CLIMATE CHANGE ADVISORY COUNCIL

Annual Review 2025

Summary for All

Annual Review 2025: Summary for All

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What is the Annual Review?

The Climate Change Advisory Council (CCAC) 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.

Each year the CCAC 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 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 2025 is published in nine parts:

- Our Changing Climate in 2024,
- Electricity Sectoral Review,
- Transport Sectoral Review,
- Agriculture and Land Use, Land Use Change and Forestry Sectoral Review,
- Built Environment, Industry and Waste 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 2025 Annual Review. It summarises the key findings for each part of the Annual Review and includes a summary of the key recommendations arising.

Ireland's climate is changing, with impacts for people, places and nature

2024 was the fourth-warmest year on record, and 7 of the top 10 warmest years nationally have occurred since 2005. The spring of 2024 was the sixth-wettest spring on record, which caused significant disruption to farming activity. In 2024, Storms Isha, Bert and Darragh brought particularly strong winds, high rainfall, significant flood damage, widespread power outages and reports of coastal erosion. The cascading impacts from power outages, damage to Holyhead Port in Wales and disruption of farming activities by heavy rainfall were widely felt.

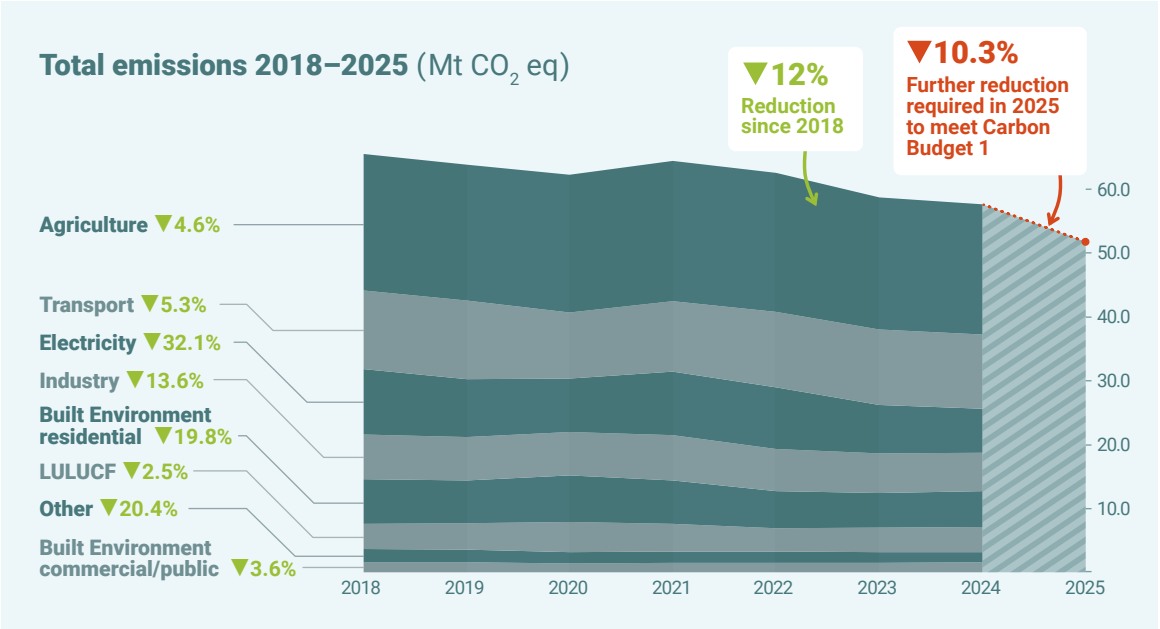
Storm Éowyn, which hit Ireland on 24 January 2025, set new all-time records for measured wind speed in Ireland, with sustained hurricane-force winds of 142 km per hour and gusts of 184 km per hour. The impacts were devastating, with 768,000 premises left without power, and, despite international assistance to support the recovery effort, it took 19 days to fully restore all connections. Over 200,000 premises were left without water as a result of power outages at treatment plants and pumping stations, and over 1 million telecoms users were left with no broadband or phone coverage. The storm also caused significant damage to 25,000 ha of forest. Storm Éowyn was the most expensive insurance event in Irish history, with insurance claims totalling over €301 million. It has highlighted the lack of resilience to extreme weather events of Ireland's critical infrastructure and the urgent need to accelerate investment in and action on climate adaptation.

Provisional data from Met Éireann suggest that spring and summer 2025 were the warmest on record and, notably, that it was the first spring that was more than 2°C warmer than the 20th century average for the same period. Temperatures will continue to increase until significant action is taken and this will lead to more extreme, disruptive and costly weather events in Ireland.

Annual Review 2025

In the 2025 Annual Review the Climate Change Advisory Council warns that:

1. Ireland remains substantially off track in meeting its EU and national emissions reduction targets, with progress in the Agriculture and Transport sectors, which collectively account for approximately 55% of Irish emissions, proving particularly slow. The Government is urged to move from ambitious statements to implementing impactful and demonstrable actions that build momentum and public buy-in.



2. Failure to meet targets will potentially result in substantial compliance costs, estimated to be in the range of €8–26 billion, and a colossal missed opportunity to invest in Irish households, communities and businesses – creating jobs, improving health and well-being, and protecting the most vulnerable in society.
3. In 2024, fossil fuel subsidies totalled €4.7 billion, while households paid €3.4 billion in environmental taxes. In 2023, households paid €3 billion in environmental taxes but received only €408 million (or 14%) back in subsidies. The net effect of these measures is that they are encouraging the increase rather than reduction of greenhouse gases through the tax system.
4. Failure to transpose EU directives into national law, fully and on time, along with critical shortages in the skilled workforce and insufficient training opportunities, further threaten progress and require urgent action.

Overall recommendations

Decarbonising Ireland's energy system

- Fossil fuel subsidies must be eliminated without delay to support Ireland's transition to a low-carbon energy system. The Government should conduct a full review of national energy taxes and fossil fuel subsidies, develop fair and equitable reform pathways and implement a plan consistent with the carbon budgets in advance of Budget 2027.
- The delay in transposing EU directives into law, particularly in relation to energy, is concerning given the urgent need to transition to a low-carbon energy system. The Council urges the Government to ensure full transposition of all climate- and energy-related directives into law in advance of Ireland's presidency of the Council of the European Union in July 2026.

Compact growth

- To properly assess the next National Development Plan, there must be a stronger focus on clear and more ambitious targets for compact growth, especially for new builds. These targets must support the development of sustainable communities within built-up areas of cities, towns and villages and protect space for nature as required by the EU Nature Restoration Law.

Climate governance

- By the end of the first carbon budget period in 2025, the Government must clarify how it intends to deal with sectoral emissions ceiling exceedances, unallocated emissions savings, revisions to historical emissions inventory estimates, and the sectoral emissions ceiling for Land Use, Land Use Change and Forestry. This is essential to provide certainty across sectors in advance of the second carbon budget period.

Recommendations for the Electricity sector

Resilience

- It is vital that the Government urgently concludes work to ensure that the electricity network can withstand and rapidly recover from the impacts of extreme weather events and move towards a more systemic approach of adapting to climate change. Close inter-agency coordination, additional capital investments and the latest technologies should be available to ensure that systems and services are climate resilient and restored as quickly as possible. More regular and detailed reporting of power system outages by location will improve accountability and highlight where the grid most needs upgrades and investment.

Planning

- Many onshore wind projects will need to renew their existing planning permission by 2030 and are likely to upgrade their wind turbines to more efficient models. As these projects already have grid connections, it is important that local authorities and other decision-makers constructively consider their retention while taking account of legal constraints. It will be vital to have sufficient resources across the planning system to ensure that decisions can be taken without delay.

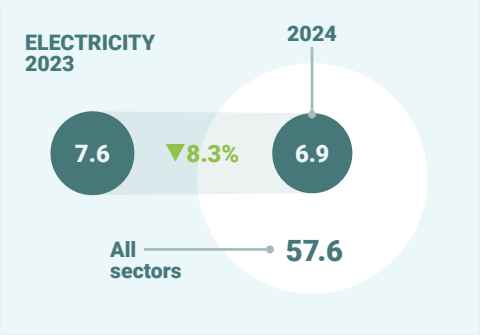
Reducing costs

- To help lower electricity bills and reduce peak demand, the Government must make the legal and regulatory changes needed so customers can easily access their smart meter data. Customers should be encouraged to download their data from the ESB Networks online portal and be supported with the necessary insights to interpret and act on this. Despite legislation passed in 2022 entitling customers to dynamic electricity pricing, the introduction of these contracts has now been delayed to June 2026. The Council urges electricity suppliers and the regulator to make these available sooner, along with real-time tools to help customers save money by shifting their usage to times when more renewable energy is available.

Key Facts

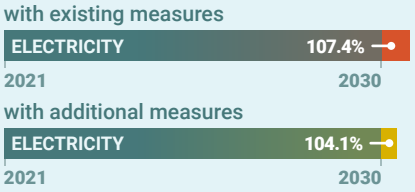
Electricity sector

Total emissions (Mt CO_2 eq)



10-year sectoral emissions ceiling

Expected under / overshoot based on current action:



First published 29 April 2025

Recommendations for the Transport sector

Public transport and school travel

- Following the publication of the National Development Plan Review 2025, the Government must deliver increased investment for sustainable public transport and ongoing support for all major public transport projects. About one in five journeys are for the purpose of education, with journeys by car resulting in significant air quality issues near schools, increased transport emissions and congestion. The Government must shift more of these journeys onto buses, trains, walking and cycling. This will require further funding, along with a renewed focus on road safety and easier access to sustainable travel options.

Ports

- The significant disruption caused by the closure of Holyhead Port in Wales, with knock-on impacts on supply chains and travel plans, shows how vital it is that Ireland's port infrastructure and that of its neighbours can resist and recover from extreme weather events. It is crucial that the National Ports Policy is updated to reflect these risks, and each port must adapt for and be able to withstand and rapidly recover from the impacts of extreme weather events. This requires a more integrated and systemic approach to planning for and managing climate risk, and developing the necessary capacity to adapt to climate change.

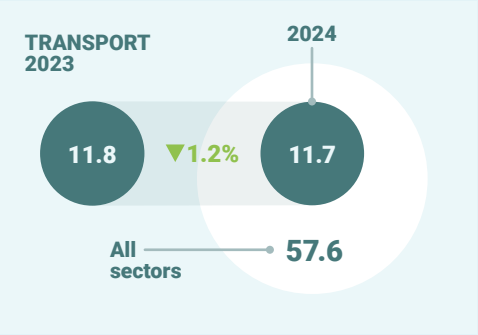
Electric vehicle supports

- To support the Government target of having 800,000 electric vehicles on the road by 2030 it will be necessary to adjust the grants available to households to purchase electric vehicles and to accelerate the roll-out of publicly accessible charging capacity. The grant scheme needs to be refocused on supporting the purchase of more efficient and cheaper/second-hand electric vehicles with a particular focus on those areas with the poorest access to public transport services and Just Transition principles.

Key Facts

Transport sector

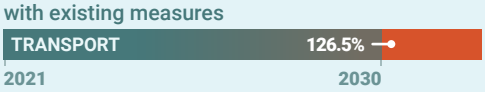
Total emissions (Mt CO_2 eq)



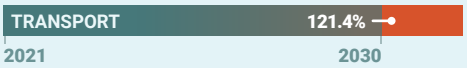
10-year sectoral emissions ceiling

Expected under / overshoot based on current action:

with existing measures



with additional measures



First published 18 June 2025

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

Reducing emissions

- The Government should strengthen incentives, regulations, monitoring systems and training support to accelerate the achievement of Climate Action Plan 2025 targets, particularly the target of replacing between 80% and 90% of calcium ammonia nitrate fertiliser with protected urea, and set annualised targets for the deployment of methane-reducing manure additives.
- Afforestation rates are substantially below target. The Government should take urgent action to increase participation in the Forestry Programme 2023–2027 while upholding the principle of 'the right tree in the right place with the right management'. To protect vital carbon stores, trees must not be planted on deep peat soils, and forests must be managed to withstand climate risks and increase biodiversity benefits.
- The Government should finalise and publish Phase 2 of the Land Use Review, which is urgently needed to inform strategies for land use that support improved socio-economic, climate, biodiversity, and water and air quality outcomes. These strategies should set out clear timelines, resources and training needs, and implementation responsibilities for the Department of Agriculture, Food and the Marine and other relevant agencies.

Prioritising resilience

- The Government should establish a dedicated unit to accelerate the deployment of nature-based solutions for the management of water resources and flood risk at catchment level. Large-scale pilot schemes should be designed with landholder engagement to roll out the deployment of these solutions.

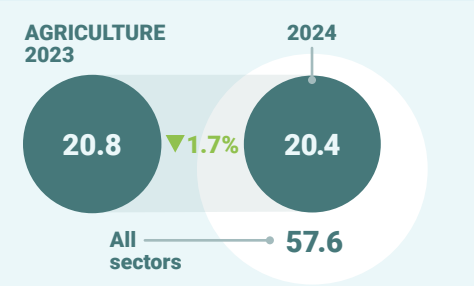
Accelerating diversification

- In the 2026 Climate Action Plan, the Government should set annual targets for the roll-out of specific diversification measures, including for bioenergy generation, organic production systems, expanding tillage, biodiversity restoration, and increasing afforestation and agroforestry, with timely delivery of policies to support these.

Key Facts

Agriculture sector

Total emissions (Mt CO_2 eq)

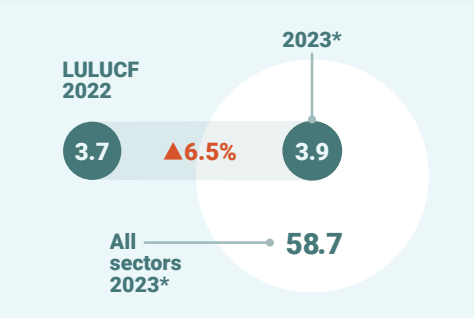


10-year sectoral emissions ceiling

Expected under / overshoot based on current action:

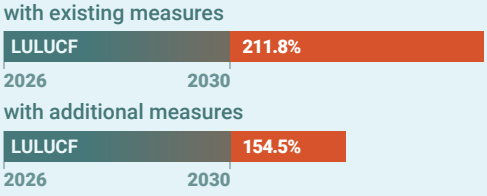
Land Use, Land Use Change and Forestry sector

Total emissions (Mt CO_2 eq)



Estimated 5-year EU LULUCF emissions budget

Expected under / overshoot based on current action:



* 2024 data not yet available for the LULUCF sector

First published 16 July 2025

Recommendations for the Built Environment, Industry and Waste sectors

Built Environment

- Fossil fuels must be urgently phased out, so it is essential that the National Building Renovation Plan due to be published this year includes a clear plan to phase out fossil fuel boilers in existing buildings.
- Wider support, guidance and standards for solar photovoltaic installations, including in relation to batteries and changeover switches, to increase customer resilience are recommended, particularly focusing on vulnerable households and supporting resilience during extreme weather events.

Industry and Waste

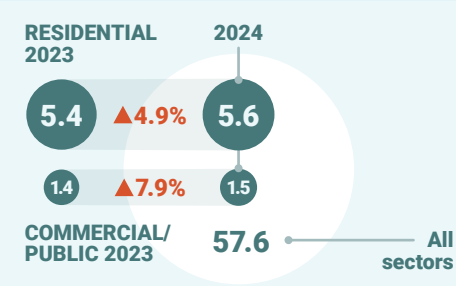
- The Council recommends that the Government take urgent action to support the construction of low-carbon buildings. This should include the development of new standards and faster approval processes for low-carbon cement technologies, and a requirement for all new buildings to have resource and waste management plans, to minimise the consumption of materials and reduce waste.

First published 2 September 2025

Key Facts

Built Environment sector

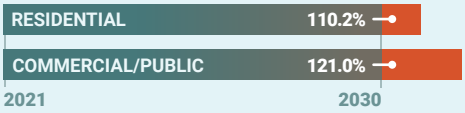
Total emissions (Mt CO_2 eq)



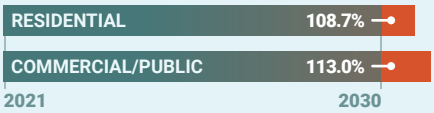
10-year sectoral emissions ceiling

Expected under / overshoot based on current action:

with existing measures

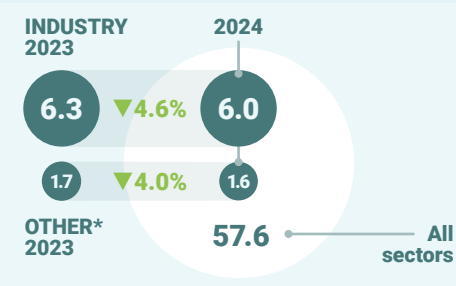


with additional measures



Industry & Other sectors

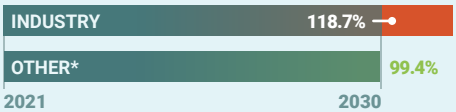
Total emissions (Mt CO_2 eq)



10-year sectoral emissions ceiling

Expected under / overshoot based on current action:

with existing measures



with additional measures

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

Recommendations for climate adaptation and resilience

Our Changing Climate in 2024

- The Government should establish a national climate damage register to monitor and record the economic, social and environmental impacts of extreme events in support of more robust preparedness and planning for future extreme events.
- The Government should provide the necessary funding and support to sustain and improve the national climate observation system, including monitoring of all critical atmospheric, land and ocean variables.

First published 19 March 2025

Preparing for Ireland's Changing Climate

- The Government should provide annual defined funding to make climate action roles in local authorities and the climate action regional offices permanent. This will avoid the loss of critical expertise and protect the momentum of climate action implementation. Adequate and sustained funding must also be provided from central Government to support climate adaptation measures at a local level.
- Across all sectors, the Government should ensure that actions with clearly defined resilience outcomes from the sectoral adaptation plans are included in the Climate Action Plan 2026. Progress on the implementation of adaptation policy measures should be reported every year to the Joint Oireachtas Committee on Climate, Environment and Energy.
- Recognising that many extreme events have already become both more frequent and severe, the Government should establish the Extreme Weather Assistance Scheme before the 2025/26 storm season and ensure that it is permanent, appropriately resourced and has streamlined processes and procedures to allow for rapid response.

First published 29 September 2025

Recommendations for biodiversity

Strengthening regulations

- The Government must urgently develop a specific regulation requiring planning authorities to ensure no net loss of biodiversity and that nature-based solutions are incorporated in all future developments.

Improving incentives

- The Government should ensure continuity of the current agri-environment schemes and timely payments, while also establishing a longer-term programme that incentivises and rewards farmers for delivering ambitious, results-based measures that reduce emissions, build resilience and enhance biodiversity and ecosystem services.
- As part of the mid-term review of the Forestry Programme 2023–2027, the Government should strengthen incentives for and remove barriers to the Native Tree Area Scheme to encourage the planting of small native woodland pocket forests of 0.1–1 ha to help meet afforestation targets, enhance biodiversity and protect watercourses.

Establishing targets and monitoring progress

- Government departments and semi-state companies should coordinate with each other in setting targets for peatland restoration for 2030, 2040 and 2050, and expand restoration and conservation measures in and outside protected areas. Targets should be included in the Climate Action Plan 2026 and be subject to annual progress reporting.

First published 15 October 2025

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 pursuing and achieving a competitive, low-carbon, climate-resilient and environmentally sustainable and climate neutral 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. In December 2024, the Council proposed a finalised third carbon budget (2031–2035) and a provisional fourth budget (2036–2040) in support of the achievement of climate neutrality by 2050. These were informed by the latest emissions data, scientific advice and international best practice, and they aim to maximise economic benefits while considering climate justice. Carbon budgets three and four are currently awaiting Government approval following a public consultation in summer 2025.

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 (SECs) 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 SECs set out the maximum emissions permitted from each sector to ensure that Ireland remains within its carbon budgets.

The graphics on pages 5–8 show how each sector's projected progress aligns with its agreed SEC across the first two carbon budget periods (2021–2025 and 2026–2030).

The sectors are: Electricity, Industry and other; Transport; Built Environment (residential, commercial and public sector); Agriculture; and Land Use, Land Use Change and Forestry.