

100 Ways to Save Energy at Home

Top tips to suit any home or budget



About Codema

Codema is Dublin's energy agency and our aim is to accelerate Dublin's low-carbon transition in order to mitigate the effects of climate change and improve the lives of citizens.

This guide was created to accompany the Home Energy Saving Kit, which is available to borrow free of charge from selected libraries across Ireland.

For more information, and to download this guide, visit codema.ie/energysavingkit

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The Home Energy Saving Kit is available to borrow, free of charge, from selected libraries across Ireland.

Check where your energy is going

The kit contains five tools you can use to measure how your home uses energy and where energy might be escaping.

Find out what it's costing you

Once you've measured your energy use, use the workbook to calculate how much it's costing, and how much you might be able to save on bills.

See how you can make savings

Once you've discovered where your energy is going, check out our easy to follow guide to start making real savings whether you own or rent, live alone or share your home.



Why Save Energy?

Lower your bills

Think you can't save money without getting the builders in? Think again. By making simple changes to your daily routine and investing in energy-efficient appliances, you could reduce your energy usage by up to 20%. If you are in a position to invest in energy upgrades like insulation and new windows, your bills could be even lower.

A healthier, cosier home

Making simple changes to stop energy escaping from your home can have a number of health benefits. By adjusting your heating controls, sealing up draughts and managing your ventilation, you can enjoy a warmer, more comfortable home, improve indoor air quality and reduce the risk of damp and mould. Other energy upgrades can even help to reduce noise pollution and make your home a more peaceful and relaxing place to be.

Fight climate change

It's easy to feel as though our own day-to-day efforts won't have much of an impact in terms of combating climate change. But in truth, collective action has the potential to bring about big changes. For example, if every household reduced its emissions by 10%, that would be the equivalent of taking 385,000 cars off the road*.

Whether you own, rent or share your home – every change will make a difference.

What uses most energy?

In the average Irish home* the vast majority of energy (81%) is used by central heating and hot water. It's here that you'll have the best chance of making big savings.

You can also make savings on the energy used by your home appliances, laundry, lighting and cooking.



Cooking

Source: SEAI, 2021

Where to start?

It makes sense to start with the simple changes that will give you the biggest savings. This guide is broken down into five sections, looking at the different ways energy is used in your home; heating, hot water, appliances, lighting and cooking.

Look for our Top Tips for the quickest ways to save energy without spending a penny.

In each section, tips are listed in order of cost; from FREE, low cost, medium cost to high cost. Although you might think you need to spend a lot to save a lot, in many cases, the FREE tips are also the most effective.

If you're in a position to make bigger changes, there might be grants available. These are marked with a (



Section 1

Heating



Top Tips - Free and Effective Ways to Save



Section 1 – Heating / Temperature





Section 1 – Heating / Temperature



21 666	Upgrade your windows with more energy saving options like double or triple glazing. You can also check if your existing windows could be refilled, resealed or repaired. Grant available, see Section 8 – Next Steps.
22 666	Add or upgrade attic insulation . Up to 25% of your heating could be escaping through your roof. Make sure you cover joists and water tanks as well. Grant available, see Section 8 – Next Steps.
23 666	Add or upgrade wall insulation to keep the heat in. Options include internal (dry-lining), external (house-wrap) or cavity wall insulation. Grant available, see Section 8 – Next Steps.



To help set your heating to work best for you, the Home Energy Saving Kit has a radiator key, thermal leak detector and temperature and humidity meter.



Find your nearest available kit at codema.ie/energysavingkit

If you have low humidity - below 40% - try these tips



If you have high humidity – above 60% – try these tips



Section 1 – Heating / Humidity



If you already have mould build up or condensation on your windows, an **electric dehumidifier** can help with this. Hire or buy the most energy efficient one within your budget, as they can be pricey to run.



Invest in a covered outdoor line. This will remove one of the biggest causes of household humidity – drying laundry indoors – and will help keep your bills down all year round.



To help check your home's humidity levels, the Home Energy Saving Kit has a temperature and humidity meter you can borrow free of charge from a selection of libraries.



Find your nearest available kit at codema.ie/energysavingkit



Hot Water



Top Tips - Free and Effective Ways to Save



Check your water temperature is around 65°C. This is the hottest vou'll need it for showers or washing dishes. If it's hotter then it'll use more energy than it needs to.



Whenever possible, have a shower instead of a bath. A regular shower uses only one fifth (20%) of the energy of a full bath

As soon as the water's hot, get into you get ready lets hot water and energy

the shower. Leaving it running while go down the drain.

Avoid power showers whenever possible as they can use up to 125 litres of water in less than 5 minutes. That's almost three times as much as a standard shower.



Measure your shower's flow rate by filling a bucket for 10 seconds, measuring the amount of water it collects, and multiplying by six. If it's using more than 9 litres per minute, **try fitting a flow** restrictor or turning it on to less than the maximum pressure.

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Section 2 – Hot Water



Section 2 - Hot Water





To help you keep track of the energy you use, the Home Energy Saving Kit has a workbook you can fill out to see where you can make savings today.

Find your nearest available kit at codema.ie/energysavingkit



Appliances



Top Tips - Free and Effective Ways to Save



Choose your dishwasher's 'eco' mode or lowest temperature and wait until it's full to turn it on. If your electricity is cheaper at night, set it on a timer to come on then. If you can, turn it off before the drying cycle and let the dishes air dry instead.



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Choose your washing machine's 'eco' mode or wash at 30°C and wait until it's full to turn it on. If your electricity is cheaper at night, set it on a timer to come on then. You'll use less water and energy, and your clothes may even last longer.



Check your fridge freezer temperature. Your fridge should be between 3°C and 5°C and your freezer between -15°C and -18°C.



Hang your laundry outdoors whenever possible to save on energy, and stop too much damp building up indoors.

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Keeping your freezer full uses less energy. If it's not full of food, you could try filling in the gaps with water bottles, tubs of ice cubes, or even newspaper.

Section 3 – Appliances



Defrost your fridge and freezer at least every 6 months to make sure it's working at its best. There should be less than 5mm of frost build up.



If it's in a warm spot, either next to the oven or in the sun, **try moving your fridge freezer to a cooler, shadier part of the kitchen**. Wherever it is, make sure there's plenty of air circulating, especially around the back, to help keep it cool.



Let hot food cool down fully before putting it in your fridge or freezer. Hot food will heat the food beside it, which may affect how safe it is to eat. It will also make the fridge freezer have to work harder and use more energy.

Say goodbye to standby. Leaving TVs, computers, stereos, games consoles and other appliances on standby uses a lot of electricity over time. Try to get in the habit of turning them off completely, especially at night.



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Use the energy saving mode on your computer and make sure it's turned off if you're not using it, and at night.

Section 3 – Appliances



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To help you see how your appliances are using energy, the Home Energy Saving Kit has a plug-in energy monitor and fridge freezer thermometer you can borrow.



Find your nearest available kit at codema.ie/energysavingkit

Section 4

Lighting



Top Tips - Free and Effective Ways to Save



Section 4 – Lighting



76 66		Consider motion sensors specifically for outdoor lighting or hallways to reduce energy. Make sure your outdoor lighting is Dark Skies compliant (warm, shielded, or pointing down) to reduce light pollution and save energy.
77 66		Install mirrors around skylights to reflect and bounce more sunlight into the room.
78 66	<u> </u>	Use energy efficient LED or solar fairy lights to decorate at Christmas. Make sure to turn them off at night.
79 666		Consider installing an energy-efficient skylight to take advantage of natural daylight where possible. When fitted properly, skylights can add warmth in the winter and help cool during the summer.
ThinkGnergy HOHE ENERGY SAVING NT Write or and the		The Home Energy Saving Kit has a plug-in energy monitor to measure the energy used by lamps in your home.

Find your nearest available kit at **codema.ie/energysavingkit**

Section 5



Top Tips - Free and Effective Ways to Save



Keep the oven door closed as much as **possible**, opening it too often can let 20% of the heat escape.



Plan ahead and cook as much at the same time as possible. Whether you're feeding a family, living alone or sharing with housemates, see if you can plan your meals so they get cooked at the same time. You can cook extra for the following days, or cook dinner and dessert at the same time.



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Make use of residual heat by turning off the oven for the last 10 minutes of cooking time. Once the food is cooked, let the remaining heat into the room by leaving the oven door open.

Match pots and pans to the right sized ring on your hob. This means all the heat will go into cooking. When the food is nearly ready, turn off the hob and use the remaining heat to finish cooking.



Use lids on pots and pans while cooking. This will speed up cooking time and save energy.

Section 5 – Cooking







To check how much of your energy goes into cooking, the Home Energy Saving Kit has a plug-in energy monitor you can borrow.



Find your nearest available kit at codema.ie/energysavingkit



Energy Bills



Top Tips - Free and Effective Ways to Save



Check your electricity and gas meters and submit regular readings to your utility companies. This will reduce the chances of getting an unwelcome surprise if your previous bills were estimated.

Find out what tariff you're on. If you use most of your appliances at night it might make sense to switch to a dual tariff. Contact your utility company to see what suits you best – and remember to check what time the night tariff starts and ends.



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Check your energy bill. Remember to check what you're being charged per unit price of electricity as well as your current standing charge. As contracts expire, the rate you're paying might go up. If you're out of contract you might consider switching.



Compare tariffs with other utility providers and you might be able to save a lot of money by just switching. Check a reputable price comparison website for more information.

Set yourself an energy saving target to see how you get on.

Why not aim for a 5–10% reduction?

Section 6 – Energy Bills

98 Free		Talk about energy saving with your family or housemates. Get everyone interested in playing their part to make your home cosier, healthier and more affordable.
99 Free	31	Mark your calendar to review your supplier contract. Check when your current contract expires and set a date a few weeks before it ends to plan whether you'll need to switch or not.
100 €€	A B C D E F G	Get a Building Energy Rating (BER) from a qualified certifier. See how you compare with the national average and how to improve your rating. Grant available as part of wider measure, see Section 8 – Next Steps.



Glossary



Section 7 – Glossary

To take control of your energy use, it's useful to understand some of the units you'll see on your bills, bulbs and appliances. Since we can't see electricity flowing, it can be helpful to think of using electricity like using water in a garden hose:



Voltage is like the water pressure

Voltage is measured in volts. The electricity in your wall sockets is at a voltage or 'pressure' of 230 volts. But a smoke alarm battery gives out electricity at only 9 volts. Think of this as the difference between water coming out of a garden hose or a water pistol.

Current is like the size of the hose

Current is measured in Amps. It's like the amount of water that can flow, which is determined by the size of the hose. That is to say, more water can flow through a fire engine hose than a garden hose. Similarly, more electricity can flow through a standard socket at a rate of up to 13 amps, but the fuse in the plug might only allow 5 amps to flow through to the appliance.

Wattage is like the flow rate of the water

Power or wattage is measured in watts. If you multiply the water pressure and the the size of the hose, you'll get the flow rate of the water. High pressure and a big hose will produce a more powerful stream of water than low water pressure and a small hose.

Energy is like the volume of water that is pumped out

Energy is measured in kilowatt hours. The amount of energy used by an appliance while turned on is like the amount of water a hose pumps out while it's on.

Energy and Climate terms explained

Biomass and biofuels

Solid fuels (wood, wood logs, wood pellets) or liquid fuels (biodiesel, bioethanol, etc.) made from organic matter such as plants, trees or animal waste.

Building Energy Rating (BER) Cert

A certificate which shows an estimate of the building's annual energy use. Ratings go from **A** for a building that's very efficient and uses minimal energy, to **G** for a building that is not efficient and uses a lot of energy.

Carbon equivalent

An easy way of measuring all the different greenhouse gases in one unit instead of listing each gas separately. Carbon equivalent calculates all of these other gases as though they were all carbon dioxide, so they can be counted in one go.

Carbon-neutral

Carbon-neutral means the amount of carbon released into the atmosphere is balanced out (or offset) by taking carbon out in another way, like reducing other emissions, planting trees, restoring wetlands, etc.

Carbon budgets

In Ireland, this is the most carbon the country has planned or "budgeted" to release over a five-year period, so that we can reach our climate action targets and eventually get to net-zero emissions.

Carbon off-setting

Ways of taking carbon out of the atmosphere to balance out the carbon that's being produced by a person, business or even a country.

Carbon Sequestering

Using nature to soak up carbon from the atmosphere, and lock it back into the soil. This happens when we plant trees, restore wetlands and stop digging or ploughing the soil.

Carbon capture technologies

Ways of collecting carbon from industry before it reaches the atmosphere by compressing and storing it underground.

Section 7 – Glossary

Ireland's Climate Action Plan

Sets our how Ireland hopes to halve our emissions by 2030 and reach net zero no later than 2050.

Decarbonisation

Taking carbon out of the equation completely by removing fossil fuels from electricity, industry and transport.

District Heating

District heating systems use a central heat source and distribute this heat through super-insulated pipes to the customer. They are a convenient and sustainable way of heating buildings and water, using any suitable heat sources to feed into the network.

Energy Efficiency

Using only the energy you need, and fixing or upgrading anything that might be wasting energy.

An energy transition

Moving away from the current way of using and supplying energy to a low-carbon, renewable society that is not dependent on fossil fuels.

Fossil fuels

Non-renewable fuels like coal, natural gas, crude oil, petroleum products and others that are made from the fossilised remains of plants and animals that lived millions of years ago.

Gas Point Reference Number (GPRN)

A unique identifying number for your gas connection and meter. You can find this seven digit number at the top right-hand corner of your bill.

Greenhouse gas emissions

The group of gases that trap heat in the atmosphere and lead to global warming and climate change are called greenhouse gases.

The Grid

A network of cables and pipes that supply energy (usually electricity or gas) from a supply source to the end customer. In Ireland, our electricity grid is run by Eirgrid.

Kelvin

The light you get from modern bulbs varies not only in brightness but also in "colour temperature" which is measured in Kelvin. This ranges from 2,700 Kelvin (warm, relaxing) to 4,000 Kelvin (crisp and energising).

Kilowatt hour

The unit used to measure the amount of electricity you use. Electricity bills charge per unit, which is the same as one kilowatt hour.

Lumen

This tells you how bright the light from any particular bulb will be. How many lumens you need depends on whether it's for ambient, accent or task lighting.

Climate mitigation and adaptation

Mitigation means action that will reduce current and future greenhouse gas emissions. Adaptation means actions that will reduce the impacts that are already happening now from our changing climate and those that are projected to happen in the future.

Meter Point Reference Number (MPRN)

A unique identifying number for your electricity connection and meter. Find this 11 digit number at the top right hand corner of your bill from your electricity supplier.

Net-zero

Similar to carbon-neutral but aims to reduce any emissions to as close to zero as possible before trying to balance or offset by reducing greenhouse gas emissions elsewhere.

Renewable energy

Energy that comes from a source that can't be used up. Examples include natural energy sources from the weather and earth like solar, wind and geothermal energy but also biomass and biofuels that can be regrown or reproduced naturally.

Retrofitting

Upgrading an existing home or building to make it more energy efficient. This usually means adding more or better insulation to the roof, outside walls, floors and windows. It can also include adding newer or renewable energy systems like better boilers, solar panels, heat pumps, etc.

Waste heat

The heat that's generated but not directly used by any kind of appliance, machine or industrial process. This can mean anything from your phone charger plug heating up to the massive amounts of heat generated by power plants, factories or data centres. This heat can be captured and used for district heating.

Section 8 – Next Steps

There are lots of ways you can start saving energy – whether you own, rent or share your home.

Borrow a Home Energy Saving Kit

The Home Energy Saving Kit is available to borrow, free of charge, from selected libraries around the country. Each kit contains five easy to use tools that will help you understand how your home uses energy, and where you might be able to make savings. *Find your nearest available kit at codema.ie/energysavingkit*

Switch and Save

Switching energy supplier each year can save you money on your energy bills. You can also choose to give your business to suppliers that are investing in renewable energy. Ireland's independent energy and water regulator, the Commission for Regulation of Utilities, has a handy guide to help you find the best supplier for you: *cru.ie/consumer-information/switch-supplier*

SEAI Home Energy Grants

The Sustainable Energy Authority of Ireland (SEAI) offers a range of grants to help cover the costs of energy upgrades. These include attic, roof and wall insulation, heat pumps, heating controls, solar water heating and solar electricity. For more information call 01 808 2004 or visit: *seai.ie/grants/home-energy-grants*

Sustainable Energy Communities

A Sustainable Energy Community (SEC) is a group of people who have come together to improve how energy is used in their community. Energy communities often look at projects in homes, transport and local businesses. Why not join your local SEC – or start your own? For more information visit:

seai.ie/community-energy/sustainable-energy-communities

Your energy saving roadmap







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