

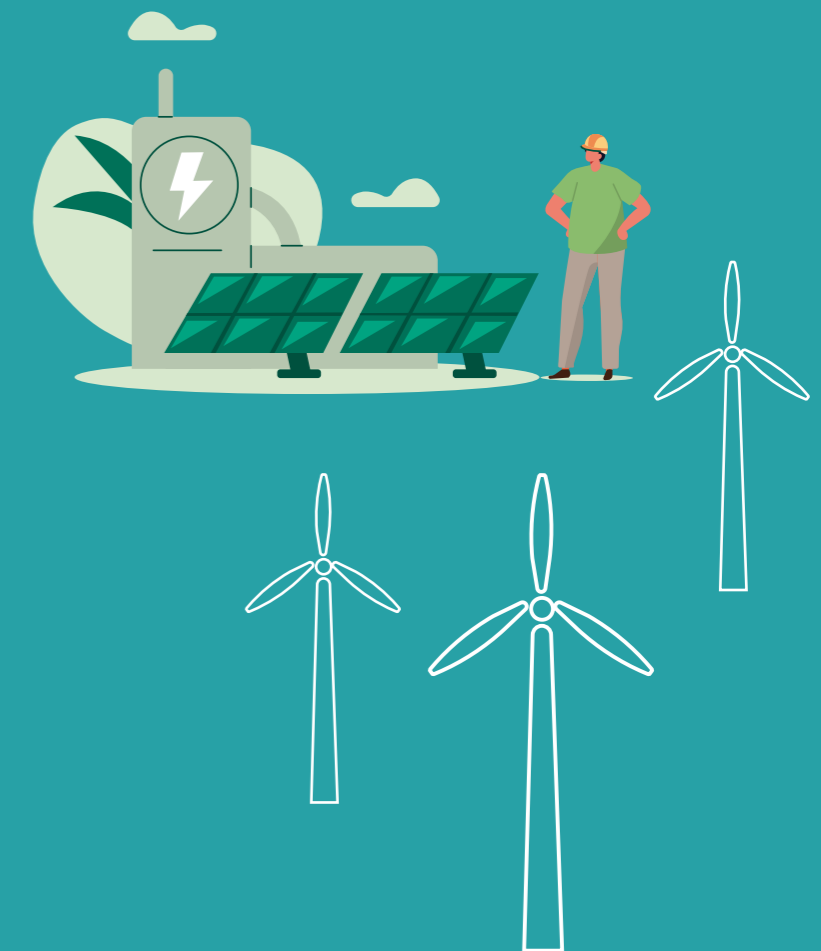
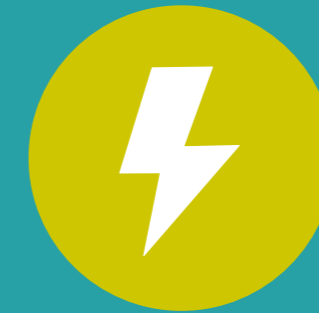


## SOE 9: Clean Energy

**Ireland needs to move rapidly away from the extensive use of fossil fuels to the use of clean energy systems.**

### *ACTIONS – WHAT IS NEEDED?*

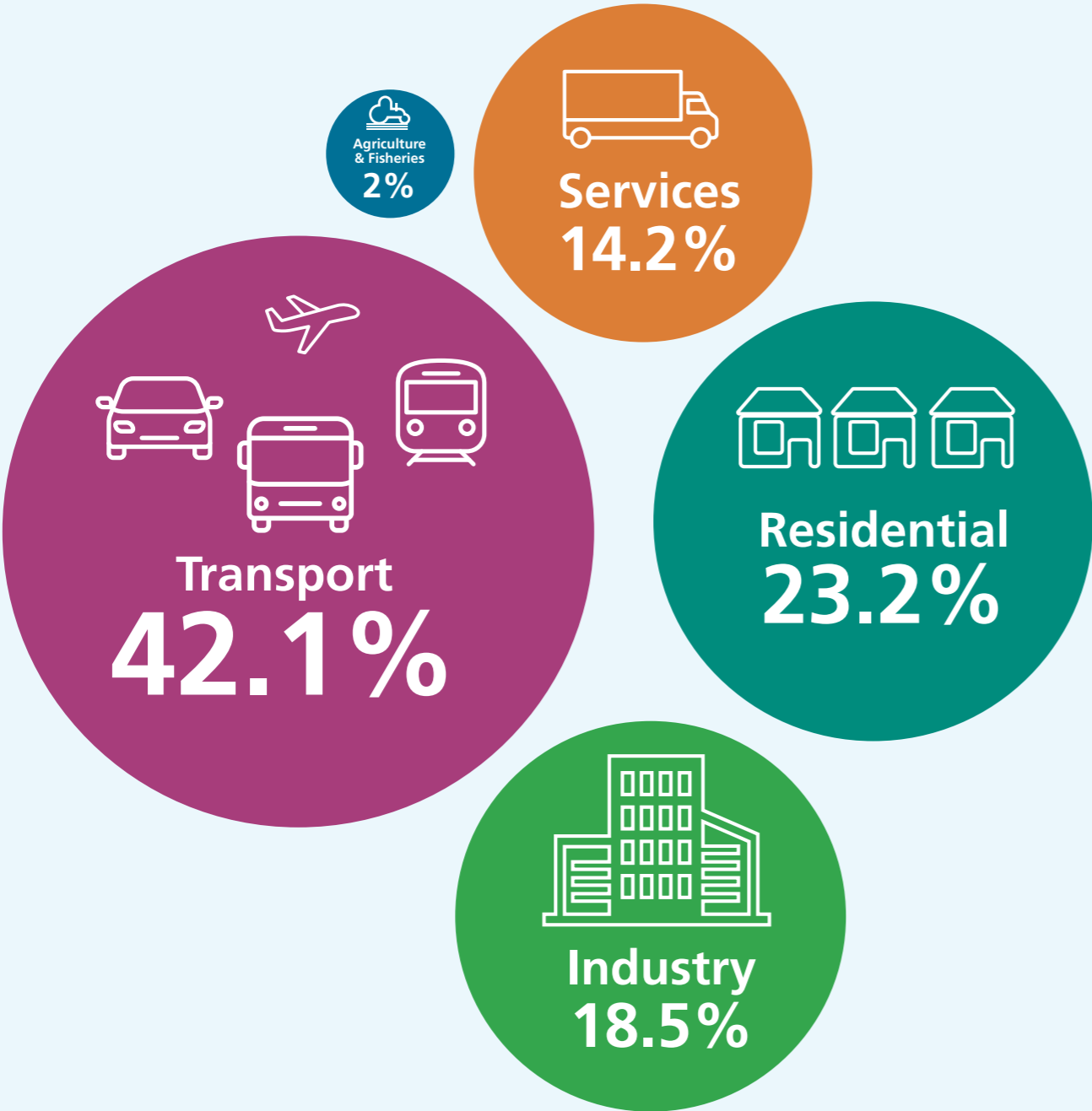
The emissions from the combustion of mainly imported fossil fuels are damaging for our health and our environment and drive climate change. The transition from reliance on fossil energy to a clean energy future for heating, electricity and transport is essential for the protection of human health, the climate and the environment and has multiple benefits for sustainable development and energy security.



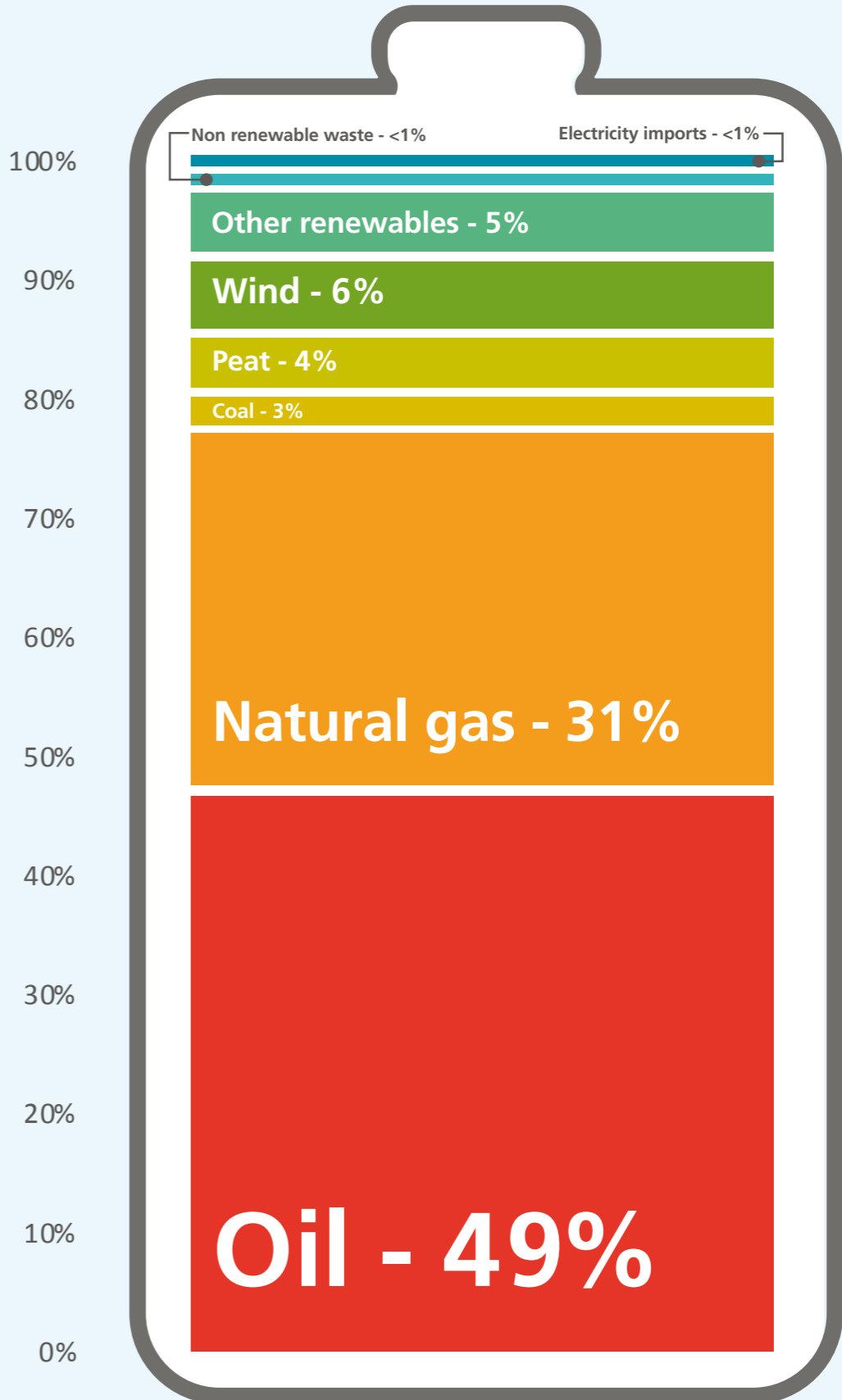
# Energy Use in Ireland

Almost 90% of energy used in Ireland is provided by the combustion of fossil fuels. This is not sustainable. The resultant emissions are damaging for our health, climate and our environment. To transform this situation we need to fast-track climate action measures on energy efficiency in homes and building as well as switching to renewable and sustainable energy sources. Strategic planning is required to transform this situation by 2050, including accelerated actions to 2030.

## How we use energy in Ireland



SEAI 2020 <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-in-ireland/>



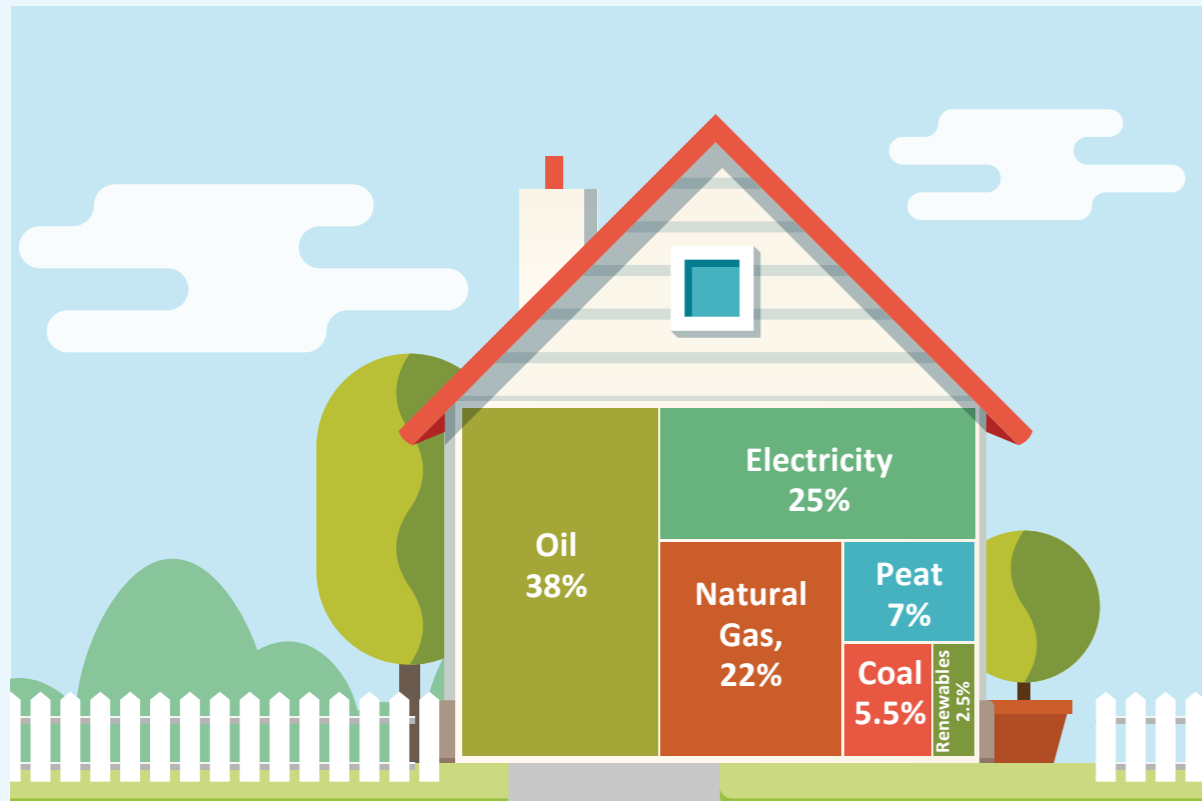
Ireland's primary energy supply sources in 2019

## Transforming Energy Use in Ireland

Transitioning to a clean energy future is essential for the protection of human health, climate and the environment. Clean energy has benefits for sustainable development. Investment in this switch, to implement the solutions available now to enhance efficiency and utilise our renewable energy potential, is urgently needed.

Increased use of wind energy and the switch to gas from coal for electricity generation means that the carbon intensity in Ireland has decreased. The pace of transformation must increase to reach zero fossil fuel emissions and climate neutrality.

Ireland has excellent renewable energy resources and investing in the exploitation of these resources will have benefits for the environment, human health, sustainable development and energy security.



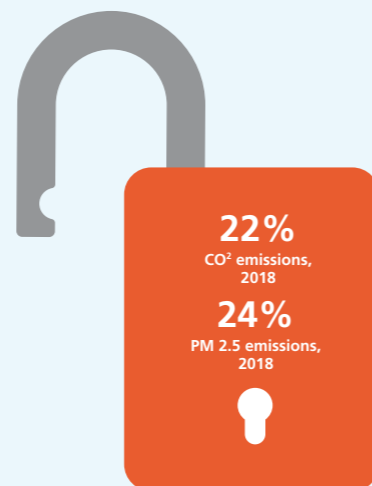
Residential Energy Use, 2018, SEAI

### Transforming Residential Energy

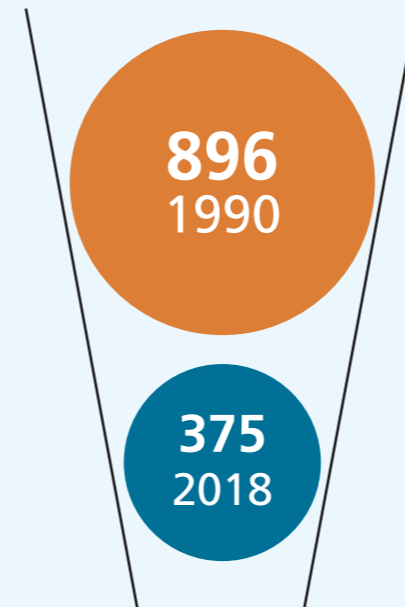
Energy use in our homes contributes to air pollution and climate change. 80% of Ireland's buildings have a BER rating of C or worse – much of the energy we used is wasted through poor energy efficiency in our buildings.

Near Zero Energy building standards will ensure new buildings are energy efficient.

Retrofitting our existing building stock to remove fossil fuel reliance and become more energy efficient is a significant challenge. Rising to this challenge will yield more comfortable, healthy and cost effective homes.



Sources  
<https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/residential/>



**Target: Zero**

CO<sub>2</sub> intensity of the electricity grid in grams of CO<sub>2</sub> for every kilo-Watt hour of electricity used (gCO<sub>2</sub>/kWh) in 1990 and 2018.

### Transport Energy Use, 2020

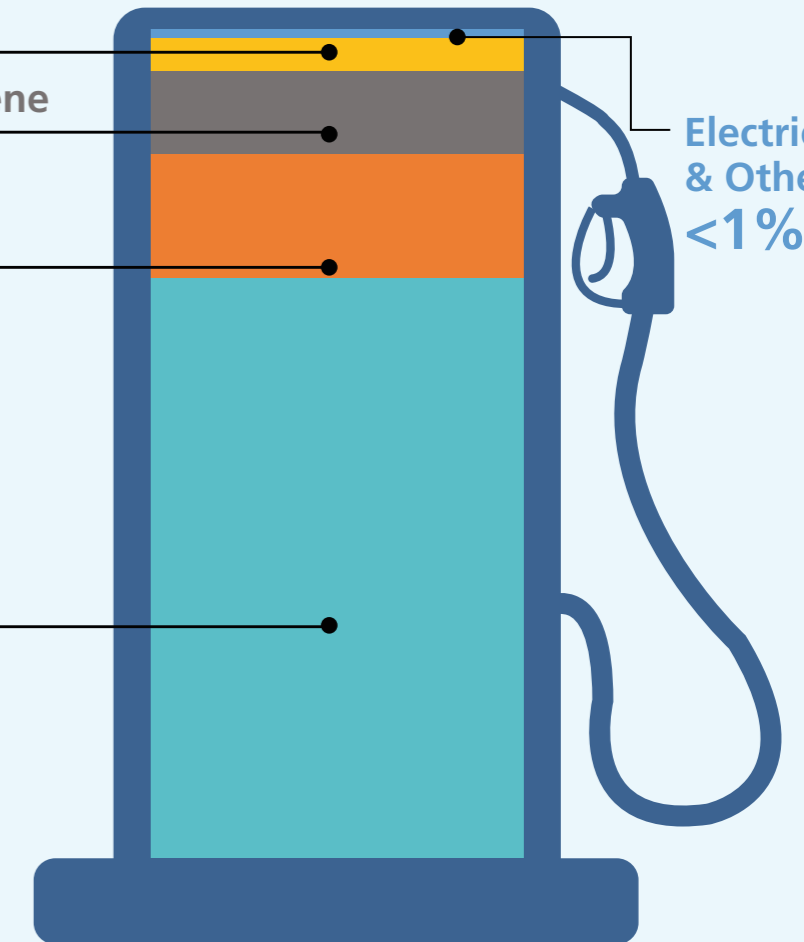
Liquid Biofuels  
4%

Jet Kerosene  
10%

Petrol  
15%

Diesel  
70%

Electricity & Other  
<1%



Transport Energy Use, 2020, SEAI

### Transforming Transport Energy

In 2018, road transport was the largest contributor to Ireland's energy related pollutant emissions such as particulate matter, nitrogen oxides and carbon dioxide.

The extent of the dependence of transport systems in Ireland on liquid fossil fuels is unsustainable.

Transport is a complex issue: economy and society depend on good transport systems but our transport system has impacts on our environment and society too.

Switching fuel types from fossil fuels to other sources – such as electric – is only part of the overall solution. A more strategic approach to embrace the Avoid – Shift – Improve model offers more opportunities for health and environmental benefits (see Chapter 11 of Ireland's Environment: An Integrated Assessment 2020).

