

Annual Review 2024

Summary for All



CLIMATE
CHANGE
ADVISORY
COUNCIL

Annual Review 2024: Summary for All

Climate Change Advisory Council
McCumiskey House
Richview, Clonskeagh Road, Dublin 14, D14 YR62

Tel: 01 2680180

Email: info@climatecouncil.ie

www.climatecouncil.ie

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Introduction

The Climate Change Advisory Council is an independent advisory body tasked with assessing and advising on how Ireland is making the transition to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy.

Ireland's climate is changing, with increasing impacts for people, places and nature. 2023 was the warmest and wettest year on record. In June 2023, an extreme marine heatwave off the west coast resulted in unprecedented sea surface temperatures, increasing mortality risks for key marine species. Between October 2023 and March 2024, heavy rainfall caused significant disruption to farming activity, while storms severely eroded coastlines, damaging roads and properties in Wexford and north Dublin. The heavy rainfall and the flooding in Midleton in October 2023 were made more likely and more severe because of climate change.

Temperatures will continue to increase until significant action is taken. This will lead to more extreme and disruptive weather events in Ireland, such as heatwaves, droughts, storms and flooding.



What is the Annual Review?

Each year the Climate Change Advisory Council reviews Ireland's performance for the previous year in:

- ▶ reducing greenhouse gas emissions,
- ▶ meeting Ireland's EU and international obligations,
- ▶ complying with the carbon budget and each sectoral emissions ceiling for that period,
- ▶ moving towards achieving the National Climate Objective and preparing Ireland for the adjustments needed to be ready for the impacts of climate change.

The Review summarises the most recent greenhouse gas emissions data and projections for each sector of the economy and makes recommendations for sector-specific actions to support complying with the sectoral emissions ceilings. The Annual Review 2024 is published in nine parts:

- ▶ Electricity Sectoral Review,
- ▶ Industry and Waste Sectoral Review,
- ▶ Transport Sectoral Review,
- ▶ Built Environmental Sectoral Review,
- ▶ Agriculture and Land Use, Land Use Change and Forestry Sectoral Review,
- ▶ Preparing for Ireland's Changing Climate,
- ▶ Biodiversity Review,
- ▶ Cross-sectoral Review.

This *Summary for All* represents the ninth and final part of the 2024 Annual Review. It summarises the key findings for each part of the Annual Review and includes a summary of the key recommendations arising.



Annual Review 2024

In the 2024 Annual Review the Climate Change Advisory Council says that progress to reduce emissions is not sufficient for Ireland to meet its national and EU climate obligations. Reliance on fossil fuels needs to end, and urgent action is required to ensure that people, places and nature can adapt to the changing climate and prepare for rapidly emerging climate risks. The current rate of policy implementation is too slow and fragmented, and more effective engagement across all segments of policy and society is required to empower sustainable decision-making and to understand and remove barriers to action.

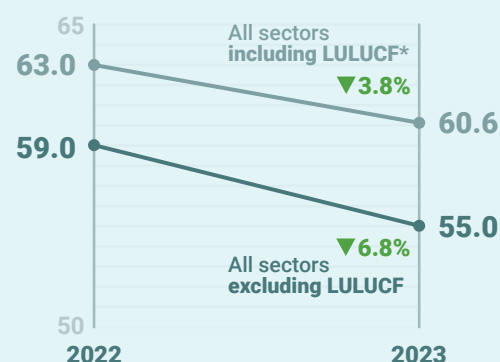


Overall recommendations

- ▶ So that Ireland can end its reliance on fossil fuels, Government should cease subsidising fossil fuel consumption and increase funding and make it more accessible to enable and accelerate the rapid uptake of low-carbon technologies and alternatives across all sectors.
- ▶ The revised National Planning Framework needs to be implemented swiftly and in full to support the expansion in wind and solar power necessary to meet renewable energy targets and to reduce emissions associated with new building developments and the transport system.
- ▶ To ensure a Just Transition, affordability barriers across households, communities and businesses should be identified and then targeted financial support provided for those least able to move away from fossil fuels and those most at risk from the impacts of climate change.
- ▶ The Government needs to take a more integrated approach to policy development and implementation by urgently prioritising gap areas identified throughout this Annual Review, including land use, coastal management, heat policy, the Just Transition and nature restoration.
- ▶ There needs to be a programmed re-evaluation of the levels of the carbon budgets so that they remain coherent with Ireland's emissions statistics, which are constantly being improved and updated.
- ▶ The Government must fund the national climate observation system to support its contribution to the Global Climate Observing System and to develop a national climate event attribution capability to better understand how climate change affects weather events.

Key Facts

Total Emissions (Mt CO₂ eq)

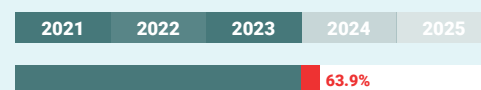


Key Observations

Emissions fell across most sectors in 2023
 LULUCF emissions are **increasing**
Annual reductions of 8.3% in 2024 and 2025 are needed to stay within the first carbon budget

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



* Land Use, Land Use Change and Forestry

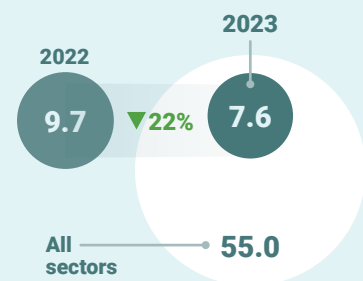


Recommendations for the Electricity sector

- ▶ The Government urgently needs to implement the planning reform required to accelerate the installation of sufficient wind and solar power to achieve the annual average increase of 1.6 gigawatts of onshore renewable electricity that is needed to meet national targets. New high-voltage grid infrastructure is also urgently needed to match Ireland’s grid capacity with its renewable energy ambitions.
- ▶ It is critical that the use of coal to generate electricity is stopped by 2025 and that the use of oil is phased out as soon as possible.
- ▶ The Government should ensure pricing incentives for data centres and other large energy users to shift electricity usage to times of low carbon emissions and to give the public access to data on their energy efficiency and sustainability performance.
- ▶ The Government urgently needs to adopt the plan for the roll-out of offshore wind power off the south coast to avoid further delays in offshore wind generation.
- ▶ The Government should publish a long-term strategy with timelines for the delivery of a reliable and zero-carbon electricity system well in advance of 2050 and ensure that publicly owned energy companies take full account of the Climate Act in setting their own objectives.
- ▶ Planning processes must ensure that new energy infrastructure is developed to withstand future projected climate impacts. Operators must act now to reduce known flood risks to critical infrastructure and take account of protecting and, where possible, enhancing biodiversity in new infrastructure developments. Government and operators need to enhance resilience to power outages and work closely with all communities to identify and develop the technologies required.

Key Facts

Total Emissions (Mt CO₂ eq)



Key Observations

- 44% reduction in coal since 2022
- 12x increase in energy imported from UK

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



First published 13 May 2024

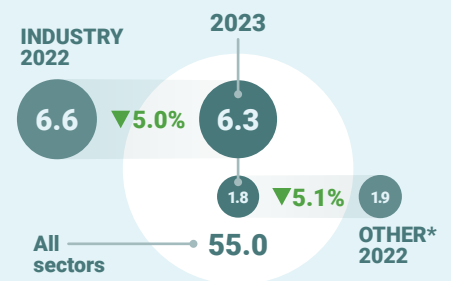


Recommendations for the Industry and Waste sectors

- ▶ The Council has made recommendations for the Government to promote sustainable construction, which include:
 - ▶ developing a strategy to increase the use of timber in construction and introducing whole-life carbon assessments and associated targets in the planning process for public buildings,
 - ▶ agreeing targets and implementing measures to reduce emissions in cement production processes,
 - ▶ reducing cement demand by providing financial incentives to encourage retrofitting of existing buildings instead of demolition and rebuilding.
- ▶ The Government needs to ensure that the electricity demand of new data centres is entirely met with new renewable generation. Any new data centre development must allow for simple connection to future district heating networks so that its waste heat can be used to provide low-carbon heat for homes.
- ▶ The Government should develop a Just Transition Plan that identifies skill gaps and the reskilling required to achieve climate targets. This will also signal areas for investment in training.
- ▶ The Government should ensure sufficient funding support to allow businesses to develop products and services promoting new innovations in adapting to the impacts of climate change.

Key Facts

Total Emissions (Mt CO₂ eq)

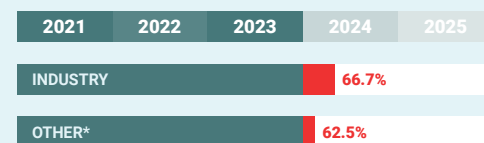


Key Observations

- 6% fall in cement industry emissions
- 6% fall in landfill methane emissions

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



* 'Other' sector includes emissions from F-gases, waste and petroleum refining.

First published 29 May 2024

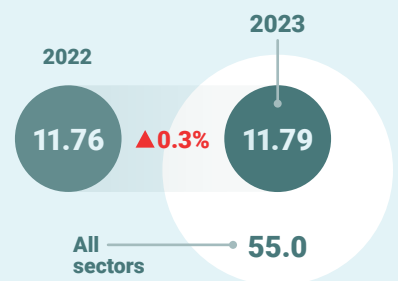


Recommendations for the Transport sector

- ▶ The Government should urgently conduct a review of taxation in the Transport sector (including vehicle registration tax, motor tax, excise duty, carbon tax, fuel pricing and distance-based charges) to ensure that taxation policy supports emission targets and promotes energy efficiency.
- ▶ Government and local authorities should reallocate road space to improve access to public and active travel (e.g. walking, cycling) infrastructure. Public transport needs to improve, and more public engagement is needed to understand the barriers people face in making sustainable transport choices.
- ▶ The Government must urgently implement the planning reform necessary to:
 - ▶ ensure that new developments reduce transport demand by placing homes, workplaces, services and leisure spaces closer to each other and to public and active transport infrastructure,
 - ▶ accelerate delivery of major public and active transport infrastructure projects and minimise the costs and delays associated with the planning process.
- ▶ Local authorities must have the support and guidance from Government that they need to reduce transport demand and emissions, with locally implemented measures such as low-emission zones and provision of shuttle bus services or incentives to promote carpooling.
- ▶ The number of car journeys to and from schools needs to be reduced by significantly expanding the School Transport Scheme and continuing work to increase the number of pupils walking and cycling to school.
- ▶ The Government needs to prioritise measures and investments to strengthen the resilience of ports and critical roads and railways to the future impacts of climate change such as more intense rainfall events and sea level rise.

Key Facts

Total Emissions (Mt CO₂ eq)



Key Observations

Increased demand for petrol, diesel and jet kerosene
24% rise in public transport use

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



First published 27 June 2024

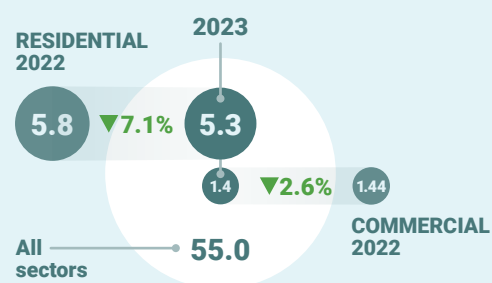


Recommendations for the Built Environment sector

- ▶ There is an urgent need to reduce and ultimately end reliance on fossil fuels for heating. The Government needs to:
 - ▶ incentivise and encourage many more homeowners (particularly those with homes built after 2007 or which are already suitable for a heat pump system) to replace existing oil and gas boilers with heat pumps and district heating systems,
 - ▶ complete the heat policy and legislative reform necessary to accelerate the delivery of district heating schemes and to support the phasing out of all new fossil fuel heating systems.
- ▶ The Government must rapidly implement the revised National Planning Framework to support compact development, urban regeneration and the efficient use of vacant urban land.
- ▶ The Government needs to provide further financial support for lower income households and older homeowners that are unable to afford a deep retrofit with the existing home energy upgrade schemes and low-cost loans.
- ▶ The Government should consider additional incentives to increase the renovation of existing vacant and derelict buildings and promote the use of low-carbon materials such as timber.
- ▶ The Council has made recommendations for the Government to increase the resilience of the Built Environment sector to the future impacts of climate change (e.g. flooding, extreme rainfall events, droughts and intense storms). It is recommended that the Government develops a sectoral adaptation plan and ensures that existing Building Regulations account for the full range of climate risks.

Key Facts

Total Emissions (Mt CO₂ eq)

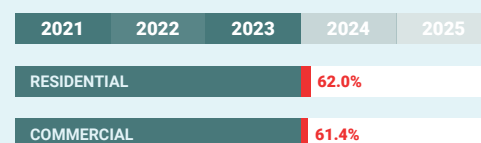


Key Observations

78% increase in SEAI* grant uptake for retrofitting
 High prices and solid fuel regulations reduced fuel consumption

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



* Sustainable Energy Authority of Ireland

First published 11 July 2024

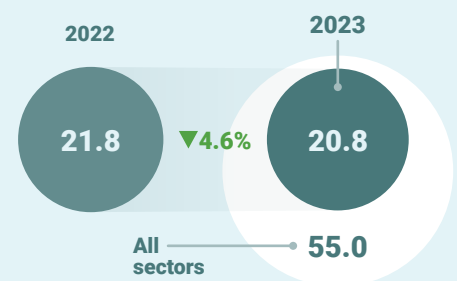


Recommendations for the Agriculture and Land Use, Land Use Change and Forestry sectors

- ▶ The Government must urgently complete the Land Use Review and implement policies and actions arising that align with long-term climate and biodiversity objectives.
- ▶ The Government should develop a robust implementation plan for the Biomethane Strategy in Q1 2025 and provide the necessary support and incentives to underpin the business case for biomethane production and use.
- ▶ The Government needs to incentivise the rapid uptake of the high-impact and cost-effective measures from the Teagasc marginal abatement cost curve to reduce agricultural emissions, including:
 - ▶ increased uptake of protected urea fertilisers,
 - ▶ the use of approved feed additives and the incorporation of additives in slurry that reduce methane emissions.
- ▶ Reaching target carcass weights of livestock at an earlier age can significantly reduce emissions. Meat processors are encouraged to adjust bonus payments to incentivise farmers to reduce the age of finishing.
- ▶ The Government must urgently engage with landowners and communities, to highlight the financial opportunity for and crucial role of forestry in achieving climate and biodiversity goals and provide improved guidance on the Forestry Programme.
- ▶ Once established, the Just Transition Commission should consider a sector-specific Just Transition Dialogue with farmers, rural workers and communities.
- ▶ The Government, with retailers and consumer organisations, should launch an information initiative to empower people to make low-cost, healthy and sustainable diet choices.
- ▶ The Government should provide the resources necessary for local authorities and Government departments to engage urban and rural communities in an inclusive, incentive-based catchment-level approach to implementing nature-based solutions to manage flood risk.

Key Facts*

Total Emissions (Mt CO₂ eq)

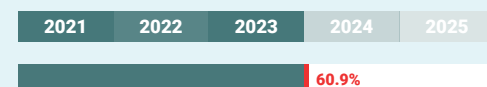


Key Observations

Nitrogen fertiliser sales down 31% since 2018
15% year on year increase in the use of protected urea

Sectoral Emissions Ceiling Carbon Budget 1

Amount of total ceiling already used in first 3 years



* Data and observations from the Agriculture sector. Does not include emissions from Land Use, Land Use Change and Forestry.

First published 4 September 2024



Recommendations for Climate Adaptation

- ▶ Government departments and agencies leading on the development of sectoral adaptation plans should:
 - ▶ allocate and ringfence funding within annual budgets for measures to build resilience to climate change,
 - ▶ ensure that new sectoral adaptation plans are ambitious, effective, costed and include indicators to allow progress to be measured.
- ▶ Commercial semi-state agencies and regulators need to budget for and prioritise projects that enhance the resilience of critical infrastructure such as ports, railways, the electrical grid and key roads.
- ▶ The Government should immediately develop and implement a coastal management plan to build resilience in coastal areas and communities against climate impacts, including sea level rise and coastal erosion.
- ▶ Greater capacity for climate adaptation action is required across all areas of national and local government. A clear programme for staff resourcing and training to build this capacity is needed by the end of 2025.
- ▶ The National Adaptation Steering Committee should address cross-cutting policy issues including coastal management, health impacts and disaster risk reduction.
- ▶ Relevant Government departments and agencies should work together to create a national climate damage register to track the costs and impacts of extreme events across Ireland and improve policy responses.
- ▶ The Government must ensure that sufficient resources are dedicated to conservation initiatives that increase the resilience of nature to climate change.

First published 10 September 2024



Recommendations for Biodiversity

- ▶ The Government should ensure that the National Restoration Plan for nature establishes ambitious targets and includes fully costed measures for the restoration of ecosystems, with sufficient financial incentives to encourage widespread adoption of these measures.
- ▶ Increased funding is urgently needed to ensure the success of the 4th National Biodiversity Action Plan. The Infrastructure, Climate and Nature Fund must allocate sufficient resources to protect and restore carbon-rich habitats on land and at sea.
- ▶ The Government needs to create an integrated land use strategy to support climate, biodiversity and water goals. This should be based on comprehensive habitat and biodiversity data and a clear spatial land use planning framework.
- ▶ The Government must create a credible plan to protect 30% of land and sea by 2030 and ensure that each protected area is well managed with clear conservation and restoration goals.
- ▶ The National Biodiversity Working Group should oversee the implementation of nature-based solutions across sectors and land uses. Institutions identified in the 4th National Biodiversity Action Plan should set clear goals and actions to scale up the adoption of these solutions.
- ▶ The Government must provide farmers with long-term, results-based financial incentives for the adoption of nature-friendly management practices. National level monitoring of farmland biodiversity is needed and should build on the existing Agri-Climate Rural Environment Scheme (ACRES) approach.
- ▶ In collaboration with the broader research community, the Government should develop a dedicated research programme aimed at understanding and adapting to the impacts of climate change on nature.
- ▶ The Government should assess how domestic policies might negatively impact climate and biodiversity in other countries to avoid shifting problems elsewhere.

First published 11 October 2024



What are Ireland's greenhouse gas emissions targets?

Ireland is one of 190 countries that signed up to the Paris Agreement, which aims to limit global warming to well below 2°C and to limit the increase to 1.5°C.

Carbon budgets proposed by the Climate Change Advisory Council support the National Climate Objective of achieving a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050. The first two carbon budgets (2021–2025 and 2026–2030) target a reduction in emissions of 51% by 2030 compared with 2018 levels. By the end of 2024, the Council will propose a finalised third carbon budget (2031–2035) and a provisional fourth budget (2036–2040). These budgets will support achieving climate neutrality by 2050. They will be informed by the latest emissions data, scientific advice and international best practice, and they aim to maximise economic benefits while considering climate justice.

What is a carbon budget?

A carbon budget represents the total amount of emissions that may be released during an agreed 5-year period. This is measured in tonnes of carbon dioxide equivalent and is calculated on an economy-wide basis. If Ireland exceeds one of its carbon budgets, the excess must be accounted for in the next period. This aims to set Ireland on a pathway to achieving climate neutrality by 2050.

What is a sectoral emissions ceiling?

Sectoral emissions ceilings refer to the total amount of greenhouse gas emissions that each sector of the economy is allowed to produce during a specific period. In Ireland, the sectoral emissions ceilings set out the maximum emissions permitted from each sector to ensure that Ireland remains within its carbon budgets. The sectors are:

- ▶ Electricity,
- ▶ Industry and other,
- ▶ Transport,
- ▶ Built Environment (residential, commercial and public sector),
- ▶ Agriculture,
- ▶ Land Use, Land Use Change and Forestry.