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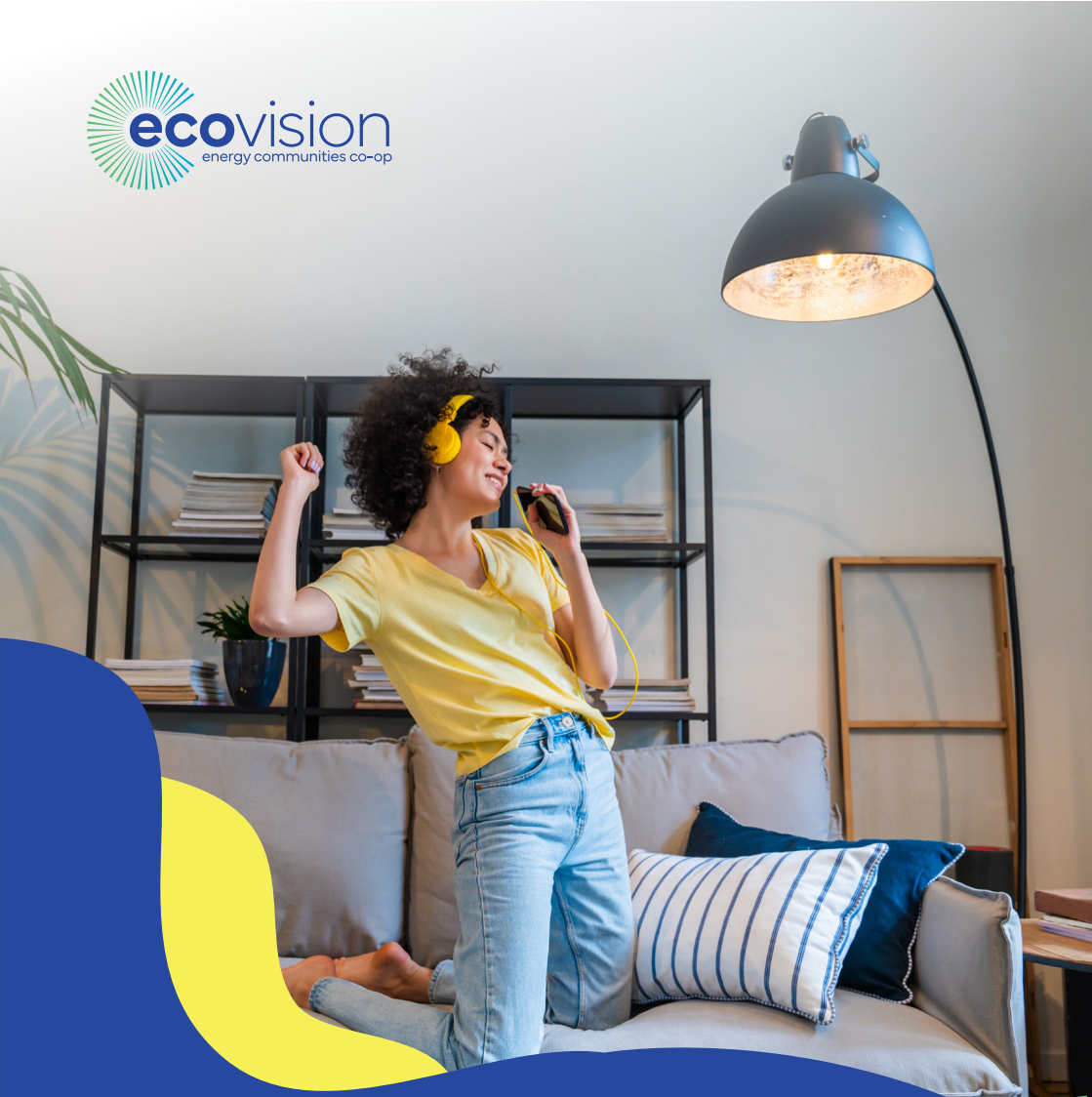


Energy Saving at Home

90 practical tips for saving energy at home

The Energy Saving Champion Programme

www.ecovision.ie

Contents

Introduction

Welcome to this comprehensive guide designed to help you minimise your energy consumption without compromising your warmth and comfort.

We understand that many homeowners are concerned about the financial aspects of energy-saving upgrades. The great news is that you don't necessarily need to make significant investments to achieve substantial savings on your energy bills. This guide is packed with practical tips and tricks that you can easily implement to make a meaningful impact on your energy consumption and financial savings.

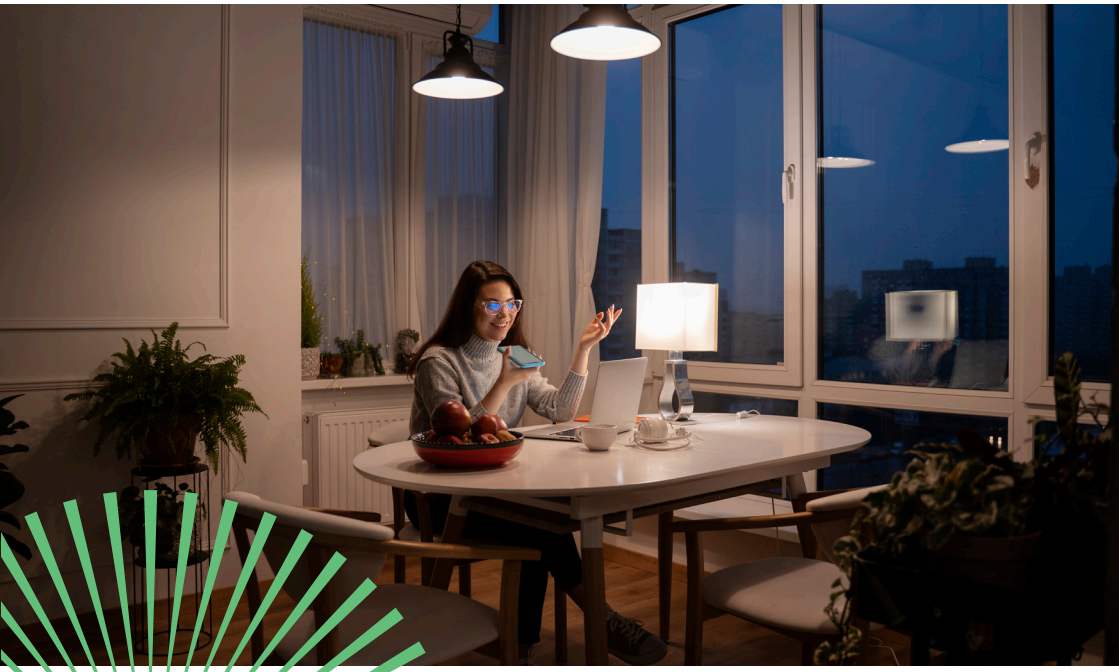
So, let's embark on this journey together, making your home more efficient, cost-effective, and environmentally friendly, one step at a time.

Why we should all reduce our energy consumption

Reducing energy consumption in Ireland is essential for our environment and economy. By using less energy, we decrease our reliance on imports, bolster energy self-sufficiency, and keep more money in our communities.

Using less energy also means lower electricity bills, leaving more money for households and businesses to invest locally.

Additionally, reduced energy consumption helps combat climate change by lowering the demand for fossil fuels and decreasing greenhouse gas emissions. It's crucial for fulfilling our international climate commitments.



How to use this guide

This guide was compiled to complement the Energy Saving Champion programme, a community-driven initiative, delivered over a series of workshops on the theme of 'Energy Saving at Home' and culminating in an inter household competition. Our goal is to empower communities in their journey towards reduced energy consumption and a smaller carbon footprint.

However, the tips and tricks you'll find here are for everyone and every type of home. Whether you live in a flat or house, big or small, detached or terraced, rented or owned, this guide offers actionable insights for everyone to embrace a greener and more energy-efficient lifestyle.

And whether you prefer to make a few minor adjustments or are fully committed to achieving a substantial reduction in your household's energy consumption, we're here to guide you. Each tip in this guide will bring you one step closer to minimising your energy usage.

The 'No or Low Cost Tips' section will guide you through simple behavioural changes you and members of your household can make to reduce your energy consumption, your energy bills, and your impact on the environment. The 'Investing in your Comfort' section will outline a handful of energy upgrades that offer the best value for money.

However, if you're looking for a quick overview or wish to identify the changes that will yield the most significant impact, turn to our "Energy Guzzlers" section on page 5

Pay special attention to the tips marked with an exclamation mark (!). These top 10 recommendations will offer you the most substantial savings.

How much electricity are my appliances using?

To find out how much electricity your appliances use, consider:

Wattage

Check the power rating on the appliance; higher watts mean more energy usage.

Usage Time

How long you use it matters; longer use means more electricity.

Heating/Cooling

Appliances that heat or cool use the most energy.

To estimate use:
Electricity (kWh) = Wattage (kW) x Hours Used. For example, a 1.5 kW heater used for 5 hours consumes 7.5 kWh. Understanding these factors helps reduce energy use and costs.

Energy Guzzlers

Energy guzzlers are the appliances in your home that account for the greatest portion of your overall energy use. By identifying these and using them more efficiently, you can seriously reduce your energy consumption.

In the average home, these 5 appliances account for 50% of your total annual electricity consumption:
Electric Shower, Tumble Dryer, Dishwasher, Fridge and Washing Machine

Take a look at the energy consumption of some common household appliances to identify which ones may be contributing to a significant increase in your household electricity bill.

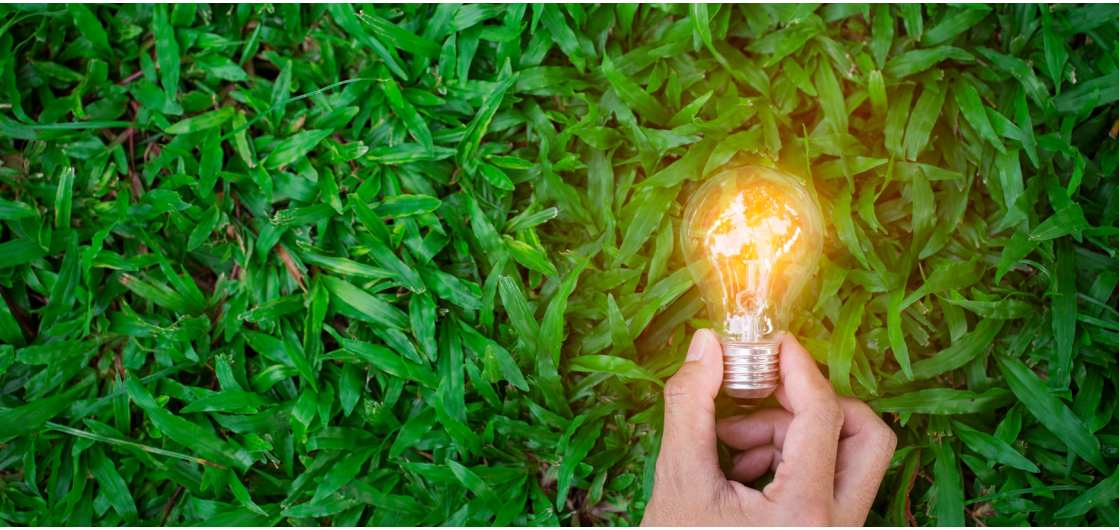
Appliance	Average Energy Used per hour (kWh)	Cost € per hour at 41c per unit
Electric shower	10	4.10
Hot water immersion	3	1.23
Kettle	3	1.23
Dryer	2.5	1.03
Oven	2.5	1.03
Washing machine	2.5	1.03
Electric plug-in radiator	2.0	0.82
Electric blow heater	2.0	0.82
Fridge/ Freezer	0.05	0.02

Of course, not all appliances in a typical home are listed above. To quickly assess if an appliance could be an energy guzzler, ask yourself if it heats or cools as these appliances are generally the most energy hungry. For example, your wifi router is a low energy user but your hairdryer will use the same energy as an electric blow heater. Using these heating and cooling appliances for a short period of time and at a lower setting will bring about significant energy savings.

Tell me more - What is energy efficiency?

Energy efficiency means using less energy to accomplish the same task or achieve the same result. It's like getting more value from the energy you use by reducing waste. When something is energy-efficient, it helps save energy, lower energy bills, and reduce environmental impacts like pollution and greenhouse gas emissions.

No or Low Cost Tips



Washing and Drying

1. Choose the Eco mode on your washing machine and make sure to run it with a full load to save energy !

2. Lower the temperature for most laundry to 30°C; it not only saves energy but also extends the lifespan of your clothing !

3. Opt for air drying your clothes, either outside or indoors with proper ventilation, to avoid the energy-hungry tumble dryers !

4. If you do use a dryer, clean the lint filter regularly to help it work more efficiently.

5. When using your washing machine, select a fast spin cycle to reduce moisture, which will cut down on drying time.

6. When ironing, start with lower-temperature fabrics and work your way up.

Tell me more - Finding the correct temperature for your laundry?

Do you default to 60°C? While a hot wash is recommended for heavily soiled clothing and towels, most laundry can be effectively cleaned at 30°C. Trying a lower temperature will not only save energy but also enhance the longevity of your clothing.

7. Boil only the amount of water you need in the kettle, making sure to fully cover the element !

8. Consider filling a flask rather than boiling the kettle several times over the course of the day.

9. Descale your kettle frequently as limescale build-up can reduce its efficiency.

10. Run your dishwasher in Eco mode with a full load. Around 50°C is the optimal temperature as lower temperatures may not clean the dishes as well. While it may be counterintuitive, longer, lower-temperature eco cycles are more energy-efficient and wallet-friendly !

Tell me more - Do long cycles use more energy?

Have you noticed that eco cycles usually take longer, and wondered how they could be saving your energy. Heating water accounts for the majority of the machine's energy use. Turning a drum or powering water jets only use a small portion of the electricity consumed during the cycle. So while it might sound counterintuitive, those long, lower temperature eco cycles are more energy efficient (with both electricity and water use) and better for your wallet.

11. Avoid leaving the fridge open for too long. It will take 45 minutes for the temperature of the fridge to return to the set temperature after it is left open for 10-20 seconds.

12. Regularly check for gaps in fridge and freezer door seals and seal them to reduce energy loss.

13. Adjust your fridge/freezer temperature. The optimal range for your fridge is 4 degrees and your freezer is -18 degrees.

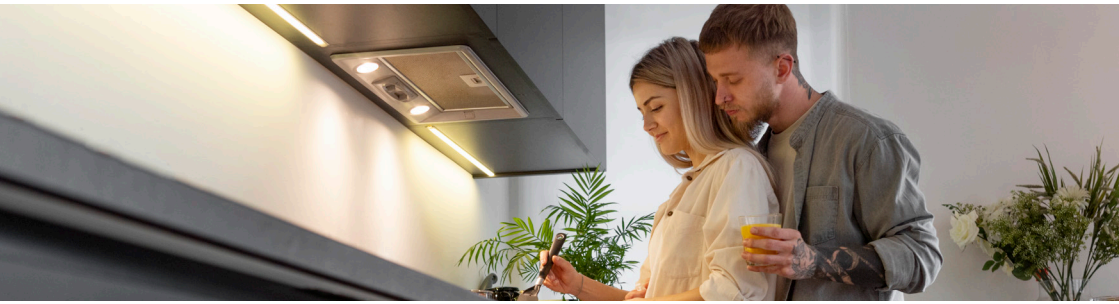
14. Cleaning the coils at the back of your fridge will help it to run more efficiently, and always leave a 10 cm gap between the coils and the wall.

15. Position your fridge and freezer out of direct sunlight and away from heat generating appliances.

16. Keep your freezer well stocked; your peas are a thermal mass which helps to keep the freezer cold.

17. Make it a habit to defrost your freezer regularly for optimal efficiency. Manufacturers recommend defrosting your freezer at least once a year.

18. Defrosting frozen items in the fridge will help to keep your fridge cool and lower the energy consumed.



Cooking

19. Use steamer baskets for efficient multitasking.

20. Match the size of your pot to the hob ring size to minimise heat loss.

21. Refrain from opening the oven door while cooking to retain heat **!**

22. In colder months, make use of residual oven heat by leaving the oven door open after cooking.

23. Consider cooking in batches and using a microwave for reheating to save energy.

24. Allow hot food to cool down before refrigerating it to avoid warming the fridge.

25. Defrosting food fully before cooking will reduce the cooking time.

26. Preheating the oven normally isn't necessary, unless you are baking a soufflé, and can be a waste of energy.

27. Opt for oven-safe glass and ceramic dishes when cooking in the oven as they are better at retaining heat while cooking.

28. Batch cooking is energy-efficient because it allows you to prepare multiple meals at once, minimising the use of your oven or hob.

29. Turn off the oven a few minutes before finishing cooking.

30. Speed up cooking by using lids on pots.

31. Pre-boil water in the kettle before using it for stovetop cooking.

32. Keep the hob surface clean to ensure optimal efficiency.

33. Use a toaster instead of the grill for toasting bread.

34. Reheat food efficiently with a microwave.

35. Whenever possible, opt for low-energy appliances like air fryers, microwaves, slow cookers, and pressure cookers.

Devices

36. Make sure to fully switch off or unplug electronics when they are not in use.

37. Plugging appliances into a power strip will enable you to switch them off all at once.

38. Enable 'power saving mode' on computers and other electronic devices.

39. Charge your phone in the evening to avoid overnight charging.

Tell me more - What's an Energy Vampire?

Energy Vampire are those electronics and appliances that are using electricity after they are powered down but not unplugged i.e. left on standby mode. These normally include chargers, microwaves, gaming consoles, computers, Saorview boxes, tvs and coffee machines, and they can account for up to 10% of your home's energy use.

Lighting

40. Always turn off lights when you leave a room.

41. Replace old incandescent bulbs with energy-efficient LEDs. Start with the living room or kitchen where you use most energy throughout the day.

42. Install dimmer switches to only use as much light as you need.

43. Consider installing motion sensors for outdoor lighting.

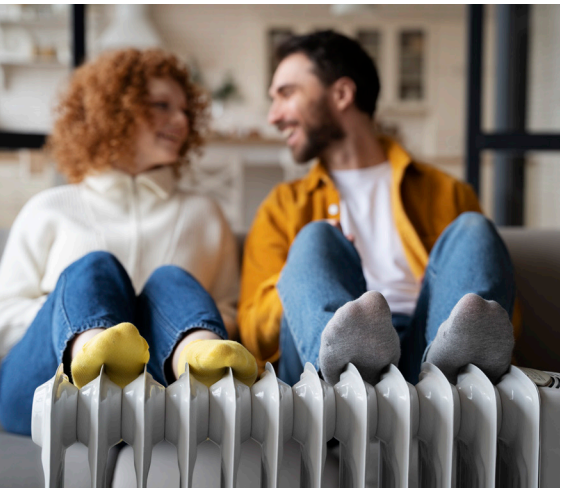
44. Consider using nightlights for the bathroom, hall and any children's bedrooms, as they consume less electricity than leaving a light on.

45. Choose bright colours when painting walls as they reflect 80% of light while dark colours reflect less than 10%.

46. Dust-free light shade and bulbs will increase the brightness of a space.

47. Clean windows will allow you to take maximum advantage of the daylight.

Home Heating



Draughts

48. Use temporary draught strips around doors and windows to block out draughts

49. Install a draft excluder on external doors.

50. Cover letter boxes and keyholes to reduce draughts.

51. Seal gaps around skirtings, floorboards, and window frames.

52. Magnetic secondary glazing can be easily applied to single glazed windows for a cost effective temporary solution.

53. A chimney balloon or “Chimney Sheep” can be inserted into a fireplace chimney while it's not in use to prevent heat escaping **!**

Space Heating

54. For most people, a temperature of 19°C in main living spaces and 16°C in halls and bedrooms is ideal **!**. This should be adjusted upward for the sick, elderly or very young.

55. Dress warmly before turning on the heating **!**

56. Use a timer for better control of the heating system, ensuring that the heating only comes on when the house is occupied.

57. Use minimal heating in unused rooms.

58. Keep doors between rooms closed to retain heat.

59. Open curtains during the day to capture sunlight and natural warmth.

60. In hot weather, close blinds on south-facing windows to prevent overheating indoors.

61. Regularly bleed radiators to maintain efficiency.

62. Avoid blocking radiators with furniture or curtains.

63. Avoid drying clothes on radiators.

64. Install radiator foil behind radiators on external walls.

65. Insulate cold floors with carpets or rugs.

66. Choose thermal or lined curtains for your windows, especially in Winter.

Hot Water

67. Limit your time in the shower. An egg timer can help you determine the length of your showers **!**

68. Lag hot water pipes to maintain heat and prevent energy waste.

69. Use an insulation jacket on hot water cylinders.

70. Set water temperature to around 65°C.

71. Prioritise (short) showers over baths for energy efficiency.

72. Promptly fix dripping hot taps.

73. Avoid power showers and reduce shower flow rate. Consider adding an aerator insert to your existing shower head to save both water and energy without compromising water pressure.

Tell me more **- How do I determine the flow rate of my shower?**

A. Place a container, like a bucket or large jug, under your showerhead.
B. Turn on the shower to your usual water pressure and temperature settings.
C. Let the water flow into the container for 20 seconds.
D. Measure the amount of water you collected in the container in litres and multiply by 3. This measurement represents your shower's flow rate in litres per minute (LPM).

Now you know how much water your shower uses in one minute, which can help you assess its efficiency and make informed decisions about water conservation and energy use. Ideally, the flow rate should be 9 litres per minute or less.

Ventilation

74. Ensure sufficient ventilation, especially in humid areas.

75. Only use the bathroom extractor fans until the humidity is removed to prevent drawing out more heat than necessary.

76. Avoid drying clothes in cold rooms and condensation is more likely to occur in lower temperatures.

77. Use dehumidifiers for damp or condensation, but be mindful of their energy rating.

Energy Consumption

78. Make it a habit to read and submit regular utility meter readings for more oversight and fewer surprises.

79. Compare tariffs from different utility providers to potentially find savings.

80. Set specific energy reduction targets to help you focus on implementing energy-saving measures.

81. Consider obtaining a Building Energy Rating (BER) for your home to identify areas for improvement.

Tell me more **- Are Smart Meters a good idea?**

Smart meters will make energy bills accurate and remove the need to submit meter readings. They also enable homeowners with solar PV to sell their energy back to the grid. Smart meter tariffs will incentivise householders to use electricity when renewable energy is most readily available to the grid, therefore reducing our reliance on fossil fuels. However, householders will not be moved onto a smart meter tariff unless they opt to do so.

Investing in your comfort

Home heating accounts for about 60% of a household's energy consumption, so improving the fabric of a home can have a significant impact on energy conservation and enable a transition away from a dependence on fossil fuels. In a typical home, most of the heat is lost through walls and the roof so that's often the initial focus of home energy upgrades. Many homeowners choose to tackle several aspects of an energy upgrade at once, including wall insulation, attic insulation, airtightness, ventilation and heating system upgrades at once. This comprehensive approach is also known as a deep retrofit.

Every house is different so carrying out an energy assessment will provide valuable insights into how your home uses energy, enabling you to identify the most effective upgrades for enhancing comfort and maximising the returns on your investment.

Here are some of the most worthwhile energy upgrades to invest in:

Insulation

82. Boosting attic insulation is one of the most cost-effective energy upgrades as up to 25% of heat loss through the roof.

83. Enhancing wall insulation through options such as cavity wall insulation, dry-lining, or external insulation will greatly improve the comfort of your home.

Heating

84. Ensure your boiler is serviced annually for optimal efficiency.

85. Install Thermostatic Radiator Valves (TRVs) to have precise heating control in each room.

86. Consider fitting central heating zone valves (also known as zoning) to customise temperatures in different areas of your home.

Electricity

87. Explore the possibility of installing solar PV panels to generate clean and free electricity from sunlight.

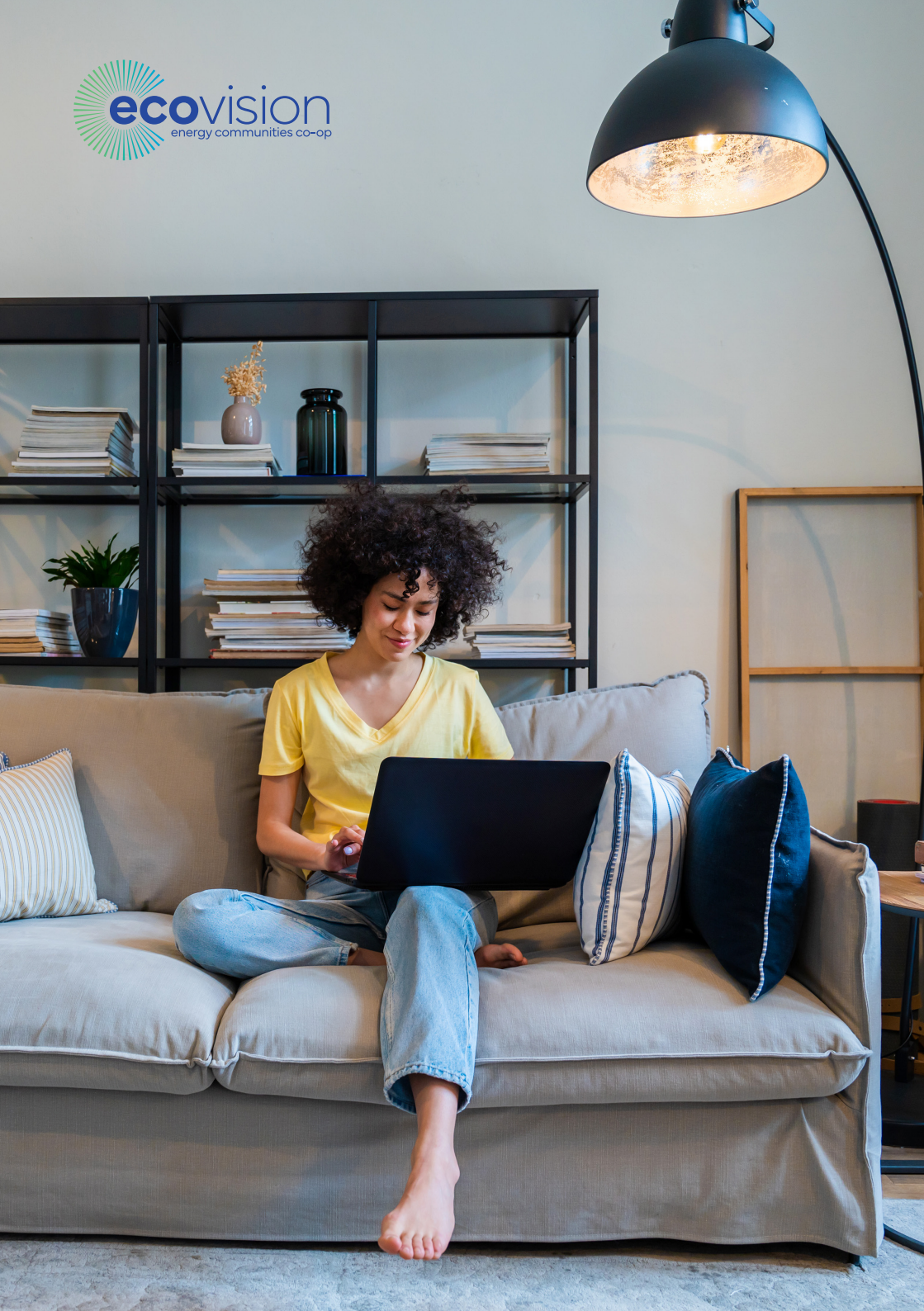
88. When replacing or upgrading appliances, opt for A+ rated ones for optimal energy efficiency and a better return on investment over the lifetime of the appliance.

Hot water

89. Install aerated taps and showerheads to save both water and energy without compromising water pressure.

Windows

90. Consider getting your windows professionally resealed, or if they are in poor condition, consider getting them replaced with energy efficient double-glazed or triple-glazed windows.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Energy Upgrades for your Home

With these energy-saving tips, you can reduce your environmental footprint, save on energy costs, and enjoy a more sustainable and comfortable lifestyle.

If you're considering carrying out energy upgrades to your home, get in touch with EcoVision. As a community-led, home insulation upgrade and retrofitting organisation, we offer a One Stop Shop home energy upgrade service, project managing all of the works and grant applications on your behalf.

This guide was created by EcoVision under the Community Climate Action Program. The Community Climate Action Programme: Climate Education, Capacity Building and Learning by Doing (Strand 2) is funded by the Government of Ireland through the Department of Environment Climate and Communications.

EcoVision is a social enterprise whose main objective is the long-term social transformation of member communities in Tipperary, Limerick and Clare, by carrying out energy conservation and generation projects, and creating local investment and employment, while achieving regional energy self-sufficiency. EcoVision is the trading name of Energy Communities Tipperary Cooperative.

Sources:

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