



# Case Study

## Improve your home's Building Energy Rating (BER) with natural gas

The BER of your home indicates how energy efficient it is. Buildings are rated on a scale of A-G, with "A" being the most energy efficient.

The majority of homes in Ireland fall within a "C" category. The better the BER, the lower your energy bills, the less carbon (CO<sub>2</sub>) emitted and the greater the value of your home.

### Switching results

No need to schedule deliveries

Reduced fuel usage (higher efficiency)

Lower carbon emissions



## Why switch your home heating from oil to natural gas?

Natural gas is a cleaner, affordable and reliable alternative to oil, trusted by more than 680,000 homes across Ireland.

While many Irish homes have already made the switch from oil to natural gas, there are over 200,000 homes in Ireland within 15 metres of the national gas network that are not connected to natural gas.

Switching from oil to natural gas will allow you to save on your energy bills, enjoy more convenient and flexible heating, and make your home more environmentally friendly at the same time.

Including one or two other minor changes can bring your home from a BER of C3 to B2.

Installing a new, 90% efficient gas boiler and time and temperature controls are great ways to use less energy, support the environment and further save on running costs.

Improving the BER of your home will also add value to your home should you come to sell.

Visit [gasnetworks.ie](https://gasnetworks.ie) or call **1800 50 40 60** to see if you can connect to the gas network.

### Benefits of natural gas

**Affordable** - Save on your energy bills.

**Cleaner** - Produces 20% less CO<sub>2</sub> emissions than oil.\*

**Versatile** - Cooks your food, heats your home and water, and powers your gas appliances.

**Convenient** - No need for orders, deliveries, storage or bulky fuel tanks.

**Renewable ready** - Renewable gas began flowing on the network in 2019. As renewable gas replaces natural gas, homes connected to the network will be powered by an even cleaner energy.

### Other energy efficiency tips

**Lightbulbs** - Using 100% LED, low energy lightbulbs is a quick, simple and affordable way to reduce your electricity use and energy bills.

**Attic insulation** - Adding extra insulation to your attic is one of the most cost-effective ways to reduce heat loss in your home and improve your property's BER.

**Renewable electricity** - Installing solar photovoltaic (PV) panels on your roof is a sustainable way to generate your own electricity.

\* 2020 SEAI Report "Energy in Ireland".



# Improve your home's Building Energy Rating (BER)

in 3 simple steps

**Step 1** Change to a new natural gas boiler and modern controls

**Step 2** Fit 300mm loft insulation and 100% LED lights

**Step 3** Install four solar PV panels (300Wp)

## Emissions and energy savings

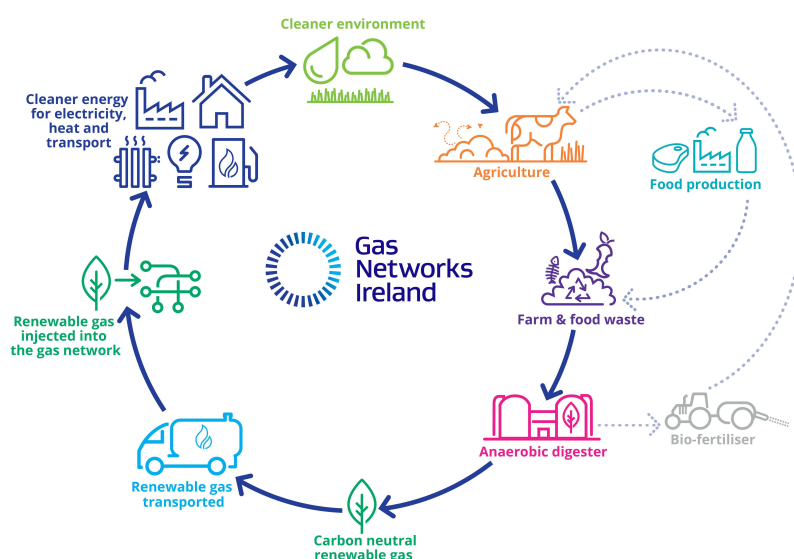
	Current BER status	Switch from oil to gas	Fit loft insulation and 100% LED lights	Install four solar PV panels
	C3 BER	C1 BER	B3 BER	B2 BER
<b>BER rating</b>	<b>C3</b>	<b>C1</b>	<b>B3</b>	<b>B2</b>
<b>Ventilation</b>	Natural	Natural	Natural	Natural
<b>Water tank (litres)</b>	110	110	110	110
<b>Heating system</b>	79% - oil boiler	91.2% - gas boiler	91.2% - gas boiler	91.2% - gas boiler
<b>CO<sub>2</sub> emissions (Overall house)</b>	47.74 kgCO <sub>2</sub> /m <sup>2</sup> /yr	29.61 kgCO <sub>2</sub> /m <sup>2</sup> /yr	26.64 kgCO <sub>2</sub> /m <sup>2</sup> /yr	22.82 kgCO <sub>2</sub> /m <sup>2</sup> /yr
<b>Energy use per m<sup>2</sup></b>	202.16 kWh/m <sup>2</sup> /yr	158.47 kWh/m <sup>2</sup> /yr	142.98 kWh/m <sup>2</sup> /yr	123.56 kWh/m <sup>2</sup> /yr

Building element calculations - Built: 1983-1993, Size: 105m<sup>2</sup>, Aspect: (South East/North West), Roof (W/m<sup>2</sup>K): 0.40, Walls (W/m<sup>2</sup>K): 0.60, Floors (W/m<sup>2</sup>K): 0.57, Windows (W/m<sup>2</sup>K): 2.80, Thermal bridging (W/m<sup>2</sup>K): 0.15, Ventilation: natural with one open chimney. CO<sub>2</sub> intensity - Oil: 272g CO<sub>2</sub>/kWh, Gas: 203g CO<sub>2</sub>/kWh, Source: DEAP 4.2.2

## A cleaner energy future with renewable gas

Ireland's gas network is a vital national asset that generates 30% of primary energy, 40% of our heating and 50% of our electricity. Today, more than 680,000 Irish homes rely on the gas network to provide safe, reliable, flexible and affordable energy to meet their heating, cooking and power needs. By gradually replacing natural gas with renewable, carbon neutral and ultimately zero carbon gases, such as biomethane and hydrogen, these same homes and more will be powered by increasingly cleaner energy.

Biomethane, which began flowing on the network in 2019, is the first step to a cleaner energy future. Produced from agricultural and food waste, this renewable gas is structurally identical to natural gas and can be used in exactly the same way through the existing infrastructure, boilers and appliances, meaning homeowners will transition to this sustainable energy source and play their part in progressing Ireland towards a cleaner energy future, without changing a thing.



## To get connected visit [gasnetworks.ie](https://gasnetworks.ie) or call 1800 50 40 60

*This information is only a guideline to the different products available for use with natural gas in development construction. Users should ensure that products are suitable for the specific circumstances in which they seek to apply them. Contact the supplier or manufacturer directly for specific information on building requirements and materials needed for installation. Professional advice specific to the project should always be sought. The current Irish Gas Standards and Technical Guidance Documents (Building Regulations) override all contents. Users should ensure they always have the most up to date information.*