Think Energy

100 Ways to Save Energy at Home

Top tips to suit any home or budget

Codema
Dublin's Energy Agency

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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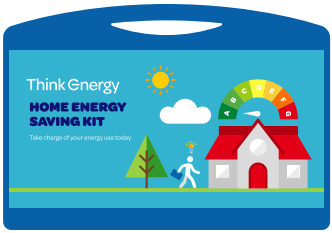


The Home Energy Saving Kit is available to borrow, free of charge, from selected libraries across Ireland.

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.

- Fridge freezer thermometer
- Plug-in energy monitor
- Thermal leak detector
- Radiator key
- Temperature & humidity meter

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*.

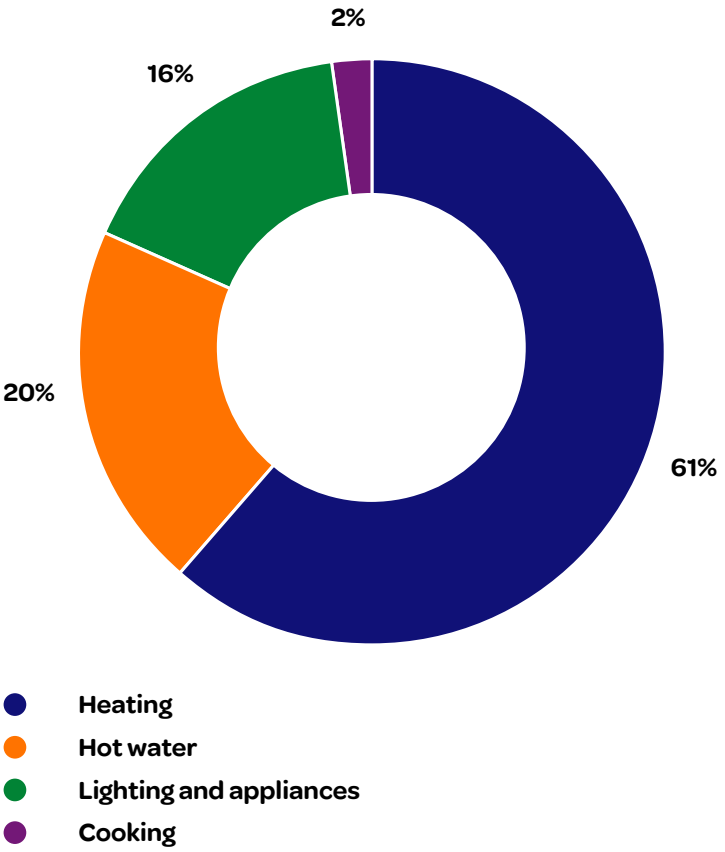
Whether you own, rent or share your home — every change will make a difference.

**Source: Codema calculations based on SEAI data, 2021.*

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.



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 (!)

Free

Low Cost

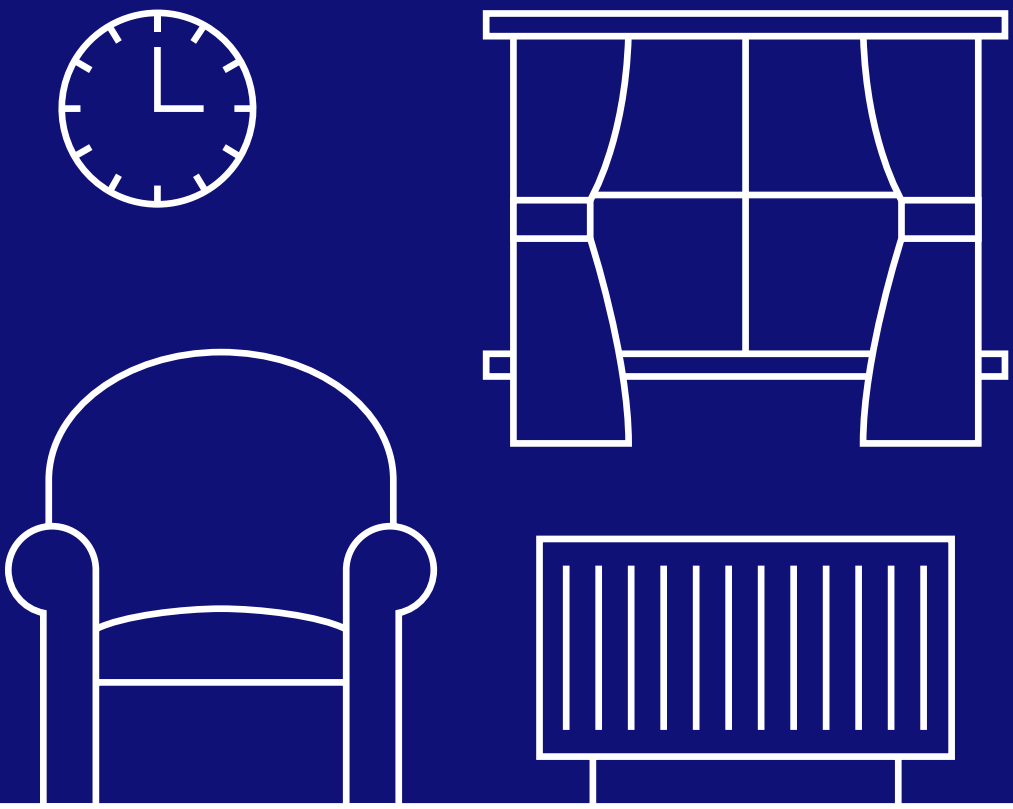
Medium Cost

High Cost

SEAI Grant Available

Section 1

Heating



Top Tips – Free and Effective Ways to Save

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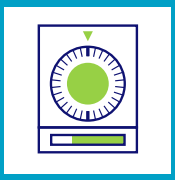
Free



Use a timer to set your heating to come on and off throughout the day. Turn it off about 30 minutes before you leave the house. Radiators will stay warm for a while afterwards, so you'll still get the benefit before you head out.

2

Free

Turn down your room thermostats. Aim for 18–20°C in your living room/kitchen and 15–18°C in bedrooms.

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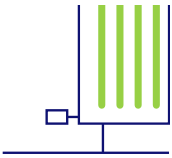
Free



Turn your radiators down or off in rooms that you don't use.

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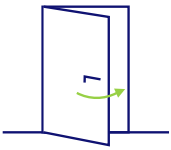

Close doors to unused rooms so you only heat the smallest possible area.

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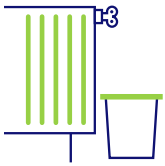

Use a radiator key to **let any trapped air out of your radiators** at least once a year. Be sure to turn the heating off at least an hour beforehand.

Section 1 – Heating / Temperature

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Free

If you've been sitting still for a while, you may feel cold even if your house is warm. **Add extra layers** like a jumper or blanket if you're working at a desk or watching TV.

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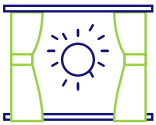

Make use of the sun and **let the heat in during the winter** by opening up south facing curtains and blinds.

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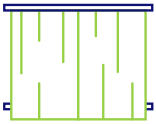

Stay cool and **keep the heat out during the summer** by closing south facing curtains and blinds.

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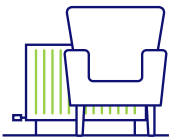

Pull any furniture away from radiators to let the most heat into the room.

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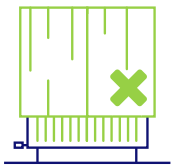
Free



Keep curtains from hanging in front of the radiators as this pulls the heat away from the room and towards the window.

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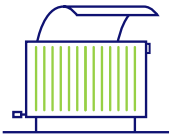

Use radiator foil behind your radiators to reflect heat back into the room. This works particularly well on external and north facing walls.

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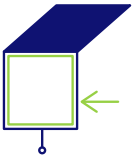

Use **draught excluder strips around your attic door** to stop heat escaping into the attic. You can also buy 'loft tents' or add insulation to the door itself.

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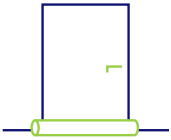

Use **draught excluders under doors**. You can make your own or buy them in hardware or interiors shops.

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Use carpets and rugs to keep floors warm, and stop any draughts coming up from under floorboards. They also feel cosier and add to the comfort of your home.

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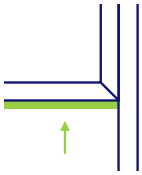

Use window seals or gap fillers to stop any draughts coming in around doors and windows. If you're renting these can easily be removed before you move out.

Section 1 – Heating / Temperature

16

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Buy **thermal insulated curtains** or thermal curtain liners. You can use them on your front and back door as well as your windows to help keep the heat in. Remember to close them at night and in rooms that aren't used.

17

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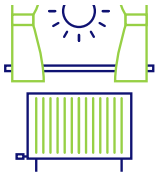

Place window sills or longer window ledges over radiators that are under windows to bounce heat back into the room.

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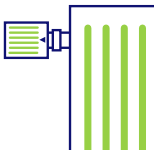

Install Thermostatic Radiator Valves (TRVs) to control the heating in each room.

Grant available as part of wider measure, see Section 8 – Next Steps.

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Have your boiler serviced once a year to keep it working efficiently.

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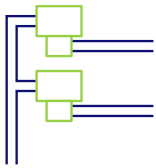

Get central heating zone valves installed to control heating and set different temperatures in different parts of your home.

Grant available as part of wider measure, see Section 8 – Next Steps.

21

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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

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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

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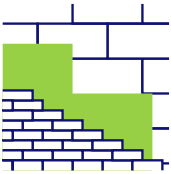
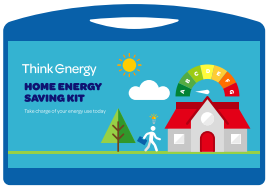


Add or upgrade **wall insulation** to keep the heat in. Options include internal (dry-lining), external (house-wrap) or cavity wall insulation.

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.

Radiator Key

Thermal Leak Detector

Temperature & Humidity Meter

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

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

24

Free

Put a **bowl of water** or damp towel on top of your radiator.

25

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Use houseplants to add moisture and purify the air in your home. Peace lilies, areca palm and Boston ferns are great for adding moisture and purifying the air.

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Use a ceramic humidifier on your radiators.

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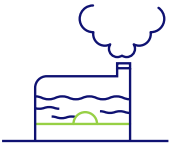

An **electric humidifier** can also add moisture to the air. Remember the running cost could be high, so choose the most energy efficient one within your budget.

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

28

Free

Hang your washing outside whenever possible. If you have no outside space, make sure there's plenty of ventilation to stop moisture and condensation from building up in your home.

29

Free

Make sure there's **enough heating** throughout the house. Aim for 18–20°C in your living room/kitchen and 15–18°C in bedrooms and hallways.

30

Free

Make sure there's **enough ventilation**, especially in kitchens, bathrooms and laundry rooms where most moisture comes from. Never block up vents.

Grant available, see Section 8 – Next Steps.

31

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Use a **refillable moisture absorber** for your room or wardrobe. Make sure it's within reach so you can refill it easily.

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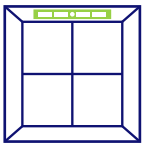

Fit window vents or check existing ones are open to make sure you get enough ventilation in every room.

Section 1 – Heating / Humidity

33

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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.

34

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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.

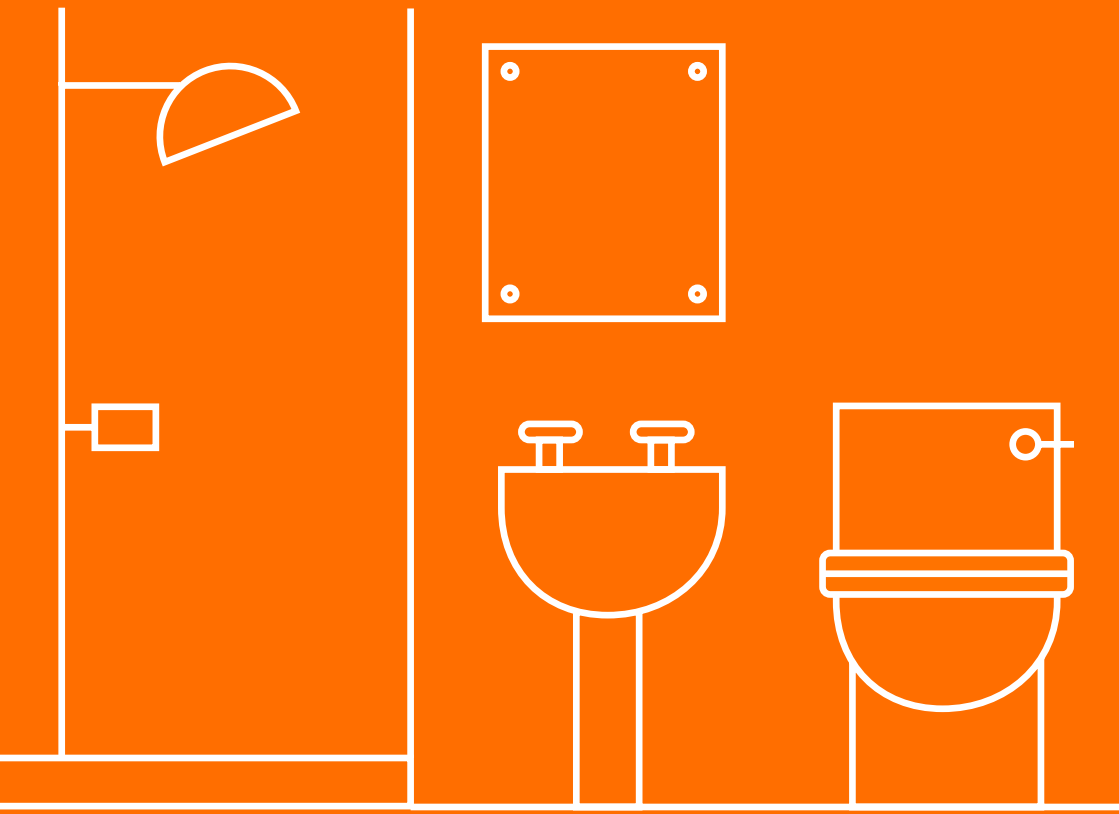
To help check your home's humidity levels, the Home Energy Saving Kit has a temperature and humidity meter you can borrow free of charge from a selection of libraries.

Temperature & Humidity Meter

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

Section 2

Hot Water



Top Tips – Free and Effective Ways to Save

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Free

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

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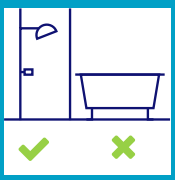
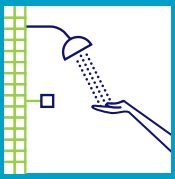
Free



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

37

Free



As soon as the water's hot, get into the shower. Leaving it running while you get ready lets hot water and energy go down the drain.

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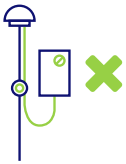
Free



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.

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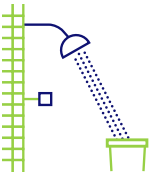
Free



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.

Section 2 – Hot Water

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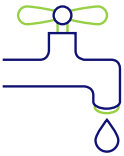

Fix dripping hot taps as soon as possible. It may only seem like a little drip, but over time it can quickly add up to a lot of wasted energy, and costs.

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Set a timer to help you keep track of how much water you have to heat for your daily shower. With a little practice, you can shower – and wash your hair – in five minutes flat.

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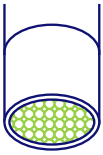

Install **flow limiting / aerated taps or attachments** to taps in the bathroom and kitchen. Ask your plumbing supplier which suits your taps best.

43

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Fit an **eco shower head**. Check with your plumbing supplier if an aerating or flow restrictor is best for your kind of shower. (N.B. Eco shower heads are not suitable for electric showers.)

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Use foam insulation on all hot water pipes to stop heat escaping, especially in colder parts of the house like the attic, under the stairs, etc.

Section 2 – Hot Water

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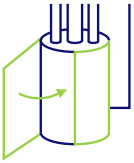

Get a lagging jacket for your hot water tank to keep water hotter for longer. If there's an older lagging jacket in place, you can add another, or replace it with a newer, high performance one. Check every now and then to see if it's tightly wrapped all round.

46

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Replace your water cylinder with a modern, energy-efficient model which has an insulation built in.

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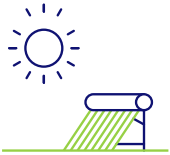
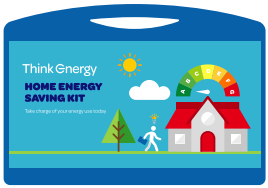


Consider a **solar hot water** system for your roof, which could heat 50–60% of your hot water in a year.

Grant available, see Section 8 – Next Steps.

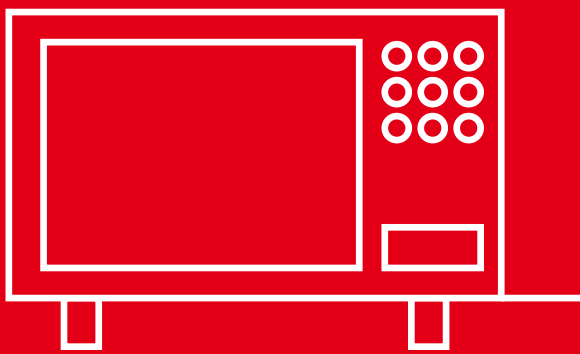


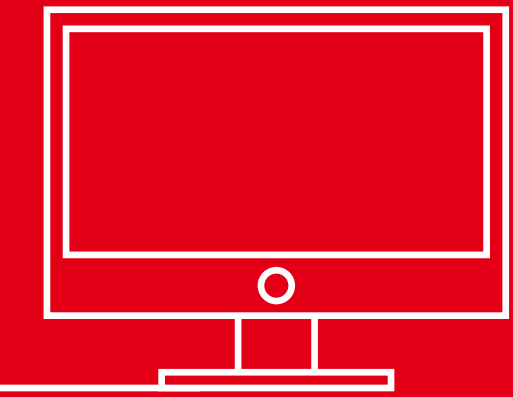
To help you keep track of the energy you use, the Home Energy Saving Kit has a workbook you can fill out to see where you can make savings today.

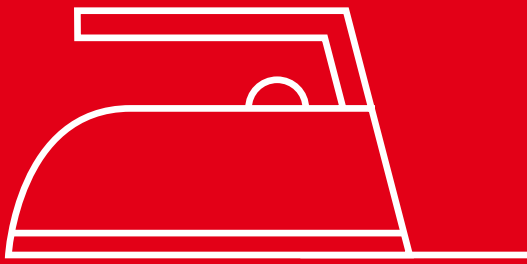
Find your nearest available kit at **codema.ie/energysavingkit**

Section 3

Appliances







Top Tips – Free and Effective Ways to Save

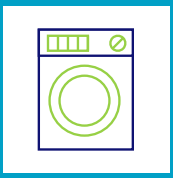
48

Free

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.

49

Free



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.

50

Free

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

51

Free

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

52

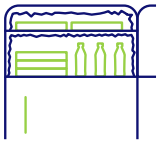
Free

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

53

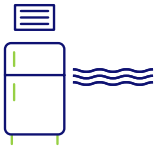
Free



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.

54

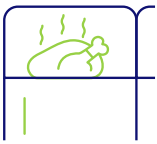
Free



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.

55

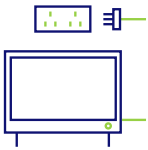
Free



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.

56

Free



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.

57

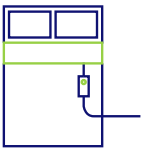
Free

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

58

Free



Turn on your **electric blanket for half an hour** before you go to bed and switch it off immediately when you get into bed. If you find you get cold during the night, try a warmer duvet or add a blanket, instead of leaving the electric blanket on all night.

59

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Heated appliances like hair dryers and straighteners tend to use a lot of energy. **Preheat styling tools for the minimum amount of time** and turn them off as soon as you're finished. Never leave heated appliances unattended.

60

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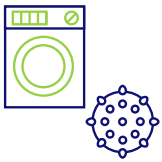

Use dryer balls if you need to use your tumbler dryer to speed up drying time.

61

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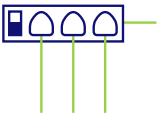

Use multi socket **extension leads** to make it easier to turn all appliances off at the same time. Some even come with individual switches, surge protection – or even remote controls. This can make it easier to turn off hard to reach sockets behind your TV or Christmas tree.

62

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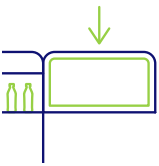

Replace door seals on your fridge or freezer if they're worn, split or broken. Broken seals let the warm air in, and the fridge freezer has to use more energy to stay cool.

63

€

Boil only as much water as you need in the kettle when making coffee or tea. You may also consider an eco-kettle, which will help you only boil as much water as you need.

64

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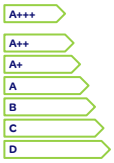


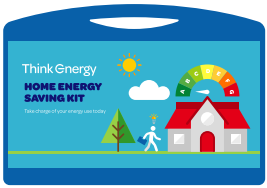
When replacing or upgrading appliances, **buy the most energy efficient within your budget**. Although more expensive to buy, energy efficient appliances may work out cheaper over their lifetime.

65

€€€

Consider solar PV panels for your roof to generate free, renewable electricity from the sun.

Grant available, see Section 8 – Next Steps.



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.

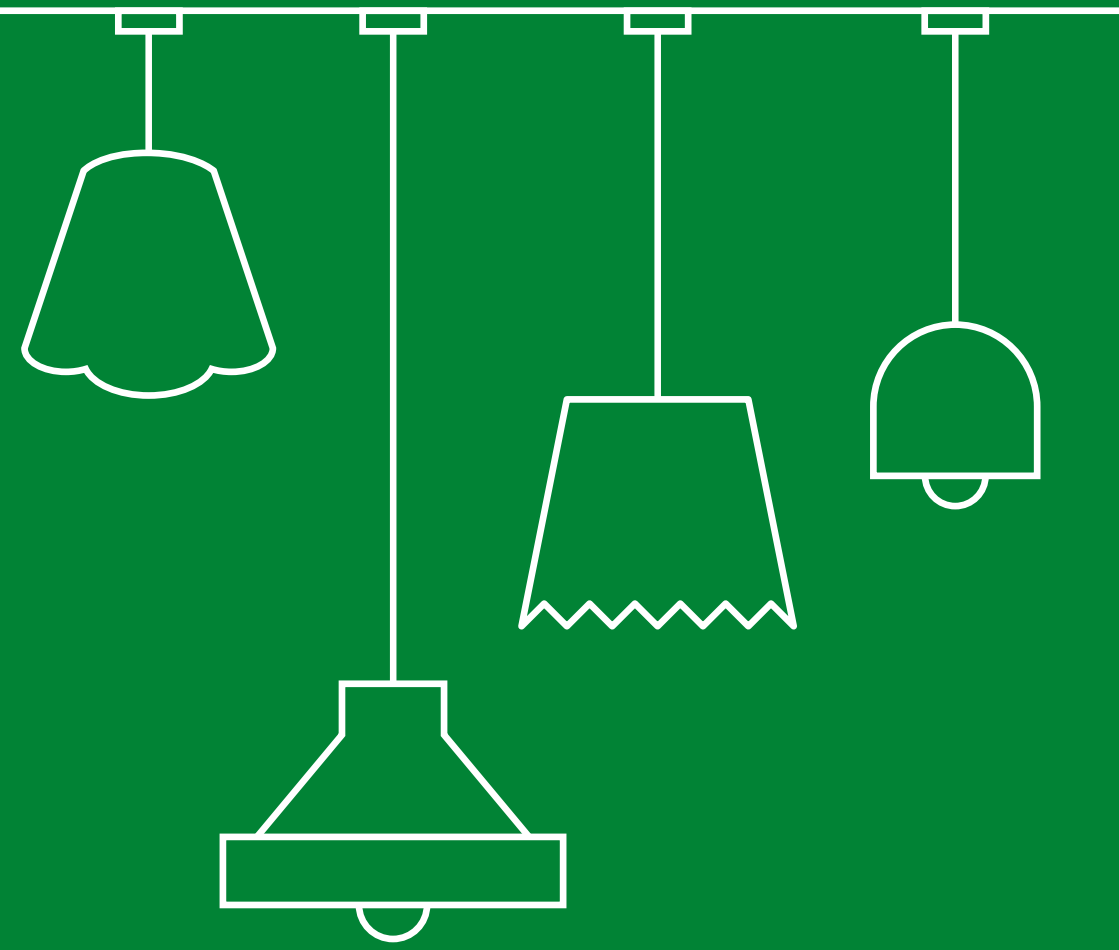
Plug-In Energy Monitor

Fridge Freezer Thermometer

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

Section 4

Lighting



Top Tips – Free and Effective Ways to Save

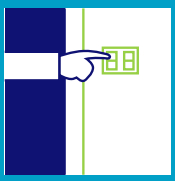
66

Free

Make the most of daylight. Hold off switching on lights in the evening until necessary.

67

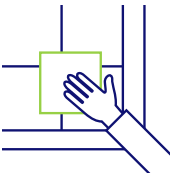
Free



Get in the habit of **turning off the lights** as you leave a room, unless you're coming right back. If rooms or hallways aren't in use, you can leave those lights off as well.

68

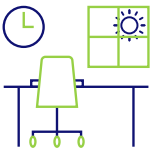
Free



Clean your windows regularly to let the light in. You'd be surprised what a difference it makes.

69

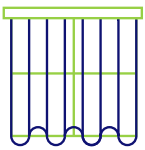
Free



Arrange your furniture so you have sunlight where you need it during the day. Putting your desk or workstation beside the window means you'll have less need for a lamp, for example.

70

Free



Open net curtains or blinds during the day to let the most light in.

Section 4 – Lighting

71

Free

Keep your lights, bulbs and shades clean and dust free to get the most light from them. Remember to clean any lamps as well.

72

Free

Use task lighting if you're reading, writing or working with your hands. It'll be easier for your eyes, and save you energy from lighting the whole room.

73

Free

Adding **dimmer switches and a variety of lights** means you only use the light you need and want. This helps make your home feel cosier and more relaxing than a single overhead light.

74

€€

Replace old bulbs with energy efficient LED lightbulbs. You can do this one room at a time, starting with the kitchen or living room, where you use most energy throughout the day.

75

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Paint walls in bright colours. This can reflect 80% of light back into the room, while dark colours reflect less than 10%.

76

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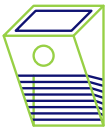

Consider motion sensors specifically for outdoor lighting or hallways to reduce energy. Make sure your outdoor lighting is Dark Skies compliant (warm, shielded, or pointing down) to reduce light pollution and save energy.

77

€€

Install mirrors around skylights to reflect and bounce more sunlight into the room.

78

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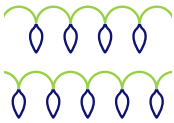


Use energy efficient **LED or solar fairy lights** to decorate at Christmas. Make sure to turn them off at night.

79

€€€

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.

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**

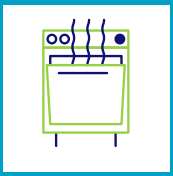
Section 5

Cooking

Top Tips – Free and Effective Ways to Save

80

Free



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

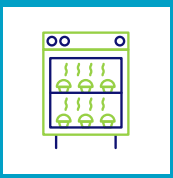
81

Free

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.

82

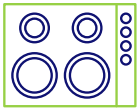
Free



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.

83

Free



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.

84

Free

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

Section 5 – Cooking

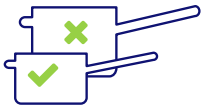
85

Free

If you need boiling water for cooking, use the kettle and not the hob. Kettles are faster, more efficient and use less energy than if you heated the water in the pot.

86

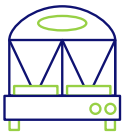
Free



Use the smallest pot and hob that will suit you. You'll get the same results, and save energy at the same time.

87

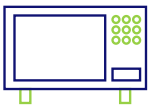
Free



Only preheat kitchen appliances for as long as you need to. It's easy to forget to turn off quiet appliances like sandwich toasters, which use a lot of energy.

88

Free



For cooking, reheating and making smaller meals, **try using the microwave instead of the oven.** They use a fraction of the energy it would take to do the same in a normal oven.

89

Free

A clean oven heats food more efficiently and reduces cooking time.

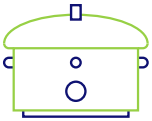
90

Free

Replace door seals of your oven if they are worn, split or broken. Heat can escape from broken seals, meaning your oven will use more energy to stay hot.

91

Free

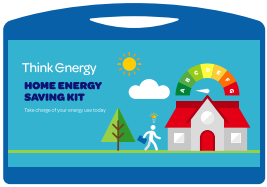


Consider getting a slow cooker, pressure cooker or air fryer. They can save energy compared to cooking in an oven, without compromising on taste.

92

Free

Use the toaster instead of the grill for toasting bread.



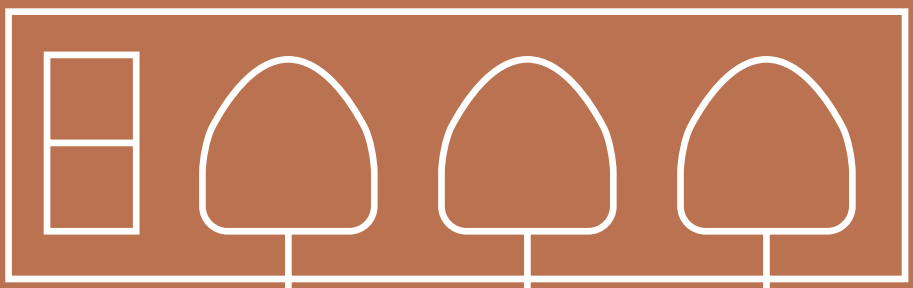
To check how much of your energy goes into cooking, the Home Energy Saving Kit has a plug-in energy monitor you can borrow.

Plug-In Energy Monitor

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

Section 6

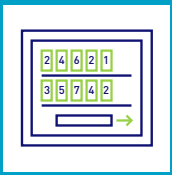
Energy Bills



Top Tips — Free and Effective Ways to Save

93

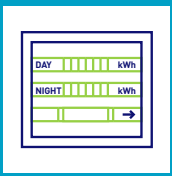
Free



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.

94

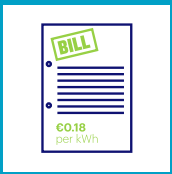
Free



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.

95

Free



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.

96

Free

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.

97

Free

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

Why not aim for a 5–10% reduction?

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

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

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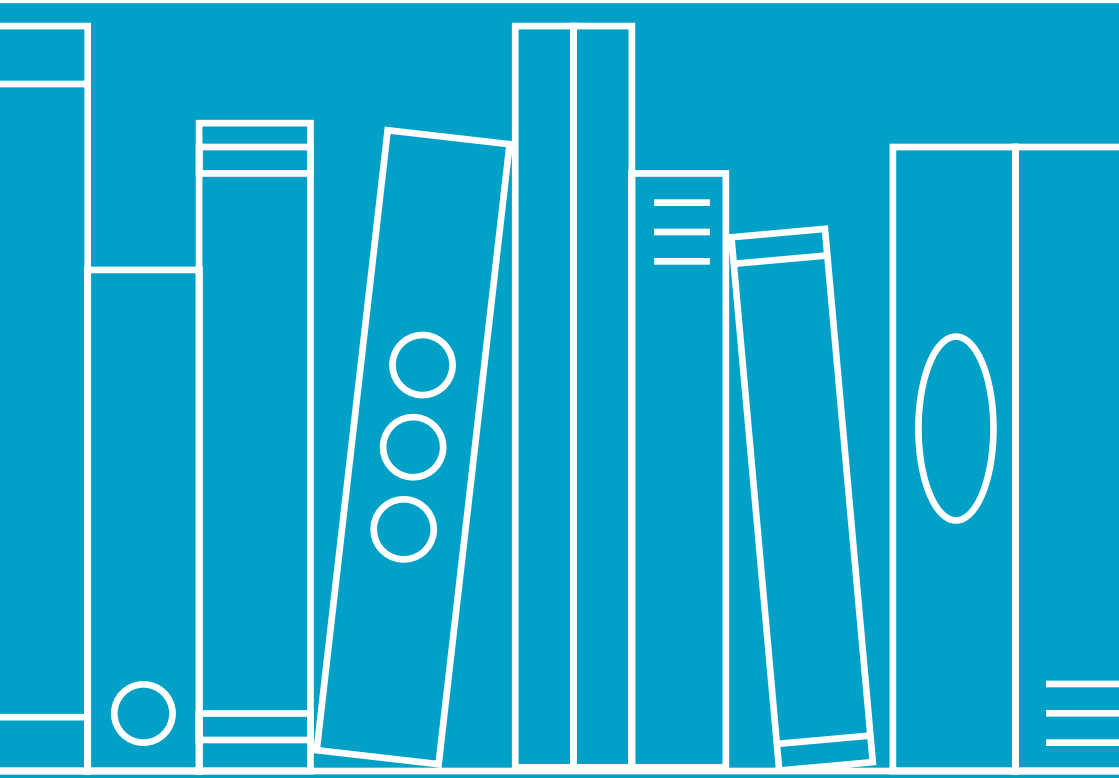
Get a Building Energy Rating (BER) from a qualified certifier. See how you compare with the national average and how to improve your rating.

Grant available as part of wider measure, see Section 8 – Next Steps.

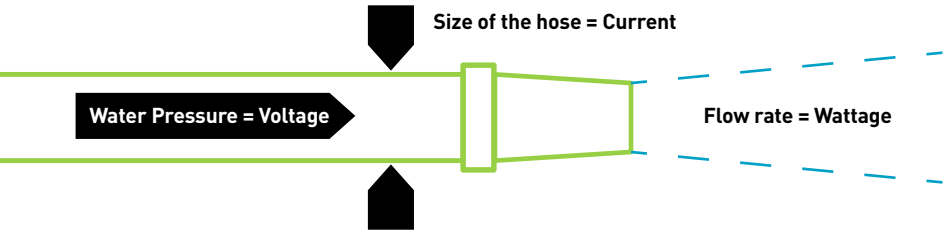
Section 7

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

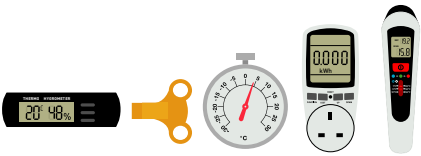
SEAI Home Energy Grants
The Sustainable Energy Authority of Ireland (SEAI) offers a range of grants to help cover the costs of energy upgrades. These include attic, roof and wall insulation, heat pumps, heating controls, solar water heating and solar electricity. For more information call 01 808 2004 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

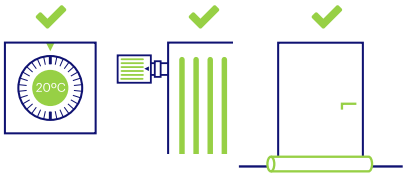
Your energy saving roadmap

Borrow the Home Energy Saving Kit

Use the tools to track your energy



Use whichever energy saving tips suit your home and budget



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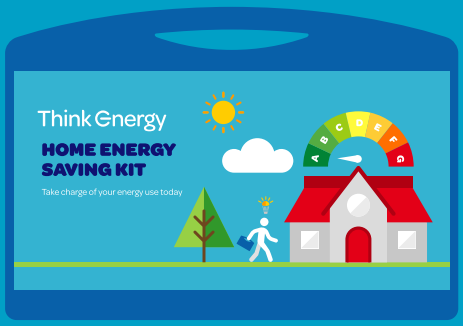
Look into Home Energy Grants at seai.ie/grants/home-energy-grants

Carry out your energy upgrades with an approved contractor

Enjoy a cosier home with lower energy bills



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

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Dublin's Energy Agency