Rialtas na hÉireann
Government of Ireland

WE'RE TAKING CLIMATE ACTION

Climate Action Plan 2025



Front cover: photo by Tina Claffey. ***Birch Shieldbug***

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Foreword

This is the third Climate Action Plan to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, our fifth overall and is our latest assessment and measurement of what we have achieved over the past year, building on actions taken over previous years. More importantly, it sets out what we need to do into 2025, so that we are prepared to take on the challenges of our second carbon budget period 2026-2030. While prepared during the transition period before the new Government that took office, this plan reaffirms Ireland's position as a leader when it comes to addressing the challenges posed by climate change and reinforces the Government's commitment to delivering on ambitious emission reduction targets.

Effective planning is crucial, but our focus must now turn to turbocharging delivery, accelerating the significant progress that has been made in recent years. While Ireland was for years labelled as a climate laggard, we are definitely shifting the dial on that reputation. In 2023, we reduced our emissions by nearly 7%, against the backdrop of a thriving economy and a rising population. Reassuringly, in the first half of 2024, we saw a further reduction of 3.5% when compared with the same period in 2023, which gives confidence that we are beginning to bend the emissions curve downwards. The greatest reductions are being seen in energy. Emissions in the first half of 2024 from the electricity sector were down over 17%, (their lowest level for decades) and we are seeing increasingly positive signs across solar and wind energy. Irish wind farms generated nearly 40% of Ireland's total electricity demand in the first half of 2024, making Ireland third in the world for installed wind power capacity per capita. Solar energy is also expanding rapidly with over 100,000 rooftop microgenerators – that's ordinary households and farms – now connected to Ireland's electricity network. Added to this, we are helping over 1,000 households a week become warmer and more cost effective with our retrofitting programme.

Over the past year, we've also seen emissions reductions of over 4% in agriculture. In the built environment, emissions have decreased by 21% since 2018. Transport remains one of our big challenges, with emissions increasing by 0.3% in 2023. But, in this area, we are seeing the greatest mass public response to climate action. We have recently celebrated reaching over a million passenger journeys a day on public transport, and in rural transport we have topped 100,000 passenger journeys every week, up five-fold on passenger numbers in 2022.

Looking at climate from an International perspective, negotiations concluded at the 29th Conference of the Parties, or COP29, in Azerbaijan with a finance deal worth $1.3 trillion by 2035, laying the foundation towards providing meaningful support in the future. More importantly it signals the start of vital reform of the global financial system so that developing countries get fairer access to finance for investment in areas like renewable energy or adaptation. Climate change is a 'threat multipler' – wars and famines are being exacerabated as warming continues unabated and millions of climate refugees are displaced from their homelands. In the changing international envirоinment it is critical that Ireland, and the European Union, continue to accelerate climate action.

This is against the backdrop of the EU Copernicus Climate Change Service reporting that 2024 was the hottest in recorded history, with warming above the lode star of 1.5C. The world has been passing milestones of temperature records, month after month, with devasting impacts. For every Climate Action Plan there are many new extreme weather events to reference. This year, we have witnessed deadly flooding in Spain, the sweeping destruction of Hurricane Milton in the United States and more recently the impacts of Storm Éowyn on our own communities. Climate change is not something in our future. It is very real, right now, and has been accelerating for years.

It could be easy to be despondent in the face of the challenges we are facing, but that would not help protect our people today or in the future nor our planet. We have to keep looking forward, and we have to keep finding hope and resilience by taking action, month by month, year by year – which is exactly what our Climate Action Plans are all about.

As the Climate Engagement Campaign states clearly and simply – *Climate Actions Work* (CAW). And they work particularly well when they are strategic, when they are consistent, when they are tangible and when they bring about a measurable improvement in people's lives.

Budget, policy and investment decisions taken over the immediate years ahead will determine whether Ireland remains an attractive, climate conscious economy in which to do business into the future. Political choices on how we build, how we get around, how we farm, how we power our country, and how we preserve our biodiversity, will help determine whether Ireland remains a prosperous and secure place to live and a great place to raise the next generation.

We have a choice between climate action, or climate inaction. Ireland's future will be much stronger and more resilient with the former, guided and challenged by our Climate Action Plans. This Plan, along with its predecessors, outlines the strategies necessary to progress towards the goals re-affirmed in this Governments Programme for Government of a 51% reduction in greenhouse gas (GHG) emissions by 2030 and reaching climate neutrality by no later than 2050.

The United Nations Environment Programme's 2024 Emissions Gap Report indicates that GHG emissions have reached unprecedented levels, with projections suggesting a potential global temperature rise of 3.1°C by the end of the century if current policies persist. This trajectory significantly exceeds the 1.5°C target set by the Paris Agreement, highlighting the necessity for immediate and substantial emissions reductions. Scientists see the fingerprints of human activity across some of the most extreme weather events in recent memory, events that would have been virtually impossible without our influence.

In Europe, reports from the Copernicus Climate Service highlight the escalating challenges the continent faces. Temperatures are increasing at nearly twice the global average since the 1980s. This accelerated warming has led to more frequent and severe weather events with global wildfires in 2024 producing approximately 1,940 $MtCO_2eq.$, equivalent to 73% of the annual emissions of Russia. Greece also saw the largest wildfire recorded in the European Union to date. Scientists reported that the devastating floods in Valencia in October 2024 were driven by sharp, human-caused increases in sea surface temperatures.

In Ireland, the winter of 2023/2024 saw heightened storm activity, including four named storms in December 2023 alone. The increasing variability and extremity of weather patterns shows the impact of climate change at a national level. The severity and impact of storm Éowyn was unprecedented.

Anthropogenic climate change continues to be caused through the burning of fossil fuels. Delivery of the targets and policies in Climate Action Plan 2024 (CAP24) and Climate Action Plan 2025 (CAP25) are essential for a sustainable, low-carbon, and climate-resilient Ireland and the financial costs associated with climate action now will only escalate with inaction or underdelivery. Beyond these costs, the declines in Ireland's biodiversity caused by agricultural expansion, urban development, pollution, climate change, and the introduction of invasive species are losses which cannot easily be recovered. Our biodiversity underpins essential services such as pollination, water purification, soil fertility, and climate regulation. Ireland's natural heritage is integral to its cultural identity, with many species and landscapes holding historical and aesthetic value.

Beyond the legally binding targets set in our climate legislation, there is an existential imperative to deliver on Irish climate neutrality by no later than 2050. The mobilisation of society in achieving this will require continued urgency, ambition, and action by all sectors of society.

Glossary of Acronyms

°C	Degrees Celsius
AA	Appropriate Assessment
ACRES	Agri-Climate Rural Environment Scheme
AFIR	Alternative Fuels Infrastructure Regulation
AGSBR	Advisory Group on Social and Behavioural Research
AI	Artificial Intelligence
AR7	IPCC Seventh Assessment Report
BBNJ	Biodiversity in Areas Beyond National Jurisdiction
BER	Building Energy Rating
BIM	Bord Iascaigh Mhara
BMW	Biodegradable Municipal Waste
CAF	Climate Action Fund
CAN	Calcium Ammonium Nitrate
CAP	Climate Action Plan
CAP21	Climate Action Plan 21
CAP23	Climate Action Plan 23
CAP24	Climate Action Plan 24
CAP25	Climate Action Plan 25
CARO	Climate Action Regional Office
CAW	Climate Actions Work
CCCC	Climate Communications Coordination Committee
CCAC	Climate Change Advisory Council
CCR&I	Climate and Climate-related R&I
CCUS	Carbon Capture, Utilisation and Storage
CIAN	Climate Ireland Adaptation Network
CO_2	Carbon Dioxide
CO_2eq.	Carbon Dioxide Equivalent
COP16	2024 United Nations Biodiversity Conference
COP28	28th Conference of the Parties
COP29	29th Conference of the Parties

COP30	30th Conference of the Parties
COVID	SARS-CoV-2 / Coronavirus Disease 2019
CRU	Commission for the Regulation of Utilities
CSB	Commercial Semi-State Bodies
CSP	Common Agricultural Policy Strategic Plan
CSRD	Corporate Sustainability Reporting Directive
DAFM	Department of Agriculture, Food and Marine
DCU	Dublin City University
DECC	Deparment of the Environment, Climate and Communications
DETE	Department of Enterprise, Trade and Employment
DFHERIS	Department of Further and Higher Education, Research, Innovation and Science
DHLGH	Department of Housing, Local Government, and Heritage
DMAP	Designated Marine Area Plan
DZ	Decarbonising Zone
ECHR	European Court of Human Rights
EED	Energy Efficiency Directive
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMAS	Eco Management and Audit Scheme
EPA	Environmental Protection Agency
EPBD	Energy Performance of Buildings Directive
EPEAT	Electronic Product Environmental Assessment Tool
ESB	Electricity Supply Board
ESG	Environmental, Social, and Corporate Governance
ESRI	Economic, Social Research Insititute
ETS	Emissions Trading System
EU	European Union
EuroGOOS	European Global Ocean Observing System
EU JTF	European Union Just Transition Fund
EV	Electric Vehicle
F-Gases	Fluorinated Greenhouse Gases

FIF	Future Ireland Fund
GAA	Gaelic Athletic Association
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GNI	Modified Gross National Income
GPP	Green Public Procurement
GSI	Geological Survey Ireland
GST	Global Stocktake
GW	Gigawatt
GWh	Gigawatt-Hour
GWP	Global Warming Potential
Ha	Hectare
HDV	Heavy-Duty Vehicle
HFCs	Hydrofluorocarbons
HGV	Heavy Goods Vehicle
HVO	Hydrotreated vegetable oil
ICAO	International Civil Aviation Organisation
ICCA	Ireland's Climate Change Assessment
ICNF	Infrastructure, Climate and Nature Fund
ICT	Information and Communication Technology
IFAC	Irish Fiscal Advisory Council
IFIs	International Financial Institutions
IMF	International Monetary Fund
INC	Intergovernmental Negotiating Committee
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organisation for Standardisation
JPI	Joint Programming Initiative
$KtCO_2eq.$	Kilotonnes of Carbon Dioxide Equivalent
LA CAP	Local Authority Climate Action Plan
LDCs	Least Developed Countries
LDVs	Light-Duty Vehicle

LIFE	Financial Instrument for the Environment Programme
LULUCF	Land Use, Land Use Change and Forestry
M&R	Monitoring and Reporting
MACC	Marginal Abatement Cost Curve
MAP	Maritime Area Planning [Act 2021]
MaREI	Research Centre for Energy, Climate, and Marine Research and Innovation
MATS	Metropolitan Area Transport Strategies
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
$MtCO_2eq.$	Million Tonnes of Carbon Dioxide Equivalent
MW	Megawatt
N	Nitrogen
NACE	The 'statistical classification of economic activities' in the European Community
NAF	National Adaptation Framework
NBS	Nature Based Solutions
NCCRA	National Climate Change Risk Assessment
NDCA	National Dialogue on Climate Action
NDCs	Nationally Determined Contributions
NDP	National Development Plan
NECP	National Energy and Climate Plan
NEDS	National Energy Demand Strategy
NESC	National Economic and Social Council
NewERA	New Economy and Recovery Authority
NFQ	National Framework of Qualifications
NHA	Natural Heritage Areas
NJTF	National Just Transition Fund
NMPF	National Marine Planning Framework
NOTF	National Ocean Test Facility
NPF	National Planning Framework
NPWS	National Parks and Wildlife Service
NRF	National Reserve Fund

NTA	National Transport Authority
NZEB	Nearly Zero Energy Building
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OPW	Office of Public Works
ORE	Offshore Renewable Energy
OSPAR	Oslo and Paris Convention for the Protection of the Marine Environment of the North-East Atlantic
PO	Principal Officer (a senior management grade in the civil service)
PSO	Public Service Obligation
R&D	Research and Development
R&I	Research and Innovation
RDI	Research, Development and Innovation
RESS	Renewable Electricity Support Scheme
RHO	Renewable Heat Obligation
RRES	Regional Renewable Energy Strategy
RST	IMF's Resilience and Sustainability Trust
RTFO	Renewable Transport Fuel Obligation
SAC	Special Area of Conservation
SAPs	Sectoral Adaptation Plans
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority of Ireland
SEC	Sectoral Emissions Ceiling
SESWG	Smart Energy Services Working Group
SIDS	Small Island Developing States
SME	Small and Medium-Sized Enterprise
SMP	Sustainable Mobility Policy
SOLAS	An tSeirbhís Oideachais Leanúnaigh agus Scileanna
SPA	Special Protection Area
STEM	Science, Technology, Engineering and Mathematics
$tCO_2eq.$	Tonnes of Carbon Dioxide

TEN-T	Trans-European Transport Network
TII	Transport Infrastructure Ireland
TWh	Terawatt-Hour
UCD	University College Dublin
UN	United Nations
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollars
VAT	Value Added Tax
WAM	With Additional Measures
WEM	With Existing Measures
ZEVI	Zero Emission Vehicles Ireland

Executive Summary

Governance

The governance framework for CAP25 maintains continuity with CAP24, featuring quarterly progress reporting overseen by the Department of the Taoiseach. Work is underway to allocate the unallocated GHG savings in key sectors ahead of the second carbon budgetary period (2026–2030). 2024 saw the introduction of both an updated *Long-term Climate Strategy*, which provides a link between Ireland's 2030 and 2050 climate targets, and an updated *National Energy and Climate Plan* (NECP), which lays out the State's approach to achieving the EU emissions reduction targets for both 2030. Building on the progress to date and in line with Programme for Government commitments the governance and delivery structures will be enhanced in 2025 to ensure that delivery is at the heart of climate action plans.

Just Transition

CAP25 strengthens Ireland's commitment to ensuring a just transition through its four-principle framework, focusing on evidence-based planning, skills development, equitable cost distribution, and social dialogue. Key developments include the establishment of a Just Transition Commission and work on the development of national indicators to measure progress. Skills development is prioritised through initiatives like SOLAS's *National Further Education and Training Strategy for the Green Transition* and sector-specific programmes in offshore wind and e-mobility. Regional implementation continues in the Midlands, with almost €90 million committed through the EU Just Transition Fund for projects spanning economic diversification, peatland rehabilitation, and sustainable mobility. The *National Dialogue on Climate Action* (NDCA) is expanding its community engagement through targeted workshops and the new CAW programme to ensure vulnerable communities remain central to the transition process.

Citizen Engagement

Building on the NDCA, which engaged over 15,000 members of the public between 2021–2024, Ireland launched the CAW programme in 2024 – a first-of-its-kind national engagement campaign focused on supporting local communities in climate action. The programme delivers targeted support through Communities of Place initiatives and a Green Sports Club Programme, alongside practical resources including a national climate actions map, training programmes, funding supports, and engagement toolkits. Key research initiatives include *Climate Conversations 2025*, behavioural studies, and expanded stakeholder fora to ensure diverse perspectives inform climate policy. These efforts aim to establish robust engagement between national government, local authorities, stakeholders, and communities, with particular attention given to those vulnerable to the transition to climate neutrality. The programme will continue expanding in 2025, focusing on scaling successful pilot initiatives and strengthening the evidence base for effective climate engagement.

Public Sector

The public sector continues to demonstrate climate action leadership through strategic initiatives and governance frameworks, with public sector emissions decreasing by 2.7% in 2023 compared to 2022. The sector is implementing an updated *Public Sector Climate Action Mandate* for 2025, which strengthens requirements around green public procurement, building retrofitting, and sustainable operations. Key targets include reducing GHG emissions by 51% and improving energy efficiency by 50% by 2030, with buildings accounting for 45-50% of the sector's energy consumption and transport representing 28% of emissions.

To achieve these goals, public bodies are developing *Climate Action Roadmaps*, implementing enhanced monitoring and reporting systems through the Sustainable Energy Authority of Ireland (SEAI), and participating in initiatives like the Reduce Your Use campaign. The sector is also focusing on capacity building through climate action training, with new centralised training programs for civil servants launched in 2024. Progress is being made across various subsectors, including commercial semi-state bodies, schools (through the Energy Retrofit Pathfinder Programme), and public buildings, while the new *Green Public Procurement Strategy and Action Plan 2024–2027* is driving the implementation of sustainable procurement practices.

Investment

Budget 2025 allocated €951 million in carbon tax revenues to support Ireland's low-carbon transition through socially progressive programmes, representing a €163 million increase from 2024. Significant investment channels have been established, including the *Climate Action Fund* and the new *Infrastructure, Climate and Nature Fund*, which commits €3.15 billion for designated environmental projects over the period 2026–2030. The €500 million *Home Energy Upgrade Loan Scheme* launched in 2024 facilitates private investment in residential energy efficiency, while Ireland's Green Bond programme continues to raise substantial capital market funding for climate projects. Additionally, EU funding through the *Social Climate Fund* will provide up to €663 million to Ireland over the 2026–2032 period to support vulnerable groups in the transition. These diverse funding streams collectively create a robust financial framework to support Ireland's climate objectives and carbon budgets.

Electricity

Electricity emissions have decreased by 26.2% from 2018 to 2023 due to the increasing share of renewable generation and net electricity imports. Wind energy now counts for over a third of our electricity supply. This sector has one of the smallest carbon budgets and most ambitious reduction requirements, especially considering the increased burden from other sectors moving to electrification. Work is ongoing to reinforce the electricity grid, massively expand generation from wind and complete the building of new interconnectors with France and the UK.

Industry

Emissions from the industry sector decreased by 9.5% between 2018 and 2023, driven by switching to lower carbon fuels and investment in decarbonisation by some of Ireland's largest industrial emitters. This trend in reductions will have to accelerate significantly in order to stay within the sector's emissions ceiling. Actions in 2025 will focus on cement and construction decarbonisation, carbon-neutral heating in Industry, and encouraging more efficient use of energy.

Buildings

Operational emissions in the built environment sector have decreased by 21% since 2018, and achievement of the first sectoral emissions ceilings is within reach. In the medium term, the transformation of Ireland's building stock is underway, with ambitious plans to retrofit half a million homes by 2030, deploy district heating at scale in dense urban areas, and improve energy performance standards in commercial buildings. In 2025 we will transpose the Energy Performance of Buildings Directive, publish a roadmap to phase out fossil fuel boilers, and increase the numbers of building energy rating (BER) assessors, One-Stop-Shops, and Sustainable Energy Communities.

Transport

Emissions in the transport sector increased by 0.3% in 2023, as the rebound in emissions since the Covid pandemic plateaus. Remaining within the sectoral emissions ceiling would now require an unprecedented 12.4% decrease in emissions in both 2024 and 2025. Key targets to further reduce emissions include a 20% reduction in total vehicle kilometres travelled relative to business-as-usual, a 50% reduction in fuel usage, and significant increases to sustainable transport trips and modal share. Fleet electrification and the use of biofuels will continue to provide the greatest share of emissions abatement in the medium term.

Agriculture

Emissions from agriculture fell by 4.6% in 2023, largely as a result of less nitrogen fertiliser being used on Irish farms. Agriculture remains the highest-emitting sector with 34.3% of CO_2eq. GHG emissions and will require accelerated reductions to meet the 2030 targets. CAP25 builds on existing strategies with a wide range of actions to support diversification and less emission-intensive cattle farming.

Land Use

The Environmental Protection Agency's (EPA) most recent inventory report shows a very significant recalculation in emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector due to refinement in modelling techniques. This has meant that estimations of emissions from this sector were revised downward by 45% and an average of 22% between 1990–2022. Due to the unsettled nature of an emissions baseline in this sector, a new approach was proposed in CAP24 to achieve a reduction of 0.626 $MtCO_2eq.$ by 2030 against a 2016–2018 average baseline.

Ireland's LULUCF sector is currently a carbon source rather than a sink, and the bio-physical nature of the sector means that it is difficult to reverse this in the short term due to the age class of our forestry which is reaching harvesting maturity, meaning emissions are set to rise in the period to 2030. We can improve the performance of LULUCF through peatlands rehabilitation, increased afforestation, improved management of grasslands on mineral soils, increasing the use of cover crops in tillage, and the rewetting of organic soils.

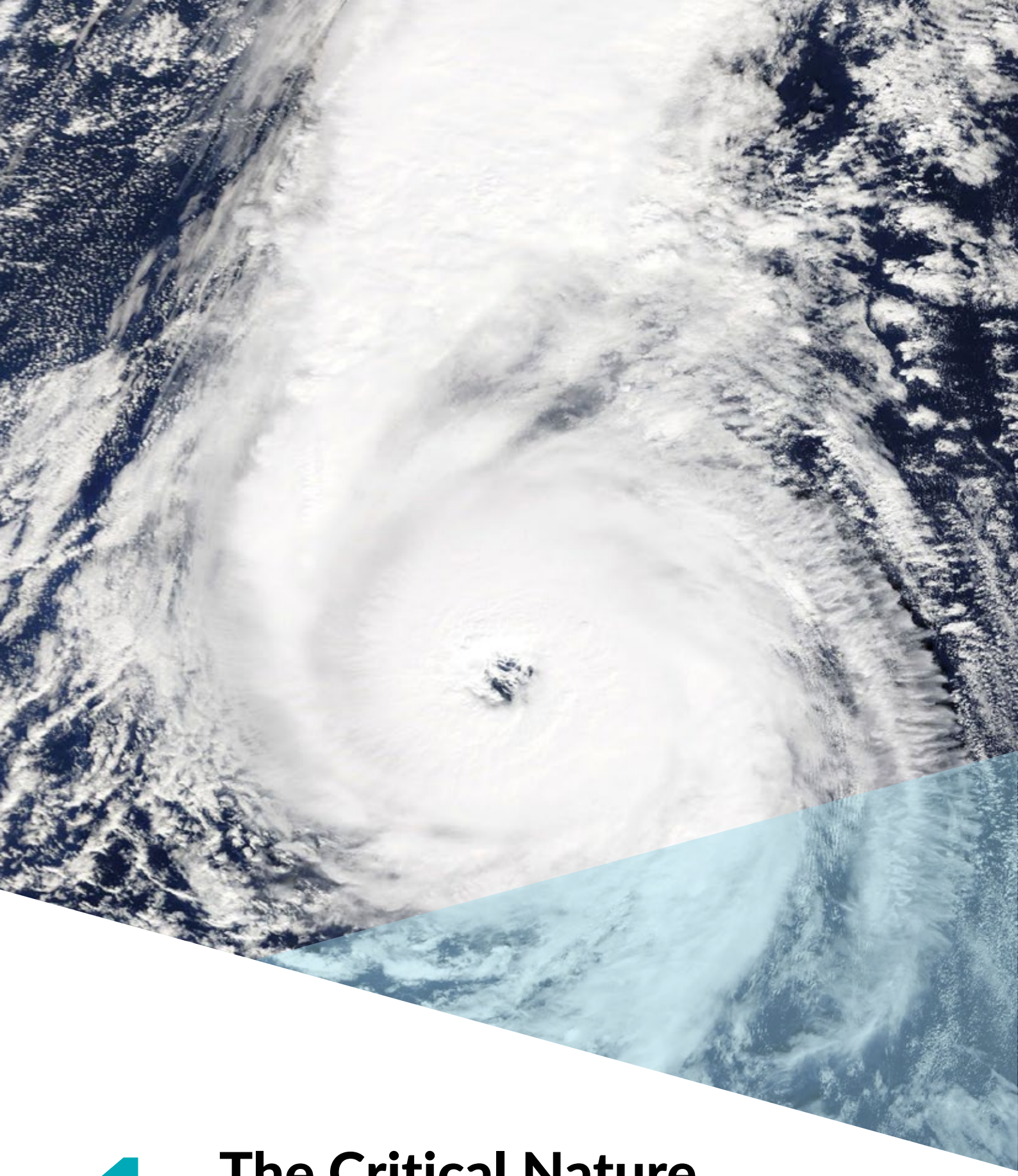
International & SDG's

Global temperatures reached unprecedented levels in 2024, with each month setting new heat records according to the EU Copernicus Climate Change Service. The first Global Stocktake at COP28 confirmed that current global efforts are insufficient to meet Paris Agreement goals and keep the 1.5°C temperature increase limit within reach. Ireland continues to demonstrate leadership in international climate action, doubling its climate finance since 2020 with projected expenditure exceeding €181 million in 2024. The country is actively championing a human rights-based, inclusive approach to climate action while scaling up support for climate resilience, adaptation, and biodiversity protection. This commitment aligns strongly with the UN's Sustainable Development Goals (SDGs), with CAP25 contributing to 117 out of 169 SDG targets. The Plan particularly advances goals related to climate action, poverty elimination, zero hunger, clean energy, and responsible consumption. Ireland's integrated approach to climate action and sustainable development is further reinforced by its support of the UN's *Pact for the Future*, adopted at the 2024 Summit of the Future, which aims to accelerate SDG implementation through urgent, scaled-up action.

Adaptation

Ireland's climate is undergoing significant changes, with 2023 being the warmest year on record and the increasing frequency of extreme weather events. Recent attribution studies have demonstrated the direct impact of climate change on events like the October 2023 floods in Midleton, which were twice as likely to occur compared to pre-industrial times. In response, Ireland published its second statutory *National Adaptation Framework* (NAF) in June 2024, introducing stronger emphasis on avoiding maladaptation, promoting nature-based solutions, and ensuring just resilience.

The adaptation landscape in Ireland is evolving through several key initiatives: the EPA is developing Ireland's first *National Climate Change Risk Assessment* (due Q1 2025), all 31 local authorities have adopted *Local Authority Climate Action Plans*, and 13 priority sectors are required to complete new *Sectoral Adaptation Plans* by Q3 2025. This comprehensive approach is supported by enhanced climate services from Met Éireann, including the TRANSLATE project for future climate projections, and a new National Framework for Climate Services. However, the EPA's *State of the Environment Report 2024* notes that implementation of climate adaptation measures remains too slow and fragmented, highlighting the need for more cross-sectoral integration and increased public and private sector involvement.



1 The Critical Nature of the Challenge

Image: *Hurricane Ophelia approaching Ireland*

Key Messages

State of Play

- 2023 was the warmest year on record globally, and record breaking-warming has continued in 2024;
- Continued emissions of GHGs will cause further warming leading to increased economic costs and increasingly negative impacts on people and nature;
- Globally climate solutions, including renewables, are being deployed at an unprecedented pace, with many countries increasing their climate ambition and investment;
- Ireland's economic competitiveness now aligns with its climate ambition.

Current and Future Action

- Rapid and significant reductions in GHG emissions are required if we are to meet the 2015 Paris Agreement and the UN's Sustainable Development Goals;
- The European Green Deal commits to achieving climate neutrality in the EU by 2050, with exacting targets set for Ireland under different compliance regimes for 2030 (e.g. Effort Sharing Regulation, LULUCF Regulation, Renewable Energy Directive etc). Under national law, Ireland separately committed to achieving a 51% reduction in emissions to 2030, and to achieving climate neutrality by no later than 2050;
- We need to act now, with urgency, to ensure Ireland's future in a low-carbon world.

Expected Outcomes

- Climate Action Plan 2025 sets out the roadmap to deliver on Ireland's climate ambition.

1.1 Global Warming Continues

Human influence continues to warm the atmosphere, ocean and land leading to widespread and rapid changes across the world which are disrupting human and natural systems resulting in climate-related loss and damage to people and nature. Warming is driven by increasing amounts of GHGs (mainly carbon-dioxide, methane and nitrous oxide) in the atmosphere due mainly to our continued use of fossil fuels and the way we manage land.

This year saw confirmation that 2023 was the warmest year on record with the annual average global temperature 1.45°C above the pre-industrial average. It's also clear that since the 1980s Europe has been warming twice as fast as the global average and is now the fastest-warming continent on Earth. In Europe, 2023 was the joint warmest or second warmest year on record depending on the dataset used, with temperatures 2.48–2.58°C above the pre-industrial average. It was also one of the wettest years on record with widespread flooding across the continent, and average sea-surface temperature across Europe was the warmest on record. There were also large fires in Portugal, Spain, Italy and Greece, which saw the largest wildfire ever recorded in the EU, affecting approximately 96,000 hectares of land.

For Ireland 2023 was the warmest and wettest year on record. This was influenced by the record high sea-surface temperatures across the North Atlantic which contributed to the increase in temperatures and moisture content in the atmosphere over Ireland. In June 2023, the North Atlantic was impacted by a marine heatwave that was classified as 'extreme' and in some areas 'beyond extreme', with sea surface temperatures as much as 5°C above average.

Warming has continued in 2024 with the average global temperature for the 12-month period July 2023–June 2024 the highest on record at 1.64°C above the pre-industrial average, and with the highest daily average global temperature in recent history recorded on 22 July (17.16°C). In Ireland, Spring 2024 (March, April and May) was one of the warmest and wettest on record. It was the twelfth consecutive season with above average temperatures and the fifth with above average rainfall. Record-high sea surface temperatures continued across the North Atlantic.

1.2 Paris Agreement

It is critical that the international community continues to step up efforts towards meeting the Paris Agreement objectives of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change. With the World Meteorological Organisation reporting in June 2024 that there is an 80% likelihood that the annual average global temperature will temporarily exceed 1.5°C above pre-industrial levels for at least one of the next five years, the need for immediate and significant action to reduce GHG emissions is more apparent than ever.

This urgent need for action was reflected at COP28 which agreed that limiting global warming to 1.5°C requires deep, rapid and sustained reductions in global GHG emissions of 43% by 2030 and 60% by 2035 compared to 2019 levels and reaching net zero CO_2 emissions globally by 2050. The COP28 agreement also calls on the Parties to triple global renewable energy capacity and double the rate of energy efficiency improvements by 2030, to accelerate efforts globally towards net zero emission energy systems, making use of zero- and low-carbon fuels well before or by around mid-century. While emphasising the importance of a just transition, it also seeks to accelerate efforts to phase down unabated coal power; to phase out inefficient fossil fuel subsidies; and other measures that drive the transition away from fossil fuels in energy systems, in a just, orderly and equitable manner, with developed countries continuing to take the lead. Parties are also encouraged to come forward with ambitious, economy-wide emission reduction targets, covering all GHGs, sectors and categories and aligned with the 1.5°C limit in their next round of nationally determined contributions (NDCs) by early 2025.

In a major step forward, the Parties also agreed on targets for the Global Goal on Adaptation and its framework, which identify where the world needs to get to in order to be resilient to the impacts of a changing climate and to assess countries' efforts in this regard. COP28 also resulted in unprecedented recognition and momentum for linking efforts to address the climate and biodiversity crises. Alongside pollution, these make up the triple planetary crisis – the three, main interlinked environmental issues facing humanity. Governments were called on to consider ecosystems, biodiversity and carbon stores, such as forests, when developing their NDCs in 2025.

1.3 European Green Deal

The Green Deal makes a commitment to achieve climate neutrality in the EU by 2050. In 2023, work was completed on the revision of the EU's climate, energy and transport-related legislation under the 'Fit for 55 Package' aligning EU laws with the 2030 and 2050 climate ambition. Ireland fully supported this enhanced ambition. Looking ahead and building on achievements to date, Europe aims to become a continent with clean, low-carbon, affordable energy and sustainable food and materials, making it resilient against future crises.

The Climate Law obliges the EU to adopt a legally-binding 2040 climate target. In February 2024 the Commission recommended a net reduction of 90% in greenhouse gas emissions by 2040 compared to 1990 levels. To achieve this, the Commission proposes a range of measures and strategies including a significant increase in investment in energy infrastructure and low-carbon solutions; support for innovative technologies in industry and agriculture; the creation of a market for low-carbon and circular products; and the development of a sustainable industry and competitiveness agenda. The incoming EU Commission will now make the legislative proposal to include the 2040 target in the European Climate Law and will ensure that the appropriate post-2030 policy framework is in place to deliver the 2040 target.

1.4 Accelerating Climate Action

Action continues across the world to reduce GHG emissions. The first global stocktake under the Paris Agreement found that Parties are putting increasingly effective climate policies in place, but that urgent additional action is needed to achieve the Agreement's goals. There is also a growing appreciation of the costs and human impacts of a changing climate which are large and increasing. We also face increasing risks of reaching irreversible climate tipping points, with unknown and potentially catastrophic consequences for societies, ecosystems and economies.

Investment in emissions reduction is growing as the urgent need to act is increasingly being recognised and as the benefits of the transition to a low carbon society become clearer. In 2023, zero-carbon technologies comprised more than 40% of global electricity generation for the first time, with solar and wind representing more than 90% of global energy capacity additions. Globally, electric car sales were 35% higher in 2023 than in 2022 and more than six times higher than in 2018, and numbers of electric vehicles have increased again in the first half of 2024. These examples underline the rapid progress that is being made in reducing emissions which we can build on to urgently accelerate action in the coming years.

In short, the economic benefits of the transition to climate neutrality are being recognised and acted upon internationally. This points to the need to act now, with urgency, to ensure Ireland's future in a low-carbon world.

1.5 Taking Action in Ireland

Under the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland's national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy. The Act also requires a reduction of 51% in GHG emissions by 2030, compared to 2018 levels.

The European Climate Law set legally binding EU-wide targets of reducing net GHG emissions by at least 55% by 2030, compared to 1990 levels, and achieving net-zero GHG emissions by 2050. Ireland will play its part in achieving the EU-wide 2030 target by meeting its binding targets under the Emissions Trading Scheme, Effort Sharing Regulation and Land Use, Land Use Change and Forestry Regulation.

Whereas the annual update to the Climate Action Plan is a legal requirement of the 2021 Act, Ireland also publishes other related plans which are submitted to the European Commission under EU law. The *National Energy and Climate Plan 2021-2030* outlines Ireland's plan to address the five dimensions of the energy union **https://www.gov.ie/en/publication/1d2c1-irelands-draft-updated-necp-2021-2030/**; and the *Long-term Strategy on Greenhouse Gas Emissions Reduction* sets out indicative pathways, beyond 2030, towards achieving climate neutrality for Ireland by 2050 **https://www.gov.ie/en/publication/e4e81-long-term-strategy-on-greenhouse-gas-emissions-reductions/**.

CAP24 set out an ambitious all-of-Government response to the challenges posed by climate change. The mid-year progress report on CAP24 shows continued progress towards Ireland's climate targets with 20 out of 33 new actions completed on time. High impact actions delivered in the first half of 2024 include: delivering a low-cost finance scheme for home retrofits; publishing a *National Biomethane Strategy*; publishing a national EV charging strategy; publishing a decarbonisation roadmap for industrial heat; updating the shadow price of carbon; adopting 31 *Local Authority Climate Action Plans* and publishing a new *National Adaptation Framework*.

Oversight of the delivery of CAP25, by the Department of the Taoiseach, will continue to ensure that critical coordination across all Departments and Agencies is in place. This means that stakeholders will remain focussed on timely implementation in their areas and anticipate any corrective measures needed.

While much of this Plan focuses on climate mitigation – the imperative to reduce our emissions of greenhouse gases and thereby reduce warming – we also need to focus on climate adaptation. This is addressed primarily in chapter 22 of this Plan but is also mainstreamed across the Plan as a whole. In addition, the second statutory *National Adaptation Framework*, published in June 2024, sets out the actions we are taking to reduce our vulnerability and increase our resilience to climate change.

This Climate Action Plan sets out the roadmap to deliver on Ireland's climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral emissions ceilings agreed by Government and will enable Ireland to make progress towards our 2030 targets and be well placed to meet mid-century decarbonisation objectives.



2 Where We Stand

Image: *Children overlooking Pine Island, Connemara, Co. Galway*

2.1 Trends in Ireland's Emissions to Date

1990 is the base year most commonly used in relation to United National Framework Convention on Climate Change (UNFCCC) reporting and provides a useful lens through which to view the trends in Ireland's GHG emissions. Emissions grew to a peak in 2001 in part due to Ireland's significant economic development in the 1990s and have been trending downwards non-linearly since then. According to the EPA's latest inventory data, 2023 was the first year in which emissions were at a level below that 1990 baseline. This milestone has been reached with a population in 2023 which was almost 50% larger than in 1990, and in the context of a thriving economy.

The sectoral makeup of our emissions has changed considerably since 1990. Emissions in the transport sector increased by 129.2% to 2023 driven by a high reliance on private car travel as well as rapidly increasing road freight transport. On the other hand, emissions from electricity generation fell by 32.1% during a timeframe where electricity consumption grew by 164%. This was driven by more efficient gas-fired power plants replacing older peat and oil-fired plants, an increased share of renewables, and increased interconnectivity. Meanwhile, the agriculture sector has remained Ireland's largest source of GHG emissions, accounting for about one-third of total emissions. The tradition of livestock farming, particularly beef and dairy, has meant that sustained abatement of GHG emissions has not yet materialised. Figure 1 shows Ireland's provisional GHG emissions by sector from 1990 to 2023.

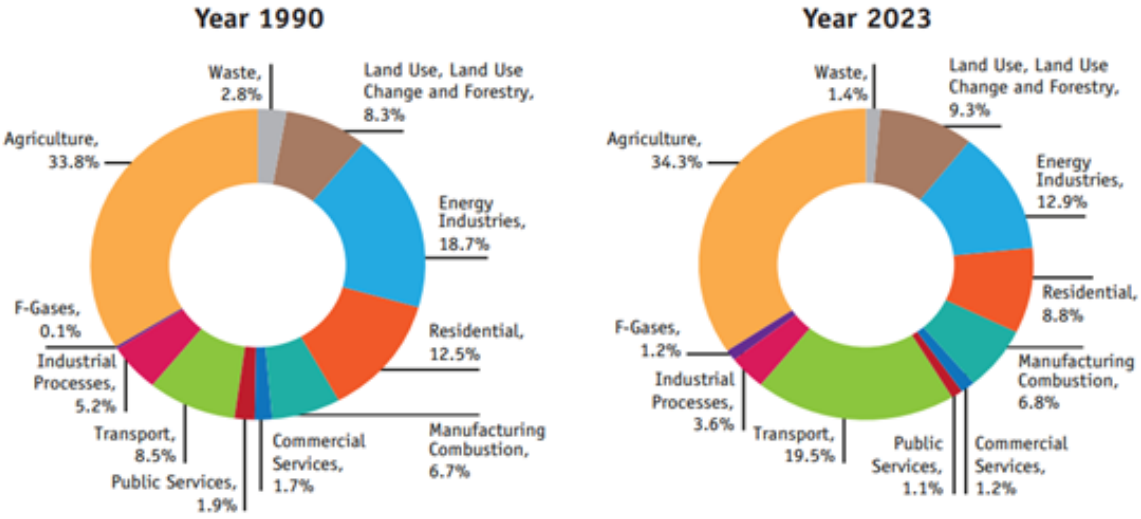


Figure 1. **Ireland's provisional GHG emissions by sector from 1990 to 2023**

Emissions have been reduced by 8.6% over the two years from 2021 to 2023, excluding LULUCF emissions. While this trend represents a welcome and important reduction of Ireland's emissions in a time of economic and population growth, the pace of emissions reduction will need to be rapidly accelerated to remain within the carbon budgets.

Further details of Ireland's GHG emissions in 2023 can be found in the EPA's report, *Ireland's Provisional Greenhouse Gas Emissions 1990–2023*. https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-provisional-greenhouse-gas-emissions-1990-2023.php

2.2 Costs of Compliance

Should Ireland fail to make sufficient progress towards its EU 2030 climate and energy targets, there are flexibility options available under the relevant EU legislation in order to meet compliance which Government could choose to exercise. In 2023, The Department of Public Expenditure, NDP Delivery and Reform and the Department of the Environment, Climate and Communications (DECC) published a joint Spending Review paper titled *Estimating the Potential Cost of Compliance with 2030 Climate and Energy Targets*. This work concluded that, in an extreme scenario, using the EPA's *With Existing Measures* (WEM) projections which assumes no new climate action, compliance with our GHG emissions targets under the Effort Sharing Regulation could potentially reach €8.1bn by 2030. In December 2024, the Irish Fiscal Advisory Council (IFAC) presented further work assessing potential compliance costs with the Effort Sharing Regulations. While acknowledging that there was a considerable degree of uncertainty involved, it calculated that potential costs could reach up to €20billion depending on the scale of climate action measures implemented and the future price of emissions allowances. Significant emissions reduction activity will be needed to reduce the requirement on government to purchase emissions allowances from other member states, and contain these potential costs.

This work on estimating the potential costs of compliance with Ireland's EU climate and energy targets will be kept under review as further information regarding the compliance architecture under the EU's *Fit for 55 Package* becomes available, including the Renewable Energy Directive, the Energy Efficiency Directive and the LULUCF Regulation.

The IFAC has done further analysis which identifies three avenues through which public finances will be affected by climate change compliance. Firstly, as Ireland is currently expected to fail to meet its emissions reductions obligations, there will likely be costs associated with remedying that failure at EU level, for example through the purchase of emissions allocations from other Member States under the Effort Sharing Regulation. Secondly, transitioning to a climate neutral economy is likely to put pressure on public finances both by lowering tax take (lower VAT rates on electricity, lower excise duties with decreased petrol and diesel consumption, and decreased vehicle registration tax and motor tax which are currently tied to emissions), and the requirement for Government supports for emissions reduction initiatives. Finally, as extreme weather events occur more frequently, the State may be required to provide supports for relief work.

IFAC estimate that substantial Government expenditure will be required to meet the climate targets and that, depending on the extent of private sector involvement, the Government may face costs of between 0.6 and 1.1% of GNI* (circa €1.6 to 3 billion in today's terms) per annum over the years 2026 to 2030

https://www.fiscalcouncil.ie/wp-content/uploads/2023/10/What-climate-change-means-for-Irelands-public-finances-Casey-and-Carroll-2023-Irish-Fiscal-Advisory-Council.pdf. Investment in climate action measures early can be seen as an alternative to expensive future compliance costs, and one which invests in the Irish economy rather than in other Member States.

2.3 Projections for Ireland's Emissions

The EPA's latest *Greenhouse Gas Emissions Projections 2023–2050* https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-greenhouse-gas-emissions-projections-2023-2050.php use two scenarios to predict future GHG emissions in Ireland: the WEM scenario which is a projection of future emissions based on the measures currently implemented and actions committed to by Government, and the *With Additional Measures* (WAM) scenario which includes policies and measures included in Government plans but not yet implemented.

The latest projections are that there will be an 11% reduction in GHG emissions by 2030 compared to the 2018 level under the WEM scenario, and a 29% reduction under the WAM scenario. Both of these projections fall considerably short of the 51% reduction target. However, even under the WAM scenario the EPA excludes several CAP24 policies and measures as it could not identify a clear and feasible implementation pathway for them. If these are successfully implemented, there would be a 42% reduction in GHG emissions by 2030.



3 Policy to Date and Expected Impact of Planned Policies

Image: *View of Dublin Castle, a historical site located on Castle Street, in Dublin City Centre*

3.1 Climate Action Plans

The Climate Action and Low Carbon Development (Amendment) Act 2021 requires the Minister for the Environment, Climate and Communications to prepare annual updates to the Government's Climate Action Plan. These updates are subject to Government approval prior to publication and must align with Ireland's carbon budget programme.

The annual plans must specify sector-specific actions for the relevant period to ensure compliance with carbon budgets and sectoral emissions ceilings. They must also include measures to address any actual or projected non-compliance with these budgets and ceilings. Additionally, the plans must incorporate actions deemed necessary to support Government climate policy, including measures to inform and engage the public on the transition to a climate-neutral society and economy.

The updates follow a structured annual cycle, with specific phases for planning, sectoral engagement, draft circulation, and Government approval. This cycle allows for the integration of new data, technological advancements, and policy developments into Ireland's climate strategy. The regular revisions provide a mechanism to assess progress towards climate targets and implement corrective measures as needed.

In contrast to previous iterations of the Climate Action Plan, CAP25 is to be read in conjunction with CAP24 and takes account of key developments in the policy and evidence base in the previous year while setting out a range of new actions in response to the latest data. This is intended to facilitate a focus on the delivery of outstanding actions from CAP24 and high-impact legacy actions from CAP23.

3.1.1 Preparation of the Climate Action Plan

The preparation and delivery of a Climate Action Plan requires strong levels of cross-Government cooperation and collaboration, detailed technical analysis across a range of sectors, and extensive stakeholder engagement, including a public consultation and *Call for Expert Evidence*, which were undertaken for CAP24.

The public consultation for CAP24 revealed broad support for ambitious climate action, but also highlighted the need for accelerated implementation across sectors, especially in areas like renewable energy, sustainable transport, building retrofits, and agriculture. Key themes included the need for stronger governance and accountability mechanisms, more public engagement and education, addressing just transition issues, and taking a systems-level approach to the climate challenge.

The *Call for Expert Evidence* sought submissions and evidence-based views from expert stakeholders, academic institutions, researchers, and analysts in the climate, energy, environment, and industry sectors. Respondents emphasised the need for a balanced approach to emissions reduction, combining both demand-side measures and supply-side constraints. There was a strong focus on streamlining planning processes to accelerate renewable energy deployment, particularly in wind and solar.

The importance of upgrading infrastructure, especially the electricity grid, was highlighted to support the transition to clean energy. Across all areas, the submissions stressed the importance of a just transition, ensuring that no communities are left behind as Ireland moves towards a low-carbon economy, with a need for enhanced research, innovation, and cross-sector collaboration also consistently emphasised. Public awareness and education also emerged as crucial factors in driving change and securing public buy-in for climate action measures. These engagement activities, along with the NDCA (see chapter 8), directly inform the preparation of the annual update to the Climate Action Plan.

3.1.2 Strategic Environmental Assessment & Appropriate Assessment

In 2023, DECC also commissioned a Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) of the Climate Action Plan, to evaluate its likely environmental impacts. SEA is mandated by EU SEA Directive (2001/42/EC), to identify and describe the likely significant effects on the environment of implementing a plan or programme. AA, required under the EU Habitats Directive (92/43/EEC), assesses the implications of a plan for European sites in view of their conservation objectives.

CAP23 underwent screening for SEA by DECC in August 2022, following which an SEA and AA was undertaken, which would also assess additional actions and measures forming part of CAP24. In line with the relevant legal requirements, extensive consultation was conducted throughout the SEA/AA process, including statutory consultation with environmental authorities in Ireland. Furthermore, a statutory public consultation on the draft Plan, along with the SEA Environmental Report, was carried out for a six-week period in early 2024. This allowed for the gathering of comprehensive feedback from stakeholders and the public before finalising the draft Plan.

A key outcome of the SEA process is the establishment of an Environmental Monitoring Programme for CAP24. This programme is designed to track and assess any significant environmental effects resulting from the implementation of the Plan and support timely interventions and adjustments as needed to maintain alignment with environmental protection goals.

DECC procured expert services to undertake a screening of proposed CAP25 actions for both Strategic Environmental Assessment and Appropriate Assessment (SEA/AA). This screening was completed on 14 October 2024 and found that SEA and AA were not required for CAP25 (i.e. CAP25 was ‘screened out’ from further SEA/AA procedures).

On the same date a four-week consultation began with the statutory bodies (the EPA; the Department of Agriculture, Food and the Marine; the Department of Housing, Local Government and Heritage; DECC, and Northern Ireland’s Department of Agriculture, Environment and Rural Affairs) as set out in the Climate Act. The consultation concluded on 12 November and DECC has determined on the basis of the screening reports and the consultation feedback received that CAP25 will not be subject to an SEA/AA.

Box 3.1 Overarching SEA and AA Mitigation

The Climate Action Plan is a whole-of-Government plan with all relevant Departments and Agencies feeding into its development. Therefore, the relevant Departments and Agencies have legal obligations in relation to protection of the environment.

These Departments and Agencies' plans, programmes and projects must be consistently screened for SEA, EIA and AA processes as appropriate to ensure that protection of the environment and sustainable development are driving principles of Climate Action Plan implementation.

Where the above processes have been or are being undertaken, the measures identified to mitigate, remedy and offset negative effects must be given effect along with any associated planning conditions, at the appropriate scale and level of detail. Notwithstanding there is existing guidance related to linear infrastructure, the principle of robust constraints, site and route selection, and environmental assessment, reporting and monitoring, shall be applied to all infrastructure projects as best practice, to avoid significant negative environmental effects and to ensure the legal protection of European sites and the avoidance of adverse effects on site integrity.

3.2 Carbon Budgets and Sectoral Emissions Ceilings

3.2.1 Carbon Budgets

A carbon budget represents the total amount of emissions, measured in tonnes of CO_2 equivalent[1], that may be emitted by a country or region during a specific time-period. The 2021 Climate Act mandated the Climate Change Advisory Council (CCAC) to propose carbon budgets for each of the periods 2021–2025; 2026–2030; and 2031–2035 (provisional). The EPA's latest projections of GHG emissions for the period 2023–2050 indicate that Ireland will exceed the first two carbon budgets by a margin of 17%–27%. According to the EPA's provisional emissions inventory for 2023, 64% of the first Carbon Budget was used within the first three years of the budgetary period, requiring a substantial 8% annual emissions reduction for 2024 and 2025 to stay within budget.

1 Metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Any excess emissions at the end of the first budgetary period will be carried forward to the second budgetary period, thereby requiring greater emissions reductions during that period. The CCAC has prepared its next series of statutory recommendations for the carbon budget programme, which comprises proposals to finalise the 2031–2035 carbon budget and introduce a new provisional budget for the period 2036–2040. These budgets will be considered by Government and the Houses of the Oireachtas in 2025 and, when finalised and approved, will form the basis for new SEC allocations and climate policy identification for the post-2030 period.

Table 1. **Ireland's Carbon Budgets**

Carbon Budget Period	$MtCO_2eq$	Average Annual reduction
2021–2025	295	4.8%
2026–2030	200	8.3%
2031–2035 (provisional)	151	3.5%

3.2.2 Sectoral Emissions Ceilings

Sectoral emissions ceilings set out the maximum amount of GHG emissions that are permitted in different sectors of the economy during a carbon budgetary period. These are presented in Table 2.

3.2.3 Unallocated Emissions Savings

The sectoral emissions ceilings, agreed by the Government in July 2022, include 26 $MtCO_2eq$. of unallocated savings in the second carbon budgetary period from 2026 to 2030 (5.25 $MtCO_2eq$. per annum). These unallocated savings need to be addressed as soon as possible in advance of the second carbon budgetary period.

CAP24 introduced a number of actions to address unallocated savings in line with an updated approach presented in the Plan, focusing on the areas below:

- Energy efficiency, heat, and fossil fuel energy demand in the commercial sector;
- Accelerating the future electricity system;
- Modal shift (freight) and sustainable alternative fuels in transport;
- Sustainable food and agriculture;
- Carbon capture, removals and hydrogen.

Recommendations in relation to the unallocated savings will be made in 2025.

3.2.4 Land Use, Land-use Change and Forestry

In light of ongoing flux in the LULUCF sector's baseline due to inventory refinements, CAP24 set out an updated approach to the sector's emissions which is aligned with the revised EU LULUCF Regulation. This approach is underpinned by the setting of ambitious activity targets and annual key performance indicators, along with a fixed emissions reductions target of 0.626 $MtCO_2eq.$ by 2030, relative to a baseline of the average of emissions in the 2016–2018 period.

Reviews will take place before the second and third carbon budget periods and will reflect emerging evidence from sources such as the Land Use Review, phase two of which is expected to be completed in early 2025.

Table 2. **Sectoral Emission Ceilings**

(Figures for $MtCO_2eq.$ for 2018, 2025 and 2030 have been rounded. This may lead to some discrepancies)

	2018 Baseline ($MtCO_2eq.$)[2]	Sectoral Emission Ceilings for each 5-year carbon budget period ($MtCO_2eq.$)	
Sector	2018	2021–2025*	2026–2030*
Electricity	10	40	20
Transport	12	54	37
Built Environment (Residential)	7	29	23
Built Environment (Commercial)	2	7	5
Industry	7	30	24
Agriculture	23[3]	106	96
Other (F-Gases, Waste & Petroleum refining)	2	9	8
LULUCF	5	Reflecting the continued volatility for LULUCF baseline emissions to 2030 and beyond, a new approach aligned with the EU LULUCF Regulation has been adopted (see chapter 16)	
Total	**68**		
Annual unallocated Emission Savings in 2030	–	–	5.25[4]
Unallocated Savings 2026–2030[5]	–	–	26

2 Million tonnes of carbon dioxide equivalent

3 See Agriculture chapter section 15.1.1 for information on refinement to baseline figure

4 Unallocated savings on an economy-wide basis in 2030 (final year of second carbon budget period), before factoring in net LULUCF sector emissions

5 Unallocated savings on an economy-wide basis in the second 5-year carbon budget period from 2026-2030, before factoring in net LULUCF sector emissions



4 Research and Innovation

Image: *The University of Galway, quadrangle at sunset*

Key Messages

State of Play

- Research and innovation (R&I) provide the evidence, technologies and solutions to enable the necessary economic and societal transitions to address climate change;
- Ireland continues to develop its climate R&I ecosystem and to build strong relationships with the European and global R&I community.

Current and Future Action

- An agreed framework to guide climate and climate-related strategic R&I is in development and will be implemented in 2025 and beyond;
- R&I actions and activities in 2025 will continue to be aligned with the R&I Themes of Strategic Importance outlined in CAP 2024.

Expected Outcomes

- Climate policy, action and implementation will be strengthened by identification of new evidence, technologies and solutions.

4.1 Introduction

Research has been central in developing an understanding of climate change and its consequences and will be crucial in informing effective climate action in the future. New, and as yet unknown, technologies and solutions will be required as we transition to climate neutrality and become more climate resilient. Research and innovation (R&I) will underpin the implementation of existing, and the development of new, technologies and solutions, and will inform the policies and behavioural interventions required to mitigate the effects of climate change and adapt to its consequences.

4.2 Current State of Play

Ireland has built a strong R&I system[6]. *Impact 2030, Ireland's Research and Innovation Strategy* seeks to advance the strategic development of R&I and its impact on our economy and society. In 2024 a new competitive R&I funding agency, Taighde Éireann - Research Ireland[7], was established. It amalgamates the activities and functions of the Irish Research Council and Science Foundation Ireland and will capitalise on their strengths in driving world class R&I in Ireland. In October 2024, Professor Aoife McLysaght was appointed as the Government Science Advisor, a role which is part of new science advice structures that will assist in informing responses to complex and challenging policy issues. In addition, the **Department of the Environment, Climate and Communications R&I Strategy** published its inaugural R&I Strategy which commits to supporting the full spectrum of R&I, from new knowledge creation through to demonstration, scale-up and widespread deployment of the new solutions needed to achieve our climate targets.

Climate and climate-related R&I[8] (CCR&I) is performed within the higher education, public, private and third (charities, nongovernmental and community organisations) sectors and is supported by funding from public (including EU funds[9]), private, and philanthropic sources. CCR&I is also supported by participation in European and global research infrastructures such as the **Integrated Carbon Observation System**. According to the latest **data published by the EPA**, €79.8 million of competitive funding (183 new projects) was awarded for CCR&I in 2022, including €22 million for climate research. €40 million of EU funding was leveraged by Irish researchers in 2022, including €5.1 million for new EU LIFE projects. This report also notes an increase in CCR&I scientific publications that include authors in Ireland. The Civil Service Research Network continues to support engagement between researchers and Government Departments.

6 Summary details of the main Government Departments and Agencies involved in carrying out and supporting CCR&I is at **https://www.gov.ie/en/publication/b1359-climate-research-and-innovation-across-government/**

7 **https://www.gov.ie/en/press-release/e0f96-minister-odonovan-announces-establishment-of-taighde-eireann-research-ireland/**

8 Climate Research: contributes directly to our understanding of climate and how it is changing. Climate-related R&I: includes research on the impacts of climate change in different sectors and solutions to address it.

9 European R&I programmes include Horizon Europe, the LIFE Programme and Innovation Fund

R&I has played a critical role in informing our understanding of climate change and its potential impact on Ireland. It has informed the development of climate policy, including the Climate Act and annual Climate Action Plans. Modelling continues to inform climate mitigation actions, allowing us to assess the feasibility and impacts of proposed actions and determine necessary investment costs. Continued investment in R&I will be important in supporting policy; in gaining new insights from climate science and in understanding the impacts of climate change for Ireland; in relation to deep sectoral decarbonisation; in developing systems thinking and understanding how the integration of climate action across sectors can be achieved; and in harnessing the potential of new innovative technologies including carbon capture, utilisation and storage, bioenergy, and geothermal energy. Continued engagement between different R&I disciplines and strengthening research-policy links will be crucial for addressing the climate challenge.

4.3 Actions and Updates

4.3.1 Progress Update

There have been several important R&I developments since CAP24. A selection are described below.

4.3.1.1 Strategic Initiatives

DECC has initiated a process to develop a *Framework to Guide Climate and Climate-Related Strategic Research and Innovation* (CAP24 Action RE/24/1). This is led by an Interdepartmental Steering Group and will enable enhanced cross-sectoral and cross-Departmental cooperation and coordination in relation to CCR&I. The Framework will outline the main strategic R&I priorities and gaps in CCR&I and identify optimal mechanisms to fund strategic CCR&I priority areas, ensuring that there is effective cross-agency collaboration where required.

Ireland's Climate Change Assessment (ICCA) – the first comprehensive and authoritative assessment of the state of knowledge of climate change in Ireland was published in January 2024. The Assessment was undertaken by Irish researchers, in a process led by the EPA, and is based on scientific research and observations in Ireland, linked to EU and global analyses. ICCA updates our national understanding of climate change, its impacts and response options, and identifies associated evidence gaps and research priorities. Outreach and communication activities are ongoing in 2024.

The updated EPA Thematic Research Priorities 2024–2026 were published in July 2024 and provide strategic direction for the EPA Research Programme. The 'Addressing Climate Change Needs' Hub sets out nine thematic CCR&I priorities.

The SEAI ORE Technology Roadmap was published in July 2024. ORE deployment has a crucial role to play in driving the decarbonisation of the Irish electricity system.

The Roadmap supports a coordinated Government approach to realising the potential of each key ORE technology. It assesses the readiness of ORE technologies relevant to the Irish context and considers both the latest and future relevant technology innovations. SEAI will deliver a Technology Mapping Report (due Q4 2024) which identifies 16 technologies and assesses their potential to decarbonise the Irish energy system by 2050.

Met Éireann's **TRANSLATE** project produced the first set of standardised climate projections for Ireland and phase two of the project is due for completion in 2025, updating the dataset with the latest global climate models.

4.3.1.2 Research Centres and National Research Infrastructures

In 2024, Research Ireland Centres **BiOrbic**[10] and **VistaMilk**[11] were successful in securing a **second phase of government investment** of approximately €44 million. In addition, two inaugural Co-Centres were established, with a budget of approximately €70 million, including funding from Research Ireland, Northern Ireland's Department of Agriculture, Environment and Rural Affairs and UK Research and Innovation. The **Co-Centre for Sustainable Food Systems** and the **Co-Centre for Climate + Biodiversity + Water** will each facilitate a STEM-led multi-disciplinary programme of R&I. The Co-Centres are the first research centres to bring researchers across from Ireland, Northern Ireland and Great Britain, together at scale.

SEAI have signed agreements with the Lir National Ocean Test Facility (NOTF) at University College Cork and the Smartbay test site in Galway Bay to provide a national offshore renewable energy test site infrastructure. The SEAI-Lir-NOTF ORE **Industry Access Programme**, will provide facilities for laboratory testing or numerical modelling of ORE generation technologies[12] and marine enterprises that capture innovations intended for marine use.

Research Ireland's Infrastructure call committed over €6m to **three climate relevant projects** in 2024, covering optical fibre earth sensing, solid-state battery analysis and testing facilities, and **a MaREI Centre floating wind testbed** integrated with an Energy System Observatory which is co-funded by SEAI.

4.3.1.3 Initiatives Linking Research with Policy or Industry

Several Fellowship programmes are in place which enable researchers from Higher Education Institutions (HEIs) to work in government bodies to progress important CCR&I projects. This includes the **EPA Climate Fellowship Programme 2024**, the **SEAI Fellowship Programme** and the **Research Ireland Public Service Fellowship Programme**.

10 BiOrbic's mission is to enable a vibrant sustainable circular bioeconomy through research excellence, innovation and the development of the bioeconomy leaders.

11 VistaMilk's mission is to lead the Agri-Food technology sector through innovation and enhanced sustainability across the dairy supply chain and to positively impact the environment, animal well-being and the health of consumers.

12 This includes Wave, Wind, Tidal, Floating Solar and Energy conservation technology.

Building on successful awards in 2018, the Marine Institute launched the Industry-Led Awards 2024 with €2.4 million in funding for research and innovation costs for the development of innovative technologies, products and services in existing or new marine-based businesses.

The Department of Agriculture, Food and the Marine (DAFM) joined the Global Methane Hub's (GMH) *Enteric Methane R&D Accelerator* at the end of 2023 with a commitment of €5 million over the next three years. This international initiative aims to accelerate research investment in methane reduction technologies through targeted R&I investments, for example in feed additives, animal genetics, long-term animal trials, rumen microbiology and methane measurement and monitoring.

Recent outputs from the National Blue Carbon Research Programme (2022–2027) explore the potential for carbon storage in coastal saltmarshes, sea grass meadows, sand, and sediments. The Quest project, led by a team from Research Ireland's Centre iCRAG, published a policy brief on *Carbon in Marine Sediments: Dundalk Bay and Potential Climate Mitigation*.

In September 2024, the Construct Innovate Technology Centre initiated six focused housing research projects related to modern methods of construction, climate change adaptation, decarbonisation and the circular economy. These programmes are intended to establish a roadmap to safely decarbonise the construction sector by 2050 and deliver on other key policy objectives.

The Civil Service Research Network continued work to address barriers to access and utilisation of research activity for policy decision making. 2024 saw the publication of *A Guide to Commissioning and Procuring Research for Civil and Public Servants* to enhance direct cooperation between the research sector and policy practitioners.

4.3.1.4 European Research Initiatives

The Sea Level Rise Assessment Report (joint publication by JPI Climate & JPI Oceans) was published by the JPI Oceans Sea Level Rise Knowledge Hub on 8 November 2024. The report aims to synthesise the current scientific knowledge on sea level rise and its impacts across local, national, and European basin scales, to support evidence-based policy and decision making primarily targeting coastal areas.

The European Global Ocean Observing System (EuroGOOS) has been endorsed by the UN Decade of Ocean Science as an official Ocean Decade Activity and is crucial to provide the vital data needed for improved forecasts and early warning systems to protect people and planet. Ireland hosted the EuroGOOS 10th International Conference in October 2023.

The Horizon Europe Partnership on Agroecology launched on 28 February 2024, including the launch of the first co-funded research call on agroecology. DAFM committed €2 million to the call seeking R&I projects driving the transition to agroecology and addressing global challenges and societal demands, including emissions reduction, system adaptation and resilience improvement, and agrobiodiversity promotion.

The **Clean Energy Transition Partnership** 2023 transnational funding call closed in March 2024, with funding commitments from SEAI, Research Ireland and GSI across a range of clean energy topics. Projects will commence in 2025..

4.4 Actions for 2025 (actions in bold appear in the Annex)

R&I actions and activities in 2025 will continue to be aligned with the R&I Themes of Strategic Importance outlined in CAP24. Highlights include:

- The Marine Institute will lead implementation of the next national marine research and innovation strategy, **Ocean Knowledge 2030**, which sets out RDI priorities under climate-relevant themes such as sustainable food from the ocean, energy from the ocean and greener and smarter ports and shipping.
- GSI will publish the first Coastal Change Assessment reports for the East coast. This assessment will be used to estimate potential future changes to our coastline and impact on coastal communities.
- GSI will participate in **GEMINI**, a new €20m North-South PEACEPLUS geothermal energy demonstration project. The project will develop four sites in Belfast, Dublin and Sligo to show how geothermal energy can help decarbonise heating/ cooling, while providing data to a series of research projects to further support this sector.

Action Number	Action
RE/25/1	**Publish SEAI's Energy Research Strategy.**
RE/25/2	**Propose innovative funding mechanisms to decarbonise Ireland's energy system.**
RE/25/3	Implement national marine research and innovation strategy, Ocean Knowledge 2030.
RE/25/4	Publish Coastal Change Assessment Reports.
RE/25/5	Implement National Groundwater Flood Monitoring Programme.
RE/25/6	Roll out GEMINI Geothermal Demonstration Programme, funded by PEACEPLUS.
RE/25/7	Ensure implementation of actions in the *Framework to Guide Climate and Climate-Related Strategic Research and Innovation.*
RE/25/8	Chair the Global Research Alliance on Agricultural Greenhouse Gases.
RE/25/9	Publish an agri-food, forest and bioeconomy research strategy.
RE/25/10	Expand EPA Fast-track to Policy Funding to source R&I solutions to address urgent policy priorities in climate and climate-related areas.
RE/25/11	Commence new programme of socio-economic climate research.
RE/25/12	Make funding decisions to establish collaborative national research centres on subjects of national importance – one of five call themes is Energy, Climate Action and Sustainability.
RE/25/13	Implement the five Green Transition Research Challenges under the National Challenge Fund.
RE/25/14	Expand Research Ireland Public Engagement Funding Programme to increase awareness of sustainability, environment and climate action research.
RE/25/15	Establish national hub to support knowledge sharing and communication between researchers and policy practitioners on policy-linked research activity and innovation.



5 Governance

Image: *Government Buildings*

Key Messages

State of Play

- The Climate and Action and Low Carbon Development (Amendment) Act 2021 provides legal underpinning for Ireland's climate action governance, including setting the 'national climate objective' in law and the adopting of carbon budgets and sectoral emissions ceilings.
- Setting policy and monitoring progress towards meeting our climate objectives will be undertaken by Government, the relevant Cabinet Committee and the Climate Action Delivery Board.
- The first of an annual Key Performance Indicators report has been prepared.

Current and Future Outcomes

- CAP25 is to be read in conjunction with CAP24 and is an updated and amended action plan which aims to refocus efforts and free up resources that will facilitate a higher rate of delivery.
- As detailed in the table below, several of the CAP24 Delivery Taskforces have been modified since the publication of that Plan.
- Reports from the EPA and CCAC have been factored into CAP25.

Expected Outcomes

- Continued cross-organisational cooperation will help deliver our climate goals.
- Improved monitoring and reporting structures (a lower number of high impact actions) should help streamline the reporting process and make it easier to identify challenges as they arise.

5.1 Oversight of Government

Provisional EPA inventory of data, published in July 2024, indicates that while most sectors are reducing their emissions, there is still a very significant gap to achieving our legally binding targets. The 2023 report indicates that Ireland's GHG emissions are 3.8% lower than in 2022 (including LULUCF), which in turn were 2% below 2021 levels. Therefore, Ireland's total GHG emissions are 1.2% lower than the baseline year of 1990, for the first time in 33 years. One of the main challenges the report outlines is the fact that emissions per capita will need to reduce significantly due to Ireland's rapidly growing population, as each additional 500,000 people are projected to produce 5 $MtCO_2eq.$ annually.

In October 2024, the CCAC's *Annual Review* was published. The overall recommendations are shown below.

Recommendations of CCAC Annual Review

- **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.**

The overall and sector-specific recommendations in the CCAC annual review are addressed in the relevant chapters of this Climate Action Plan, and have been incorporated into policies, measures, and actions in so far as it is possible to do so.

5.2 Delivery of the CAP/Reporting cycle

As CAP25 is to be read in conjunction with CAP24, no major planning or reporting changes are expected in 2025.

The reporting cycle will continue to be overseen by the Department of the Taoiseach and will consist of quarterly published reports.

5.3 Taskforces

Working groups have been established for the allocation of the unallocated emissions savings and the recommendations made will be considered in the development of future climate policy.

There have been a small number of changes to the Delivery Taskforces created under previous Climate Action Plans as outlined in the following table:

Taskforce	Summary
Sustainable Food & Agriculture	**Status: New Taskforce**
	A new taskforce to look at opportunities identified in updated Marginal Abatement Cost Curve (MACC) for Agriculture.
Just Transition	**Status: Taskforce Work Concluded**
	The Minister for the Environment, Climate and Communications convened a Taskforce on Just Transition in September 2023 in line with CAP23 commitments, to build consensus on an agreed approach on the establishment of a Just Transition Commission and to provide advice to the Minister and Government regarding the mandate, membership, and structure of the Commission. The Just Transition Taskforce met five times over the course of six months to prepare its report to the Minister. The Taskforce has now concluded its work.

5.4 Key Performance Indicators Report

The first annual *Key Performance Indicator Report* will be published in early 2025. This report on CAP23 key performance indicators (KPIs) is complementary to annual Climate Action Plans, produced under the Climate Action and Low Carbon Development (Amendment) Act 2021. There are over 50 KPIs contained in the report across the sectors of the economy which have sectoral emissions ceilings.

5.5 Alignment with Ireland's Long-term Climate Strategy

Ireland's updated Long-term Climate Strategy, published in June 2024, builds on the decarbonisation pathways set by the carbon budgets, sectoral emissions ceilings and CAP24, and aligns with Ireland's latest NECP which was finalised and published in 2024. This approach facilitates coherent and effective climate policy. It is underpinned by analysis of transition options across each key sector of the economy and provides a crucial link between Ireland's 2030 and 2050 climate targets. The 2024 Long-term Climate Strategy was also shaped by responses received from a wide range of stakeholders to public consultations in 2019 and 2023. It will be reviewed and updated as appropriate, including by no later than 2029.

5.6 EU targets, 2040 work, & NECP Update

5.6.1 Alignment with EU Governance and Reporting Framework

The European Climate Law mandates the Commission to propose an EU-wide 2040 climate target. The 2040 climate target is our next intermediate step on the path to the EU's legally binding commitment to achieve climate neutrality by 2050. In February 2024, the European Commission presented its assessment for a 2040 climate target for the EU. The Commission recommended reducing the EU's net GHG emissions by 90% by 2040 relative to 1990. This non-binding recommendation from the Commission opened a broad political debate and a dialogue with stakeholders and citizens on the post-2030 framework. The coming months of debate in Europe represent an opportunity for public engagement on the next steps and policy choices.

5.6.2 Updates to National Energy and Climate Plan

In July 2024, Ireland submitted its updated NECP 2021–2030 to the European Commission. The NECP is a cross-Governmental umbrella plan, which binds together the many policies and measures relevant the climate and energy transition. It is used to notify to the Commission of our progress and trajectories towards our legally binding 2030 EU targets under both WEM and WAM scenarios. This update to the NECP reflects the increased ambition at European level and the adoption of the *Fit for 55 Package*, which aims to reduce Europe's GHG emissions by at least 55% by 2030 compared to 1990.

5.7 Actions for 2025

The actions for focus on the allocating the currently unallocated emissions savings and wider updates to sectoral emissions ceilings required under the second carbon budget.

Action Number	Action
GV/25/1	Allocate currently unallocated emissions savings by sector ahead of 2026.
GV/25/2	Update sectoral emissions ceilings for the second carbon budget period (2026–2030).



6 Ensuring a Just Transition to a Climate Neutral Ireland

Image: *Engineer working on alternative energy project*

Key Messages

Key Messages

- The Government continues to implement the Just Transition Framework through its climate action policies;
- A Just Transition Commission has been established to advise the Government in its work to deliver a just transition;
- A new *National Further Education and Training Strategy for the Green Transition* will set the Further Education and Training sector's response to the skills demands of our green transition;
- From 2026, a new EU Social Climate Fund will support households, microenterprises, and transport users most vulnerable to the transition.

Expected Outcomes

- The Just Transition Framework will be progressively mainstreamed across climate policy-making;
- Higher and further education and training policies and provisions will continue to respond to the demand for low carbon skills required in the economy;
- The cost of climate action will be shared equitably across society;
- Just transition will be embedded into climate action dialogue and engagement.

6.1 Ireland's Just Transition Framework

In CAP21, the Government adopted a principles-based approach to integrate just transition into climate action policies in line with the objectives of the Climate Action and Low Carbon Development (Amendment) Act 2021.The principles are as follows:

1. An integrated, structured, and evidence-based approach to identify and plan our response to just transition requirements;
2. People are equipped with the right skills to be able to participate in and benefit from the future net zero economy;
3. The costs are shared so that the impact is equitable and existing inequalities are not exacerbated; and
4. Social dialogue to ensure impacted citizens and communities are empowered and are core to the transition process.

6.1.1 Principle 1: An integrated, structured, and evidence-based approach to identify and respond to just transition needs as they emerge

Following commitments in previous Climate Action Plans, and informed by the final report of the Taskforce on Just Transition[13], the Government approved the establishment of a new Just Transition Commission in April 2024, with its chair and members appointed in October 2024 following Government approval[14]. The Commission will support the Government in its work to provide that Ireland's transition to the National Climate Objective has regard to a just transition and advise the Government on how to deliver a just transition through its climate action policies.

The CCAC's *2023 Annual Review* recommended the development of a set of national indicators to measure our progress towards a just transition and the implementation of our just transition principles across climate action. In response to this, DECC commissioned scoping research, through the EPA, to identify key elements of a future framework, such as main areas of focus and recommended indicators. This research will be completed by the end of 2024 and will inform a second phase of development in 2025, including stakeholder engagements to further inform this work.

The CCAC's *2024 Industry and Waste Sector Review* called for the development of a Just Transition Plan for relevant sectors covered by the Review to provide a pathway to the green transition of these sectors without disadvantaging their workforce and wider community. In line with the approach that relevant sectoral Ministers are responsible for implementing the Just Transition Framework within their areas, DECC proposes to

13 https://www.gov.ie/en/publication/just-transition-commission/?referrer=https://www.gov.ie/en/publication/e3666-just-transition-taskforce/

14 https://www.gov.ie/en/press-release/f208b-government-approves-membership-of-new-just-transition-commission/

develop a Just Transition Policy Toolkit to provide further guidance to policymakers on the integration and implementation of just transition principles across climate action policies.

The ongoing integration of just transition into Ireland's climate action policies continues to be guided by developments at the international and EU levels. At the UN level, COP28 hosted the Just Transition Pathways Work Programme to further the goals of the Paris Agreement on a just and equitable transition. The First and Second Dialogues under this work programme took place in 2024 and focused on the lessons learned from incorporating just transition elements into Nationally Determined Contributions, Adaptation Plans, and Long-Term Strategies.

Within the EU, just transition remains a guiding principle for the implementation of the European Green Deal and climate policies for the period to 2040. The Council of the European Union's 2022 Recommendation[15] continue to guide Member States on the integration of just transition into national policies. The Council's June 2024 conclusions on Mid-Term Review of the 8th Environmental Action Programme re-affirmed this and invited the new European Commission to explore ways to further mainstream just transition into policies and existing frameworks.

Sectoral Case Study	
Agriculture An integrated, structured, and evidence-based approach to identify and plan our response to just transition requirements.	The Bioeconomy Demonstration Initiative under the EU Just Transition Fund is providing €10 million funding for projects to pilot and demonstrate the bioeconomy in action within the wider-Midlands region. The funding will support the development of two projects encouraging close collaboration between stakeholders along the bio-based value chain. This feeds into the Government's overall ambition to be a global leader for the bioeconomy, and to integrate sustainable economic development into our economic model.

15 Recommendation on ensuring a fair transition towards climate neutrality EUR-Lex - 32022H0627(04) - EN - EUR-Lex (europa.eu)

6.1.2 Principle 2: People are equipped with the right skills to be able to participate in and benefit from the future net zero economy

Our strategic approach to skills development for a green transition

Ireland's further education model is centred on building skills, creating pathways, and fostering inclusion, with a focus on workforce development and meeting critical skills needs. The skills architecture aims to facilitate the transition of our workforce to a greener economy by minimising skills mismatches and responding to industry needs.

To support the responsiveness of the Further Education and Training sector, SOLAS has published the first *National Further Education and Training Strategy for the Green Transition*. This Strategy also responds to the CCAC's 2024 recommendation to assess the skills required to support the achievement of the National Climate Objective in a way which recognises that skills assessment and planning must be a dynamic, responsive, and adaptive process, which is embedded into Ireland's skills ecosystem.

In 2024, in collaboration with the Offshore Wind Energy Programme, Greentech Skillnet published the *Building our Potential: Ireland's Offshore Wind Skills and Talent Needs* report, with the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) completing a corresponding skills action plan. In line with the report, an Offshore Wind Skills Development Programme will be established in 2025 under the lead of Skillnet Ireland. These developments aim to ensure that skills planning is aligned with Ireland's Climate Action Plan targets and with industry requirements.

Separately, DFHERIS and SOLAS have established an e-mobility skills oversight group, while the Construction Sector Skills Forum provides a discussion platform with an emphasis on sustainable construction skills. A feasibility study into a National e-Mobility Capability Centre will be undertaken by Longford and Westmeath Education and Training Board. To support SMEs, micro-qualifications in the areas of environmental awareness, resource efficiency, sustainable procurement, and circular economy have been developed.

Supports for Employees at Risk and Labour Market Activation

The Human Capital Initiative and Springboard+ provide free or highly subsidised upskilling and reskilling higher education opportunities (NFQ levels 6-9) for identified skills needs, many with an emphasis on green skills. In addition, the Micro-Credential Learner Fee Subsidy scheme provides a subsidised access to short, accredited courses. An 80% subsidy is applicable to priority areas, including more than 80 courses covering renewable energy, sustainability, construction, and planning. Separately, a number of new courses in Sustainable Agriculture at NFQ levels 5-6 will be created under the lead of Teagasc and the Laois and Offaly Education Training Board as committed to under Action JT/25/4.

Sectoral Case Study	
Industry People are equipped with the right skills to be able to participate in and benefit from the future net zero economy.	Upskilling courses in Nearly Zero Energy Buildings/Retrofit skills for construction workers are offered through a network of six Centres of Excellence operated by several Education and Training Boards. These targeted upskilling and reskilling courses are designed to rapidly develop skills for the construction sector. The number of learners availing of these opportunities has increased steadily since the first centre was opened in 2020 with a cumulative total of over 11,000 enrolments between 2020 and 2024.

6.1.3 Principle 3: The costs are shared so that the impact is equitable and existing inequalities are not exacerbated

In Budget 2025, €951 million in carbon tax revenue, an increase of €163 million on 2024, was allocated towards redistributive measures such as a socially progressive national retrofitting programme, social welfare initiatives and funding to encourage farming in a greener and more sustainable way.

A new EU Social Climate Fund, introduced as part of the *Fit for 55* framework, will operate over the period 2026–2032 with up to €663 million available to Ireland to invest under its Social Climate Plan. The Plan will target supports to vulnerable households, microenterprises and transport users to mitigate the impacts of the increases in the costs of fossil fuels over time on the most vulnerable.

Sectoral Case Study	
Built Environment Costs are shared so that the impact is equitable and existing inequalities are not exacerbated.	A record budget of €240 million was provided to the Warmer Homes Scheme in Budget 2025. The Scheme offers free energy upgrades to eligible homeowners who are most at risk of energy poverty. This is an €83 million increase on the scheme's 2023 budget when 5,800 homes benefitted from a budget of €157 million and received fully funded upgrades, leaving these homes warmer, more comfortable, and more affordable to heat. Following public consultation, a revised Energy Poverty Action Plan will be published to set out a wide range of clear, timebound actions aimed at tackling energy poverty with appropriate governance and evaluation, building on and supplementing existing measures.

6.1.4 Principle 4: Social dialogue to ensure impacted citizens and communities are empowered and are core to the transition process

Engaging with impacted or vulnerable communities is essential to ensure no one is left behind in the transition. In its final report, the Taskforce on Just Transition recommended that the NDCA, given its role in public engagement on climate action, should further develop its local and community engagement aspects, including engagements with impacted or vulnerable communities as a result of specific climate change measures.

A new CAW programme will continue to expand to support and encourage local action on climate and community resilience in 2025. Engagements with local and community groups through the CAW programme have so far targeted areas such as retrofitting in deprived areas; public transport in rural Ireland; and specific challenges facing Disabled Persons Organisations, coastal communities and young people.

The Government notes the CCAC's recommendation in their *2024 Agriculture Sectoral Review* for a just transition dialogue with farmers, rural workers and communities to support their understanding of the cost, benefits and incentives of climate actions and to inform future interventions aimed at these groups. As this recommendation encompasses large sections of the population in addition to farmers specifically, it aligns with activities planned under the NDCA as well as sector-specific engagements under the direct remit of the DAFM. These activities will also build on and be informed by the recommendations of current and previous stakeholder-informed processes, including the 2023 National Economic and Social Council report[16] and the Government's ongoing Land Use Review[17].

16 NESC *Just Transition in Agriculture and Land Use 2023* https://www.nesc.ie/publications/exploring-a-just-transition-in-agriculture-and-land-use/

17 https://www.gov.ie/en/press-release/34bea-government-publishes-phase-i-report-of-the-land-use-review/

Sectoral Case Study	
Electricity Sector Social dialogue to ensure impacted citizens and communities are empowered and are core to the transition process.	DECC engaged extensively with citizens and key stakeholder groups on the South Coast Designated Maritime Area Plan for offshore renewable energy, the first maritime spatial plan for offshore renewable energy in Ireland. Engagements included a non-statutory public consultation between August and October 2023 and a 6-week statutory public consultation from 3 May to 14 June 2024, with a further period of consultation in August 2024. Online webinars were also held to provide access to those who could not attend an in-person event, with specific engagement with young people through on-campus engagement with third level students in Cork and Wexford. DECC also appointed a Fisheries Liaison Officer and Community Liaison Officer to continually engage in outreach and communications with fishers and coastal communities.

6.2 Actions for 2025 (actions in bold appear in the Annex)

Action Number	Action
JT/25/1	**Develop Just Transition Indicators Framework.**
JT/25/2	**Develop a Just Transition Policy Toolkit to support the integration of just transition considerations in policymaking.**
JT/25/3	**Establish the Skillnet Ireland Offshore Wind Skills Development Programme.**
JT/25/4	**Develop Skills and Capabilities for Sustainable Agriculture.**
JT/25/5	Undertake a technical feasibility study for the establishment of a National e-Mobility Capability Centre.



7 Delivering a Just Transition in the Midlands Region

Image: *Rock of Dunamase*

Key Messages

State of Play

- Significant Exchequer investment has been mobilised to support the transition of existing workforces and create new enterprise and employment opportunities in the Midlands, preparing the region to maximise the opportunities that decarbonisation will bring.

Current and Future Action

The EU Just Transition Fund Programme is supporting nine new streams of funding benefitting the wider Midlands region. Activity in 2025 will continue to focus on supporting:

- Projects that support bottom-up local and regional initiatives that align with Regional Enterprise Plans and Local Economic and Community Plans and deliver new economic and employment opportunities;
- Intra-regional public and private transport networks, including supports for the installation of publicly available fast charge point infrastructure and the decarbonisation of public and private local rural bus routes;
- The restoration of peatland sites, including raised and blanket bog, fens, and other wetland types, along with the development of amenity and tourism opportunities where appropriate;
- The Regenerative Tourism and Placemaking Scheme 2023-26 for the Midlands supporting the development of tourism, outdoor and recreation amenity;
- Projects that advance initiatives for a competitive bioeconomy by supporting research and development, innovation, training, and stakeholder cooperation;
- Research, knowledge transfer and monitoring of innovative ways of reducing emissions from peat soils on permanent grassland where the carbon pool is very vulnerable, especially when drainage occurs.

Expected Outcomes

- Strengthened resilience and sustainability of the regional economy of the Midlands in line with national climate objectives.

7.1 Responding to the Transition

Exchequer and EU resources continue to provide support to the Midlands region in addressing the socio-economic impacts following the closure of peat-fired power stations and the cessation of commercial peat extraction as a feedstock for power generation. Our continuing work to support a just transition in the region is set out in this chapter

7.2 National Just Transition Fund

Under the National Just Transition Fund, 56 projects were selected for funding as part of a competitive process. The Fund's aim was to support projects that contribute to the just transition to a low carbon, climate resilient economy of the wider Midlands region after the closure of peat-fired power stations. It is expected that up to €15 million will have been disbursed to grantees by the end of 2024.



Image: **Lullymore Heritage and Discovery Park was awarded € 83,200 under the NJTF**

7.3 EU Just Transition Fund

The EU Just Transition Fund continues to support the counties most negatively affected by the transition to climate neutrality and promotes socio-economic transition, ensuring that no one is left behind.

The total amount committed to selected projects from the Ireland's EU Just Transition Fund Programme has reached almost €90 million, including projects announced through the Fáilte Ireland Regenerative Tourism and Placemaking scheme and the Local and Regional Economic Strategies Support Scheme run by Pobal.

7.3.1 Priority 1: Generating employment for former peat communities by investing in the diversification of the local economy

Supporting the economic diversification of the local economy through the development of the regenerative tourism sector

Fáilte Ireland is supporting the development of regenerative tourism in the Midlands to diversify local economies and strengthen the appeal of the Midlands as a tourist destination.

In 2025, enterprises in the regenerative tourism sector will participate in the EU Just Transition Tourism Learning Network Programme to expand their services and develop their capabilities. This programme provides professional learning and development to guide tourism growth in a commercial, equitable, socially responsible and environmentally sustainable way.

Support the implementation of local and regional economic strategies

Through Pobal, the Local and Regional Enterprise Strategies Support Scheme is supporting the implementation of bottom-up local and regional initiatives, which align with priorities of Local Economic and Community Plans and Regional Enterprise Plans, with all eight counties covered by Ireland's EU JTF Programme to benefit.

In 2025, selected projects will continue their implementation, in areas such as the circular economy, peat replacement for horticulture, innovation in energy and resource efficiency, refurbishment, training and upskilling, infrastructure development and scientific research.

Support research, development, and innovation in the bioeconomy sector

The Department of Agriculture, Food and the Marine, following its 2024 announcement of €10 million in funding for bioeconomy demonstrator projects, plans to invest up to a further €10 million in 2025 for piloting, demonstration and innovation activities to contribute to the growth of a sustainable and circular bioeconomy, including fostering the transfer of advanced biobased technologies, through living labs and demonstration initiatives, for sustainable, higher value, biobased products for new circular, resource-efficient biobased industries.

7.3.2 Priority 2: Supporting the rehabilitation and restoration of degraded peatlands and regeneration and repurposing of industrial heritage assets

Supporting the restoration and rehabilitation of degraded peatlands

The National Parks and Wildlife Service (NPWS) will continue to implement a €12 million wetlands restoration scheme in the Midlands region, involving restoration works across a range of wetland sites including raised and blanket bog, fens and other wetlands sites, including many sites within Ireland's Natura 2000 network.

Activities in 2025 will include works on the first phase of wetland sites selected for restoration, and restoration plans for the second phase of wetland sites. A research and monitoring programme of GHG fluxes on fens will be established to further understand how peatland restoration measures will foster carbon sequestration

The NPWS will also promote public engagement and raise awareness of our natural heritage and environment. A Cultural Custodianship and Heritage of Wetlands engagement initiative will be progressed across 19 municipal districts. Additionally, the NPWS will co-design and deliver a peatland restoration course for small contractors.

These actions will be supported by a comprehensive communication strategy, including a website, podcasts and other materials created to present the benefits of the restoration measures to the wider public.

Regeneration and repurposing of industrial heritage assets

Through Fáilte Ireland, Bord Na Móna were awarded €3.6 million in June 2024 as an initial investment to design and seek planning permission for up to 79 kilometres of new walking and cycling trails. Evaluation and development of the approved walking and cycling trails (in addition to waterways) will be progressed throughout 2025.

7.3.3 Priority 3: Providing former peat communities with smart and sustainable mobility options to enable them to benefit directly from the green transition

Support decarbonisation of fleet for private bus operators and public local bus routes

This action will progress during 2025, including the provision of expert advice and supports for specific aspects of electrification. Key stakeholders providing advice include ESB Networks, civil engineering designers, electric bus manufacturers, and planning experts. Electrification consultancy and electrification grants will be made available, while at the same time progressing the electrification of an existing diesel Local Link route.

Installation of publicly available charge point infrastructure at community centre sites

Zero Emissions Vehicles Ireland are supporting the delivery of Destination Charge Point infrastructure across the designated Territory via the EU Just Transition Fund. More detail on this can be found in chapter 14, 14.2.4 'Zero Emissions Vehicles Ireland (ZEVI) programme initiatives'.

2025 will see the conclusion of a detailed site assessment project with each applicant to the scheme, followed by a further suitability analysis to establish the list of fully eligible sites for installation of EV charging. Concurrently, ZEVI will be finalising the design and implementation of grant and delivery mechanisms so that the eligible applicants can enter into the required contracts and agreements to undertake installation works. It is intended that infrastructure works will be underway in the latter half of 2025.

7.4 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
JM/25/1	**Support the economic diversification of the local economy through the development of the regenerative Tourism sector.**
JM/25/2	**Support the implementation of local and regional economic strategies.**
JM/25/3	**Support piloting, demonstration and innovation for a sustainable and circular bioeconomy.**
JM/25/4	**Support the restoration and rehabilitation of degraded peatlands.**
JM/25/5	**Support regeneration, repurposing and sustainable development of walking and cycling tracks and trails, and waterways.**
JM/25/6	**Support decarbonisation of public local bus routes.**
JM/25/7	**Support decarbonisation of fleet for private bus operators.**



8 Citizen Engagement

Image: *DCEIDY Climate Assembly 11-04-2024*

Key Messages

State of Play

- Delivering on our climate ambition requires that the Government and the people of Ireland come together in a strengthened social contract for climate action and the co-creation of real solutions to these challenges.

Current and Future Action

- Increasing awareness of climate change based on national and local communications campaign;
- Delivering an engagement programme at the national, regional, and community level to empower people to take climate action;
- Delivering robust systems to measure climate action at all levels.

Expected Outcomes

- A strengthened social contract between the Government and the Irish people that has arisen through collaboration on climate action;
- Delivering the vision of climate action for Ireland through the shared values of fairness, collaboration, and positive change.

8.1 State of Play

Government will continue to engage, enable and empower everyone in Irish society in a two-way dialogue leading to the co-creation of climate actions. To date, a Whole of Government Climate Communications Strategy has been developed by the Climate Communications Coordination Committee (CCCC). A national engagement campaign on climate action has been delivered through the National Dialogue on Climate Action (NDCA) since 2019.

8.1.1 National Dialogue on Climate Action 2021–2024

Between 2021 and 2024 over 15,000 members of the public and over 1,000 stakeholders were engaged through the NDCA programme in an active dialogue on climate action and policy. The response was clear and conveyed a sense of urgency and enthusiasm to work with the government. The dialogue also helped identify a substantial number of people and communities (e.g. sports clubs, schools, biodiversity groups, volunteer groups) taking climate action, where people still lack information, knowledge, resources, or capacity to do so, and highlighted the need for 'joined up thinking' and 'ambitious policies' to be reflected at the local level.

8.1.1.1 Climate Actions Work: a community led campaign of communication and engagement on Climate Action

These insights inspired the development of the 2024 CAW programme. This is a new, first of its kind national engagement and communications campaign to support and encourage action on climate and community resilience. The CAW programme focuses on hearing from, and working with, local communities, focusing on local people and places, encouraging, and supporting climate actions that these communities design and develop themselves. It empowers local communities to build on their work across three key areas:

- **Raising awareness:** delivering climate communications and information campaigns, supporting people to understand the benefits of collective climate action;
- **Promoting engagement:** developing an engagement programme;
- **Supporting new activations:** providing new opportunities and supporting those who are vulnerable to the transition to climate neutrality or who feel disenfranchised.

8.1.1.2 Climate Actions Work: Communities of Place and Green Sports Club Programmes

In 2024 the CAW programme delivered across two main programme areas:

- **Communities of Place**

The NDCA team held a series of pilot engagement events in a range of communities located in all four provinces. They include communities facing different issues, and covered the coordination of existing climate action projects, expanding engagement in local energy generation, retrofitting housing, working with lower socio-economic groups, supporting the local circular economy, and realising sustainable mobility solutions in towns and rural areas.

- **Communities of Interest / Networks Pilot: Sports Green Club Programme**

Modelled on the success of the GAA Green Club Programme, DECC worked with National Governing Bodies representing sporting organisations including the Football Association of Ireland, Irish Rugby Football Union, Athletics Ireland, Tennis Ireland, Golf Ireland, and the Federation of Irish Sport to cocreate a Green Club programme for each individual sport. The pilot involved five pilot clubs across Ireland in each sport. The programme supports clubs in taking simple and effective climate action in their grounds and activities in the areas of energy, biodiversity and water.

8.1.1.3 Climate Actions Work: Resources and Supports

The programme focuses on encouraging and supporting climate actions that are designed and developed by communities themselves. The goal of the programme is to provide better supports for new and existing climate projects, organisations, and communities across Ireland on their climate journey to i) enhance the capacity of those taking climate action, and ii) support those who are not yet engaged. These supports include:

- A **Map of Community Climate Actions** providing a detailed view of the actions happening in communities across Ireland;
- The **Climate Actions Work Training Programme** providing training on engagement in climate action for community groups as well as larger organisations;
- The **Climate Actions Work Fund** supporting projects that i) grow awareness of their community initiatives, ii) build capacity within local environment organisations, and iii) foster collaboration between (and within) local authorities and community organisations;
- The **Climate Actions Work Engagement Toolkit** providing a guide to the design of engagement strategies at the community level.

This will result in improved coherence, coordination, efficiency and effectiveness of the communication and engagement on climate action across Ireland.

8.1.2 Research and Innovation 2024

The main deliverables in 2024 under research and innovation included the publication of:

- Climate Conversations 2023 Report;
- Climate Change in the Irish Minds Wave 2 Reports;
- A behavioural study on barriers to climate action and persona development employing the MAPPS (Motivation Ability, Processing, Physical Social) behavioural change framework which identified barriers to taking specific climate action and understanding of means to overcoming these barriers.

- Three new behavioural research studies including:
  - *Gap Analysis on Behavioural Research Related to Climate Policy and Interventions (UCD);*
  - *Encouraging Cooperation in Climate Collective Action Problems (ESRI)*; and
  - *Person Centred Attitudes to Climate Change (DCU).*
- In 2024 the NDCA team developed a KPI on a Power BI Dashboard to allow policy makers to incorporate social and behavioural research insights into policy design;
- The Advisory Group on Social and Behavioural Research (AGSBR) met through a series of brokerage events involving policy makers and researchers in to employing social and behavioural evidence in climate policy.

8.1.3 Measures to Deliver Targets in 2025

8.1.3.1 National Dialogue on Climate Action (NDCA) 2025

The NDCA team will continue to evolve the national engagement programme in 2025 across the following key deliverables:

- **National Youth Assembly on Climate (NYAC)** will be held in early 2025 and continue to improve how we can best incorporate the youth voice into climate policy;
- **In 2025, the 7th and 8th National Climate Stakeholder Forums (NCSF)** will continue to apply a deliberative workshop approach and function as a consultative forum on climate issues. In 2025 it will continue to host one meeting in Dublin and one in a regional location;
- **EPA Climate Conference, Climate Lecture Series and Support Workshops** will continue to host a series of annual engagement events.

8.1.3.2 Climate Actions Work 2025

Over the coming year, Climate Actions Work will expand in the following areas:

- **Communities of Place:** taking learnings from the CAW pilot programme and expanding the delivery of the programme to new communities;
- **Communities of Interest:** employing learnings from the community programme to expand the CAW initiative to networks, businesses, and special interest groups;
- **Sports Programmes:** expanding the Green Club Programme to more sporting organisations and clubs.

8.1.3.3 Research and Innovation Programme 2025

The NDCA team will continue to evolve the National Research and Innovation Programme in 2025 across the following:

- The **Climate Conversations 2025** will continue to i) deliver a nationally representative behavioural survey and ii) expand the qualitative programme to bring people from more diverse backgrounds and perspectives into the dialogue;
- The EPA will continue to publish findings from the **CCIM Wave 2**;
- The **MAPPS survey** will incorporate a persona-based approach expanding our understanding of the barriers to climate action, measuring how the barriers change over time, and the efficacy of policy for specific populations;
- The behavioural research programme will continue to evolve, with priority studies to be completed in 2025 including;
  - A Guide for Policy Makers employing social and behavioural Insights in policy design
  - A mixed method approach for conducting and assessing engagement in climate action
- The **AGSBR** will continue to meet through a series of brokerage events to establish relationships between the policy makers and research community;
- The NDCA team will continue to expand the **KPI Dashboard** over time to incorporate behavioural and qualitative data.

8.1.4 Impacts from a national campaign of communication and engagement on Climate Action

The 2025 iteration of this NDCA and CAW programme will deliver:

- A best practice guide with accompanying resources, an engagement toolkit, training, and funding;
- Improved engagement between national government, local government, agencies, stakeholders, and the public in the realisation of a social contract on climate action, including populations vulnerable to the transition to carbon neutrality;
- Insights from social and behavioural research accessible for policy makers;
- A more detailed map of community climate action across Ireland;
- A Green Club Programme for all major sporting organisations;
- Engagement programmes suited to a broad range of networks and communities of interest.

8.2 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
CZ/25/1	Deliver the National Dialogue on Climate Action Engagement Programme.
CZ/25/2	Deliver all components of the community engagement programme.
CZ/25/3	Deliver various research studies and improve the connectivity between the research community and policy makers.



9 Public Sector Leading by Example

Image: *Custom House in Dublin*

Key Messages

State of Play

- The public sector continues to drive climate action through leadership and governance and the support of the circular economy and green public procurement. The decarbonisation of public sector journeys, fleets and buildings, together with the effective use, retrofitting, and enhancement of public building energy efficiency, are examples of how the public sector is addressing climate change.

Current and Future Action

To achieve this, the public sector strives to:

- Implement the Public Sector Climate Action Mandate;
- Strengthen climate governance frameworks in public sector bodies;
- Prioritise areas of action to enhance climate literacy in the public sector;
- Implement policies to decarbonise the public sector vehicle fleet, and to reduce the numbers of unsustainable journeys generated by public sector activity and decarbonise and retrofit public sector buildings;
- Fully implement the *Buying Greener: Green Public Procurement Strategy and Action Plan 2024–2027*.

Expected Outcomes

- Implementation and review the Public Sector Climate Action Mandate annually;
- By 2025, we will achieve the buildings and retrofitting targets laid out in the Public Sector Climate Action Mandate and in Chapter 12: Built Environment.

By 2030, we will:

- Reduce GHG emissions from the public sector by 51%;
- Increase the improvement in energy efficiency in the public sector from the 33% target in 2020 to 50% by 2030.

9.1 State of Play

Public sector climate action policy has continued to evolve across the successive Climate Action Plans. Since 2023, two public sector Climate Action Mandates have been implemented and the public sector Climate Action Strategy has been published. The public sector needs to continue to strategically own climate action and expedite the necessary actions to reach its targets. To achieve this, the public sector needs to quickly respond to and deal with the magnitude of change, capture lessons learnt, and modify our buildings, transport and ways of working.

Emissions from public services have decreased by 2.7% in 2023 compared to 2022 emissions, due to a decrease in natural gas and oil use in the public services sector.

Table 3. **Public Sector GHG Emissions, 2023**[18]

Total Emissions Mt CO_2eq	Public Sector Share of Total GHG Emissions	Public Sector Emissions Mt CO_2eq
55.01*	1.2%	0.68
***Excluding LULUCF**		

9.2 Measures to Deliver Target Impact

9.2.1 Public Sector Climate Action Mandate

The *Public Sector Climate Action Mandate* applies to all bodies covered by decarbonisation targets, except for local authorities, commercial semi-state bodies, and the school sector.

The mandate highlights the main climate action objectives for public bodies and is reviewed annually – refer to Appendix 1 for the full *Public Sector Climate Action Mandate*.

18 EPA-Provisional-GHG-Report-Jul24-v6.pdf
Figures in Table 3 are the "Public Services" figures from the EPA Inventory category 1.A.4.a. The source for Public Services emissions is the SEAI Energy Balance, specifically: Water Supply, Sewerage, and Waste Management (NACE 36-39); Public Administration (NACE 84); Education (NACE 85); and Health, Residential Care, and Social Work activities (NACE 86-88). Most of the emissions in 1.A.4.a are related to the heating of buildings. The following are not included: transport emissions related to public sector fleet (captured in the transport sector 1.A.3); and emissions associated with the generation of the electricity being used (captured in 1.A.1)

9.2.2 Reporting

In 2024 SEAI re-developed the M&R process to track the 2030 public sector targets as set out in the Climate Action Plan. Each public sector body's Climate and Sustainability Champion now has responsibility for reporting annually on the public sector mandate, which allows public sector organisations to showcase the quality of their climate action plans.

9.2.3 Climate Action Roadmaps

Each public sector body to which the mandate applies will develop a *Climate Action Roadmap*, setting out how it will deliver on its energy efficiency and emissions reduction targets. In Q2 2024 updated guidance was published, reflecting the changes to the Mandate, to support the preparation Roadmaps. In 2024, 42% of public sector bodies submitted a *Climate Action Roadmap* to the SEAI. An enhanced programme of engagement is being planned for 2025 to include additional briefings, clinics and information circulars to improve Roadmap completion rates. This will be complemented by enhanced communication and targeted system reminders via the SEAI M&R System. New guidance will be developed by DECC, SEAI and the EPA to support the implementation of this updated 2025 mandate.

9.2.4 Reduce Your Use Campaign (RYU)

All public sector bodies implemented and promoted energy saving actions over the 2023/24 campaign, and the campaign will be revised for the 2024/25 winter period. In 2025, RYU's role in a wider context of supports to public bodies will be assessed. This will likely result in the development of an enhanced RYU programme and be delivered on an annual basis thereafter. There will be a continued focus on energy management action and impact evaluation and the implementation of building and operational control procedures that sustain energy savings through effective building management.

9.2.5 Public Sector Bodies to which the Public Sector Mandate does not apply

The public sector climate action mandate does not apply to commercial semi-state bodies (CSB), the school sector, or local authorities.[19]

Commercial Semi-State Bodies (CSB)

Since 2023, NewERA has provided DECC with biannual updates which have outlined continuing progress amongst the CSBs in meeting the Framework commitments. In its most recent update, NewERA notes that all 26 CSBs have climate action objectives in place that have been approved at Board level, including targets in relation to energy efficiency and GHG emissions reduction.

19 Local authorities covered in chapter 18 of the Climate Action Plan.

From 2025, NewERA's reporting on the implementation of the Framework across the semi-state sector will move to an annual basis. Further consideration will be given to the relationship between the CSBs' reporting obligations under the Framework and the disclosures that many CSBs will be required to make in accordance with the Corporate Sustainability Reporting Directive (CSRD), once CSRD reporting is well established.

School Sector

The School Energy Retrofit Pathfinder Programme is underway and has already retrofitted 60 schools across Ireland, with work underway on an additional 17. 40 schools across five counties have also been shortlisted for an energy retrofit programme as part of a REPowerEU funding package with works to be carried out in 2025. All remaining counties will be addressed via the National Energy Profile Inventory of the School Estate programme which is being developed by the Department of Education. The programme is expected to be completed in 2026.

9.2.6 Capacity of the Public Sector to Deliver Climate Action

Building capacity through climate action training continues to be a priority for the public sector. In Q2 2024, One Learning developed and made available centralised climate training for civil servants of all grades. This training will extend to the whole public sector in 2025. All senior management (P.O. level or equivalent and above) continue to complete climate action leadership training. DECC also directly supports upskilling and capacity building in the local government sector by funding the Local Authority Climate Action Training Programme.

The commitment to undertake an annual survey of public sector climate literacy process began in 2024 through the Climate Attitudes and Literacy in the Civil Service Survey. It was led by the EPA and the report was approved in September 2024.

9.2.7 Circular Economy and Green Public Procurement

The Government has published and periodically updates its *Whole of Government Circular Economy Strategy*. The *Buying Greener: Green Public Procurement Strategy and Action Plan 2024–2027*[20] approved by Government, and published in April 2024, will play a key role in driving the implementation of green and circular procurement practices across the public sector.

20 gov.ie - Green Public Procurement Strategy and Action Plan 2024-2027 (www.gov.ie)

9.2.8 Ambitious Cross-cutting Decarbonisation

SEAI Annual Report on Public Sector Decarbonisation and Energy Efficiency Performance

Public bodies are required to report annual energy data to the SEAI using their online national energy M&R system. SEAI launched a new M&R system in 2024. It will track individual public bodies' progress towards mandated energy targets and will also track public bodies' compliance with mandated actions. The Annual Report 2023 on Public Sector Energy Performance, which reports on 2022 data, shows that the 345 public bodies and 3,015 schools who reported, collectively improved their energy efficiency by 32.5% since 2009.

Retrofitting and Improving the Energy Efficiency of Public Sector Buildings

There are between 12,500 and 13,700 buildings in the public sector. Buildings account for 45-50%[21] of the energy consumed by the public sector and almost half of total energy related GHG emissions.

The combined total primary energy consumption of the 345 public bodies and 3,015 schools which reported (representing 99% of the energy consumption of the sector) was 9,888 GWh, and total energy related GHG emissions were 1,736 KtCO_2. Non-electricity GHG emissions had decreased by 3.9% from the GHG baseline, while total emissions had decreased by 17.3%. SEAI supports retrofitting and improving the energy efficiency and decarbonisation of public buildings through its public Sector Pathfinder Programme.

Decarbonisation of Public Sector Fleet and Journeys Generated by Sector

Emissions from transport account for 28% of the public sector's overall GHG emissions, the second largest portion after buildings. (see chapter 14 for further information on electrifying the vehicle fleets of public sector organisations). The sector also generates transport demand through employee commutes and service users. To make those journeys more sustainable public sector bodies are encouraged to apply for the Smarter Travel Mark. Since the Mark was launched in May 2023, 37 public sector organisations have already been awarded the Mark, with a potential reach of approximately 48,000 staff and 98,000 students. These organisations have provided sustainable mobility facilities such as cycle parking, showers, lockers and drying rooms, and over 1,500 car parking spaces have been decommissioned across the public sector organisations awarded the Mark. Work to develop a new strategy *Moving Together – A Strategic Approach to the Improved Efficiency of the Transport System in Ireland* (see chapter 14), which will build on related public sector initiatives in transport, took place in 2024. The success of future initiatives will depend on strong leadership from all sectors of the economy and Government to help reduce unsustainable transport journeys, but particularly from the public sector. There is a clear need to embed demand management principles and practices across the sector, providing guidance and support to replicate good practice and build on existing mechanisms like the NTA's Smarter Travel Mark and the SEAI's M&R System, to give full effect to transport-related objectives under the *Public Sector Climate Action Mandate*.

21 SEAI Annual Report on Public Sector Energy Performance, section 3.3

9.3 Actions for 2025

Action Number	Action
PS/25/1	Update Climate Action Roadmap guidance in line with the annual Climate Action Mandate.
PS/25/2	Update the M&R system to align to the annual Climate Action Mandate.
PS/25/3	Monitor implementation of commitments in the *Commercial Semi-State Climate Action Framework* and report to DECC on an annual basis.
PS/25/4	Align the *Climate Attitudes and Literacy in the Civil Service* survey with the *Climate Change in the Irish Mind* survey in both form and frequency to monitor effectiveness of the training and capacity building delivered.
PS/25/5	Continue to implement the new *Buying Greener Green Public Procurement Strategy and Action Plan 2024–2027*.
PS/25/6	Request CSBs to provide green public procurement data, where available, to assist with reporting progress within the commercial semi-state sector, as envisaged in the *Green Public Procurement Strategy and Action Plan*.



10 Carbon Pricing and Cross-Cutting Policies

Image: *Professional cyclists competing in Connemara*

Key Messages

State of Play

- To achieve the Government's sectoral emissions ceilings, key cross-cutting policies at national level provide a broad, supportive, national policy framework to promote the transition of a climate neutral society.

Expected Outcomes

- €951 million in carbon tax revenues invested in socially progressive programmes supporting Ireland's transition to a low carbon economy;
- Social Climate Plan will target supports to vulnerable households, microenterprises and transport users to mitigate impacts of increased fossil fuels costs;
- Climate Action Fund and Infrastructure, Climate and Nature Fund will direct investment in transformative programmes to support meeting Ireland's carbon budgets;
- Corporate Sustainability Reporting Directive will drive step-change in corporate disclosure of climate impacts;
- Strengthened National Planning Framework and legislation in place to further embed climate action objectives in planning system.

10.1 Progress of Measures to Deliver Cross-Cutting Policy Objectives

10.1.1 Carbon tax and the transition to a low carbon economy

Budget 2025 allocated €951 million in carbon tax revenues[22] to a range of programmes supporting Ireland's transition to a low carbon economy and protecting those most vulnerable as part of this transition, an increase of €163 million on 2024. In line with the approach taken in previous years, and as committed to in the Programme for Government, allocations were prioritised to targeted social welfare interventions; to residential and community energy efficiency upgrades; and to programmes to incentivise the agriculture sector to farm in a greener and more sustainable way.

Budget analysis sets out that the impact of the planned 2025 increase in carbon tax and accompanying social protection package continues to be progressive, with households in the bottom five income deciles better off due to the measures funded by additional carbon tax funds.[23].

10.1.2 EU Emissions Trading System

Directive 2023/959 strengthened the rules of the EU Emissions Trading System (ETS) in order to ensure the system will support the achievement of the EU's agreed emissions targets for 2030. The ETS was also extended to the maritime sector and a separate system was introduced for the road transport, buildings and additional small industry sectors (ETS II).

EU Member States have the option of applying for a derogation from the requirement to surrender allowances for the period from 2027 to 2030, if a Member State has a domestic carbon tax rate that is greater than or equal to the average ETS II auction rate. Under this derogation, regulated entities will still need to comply with the Monitoring and Reporting requirements of ETS II.

A new EU Social Climate Fund, introduced as part of the Fit for 55 framework, will operate over the period 2026–2032 with up to €663 million available to Ireland from EU resources to invest under its Social Climate Plan. The Plan will target supports to mitigate the impacts of the increases in the costs of fossil fuels over time on the most vulnerable.

22 See Department of Finance (2024) paper: **Carbon Tax Exchequer Revenue Projections 2024-2030**

23 *Budget 2025 The Use of Carbon Tax Funds*, available from **www.budget.gov.ie**

10.1.3 Mobilising Investment for Climate Action

Project Ireland 2040 Funds

The four Project Ireland 2040 funds, comprising the Climate Action Fund (CAF), Disruptive Technologies Innovation Fund, the Urban Regeneration and Development Fund, and the Rural Regeneration and Development Fund, have a collective budget of an estimated €4 billion to 2027. Each of the four funds continue to promote investments for climate action within the scope of its mandate.

The Climate Action Fund will continue to fund projects and initiatives that contribute to the achievement of Ireland's climate and energy targets in a cost-effective manner which, in the absence of support, would not otherwise be developed. In 2024, approximately 700 projects have been approved under strand 1/1a of the Community Climate Action Programme amounting to €24 million in funding for community climate action projects. Throughout 2024, projects from the energy and transport sectors were approved for an additional €82 million of CAF funding under the CAF Second Funding Round. Collectively, these projects will progress through delivery between 2024 and 2028.

Infrastructure, Climate and Nature Fund

The Infrastructure, Climate and Nature Fund (ICNF), and the Future Ireland Fund (FIF), were announced by the Government in Budget 2024. The dual objectives of the ICNF are to provide for counter cyclical expenditure in the event of economic downturns and to support improved climate, water and biodiversity outcomes. The purpose of the FIF is to offset future spending pressures. On 18 June 2024, the Future Ireland Fund and Infrastructure, Climate and Nature Fund Act 2024 was enacted. Following this, the majority of the Act was commenced on 30 July 2024. The Funds are now established and were resourced with their first tranches of funding from National Reserve Fund (NRF) in September. The transfers from the NRF consisted of the allocation of €2 billion to the ICNF and the remaining balance transferred to the FIF.

Up to €3.15 billion in the ICNF is being set aside for the multi-annual funding of designated environmental projects over the period 2026 to 2030 to support the transition to a low carbon economy and improved environmental outcomes. Designated environmental projects will be those that contribute, either directly or indirectly, or are likely to contribute to the reduction of GHG emissions, an improvement in water quality, and/or an improvement in nature and biodiversity objectives. More detailed criteria are outlined in the legislation. The allocation of funding to these projects is an administrative process overseen by the Minister for Public Expenditure, NDP Delivery and Reform.

10.1.4 Green Budgeting and Climate-related Budgetary Expenditure

Ireland is committed to the implementation of a series of progressive green budgeting reforms to better embed climate and environmental goals within the budgetary process, with a view to improving outcomes. To support these reforms, Ireland continues to actively participate in the European Commission's Green Budget Expert Group, the OECD Paris Collaborative on Green Budgeting, and participates in the Coalition of Finance Ministers for Climate Action.

A number of process changes were introduced from Revised Estimate Volume 2024 in the interests of improved data collection and more detailed assessment, as well as improved communication and transparency. These processes are in iterative development, with work in 2025 focussing on integration with performance reporting, linking allocation decisions to outcomes and impacts. As part of this process, the annual outline of the climate and environmental expenditure allocated as part of the Revised Estimates Volume 2025 will be available at **https://www.gov.ie/en/collection/a92af-green-budgeting/** once published. As part of Budget 2025, the Department of Finance has undertaken a review of its Green Budgeting analysis and published updates as part of the Budget in its updated *Beyond GDP – Quality of Life Assessment* publication[24].

10.1.5 Mobilising Private Sector Investment

The €500 million Home Energy Upgrade Loan Scheme, launched in April 2024, enables homeowners to borrow between €5,000 and €75,000 at significantly lower interest rates to those currently available on the market, because of the combination of an EIB Group loan guarantee and a government-funded interest rate subsidy, for a term of up to 10 years, to complete a home energy upgrade. In order to avail of the low-cost loans, the upgrade projects must be supported by an SEAI grant and be projected to achieve a minimum 20% improvement in the energy performance (BER) of the building. A growing number of financial services providers are now offering loans under the Scheme.

Ireland's Irish Sovereign Green Bond programme continues to raise significant resources on the capital markets for allocation into climate-related investments, with the most recent allocation report listing €521 million of allocations to eligible green projects during 2023, representing 15.3% of climate and environmental related expenditure during the year.

24 See Budget 2025: Beyond GDP - Quality of Life Assessment, Green Budgeting (Chapter 6): **Budget 2025: Beyond GDP – Quality of Life Assessment**

10.1.6 Promoting a Sustainable Financial System

The Corporate Sustainability Reporting Regulations 2024, which came into effect in July 2024, transpose the Corporate Sustainability Reporting Directive (EU) 2022/2464 which arises from the European Green Deal's climate change action objectives, to further enhance the disclosure by companies of climate and environmental data.

Under the Regulations, companies in scope will be required to disclose not only the risks they face from a changing climate and other environmental, social and governance (ESG) matters (financial materiality), but also the impacts they themselves may have on climate and society (impact materiality). Companies will also have to provide information on their value chain. To assist companies with the transition to the new requirements, for the first three years of reporting, where information on the value chain is not available, they may elect to explain their inability to obtain the information.

The EU taxonomy for sustainable activities continues to be implemented to guide the financial system in allocating essential investments towards climate action. The taxonomy aims to significantly increase sustainable investment to align with the goals of the EU Green Deal. It provides a common language and framework for understanding what constitutes a green investment, promoting transparency and reducing the risk of greenwashing. Requirements for climate adaption and mitigation are in force since 2021, with requirements for the circular economy, biodiversity, water/marine, and pollution objectives applying as of January 2024.

10.1.7 Spatial and Planning Policy

The planning system plays an integral role in meeting the National Climate Objective and having a vertically integrated policy framework that supports the actions in this Climate Action Plan is critical. From a national planning policy perspective, the National Planning Framework (NPF) provides an established means through which to implement and integrate climate change objectives, including adaptation, at national, regional, and local levels, and the transition to a low carbon and climate resilient society.

The NPF sits at the top of the planning hierarchy and provides the overarching context for the regional and local tiers below it, thereby securing the alignment of policies and objectives as part of the plan-making process, including alignment with the Climate Action Plan.

A revised and strengthened NPF and the Planning and Development Act are high level policy and legislative priorities. Updated National Policy Objectives in the draft revised National Planning Framework will strengthen alignment between planning and spatial policy and Ireland's carbon budget framework, as well as promote stronger integration of key sectoral climate policy objectives into spatial and planning policy.

10.1.8 Digital Transformation

Harnessing Digital – The Digital Ireland Framework, published in 2022, reflects Ireland's ambition to continue to be a digital leader at the heart of European and global digital developments. It sets out a roadmap to drive the digital transition across our economy and society, and it complements work towards achieving Ireland's climate targets, with our green and digital ambitions re-enforcing each other. It includes targets, high-level workstreams and deliverables across four dimensions, in line with the EU's Digital Decade 2030 - Digital Transformation of Business; Skills; Digital Infrastructure; and the Digitalisation of Public Services.

The Government also continues to support remote working through its *Making Remote Work: National Remote Work Strategy* as part of its wider commitment to increased participation in the labour market; more balanced regional development; improved work/life balance; reduced commuting times; and reduced transport-related carbon emissions.

10.1.9 Bioeconomy

The bioeconomy has been fully embraced in Ireland through the *National Policy Statement on the Bioeconomy* 2018 and the national *Bioeconomy Action Plan 2023–2025*. In 2024, the development of our bioeconomy was supported through programmes such as the EU Just Transition Fund and the Shared Island Fund. The potential for uptake of technologies such as biotechnology and biomanufacturing, and the uptake of biobased products such as biochar, to contribute to climate action was recognised in CAP24 and will be considered for a new Bioeconomy Strategy for Ireland in 2025.

10.2 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
CP/25/1	**Prepare Social Climate Plan for Ireland in line with EU Social Climate Fund Regulation.**
CP/25/2	**Expand the Department of Finance's green budgeting methodology from a tax perspective to include all six EU Taxonomy for Sustainable Activities based on the EU Green Budgeting Reference Framework and the OECD Green Budgeting Framework.**
CP/25/3	**Develop 'green budgeting' analysis of expenditure allocations to align with performance reporting.**
CP/25/4	Calculate updated forward projected estimates of carbon tax yields to 2030 on a WEM and WAM basis and examine domestic climate change policy impact on carbon tax yields.
CP/25/5	Continue to design National Planning Policy to appropriately support district heating.



11 Electricity

Image: *One of the E-70 turbines at Ballywater Wind Farm, Wexford*

Key Messages

State of Play

- Electricity accounted for 12.5% of Ireland's GHG emissions in 2023. Between 2018 and 2023, electricity emissions decreased by 26.2%, to a provisional ~7.6 $MtCO_2eq.$ in 2023.
- The 2023 figure represents a 22% decrease on the 2021 emissions which had risen to 9.89 $MtCO_2eq.$[25]

Trajectory

The 2023–2050 EPA Projections Report indicates that while annual emissions are reducing for the first carbon budget period, mitigation will be insufficient, and the projected excess will be circa 1 $MtCO_2eq.$ for the period.

Trends

The 22% reduction in emissions in the electricity sector is due to an increase in the share of renewable electricity generation, from 38.6% to 40.7% from 2022 to 2023, with wind energy accounting for 33.7% of electricity supply (up from 33.1%), and an increase in net imports of electricity, rising from 1% in 2022 to 10% in 2023, resulting in a reduction in the use of coal-, oil-, and gas-fired plant for domestic generation.[26]

25 Environmental Protection Agency (EPA), *GHG Provisional Emissions Inventory 1990–2023*, July 2024.

26 For greater detail see, https://www.seai.ie/publications/Energy-Supply-and-Security-of-Supply-Part-A.pdf

Actions

The electricity sector has several policy documents setting out actions over 2025 and beyond:

- National Energy Demand Strategy;
- Future Framework for Offshore Renewable Energy;
- Energy Security Package;
- Accelerating Renewable Electricity Taskforce Implementation Plan;
- Offshore Wind Delivery Taskforce Key Actions.

Key Targets

- Carbon Budget 1 (2021–2025): 40 $MtCO_2eq$.
- Carbon Budget 2 (2026–2030): 20 $MtCO_2eq$.

National Target	2025	2030
Renewable Electricity Share	50%	80%
Onshore Wind	6 GW	9 GW
Solar	Up to 5 GW	8 GW
Offshore Wind	–	At least 5 GW
New Flexible Gas Plant	–	At least 2 GW
Demand Side Flexibility	15–20%	20–30%

11.1 State of Play

The electricity sector has one of the smallest carbon budgets, with a ceiling of 40 $MtCO_2eq.$ for the first budget period (2021–2025), equating to an average of 8 $MtCO_2eq.$ per annum and the steepest decline trajectory (-75%) across all sectors. This represents an immense challenge as the sector not only has a requirement to reduce emissions, but also to meet the increasing electricity demand required for our economy, ensuring the energy security of the State, and supporting those sectors which are decarbonising through electrification.

There has been a steady decline in annual emissions from 9.89 $MtCO_2eq.$ in 2021 to 7.56 $MtCO_2eq.$ in 2023. While the EPA Projections Report 2023–2050 indicates an overshoot of over 1 $MtCO_2eq.$ in the period 2021 to 2025, and an overshoot of over 5 $MtCO_2eq.$ in the second period 2026 to 2030, these are both significant improvements on the projected overshoots (5.2 $MtCO_2eq.$ and 8.2 $MtCO_2eq.$, respectively) set out in the Climate Action Plan 2024.

A DECC led subgroup of the Accelerating Renewable Electricity Taskforce was established to examine ways to accelerate the decarbonisation of the sector for the second carbon budget period. The SEAI are also undertaking a Decarbonised Electricity System Study which may inform the development of the third and fourth carbon budget periods, as well as an evidence-based decarbonisation pathway for the electricity system to net zero.

11.1.1 Analysis of sectoral emissions

Considerable progress has been made in decarbonising the electricity sector, which resulted in the reduction in electricity generation emissions of 22% in 2023[27], against an increase in electricity demand (+3%). This reduction was due to an increase in both the use of indigenous renewable electricity generation sources (over 6 GW installed capacity by end-2023) and electricity imports, allowing for a reduction in fossil-based domestic generation.

Ireland remains a world leader in both wind generation and the integration of non-synchronous renewable electricity onto the grid. Wind energy accounted for 33.7% of electricity generation in Ireland in 2023, with a further 7% coming from other renewable sources, such as solar, hydro, and biomass.

Interconnection continues to increase in importance, helping us and our European partners balance electricity supply and demand between countries. Our interconnectivity is expanding, with the 500 MW Greenlink Interconnector to Great Britain due to come onstream in early 2025 and the 700 MW Celtic Interconnector to France in 2027.

27 Environmental Protection Agency (EPA), *GHG Provisional Emissions Inventory 1990–2023*, July 2024.

11.2 Actions and Updates

11.2.1 Progress on actions

Accelerate Renewable Energy Generation

A renewables-led system is at the core of Ireland's plan to radically reduce emissions in the electricity sector, protect our energy security, and ensure our economic competitiveness. This requires the accelerated and increased deployment of new renewable electricity generation capacity and related infrastructure.

Extending the life of and/or repowering existing renewable electricity projects offers an efficient use of established infrastructure and minimises the risk to the security of electricity supply at a time when increasing numbers of existing windfarms are reaching the end of their life. For onshore wind capacity, lifetime extensions and repowering at existing sites will be critical to ensuring that the 80% renewable electricity target is reached.

The **Planning and Development Act, 2024**, the **Renewable Energy Directive** and the revised NPF together will ensure greater alignment between national, regional, and local authority levels to deliver on the renewable electricity ambition.

The **draft first revision of the NPF** includes policy support for the development and upgrading of electricity grid infrastructure, the delivery of renewable electricity generation capacity, and the introduction of regional renewable electricity capacity allocations for each of the three Regional Assemblies by 2030. The table below shows each region's existing energised capacity and additional minimum renewable electricity capacity allocations. The target capacity allocations are the minimum required for wind and solar generation to meet the 2030 emissions reductions in the electricity sector and further capacity may be required beyond 2030 to reach net zero by 2050.

In accordance with the relevant National Policy Objectives, Regional Assemblies and Local Authorities must plan for sufficient wind and solar energy development in order to achieve the targeted regional renewable electricity capacity allocations outlined in the draft National Planning Framework, taking into account factors influencing delivery including attrition rates and changes to energised capacity levels, in addition to current installed energised capacity.

Further to the commencement of Section 29 of the Planning and Development Act 2024, each Regional Assembly will be required to prepare a Regional Renewable Energy Strategy (RRES) as part of a wider review of the Regional Spatial and Economic Strategy, whereby additional detail can be outlined as to how the regional renewable electricity capacity allocations for the region can be best achieved in a coordinated and sustainable manner, including the identification of specific minimum targets for each of the constituent local authorities. These strategies will, in turn, inform City and County Development Plans.

The Final Revised NPF, due to be approved by Government and the Oireachtas in 2025, will be essential to ensuring that there is a sufficient pipeline of onshore wind and solar energy projects to meet the electricity carbon budget programme.

Table 4. **Draft First Revision National Planning Framework Regional Renewable Electricity Capacity Allocations.**

Region	Energised capacity 2023 (MW)	Additional Renewable Power Capacity Allocations (MW)	Total % of national Share in 2030	Energised capacity 2023 (MW)	Additional Renewable Power Capacity Allocations (MW)	Total % of national Share in 2030
	Onshore Wind MW			Solar PV MW		
Eastern and Midlands	284	1,966	25%	306	3,294	45%
Northern and Western	1,761	1,389	35%	0.3	959	12%
Southern	2,622	978	40%	138	3,302	43%
Total	**4,667**	**4,333**		**445**	**7,555**	

The results of the fourth onshore Renewable Electricity Support Scheme (RESS) auction were published in September 2024, with an additional 1,334 MW (more than a 20% increase on current installed capacity) of renewable generation capacity secured. In addition, the **second phase of the Small-Scale Renewable Electricity Support Scheme** was announced in May. This phase will support those small scale and community projects which are not suited to the competitive bidding process under RESS, with fixed export tariffs.

Work to accelerate the reinforcement of the **electricity grid is ongoing**, with EirGrid and ESB Networks delivering a significant number of infrastructure projects. The Commission for the Regulation of Utilities (CRU) published a new **electricity grid connection policy** in September, which includes the introduction of permit-granting deadlines and a second annual connection offer window, further supporting the connection of renewable projects to the grid. The CRU also published a decision on **Hybrids-Installed Capacity Cap** and it continued its work on hybrid connections by opening a public consultation on the sharing of maximum export capacity in January.

Guiding principles for the ongoing reform of Private Wires Policy was published in July, with a final Private Wires Policy Framework expected to be published before year-end.

Following the successful increase of the **System Non-Synchronous Penetration cap from 70% to 75%**, EirGrid has **reduced the minimum number of large conventional fossil-fuel burning generators** required for system stability from five to four, allowing for higher levels of renewable generation on the grid at any time and so reducing emissions.

For offshore wind, all six Phase One projects will have submitted planning applications by the end of 2024, with a combined capacity of over 4GW.

The Future Framework for Offshore Renewable Energy Policy Statement was published in May, which sets out the key actions to deliver a potential 20 GW of offshore wind capacity by 2040, and a potential 37 GW by 2050. The Future Framework is complemented by the Powering Prosperity – Ireland's Offshore Wind Industrial Strategy, which aims to harness Ireland's green industrial development potential in the offshore wind sector.

Throughout 2024, the CRU published important regulatory decisions relating to the development of Ireland's offshore wind sector, related to grid pathways, charging methodologies, asset treatment, and the regulation of EirGrid for its new offshore activities.

The South Coast Designated Maritime Area Plan for Offshore Renewable Energy (SC-DMAP), a statutory spatial plan to guide development and investment in offshore renewables, was made operative by the Minister for the Environment, Climate and Communications on 24 October 2024, subsequent to the earlier approval by both Houses of the Oireachtas. The next Offshore RESS auction will be focused on a development area in the SC-DMAP.

Accelerate Flexibility

The Electricity Storage Policy Framework (ESPF), published in July, highlights the crucial role that electricity storage can play in accelerating the deployment of renewable electricity generation and ensuring grid stability, and includes ten Government actions to support storage.

An *Offshore Transmission Strategy* is in preparation and two interconnectors are currently under construction, with a further interconnector anticipated to be commissioned by 2030.

In exploring potential interconnection opportunities Ireland, Belgium, and the United Kingdom signed a Joint Statement on greater cooperation on renewables and interconnection opportunities between the three countries. Additionally, EirGrid and the French Transmission System Operator, RTE, are examining a second potential Ireland-France interconnector.

Demand Management

The CRU National Energy Demand Strategy (NEDS), published in July, is CRU's plan to deliver the key regulatory measures necessary to allow all energy system users to benefit from a more flexible energy system, reducing the strain on the power system, and ensuring that we maximise our renewables potential. A review of the Large Energy Users Connection Policy is ongoing and will ensure that new Large Energy User grid connections do not contribute to energy security challenges and that the power system decarbonises new demand in line with climate targets. A final decision is expected in 2025.

Recommendations for an Enhanced Electricity Emissions Reporting Framework for Large Energy Users is due to be published in late 2024, while actions under Powering Prosperity and the NEDS will contribute to developing a plan-led, spatial approach to facilitate the co-location of future renewable electricity supply and large-scale energy demand.

The Smart Energy Services Working Group (SESWG) continues to provide strategic policy direction in line with the priorities of REPowerEU and the EU Action Plan for the Digitalisation of the Energy System, focussing on developing measures to empower citizens to play a central and active role in the energy transition. This includes the launch in 2024 of a Smart Energy Users Portal, for educating, encouraging, and empowering active consumers to engage in demand flexibility activities. The SESWG's new implementation plan will be published by year end.

11.3 Identifying Actions in the Electricity Sector

The Offshore Wind Delivery Taskforce (OWDT) continues to oversee actions required to develop offshore wind generation in Ireland. The OWDT published its **Annual Review 2023 and Key Actions for 2024** report in April, which sets out the key measures to be undertaken in the offshore wind sector.

The Accelerating Renewable Electricity Taskforce (ARET) was established to identify and prioritise the required policies to achieve our onshore renewable electricity targets. The ARET published its **Implementation Plan** in June, which sets out the roadmap for the actions to be taken in the near-term to help meet our 2030 targets.

In November 2023, **Energy Security in Ireland to 2030**, was published. This sets out the strategic approach to ensure a secure transition for Ireland's energy systems, in line with our climate objectives, and sets out the energy security related actions to be taken out to 2030.

The CRU's NEDS contains a suite of actions required to facilitate a more reliable, sustainable, and efficient energy system, in line with the carbon budgets, while minimising costs for customers.

The SESWG will launch a dedicated Smart Technology and Standards workstreams to develop and deliver smart flex standards for energy smart appliances, such as heat pumps, battery storage and EV chargers; in line with crucial consumer empowerment measures required under the EU Electricity Market Design changes.

The **Future Framework for Offshore Renewable Energy**, under the guiding principles of protecting the maritime environment and biodiversity; delivering affordable energy; ensuring an equitable return to communities; and alignment of policy and infrastructure, sets out the key actions to develop Ireland's long-term, plan-led approach to offshore wind.

11.4 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
EL/25/1	**Manage the Renewable Electricity Support Scheme.**
EL/25/2	**Publish Long Duration Energy Storage Procurement recommendations paper.**
EL/25/3	**Develop a data sharing framework regarding Low Carbon Technologies connected to the electricity grid.**
EL/25/4	**Develop Smart-flex standards roadmap.**
EL/25/5	**Develop consumer-led flexible demand processes.**
EL/25/6	Establish an electricity decarbonisation pathway through the Decarbonised Electricity System Study.
EL/25/7	Deliver a holistic onshore and offshore network plan blueprint (Net Zero Network Plan).
EL/25/8	Assessment of potential actions to encourage and incentivise the uptake of domestic and commercial flexible demand technology.
EL/25/9	Accelerate Renewable Electricity Taskforce to oversee delivery of actions contained in Implementation Plan.
EL/25/10	Offshore Wind Delivery Taskforce to continue to implement the system-wide plan for the delivery of ORE.
EL/25/11	Develop a framework of supporting policies for the repowering and extension of life of existing renewable electricity generation capacity.
EL/25/12	Introduce the Scheduling and Dispatch Programme Go Live.
EL/25/13	Increase the System Non-Synchronous Penetration limit to 80%.
EL/25/14	Launch Low Carbon Inertia Services Phase 2 procurement.
EL/25/15	Begin Future Arrangements for System Services Development.



12 Industry

Image: *Dublin, Republic of Ireland Aerial view of Dublin cityscape from Guinness Storehouse*

Key Messages

Overview

- Industry accounted for 10.4% of Ireland's GHG emissions in 2023;
- Between 2018 and 2023, industry emissions decreased by 9.6%, to a provisional ~6.29 $MtCO_2eq.$ in 2023;
- The 2023 figure represents a 11.3% decrease on the peak of 7.09 $MtCO_2eq.$ in 2021.[28]

Trajectory

The 2023–2050 EPA Projections Report indicates that while annual emissions are reducing for the first carbon budget period, mitigation will be insufficient. The projected excess will be ~3 $MtCO_2eq.$ for the first budgetary period and ~7 $MtCO_2eq.$ for the second (2026–2030) budgetary period.[29]

28 Environmental Protection Agency (EPA), *GHG Provisional Emissions Inventory 1990-2023*, July 2024.

29 Environmental Protection Agency (EPA), *Ireland's Greenhouse Gas Emissions Projections 2023–2050*.

Trends

Switching away from carbon intensive fuels to lower carbon ones has been one of the primary drivers for the reduction in emissions for the sector.

Actions

CAP25 actions are seeking solutions to the challenging problems in construction materials and the introduction of further measures to encourage and support a reduction in fossil fuel demand.

Key Targets

- Carbon Budget 1 (2021-2025): 30 $MtCO_2eq.$
- Carbon Budget 2 (2026-2030): 24 $MtCO_2eq.$

National Target	2025	2030
Carbon-neutral heating in industry	50–55% share of carbon neutral heating	70–75% share of carbon neutral heating
Decrease embodied carbon in construction materials	Decrease by 10% embodied carbon for materials produced and used in Ireland	Decrease by at least 30% embodied carbon for materials produced and used in Ireland
Reduce fossil fuel demand through energy efficiency measures in industry	Reduce by 7%	Reduce by 10%

12.1 State of Play

12.1.1 Progress and trajectory

2018 to 2023 was a period of economic growth yet the sector's emissions have gradually decreased by 9.6% since 2018, except for a post-Covid high in 2021. The reduction in emissions contributes to the growing evidence of a partial decoupling of industrial emissions from economic growth. Emissions decreased by 5.1% in 2023 relative to 2022, and overall, by 9.6% relative to 2018.[30] Fuel switching away from carbon intensive fuels to lower carbon ones has been one of the primary drivers for the reduction to date. Significant industry investments in decarbonisation by some of Ireland's largest industrial emitters are also driving mitigation, as these companies embed climate action into their activities. The shift towards electrification and zero- or low-carbon fuels in manufacturing will need to be accelerated to deliver on the sectoral targets.

The sector's carbon budget for the period 2021–2025 is 30 $MtCO_2eq$. The sector has used up 20 $MtCO_2eq$ in the first three years of the carbon budget, or 66.7% (23.6% in 2021, 22.1% in 2022 and 21% in 2023). The sector now needs to emit an average of 5 $MtCO_2eq$. annually in 2024 and 2025 to achieve its first carbon budget.

The EPA's WEM scenario in their Greenhouse Gas Emissions Projections 2023-2050 shows the sector's emissions on a pathway to exceed the carbon budget by ~3 $MtCO_2eq$. in the period 2021–2025, and ~7 $MtCO_2eq$.[31] in the period 2026–2030. The latest projections are an improvement on the EPA's previous projections that showed emissions exceeding the first and second carbon budgets by ~4.4 $MtCO_2eq$. and ~9.5 $MtCO_2eq$., respectively. While the reduction in projected emissions is noted, the sector remains off track to meet its emissions reduction targets. CAP25 will build on the progress made in previous iterations of the plan, accelerating mitigation measures for the remaining carbon budget period.

30 A Conscious Decoupling: the relationship between economy activity and greenhouse gas emissions in Ireland. gov.ie - Economic Insights - Spring 2023 (www.gov.ie).

31 Based on EPA's 2023–2050 projections, using projection figures for 2024–2030 and EPA emissions inventories from 2021–2023.

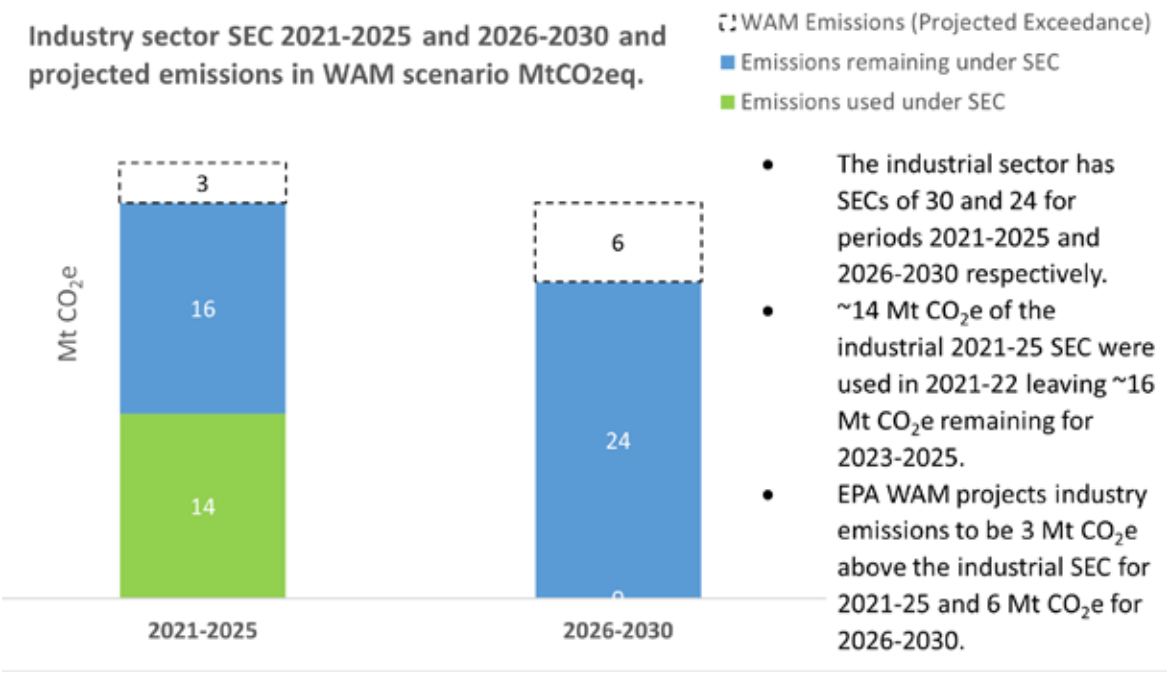


Figure 2. **Industry Sector Emissions Relative to the Sectoral Emission Ceilings and EPA's 'WAM' Scenario Projections**

12.1.2 Analysis of sectoral emissions

Industry emissions arise from two types of activity – manufacturing combustion and industrial process emissions.

In 2023, combustion for heat was the main source of industry emissions at 4.1 $MtCO_2eq$ while industrial process emissions were 2.2 $MtCO_2eq$, to give a total of 6.3 $MtCO_2eq$.

Manufacturing combustion emissions have reduced faster than emissions from industrial processes. This cohort of emissions reduced by 4.6% in 2023 relative to 2022 levels, and 11.3% from the base year 2018. Reductions in these emissions are expected to drive the overall decarbonisation of industrial emissions for the first two carbon budgets.

Industrial process emissions, which closely track cement production, fell by 5.8% in 2023 and overall, by 6% since 2018. However, these emissions reductions have largely been due to reduced production/output and industrial processes continue to represent a key 'hard to abate' cohort of emissions in industry.

A key target for the industry sector is to reduce emissions associated with the use of concrete and there remains scope for the construction industry to use more timber in construction. In 2022, 24% of new construction in Ireland was built using timber frames to satisfy the demand for housing.

80% of the sector's emissions fall within EU ETS. This means Ireland's significant industrial emitters comprising of manufacturing companies, primarily in the cement, alumina, food and beverage, pharmaceutical and chemicals sectors are motivated to reduce emissions if they are to remain competitive as the price of EU ETS allowances rise and the volume of free allocations is reduced.

12.2 Actions and Updates

12.2.1 Progress on actions

Electrification of manufacturing processes, the use of biomass and biogas for heating needs, and fuel switching in the cement sector have contributed to the mitigation of emissions to date, though an acceleration of these measures is now required.

Roadmap for the Decarbonisation of Industrial Heat

Key Government actions delivered in 2024 include the publication of the *Roadmap for the Decarbonisation of Industrial Heat*.[32] This Roadmap outlines the necessary trajectory to meet the sector's decarbonisation targets set out under the Climate Action Plan.

The Department of Enterprise, Trade and Employment (DETE) is advancing a programme of work to address the barriers to industry decarbonisation, working across the system to identify the policies and levers that will unlock carbon abatement opportunities. DETE will ensure that €300 million will be available to drive the decarbonisation for the sector over the coming years.

Reducing Embodied Carbon in Cement and Concrete through Public Procurement

DETE's 2024 report *Reducing embodied carbon in cement and concrete through Public Procurement in Ireland* highlights the purchasing power of the State to drive a change on the demand-side, such that construction materials producers, developers and builders are incentivised to reduce the embodied carbon in construction.

The report identified four areas for attention to drive public bodies to better procure cement products and construction projects broadly, to send appropriate market signals to the sector. These include measures such as using less concrete and less cement by designing, specifying, and managing products on site better; specifying lower carbon concrete; specifying lower carbon cement; and introducing broader carbon management systems for large infrastructure projects.

32 Roadmap for the Decarbonisation of Industrial Heat - DETE (enterprise.gov.ie)

New technical guidance has been issued to all Government departments and local authorities for the implementation of these measures on projects commencing design from 1 September 2024. This guidance is aligned with forthcoming EU regulations under the Energy Performance of Buildings Directive, which will similarly require a whole life-cycle GHG emissions assessment for many new buildings.

Public bodies are now required under the *Public Sector Mandate* to use best practice project design to reduce embodied carbon; procure concretes with clinker replacements (lower carbon); and require that large construction projects produce a whole life-cycle GHG emissions assessment.

Cement and Construction Sector Decarbonisation Working Group

Actions being progressed by the Cement and Construction Sector Decarbonisation Working Group include detailed engagement with the cement sector through Enterprise Ireland, and engagement with research on innovation in the formulation and production of cement and concrete products. This work closely aligns with the work of Timber in Construction Steering Group, Modern Methods of Construction policy, and policy measures to increase circularity in the construction sector, and re-use of cement and concrete products where possible.

The above actions also address recommendations of the CCAC, through their annual review of industry and waste, on prioritising sustainable alternative fuel usage in the cement industry and introducing whole-life carbon assessments in line with the revised EU Energy Performance of Buildings Directive (EPBD).

Timber in Construction Steering Group

The Timber in Construction Steering Group is developing a series of actions targeted at increasing the use of timber in construction. There are five thematic working groups which are examining a range of areas, including regulations and standards, existing research gaps and opportunities to increase the use of timber.

Carbon Capture, Utilization and Storage (CCUS) Task Force

The CCUS Task Force, under the joint leadership of the DECC and the DETE, are developing a workplan to report on the market readiness for this activity and to progress the development of policy and a regulatory framework in an Irish context.

National Hydrogen Annual Work Programme

The National Hydrogen Annual Work Programme has been updated for 2025.
The programme will further develop an understanding and put in place appropriate regulatory arrangements to support future scale-up of the sector as it evolves.
A Hydrogen Task Force will oversee the delivery of the Hydrogen Annual Work Programme, and emerging relevant actions.

12.3 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
IN/25/1	**Enterprise agencies to focus on and prioritise high impact projects with higher decarbonisation potential as part of their ongoing engagement strategy with clients.**
IN/25/2	**Analyse the price differential between the price of fossil fuels and the price of renewables, examining options that may incentivise electrification of heat.**
IN/25/3	**CCUS Task Force, under the joint leadership of the DECC and the DETE to progress work programme.**
IN/25/4	**Explore tax and regulatory measures to support the adoption of recommendations from energy audits, and the installation of energy efficient equipment.**
IN/25/5	The Cement and Construction Decarbonisation Working Group will consider mechanisms to ensure that public bodies report compliance with new guidance to reduce embodied carbon in procured construction.
IN/25/6	Deliver the actions set out under the National Hydrogen Annual Work Programme for 2025.



13 Built Environment

Image: *Dramatic sky over houses close to Dublin*

Key Messages

Overview

The Built Environment sector comprises the residential, public and commercial sectors, and accounted for 11.1% or 6.76 MtCO_2eq. of Ireland's economy-wide operational GHG emissions in 2023 according to the EPA's July 2024 Provisional GHG Emissions Report. Operational emissions in the sector have decreased by 6.2% or 0.44 Mt of CO_2eq. since 2022 and have decreased by 21% since 2018. Embodied GHG emissions (emissions embodied in construction materials, construction processes, etc.) are reported in the industrial sector.

Trajectory

The residential sector is on track to meet its 2025 sectoral emissions ceiling. However, for commercial and public sector buildings the corresponding required emissions reduction is 2.9% per annum to stay within the 2025 sectoral emissions ceiling.

13.1 State of Play

13.1.1 Progress and trajectory

For the residential sector, 2023 marked the third continuous year of emissions reductions. Decreases were seen in 2023 for all fossil fuels used for household space and water heating. Coal, peat, kerosene, and natural gas fell by 22%, 13%, 0.3%, and 14% respectively. High fuel prices and a mild winter were significant contributors to the reduction in fossil fuel use, in addition to the introduction of nationwide solid fuel regulations, fuel switching, and energy efficiency improvements. 2023 saw continued strong delivery under the National Retrofit Plan:

- Capital expenditure of €324.5 million (up 68% on 2022 spend);
- 47,952 home energy upgrades (up 76% on 2022 and 129% of 2023 target);
- 17,599 BER B2 upgrades completed (up 107% on 2022 and 127% of 2023 target);
- 3,769 heat pumps installed (up 66% on 2022 and 66% of 2023 target);
- 5,897 fully funded energy upgrades for low-income households (up 33% on 2022 and 98% of 2023 target).

13.1.2 Analysis of Sectoral Emissions

The first carbon budget allocates 36 $MtCO_2eq.$ for the two sectoral emissions ceilings that encompass the built environment over the five-year period of 2021–2025. 62% of the residential sectoral carbon budget and 61.4% of the commercial and public sector sectoral carbon budget have now been expended during the period 2021-2023. The residential sector is on track to meet its 2021–2025 sectoral emissions ceiling and is ahead of its 2025 indicative reduction target of -20%. The commercial and public sector faces challenges in meeting their sectoral emissions ceiling and revised and expanded support schemes are in development to accelerate progress across these sectors.

13.2 Actions and Updates

13.2.1 Progress on actions

Standards and Regulations

The CCAC's 2024 review of the built environment noted an urgent need to reduce and ultimately phase out Ireland's fossil fuels and replace heating systems with low-carbon alternatives such as heat pumps and district heating systems. In support of these goals, fossil fuel boilers have already been effectively phased out in new dwellings and Government has approved the General Scheme of the Heat (Networks and Miscellaneous Provisions) Bill 2024. Furthermore, a roadmap to phase out fossil fuel boilers in existing buildings is being prepared under the auspices of the Heat and Built Environment Taskforce to align with EPBD (Energy Performance of Buildings Directive) requirements. An embodied GHG emissions calculation methodology is under development for Q3 2025 by SEAI which will be aligned with EPBD embodied GHG reporting requirements.

EU Legislation and Standards

The transposition and implementation of the revised EPBD (EU/2024/1275), which was adopted on 24 April 2024, is now under way. This Directive will have wide ranging impacts across the non-residential sector. It will be important to raise awareness among businesses of the impact that the Directive will have on their buildings, including the requirement to have Minimum Energy Performance Standards for commercial buildings. Article 17(15) of the EPBD, which aims to cease public funding for the installation of new fossil fuel boilers, is to be implemented by 1 January 2025. The 2023 Recast Energy Efficiency Directive (EU/2023/1791) requires each Member State to achieve significant additional energy savings by 2030. Ireland is required to transpose this Directive by October 2025.

The revised Renewable Energy Directive (EU/2023/2413), to be transposed by May 2025, requires a significant increase in renewable energy by 2030. The Directive establishes a binding target for the share of renewable energy in heating and cooling, as well as indicative targets for district heating, buildings and industry.

Renewable Heat

The deployment of district heating at scale, particularly in densely populated areas with readymade heat sources located nearby, is a key Government objective under the Climate Action Plan and a component in meeting the built environment sectoral emissions ceiling.

The general scheme of the proposed Heat Bill has been approved by Government and the development of this legislation will pave the way for the growth of a district heating industry in Ireland that will be highly efficient and low carbon.

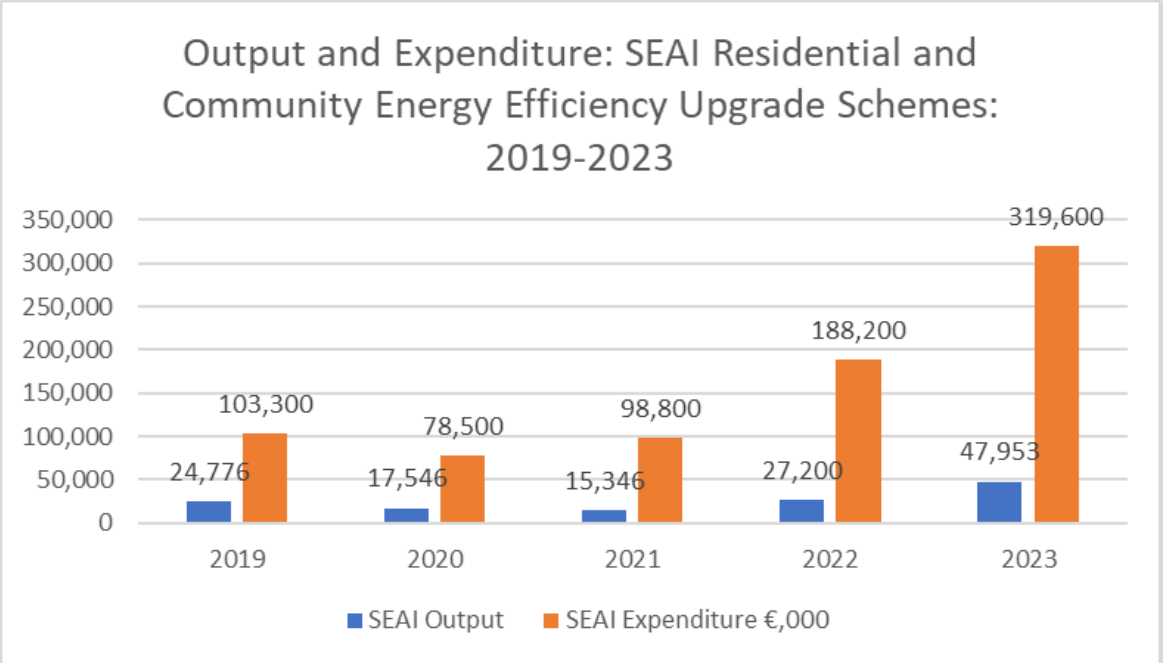
The legislation will: support the development and expansion of district heating networks by public, private and utility actors; ensure price protections for new district heating customers and existing communal heating consumers; provide for a licencing regime for suppliers, builders and operators of district heating; provide pathway provisions for State ownership of privately developed heat networks; and provide for plan-led development of heat networks. Furthermore, building on the National Heat Study, a Heat Policy Statement will be published for public consultation and the terms and conditions for the Support Scheme for Renewable Heat are being updated to accommodate funding support for large scale district heating projects.

To further support the decarbonisation of the heat sector, Government has agreed to the introduction of the Renewable Heat Obligation (RHO), with scheme parameters now being finalised for approval. The RHO will obligate suppliers over a certain threshold to ensure a proportion of the energy they supply is renewable, and it will incentivise the production of indigenously produced biomethane, in line with the *National Biomethane Strategy* published in 2024.

The Infrastructure, Climate and Nature Fund (ICNF) announced by the Government in Budget 2024 offers one potential funding source to support the delivery of measures to reduce emissions in the built environment sector.

Decarbonising the Residential Sector

The policies and measures introduced under the National Residential Retrofit Plan continue to drive a significant increase in retrofit delivery (see section 13.1.1 above).



Developments under the National Residential Retrofit Plan during 2024 include:

Pillar 1	Driving Demand and Activity
The Warmer Homes Scheme is delivering a greater volume of deeper and more complex upgrades for households at risk of energy poverty with significantly shorter wait times.	
New and enhanced supports were introduced for projects focused solely on residential upgrades; retrofitting multi-unit developments; and area-based home retrofit projects.	
In October, SEAI launched a Pilot Scheme to retrofit traditional built homes.	
In July, SEAI launched a pilot scheme to deliver additional retrofits to households at risk of energy poverty, leveraging private investment from the obligated parties under the Energy Efficiency Obligation Scheme.	
The final report on Government's Warmth and Wellbeing pilot scheme was published in July. This report shows evidence of the benefits of home energy upgrades to both the physical and mental health of participants over a three-year period following their energy efficiency upgrade.	
A number of changes to SEAI scheme rules were introduced to make the process of accessing heat pump grants easier for homeowners.	
The VAT rate for the installation of heat pumps will reduce to 9%, the lowest rate allowable under the VAT Directive.	

Pillar 2	Funding and Financing
In 2024, a total of €527 million was allocated to support residental retrofit across Government.	
In April, the €500 million Home Energy Upgrade Loan Scheme was launched offering retrofit loans from 3%.	

Pillar 3	Skills and Standards
Six Nearly Zero Energy Building (NZEB)/Retrofit Centres of Excellence are operational expanding availability and uptake of NZEB and retrofit upskilling/reskilling courses.	
D/FHERIS has launched a Domestic Heat Pump Installation Incentivisation Scheme for plumbers seeking to upskill as SEAI-registered heat pump installers accelerating the adoption of heat pumps by boosting the supply chain's installation capacity.	

Rental Sector

- The retrofitting tax incentive for small landlords is still in place for retrofitting expenses incurred between 1 January 2023 and 31 December 2025;
- A joint Department of Housing, Heritage and Local Government (DHLGH) and ESRI programme is currently undertaking research regarding the introduction of an initial minimum BER requirement for private rented dwellings. The results of the ESRI analysis will inform the Government's next steps in this area.

Vacant Homes Activation

- The Compulsory Purchase Orders Activation Programme for Local Authorities, launched in April 2023, supports local authorities to take a proactive, systematic, and co-ordinated approach to identify and activate vacant and derelict properties;
- The Vacant Property Refurbishment Grant, funded by the DHLGH, provides funding of up to €70,000 for the refurbishment of vacant and derelict properties, to support bringing them back into use as homes. Over 10,000 grant applications were received by end Q3 2024.

Decarbonising the Public & Commercial Sector

The roadmap for long-term decarbonisation of the commercial built environment is currently being finalised by the Department of Enterprise, Trade and Employment. The Business Energy Upgrades Scheme, with a particular focus on SMEs, was launched in November 2024. The new scheme supports a range of measures to improve energy efficiency and decarbonisation in the commercial sector. The scheme provides grant funding for technical assistance and capital investment in specific retrofit measures, in qualifying non-residential buildings.

The grant available is 50% for technical assistance measures, and 30% for retrofit measures, subject to maximum absolute caps established for each measure type. The scheme is offered as part of an overall SEAI business supports approach, which includes knowledge building, training, mentoring, guidance, and best practice.

DECC will develop a National Building Renovation Plan in line with Article 3 of the recast EPBD. This plan will ensure the renovation of the national stock of residential and non-residential buildings, both public and private, into a highly energy-efficient and decarbonised building stock by 2050, with the objective to transform existing buildings into zero-emission buildings.

Built Environment Sectoral Adaptation Plan

In June 2024, Government agreed and published the *National Adaptation Framework* (NAF). DHLGH is undertaking a scoping exercise on the potential for a Built Environment/Planning Sectoral Adaptation Plan.

Geothermal Energy

The continued implementation of the Government's *Policy Statement on Geothermal Energy for a Circular Economy* supports the sustainable use of Ireland's geothermal energy through the development of a regulatory framework and a strategy to help decarbonise the heating and cooling of buildings and industrial processes and to reduce peak loads on the electricity grid during winter. The legislation and strategy will align with policy on district heating.

13.3 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
BE/25/1	**Develop embodied carbon methodology and establish structures in line with the Energy Performance of Buildings Directive to reduce carbon in construction materials for all new buildings.**
BE/25/2	**Complete Built Environment and Planning Scoping exercise, led by DHLGH, under National Adaptation Framework (NAF) 2024.**
BE/25/3	**Progress the implementation and governance of the public sector building stock decarbonisation roadmap to guide progress towards the 2030 targets.**
BE/25/4	**Publish bill to transpose Energy Performance of Buildings Directive.**
BE/25/5	**Develop first draft of National Building Renovation Plan in line with Energy Performance of Buildings Directive.**
BE/25/6	Expand the existing suite of NZEB/Retrofit training provision through the development of new micro-qualifications.
BE/25/7	Publish roadmap to phase out fossil fuel boilers to align with Energy Performance of Buildings Directive requirements as part of the National Building Renovation Plan.
BE/25/8	Continue the roll-out of the SEAI residential and community energy upgrade schemes.
BE/25/9	Continue roll-out of Social Housing National Retrofitting Programme with 2,500 retrofitted properties required to reach the BER B2 or equivalent and incorporating heat pump deployment targets.



14 Transport

Image: *Aerial view of Connolly train station in Dublin*

Key Messages

Overview

Transport emissions appear to have plateaued, increasing by 0.3% on 2022, representing 19.5% of economy-wide emissions.

Trajectory

64.1% of the first sectoral carbon budget was expended in the period 2021-2023. While this level could be consistent with the sector being compliant with its carbon budget to 2025, an annual 12.4% decrease would be required in 2024 and 2025 to stay within the first carbon budget.

Trends

2023 saw a 0.3% increase in emissions over 2022 levels, notwithstanding economic growth of 5% and a 3% increase to the national vehicle fleet, reflecting the increased penetration of more sustainable modes of transport and low-emissions vehicles.

Actions

Actions for 2025 reflect continuation of, and are in line with, agreed policies set out in CAP23 and CAP24. The Department of Transport intends to progress work to recalibrate, add to, and amplify those policies over the coming months to inform an updated policy pathway.

Key Targets

No change has been made to the key performance indictors provided in Table 15.5 of CAP24, to set out the level of change required to meet a 50% compliant pathway. Key targets include: 20% reduction in total vehicle kilometres travelled relative to business-as-usual, 50% reduction in fuel usage, and significant increases to sustainable transport trips and modal share. Fleet electrification and biofuels are expected to provide the greatest share of emissions abatement in the medium term.

14.1 State of Play

14.1.1 Progress and Trajectory

The legally binding sectoral emissions ceilings agreed by Government set the reduction to be achieved in the transport sector at 50% (from its 2018 emissions baseline of 12.3 $MtCO_2eq.$ to 6.1 $MtCO_2eq.$ by 2030). This must be achieved in a manner consistent with a sectoral emissions ceiling of 54 $MtCO_2eq.$ for the first carbon budget period (2021–2025), and a reduced ceiling of 37 $MtCO_2eq.$ over the second carbon budget period (2026–2030). In respect of the first carbon budgetary period, the cumulative emissions to 2023 were 34.64 $MtCO_2eq.$ which leaves a remaining budget of 19.36 $MtCO_2eq.$ Transport emissions have decreased between 2018 and 2023 by 4.2%. However, transport sectoral emissions increased from 2020 levels by approximately 6% in 2021 and again by 6% in 2022. In 2023, the emissions have now effectively plateaued (increasing by only 0.3%). However, to stay within the first carbon budget, a 12.4% decrease would be required in both 2024 and 2025.

14.1.2 Analysis of sectoral emissions

CAP24 noted that decoupling the direct correlation between transport emissions (19.5% of national emissions) and wider social and economic activity was a fundamental challenge for the sector. However, 2023 emissions were effectively static even in the context of Ireland's growing population. Economic growth, as expressed by GNI*, increased by 5% during 2023; employment grew by 3.5%; and population had grown by almost 2% to April 2023. This suggests that some de-coupling of transport emissions from economic and population growth is occurring. PSO Public Transport passenger numbers exceeded 300 million in 2023 for the first year ever – an overall 24% increase from 2022. Over 100 new and enhanced rural bus services were implemented as part of the Connecting Ireland Rural Connectivity Programme in 2022/23. As of end August 2024, there were 139,412 electric vehicles on our roads and continued investment in vehicle grant supports and the rollout of EV charging infrastructure are helping the public switch to zero emission vehicles.

14.1.3 Policy Pathways

Recalibrated Transport Decarbonisation Policy Pathway

According to the 2024 EPA projections, transport sectoral emissions are expected to reduce by 29% of 2018 levels by 2030. It is important to note that some proposed policy measures cannot be directly simulated in modelling approaches, such as certain demand management measures set out in CAP24. There are also emerging challenges for the transport sector in meeting its first carbon budget targets, which in turn will present resultant challenges for the second carbon budget targets.

In light of this, the Department of Transport will engage with the National Transport Authority (NTA), Transport Infrastructure Ireland (TII) and wider stakeholders in the transport sector, to recalibrate their existing emissions modelling; develop refined proposals for amplified or additional decarbonisation policies; assess the decarbonisation potential of these proposed measures and set national targets for a renewed policy pathway; determine whether the transport sector can help address cross-sectoral 'unallocated savings' for second carbon budget period (2026-2030); and look forward to longer-term pathways for post 2030. To achieve a Just Transition any updated policy pathways will consider what mitigation may be required, based on a socio-economic impact assessment.

14.2 Actions and Updates

14.2.1 Communications and Engagement

In July 2024, the Department of Transport signed a 3-year Behavioural Research Framework with the ESRI (Behavioural Research Unit) to identify behavioural barriers and solutions to activate individuals, communities, and various organisations to reduce their car use and shift to more sustainable modes of travel or, where suitable alternatives to car use do not exist or are not appropriate, to promote the transition from fossil-fuel cars to EVs.

14.2.2 Freight

Assessing potential of shift to rail freight to reduce emissions

The Report of the *All-Island Strategic Rail Review* (published in July 2024), recommends a number of actions to enable modal shift to rail freight, including sustainable solutions for first-mile-last-mile rail freight access for Dublin Port, reducing track access charges for freight services, strengthening rail connectivity to the island's busiest ports, and developing a network of inland terminals close to cities on the rail network. Work is already underway to implement these actions, including the Foynes rail freight line rehabilitation project.

14.2.3 'Avoid' and 'Shift' Measures

Enhanced Spatial and Land Use Planning

The revision of the National Planning Framework presents an opportunity to re-emphasise the cross-linkages between land-use and spatial planning and the transport system. The policy pathway for cutting transport emissions centres around the 'Avoid-Shift-Improve' approach and specifically, Compact Growth Transport Orientated Development, improved 'Active Travel' infrastructure, better public realm and planning consents for alternative fuel, and EV charging infrastructure.

National demand management strategy – 'Moving Together'

As per action TR/23/19 in CAP23 and following a public consultation on the strategy between April and August, a final report is awaiting Government approval. Once approved by Government, the Department of Transport will establish an oversight mechanism to monitor and evaluate the strategy. Local authorities are key to its implementation and various actions are set out in the implementation plan to empower and support local authorities.

Key to this will be embedding demand management schemes within existing planning and development mechanisms such as the *Metropolitan Area Transportation Strategies* (MATS), and City and County Development Plans, as appropriate – ensuring that they are embedded in the transport planning system. Linked to this is the planned extension of the statutory transport planning remit of the NTA to the metropolitan areas of Cork, Galway, Limerick, and Waterford, thereby ensuring that new MATS are established upon a statutory footing.

Sustainable Mobility Policy Action Plan – 2026 to 2030

Consultations on the Moving Together Strategy highlighted the need for Improved "supply side" options like enhanced public transport infrastructure and services, shared mobility hubs, park and ride, etc. The Department of Transport will lead a review of the existing action plan and the development of a new action plan for the period 2026 to 2030 under the *Sustainable Mobility Policy* (SMP) which will take account of the lessons from the first three years of implementation.

The role of Local Authorities in Transport Decarbonisation

Local authorities have an integral and critical role in decarbonising transport, through the spatial and land-use planning system, promoting public transport-oriented development, ensuring permeability for active modes, implementing and requiring sustainable parking policies, delivering public realm improvements, developing appropriate demand management measures, and provision of EV charging and alternative fuels infrastructure. The Department of Transport and its agencies will continue to work closely with local authorities to support them in their role.

Shared Mobility

The NTA is in the process of developing mobility hub pilots in line with commitments in both the SMP and CAP23. These pilots will inform the development of a national operating model for mobility hubs. The Department of Transport is also developing a new, and first, *National Policy Statement on Shared Mobility* (TR/24/17(TF)).

Connecting Ireland Rural Mobility Plan

Connecting Ireland services continue to see an increase in patronage and a total of 4.7 million passenger journeys were recorded on Connecting Ireland routes in 2023; a 70% increase from 2022. Procurement and rollout of these services will continue in 2025 as per NTA Phase 4 implementation plan.

14.2.4 'Improve' Measures

Zero Emissions Vehicles Ireland (ZEVI) programme initiatives

In 2024, a range of policies were published, including the *National En-Route EV Charging Plan and the Regional and Local EV Charging Network Plan 2024–2030*.

The vision set out in these documents, and in the overarching *National EV Charging Infrastructure Strategy*, envisages a 300% increase in charging capacity by 2025. It will see fast recharging stations established for cars and vans every 60 km along the main transport corridors, as well as dedicated HGV charging facilities on the Trans-European Transport Network (TEN-T) network and at key urban nodes, will bolster public confidence in transitioning to electric vehicles, and is in line with the recent adoption of the EU Alternative Fuels Infrastructure Regulation (AFIR).

Two new infrastructure schemes in 2024 will accelerate the development of high-powered EVs along Ireland's motorway and dual carriageway network and the primary and secondary national road network. At local level, other schemes such as the Shared Island Sport Scheme will see public charging installed at sports clubs and community facilities.

Renewable Transport Fuel Policy 2025–2027

The renewable transport fuel blend rate continues to be increased annually on 1 January, on a trajectory to reach E10:B12 by 2025 and E10:B20 by 2030. A revised trajectory of annual increases in the RTFO rate, indicative to 2030, will be set out in the updated Renewable Fuels for Transport Policy Statement 2025-2027, to meet both CAP and revised EU renewable energy targets.

National Policy Framework for Alternative Fuel Infrastructure

Regulation (EU) 2023/1804 (AFIR) on the deployment of alternative fuels infrastructure sets out mandatory minimum levels of alternative fuels infrastructure to be deployed by EU Member States on the TEN-T network, across land transport, maritime and aviation sectors. The Regulation will require a significant programme of infrastructural deployment to support EV charging and hydrogen refuelling station deployment for LDVs and HDVs in our urban nodes and on the TEN-T core network, as well as the provision of on-shore electricity supply for large vessels at berth; and electricity supply for stationary aircraft in our TEN-T airports. In 2024, the Department of Transport undertook public and stakeholder consultation to update the National Policy Framework prior to submission to the Commission.

14.2.5 Maritime, Aviation and Sustainable Aviation Fuel

Aviation

International aviation emissions are outside the scope of Climate Action Plan targets. However, it is widely acknowledged that deployment of Sustainable Aviation Fuels (SAFs) will play the greatest role in decarbonising the aviation sector in the short to medium term. ICAO has requested Contracting States to develop a national SAF Policy Roadmap, which will input into a wider national State Action Plan on CO_2 Aviation Emissions Reduction Activities. Ireland will submit its updated State Action Plan to ICAO by end-2024.

Maritime

The revised National Ports policy will endeavour to follow the CCAC's recommendation to prioritise "measures to strengthen the climate resilience of Irish Ports". The revised National Ports Policy will be aligned with CAP25; the *National Adaptation Framework 2025* and the *Climate Change Sectoral Adaptation Plan* for the transport sector. The policy will also recognise and facilitate the role of ports in enabling future energy transitions, including the decarbonisation of shipping and of the wider logistics chain to encourage improved and greater integration of rail transport with our seaports, and facilitating the development of offshore renewable energy.

14.3 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
TR/25/1	Advance the 'Your Journey Counts' advertising campaign.
TR/25/2	ESRI Framework on Behavioural Research for Sustainable Mobility and Climate Action in Transport.
TR/25/3	Memo for Government on Car Advertising Proposals.
TR/25/4	Finalise recalibrated Transport Decarbonisation Policy Pathway.
TR/25/5	Complete assessment of potential additional carbon savings from alternative fuel measures in hard-to-abate transport, to close the unallocated savings gap (2026-2030) in the transport sector.
TR/25/6	Commence work to develop new Sustainable Mobility Policy Action Plan for 2026 to 2030.
TR/25/7	Advance roll-out of walking/cycling infrastructure in line with National Cycle Network (NCN) and CycleConnects plans.
TR/25/8	Renew the approach to Shared Mobility, including public bikes schemes in Limerick, Cork, Waterford and Galway.
TR/25/9	BusConnects Dublin: At least one Core Bus Corridor (CBC) approved at Approval Gate 3 and start construction.
TR/25/10	Based on the All-island Strategic Rail Review, publish a report on which rail projects to progress and deliver by 2035.
TR/25/11	Prioritise and accelerate delivery of NTA Connecting Ireland and new town services, via demand responsive transport pilot initiatives, conventional and nonconventional modes of public transport services.
TR/25/12	Advance the Enterprise Replacement Fleet project to provide new trains on the cross-border intercity rail service between Dublin and Belfast, allowing for increased service frequency and faster journey times.
TR/25/13	Review of the National Ports Policy to set a policy framework to contribute to the decarbonisation of maritime transport and the wider logistics chain and to support the development of Offshore Renewable Energy (ORE).
TR/25/14	Ongoing delivery of Destination Charge Point Scheme including sports clubs and community facilities.

Action Number	Action
TR/25/15	**Roll out of key elements of electric vehicle (EV) Infrastructure Strategy.**
TR/25/16	**Procurement Strategy for Shared Ireland Fund (SIF) Eastern Green Hydrogen Corridor Demonstrator Project.**
TR/25/17	**Submit Finalised Alternative Fuels Infrastructure Regulation National Policy Framework to EU Commission (incl. Strategic Environmental Assessment/Appropriate Assessment).**
TR/25/18	**Renewable Transport Fuel Policy 2025-2027.**
TR/25/19	Complete delivery and evaluation of initial Public Engagement Pilot Initiatives.
TR/25/20	Advancement of decarbonisation elements of Road Haulage Strategy.
TR/25/21	Develop a detailed understanding of HVO availability and use in the heavy goods freight sector and assess its current contribution and future potential to contribute to Ireland's decarbonisation goals.
TR/25/22	Subject to Government approval of the Moving Together Strategy, establish an oversight mechanism to monitor and evaluate the Strategy, ensuring its evaluation is fully aligned with the Just Transition Framework.
TR/25/23	Prioritise the delivery of further phases of the Busconnects Network Design Plan.
TR/25/24	Identify measures to improve sustainability of School Transport Scheme, informed by Phase 3 review.



15 Agriculture

Image: *The River Boyne meanders through fertile agricultural land in County Meath*

Key Messages

Overview

Agriculture accounted for 34.3% of Ireland's greenhouse gas (GHG) emissions in 2023[33]. Agriculture emissions decreased by 4.6% or 1.0 $MtCO_2eq.$ to 20.782 $MtCO_2eq.$ in 2023, compared to 2022.

Trajectory

The reductions of emissions in 2023 is the largest single-year decrease from the sector under the Climate Action Plan. This needs to continue and accelerate to meet the target of a 25% reduction by 2030.

Trends

Much of the reduction in emissions since 2021 can be attributed to the drop in nitrogen fertiliser purchased by Irish farmers. The total cattle herd reduced in 2023 by 1%. There has been substantial uptake of organic farming with 5,000 farmers now farming organically in Ireland.

Actions

In addition to the delivery of multi-annual programmes, 2024 saw the publication of the *National Biomethane Strategy* and the launch of grant aid towards development of the sector. This is expected to drive expansion of the anaerobic digestion sector towards the target of 5.7 TWh by 2030. The reopening of the Organic Farming Scheme and the implementation of the Forestry Strategy have significant potential to create opportunities for Irish farmers to diversify their farming enterprises.

33 Total is inclusive of Land Use, Land Use Change and Forestry

Key Targets

Targets	2021–2025 $MtCO_2eq.$	2026–2030 $MtCO_2eq.$	Total (2021–2030)
Reducing chemical N use to a maximum of 300,000 tonnes	0.4–0.45	0.1–0.2	0.5–0.65
Increased adoption of Inhibited urea	0.35–0.45	0.08–0.12	0.43–0.57
Earlier finishing of beef cattle (3–3.5 months reduced finishing age)	0.25	0.48	0.73
Reduce age at first calving of suckler beef cows	0.03	0.07	0.1
Improved animal breeding by focusing on low methane traits	0.0	0.3–0.5	0.3–0.5
Low emission animal feeding	0.2	0.4	0.6
Miscellaneous measures, including extended grazing and acidification, amendments, aeration of manures and slurries	0.2	0.3	0.5
Total Core	**1.43–1.58**	**1.73–2.07**	**3.16–3.65**
Further Measures			
Addition of a slow-release pasture-based feed additive/ methane inhibitor	0	0.6	0.6
Mobilise recommendations of the Food Vision sectoral groupings and support land use diversification options for livestock farmers, such as anaerobic digestion, forestry, and tillage	1.3	0.2	1.5
Organic farming (75k ha to 450k ha)	0.1	0.2	0.3
Total Further	**1.4**	**1.0**	**2.4**
All Measures	**2.83–2.98**	**2.73–3.07**	**5.56–6.05**

15.1 State of Play

15.1.1 Progress and Trajectory

Although agricultural emissions have decreased, they remain above the proposed pathway outlined in Climate Action Plan 2024. Ireland's second statutory NAF was approved by Government and published on 5 June 2024 (see chapter 22). There is a requirement for adaptation in agriculture, seafood and forestry.

Agriculture emissions decreased by 4.6% or 1.0 $MtCO_2eq$. to 20.782 $MtCO_2eq$. in 2023, compared to 2022. This was primarily due to an 18% reduction in fertiliser nitrogen use, leading to -0.43 $MtCO_2eq$. fewer emissions from agricultural soils. A 26.6% decrease in liming and a 2.1% reduction in methane from enteric fermentation in livestock in combination represent a further -0.46 $MtCO_2eq$. However, the total reduction from the 2018 baseline to 2023 is provisionally 2.9%, making the achievement of the 2030 target of a 25% reduction a significant challenge.

The EPA identified a gap in agriculture's expected emissions target[34]. It suggests that, under planned GHG reduction measures, emissions will decrease to 19 $MtCO_2eq$. by 2030 rather than the 17.25 $MtCO_2eq$. required. Much of this projected gap is due to the lack of sufficient data to allow the EPA to model CAP23's diversification measures, responsible for up to 1.5 $MtCO_2eq$. of mitigation. To achieve these reductions, it is necessary to ensure that farmers continue to take up diversification opportunities. Furthermore, appropriate data capture needs to be put in place so that these diversification measures can be properly evaluated.

The sector is based on biological systems and as such inventory refinements are expected along the road to 2030. 2023 saw a substantial refinement in the methodology used by the EPA to calculate agricultural emissions, with a greater level of detail regarding non-dairy cattle. This led to a reduction in the 2018 baseline emissions associated with agriculture, from 23.18 $MtCO_2eq$. to 21.39 $MtCO_2eq$. It should be noted that this represents a change in the accuracy for specific elements of the system, driven by improved scientific knowledge, rather than an actual reduction of emissions.

15.1.2 Analysis of Sectoral Emissions

In 2023, methane accounted for 72.1% of agriculture sector, decreasing by 2.1% since 2022. Nitrous oxide emissions contributed to 21.3%, a decrease of 9.2% since 2022, reflecting the reduction of the use of traditional fertiliser and an increase in the use of lower emission fertilisers (straight urea and inhibited urea). Carbon dioxide emissions accounted for 6.6% of emissions and decreased by 14.6% since 2022.

In 2024 there were 310,411 tonnes of chemical nitrogen sold, which means that the 2025 interim target of 330,000 tonnes has already been achieved.

34 https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/agriculture/

Sales of straight nitrogen from inhibited urea were 47,315 tonnes, which was a 39% increase on 2023 sales (34,006 tonnes). Sales of inhibited urea have been steadily increasing since 2018. In 2024, 57% of total urea sales were from straight inhibited urea products.

There has also been a noticeable decrease in Calcium Ammonium Nitrate (CAN) sales in recent years (from 147,314 tonnes in 2018 to 89,578 tonnes in 2024). The 2024 sales data represent a 52.8% replacement of CAN with inhibited urea compared to the baseline year of 2018.

While chemical N sales in 2024 were up by 11% compared to 2023 sales (which were depressed due to fertiliser price inflation following the illegal invasion of Ukraine by Russia), the overall trend in fertiliser sales since the base year of 2018 is downwards. The overall reduction in fertiliser sales has been driven by a combination of increased prices and changing farmer habits. The introduction of the National Fertiliser Database will support continued behaviour change on fertiliser use.

Organic farming saw substantial expansion, the total organic area increased to 220,000 ha in 2024, representing 5% of all utilisable agriculture close to the target of 250,000 ha by 2025.

In 2023, liming on soils decreased by 26.6%, using only 1.0 million tonnes of lime due to poor weather conditions throughout the latter half of 2023. Whilst liming is a cause of CO2 emissions, lime application improves soil fertility, leading to sustained reductions in fertiliser usage and a net reduction in GHG emissions.

Overall, 2023 saw a decrease in the total number of cattle in Ireland of 1.2% or approximately 86,000 animals, although dairy cow numbers showed a slight increase (up 0.6%). The age at slaughter increased in 2023, reversing the previously improving trend, due to difficult weather conditions during the grazing season, while the age at first calving continued to improve at a rate of about 6-7 days/year.

The overall tillage area in 2024 was 334,450 ha, a reduction of 1% from 2023. The reduction in winter cereal area was made up somewhat with an increase in spring cereal area which brought total cereals to within 3% of last year's total. The area of non-cereal crops (protein crops, beet, maize and oilseed rape) in 2024 increased from approximately 68,000 ha in 2023 to 71,500 ha in 2024.

15.2 Actions and Updates

15.2.1 Progress on Actions

The vision for the transformation of the agriculture sector is set out in *Food Vision 2030* and supported by the analysis in Teagasc's Marginal Abatement Cost Curve. More detail on actions, setting out relevant context and background can be found in CAP24.

Inputs and additives

Actions in this area focus on reducing the use of and emissions from chemical nitrogen fertiliser, with work across a range of programmes and topics. Additional measures following the interim review of the *5th Nitrates Action Programme 2022–25* will be delivered in the coming months. The Low Emissions Slurry Spreading Scheme, which provides capital grants to farmers for low emission spreading equipment has been positive in 2024 and will continue in 2025. There was strong uptake of multiannual schemes to reduce chemical nitrogen (Protein Aid, Multispecies Sward, Red Clover Silage and Organic Farming Scheme).

Husbandry practices

Advancements have been made in reducing methane emissions from livestock, through breeding and genetics. Research is ongoing regarding a slow-release pasture solution to generate feed additives for outdoor systems. Such additives have completed all regulatory stages of approval at EU level in respect of continuous feeding systems whilst continued research will assess the efficacy of GHG-reducing additives and ingredients in pasture-based systems. The feed additive 3-Nitrooxypropanol (3-NOP) demonstrated a 30% reduction in indoor methane emissions when trialled on SignPost farms during the housing period 2023/2024.It is important to note that incentivisation and knowledge transfer are key to increasing uptake of feed additives. An action plan for reducing the age of slaughter will be published.

Diversification

The *National Biomethane Strategy* was launched and funding of €40 million was secured to further the ambition of the sector. As energy policy lead, DECC will take responsibility for this second round of capital funding from 2026.

The *Final Report of the Food Vision 2030 Tillage Group* was published in May 2024 and outlines actions and recommendations to sustainably grow the sector to 400,000 hectares in line with Climate Action Plan targets. The new *National Organic Strategy* was launched in September 2024, highlighting the sector is central to government policy in securing a sustainable food system.

Carbon Farming

Carbon farming is a core principle of diversification, and a policy document will be published shortly. This work will continue to develop a Carbon Farming Framework into the future.

Carbon farming has the potential to make a significant contribution to achieving climate neutrality by 2050 by removing carbon from the atmosphere and reducing emissions. In December 2024, the EU adopted to the Carbon Removal Certification Framework Regulation, which will provide a structure to certify these activities. In line with this development, finalising a first policy position on what this would look like in Ireland is important to inform implementation in practice.

Building on developments in 2024 and to further build knowledge, Ireland is hosting the 2nd European Carbon Farming Summit in March 2025. This event will support high-level stakeholder engagement to develop robust carbon farming markets and policies. It represents a space for sharing knowledge and experiences and will provide a dynamic platform to take forward the outcomes of public consultation for implementation in terms of a carbon farming framework for Ireland.

15.3 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
AG/25/1	**Launch a 60% grant-aided Nutrient Storage Scheme to reduce reliance on chemical fertiliser.**
AG/25/2	**Reduce the maximum allowable crude protein in concentrates fed to adult cattle at grass to 14% during the period between 15th April and 30th September.**
AG/25/3	**Explore measures to encourage the usage of inhibited urea.**
AG/25/4	**Develop an Action Plan on Reducing Age of Slaughter.**
AG/25/5	**Tackle the challenge of securing access to and cost of feed in the organic livestock sector, particularly in relation to organic milling.**
AG/25/6	Monitor progress of biomethane capital grant projects and ensure successful delivery of funds.
AG/25/7	Continue to research the efficacy of GHG-reducing feed ingredients under development for pasture-based systems (including their assessment over the lifetimes of animals), including methods of administering at pasture. Begin consideration of options and issues relating to the eventual use of approved feed additives and ingredients by farmers.
AG/25/8	Progress phase 2 of the Carbon Farming Framework consultation process.
AG/25/9	Double the area devoted to organic crops and vegetables to 14,000 hectares by 2030.
AG/25/10	Roll out a wider pilot programme for the incorporation of methane reducing additives (enteric and manure) within the Signpost dairy farms.
AG/25/11	Develop a mechanism to assess the abatement credentials of the Common Agricultural Policy Strategic Plan (CSP) schemes.

Action Number	Action
AG/25/12	Encourage lime application and support nutrient management planning.
AG/25/13	Monitor the use of Chemical Nitrogen.
AG/25/14	Continue to support and expand establishment of multi-species and clover swards to reduce N dependence.
AG/25/15	Continued implementation of the Common Agricultural Policy Strategic Plan and reporting (CSP).
AG/25/16	Continued delivery of knowledge transfer activities promoting the importance and benefits to farmers of optimising nutrient management strategies as a key contributor to reduced gaseous emissions.
AG/25/17	Establish an agreement for monitoring and reporting of methane reducing feed and manure additives.
AG/25/18	Continue to support and develop the functionality of AgNav.
AG/25/19	Ongoing optimised animal breeding strategies focusing on low methane traits.
AG/25/20	Progress the implementation of the Food Vision Tillage Report to increase the area of tillage crops and to enhance the environmental footprint of the sector.
AG/25/21	Continued and appropriate financial support for organic farmers, configured to encourage new entrants into the sector.



16 Land Use, Land Use Change, Forestry

Image: *Wet Land in an Irish Turf Bog*

Key Messages

State of Play

- LULUCF net emissions in 2022 were 3.98 Mt CO_2eq. with a significant decline compared to the previous inventory resulting from inventory refinements;
- CAP24 aligned this sector with the EU targets and set a sectoral target of a reduction in net emissions of 0.626 Mt CO_2eq. for 2030 against the 2016–2018 average baseline and to stay within a four-year budget for the period 2026–2029;
- On current trends, and considering historical land-use factors, meeting this target will be challenging, without additional actions.

Trajectory

- Two future scenarios are estimated for LULUCF in the EPA's latest GHG projections, both indicating that the sector will continue to be a source of emissions out to 2030;
    - » With Existing Measures (WEM), LULUCF emissions would reach a predicted value in 2030 of 7.9 Mt CO_2eq.
    - » With Additional Measures (WAM), the 2030 figure reduces to 5 Mt CO_2eq.
- Both the WEM and WAM scenarios show the target of a 0.626 Mt CO_2 eq. reduction and keeping to within the four-year budget being missed;
- Work is ongoing to determine ways to close the gaps to achieve these targets.

Trends

- The WEM and WAM scenarios primarily show continuing high emissions from the wetlands and grassland categories and a decline in removals from forest land;
- Harvested wood products continue to be an important store of carbon in all years out to 2030 and beyond.

Actions

- A series of measures and actions were outlined in Climate Action Plan 2024 to deliver abatement and set Ireland on a pathway to achieve our goals for the sector, with additional actions outlined below;
- Throughout 2024, work has progressed on Phase 2 of the Land Use Review, which is due to report in Q1 2025, the findings of which will inform the development of CAP26.

16.1 State of Play

16.1.1 Progress and trajectory

The LULUCF sector has been a net source of GHG emissions in all years from 1990 to 2022. The latest final inventory data shows that LULUCF emissions stood at 3.98 Mt CO_2eq. in 2022[35], with a reported decline in emissions compared to the previous inventory owing to inventory refinements. LULUCF emissions are projected to increase and reach 7.9 MtCO2eq. by 2030 under the WEM scenario, driven mainly by the age and management profile of our forest stock as our 1990s era plantings mature and are harvested. The rate of increase is flatter under the WAM scenario, reaching approximately 5 Mt CO_2eq.[36]

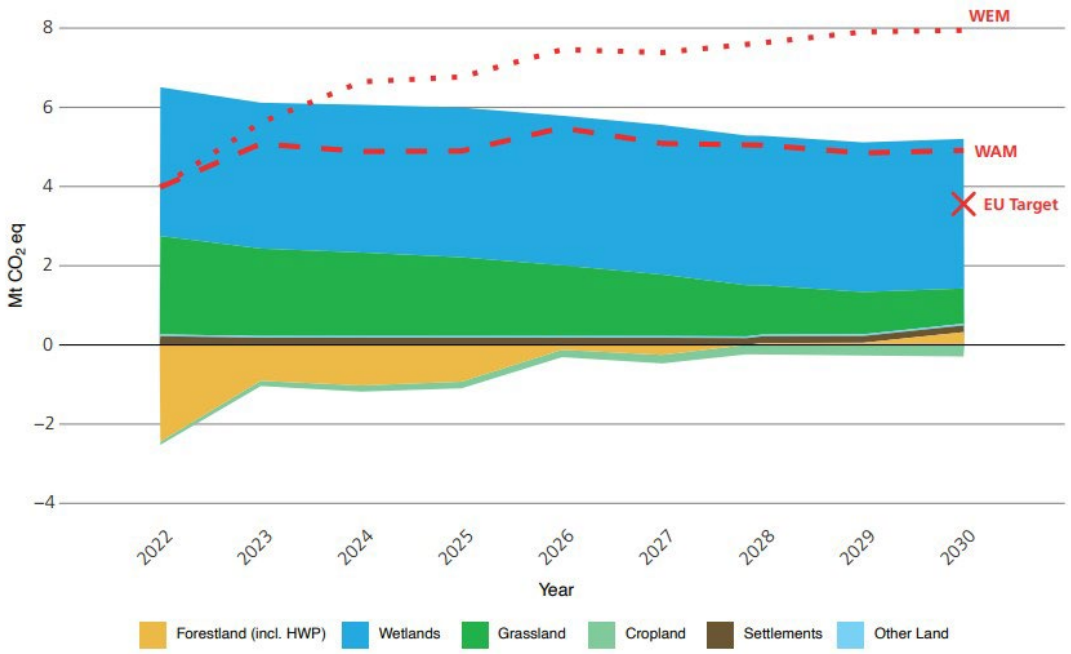


Figure 3. **Projected LULUCF emissions / removals to 2030 with coloured categories, for WEM and WAM scenarios.[37]**

Work is ongoing to deliver phase 2 of the Land Use Review and it is due for completion in Q1 2025. This will further develop the knowledge, analysis, and shared understanding necessary for the consideration of how Ireland's land can be used in a way that meets the Government objectives of improving socioeconomic, climate, biodiversity, water, and air quality outcomes. As in phase one, this is a review of Ireland's land use, not formulation of a land use strategy, however its findings will feed into future policy.

35 Ireland's National Inventory Report 2024 (EPA)

36 Ireland's Greenhouse Gas Emissions Projections, 2030–2050 (EPA)

37 Greenhouse Gas Emissions and Removals from Land Use, Land Use Change and Forestry (EPA)

16.1.2 Baseline fluctuations and the new approach

As set out in CAP24, the sector now pursues an approach that is aligned to how the EU LULUCF Regulation deals with the fluctuations and limits. Consequently, Ireland has a set target to reduce net LULUCF emissions by 0.626 Mt CO_2eq. by 2030, relative to a baseline of the average values for 2016–18. Based on the *2024 National Inventory Report*, this baseline stood at approx. 4.2 MtCO_2eq. Even as the baseline changes owing to inventory refinements, the target remains the same.

The LULUCF sector has binding and ambitious emissions-reduction targets, and actions that are updated annually, as with other sectors, with the Minister for Agriculture, Food and the Marine, coordinating with the Minister for Housing, Local Government and Heritage, having responsibility for its delivery.

The baseline emissions for LULUCF have been refined each year since the carbon budgets were set. Notably in response to recent research[38] [39], major inventory refinements in 2024[40] include revisions to the drainage status and associated emissions factors for grassland on peat soils and peat extraction on peatlands (wetlands), reducing reported national emissions by 45% overall. Such inventory refinements have been and will continue to be a feature for this sector going forward as scientific knowledge improves. As set out in CAP24, activity levels will be reviewed ahead of the second carbon budget period, commencing no later than Q2 2025 and will include a consideration of latest inventory data, in order to ensure that targets remain ambitious and in line with objectives.

16.1.3 Analysis of sectoral emissions

Forest land contributed a removal of approx. 1.6 Mt CO_2eq. in 2022, with an additional removal of approx. 0.9 Mt CO_2eq. from harvested wood products (HWP) in the same year. The EPA's most up to date GHG projections indicate that the strength of CO_2 removals from forest land (incl. HWP) is declining and will become a source of emissions by 2024 under the WEM scenario, or 2028 under the WAM scenario. This transition is associated with a reduction in the level of afforestation over a long period of time (since the 1990s), an increase in the level of harvest from the private sector, a decline in growth rates associated with age class legacy shifts and continued emissions from forests on organic soils.

38 'Drainage status of grassland peat soils in Ireland', P. Tuohy & others (Journal of Environmental Management 2023)

39 'A review of greenhouse gas emissions and removals from Irish peatlands', E. Aitova & others (Mires and Peat, 2023)

40 Ireland's National Inventory Report 2024 (EPA)

Grasslands contributed an emission of approx. 2.5 $MtCO_2eq.$ in 2022. Grasslands have been a consistent source of emissions to the atmosphere, mainly due to the significant amount of CO_2 released per hectare to the atmosphere from grasslands on drained organic (peat) soils. In Ireland's *National Inventory Report for 2024*, data taken from new research led to the 339,000 ha of grasslands on drained organic soils being disaggregated into a drained area of 141,000 ha and a rewetted area of 199,000 ha. The latter is assumed to have reverted to a rewetted status as a result of ineffective drainage rather than an intentional rewetting intervention. This rewetted area will still give rise to emissions, however at a much lower rate than its drained counterparts. In addition, country specific emission factors were incorporated. Initiatives such as the Teagasc D-TECT project and the National Agricultural Soil Carbon Observatory will also improve our understanding of carbon dynamics on grasslands and croplands.

Cropland contributed a small removal of approx. 0.08 $MtCO_2eq.$ in 2022. Research is ongoing to supply the data needed to include straw incorporation and cover crops in the inventory.

The emissions from Wetlands for 2022 were approx. 3.8 $MtCO_2eq.$, making it the largest source of emissions in the LULUCF sector. This category saw significant increases resulting from inventory refinements in the most recent inventory report. The additional contribution from Bord na Móna's and NPWS's large-scale commitments to rehabilitation of Ireland's exploited and degraded peatlands will see emissions savings benefits in this category into the future. Emissions savings from wetland rehabilitation is a long-term project, as it can take some time for emissions to reduce substantially and in the longer term revert to CO_2 removal status.

16.2 Actions and Updates

16.2.1 Progress on actions

The following represents an update on key actions delivered in 2024 to date.

Forest Strategy and Implementation Plan

The new Forestry Programme, funded with €1.3 billion by the Government, is extremely ambitious and distinct from previous Forestry Programmes. Since the Programme 2023-2027 was approved, 11 schemes have been successfully launched. The remaining schemes will be opened in due course over the duration of the programme term. A communications plan for 2024 has been put in place to promote the benefits of the programme. This has included the distribution of a Farm Forestry Booklet and the funding of 42 stakeholder promotional projects. The Forest Strategy Consultative Committee was formed in January 2024 to act as a consultative group to make contributions to the implementation of the Forest Strategy. Afforestation rates were 1,651 ha in 2023 with 2024 afforestation on track to be below the 8,000 ha target.

Enhanced Decommissioning, Rehabilitation and Restoration

The delivery of Bord na Móna's Enhanced Decommissioning, Rehabilitation and Restoration Scheme is ongoing, with the total area rehabilitated as of the end of October 2024 standing at 18,585 hectares.

Land Use Review

Phase 2 of the Land Use Review will be delivered by Q1 2025. DECC, DAFM and the NPWS will deliver on the objectives of improving socioeconomic, climate, biodiversity, water, and air quality outcomes.

Wetlands

Work is ongoing in relation to the delivery of NPWS and EU (LIFE, Just Transition, INTERREG) funded national restoration programmes on raised bog, blanket bog and fen SACs and NHAs. Progress towards wetland KPIs across numerous projects will be reviewed in 2025 with a view to consider the potential to increase levels.

Teagasc Marginal Abatement Cost Curve (MACC) for LULUCF

A report reviewing the additional and greater uptake of measures as set out in the Teagasc MACC 2023 has been completed. In the course of this work, it was found that new research in 2024 or; emission factors resulted in a substantial reduction in the abatement from implementing Peatland Rehabilitation and Water Table Management measures by approximately 65%, severely impacting the ability to provide a pathway to the LULUCF target. Therefore, an additional body of work is required to identify an alternative pathway and solutions. This work has begun and involves an update to the Teagasc MACC, the setting up of stakeholder engagement and identification of funding mechanisms. Furthermore, DAFM have completed analyses in relation to land use suitability for forestry, which is an update to the indicative forest statement map that was first published in 2008.

ACRES

Following on from approximately 180,000 ha of privately owned peatland being scored for habitat quality, and a further 420,000 ha of commonage having been scored under the Agri Climate Rural Environment Protection Scheme (ACRES), further complimentary actions will be made available in 2025 which will actively facilitate blocking peat drains where that is appropriate, and ultimately led by farmers willingness to engage.

Midlands Carbon Catchment Study

The development of the Midlands Carbon Catchment study is now under review regarding a suitable funding model to progress the objectives of attracting private finance, by piloting the concept of carbon farming on organic soils by testing different payment models and establishing a trusted Measurement, Reporting and Verification process. As with any significant land use change initiative there is a need to provide certainty and long-term support for such activities , including the necessity to establish the most appropriate funding delivery framework.

Hedgerows

2,000 km of new hedgerows have been delivered under ACRES up to 2024.

Carbon Farming

DAFM is engaged in the development of the EU certification framework for permanent carbon removals, carbon farming and carbon storage in products. DAFM is also contributing to the Expert Groups and the development of activity methodologies under the EU Framework. Work is ongoing in this area with a view to develop a carbon farming framework for Ireland.

16.3 Actions for 2025 (actions in bold appear in the Annex)

Action Number	Action
LU/25/1	**Delivery of Phase 2 of the Land Use Review to Government and update on progress towards Phase 1 recommendations.**
LU/25/2	**Undertake a midterm review of the Forestry Programme 2023–2027.**
LU/25/3	**Prepare a Land-Use Strategic Implementation Plan to deliver the Coillte Forest Estate Strategic Land-Use Plan.**
LU/25/4	**Raise awareness among forest owners of the impact of timing when deciding to fell their forest.**
LU/25/5	**Identify funding mechanisms to support emissions reductions from land use (reduced management intensity of grassland on drained organic soils; longer forest rotations; and improved grassland management.)**
LU/25/6	**Launch complementary actions in 2025 under ACRES Cooperation projects, aimed at a reduction in land use emissions.**
LU/25/7	**Review progress towards 2030 KPI of an additional 30,000 ha of peatland rehabilitation and explore potential to increase target.**
LU/25/8	Ongoing delivery of DECC's role in the Interreg Europe RIWET Project.
LU/25/9	Development of the National Restoration Plan.
LU/25/10	Include the incentivisation of new hedgerows and the improved management of 75k km of hedgerows as measures for consideration in the development of the next CAP Strategic Plan.

Action Number	Action
LU/25/11	Engage and support the work of Peatland Finance Ireland to attract finance to peatland restoration activities through the development of a peatland standard for Ireland.
LU/25/12	Facilitate and encourage exchange of organic manure between livestock and tillage farmers to deliver manure application to 115k ha of cropland.
LU/25/13	Fund the geospatial drainage status detection mapping of organic rich soils for National Inventory Reporting and policy support needs.
LU/25/14	Through the inventory refinement group, further develop and refine data collection and reporting for KPIs and actions for the LULUCF sector.



17 The Marine Environment

Image: *Cliffs of Moher on bright sunny day*

Key Messages

Overview

The establishment of a fit-for-purpose regulatory and planning regime continues for the marine area. This will be vital for the development of domestic offshore energy production in a way that protects the marine environment.

Other elements of climate action taking place in the marine space are:

- The protection and conservation of marine biodiversity through the establishment of marine protected areas;
- Enabling emissions reduction in the fisheries and aquaculture sector;
- Supporting carbon removals into the marine environment.

Compared to the terrestrial environment, much uncertainty remains with regard to marine ecosystems. A wide range of scientific and research programmes are underway to improve our knowledge of the marine area.

Actions

2024 has seen the delivery of key actions:

- Finalisation of Ireland's *Marine Strategy Framework Directive Marine Strategy Part 1;*
- Completion of an Ecological Sensitivity Analysis of the South Coast;
- Publication of the South Coast Designated Maritime Area Plan (DMAP);
- Progress on the designation of marine Special Protection Areas (SPAs) under the Birds Directive – particularly the designation of the Seas off Wexford SPA, the largest SPA in the history of the state at 305,000 hectares.

These actions will support the realisation of Ireland's potential for offshore energy whilst protecting the marine environment and its ecosystems.

Work in this area will continue in 2025 with the preparation of Ministerial guidelines on DMAPs, the publication of a Marine Planning Policy Statement. A broad range of actions will continue to increase our knowledge and understanding of the marine environment and to reduce emissions from the seafood sector.

17.1 State of Play

As set out in CAP24, a substantial programme of work is underway to create a planning system for the maritime area that will allow the realisation of Ireland's potential for offshore renewable energy whilst continuing to protect the marine environment and the interests of local communities. We shall continue to establish appropriate frameworks and instruments to protect marine biodiversity, and to reduce emissions and increase the resilience of the seafood sector.

17.1.1 Marine Planning

Following the commencement of the Maritime Area Planning (MAP) Act 2021, Ireland's enhanced marine planning system will continue to support and facilitate the State in achieving its climate targets while ensuring the protection of our biodiversity rich oceans.

Building on the National Marine Planning Framework (NMPF), Ireland's first Marine Spatial Plan, the establishment of the South Coast Designated Maritime Area Plan (DMAP) is Ireland's first sub-national forward spatial plan for offshore renewable energy and marks a significant milestone on the road to establishing an indigenous offshore energy sector in Ireland and ensuring that future Offshore Renewable Energy (ORE) development is managed in a planned, strategic and sustainable way.

17.1.2 Marine Environment

National and EU measures to conserve and support biodiversity provide co-benefits including increasing the resilience of marine and coastal ecosystems to climate change and protecting and restoring the potential to naturally mitigate climate change through the uptake and restoration of 'blue carbon' habitats ('blue carbon' refers to carbon that is sequestered and stored in different parts of the marine ecosystem – for example, in marine sediments, seagrasses or salt marshes).

The EU Marine Strategy Framework Directive (MSFD), Natura Directives (i.e. the Birds Directive and Habitats Directive), OSPAR Convention and the recently adopted EU Nature Restoration Regulation are key legal instruments supporting achievement in this regard.

Ireland, through the NPWS, reports on the conservation status and trends of the habitats and species protected by the Birds and Habitats Directives every six years. The next reports are due to be completed in 2025. The most recently available reports (2019) indicate mixed trends in relation to those marine habitats and species protected by these Directives, with the majority of marine habitats in unfavourable conservation status and declining, while listed marine species (mainly whales and dolphins) are largely in favourable status and breeding seabird species mostly stable.

Relevant developments in policy and its delivery at the domestic and international level include:

- The ongoing development of the Marine Protected Areas Bill to enable the designation and management of marine protected areas (MPAs) and the delivery of 30% MPA coverage by 2030;
- Completion of ecological sensitivity analyses of the Irish Sea (2022–23) and Celtic Sea (2023–24) which have identified suitable areas within which future marine protected areas (MPAs) could potentially be situated;
- The publication of Ireland's draft Marine Strategy Part 1 (under the Marine Strategy Framework Directive) which provides the most in depth assessment of Irelands marine environment to date;
- The adoption of the EU's Nature Restoration Regulation (also known as the Nature Restoration Law (NRL)) in June 2024, creates ambitious legally binding nature restoration targets, including those related to carbon-rich marine habitats and marine species. Ireland is required to complete its Nature Restoration Plan, which will set out how these targets will be achieved, by 2026;
- The launch of Ireland's *4th National Biodiversity Action Plan* in 2024, which includes objectives for meeting urgent conservation and restoration needs, securing nature's contribution to people and enhancing the evidence base for action.

17.1.3 Seafood Sector

The seafood industry plays a vital role in the sustainability and social and economic viability of Ireland's rural coastal communities. In 2023, the sector supported over 15,600 livelihoods, mostly in coastal communities, and was estimated to be worth €1.2 billion to the Irish economy.

In 2023 Bord Iascaigh Mhara (BIM) published the first sectoral analysis of emissions for Irish seafood. The Carbon Footprint Report of the Irish Seafood Sector forms a baseline which will play a key role in helping to tackle the emissions from the fisheries and aquaculture sector. The report found that aquaculture and fisheries emitted 396,207 $tCO_2eq.$, or 0.63% of national emissions (averaged emissions 2017–2019). This work has identified emissions hotspots in Irish seafood value chains. A number of actions are under way which will allow BIM to support emissions reduction actions in the sector. Current actions undertaken include:

- Alternative technologies report;
- An assessment of reference vessels in key segments;
- Alternative fuels trials;
- A report on emerging and alternative fuels;
- A pilot action on economic and environmental barriers in decarbonisation of a salmon barge.

17.1.4 Blue Carbon

Research into 'blue carbon' seeks to better understand how marine ecosystems and organisms store carbon, and the potential for these mechanisms to act as a climate mitigation and adaptation measure. The Blue Carbon five-year Research Programme is carried out with the support of the Marine Institute and the EPA funded by the Irish Government. Two major projects under the programme are now progressing well and have produced scientific publications and policy advice.

17.2 Progress on Actions

Development Framework for Offshore Energy

- The South Coast DMAP for Offshore Renewable Energy has been published [and laid before the Oireachtas]. The DMAP identifies four areas off the south coast that are considered suitable locations for future offshore renewable energy;
- Following the ecological sensitivity analysis of the western Irish Sea supported by DHLGH and completed in June 2023, a further ecological sensitivity analysis of the Celtic Sea was undertaken in 2024 to examine suitable areas for potential protection off the south of Ireland, and to help inform processes around the potential siting of ORE infrastructure.

Marine Conservation and Area-based protection

- Following Government publication of its General Scheme in December 2022, work on the Marine Protected Areas Bill has advanced significantly. The draft Bill aims to enable the achievement of 30% MPA coverage by 2030. Implementation of Ireland's MPA process will be achieved inter alia through the MPA LIFE Ireland project (€25m) led by DHLGH and which started on 1 July 2024;
- Provision for a statutory ocean environment policy statement, setting out the Government's policy objectives and related targets for Ireland's marine environment, is made in the draft Marine Protected Areas Bill, currently at an advanced stage of development. Timelines for the policy statement's adoption and periodic revision are envisaged in the draft MPA Bill;
- Significant marine areas have been classified for designation as SPAs for marine bird conservation, in order to meet obligations in that regard, under the Birds Directive. These include the North-west Irish Sea SPA and the Seas off Wexford SPA. These areas are important for a wide range of bird species throughout the year. These designations increase the percentage of protected marine waters around Ireland to almost 10% in line with EU and international commitments.

Marine Climate Change Monitoring and Assessment

- The identification of potential marine climate indicators to monitor and assess the effects of climate change on the marine environment (CAP23 Action MA/23/7) is considered a complementary step in the process of developing a coherent national marine climate change monitoring and assessment programme. A report identifying these potential indicators is being prepared by the Marine Institute;
- Ireland delivered an initial assessment of the impacts of climate change on Ireland's marine environment to the European Commission under the MSFD (CAP24 Action MA/24/8). This development supports the integrated delivery of regional assessments under the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic and will further inform the measures Ireland will need to address the effects of climate change in our seas and ocean;
- A new offshore monitoring platform was set up on the national Research Vessel Tom Crean to improve data collection for monitoring of harmful algal blooms;
- High quality data is continuously being collected on the Irish RV Celtic Explorer which is now globally recognised. Data collected is used to support environmental reporting and inputs into the annual global carbon budget. Irish data is continuously used in assessments of climate change and ocean acidification impacts on the North-East Atlantic including OSPAR's Quality Status Report;
- Following on from the BlueFish Project, a collection of artworks were produced and will be compiled in a booklet called Demystify II, linking art and science to portray the importance of the ocean to the economy in coastal communities and depict plausible climate change impacts. The Marine Institute funded Explorers Education programme developed an ocean climate change education resource. This material, delivered by the Marine Institute, is now available as a public resource for use by primary schools;
- Finalisation and launch of Ocean Knowledge 2030 (Ireland's new National Marine Research and Innovation Strategy) will be a key reference document to set funding priorities for national research investment in marine-related activities from 2025 onwards. Investments will also align with priorities under other national and EU climate, sustainability and sectoral strategies;
- Ireland (Marine Institute) is leading the JPI Oceans Blue Carbon Knowledge Hub which will run from May 2023 to April 2027. The main objective of the Knowledge Hub is to focus on mapping efforts and gathering data to produce a habitat extent and vulnerability database and repository of carbon stock and sequestration rate data. The repository was established in 2024 along with a state-of-the-art-report, gap analysis and policy roadmap.

17.3 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
MA/25/1	**Prepare Ministerial Guidelines for Competent Authorities on Designated Maritime Area Plans (DMAPs).**
MA/25/2	**Improve integration of ocean climate data into aquaculture and fisheries sectors in the context of climate adaptation planning.**
MA/25/3	Progress marine climate research related to fisheries, the carbon cycle, physical oceanography and maritime spatial planning.
MA/25/4	Complete a pilot study on improving the carbon efficiency of fishing gear design and alternative fuels and their role in the decarbonisation of the seafood sector.
MA/25/5	As part of the Clean Oceans Initiative work with the industry to recycle fishing gears.
MA/25/6	Through the EMFAF (European MAritime, Fisheries and Aquaculture Fund 2021–2027) carry out a re-engineering scheme for the fishing fleet which will introduce grant aid for new engines with 20% reduction in fuel or emissions.
MA/25/7	Continue the designation of marine Special Protection Areas.



18 Local Government

Image: *Lahinch Beach - Viewing coastal erosion and the coastal defences put in place*

Key Messages

Current & Future Actions

The Local Government sector has a critical role to play in implementing climate policy in Ireland and contributing to Ireland's national climate objectives. To support continued progress in this area, local and national government will:

- Implement the actions set out in the Local Authority Climate Action Plans, and monitor and report on progress;
- Establish the Decarbonising Zone (DZ) Advisory Group and support delivery of accelerated climate actions in DZs across the country;
- Continue to support the Climate Action Regional Offices (CAROs) in the delivery of their work programme to effectively support local government to lead transformative change and measurable climate action across our cities and counties;
- Operate the National Mirror Group which has been established to support the participating cities of Cork, Dublin and Galway under the EU Climate Neutral and Smart Cities Mission;
- Roll out the national climate training and capacity building programmes for local government staff and elected members across a number of sectoral areas.

18.1 State of Play

18.1.1 The Reach and Role of Local Government

As set out in the Climate Action Plan 2024, the local government sector has a critical role to play in implementing measures to meet Ireland's national climate targets. Local authorities continue to be critical delivery bodies for a range of services on the ground. In 2022, local authorities invested almost €10.2 billion in the services they provide to the public, an increase of €0.7 billion compared to 2021[41].

18.1.2 National Climate Policy and Legislation

Revised National Planning Framework

There have been significant developments in national climate policy since the adoption of the first National Planning Framework (NPF) in 2018. The Planning and Development 2024 replaces the existing legislative framework and retains the NPF at the apex of the hierarchy of national, regional, and local plans and strategies. The NPF is the overarching policy and planning strategy for the social, economic, and cultural development of Ireland. Local authorities have specific targets to reduce GHG emissions, achieve energy efficiencies while ensuring provision and operation of key local infrastructure, all of which must comply with the NPF.

Regional Renewable Electricity Generation

Local authorities have a key role in facilitating the accelerated deployment of renewable energy projects in the context of the spatial planning hierarchy, local plan making and their decision-making role in planning applications. New policies in relation to renewable energy development are one key aspect of the proposals in the revised NPF. Increased deployment of onshore renewable electricity generation is key to achieving the requirements of the recast EU Renewable Energy Directive and the national climate objective. It will provide a clean, affordable, and secure supply of electricity, whilst also delivering green jobs.

The draft NPF includes regional onshore renewable electricity targets for commercial scale wind and solar which are allocated across the three Regional Assemblies. These will be distributed across local authorities by way of Regional Renewable Energy Strategies to be included in revised Regional Spatial and Economic Strategies. This will ensure greater alignment between regional and local plans and national renewable energy targets. Under the Planning and Development Act 2024, each of the Regional Spatial and Economic Strategies must also include a strategy relating to climate change adaptation and mitigation that is consistent with national policies, and a strategy relating to marine and coastal matters which facilitates the coordination of land-sea interactions for coastal planning authorities.

41 Department of Housing, Local Government and Heritage (2022). Amalgamated Audited Annual Financial Statements. 31 Local Authorities for the year ended 31 December 2022. Available: **https://www.gov.ie/pdf/?file=https://assets.gov.ie/298160/72fe95fe-59cf-4a49-bd04-2598af2eb7d8.pdf#page=null**

Local Authority Renewable Energy Strategy Guidelines

The SEAI has been leading the development of updated Local Authority Renewable Energy Strategy (LARES) guidelines which will inform the revision of City/County Development Plans which will be undertaken following the finalisation of the revised NPF and revised Regional Spatial Economic Strategies. This will include the spatial allocation of local authority level renewable energy targets in City/County Development Plans, with the requirement for a four-tier spatial classification to guide local authorities in preparing spatial mapping and to identify areas appropriate for wind energy projects, to be incorporated within the revised Wind Energy Development Guidelines.

18.2 Progress Updates in 2024

18.2.1 Delivering Climate Action Locally

Local authorities have successfully delivered several projects that contribute to the national climate objective, and which improve quality of life.

A highly significant milestone for 2024 is the Local Authority Climate Action Plans (LA CAP). All 31 local authorities adopted their LA CAP by Q1 2024, having gone out to public consultation and following adoption by the elected members in each local authority. The plans encompass all aspects of local authority operations and service delivery and contain almost 4,000 actions.

Examples of projects outlined in the LA CAPs include Dún Laoghaire Rathdown County Council's living streets programme, which makes local streets safer and greener and communities more connected. Cork City Council established a new participatory governance structure for Cork City's accelerated transition– the Climate Neutral Cork Leadership Group. Progress has also been made on delivering adaptation measures locally. For example, the Atlantic Seaboard North CARO continued to build on the work developed through the Sand Dune Awareness Working Group in 2024 and the 'Protect our Dunes' Campaign was launched in August 2024 and will be advanced in 2025. Carlow County Council is realising the co-benefits of climate action through the deployment of rain gardens along footpaths that feature kerbs with strategically located inlets, allowing water from the carriageway to enter the rain garden where the water infiltrates into the soil.

18.2.2 Community Climate Action Programme and Community Engagement

Local authorities have announced awarding of funding for successful projects under strands 1 and 1a of the Community Climate Action Programme. The Department has approved approximately 680 projects across the country, and island of Ireland will deliver community-based climate action that address energy efficiency, biodiversity, travel, food, shopping and resilience. See more in the Public Sector Leading by Example Chapter.

In addition, the Climate Actions Work Programme, supported by the Department of the Environment, Climate and Communications, has been working closely with the local government sector in 2024 to collaborate and engage with communities across the country to learn more about community needs, aspirations, and innovative, local projects. See more in the Citizen Engagement Chapter

18.3 Measures to Deliver

18.3.1 Local Authority Climate Action Plans 2024–2029

Each local authority is now entering full implementation phase of its LA CAP. Commitment to delivering the LA CAPs comes through a structured process of implementation with ongoing monitoring and progress reporting. There are a number of reporting requirements:

- **Internal Reporting:** report on progress through the relevant local authority governance and reporting structures;
- **Monitoring and Reporting (M&R) System:** continue to report on local authority energy performance and emission targets annually to the SEAI through the M&R system. The M&R system is being expanded to include additional questions which align with the *Public Sector Mandate*. The first set of questions will relate to the 2024 mandate;
- **Sectoral Performance:** report annually by way of KPIs to inform the performance of the local government sector on climate action as part of the local government *Delivering Effective Climate Action 2030 Strategy*;
- **National Climate Action Plan:** report at national level through the existing sectoral structures for the national climate action plan and separate reporting to the Department of the Environment in relation to LA CAP progress.

18.3.2 Decarbonising Zones

Each local authority has formally selected a Decarbonising Zone (DZ) within its LA CAP. A DZ is a spatial area in which a range of climate mitigation, adaptation and biodiversity measures and action owners are identified to address local low carbon energy, greenhouse gas emissions, and climate needs to contribute towards accelerating progress at local level to achieve national climate action targets using a place-based approach.

41 DZs have been identified across all local authorities. The DZ territory combined has a population of around 435,000 and 637 actions from the combined LA CAPs relate specifically to the DZs. The DZs will provide opportunities to roll out the learnings and help with wider progress at regional and national level. Through a feedback loop of experimentation and evaluation, the DZ should foster a flexible, incremental, and community-driven approach.

A DZ Advisory Group was formed in 2024 as a joint initiative between DECC and the SEAI, and with representation from local government, national departments and agencies, regional assemblies, academia, and civil society. It will provide a structured approach to national level support for local authorities to deliver their DZs.

18.3.3 Climate Action Teams and Programmes

Government continues to invest significantly in climate-related programmes in each local authority to increase the capacity of the local government sector to respond.

Funding will continue to each local authority to support the roles of Climate Action Officer and Climate Action Coordinator.

A Service Level Agreement was signed in 2018 between DECC and the host local authorities (Dublin City, Mayo County, Kildare County and Cork County Councils) for the four CAROs to support local government to coordinate and deliver on climate action, with a renewed Service Level Agreement up to 2029. A key role for the CAROs will be to support local authorities in implementing the LA CAPs. A review of the CAROs will be carried out to support them to deliver an effective service, with the findings considered for implementation in 2025.

In 2024, sanction was provided to local authorities to recruit staff for the roll-out of public EV charging infrastructure to meet growing demand for destination and residential charging. Local authorities are working closely with Zero Emission Vehicles Ireland (ZEVI) and the new capacity is expected to come to full fruition over 2025.

Consultation on a new transport strategy, *Moving Together: A Strategic Approach to the Improved Efficiency of the Transport System in Ireland*, took place in 2024. This involved engagement with local government staff and elected members given the role local government will play in reducing transport demand and emissions. The draft strategy proposes a range of supports to help local authorities with implementation.

18.3.4 EU Climate-Neutral and Smart Cities Mission

DECC set up a National Mirror Group in 2024 to support Cork and Dublin cities in the EU Climate Neutral and Smart Cities Mission. The objectives of the group are to ensure a national focus on the Mission and that the cities are fully supported to decarbonise by 2030.

Cork City and Dublin City as Mission cities are required to develop Climate City Contracts which sets out the commitments, actions and investments needed from a range of city stakeholders to achieve climate neutrality. Both are due to submit their Climate City Contract to the European Commission.

Dublin and Cork Cities submitted a joint funding application through the Net Zero Cities Pilot programme – BUILD CAPACITIES and were awarded €1 million. This is a two-year project that will see the cities develop behavioural urban insights for climate action policy application.

Several local authorities are also participating in the EU Adaptation Mission – see more in the Adaptation Chapter.

18.3.5 Climate Capacity Building

Implementation of the LA CAPs continues to be supported by the Local Authority Climate Action Training Programme, funded by DECC. Phase II of the training programme commenced in July 2024 and will continue up to 2027, with up to €500,000 funding to be provided annually. Phase II has shifted to a learner-led model to foster knowledge exchange and be responsive to the needs of local authorities, while ensuring that changes in national, EU and international policy are reflected.

The Department of Transport is funding capacity building in local authorities through the Smart and Sustainable Mobility Accelerator Project, which is being led by the Regional Assemblies. The Sustainable Mobility Academy, an initiative that has arisen from the Smart and Sustainable Mobility Accelerator Project, was launched in May 2024, and was set up in the main to assist local authorities.

18.4 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
LG/25/1	**Deliver Phase 2 of the Local Authority Climate Action Training Programme to ensure local authority staff and elected members can access relevant and practical climate training.**
LG/25/2	**Support local authorities in implementing their Decarbonising Zones (DZs) through the national DZ Advisory Group.**
LG/25/3	**Develop Local Authority Climate Action Plan Stakeholder and Sectoral Reports.**
LG/25/4	Implement the Local Authority Climate Action Plans.
LG/25/5	Roll out training for Regional Assembly and Local Authority staff under the revised Local Authority Renewable Energy Strategy (LARES) methodology.
LG/25/6	Consider the recommendations from the CARO review with a view to implementing approved recommendations.



19 The Circular Economy and Other Emissions

Image: *Launch of Deposit Return Scheme*

Key Messages

- The extraction of certain natural resources and the generation of waste is a major contributor to habitat and biodiversity loss and contributes to global warming;
- Moving to a circular economy continues to offer a sustainable alternative to the current take-make-waste linear model and Ireland is fully committed to making this transition;
- The transition to a circular economy will reduce our greenhouse gas (GHG) emissions and make a significant contribution to achieving our climate objectives;
- The 'Other' sector comprises F-gases, waste, and petroleum refinement.

19.1 State of Play – the Circular Economy

Ireland's first circular economy strategy: *The Whole of Government Circular Economy Strategy 2022–2023*, was launched in December 2021 and is being implemented on an ongoing basis. The Strategy sets out an overall approach to circular economy policy; identifies key objectives; and indicates the direction of future policy development. The second Strategy, due to be published by 2024, is to be developed on a statutory basis, as established under the Circular Economy Miscellaneous Provisions Act 2022.

To provide a robust evidence-base for the second Strategy, a national Circularity Gap Report was commissioned in early 2024, looking at key sectors within the circular economy, including the built environment, consumables, textiles and agriculture and the bioeconomy.

This Circularity Gap Report provides the required evidence base and technical analysis for the second Whole of Government Circular Economy Strategy, which will aim to drive the circular economy transition and revamp production and consumption patterns. The Strategy will assign *inter alia* sectoral targets for reductions in material resource consumption; increases in the use of re-usable products and materials; and increased levels of repair and re-use. The output of the Circularity Gap Report and the next Whole of Government Circular Economy Strategy will build upon the actions delivered to date and identify where the major opportunities are in Ireland's circular economy potential.

In 2024, the following actions were delivered:

Innovation

- The Circular Economy Innovation Grant Scheme reopened in 2024 with funding of €650,000 available for projects.

Waste Recovery, Recycling and Re-use

- The roll-out of a national Deposit Return Scheme for the collection of plastic drinks bottles and aluminium/steel cans, as part of action to increase our recycling rate of this type of material from 55% to 90% by 2029;
- The publication of the local government sector's first National Waste Management Plan for a Circular Economy 2024–2030, replacing previous regionally based plans;
- Commencement of phasing out levy exemptions for construction and demolition (C&D) waste from the existing Waste Recovery Levy and Landfill Levy;
- EPA's introduction of a national by-product decision for greenfield soil and stone.[42]

42 National-By-Product-greenfield-stone--Criteria-Ref.-No.-BP-N002.2024.pdf (epa.ie)

Strategies, Plans and Roadmaps

- The publication of the Government's Buying Greener: Green Public Procurement Strategy and Action Plan 2024–2027, which recognises the role of the public sector's purchasing decisions on driving and supporting a circular economy (see also to Chapter 10: Public Sector Leading by Example);
- Continued work on the development of roadmaps for circularity in the textiles and construction sectors respectively, along with the publication of a national policy statement on textiles;
- The Publication of the National Circularity Gap Report;
- The publication of the draft second Whole-of-Government Circular Economy Strategy for public consultation;
- The development of a national circular economy platform to provide an authoritative source of information about the circular economy by the Rediscovery Centre which will go live early in 2025;
- Progress has been made on the establishment of a national centre of excellence for circular manufacturing and innovation.

Consultation and Communication

- A communications campaign to raise awareness of circular economy principles and practices was developed in 2022 and has been presented in media bursts across print, radio and digital, up to and including 2024. A further campaign focusing on textiles and launched exclusively on social/digital platforms went live in October 2024. The 'Reverse the Trend' campaign encourages reuse, re-wear and sharing habits amongst young high-frequency clothes purchasers.

Regulations and legislation

- New regulations for the provision of an organic waste bin for food waste and light garden waste to all households were implemented, to support reaching the targets for recycling Municipal Solid Waste (MSW) of 55% by 2025, 60% by 2030, and 65% by 2035;
- Completion of negotiations on the Packaging and Packaging Waste Regulation, implementation of which will be key to driving circularity within the packaging sector;
- A Council General approach was agreed in June 2024 for the European Commission proposal for targeted amendments to the Waste Framework Directive with respect to food waste and textiles (2023).

19.2 Measures to Deliver a Circular Economy

The system level transition from a linear to a circular economy requires clear national strategic policy making, underpinned by statute, suitably resourced for implementation, and informed by listening to our stakeholders. Progress is continuing on the implementation of multi-year programmes including:

- Implementation of the second Whole-of-Government Circular Economy Strategy, which will set out key targets and metrics for the circular transition;
- The continued implementation of the Circular Economy and Miscellaneous Provisions Act in 2022 including the development of a levy on single use cups;
- The continuation of the EPA's Circular Economy Programme 2021–2027 which incorporates and builds upon the previous National Waste Prevention Programme to support national-level, strategic programmes to prevent waste and drive the Circular Economy in Ireland;
- The continued implementation of the National Food Waste Prevention Roadmap 2023–2025;
- Implementation of the local government sector's first National Waste Management Plan for a Circular Economy 2024–2030.

19.3 Other (F-gases, Waste and Petroleum Refinement)

In the design of the sectoral emission ceilings, a number of emitting activities in our economy did not fit into traditional sectors. The 'other emissions' category was created to account for emissions related to F-gases, waste, and petroleum refinement.

F-gases (or fluorinated gases) are predominately used in refrigeration and air-conditioning systems, fire protection, high voltage switch gear, and semiconductor production, as well as in foams, aerosols, and metered dose inhalers.

Sources of waste emissions include solid waste disposal, composting, waste incineration (excluding waste to energy), open burning of waste, and wastewater treatment and discharge. Landfills are the largest source of these emissions.

Petroleum refining emissions arise from the conversion process for turning crude oil into other products such as kerosene, light gas oil, heavy fuel oil, liquid petroleum gas, and propane.

19.3.1 State of Play

These emissions sources accounted for around 3% of Ireland's greenhouse gases in 2023. Waste is the largest of the three emissions sources in the sector, with the breakdown for 2023[43] as: Waste 0.85 $MtCO_2eq.$, Petroleum Refining 0.29 $MtCO_2$ eq., and F-gases 0.7 $MtCO_2eq.$

Emissions from the sector have decreased by around 14% on 2018 levels, driven mainly by reductions in waste and F-gas emissions as EU regulations are implemented. Projections for emissions for waste, petroleum refining and f-gases published in 2024 show a slight increase over the sectoral carbon budgets 1 and 2 by 2030[44].

19.3.2 F-gases

F-gas emissions fell 21.3% in 2023 compared to 2018 levels. These decreases are mainly due to changes in the refrigeration and air-conditioning sector where high global warming potential (GWP) hydrofluorocarbons (HFCs) are being phased out in favour of low-GWP alternatives. This phase-out is taking place at EU level and is the main measure introduced by Regulation (EU) No. 517/2014 to tackle F-gas emissions. This phaseout will increase substantially in the coming years now that an updated F-gas Regulation has come into force (Regulation (EU) 2024/573). A temporary increase in F-gas demand may be experienced due to the installation of heat pumps across the economy to decarbonise domestic and industrial heating. Any such increase will be within the measures introduced in the EU Regulation and will reduce as new technology is brought to the market. This will facilitate Ireland, and the EU, in meeting our climate commitments in the coming years.

19.3.3 Waste

Waste emissions in Ireland fell 9.4% in 2023 from 2018 figures and are projected to fall 27% by 2030. The key policy tools which have been successful in Ireland are:

- Levies on landfill, certain forms of recovery and diversion regulations, including narrowing the scope for derogations;
- Widespread segregation of waste, capturing recyclables and biodegradable waste;
- Industry-supported recycling operations; and
- Regional waste planning.

To achieve our targets, all these areas need improvement, particularly developing better prevention strategies; improving capture rates; and reducing both contamination and the amount of non-recyclable materials.

43 Ireland's Provisional Greenhouse Gas Emissions 1990-2023 as of July 2024, available at Ireland's Provisional Greenhouse Gas Emissions 1990-2023 | Environmental Protection Agency (epa.ie)

44 Latest EPA Inventory and Projections data as of May 2024, available at Greenhouse gas emissions and projections | Environmental Protection Agency (epa.ie)

Ireland met the 2010, 2013 and 2020 targets under the Landfill Directive (1999/31/EC). Ireland's success in diverting waste from landfill is underpinned by two key levers: increases in the levy for disposal of waste to landfill; and requirements to divert BMW from disposal to landfill under the Landfill Directive targets.

A number of waste-related measures in the *Waste Action Plan for a Circular Economy* are being given regulatory effect in 2024, including:

- The European Union (Household Food Waste and Bio-Waste) (Amendment) Regulations were introduced in December 2023, requiring waste collection service providers to provide a bio-waste collection service (food and garden waste) to all households in the state with a waste collection service from 1st January 2024;
- Requirement for all plastic beverage containers up to three litres to have cap tethered to the container became mandatory for all products placed on the market from 3rd July 2024;
- New extended producer responsibility schemes to be established for wet wipes, balloons and fishing gear by 31st December 2024.

19.3.4 Petroleum Refining

Petroleum refining emissions fell 10.9% in 2023 from 2018 figures. Petroleum refining processes are the chemical engineering processes and other facilities used in petroleum refineries (also referred to as oil refineries) to transform crude oil into useful products such as liquefied petroleum gas, gasoline or petrol, kerosene, jet fuel, diesel oil and fuel oils. The majority of emissions from petroleum refining processes are carbon dioxide emissions and are covered by the EU Emissions Trading System.

19.3.5 2025 and 2030 KPIs

Climate Action Plan 2024 outlines the 2025 and 2030 Key Performance Indicators to deliver abatement in 'Other Emissions' under Chapter 20.

19.3.6 Measures to Deliver Sectoral Emissions Ceilings

The following measures will be critical to success:

Phase-down High-GWP F-gases

We support the measures in Regulation (EU) 2024/573 to raise ambition regarding the phase-down in the use of F-gases and promote the early implementation of the measures contained in the new regulation.

Reduce Waste sent to Landfill and/or Incineration

We will continue to transform our approach to waste in line with modern, circular economy principles.

Reduce Emissions from Petroleum Refining

We will encourage the use of renewables in the petroleum refining process, investigate further the use of biomethane as per the Biomethane Strategy, and encourage the reduction of the use of petroleum-based fuel as per the measures set out in Chapter 15 on Transport.

19.4 Actions for 2025
(actions in bold appear in the Annex)

Action Number	Action
CE/25/1	**Report on Historic Mine Waste as a source of Critical Raw Materials.**
CE/25/2	**Development of a National Exploration Programme for Critical Raw Materials.**
CE/25/3	Establishing the foundations of an Extended Producer Responsibility Scheme for textiles.
CE/25/4	Support the implementation of the second Whole of Government Circular Economy Strategy.



20 International Climate Action

Image: *Seaweed harvesting in the Solomon Islands, Credits to Blue Action Fund*

Key Messages

State of Play

- 2024 continues to see new global temperature records, with June marking a 12-month period in which each month was recorded as the hottest on record according to EU Copernicus Climate Change Service;[45]
- The first Global Stocktake (GST) which was completed at the UNFCCC COP28 meeting assessed that, on its current course, the world has not done enough to achieve the Paris Agreement temperature goal or to keep the 1.5°C limit in reach;
- At COP29, the parties were able to agree on a new goal consisting of two parts: 'core' financing of at least USD 300 billion annually by 2035, and an 'additional layer' of up to USD 1.3 trillion primarily encompassing private financing.

Current and Future Action

- Ireland continues to be an advocate for ambitious global action, based on the best available science, on the triple planetary crises of climate change, biodiversity loss and pollution.

Expected Outcomes

- Ireland's climate diplomacy will continue to promote the voices of those who are most vulnerable to climate change, championing a human rights-based and inclusive approach to global climate action;
- Ireland will continue to scale up its international climate finance, maintaining our focus on support for climate resilience and adaptation, while also expanding to support other priorities such as responding to Loss and Damage and biodiversity protection and restoration.

45 July was second warmest on record, ending record-breaking 13-month streak | Copernicus

20.1 Introduction

In 2024, the world has again experienced record global temperatures. Climate extremes have become the norm for many regions with impacts for human health, wellbeing, nature and biodiversity of grave concern. The concentrations of greenhouse gases (GHG) in the atmosphere have continued to increase, reaching new record levels.

This reinforces the findings of the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report and its message that accelerated action to address the causes and consequences of climate change is needed without delay. Ireland will continue to play its part within the international multilateral system, including through its roles in the EU, UN bodies, International Financial Institutions (IFIs), and the Organisation for Economic Co-operation and Development (OECD).

20.2 Developments in International Climate Policy

20.2.1 Multilateral Climate Action

COP28 concluded the first Global Stocktake (GST), which assessed collective progress and stated ambition, through Nationally Determined Contributions (NDCs) in achieving the goals of the Paris Agreement. It found that while some progress was evident, the world is not on track to achieve its goals. The GST decision included clear recognition of the role that fossil fuel use plays in driving climate change. For the first time it called for Parties to transition away from fossil fuels in a just, orderly and equitable manner. Other outcomes included a commitment to a doubling of the rate of energy efficiency, and a tripling of the deployment of renewables by 2030. While the GST outcome is historic, its implementation by all Parties will be key for achievement of the Paris Agreement goals.

COP29, Baku, delivered an agreement on a New Collective Quantified Goal (NCQG), to replace the previous goal, which saw developed country parties commit to deliver $100 billion in climate finance per year, through both public climate finance and the mobilisation of climate finance. This goal was overachieved in 2022, as confirmed in May 2024 by the OECD. The NCQG will replace this goal for the post-2025 period. In Baku, the parties were able to agree on a new goal consisting of two parts: 'core' financing of at least USD 300 billion annually by 2035, and an 'additional layer' of up to USD 1.3 trillion primarily encompassing private financing

At COP29 and at the invitation of its Presidency, Minister Ryan acted as part of the Ministerial Pair facilitating negotiations on adaptation. Minister Ryan is the first Irish Minister to be given a role as a Ministerial Pair.

Momentum is also building towards COP30, Belém, which will see the delivery of the next round of NDCs, the success of which are expected to play a crucial role in achieving required GHG emissions reductions during this critical decade that keep the 1.5°C limit in reach. Ireland will submit a joint NDC with its EU partners, with the EU's forthcoming 2040 Target to inform the discussions for this NDC.

Following on from COP28's agreement on the funding arrangement to respond to Loss and Damage, Ireland was nominated to the Board of the new Fund for responding to Loss and Damage, sharing a seat with the European Union. A key priority for 2024 is to move forward with the operationalisation of the fund as quickly as possible to ensure support reaches the most vulnerable countries affected by climate change.

In respect of the United Nations Environment Programme (UNEP), the sixth United Nations Environment Assembly (UNEA) was held in Nairobi, Kenya from the 26 February–1 March 2024. While UNEA5 had seen agreement reached on the need to end plastic pollution based on a comprehensive approach that addresses the full life cycle of plastics, UNEA6 required parties, including the EU and its Member States, to push for maintaining that level of ambition. The Intergovernmental Negotiating Committee (INC) on Plastic Pollution has been continuing its work during this time, with the final INC5 having taken place in December in Busan, Korea.

20.2.2 Climate Finance

Ireland has more than doubled its climate finance since 2020. Ireland's climate finance 2023 expenditure is expected to total more than €156 million and 2024 will likely total more than €181 million. We will meet the 2025 target of €225 million.

In response to a call from the International Monetary Fund (IMF) Managing Director, Kristalina Georgieva, to the world's most advanced economies to help poorer countries tackle current and emerging crisis's facing them across a range of issues, in April 2024 the Government approved the channelling (i.e. lending) of 20% of Ireland's 2021 IMF Special Drawing Right allocation to the IMF's Resilience and Sustainability Trust (RST). The RST was created in 2022 and provides longer-term affordable financing to low-income and vulnerable middle-income countries as they tackle long-term structural challenges such as climate change and pandemic preparedness. Principal repayments to RST lending are not made by borrowing countries until between 10 and 20 years after disbursement. Ireland's contribution, which is equivalent to circa €800 million in financing assistance, will also be supplemented by a stand-alone exchequer grant of circa €13.5 million. Legislation is being developed by the Department of Finance to give effect to the Government Decision.

To strengthen the alignment of climate action and sustainable development, and in accordance with a commitment in the Programme for Government, the Department of Foreign Affairs has developed a Climate Proofing Strategy to future-proof Ireland's ODA. This strategy covers a five-year period (2024–2029) and all ODA spending Departments, who were consulted during the development of the strategy, which establishes a common understanding of what climate proofing means for Ireland's ODA.

20.2.3 Sustainable Development Goals

In September 2024, the Summit of the Future took place at the United Nations in New York. The Summit was a high-level event which brought world leaders together to forge a new international consensus on how we deliver a better present and safeguard the future.

At the Summit, world leaders adopted the Pact for the Future that includes a Global Digital Compact and a Declaration on Future Generations. The Pact covers a broad range of issues including climate change, peace and security, sustainable development, digital cooperation, human rights, gender, youth and future generations, and the transformation of global governance. The Pact is designed to turbo-charge implementation of the Sustainable Development Goals.

20.2.4 Ocean Governance and Biodiversity

Ireland is committed to the protection and restoration of biodiversity, including marine biodiversity, recognising that taking such action can also help us adapt to climate change. Our work in this area includes our negotiations in and advocacy for the Agreement under the UN Convention on the Law of the Sea (UNCLOS) on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ). As an island nation, Ireland recognises the crucial role that oceans and the sustainable blue economy play in supporting marine biodiversity, climate resilience, and sustaining livelihoods, particularly for coastal LDCs and SIDS.

Ireland continues to engage with international partners, the European Commission, and regional sea conventions, to advocate for stronger ocean and biodiversity governance and dialogue, both regionally and globally, to eliminate the negative environmental impacts of human activities and ultimately restore coastal and marine ecosystems to good status as soon as possible, and for future generations.

Ireland has also participated in the sixteenth meeting of COP16 which took place in Cali, Colombia in October 2024, which advanced efforts to implement the Global Diversity Framework, including the consideration of guidance to agree indicators of the monitoring framework. Ecosystem services, such as those related to climate, are considered in the guidance in order to improve the use of nature-based solutions which increase mitigation of and resilience to climate change impacts while benefiting nature.

20.3 Principles for Climate Action

20.3.1 Championing a Science Based Approach to Climate Action

The election in 2023 of the new Bureau of the IPCC was followed by two Plenary meetings of the Panel in January and July 2024. The January meeting effectively started the work under the IPCC 7th Assessment Cycle by agreeing the reports to be provided. This includes the three Working Group reports that will constitute the 7th Assessment Report (AR7), a Special Report on Cities, and Methodological Reports on Short Lived Climate Forcers (SLCFs) and Carbon Dioxide Removal techniques. The full and the next GST will be completed in 2028. The timing of AR7 will be considered further by the IPCC in 2025 but it is expected to be an input for its the next GST.

Ireland continues to be a strong supporter of the work of the IPCC and promotes the use of the best available science to inform climate policy and actions.

20.3.2 Gender, Youth and Climate Action

There have been continuing developments in the increasingly prominent intersection between human rights and the environment and specifically the right to a clean, healthy and sustainable environment. In April 2024, the European Court of Human Rights (ECtHR) delivered its rulings on the cases of *Duarte Agostinho and Others v. Portugal and Others ('Duarte')*, *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* ('Swiss Case'), and *Carême v. France*. Ireland was a respondent in Duarte and provided written observations and oral submissions as a third party in the Swiss Case. The rulings of the ECHR in these cases will be relevant in future case law regarding the right to a healthy environment and Ireland is considering their impact.

Continuing its support of gender-sensitive climate action, Ireland has partnered with the Global Alliance for Green and Gender Action (GAGGA), a women-led, Global-South focused consortium supporting gender-just climate activism. GAGGA works to strengthen local women's leadership in inclusive lobbying and advocacy for gender-just mitigation and adaptation processes. In line with Ireland's strong focus on locally-led development, GAGGA's funding mechanism operates in support of locally-led solutions, ensuring that funds reach organisations directly.

Ireland's Climate Youth Delegate Programme is ongoing, with the third Climate Youth Delegate appointed in May 2024. Through a process of ongoing consultations with young people, the Climate Youth Delegates continue to bring valuable inputs from the perspective of Ireland's youth to the National Climate Delegation.

20.4 Actions for 2025

Action Number	Action
IC/25/1	Increase Ireland's year-on-year climate finance contribution for 2025.
IC/25/2	Prepare for Ireland's Chairing of the Working Party for International Climate Issues during its Presidency, which will include acting as EU Presidency for COP31.



21 Sustainable Development Goals

Image: *Panel discussion on SDG13 Climate Action at SDGs National Stakeholder Forum, Dublin Castle, October 2024*

Key Messages

State of Play

- In September 2024, at the UN Summit of the Future, Member States, including Ireland, adopted the Pact for the Future that includes a Global Digital Compact and a Declaration on Future Generations. The Pact covers a broad range of issues including climate change, peace and security, sustainable development, digital cooperation, human rights, gender, youth and future generations, and the transformation of global governance. The Pact is designed to turbo-charge implementation of the Sustainable Development Goals;
- Strategic Objective 1 of the SDG National Implementation Plan 2022-2024 is to 'embed the Sustainable Development Goals (SDG) framework into the work of Government Departments to achieve greater Policy Coherence for Sustainable Development';
- Action 23 of the Plan sets out that 'all new national policies should incorporate reference to relevant SDGs and targets and reflect how the policy interacts with Agenda 2030'.

Current and Future Action

- In accordance with commitments set out in the SDG National Implementation Plan 2022–2024, each chapter in the 2025 Climate Action Plan (CAP25) has been assessed for SDG impact at SDG target level;
- The SDG assessment carried out indicated that CAP24 is contributing to the progression of 117 out of 169 SDG targets.

Expected Outcomes

- A key objective of the SDG National Implementation Plan is to enhance Policy Coherence for Sustainable Development (PCSD) to effectively mainstream SDGs across policies using the framework provided by the 2030 Agenda. This is the third Climate Action Plan to be assessed for SDG impact which continues to assist with PCSD and further support the mainstreaming of the SDGs across Government into new policies.

21.1 Background

The actions and objectives set out in this Climate Action Plan (CAP25) contribute to the progression of Ireland's commitment to achieving the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals. Agreed by all UN Member States in September 2015, the 2030 Agenda is the global roadmap to 'end poverty, protect the planet and ensure prosperity for all'. Actions to achieve the SDGs are embedded in national polices, strategies and frameworks, including CAP25. The Climate Action Plan not only supports the achievement in particular of SDG 13 – Climate Action, but also of many targets relating to all other SDGs.

21.1.1 The Summit of the Future and Pact for the Future

In September 2024, the Summit of the Future took place at the United Nations in New York. The Summit was a high-level event which brought world leaders together to forge a new international consensus on how we deliver a better present and safeguard the future.

At the Summit, world leaders adopted the **Pact for the Future** that includes a **Global Digital Compact** and a **Declaration on Future Generations**. The Pact covers a broad range of issues including climate change, peace and security, sustainable development, digital cooperation, human rights, gender, youth and future generations, and the transformation of global governance. The Pact is designed to turbo-charge implementation of the Sustainable Development Goals. UN Member States have recommitted to accelerate the implementation of the 2030 Agenda through urgent, scaled-up action, policies and investment.

In the Pact, leaders have committed to a significant shift in financing for the SDGs and closing the SDG financing gap. This includes accelerating measures to address the challenge of climate change, through delivering more finance to help countries adapt to climate change and invest in renewable energy.

The Pact also confirmed the need to keep global temperature rise to 1.5°C above pre-industrial levels, to transition away from fossil fuels in energy systems to achieve net-zero emissions in 2050 and promote disaster risk-informed approaches to sustainable development.

21.2 The Contribution of the Climate Action Plan to the Sustainable Development Goals

In support of SDG target 17.14–To achieve greater Policy Coherence for Sustainable Development, each policy chapter in CAP25 has been assessed for SDG impact at SDG target level[46]. This specific SDG chapter evaluates the overall contribution of CAP25 to SDG progression.

46 Each policy chapter of the CAP25 was assessed for its alignment with the SDGs, using the Accelerating Action SDG Mapping tool, resulting in a composite assessment of the CAP overall.

The below assessment reflects this overall contribution in respect of each of these Chapters, and also takes into account any developments and updates from CAP24, in relation to this year's Climate Action Plan.

The findings of the assessment highlight that all 17 SDGs are being progressed by actions set out under the CAP25. At target level, 117 out of 169 SDG targets are being progressed by actions set out under CAP25[47].

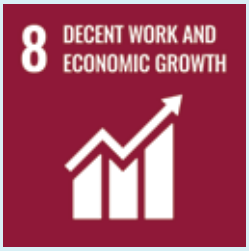
CAP25 is strongly aligned with particular Goals, progressing all targets under SDG 1–No Poverty, SDG 2–Zero Hunger, SDG 7–Affordable and Clean Energy, and SDG 13–Climate Action.

See below table for the full breakdown per Goal, of the targets being progressed under the actions in the CAP25.

Table 5. **Breakdown of targets progress under CAP25**

Sustainable Development Goal		Targets being progressed by actions in CAP25
	Goal 1: No Poverty	All
	Goal 2: Zero Hunger	All
	Goal 3: Good Health and Wellbeing	4 out of 13 3.3; 3.4; 3.6; and 3.9

47 More information and a full explanation of the 17 SDGs and the 169 Targets can be found at: https://sdgs.un.org/goals

Sustainable Development Goal		Targets being progressed by actions in CAP25
	Goal 4: Quality Education	6 out of 10 4.1; 4.3; 4.4; 4.5; 4.6; and 4.7
	Goal 5: Gender Equality	5 out of 9 5.1; 5.2; 5.5; 5.a; and 5.c
	Goal 6: Clean Water and Sanitation	6 out of 8 6.1; 6.3; 6.4; 6.5; 6.6; and 6.b
	Goal 7: Affordable and Clean Energy	All
	Goal 8: Decent Work and Economic Growth	8 out of 12 8.1; 8.2; 8.3; 8.4; 8.5; 8.6; 8.8; and 8.9;

Sustainable Development Goal		Targets being progressed by actions in CAP25
	Goal 9: Industry, Innovation and Infrastructure	8 out of 9 9.1; 9.2; 9.3; 9.4; 9.5; 9.a, and 9.c
	Goal 10: Reduced Inequality	7 out of 10 10.1; 10.2; 10.3; 10.4; 10.5; 10.a; and 10.b
	Goal 11: Sustainable Cities and Communities	9 out of 10 11.1; 11.2; 11.3; 11.4; 11.5; 11.6; 11.7; 11.a; and 11.b
	Goal 12: Responsible Consumption and Production	10 out of 11 12.1; 12.2; 12.3; 12.4; 12.5; 12.6; 12.7; 12.8; 12.b; and 12.c
	Goal 13: Climate Action	All

Sustainable Development Goal		Targets being progressed by actions in CAP25
	Goal 14: Life Below Water	7 out of 10 14.1; 14.2; 14.3; 14.4; 14.5; 14.7; and 14.a
	Goal 15: Life on Land	8 out of 12 15.1; 15.2; 15.3; 15.4; 15.5; 15.9; 15.a; and 15.b
	Goal 16: Peace and Justice Strong Institutions	4 out of 12 16.7; 16.8; 16.10; and 16.b
	Goal 17: Partnerships for the Goals	11 out of 19 17.3; 17.4; 17.5; 17.6; 17.9; 17.14; 17.15; 17.16; 17.17; 17.18; and 17.19.

The results of the SDG assessment of CAP25 will help support a broader analysis of Ireland's main national policies and help identify where there are synergies, gaps and conflicts, to achieve a more integrated approach to achieving the SDGs. This supports the whole-of-Government approach to their implementation, reinforces the position of the key Government bodies responsible for achieving the respective targets, while also making a key contribution to SDG target 17.4 - "Enhance policy coherence for sustainable development".



22 Adaptation

Image: *Storm Babet – Midleton, Cork. Led to Midleton Flood Relief Scheme*

Key Messages

State of Play

- Ireland's climate is changing in terms of average temperatures, sea level rise, precipitation patterns, and frequency of extreme weather events. 2023 was the warmest year on record[48] in Ireland with Spring 2024 being one of the warmest and wettest springs on record;[49]
- A study by experts at World Weather Attribution, Met Éireann and Maynooth University has shown that the 2023 floods in Midleton and East Cork were over twice as likely to happen compared to pre-industrial times due to climate change;[50]
- A level of climate change is already locked in and will have significant impacts across the Irish economy, infrastructure and society. These impacts will be exacerbated by further GHG emissions;
- Ireland's second statutory National Adaptation Framework (NAF) was approved by Government and published on 5 June 2024[51]. The NAF updates the Government's policy on adaptation and brings greater emphasis to a number of new areas including avoiding maladaptation, ensuring just resilience and increasing the use of nature-based solutions.

48 Annual Climate Statement for 2023 (Met Éireann)
49 Climate Statement for Spring 2023 (Met Éireann)
50 What role did climate change play in Midleton flooding last year? (rte.ie)
51 gov - National Adaptation Framework (NAF) (www.gov.ie)

- New Sectoral Adaptation Plans (SAPs) for 13 priority sectors are required to be completed by Q3 2025 in line with the new NAF by the relevant lead Government Departments and with support from relevant agencies;
- Revised Sectoral Planning Guidelines were published in Summer 2024 to assist Sectors and ensure a consistent approach to adaptation planning across Government;
- The EPA is leading on Ireland's first National Climate Change Risk Assessment (NCCRA) to be delivered by Q1 2025. At a national level, this will set out priority climate risks and establish a strong, common basis for national and sectoral climate change risk assessment in Ireland;
- Local Authority Climate Action Plans (LACAPs) were adopted by all 31 local authorities early in 2024. LACAPs include adaptation measures to be taken at local level and local climate risk assessments;
- The EPA published a report on the implementation of Climate Adaptation Indicators with lessons learned from the Transport Sector in July 2024.[52]

52 https://www.epa.ie/publications/monitoring--assessment/climate-change/implementation-of-climate-adaptation-indicators-lessons-learned-from-the-transport-sector.php

22.1 State of Play

22.1.1 Climate Context

The introductory chapters note the continuing changes to climate and the associated locked in impacts. Attribution studies can now assess the contribution of climate change to specific extreme weather events. A recent attribution study[53] by the ICARUS Climate Change Research Centre in Maynooth University found that the extreme rainfall that occurred over two days on 17 and 18 October 2023, and which caused flooding around the country, most notably in Midleton, County Cork, had an increased intensity of around 13% due to climate change and global warming.

A separate study[54], undertaken at the Maynooth Icarus Centre, in relation to the frequency, magnitude and spatial extent of extreme summer temperature events in Ireland has shown that a temperature event of 33 degrees Celsius in Dublin's Phoenix Park has gone from being a 1 in 180-year event in 1942 to a 1 in 9-year event in 2020. The study also estimates that the likelihood of a temperature of more than 34 degrees Celsius, a value not yet recorded in Ireland, is 57 times more likely to occur than 80 years ago. The study also shows that changes in the extreme temperatures observed were much larger than changes in average temperature, emphasising the need for adaptation to high and extreme temperatures across key sectors such as health, agriculture and our infrastructure.

The cumulative impact of projected climate changes has the potential to result in abrupt and/or irreversible changes in the climate system (so-called tipping points), including the possible collapse of the Atlantic Meridional Overturning Circulation. The risk of going beyond these tipping points increases with increased global warming. Climate change mitigation, aimed at reducing and stabilising GHG emissions, is the most effective strategy for preventing the crossing of critical environmental tipping points, as reliance solely on adaptation may prove insufficient in averting irreversible ecological consequences.

22.1.2 Adaptation Developments at EU Level

The first European Climate Risk Assessment (EUCRA)[55], published in March 2024, highlights 36 climate risks endangering Europe's energy and food security, ecosystems, infrastructure, water resources, financial stability, and public health. The assessment reveals that many of these risks have already reached critical levels and could become catastrophic without urgent and decisive measures. This pioneering assessment synthesises knowledge to aid strategic policymakers.

53 https://mural.maynoothuniversity.ie/18245/1/Scientific%20report%20-%20Midleton%20floods.pdf
54 2111.08616 (arxiv.org)
55 European Climate Risk Assessment — European Environment Agency (europa.eu)

The EU Adaptation Mission is ongoing. Dublin City, Cork City, Galway City, Louth County Council, Mayo County Council, Offaly County Council and Sligo County Council are EU Adaptation Mission Charter Signatories which have received support from Climate Matters that is bespoke to the climate change adaptation challenges they face and the stage at which they are in the adaptation planning cycle. The intent is to achieve systems innovation that enables climate resilience to be achieved.

22.2 National Adaptation Policy & Whole of Government Response

22.2.1 National Adaptation Framework

Ireland's primary adaptation policy response to the impacts of climate change challenges is set out Ireland's second statutory National Adaptation Framework (NAF) which was developed incorporating stakeholder and public consultations. It was approved by Government and published on 5 June 2024.

The new NAF builds on the previous iteration of the previous NAF bringing greater emphasis to a number of new adaptation concepts including:

- Avoiding Maladaptation as a key principle;
- Encouraging the use of nature-based solutions;
- Greater consideration of Socio-Economic Vulnerability and Just Resilience in adaptation policies;
- Greater mainstreaming of adaptation across existing and new plans and policies;
- Improved cooperation between Sectors and with the LA Sector to avoid siloisation.

The NAF recognises the importance of a whole of Government response to climate adaptation and sets out the governance structure for adaptation at national level. It outlines the roles of multiple stakeholders in ensuring a comprehensive and effective adaptation response. This includes the need for climate services, climate data as well as technical and advisory support sectors, local authorities, communities and the private sector. Under the NAF, 13 priority sectors under 7 lead departments are required to prepare Sectoral Adaptation Plans (SAPs) under the Climate Act (see below chart) by Q3 2025. Each SAP identifies the key risks faced across the sector and the approach being taken to address these risks and build climate resilience for the future. The NAF also identifies a new Planning and Built Environment adaptation sector with a scoping exercise on adaptation to be undertaken.

Sectoral Planning Guidelines for Climate Change Adaptation[56] have been published to assist the sectors required to prepare statutory SAPs under the NAF. The Guidelines aim to ensure that a coherent and consistent approach to adaptation planning is adopted by the key sectors in Ireland. The Guidelines draw on the most up-to-date national approaches to climate change risk assessment (e.g., the NCCRA) and sources of climate and adaptation information (e.g., the Irish Climate Change Assessment Report (ICCA), the National Framework for Climate Services (NFCS), and Climate Ireland). The National Adaptation Governance structure is set out in the diagram below.

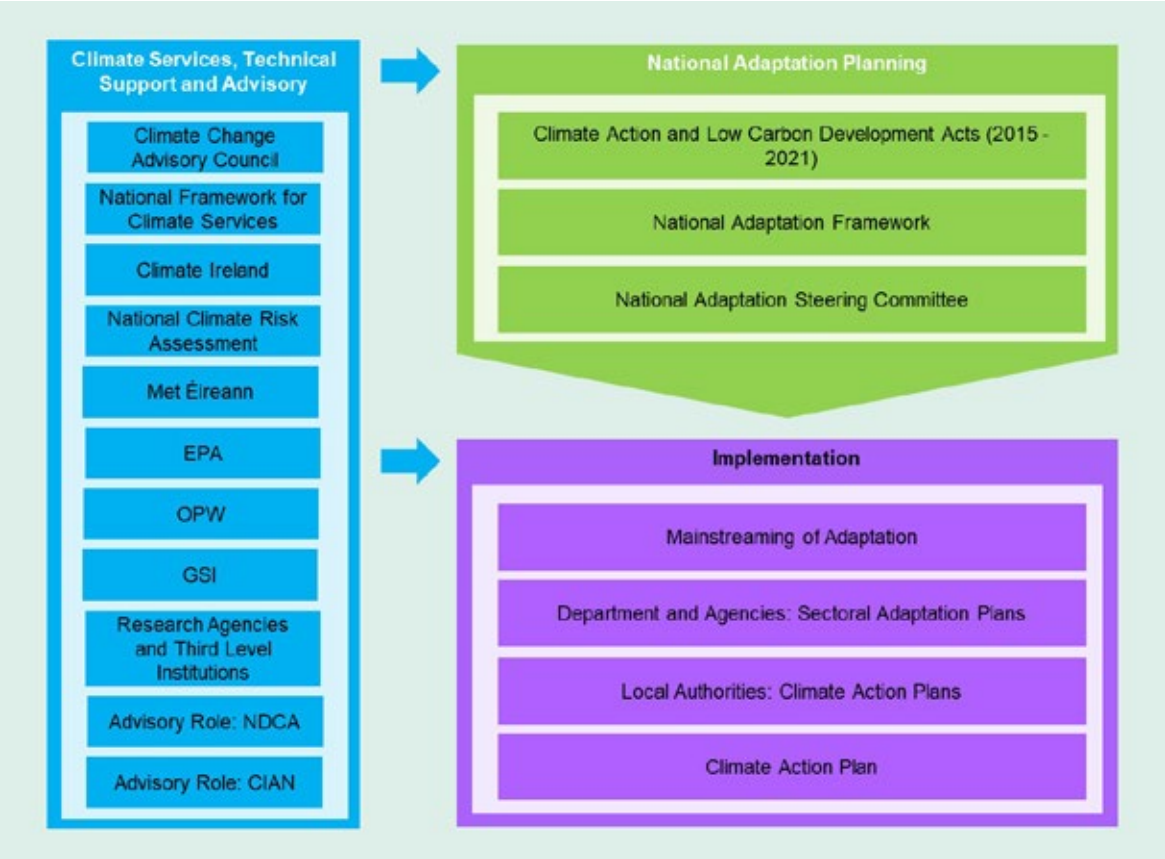


Figure 4. **National Adaptation Governance structure**

EPA Role

The EPA's ICCA (Ireland's Climate Change Assessment)[57] report published in Q1 2024 provides a comprehensive and authoritative assessment of the state of knowledge around all key aspects of climate change. Volume three of the report explores concepts such as adaptation and just transition. The EPA has also established the Climate Ireland Adaptation Network (CIAN) aimed at sharing expertise and creating learning opportunities around adaptation among practitioners in Ireland as well as improving the consistency of adaptation implementation.

56 https://www.gov.ie/en/publication/e399c-sectoral-planning-guidelines-for-climate-change-adaptation/
57 Ireland's Climate Change Assessment (ICCA) | Environmental Protection Agency (epa.ie)

The EPA has continued developing the first National Climate Change Risk Assessment (NCCRA), which provides solution insights to inform the adaptation planning process. The methodology outlines the approach for the development and delivery of the NCCRA in three stages; risk identification, risk assessment and urgency and adaptation prioritisation, underpinned by a preliminary stage on scoping and context. The EPA regularly updates the Climate Ireland platform which serves as a key resource for adaptation-related information in Ireland.

The EPA published the State of the Environment Report 2024 in October[58]. The report notes that *"Ireland needs to be resilient to ongoing and future climate change impacts. The implementation of climate adaptation measures is currently too slow and fragmented. More cross-sectoral and integrated adaptation actions can deliver multiple benefits. Doing better requires more financing, working with people and nature, monitoring and evaluating outcomes and increasing public and private sector involvement."*

Met Éireann Role

Met Éireann supports climate adaptation in Ireland by analysing and communicating how Ireland's climate is changing and by providing future climate projections. The TRANSLATE project[59] produced and operationalised standardised future climate projections for Ireland in support of climate adaptation planning and decision-making. TRANSLATE provides the climate data to enable sectors to plan for the changing climate in Ireland up to 2100. TRANSLATE 2 is due for completion in 2025. It will incorporate the latest global climate models of relevance to Ireland.

Met Éireann also co-ordinates the National Framework for Climate Services (NFCS)[60], which aims to support the production of standardised and comparable climate services by the climate community in Ireland. These climate services will support climate adaptation through the provision of tailored information and services that ensure adaptation measures are targeted.

22.2.2 Monitoring Adaptation Action

In addition to CAP actions being monitored by the Department of an Taoiseach and Departments' actions monitored internally, the CCAC monitors and measures the progress and implementation of adaptation plans at national, sectoral and local level through the climate adaptation scorecard.

In October 2023, a subgroup of the Senior Officials Group (SOG) on the Environment and Climate Change was established to examine resourcing and governance for Climate Adaptation policy. The sub SOG on Adaptation has met on four occasions and heard from Government Departments and Agencies as well as from local authority representatives

58 https://www.epa.ie/our-services/monitoring--assessment/assessment/state-of-environment-report-/
59 TRANSLATE – One Climate Resource for Ireland
60 National Framework for Climate Services

and the Climate Change Advisory Council (CCAC). The CCAC has recently published its *Annual Review 2024 – Preparing for Ireland's Changing Climate*.

The National Adaptation Steering Committee (NASC), chaired by DECC, meets four times per annum. The NASC provides a collaborative forum for stakeholders in the adaptation sector to share information, news and developments related to adaptation.

Local authorities, supported by the Climate Action Regional Offices (CAROs) adopted Local Authority Climate Action Plans (LACAPs) under the Climate Action and Low Carbon Development (Amendment) Act 2021 early in 2024. The LACAPs include adaptation measures to be taken at local level and also include local climate change risk assessments. An annual report on progress will be delivered.

22.3 Actions for 2025 (actions in bold appear in the Annex)

The EPA has commenced work on Ireland's first Climate Change Risk Assessment which is scheduled for completion in Q1 2025. This Assessment will help us to better understand the impacts of climate change on key sectors in Ireland and to identify priority climate risks and will feed into the next iteration of sectoral adaptation plans. Delivery of the new cycle of Sectoral Adaptation Plans is due by end of Q3 2025.

Action Number	Action
AD/25/1	**Publish Climate Change Risk Assessment**
AD/25/2	**Develop Sectoral Adaptation Plan for the Tourism Sector.**
AD/25/3	**Develop Sectoral Adaptation Plan for the Biodiversity sector.**
AD/25/4	**Develop Sectoral Adaptation Plan for the Water Quality sector.**
AD/25/5	**Develop Sectoral Adaptation Plan for the Communications Network sector.**
AD/25/6	**Develop Sectoral Adaptation Plan for the Electricity and Gas Networks sector.**
AD/25/7	**Develop Sectoral Adaptation Plan for the Flood Risk Management sector.**
AD/25/8	**Develop Sectoral Adaptation Plan for the Transport Infrastructure sector.**
AD/25/9	**Develop Sectoral Adaptation Plan for Water Services Infrastructure.**

Action Number	Action
AD/25/10	**Develop Sectoral Adaptation Plan for the Built and Archaeological Heritage sector.**
AD/25/11	**Develop Sectoral Adaptation Plan for the Health sector.**
AD/25/12	**Develop Sectoral Adaptation Plan for the Agriculture sector.**
AD/25/13	**Develop Sectoral Adaptation Plan for the Forestry sector.**
AD/25/14	**Develop Sectoral Adaptation Plan for the Seafood sector.**
AD/25/15	**Submit Memorandum to Government seeking approval of Sectoral Adaptation Plans.**
AD/25/16	Submit report to EU on adaptation progress under governance regulation.



Appendix 1: Public Sector Climate Action Mandate

Photo: *Tina Claffey. Mating Emperor Moths*

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Public Sector Climate Action Mandate

The Public Sector Climate Action Mandate applies to all bodies covered by decarbonisation targets, except for Local Authorities, Commercial Semi-State Bodies, and the School Sector. The mandate highlights the main climate action objectives for public bodies and will be reviewed annually. All public sector bodies are encouraged to avail of the SEAI's Partnership Programme, irrespective of whether the mandate applies or not. Support is available for implementing the mandate and for climate action more generally.

1. Our Targets

1.1. **Reduce energy related GHG emissions by 51% in 2030[61];**

1.2. **Improve energy efficiency in the public sector by 50% by 2030;**

1.3. **Update Climate Action Roadmaps annually within 6 months of the publication of the Climate Action Plan. Develop Climate Action Roadmaps if none are in place.**

2. Our People

2.1. **Establish and resource Green Teams, reporting to senior management, to become integrated drivers of sustainability in every public sector body;**

2.2. **Nominate a member of the Management Board as the Climate and Sustainability Champion with responsibility for implementing and reporting on the mandate;**

2.3. **Incorporate appropriate climate action and sustainability training (technical and behavioural, including green procurement training) into learning and development strategies for staff;**

2.4. **Organise staff workshops (at least annually) to engage on climate issues, including a focus on decreasing the organisation's carbon footprint;**

2.5. **Ensure all senior management (P.O. level or equivalent and above) and members of State Boards[62], complete a climate action leadership training course.**

61 Target related to energy-related emissions

62 Members of state boards of state bodies that are subject to the Public Sector Climate Action Mandate.

3. Our Way of Working

3.1. Report on the following in the Annual Report of the public sector body;

- GHG emissions
- Implementation of the mandate
- Sustainability activities
- Compliance with Circular 1/2020: Procedures for offsetting the emissions associated with official air travel

3.2. Using SEAI's Public Sector M&R System, public bodies are to report annually on implementation of the individual mandate requirements using a "comply and explain" approach;

3.3. Achieve formal environmental certification for large public sector bodies, such as ISO 50001 (Energy Management Standard) or ISO 14001 (Environmental Management System), with a view to going beyond ISO 14001 to adopting Eco Management and Audit Scheme (EMAS). Specifically;

3.3.1. All public sector bodies with an energy spend greater than €2 million per annum to achieve ISO 50001 certification by end-2024;

3.3.2. All remaining public bodies to implement energy management programmes as per SEAI's energy management guidance (S.I. 426 of 2014) and report to SEAI annually on its M&R system.

3.4. Green Public Procurement

3.4.1. Implement Green Public Procurement in accordance with the Green Public Procurement Implementation Mandate set out in Buying Greener: Green Public Procurement Strategy and Action Plan 2024–2027, using the EPA Green Public Procurement Guidance and criteria/Office of Government Procurement's online Green Public Procurement Criteria Search tool as resources;

3.4.2. Adhere to the new circular, which will replace Circular 20/2019, to be published by the Department of Public Expenditure, NDP Delivery and Reform regarding new Green Public Procurement obligations included in the GPP Strategy and Action Plan 2024–2027.

3.5. Construction

3.5.1. Specify low carbon construction methods and low carbon cement material as far as practicable as per guidance issued by Department of Enterprise, Trade and Employment for directly procured or supported construction projects from 2024:

3.5.2. Adhere to the best practice guidelines for the preparation of Resource and Waste Management Plans for construction and demolition projects for directly procured or supported construction projects from 2024[63];

3.5.3. A minimum proportion of construction materials procured by public bodies under new contract arrangements to comprise recycled materials, that is informed by a Circularity Roadmap for the Construction Sector and the 2nd Whole of Government Circular Economy Strategy to be published in 2025[64].

3.6. Organic Food

3.6.1. A minimum of 10% by value (€) of food sought under new contract arrangements (including via contractors such as canteen service providers), is to be certified organic in each of the following categories of Cereals, fresh Beef, Lamb, Pork, Poultry, Fish, Vegetables and Dairy products, where possible.

3.7. Food Waste

3.7.1. Measure and monitor the food waste generated on premises from 2024, using a standardised approach to food waste measurement set out in the EPA public sector guidance;

3.7.2. All new contract arrangements related to canteen or food services, including events and conferences, to include measures that are targeted at addressing food waste (with a specific focus on food waste prevention and food waste segregation) taking into account Ireland's commitment to reduce food waste by 50% by 2030.

3.8. ICT Equipment

3.8.1. A minimum of 80% of ICT end user products (desktop computers, portable computers and mobile phones) procured by public sector bodies under new contract arrangements are certified to EPEAT Gold Standard (or equivalent), TCO Certified (or equivalent) or will have been remanufactured.

3.9. Paper

3.9.1. Review any paper-based processes and evaluate the possibilities for digitisation so it becomes the default approach. Eliminate paper-based processes as far as is practicable. Where office paper for printing and photocopying must be procured, 100% of the paper must be recycled paper;

3.9.2. Measure and monitor paper consumption.

63 EPA Best Practice Guidelines for the preparation of resource & waste management plans for construction and demolition projects: https://www.epa.ie/publications/circular-economy/resources/CDWasteGuidelines.pdf

64 This target will be updated following further data analysis, and publication of the 2nd Whole of Government Circular Economy Strategy which will include sectoral targets in relation to the construction sector.

3.10. Water

3.10.1. Provide suitable drinking water refill points for all staff and in any premises accessed by the public;

3.10.2. Measure and monitor total water usage for the organisation as a whole.

3.11. Single Use

3.11.1. Cease using disposable cups, plates and cutlery in any public sector canteen or closed facility, excluding clinical (i.e. non-canteen healthcare) environments, and in publicly funded advertising or broadcasting;

3.11.2. Eliminate all single use items within the organisation and from events organised, funded, or sponsored.

3.12. Other Materials

3.12.1. Support Ireland's Producer Responsibility Initiatives in the collection and recycling of products including the Deposit Return Scheme[65];

3.12.2. Contract waste collection services that are segregated into a minimum of 3 streams – residual/general waste, recycling waste and organic/biowaste and monitor weights collected.

4. Our Buildings and Vehicles

4.1. Promote the use of bicycles (including push bikes, electric bikes, and cargo bikes) and shared mobility options as an alternative to car use among employees and visitors by creating and maintaining facilities (both inside and outside of buildings) that support such options, including secure and accessible bicycle parking, shared mobility parking, and charging stations, as appropriate, with a view to achieving the National Transport Authority's Smarter Travel Mar;

4.2. Phase out the use of parking in buildings that have access to a range of public transport services and active/shared mobility options for the majority of staff/ visitors, while providing that sufficient accessible parking is maintained for those with physical mobility issues;

4.3. Display an up-to-date Display Energy Certificate in every public building that is open to the public to clearly show energy use.

65 Extended Producer Responsibility (EPR): https://www.gov.ie/en/publication/63441-extended-producer-responsibility/

4.4. The public sector will not install heating systems that use fossil fuels after 2023, in (1) new buildings, and (2) "major renovation" retrofit projects as defined in the Energy Performance of Buildings Directive (EPBD) unless at least one of the following exceptions applies;

- The fossil-fuel use is only through using electricity from the grid
- There is no technically viable non-fossil alternative (generally only related to applications for a purpose other than space heating)
- The installation of a renewable space heating system would increase final CO_2 emissions
- The fossil-fuel use is provided for backup, peaking, or operational purposes (and makes up less than 10% of annual heating energy)
- Where the direct replacement of existing fossil fuel heating is required for an emergency maintenance purpose

4.5. All tenders for the public procurement of energy-related products, heating equipment, or indoor and outdoor lighting to include a requirement for tenderers to specify recommendations and options for the product, when the product or components of the product comes to the end of life, that consider environmental sustainability, including options for reuse, repair, and recycling. Comply with SI 626 of 2016 to procure Triple E registered products or equivalent;

4.6. All tenders for the public procurement of indoor cleaning services to include a requirement for tenderers to specify the training that will be put in place to ensure that all staff involved in delivery of the contract have the knowledge and skills to apply cleaning methods, which will reduce the environmental impact of the services;

4.7. Buildings

4.7.1. Building stock plans – all public bodies that have not yet completed a stage 1 Building Stock Plan should do so and submit to SEAI. Public bodies that have completed a BSP should update it regularly, minimum every two years. Public bodies are encouraged to include their BSPs in their Climate Action Roadmaps;

4.7.2. National Estate Portfolio Leads are accountable for energy targets within their sectors and for developing pathways to achieve these targets. For example, in relation to the Civil Service, the OPW will plan the deep retrofit of Government Departments' building stock. The specific sectors are outlined in the stage 1 Building Stock Guidance. These National Estate Portfolio leads (NEPLs) will undertake Stage 2 Building Stock plans for their respective sectors. They shall develop plans and roadmaps of how they and their respective sectors will address national and upcoming EU EPBD and EED directive targets, considering both the short term actions (towards 2030 targets) and long term vision (to 2050 net zero). SEAI will work with the NEPLs and National Working Group on Decarbonising Public Buildings to develop guidance for Stage 2 BSP. With a view to sectors completing initial plans and roadmaps by the end of 2025, SEAI's Monitoring and Reporting system will be enhanced to track national and relevant EU directive targets at NEPL level;

4.7.3. Small public sector bodies should include a basic building stock analysis or statement as part of their Climate Action Roadmap, in line with the guidance published by SEAI.

4.8. Vehicles

Procure (purchase or lease) only zero-emissions vehicles from the end of 2022, enabling Ireland to go beyond the requirements of the EU Directive, amending Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles (EU Directive 2019/1161, the Clean Vehicle Directive) and act as an international leader in this area. An exception applies where the vehicle is exempt under European Communities (Clean and Energy-Efficient Road Transport Vehicles) (Amendment) Regulations (S.I. 381 of 2021)[66]. Public sector procurement contracts for delivery and haulage should specify zero-emissions vehicles where possible.

4.8.1. As an enabler for the switch to zero-emissions vehicles and meeting Climate Action Plan targets, in 2024 public sector bodies with a vehicle fleet should develop a plan for installation of charging infrastructure in relevant locations. The plan should align installation of infrastructure with timelines for decarbonisation of the body's fleet. The plan should be included in the body's Climate Action Roadmap.

66 Major manufacturers have indicated their commitment to increasing the availability of e-trucks to the market by mid-decade. However, it is acknowledged that it may not be possible to procure the desired number or variety of zero emission heavy-duty vehicles until the second carbon budgetary period (2026–2030). Depending on market developments, public sector bodies should, at the least, ensure to procure (purchase or lease) 'Clean Vehicles,' in accordance with the EU Clean Vehicles Directive, to meet their heavy-duty vehicle targets.



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