Policymaking for greater energy security

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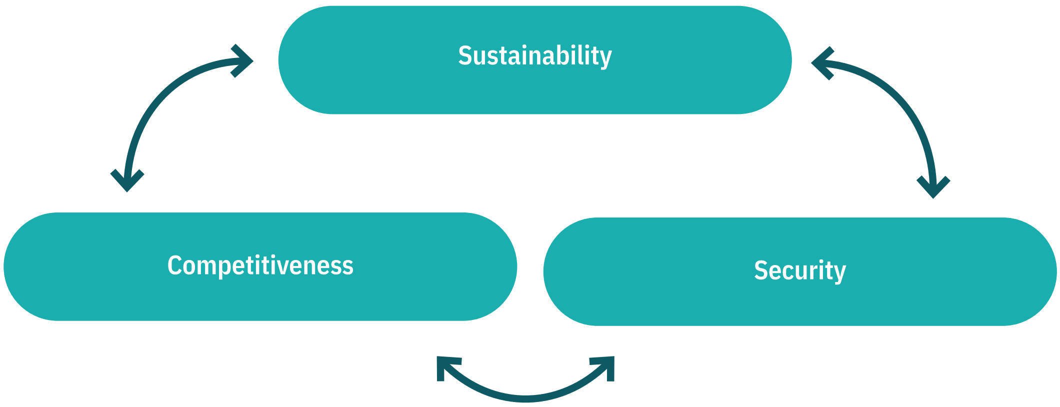
Policymakers face decisions as to which strategies can best enhance Ireland's energy security. Pursuing targeted policies especially within the transport and heat sectors could potentially reduce the vulnerability of Ireland's energy system.

Energy security is the uninterrupted availability of energy sources at an affordable price. It is a key pillar of energy policy, together with sustainability and competitiveness. In the short-term, it relates to the responsiveness of the energy system to sudden changes in supply and demand. In the long-term, energy security involves appropriate investment in energy supply.

Figure 1

Three pillars of energy policy

Source: Sustainable Energy Authority of Ireland (2020)



Context in Ireland

Ireland's energy security policy objectives are to ensure that energy is affordable, sustainable, and secure. However, as a small, open economy, Ireland is dependent on international trade and influenced by global developments. Ireland's high dependency on imported fossil fuels also presents certain vulnerabilities. For example, the cost of energy imports can influence a country's competitiveness and growth potential.

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High dependency on imported fossil fuels

Energy import dependency shows the extent to which an economy relies on imports to meet its energy needs. It is a widely used indicator of energy security, with indigenous sources generally considered more secure than imported energy. Ireland does not typically perform well by this measure, importing 79.7% of energy in 2023 compared to an EU energy import dependency rate of 62.5% in 2022. This highlights Ireland's reliance on external energy sources and may prompt reflection on how increasing indigenous energy sources could contribute to energy security. In reflecting on the sources of energy in Ireland, a further factor for consideration is Ireland's high dependency on fossil fuels. This source provided 82.6% of the country's energy last year.

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Energy use and relationship with policymaking

Final energy describes the energy that is directly consumed by an end-user (that is, electricity in households etc.). Trends in final energy use are important from a policy perspective as individuals and businesses can directly control this consumption. Each individual decision whether choosing between a petrol, diesel or electric car or using gas, oil, or a heat-pump for heating is an important part of the national energy picture.

Despite the ongoing development of renewables, fossil fuels still dominate the breakdown of final energy by fuel (Figure 2). **Final energy use by sector highlights where our energy needs are strongest.** This can help policymakers identify sectors for more targeted policies (on energy efficiency or fuel diversification).

Transport had the greatest final energy use in 2023 (43.4%), as travel patterns rebounded post-COVID-19. It was followed by residential, industry and services (Figure 3). Notably from a policy perspective, transport is almost entirely dependent on fossil fuels (particularly oil products), with road private car being the largest sub-sector for energy use.

Figure 2

Share of final energy consumption by energy type (2023)

Source: Sustainable Energy Authority of Ireland (2024)

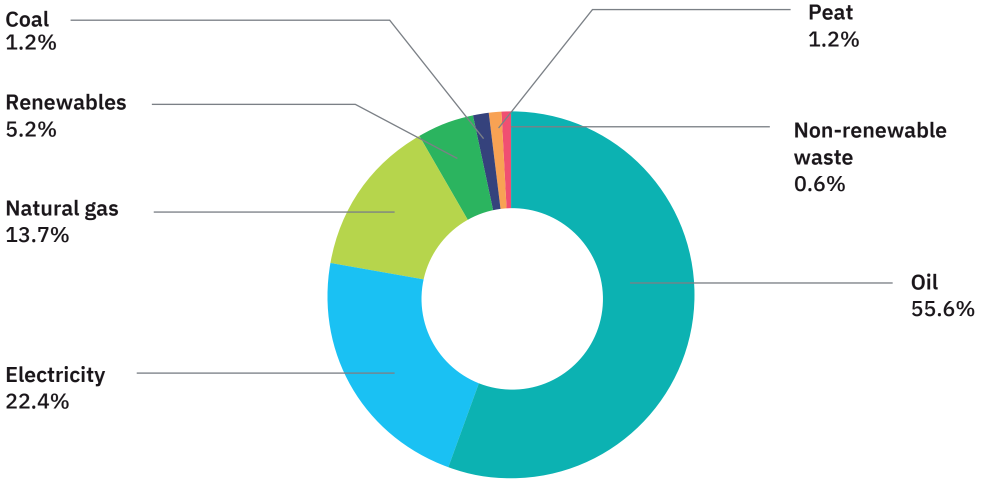
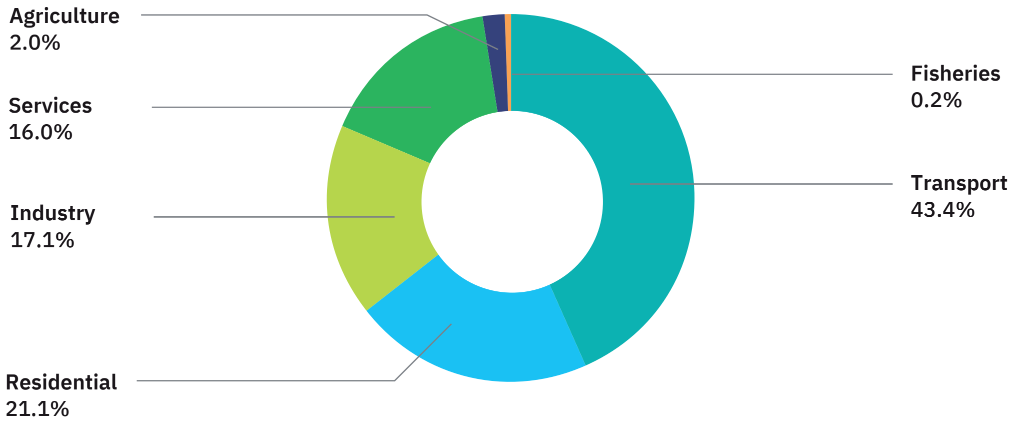


Figure 3

Share of final energy consumption by sector (2023)

Source: Sustainable Energy Authority of Ireland (2024)



Cost of energy

Much of Europe has experienced **higher energy prices in recent years**, due to the war in Ukraine and the subsequent energy crisis. Ireland has not been immune to this trend.

Average unit costs of heating oil rose by 66% and gas by 69% during 2022. Electricity costs also increased but the Government's domestic electricity credit schemes (in 2022 and 2023) had a stabilising effect. Increased energy costs for homes contributed to reduced residential heat demand in 2022.

On average, business energy prices reduced by 18% for electricity and 15% for gas in the second half of 2023 compared to the same period in 2022 (Table 1). The SEAI notes that energy prices, particularly for high consumption businesses, have been trending downwards and this has been accompanied by declining wholesale energy prices. Household prices would also be expected to fall, albeit with some time lag (due to hedging strategies of energy companies).

More reductions in electricity prices would further narrow the gap between fossil fuel prices and electricity. Importantly for policy, a smaller price differential can incentivise the uptake of key technologies such as heat pumps and electric vehicles (EVs) and hasten moves away from oil and gas.

Table 1 Electricity and gas prices (€) July to December 2023

Weighted average (of electricity and gas consumption bands for households and businesses)	Ireland	EU	Euro Area
Household electricity (all taxes included)	+18%	+3%	+7%
Household gas (all taxes included)	+6.6%	-1.6%	+6.0%
Business electricity (ex-VAT)	-18%	-9%	-9%
Business gas (ex-VAT)	-15%	-27%	-24%

Source: Sustainable Energy Authority of Ireland (2024)

Policy options for energy security

Shaped by key policy drivers at national and EU levels (including the 2023 Energy Security Package and recent Electricity Market Reform), **policymakers face a critical task in deciding which strategies can best enhance Ireland's energy security**. Expanding the deployment of renewable energy – potentially through port infrastructure development and streamlining planning processes – along with improving energy efficiency, would reinforce all aspects of energy policy.

As a small island economy, Ireland has unique challenges and opportunities. Focusing on two key sectors, **policy options to reduce the vulnerability of Ireland's energy system** could include:

Transport

- **Electric Vehicles (EVs):** New electric cars licensed in the first 10 months of 2024 fell by a quarter compared with the same period in 2023. Price is typically considered the main barrier to switching to an EV. Accordingly, some governments have increased funding, including to support EV infrastructure targeted at rural and island communities, such as in Scotland. Technology, including apps providing insights into driving behaviour and potential cost savings, could encourage switching.
- **Public transport:** Electrification of bus networks is progressing in Ireland, albeit with some delays in increasing charging infrastructure. Other cities are moving particularly fast. New city buses in Oslo will be zero-emission vehicles or use biogas by 2025.

- **Road freight:** Decarbonising trucks via electrification could be explored. Norway, Iceland and Sweden are well underway to electrifying their transport systems, with Norway setting an ambitious zero-emissions goal for trucks by 2030.

Heat

- **District heating:** Denmark is a world leader in district heating, with 60% of all houses and 90% in Copenhagen heated through district heating networks. Ireland's targets for district heating could build on projects such as the Tallaght District Heating Network. This supplies heat to buildings using excess heat from a nearby data centre.
- **Heat pumps:** Greater use of heat pumps both domestically and in commercial buildings could help Ireland. Nordic countries, particularly Norway, Finland and Sweden, are amongst the biggest users of this technology, with Norway equipping 60% of its buildings with heat pumps.