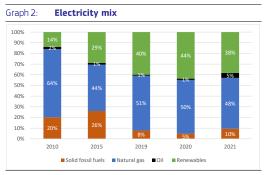


State of the Energy Union 2023 Ireland

Key energy figures

Source: Eurostat

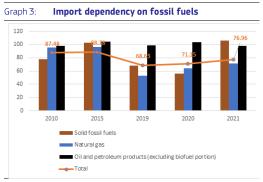


Source: Eurostat

- Fossil fuels still make up the most of Ireland's energy mix, despite the rapid expansion in the use of renewable electricity.
- In 2021, oil accounted for 48% of Ireland's energy consumption and natural gas 31%, while 12% came from renewable sources.
- 38% of Ireland's electricity already came from renewables, but progress in the decarbonisation of heating has been very limited.

Security, solidarity and trust

1. DIVERSIFICATION OF ENERGY SOURCES
AND REDUCTION OF IMPORT DEPENDENCY



- (1) In percentages
- (2) Combustible renewables and electricity are excluded
- (3) The total amount takes into consideration the energy $\mbox{\rm mix}$ of the country

Source: Eurostat

 Before Russia invaded Ukraine, Ireland already had no direct exposure to Russian gas and oil. However, it is highly dependent on imported fossil fuels in general. This makes its economy particularly sensitive to global price developments, requiring it to step up efforts on the energy transition.

2. FLEXIBILITY OF THE ENERGY SYSTEM

 Energy storage: Ireland does not have a gas storage facility.

Integrated internal energy market

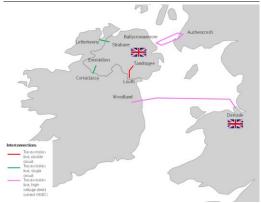
1. ELECTRICITY INTERCONNECTIVITY

2023	2030 target			
0.00%	At least 15%			

Source: DG ENER's own calculation based on ENTSO-E

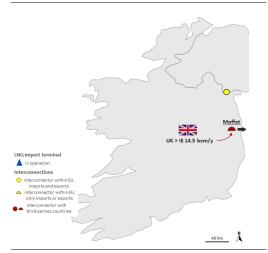
2. ENERGY TRANSMISSION INFRASTRUCTURE

Map 1: Cross-border electricity interconnections



Source: European Commission map recreation (based on ENTSO-E)

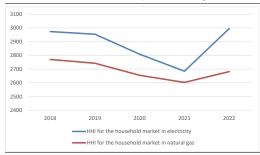
Map 2: Cross-border gas interconnections



Source: European Commission map recreation based on ENTSO-G)

3. MARKET INTEGRATION

Graph 4: Index of concentration (HHI) for the household markets in electricity and natural gas



Source: CEER 2023 out of ACER's Energy Retail and Consumer Protection 2023 Market Monitoring Report

 In 2022, in Ireland the market share of the three largest suppliers reached 81% for electricity and 80% for natural gas.

Rollout of electricity smart meters

 Ireland had a 56.0% share of household consumers being equipped with smart meters in 2022. 80% of consumers are planned to be equipped with smart meters later than 2024, however, Ireland has no national law stating this. (1)

⁽¹⁾ ACER, CEER. Energy Retail and Consumer Protection, 2023 Market Monitoring Report.

4. ENERGY POVERTY AND JUST TRANSITION

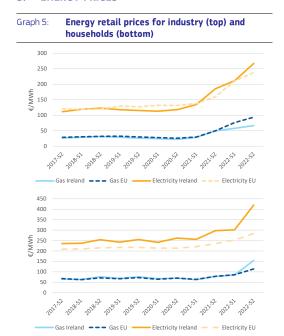
Table 1: Energy poverty

	Ireland			EU		
	2020	2021	2022	2020	2021	2022
Arrears on utility bills (households %)	7.9%	7.5%	10.6%	6.5%	6.4%	6.9%
Inability to keep home adequately warm (household %)	3.3%	3.2%	7.2%	7.5%	6.9%	9.3%
Population living in dwelling with presence of lead, damp and rot (population %)	16.6%	:	:	14.8%	:	:

Source: Eurostat

Just transition plan: The Irish Territorial
Just Transition Plans (TJTP) outline the
transition away from peat extraction for
energy production in the Midlands region. The
plans set out how the Just Transition Fund
(JTF), with a national allocation of 84€ million,
will support the development of renewable
energy sources, economic diversification, and
modernisation of industries. Coal phase-out
commitment by 2025.

5. ENERGY PRICES

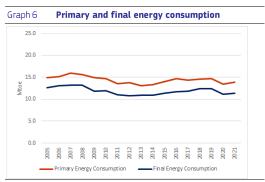


- (1) On electricity, the band consumption is for DC households and ID for industry
- (2) On gas, the band consumption is D2 for households and I4 for industry

Source: Eurostat

Energy efficiency

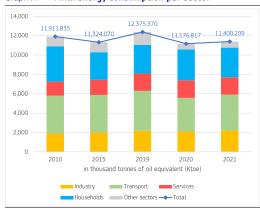
1. ENERGY EFFICIENCY



Source: Eurostat

Consumption (PEC) amounted to 13.86 Mtoe, 5.7% lower than in 2019, while its Final Energy Consumption (FEC) amounted to 11.4 Mtoe, 7.9% lower than in 2019, despite the COVID-19 crisis recovery.

Graph 7: Final energy consumption per sector



(1) Final energy consumption excludes consumption of the energy sector (including transformation and distribution losses) and non-energy use of energy carriers.

Source: Eurostat

Graph 8: Primary and final energy intensity

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Final Energy Intensity

Final Energy Intensity EU

Source: Eurostat

2. ENERGY SAVINGS IN BUILDINGS

Primary Energy Intensity

Primary Intensity EU

- In 2020, there were 1.70 million of residential buildings in Ireland.
- Ireland did not set a 2030 target in terms of energy savings in their 2020 Long Term Renovation Strategy (LTRS).
- In 2021, the final energy consumption of residential buildings increased by 5.51% compared to 2019.
- The sales of heat pumps amounted to 20.185
 units in 2022 representing an increase of 1%
 compared to 2021, as per the European Heat
 Pump Association (EHPA).

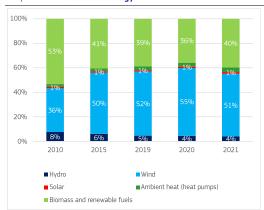
Decarbonisation and climate action

1. SECTORAL SHARE OF RENEWABLE ENERGY

Share of renewable energy sources Graph 9: 50% 45% 40% 3596 30% 15% 1.0% 5% 2010 2015 2019 2020 2021 Overall Transport Electricity Heating&Cooling

(1) In % of gross final consumption of energy **Source:** Eurostat

Graph 10: Renewable energy mix

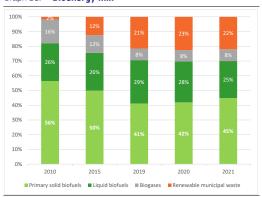


(1) In % of gross final consumption of energy

Source: Eurostat

2. BIOENERGY DEMAND



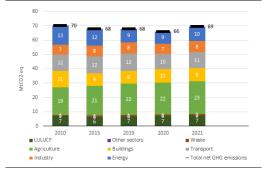


(1) Composition of bioenergy, in % of gross inland consumption of energy

Source: Eurostat

3. GREENHOUSE GAS EMISSIONS

Graph 12: Greenhouse gas emissions by sector



- (1) Energy sector refers to electricity and heat production and petroleum refining.
- (2) Industry includes fuel combustion in manufacturing and construction and emissions in industrial processes and product use.
 (3) Buildings include emissions from energy use in residential and tertiary buildings, and energy use in agriculture and fishery sectors.
 (4) Total net GHG emission including LULUCF and excluding international aviation.

Source: EEA





 $\left(1\right)$ Total greenhouse gas emissions, including LULUCF and excluding international aviation.

Source: Greenhouse gas inventory 1990-2021 (EEA). Real GDP in 2015-prices (AMECO, European Commission). Population (Eurostat).

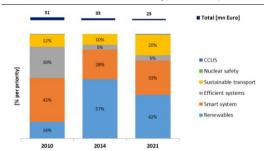
- With 172 gCO2eq/2015EUR, Ireland lies below the EU average in terms of GHG intensity of GDP.
- With 14 tonnes of CO2 equivalent per capita, Ireland is above the EU average in terms of GHG emissions per capita.
- For more detailed information on country profiles see <u>Progress made in cutting</u> <u>emissions (europa.eu)</u>.

Research, innovation and competitiveness

I. INVESTMENT IN R&I

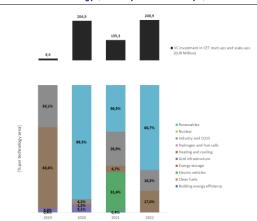
 Public investment in research and innovation (R&I) in Energy Union priorities⁽²⁾ decreased from 0.018% in 2014 to 0.006% in 2021 (share of GDP).

Graph 14: Public investment in Energy Union R&I priorities



Source: JRC SETIS 2023

Graph 15: Venture capital investment in clean energy technology (start-ups and scale-ups)



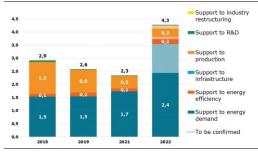
(1) Firms typically use venture capital to expand, break into new markets, and grow faster. Venture capital is essential for the growth of innovative firms and it is key to foster the EU's competitiveness and to strengthen the EU's technology sovereignty in the clean energy sector.

Source: JRC SETIS 2023

(2) Renewables, smart system, efficient systems, sustainable transport, CCUS and nuclear safety, COM(2015) 80 final ('Energy Union Package').

2. ENERGY SUBSIDIES

Graph 16: Energy subsidies by purpose

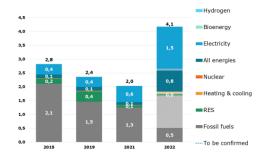


(1) Subsidies in EUR 2022 billion

(2) Some 2022 data were not fully available or validated at the time the study was completed (August 2023). For missing 2022 values, 2021 data were taken as a basis for an estimate. The estimated data are referred to as 'to be confirmed' in the graphs and indicated by hatching.

Source: Enerdata. Inventory of energy subsidies in the EU27 - 2023 edition

Graph 17: Energy subsidies by carrier



(1) Subsidies in EUR 2022 billion

(2) Some 2022 data were not fully available or validated at the time the study was completed (August 2023). For missing 2022 values, 2021 data were taken as a basis for an estimate. The estimated data are referred to as 'to be confirmed' in the graphs and indicated by hatching.

Source: Enerdata. Inventory of energy subsidies in the EU27 - 2023 edition

European Semester 2023

Country Specific Recommendation (Energy):

Reduce overall reliance on fossil fuels. Focus efforts on improving flexibility in the electricity system and improving energy system integration.

Design and implement a dedicated strategy for the development of demand-side response and accelerate the roll-out of smart metering infrastructure and smart grid technologies. Streamline the planning and permitting framework for renewables, storage and grid connectors. Implement additional measures that support energy efficiency in private and public buildings to reduce energy bills and energy system costs. Accelerate the installation of public charging points for zero-emission vehicles. Step up policy efforts aimed at the provision 12 and acquisition of the skills needed for the green transition. (3)

For more information see the <u>2023 European</u> Semester Country Report.

National Energy and Climate Plan (NECP)

- The draft updated NECP was not submitted yet to the European Commission.
- For more information see the dedicated webpage of the European Commission on the NECPs.

Recovery and Resilience Plan (RRP) and REPowerEU chapter

- The Irish RRP was approved by the Council on 8 September 2021.
- The implementation of the measures proposed in the RRP would allow Ireland to access EUR 989 million in grants.
- 42% of these funds are allocated for measures contributing to climate objectives.
- The Commission has not yet disbursed any financial contribution to Ireland. A 1st payment request was submitted on 8 September 2023 and it's currently under assessment.
- On 22 May 2023, Ireland submitted a request to revise its RRP, and yet has to submit the REPowerEU chapter.
- The amended RRP takes into account the revised RRF grant allocation for Ireland decreased to EUR 914.6 million.

- The amended RRP was approved by the Council on 14 July 2023.
- For more information visit the <u>Recovery and Resilience Scoreboard</u>.

⁽³⁾ Council of the European Union 9828/1/23