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Department for the
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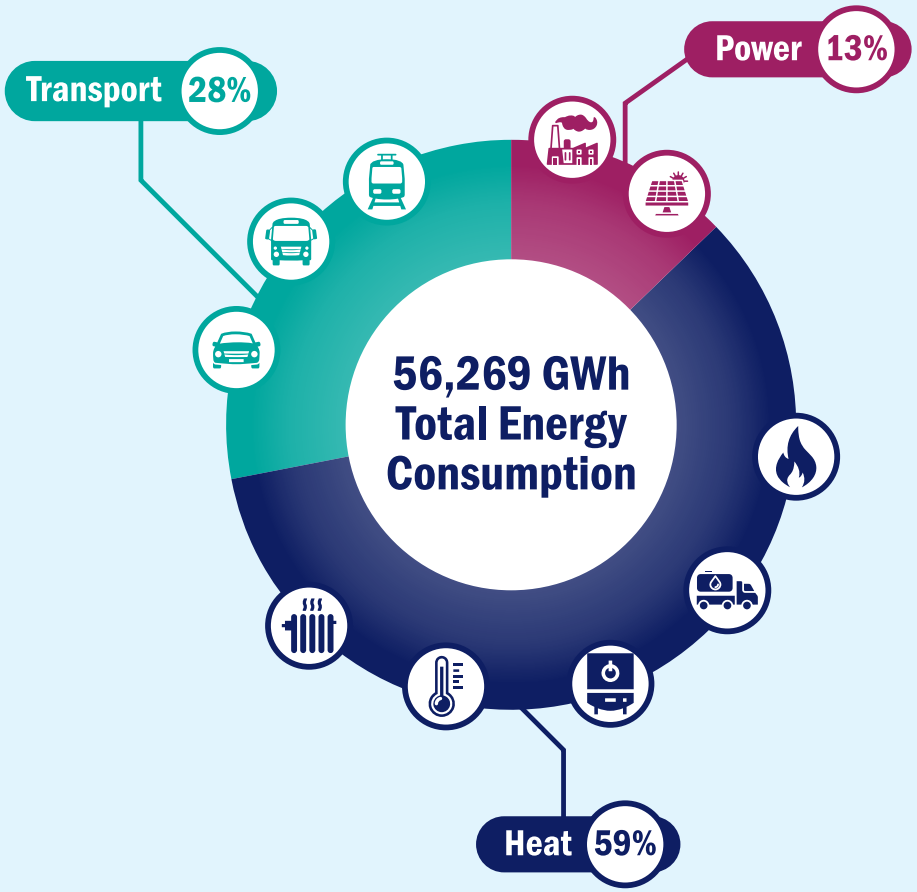
2024

Energy in Northern Ireland

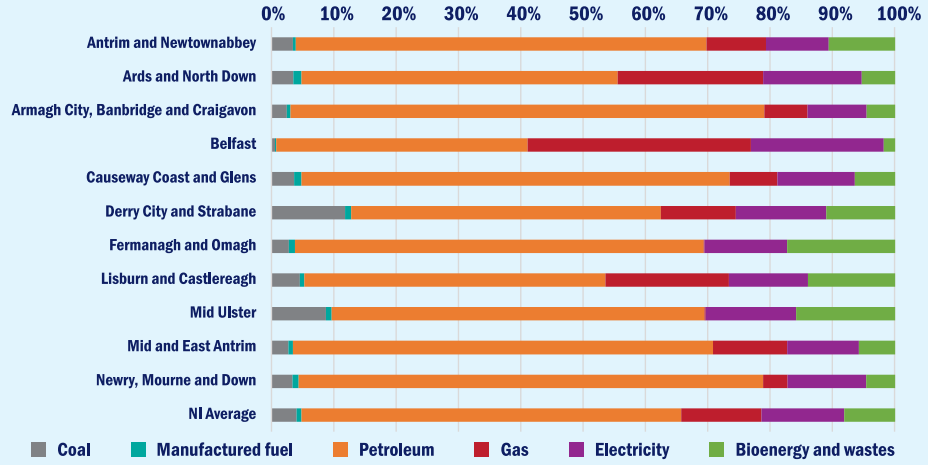
Energy in Northern Ireland

Total Final Energy Consumption, 2021



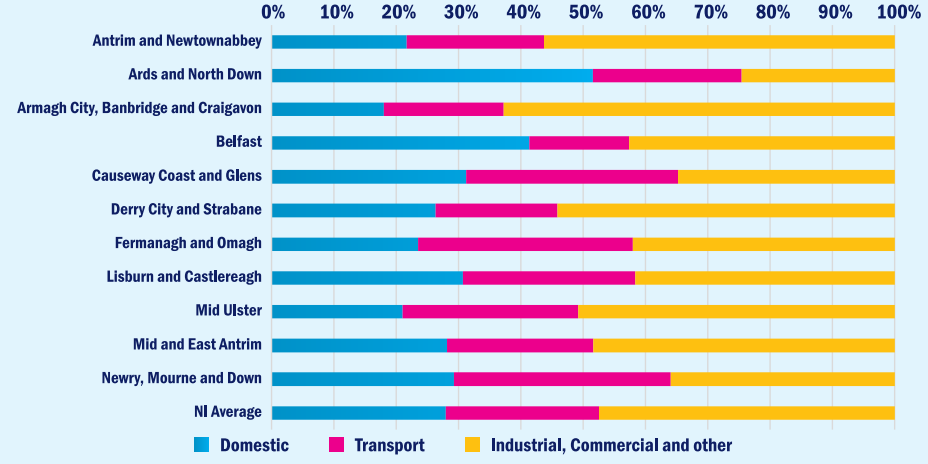
Source: DESNZ

Final Energy Consumption by Council Area, 2021



Source: DESNZ

Final Energy Consumption by Council Area, 2021



Source: DESNZ

Energy in Northern Ireland

BACKGROUND

This is the fifth edition of a biennial publication that aims to provide a comprehensive and accessible overview of key statistics and information relating to energy in Northern Ireland.

In contrast to previous reports, resource constraints and competing pressures mean this publication takes the form of a shorter infographic-based update publication. All previous reports and accompanying quality report documentation remain available to access.

For further details on any of these statistics, or to provide feedback, please contact: **Sean.Donnelly@economy-ni.gov.uk** (Tel: 028 90 529793)

All media enquiries should be made to the Department's Press Office: **pressoffice@economy-ni.gov.uk** (Tel: 028 9052 9604)

Our statistical practice is regulated by the Office for Statistics Regulation (OSR). OSR sets the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to.

You are welcome to contact us directly with any comments about how we meet these standards. Alternatively, you can contact OSR by emailing **regulation@statistics.gov.uk** or via the OSR website.

COMMENTARY

Total Final Energy Consumption

Total Final Energy Consumption **data** is published annually by the Department for Energy Security and Net Zero (DESNZ) with the most recent data relating to 2021. Total final energy consumption of 56,269 GWh in 2021 comprised 59% (or 32,978 GWh) in Heat, 28% (or 15,857 GWh) in Transport and the remaining 13% (7,433 GWh) in Power.

Final Energy Consumption by Council Area

The final energy consumption data by fuel type at District Council Area level, shows that gas consumption tends to be a higher proportion of overall energy consumption in councils where the gas network is well established. In Belfast, gas accounted for 36% of total energy consumption, with 23% in Ards & North Down and 20% in Lisburn & Castlereagh, compared to the NI average of 13%. Conversely, in 2021, gas accounted for less than 5% of total energy consumption in three council areas: Newry, Mourne & Down (4%) and less than 1% for both Fermanagh & Omagh and Mid Ulster.

Differences across council areas in petroleum product consumption (petrol, diesel, home heating oil etc.) are likely due to higher domestic use of home heating oil and petrol and diesel in rural areas plus higher use of such fuels where industry is located. Petroleum products accounted for 50% or less of consumption in three council areas: Belfast (40%), Lisburn & Castlereagh (48%) and Derry City & Strabane (50%) compared to the NI average of 61%. In Armagh City, Banbridge & Craigavon (76%) and Newry, Mourne & Down (74%), petroleum product consumption constituted some three-quarters of final energy consumption.

Coal consumption was at 5% or less of total energy consumption for all but two council areas: Derry City & Strabane (12%) and Mid Ulster (9%) with the NI average at 4%.

Looking at final energy consumption data for councils by sectoral use (Domestic, Transport and Industrial/Commercial/Other) highlights other differences. For domestic consumption, Ards & North Down (52%) and Belfast (41%) were significantly above the NI average domestic consumption of 28%, whilst in Armagh City, Banbridge & Craigavon (18%) and Mid Ulster (21%) domestic consumption accounted for a lower than average proportion of overall energy consumption. Energy consumption by the Industrial/Commercial/Other sector accounts for around half (47%) of overall consumption. However, this was much lower in Ards & North Down (25%) and Causeway Coast & Glens (35%) whilst in Armagh City, Banbridge & Craigavon some 63% of total energy consumption was accounted for by this sector.

Electricity Generation and Consumption Flows

Data on Electricity Generation and Consumption Flows are published annually by DESNZ. Some 10,307 GWh of electricity was generated in Northern Ireland in 2022. Of this, 338 GWh was for own use and a further 644 GWh was accounted for by transmission and distribution losses. Net exports were 1,110 GWh (833 GWh to Ireland and 277 to Scotland) resulting in an estimate of total electricity consumption of 8,215 GWh. Net exports of electricity in 2022 were substantially higher compared to previous years, for example, 456 GWh in 2020 and 227 GWh in 2021.

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Electricity Generation by Fuel

Data published annually by DESNZ showed slightly higher proportions in 2022 of renewable electricity generation in Northern Ireland (44.3%) compared to 41.5% for the UK. The comparison of the non-renewable mix showed some notable differences with 14.7% of electricity generation in the UK being from nuclear sources, with no such generation in Northern Ireland. However, 10.9% of electricity generation in Northern Ireland in 2022 was from coal compared to only 1.7% for the UK. Coal generation at Kilroot power station ended during 2023.

Electricity Connections and Consumption

Data from the Utility Regulator for Northern Ireland shows clearly that while only 8% of the 919,193 connections in Northern Ireland were in the non-domestic sector, they accounted for over three-fifths (61%) of total electricity consumption in 2023.

Renewable Electricity Generation

Based on metered generation and metered consumption data provided by Northern Ireland Electricity Networks (NIE Networks) and the System Operator for Northern Ireland (SONI), the proportion of electricity consumption accounted for by renewable generation in 2023 was 45.8%. Further details available **here**.

Annual Volume of Renewable Electricity Generated

The rise in the volume of renewably generated electricity from 2009 to 2020 has been driven mainly by wind generation supplemented with an increasingly diverse mix of generation seen since 2015. Wind speeds significantly above or below average (which occurred in 2021) can have a marked effect on wind generation.

Average Annual Domestic Electricity Unit Costs

Data published annually by DESNZ (see Table QEP 2.2.3) shows that in 2023, Northern Ireland had the lowest domestic electricity unit cost of all UK regions at 30.63p per kWh. This was 10% lower than the next lowest region (East Midlands) and some 19% lower than the region with the highest unit cost (Merseyside & North Wales). With a data series back to 2017, Northern Ireland has had the lowest overall domestic unit costs in each year.

Gas Connections and Consumption

Data published by the Utility Regulator shows that a small number of gas connections are responsible for a much larger proportion of consumption. In 2023, only 4,349 connections (or 1.3% of the 324,706 total gas connections) were in the Larger Industrial & Commercial sector but this sector accounted for almost three-fifths (57%) of total gas consumption.

Home Heating Oil Prices (900 litres)

Published by the Consumer Council for Northern Ireland, the volatility in home heating oil prices over time is apparent. The cost of 900 litres of home heating oil fell from an average of just over £540 in 2012 and 2013 to a low in January 2016 at slightly over £210. By the end of 2016 this had risen to over £370, reaching over £430 by the end of 2017. Prices remained around this level until early 2020. Prices fell sharply in 2020 from £450 in January to around £215 in April before trending upwards again to around £500 in early 2022.

The impact of the war in Ukraine saw costs more than double in just a few weeks, with prices rising to a high of almost £1,200 in March 2022 (around six times the cost of 900 litres just two years previously). Prices remained very high at around £800 until March 2023 falling back to £500 in mid-2023 before rising again. Prices were around £600 in early 2024.

Petrol and Diesel Prices

The **AA** produces monthly reports on road fuel prices (petrol and diesel) by UK region. The long price series shows that diesel has historically been more expensive than petrol with diesel prices, on average, 4.7 pence per litre (ppl) higher than petrol. The price differential between petrol and diesel reached a high of 24.2 ppl in November 2022.

In May 2020, petrol (101.8 ppl) and diesel (108.3 ppl) were at their lowest levels since early 2016 and similar to prices last seen in 2009. Prices for both fuels then increased significantly from mid-2020 up to series highs for both petrol and diesel in June 2022.

Further analysis of the data shows that petrol and diesel prices in Northern Ireland have been consistently below the UK average since 2016. Since 2020, Northern Ireland petrol prices have been, on average, 3.5 ppl lower and diesel prices 4.5 ppl lower than the UK average.

Low Carbon and Renewable Energy Economy (LCREE)

The Office for National Statistics (ONS) publishes **data** on the Low Carbon and Renewable Energy Economy annually. For Northern Ireland in 2022, LCREE turnover was £1.6 bn (2.3% of UK total) with 5,200 employees (1.9% of the UK total).

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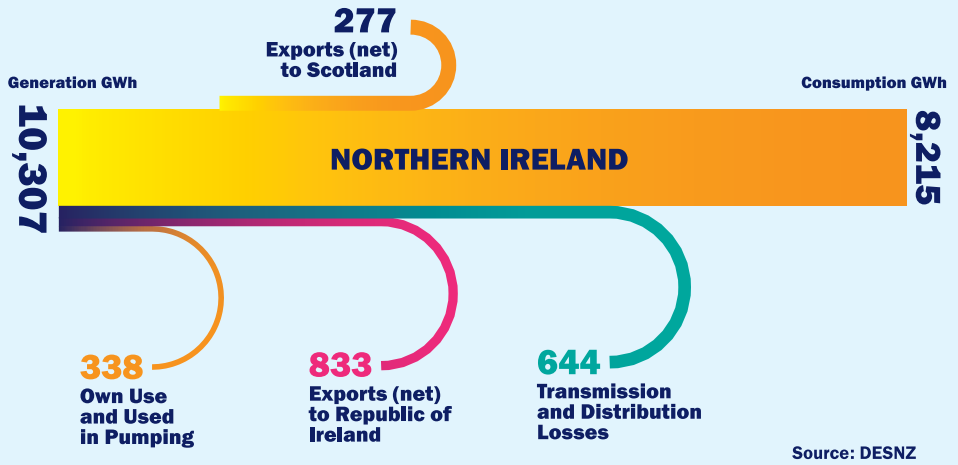
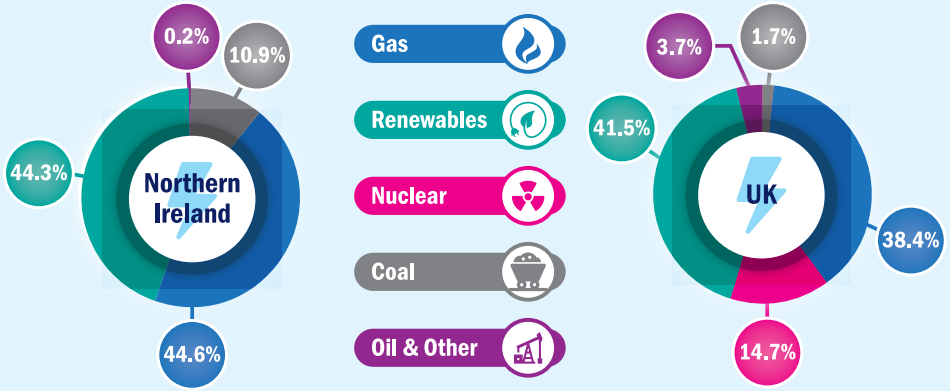
Electricity Generation and Consumption Flows, 2022



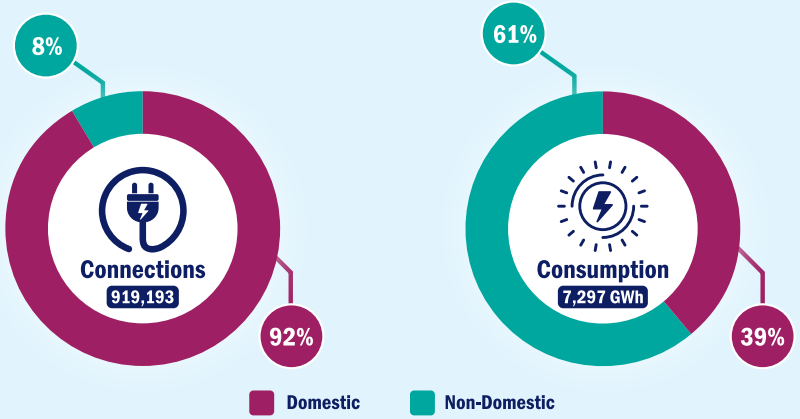
Source: DESNZ

Electricity Generation by Fuel, 2022



Source: DESNZ

Electricity Connections and Consumption, 2023



Source: Utility Regulator

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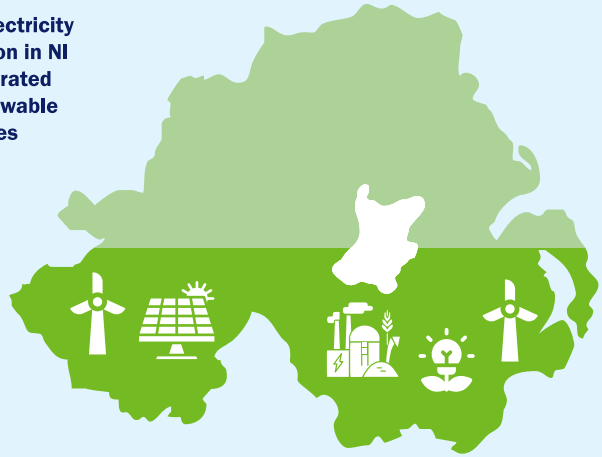
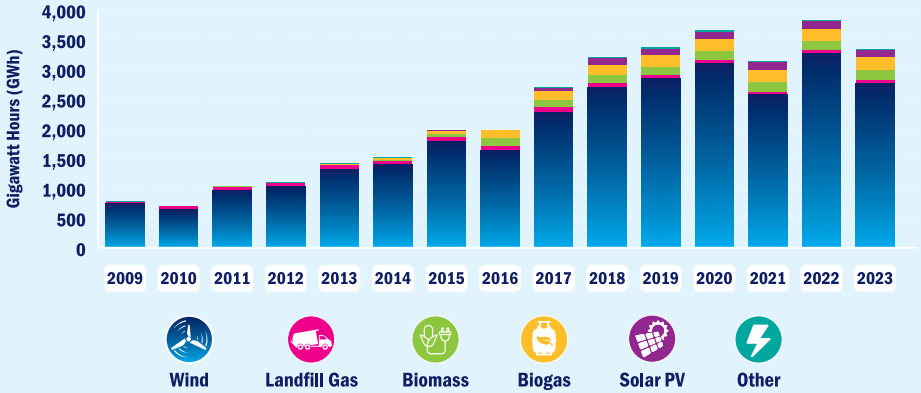
Renewable Electricity Generation, 2023

45.8% of Electricity Consumption in NI was Generated from Renewable Sources



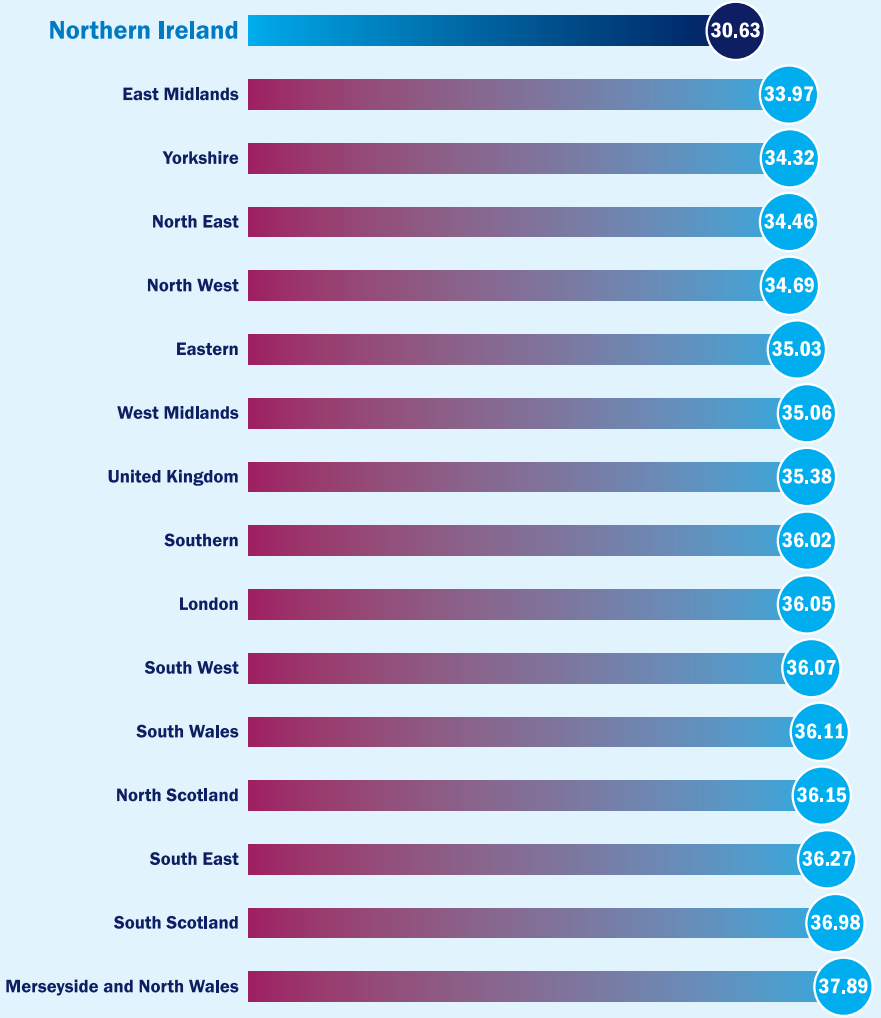
Source: NIE Networks; SONI

Annual Volume of Renewable Electricity Generated



Source: NIE Networks; SONI

Average Annual Domestic Electricity Unit Costs (pence per kWh) for UK Regions, 2023



Source: DESNZ

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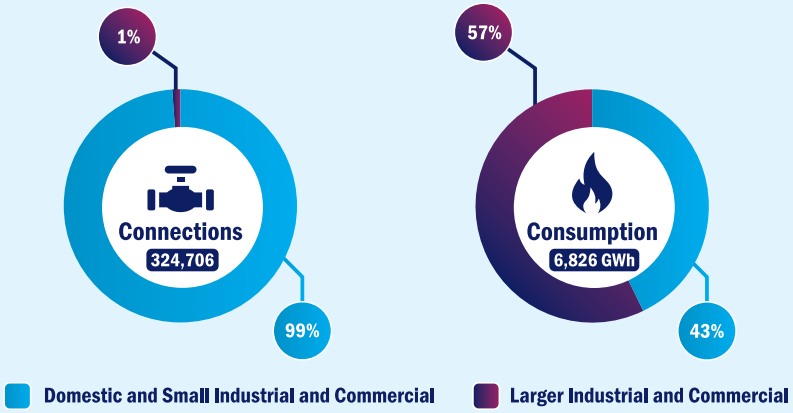
Gas Connections and Consumption, 2023

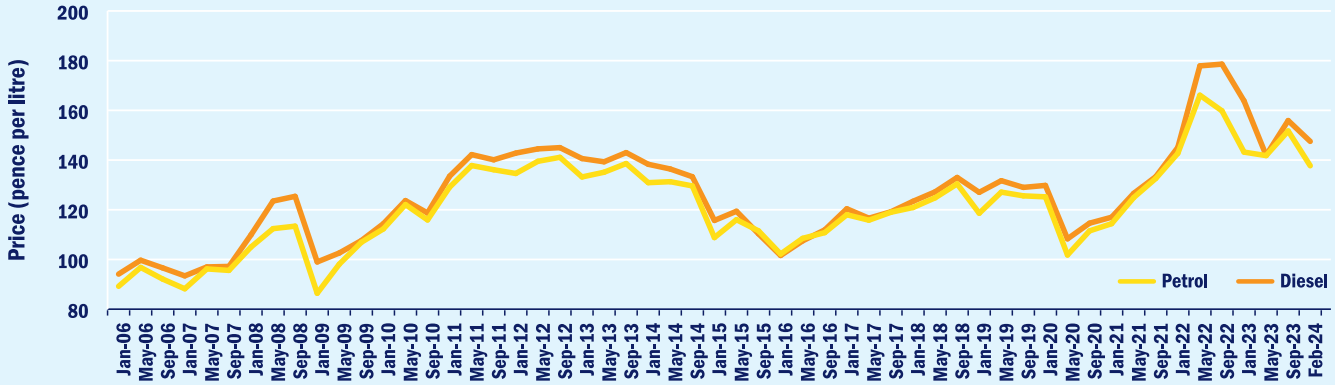


Source: Utility Regulator

Home Heating Oil Prices (900 litres), 2011 - 2024

Source: Consumer Council for Northern Ireland

Petrol and Diesel Prices, 2006-2024



Source: The AA

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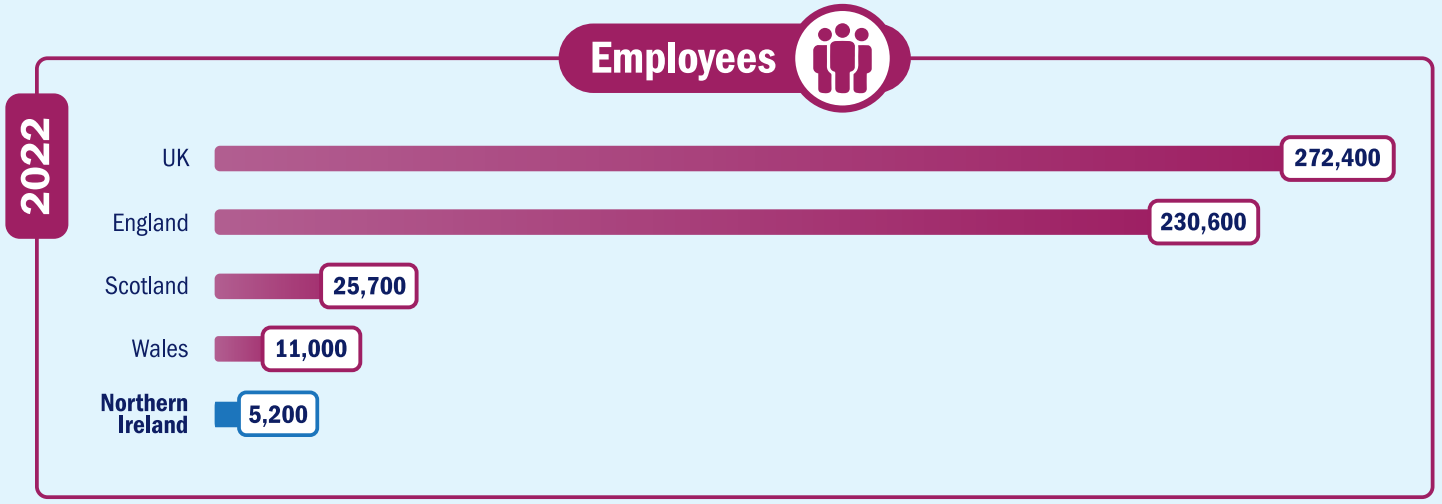
Low Carbon and Renewable Energy Economy, 2022



Source: ONS