulb day and night all year long. The solution is simply unplugging appliances when not in use. Computer printers and cable boxes are two of the biggest energy wasters. Experts recommend plugging similar appliances into power strips that are easy to turn off when not in use.





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27 Replace light bulbs

Lighting makes up about 7 percent of a typical home's energy use. Cut costs by replacing your incandescent light bulbs. Compact fluorescent lights use two thirds less energy. CFL's provide more light, produce less heat and last 10 times longer than typical incandescent lights. That can save \$50 or more per bulb during the life of the bulb.



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28 Buy Energy Star appliances

Appliances account for about 20% of household energy use according to the Alliance to Save Energy. Energy Star appliances incorporate technologies that use 10 – 50% less energy and water than standard models. Even if the appliance has a few useful years left, replacing it with a top efficiency model is usually a good investment. A home fully equipped with Energy Star products will use about 30% less energy than a typical house.



www.energystar.gov

29 Build Green

The best way to pay the lowest possible energy costs is to build green in the first place. Built Green Custom Homes is a custom home builder with an owner participation program allowing you to build an extremely energy efficient dream home that will compare at a fraction of the cost of traditional homes. To get more information and sign up for their free building class call (281) 255-5006.



www.builtgreencustomhomes.com

30 Go Solar

Lower your electric bills or eliminate them entirely by using the power of the sun to generate electricity. Generous federal tax rebates help defray the upfront costs. Fully automated solar electric systems are more affordable than ever and integrate seamlessly with existing electrical and mechanical systems. Call a solar expert to discuss the number of panels, sizes and installation information.



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