

Home Energy Saving Advice

Save Energy – Save Money

Energy bills have risen significantly in recent times, as all bill payers are well aware. These energy saving tips will not only reduce the amount of carbon dioxide that you produce, but will help you save money by reducing your energy use. The key to saving energy is to reduce waste and improve efficiency. This guide splits the suggested measures into no cost, low cost, medium cost and higher cost measures.

Most of the no cost measures apply to everyone and since there is no cost there is no reason not to start putting them to use today. The low cost suggestions won't all apply to each individual home and where they do, the higher up the list that they are, the better the possible monetary savings compared to the cost of implementation, as a rough guide.

The higher cost measures are obviously a bigger financial commitment and although they can provide larger monetary savings, will generally take longer to pay for themselves.

Some measures may also provide increased comfort such as reduced draughts and a more even temperature in your rooms.

You should consider getting Cranagh Energy to perform an impartial Energy Audit to identify which measures are best suited to your particular home as this will help you choose measures that produce the greatest savings for the lowest cost. It may also help you avoid spending money on energy savings measures that won't deliver good cost savings for you. See our website www.CranaghEnergy.ie for more details.

NOTE: For health and safety reasons it is important to ensure an adequate air supply to combustion appliances such as gas fires and solid fuel stoves. Therefore care should be taken to ensure adequate ventilation throughout your property. If in any doubt, seek professional advice.

Any work on electrical or plumbing installations should be carried out by professionals.

No Cost Energy Saving Measures

- ✓ Turn off lights in unoccupied rooms and minimise the use of outside lights.
- ✓ Turn off appliances that are not in use, such as TVs, radio's, computers, etc., rather than leave them on stand-by.
- ✓ Switch off the wall switch at the plug for appliances such as radios and MP3 speakers/docking stations that use mains power supplies, as these power supplies still use electricity even when the appliance itself is switched off.
- ✓ Turn off mains chargers for portable devices such as mobile phones and MP3 players as soon as the device is fully charged and don't leave them switched on when the device is unplugged as they will waste electricity.

NOTE: Fire safety authorities recommend that all electrical appliances should be unplugged from the wall socket when not in use to minimise the risk of fire.

- ✓ Close curtains or blinds in the evening at dusk to reduce heat loss through windows and avoid down draughts from cold glass surfaces.
- ✓ Only fill the kettle with the amount of water you need (but make sure you fully cover the element in electric kettles).
- ✓ Defrost your freezer regularly to maintain its efficiency and prolong its life.
- ✓ Adjust your room thermostat to find the lowest comfortable setting. The suggested temperature for living areas is 20°C and 16 - 18°C for all other rooms. Reducing your thermostat setting by 1°C could save you up to 10% of your annual heating bill. You may need to experiment with the setting to get the optimum comfortable temperature.
- ✓ Turn off radiators in rooms that are not in use or, if you have thermostatic radiator valves, turn these to a low setting.
- ✓ Adjust your central heating timer to only heat the house during the hours when it is going to be occupied.
- ✓ Where possible, only use washing machines and dishwashers when you have a full load – it's more efficient. But remember, don't overload your washing machine as it can reduce its life span.
- ✓ Try to wash clothes at 30°C – modern detergents work just as well at low temperatures. Washing at 40°C rather than 60°C could save you up to 30% on the

electricity used for each wash.

- ✓ Try to use your tumble drier less – hang clothes on a line outside instead.
- ✓ Have a shower instead of a bath – a five minute shower only uses about one sixth of the amount of hot water that a bath does. Try to limit the time people spend in the shower – especially the kids! If you have a power shower, these can use much more water than a standard electric shower and so if you like spending a long time in the water, it may be better to have a bath.
- ✓ Wear warm clothing when in your home – you'll feel more comfortable.
- ✓ Don't leave taps running unnecessarily when washing up, especially the hot tap.

Low Cost Energy Saving Measures

- ✓ Fit a letter box cover / draft excluder.
- ✓ Fit draft strip to windows and doors. Drafts can substantially increase the amount of energy required to heat your home to a comfortable temperature and can make your home feel colder than it really is. This can lead to people setting the thermostat to a higher temperature than necessary which results in higher heating costs. However, make sure there is adequate ventilation in every room, particularly where you have solid fuel stoves, gas appliances and cookers.
- ✓ Seal loft hatches, gaps around pipes, etc. to prevent the escape of warm moist air into the roof space which may result in condensation and rot.
- ✓ When buying a new electric kettle buy an eco type. These allow you to measure the amount of water you need so reduce unnecessary energy consumption.
- ✓ When buying new electrical appliances always choose those with the highest energy efficiency rating (A or A+ rating) as they will cost less to run.
- ✓ Fit a good lagging jacket to your hot water cylinder and insulate the hot water pipes where possible.
- ✓ Fit a cylinder thermostat to your hot water cylinder. This allows you to set the temperature at which hot water is stored in your cylinder. The lower the storage temperature the less the heat loss from your cylinder. However, you should not set the storage temperature below 60°C to avoid risk of legionnaires disease.
- ✓ Fit low energy light bulbs wherever possible. Halogen bulbs use about 50% of the energy of the traditional incandescent bulbs, but CFL bulbs use only about 20% of

the energy and last up to 10 times longer. The price of LED lighting is also decreasing and these are the most efficient means of lighting and can last up to 100 times longer than incandescent bulbs.

Medium Cost Energy Saving Measures

- ✓ Fit thermostatic radiator valves (TRV). These turn off the radiator when the room reaches the set temperature and so a different temperature can be set for different rooms, thus reducing the energy required. Experiment with the setting until you get the required temperature for each room. A room thermometer is useful for this.
- ✓ Fit an automatic timer for your central heating boiler so that you can automatically control the boiler to come on only when you need the heating system to heat the house or provide hot water. Where possible you should fit a multi-zone controller so that you can control the heating in different parts of the house to come on at different times. Typically a house could have 2 heating zones (1 zone for heating the living area and 1 zone for heating all other areas) and 1 hot water zone. Multi-zone control will require multiple pumps or valves for the various zones and so you may need to consult your plumber about this.
- ✓ Get your boiler professionally serviced at least once per year (late summer is probably a good time). A boiler that is not serviced regularly will become less efficient and will use more fuel and so cost more to run. A well maintained boiler is also less likely to breakdown in the middle of winter and leave you in the cold.
- ✓ Sensor operated outside lights. Using motion sensors on outside lights means that they only come on when you are moving about outside in the dark and so aren't on when you don't need them.
- ✓ Check your attic insulation and if it is less than 200mm then add extra insulation to bring it up to at least this level.

Higher Cost Energy Saving Measures

- ✓ Upgrade your central heating / hot water boiler to a more modern condensing type as they are more efficient and cost less to run. Consider switching to renewable energy such as wood pellets or wood chip – this will reduce your carbon footprint.
- ✓ Install thermal solar panels to provide domestic hot water for showers, baths and washing up. A well designed solar panel installation can provide up to 100% of your hot water needs in the summer and much of it during spring and autumn. The extra energy to heat your water is typically supplied from your main central heating boiler.
- ✓ If your house has no insulation in the wall cavity, consider installing cavity wall insulation. If your house has solid walls then you should consider installing insulation to either the internal or external walls.
- ✓ Fit a wood burning stove in place of an open fire. Stoves are up to 80% efficient compared to about 25% efficiency for an open fire (and possibly only about 15% for a gas fire in an open hearth) and there is less of a draft when they are not in use.
- ✓ Fit modern double glazed windows which have low emissivity coatings that minimise heat loss. Also consider argon filled types as these are even better.
- ✓ Fit a mechanical heat recovery ventilation system to recover heat from stale air that is extracted from bathrooms, utility rooms and kitchens. The recovered heat is used to heat fresh incoming air that is pumped into rooms such as bedrooms, sitting rooms and hallways.

More Information

See our website for information on our Building Energy Rating (BER) and Energy Auditing services:

www.CranaghEnergy.ie

For more information on saving energy and reducing the amount of CO2 that we each produce see:

www.change.ie – Ireland's plan of action on climate change.

www.powerofone.ie – Energy efficiency for Ireland.

www.sei.ie/Your_Home/ - Energy saving advice from Sustainable Energy Ireland.

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