



An introduction to
Energy saving at home



About Sustainable Energy Ireland

Sustainable Energy Ireland (SEI) is Ireland's national energy authority with a mission to promote and assist the development of sustainable energy. Its activities cover two main areas:

→ Energy Use

SEI can help to reduce the amount of energy we use in Ireland by assisting our homes, businesses and industries to be more energy efficient.

→ Renewable Energy

By promoting the development and wider use of renewable energy in Ireland, SEI can help to further reduce the threat of climate change and further benefit the environment.

You'll find up to date information about our activities, as well as advice and tips, on our website at www.sei.ie

Contact us, engage with us, ask for advice, put forward your ideas. We're here to listen and to help. By working together, we'll create a greener, cleaner, sustainable energy future for Ireland.



What is the Power of One?

If each of us becomes aware of our own power when it comes to energy efficiency, and use it properly, we can collectively make a big difference, to ourselves, to our pockets, and to the environment. By taking individual responsibility and changing our behaviour in small ways every day, we'll help save energy while we save money too.

All we have to do is recognise our power, and use it.

That's what the Power of One is all about.

For more information check out www.sei.ie/powerofone

What is the Power of One street?

Power of One street was created as a real-life energy makeover challenge which took place in 13 ordinary Irish households, a school and a business, in 2007 and 2008. The challenge was designed to demonstrate to householders across Ireland how simple and beneficial it is to adopt energy-saving habits in the home, as part of their everyday routine. And like most makeovers, the before and after difference in terms of energy, CO₂ emissions, and money saved was staggering. See their results on page 4.

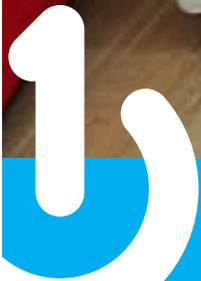
For more information log on to www.sei.ie/powerofone



Meet some of the Power of One street families



Eight of the Power of One street families learned that it's not so hard to make a few smart changes each day and save money. The results show that the families have reduced their annual energy bills by an average of €700 or 20%.



Power of One street results

| | Annual saving | Total CO ₂ reduction | Total energy reduction |
|------------------------|---------------|---------------------------------|------------------------|
| Brennan family | €793 | 3.2 tonnes | 21% |
| Watterson family | €282 | 1.3 tonnes | 19% |
| Horler family | €832 | 3.6 tonnes | 18% |
| Conway family | €394 | 1.9 tonnes | 25% |
| Joyce family | €389 | 1.9 tonnes | 21% |
| Ratoath GAA Club | €295 | 2.7 tonnes | 13% |
| Cork School | €1750 | 8.1 tonnes | 18% |
| Heffernan family | €763 | 3.7 tonnes | 19% |
| Carroll/Cassidy family | €352 | 1.8 tonnes | 20% |
| Davies family | €424 | 1.9 tonnes | 20% |
| Gleeson family | €543 | 3.9 tonnes | 22% |
| Crowley family | €493 | 2.7 tonnes | 16% |
| Heery family | €328 | 1.8 tonnes | 14% |
| Meehan family | €920 | 3.2 tonnes | 27% |
| McCabe family | €519 | 3.3 tonnes | 15% |



The Power of One street participants made a combined annual saving of over €9,000 on their energy bills and the total CO₂ reduction achieved was 45 tonnes.

Getting started on saving energy in the home

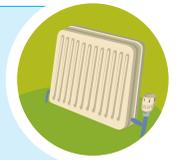
We use energy to heat and light our homes and to run our appliances, TVs and computers. In fact, the residential sector is one of Ireland's largest energy consumers, accounting for almost a quarter of our energy use - more than either transport or industry. And virtually all of that energy comes from non renewable fossil fuels with consequent emissions of CO₂, a greenhouse gas that causes climate change.

Being more sustainable offers sound financial and practical benefits. By becoming energy aware at home, you can save money, increase the comfort of your home and help to reduce climate change.

Here are some common sense, practical ways you can reduce the amount of energy used in your home:

*Heating

- Turn your heating down to a comfortable 20°C. By lowering your thermostat by 1°C you can cut your heating bill by 10%.
- Use TRVs (thermostatic radiator valves) to keep your rooms at a constant, comfortable temperature.
- Service your boiler regularly to maximise its efficiency, reliability and safety. You could improve the overall efficiency by 10%.



*Insulation

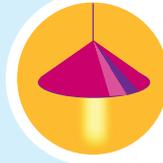
- Insulate the attic and walls to make your home more comfortable and reduce heating costs. Between them they could reduce heat loss by 30-40%. Effective attic insulation can pay for itself in two to three years.
- Draught proof windows and external doors to reduce heat loss, making sure to leave sufficient ventilation for the home occupants and any fuel burning appliances or fires.



*SEI offers a range of grants for homeowners. Check out www.sei.ie/grants for more information.

Lighting

- Use energy efficient light bulbs, Compact Fluorescent Lamps (CFLs), instead of traditional bulbs. CFLs consume only a fifth of the energy and last up to 10 times as long.
- Turn off lights when leaving a room.



Appliances

- Look for the energy label (rated A to G, with A being the most efficient) when buying a new kitchen appliance and choose the most efficient one you can. It will save you money on energy bills and be less harmful to the environment.
- Unplug or turn off electrical equipment that's not in use – appliances on standby use up to 20% of the energy they would use if turned on.



For a full explanation of how you can improve the overall energy efficiency of your home, read our guide *Householders, be your own energy manager*.



Getting around

The number of cars on Irish roads has increased by over 50% in the past ten years, private cars now represent 60% of all road transport energy use. As a result, transport emissions represent a large proportion of overall polluting emissions (78% of carbon monoxide emissions and 22% of carbon dioxide emissions). So when out and about, some of the ways you can make changes for the better include walking, cycling and taking public transport.

We can all play our part in helping to reduce the impact of cars on the environment.

Think about when you drive

- Avoid using your car for short or unnecessary journeys. Try walking or cycling instead. It's great for your health.
- Take public transport when it's available. It's cost effective, convenient and you'll be helping the environment.

Think about what you drive

- Check the Environmental Labelling of Cars. Under EU and Irish law, the motor industry must clearly display the fuel economy and CO₂ emissions of new passenger cars. Labels indicate the energy performance of cars on an A to G range, with A being best. New cars registered are now subject to VRT and annual road tax based on their CO₂ emissions, so the more efficient the car, the lower the VRT and tax.
- To find out how your car rates check out the 'How Clean is Your Car' section of the SEI website (www.sei.ie) which lists the fuel consumption, CO₂, and other performance figures of cars from the year 2000 on.



Contact Revenue Commissioners for VRT and motor tax rates (www.revenue.ie)

Think about how you drive

A more energy conscious driving style could save you significant amounts on petrol or diesel and is also safer and more relaxing.

- When starting your car, turn the engine on and drive off gently, without delay. This will reduce excessive fuel consumption and pollution.
- Reduce unnecessary drag. Removing unused bike racks or roof boxes will save 15-40% fuel consumption.
- Keep cool by using the car's vents, rather than leaving the windows or sun roof open, this will save a further 3-5%.
- Save fuel in town. Avoid over-revving the engine and drive in as high a gear as is suitable to road conditions.
- Maintain your car regularly. A properly serviced car, with good engine lubrication, wheel alignment and well adjusted brakes, will reduce your fuel consumption. It will also be safer and more reliable.

A range of publications on the following topics can be downloaded at www.sei.ie/publications

- Sustainable energy
- Energy management in the home
- Electricity
- Heating
- Insulation
- Renovating or building an energy efficient home

change.ie

The change campaign is a vital part of Ireland's plan of action on climate change. The campaign's overriding goal is to engage the nation on the issue and to drive the significant behavioural changes that will be required to lower greenhouse gas emissions. At the core of the campaign is the change.ie website and carbon calculator which helps people identify real savings you can make because when you cut carbon, you cut costs.

For more information visit www.change.ie



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