12 Progress towards achieving climate neutrality in Ireland

12.1 Transition to a climate-neutral and climate-resilient economy by 2050 is a key national policy objective.

12.2 Ireland is party to the 2015 Paris Agreement — a legally binding international treaty with a goal to strengthen the global response to the threat of climate change.[1] The agreement includes a commitment to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and to pursue "efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change".[2]

12.3 Ireland is also bound by the European Climate Law 2021, which writes into law the goal set out in the European Green Deal for Europe's economy and society to become climate-neutral by 2050. Climate neutrality by 2050 means achieving net zero greenhouse gas (GHG) emissions for EU countries as a whole, mainly by cutting emissions, investing in green technologies and protecting the natural environment.[3] The law also sets an intermediate target for reducing GHG emissions in Europe by at least 55% by 2030 when compared to 1990 levels.

Figure 12.1 Key climate neutrality targets[a]

International	EU	National
Climate neutrality by 2050	Climate neutrality by 2050	Climate neutrality by 2050
To limit global warming by 1.5°C above pre-industrial levels.	Reduce GHG emissions by at least 55% by 2030 across the EU, relative to 1990 levels.	Interim target to reduce Ireland's GHG emissions by 51% by 2030 when measured against 2018 base year.
Global GHG emissions must peak before 2025 (at the latest) then fall by 43% by 2030, relative to 2019 levels.[b]	Emissions Trading System — EU wide 62% reduction in emissions by 2030 for specific sectors, mainly large industry and electricity generation.[c,d]	Carbon budgets impose a limit on GHG emissions within a 5-year period. The first carbon budget requires an average 4.8% reduction in GHG emissions per annum over the period 2021 – 2025.
	Effort Sharing Regulation — Ireland to reduce emissions by 42% by 2030 when measured against 2005 base year.	

Source: European Commission. Environmental Protection Agency. Analysis by the Office of the Comptroller and Auditor General.

Notes:
a Climate neutrality — the international, EU and national targets for 2050 differ in how climate neutrality is described and the interpretation of what this entails for GHG emissions.
b Decision taken at the 28th annual UN meeting on climate change (COP28) in 2023, following the first global stocktake to assess progress towards the long-term goals of the Paris Agreement.
c The EU Emissions Trading System (ETS), first launched in 2005, covers approximately 11,000 power stations and manufacturing plants across the EU, Iceland, Liechtenstein and Norway, as well as aviation activities in those countries.
d The UK Emissions Trading Scheme replaced the United Kingdom's participation in the EU ETS from 1 January 2021.

1 As at September 2025, 195 countries have signed up to or acceded to the Paris Agreement.

2 The pre-industrial period is not formally defined in the Agreement, but is generally considered to refer to 1850 – 1900, when the global average temperature was estimated to be 13.6°C. For context, in 2024, global average temperature was 15.1°C.

3 The term 'carbon' is often used as a shorthand for referring to all greenhouse gases. Carbon dioxide is the main greenhouse gas; others include methane and nitrous oxide.

12.4 The statutory framework in Ireland for achievement of climate neutrality by 2050 is provided in the Climate Action and Low Carbon Development (Amendment) Act 2021 (the Climate Act). The legislation also sets an interim target — to reduce Ireland's total GHG emissions by 51% by 2030 (relative to 2018 levels).

12.5 Achieving the climate neutrality targets will inevitably require very substantial public expenditure, and the cost-effectiveness of that expenditure will be critical. Furthermore, any significant shortfall in the achievement of the EU targets, including of the interim (2030) targets, will almost certainly impose a financial burden on the Exchequer.

12.6 This examination was undertaken because of the Exchequer's exposure to substantial compliance costs within as short a period as seven years if mandatory targets are not met.[1] It sets out the arrangements in place to track and report on the rate of progress towards achievement of 51% reduction in GHG emissions by 2030 and climate neutrality by 2050.

Methodology and definitions

12.7 The examination mainly involved a review of information provided by the Department of Climate, Energy and the Environment (the Department) and the Environmental Protection Agency (EPA). The emissions information contained in this examination is based mainly on inventory data published by the EPA.

Emissions data

12.8 The science underpinning the calculation of emissions inventory continues to evolve and mature. The GHG emissions inventory is subject to annual review by the EU and UN who appoint expert review teams, comprised of inventory compilers, to assess the methodologies used to ensure the guidelines are being followed. Refinement of emissions data is standard practice in the compilation of GHG inventories, with data potentially being revised back to the base year, of 1990, annually.

12.9 For reporting and comparison purposes, progress in achieving GHG emission reductions is generally measured against a specified 'base year', which may vary depending on the reporting framework.

Impact of land use and land use change

12.10 Target setting and reporting on a country's national emissions may include or exclude the impact of land use. Some forms of land use contribute to GHG emissions, while others may effectively act as 'carbon sinks' and remove carbon dioxide from the atmosphere. As a result, depending on the pattern of land use, the net emissions contribution of what has been defined as the 'land use, land use change and forestry' (LULUCF) sector may be positive or negative.

12.11 Currently, Ireland's GHG emissions from grassland and wetlands outweigh those removed by forestry land, making Ireland's LULUCF sector a net contributor to GHG emissions. Net emissions in 2023 from the LULUCF sector amounted to an estimated 3.9 million tonnes (6.6% of total emissions including LULUCF).[2,3]

1 The final compliance cost will be calculated in 2032 relative to final position in 2030.

2 It is generally still the approach to refer to a country's total emissions excluding LULUCF. However, totals including and excluding LULUCF are reported to the United Nations Framework Convention on Climate Change and under national legislation. The ESR does not include LULUCF as part of the target.

3 There is a high level of complexity and uncertainty in the calculation of emissions from the LULUCF sector. Further information on Ireland's emissions from the LULUCF sector is set out in the bulletin published by the EPA on GHG emissions from the LULUCF sector.

12.12 When the emissions from LULUCF are included, Ireland's total GHG emissions for 2023 are estimated at 58.8 Mt CO_2eq.[1] Comparison of the movement levels in GHG emissions indicates little difference when the data consistently include or exclude net LULUCF. As such, emissions included in this report exclude LULUCF unless otherwise stated.

Trends in emissions

12.13 Ireland's GHG emissions grew strongly in the 1990s as the economy expanded. Emissions peaked in 2001 and have trended down thereafter. Emissions fell below the 1990 level for the first time in 2023.[2]

12.14 The national target, as per the Climate Act, is to achieve a 51% reduction in GHG emissions by 2030 when measured against a 2018 base year. GHG emissions from Ireland were on a downward trajectory from 2018 to 2020, with a slight upturn in 2021, before declining again in 2022 and 2023. An overall reduction of 10.3% was achieved from 2018 to 2023.[3] However, significant further reductions are required if the national target is to be achieved by 2030.

12.15 In the context of Ireland's GHG emissions projections, the EPA uses two scenarios to assess progress towards climate targets.

- **With existing measures** (WEM) — The WEM scenario projects future emissions based on policies and measures that are currently implemented and legally committed to by the government.
- **With additional measures** (WAM) — The WAM scenario encompasses all actions in the WEM scenario, plus additional planned policies and measures that have been announced and not yet implemented.

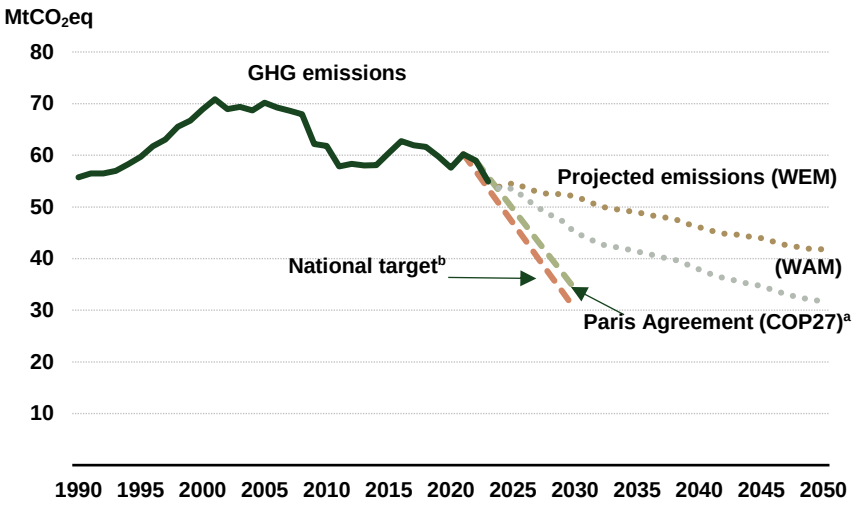
12.16 The EPA's latest GHG emissions projections, for the period 2024 – 2055, indicates that Ireland is significantly off track to meet its legally binding climate targets for 2030. Even with full implementation of all planned climate policies and measures, the EPA projects a maximum reduction of 23% by 2030 compared to 2018.[3] This is a decrease from the 29% projected in the previous year, highlighting a widening gap between current efforts and the national target.

1 GHG emissions are measured in million tonnes of carbon dioxide equivalent (Mt CO_2eq).

2 In July 2025, the EPA published Ireland's provisional GHG emissions covering the period 1990 – 2024: Ireland's Provisional Greenhouse Gas Emissions 1990 – 2024.

3 The EPA's projected reduction is based on emissions inclusive of net emissions from the LULUCF sector.

Figure 12.2 Ireland's GHG emissions, 1990 to 2023, and projected to 2050



Source: Environmental Protection Agency. Analysis by the Office of the Comptroller and Auditor General.

Notes:
a The Paris Agreement was signed on 22 April 2016. At the 27th annual UN meeting on climate change (COP27) in 2022, a decision was made to reaffirm the Paris Agreement and include a commitment with a target of 43% reduction in GHG emissions by 2030 when compared to 2019 levels.

b The national target to reduce GHG by 51% by 2030 compared to 2018 levels and to achieve climate neutrality by 2050 was set under the Climate Act.

Per capita emissions

12.17 With a population of 3.5 million in 1990, Ireland's per capita emissions were approximately 15.9 tonnes. By 2023, with a population exceeding 5 million, per capita emissions decreased to about 10.4 tonnes — a reduction of about 35% from 1990 levels. Nevertheless, in 2023, Ireland still ranked among the highest emitters of GHG emissions per capita within the EU.

12.18 Despite a 51% increase in population and significant economic growth, Ireland's emissions in 2023 were below 1990 levels. This indicates progress in decoupling economic and population growth from emissions, likely due to improved energy efficiency, a shift towards renewable energy sources, and policy measures aimed at reducing emissions.

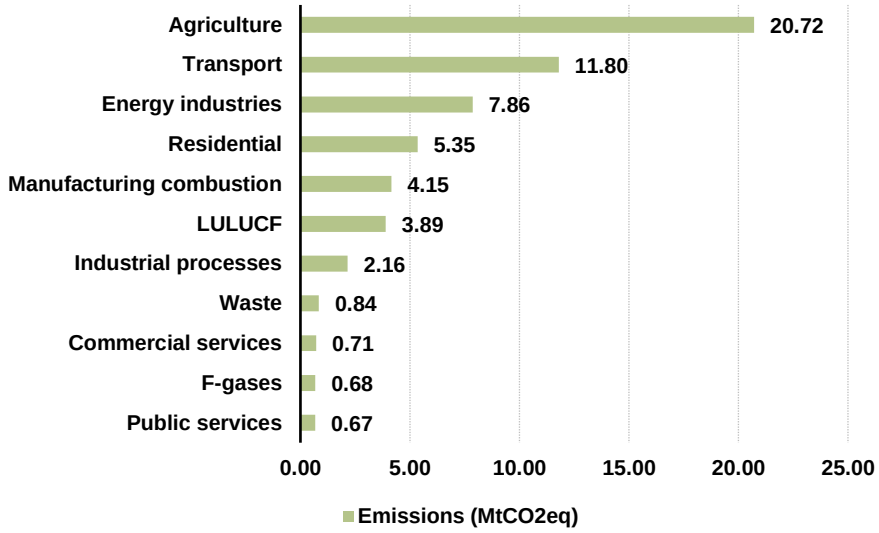
12.19 The very modest overall emissions reduction over a period of 33 years suggests that while per capita emissions have decreased, achieving more substantial cumulative emissions cuts will remain a challenge. Continuous efforts are necessary to further reduce overall emissions in the face of ongoing economic and demographic growth.

GHG emissions by sector

12.20 In 2023, Ireland emitted 58.8 million tonnes of carbon dioxide across 11 sectors, including land use (LULUCF) (see Figure 12.3).

12.21 The legislative framework that applies to Ireland's commitment to achieve climate neutrality is multilayered. It involves multiple responses and initiatives (see Figure 12.5).

Figure 12.3 Ireland's GHG emissions by sector in 2023 (incl. LULUCF)



Source: Environmental Protection Agency

Figure 12.4 Ireland's GHG trends — a year-on-year analysis (2022 – 2023)

-21.4% Energy industries

Reductions in coal (**-44%**), oil (**-78%**), peat (**-34%**) and natural gas (**-7%**) in electricity generation. Renewable share increased from **39%** to **41%**. Imported electricity now **9.5%**.

-4.9% Agriculture

18% decrease in fertiliser nitrogen use resulted in less emissions from agricultural soils.

Dairy herd numbers increased by **0.6%** in 2023, but milk output per cow decreased by **4.5%.**

-7.1% Residential

Substantial reduction in emissions driven by high fuel prices, regulation, and a milder winter. Coal use reduced by **22%,** peat by **13%**, oil by **0.3%** and natural gas by **14%**.

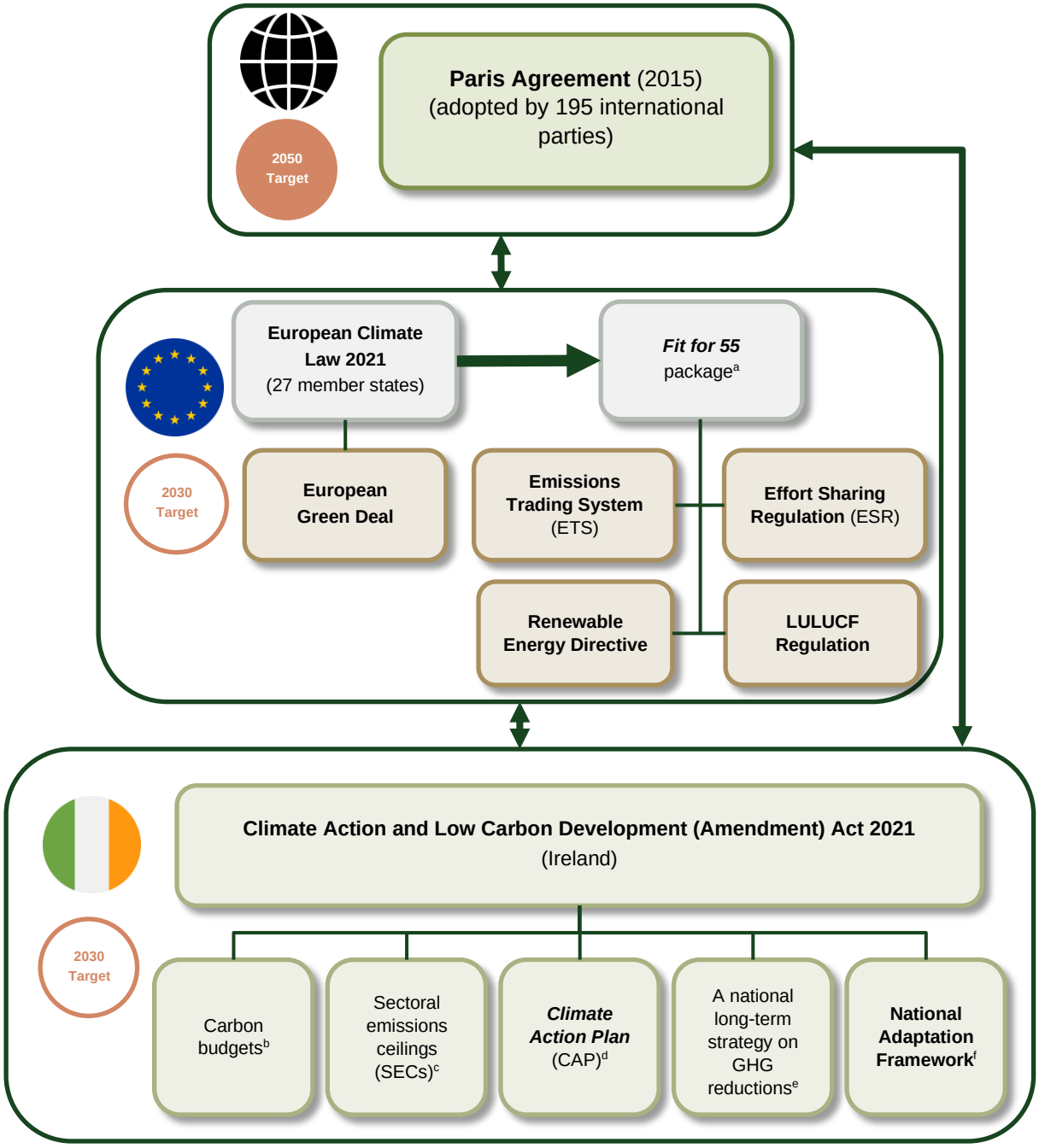
+0.3% Transport

28% of new car registrations were electric in 2023, with **110,000** EVs overall on Irish roads.[a] This was offset by a 3% increase in the size of the national vehicle fleet. Nevertheless, emissions for the sector were **4.3%** below pre-Covid levels.

Source: Environmental Protection Agency

Note: a EV numbers include both battery electric and plug-in hybrid vehicles as well as vans, buses, motorcycles and other vehicle types.

Figure 12.5 Overview of the key international and domestic statutory and policy frameworks for climate neutrality in Ireland



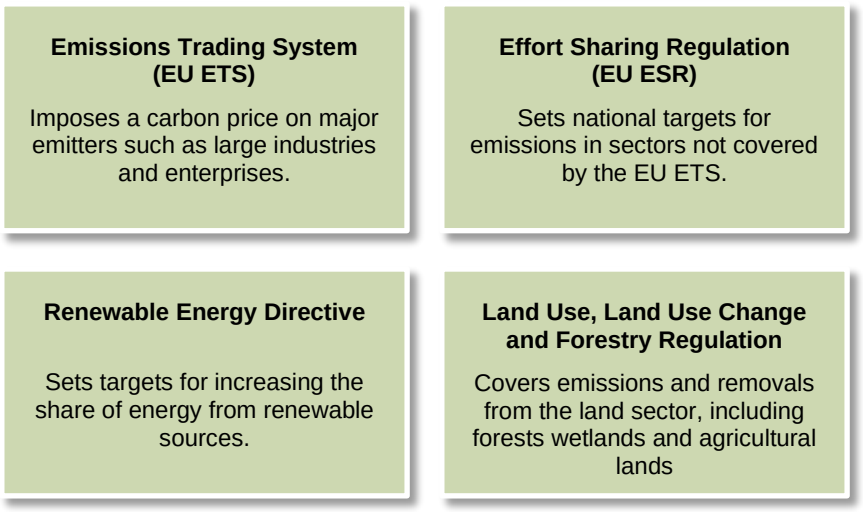
Source: Analysis by the Office of the Comptroller and Auditor General

Notes:
a Fit for 55: Delivering on the proposals depicts the key elements of the package and more details on the full range of proposals included.
b A carbon budget is the total amount of GHG Ireland can emit in a given five-year period. Carbon budgets proposed by the Climate Change Advisory Council for 2021 – 2025 and 2026 – 2030 were approved by Government and adopted by the Oireachtas in April 2022. A third and fourth carbon budget covering the period 2031 – 2040 have been proposed but not yet adopted.
c Sectoral emissions ceilings are the total amount of GHG emissions each sector of the economy can produce during a specific time period — approved by Government in July 2022.
d CAP25 is the third statutory update to Ireland's Climate Action Plan originally published in 2019 and sets a course for Ireland's targets for carbon neutrality.
e Ireland's first long-term strategy was published in April 2023 and updated in August 2024. It is submitted to the European Commission and must be consistent with the Paris Agreement.
f Government-approved National Adaptation Framework required every five years — latest published in June 2024.

European commitments

12.22 The EU's objective is, by 2030, to achieve an overall reduction in GHG emissions of 55% relative to a baseline of 1990 emissions. The main programmes in place to achieve this, referred to collectively as the EU *Fit for 55* package, are set out in Figure 12.6.

Figure 12.6 EU *Fit for 55* main programmes



Source: The European Council

Emissions Trading System

12.23 The EU ETS was set up in 2005. Originally, sectors covered by EU ETS had to reduce their emissions by 43% by 2030 compared to 2005 levels. In a revision of the directive in 2023, the target for 2030 was revised to a 62% reduction.

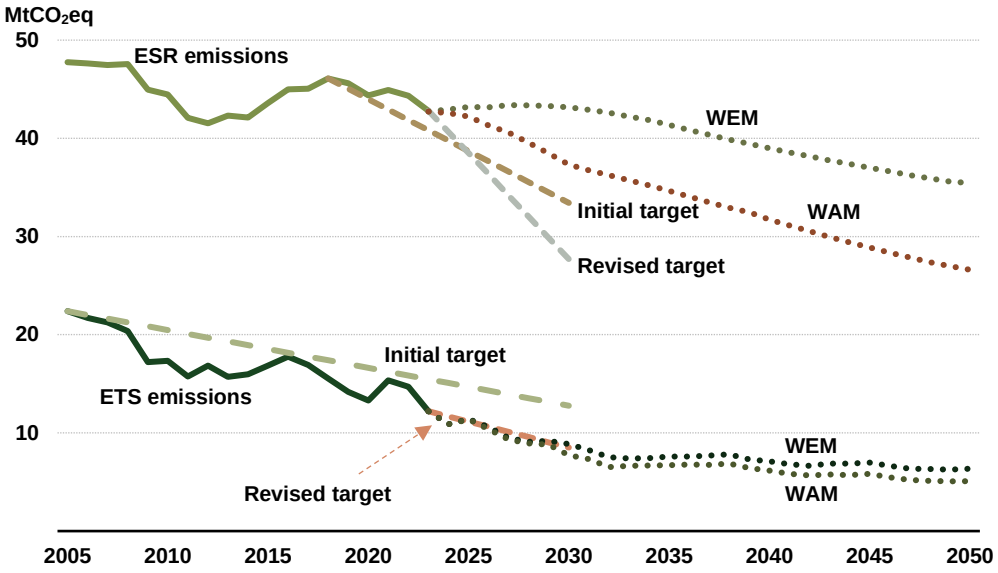
12.24 Between 2005 and 2023, Ireland made good progress in reducing GHG emissions under the EU ETS, achieving a net GHG emissions reduction of 45%. The latest EPA projections indicate that Ireland's ETS emissions reduction will exceed the target, achieving emission reductions of 66% by 2030 with the implementation of additional measures (see Figure 12.7).

Effort Sharing Regulation

12.25 Ireland was assigned a 30% reduction target for 2030 compared to 2005 levels under the Effort Sharing Regulation (ESR) adopted in 2018. However, this target was revised in 2023 to a 42% reduction as part of the EU's increased climate ambition.

12.26 Between 2005 and 2023, Ireland made little progress in reducing GHG emissions under the EU ESR, achieving a net GHG emissions reduction of only 10.4%. The EPA projections based on existing measures indicate Ireland would achieve a total reduction of 9.6% from 2005 levels by 2030. The EPA projections indicate a potential 22% reduction is possible by 2030 with the implementation of additional measures (see Figure 12.7). In either case, the projected outcome is emissions significantly above the target level.

Figure 12.7 Ireland's GHG emissions, and projections, and EU ETS and ESR targets[a,b,c]



Source: Environmental Protection Agency. Analysis by the Office of the Comptroller and Auditor General.

Notes:
a Actual GHG emissions and projections data is subject to ongoing refinement to reflect developments in latest science and/or improvements in relevant activity data.
b Path to targets are shown as linear reductions for ease of comparison.
c ETS targets are EU wide.

European penalties and costs

12.27 The targets set out in the EU programmes are legally binding. Missing the targets is likely to trigger compliance costs and financial penalties (see Figure 12.8).

12.28 The EU ETS operates on a 'cap and trade' principle, where emission allowances are capped, auctioned and can be traded. Companies that exceed their allowances may face an excess emissions penalty. While member states are not liable for penalties under the EU ETS, they are designated with enforcement responsibility.[1]

12.29 Auctioning of allowances in the EU ETS raises revenues for national budgets. Since 2013, the EU ETS generated over €230 billion in auction revenues (in 2024 alone, a total of €38.8 billion was raised). Ireland receives a national share of these auction proceeds. The trading system has resulted in proceeds of €777 million being received into the Exchequer from 2020 to 2024.[2]

12.30 Under the Renewable Energy Directive, Ireland is required to maintain a baseline minimum of renewable sources delivering 16% of annual gross final consumption of energy (for electricity generation, transport and heating and cooling), rising to a 43% renewables share by 2030. The Sustainable Energy Authority of Ireland reported that the renewable energy share in 2023 — at 14.6% — was substantially below both the baseline and the trajectory required to achieve the 2030 target.[3]

1 As part of the 2023 revisions of the ETS Directive, a new emissions trading system named ETS2 was created. ETS2 will cover carbon dioxide emissions from fuel combustion in buildings, road transport and additional sectors (mainly small industry not covered by the existing EU ETS). It will become fully operational in 2027. See ETS2 for more information.

2 Proceeds are net of €8.4 million paid to the EPA for administration expenses from 2020 to 2024.

3 First Look: Renewable Energy in Ireland, Sustainable Energy Authority of Ireland.

Figure 12.8 Overview of EU climate programmes, targets and compliance costs

EU programme	Relevant sectors	2030 interim target	Possible compliance costs[a]
Emissions Trading System	Electricity generation Energy-intensive industries Intra-EU aviation Maritime transport	EU wide 62% reduction in emissions from these industries by 2030 when measured against 2005 baseline.	Companies that fail to surrender a sufficient number of allowances to cover their verified emissions are subject to financial penalties and may face regulatory consequences.
Effort Sharing Regulation	Transport Buildings Agriculture Waste Small Industry	42% reduction in ESR (non-ETS) emissions when measured against 2005 levels. This is a target specific to Ireland which contributes to the EU wide target of 55% reduction.	Will depend on final emissions gap, the availability and price of annual emission allowances, and the EU compliance measures enforced. While these cost estimates are inherently uncertain, estimates range from €5 billion to €16 billion with existing measures (WEM), and €3 billion to €10 billion with additional measures implemented (WAM).
Renewable Energy Directive	Renewable energy across electricity, heating (and cooling) and transport.	To maintain a baseline renewable energy share of 16% of gross final energy consumption and achieve a 43% renewable energy share by 2030.	Will depend on the final position of renewable energy share and the availability and price of statistical transfers from other EU countries. Estimate range from €0.5 billion to €4.4 billion under the WEM scenario and €0.2 billion to €2.6 billion under the WAM scenario.
Land Use, Land Use Change and Forestry Regulation	Sets binding national limits on net emissions from the land sector, including forests, wetlands and agricultural land.	To achieve a reduction of 0.6 Mt CO_2eq LULUCF emissions over the period 2026 – 2030, relative to average levels in 2016 – 2018.	Will depend on final LULUCF inventory data, the gap to target and the price and availability of allocations from other EU members. Range from: €1.6 billion to €5.8 billion under the WEM scenario €0.5 billion to €1.7 billion under the WAM scenario.

Source: European Commission (EU programmes and targets). Irish Fiscal Advisory Council and Climate Change Advisory Council (estimated compliance costs).

Note: a Possible compliance costs are estimated based on a range of different scenarios, including projected emissions if all currently implemented measures remain in place (WEM) and projected emissions if more ambitious actions are implemented (WAM)

12.31 Member states that fall short of their renewable energy targets may avail of cooperation mechanisms such as statistical transfers, joint projects, coordinated support schemes or additional national measures to close compliance gaps.

12.32 The EPA projects (under the WEM) that emissions from the LULUCF sector may increase by 95% by 2030 compared to 2018, largely due to expected forest harvesting given a maturing forest estate over that period. The LULUCF regulation does allow for the transfer of surplus credits between member states to achieve compliance. However, if the EU as a whole has not met its LULUCF targets — which it is not currently on track to do — this flexibility will not be available to Ireland.

12.33 The most significant compliance costs are likely to arise under the EU ESR. As Ireland is unlikely to meet its emission reduction targets in the ESR target sectors, it may purchase annual emission allocations from other member states with surplus allocations. The cost of these allocations will depend on market conditions, particularly supply and demand within the EU carbon market.

12.34 The latest EPA projections indicate that even with the implementation of all planned additional measures, Ireland's cumulative emissions 2021 – 2030 will still exceed the target level, for that period, by 47.6 Mt CO_2eq.

12.35 However, the ESR includes flexibilities which Ireland can avail of to reduce the shortfall.

- ***EU ETS allowances***: Ireland is allowed to cancel a limited number of EU ETS surplus allowances and use them to help meet ESR targets.
- ***LULUCF credits***: Ireland can use a limited number of removals from the LULUCF sector to offset excess GHG emissions. Ireland is likely to avail of LULUCF credits during the first compliance period (2021 – 2025) but it is unlikely to have any available credits in the second period (2026 – 2030).

12.36 The possible compliance costs facing Ireland are highly uncertain. They will depend on a number of factors including the final emissions position in 2030 and the shortfall to the binding targets, as well as the price and availability of flexibilities (such as annual emissions allocations, and statistical transfers or credits).[1]

12.37 A joint report published in March 2025 by the Irish Fiscal Advisory Council and the Climate Change Advisory Council estimated that Ireland could face substantial penalties if it fails to meet its EU carbon reduction targets.[2] The report estimates that noncompliance could result in costs ranging from €3 billion to €12 billion if additional measures are implemented, or from €8 billion to €26 billion by 2030 with existing measures. This is significantly higher than previous estimates.

12.38 Since 2023, a contingent liability has been disclosed in the appropriation account of Vote 29 Environment, Climate and Communications relating to the potential financial liabilities Ireland could face should it fail to meet its EU mandated GHG emissions reductions and targets. The potential liability is not quantified in the appropriation account.

Roles, responsibilities and governance arrangements

12.39 The Department monitors Ireland's GHG emissions through the EPA. The EPA is responsible for compiling and reporting on Ireland's emissions, for submission to the EU and UN as well as publication for national stakeholders. A national inventory report is published annually to inform all relevant stakeholders of emission levels. While the EU Regulation on the Governance of the Energy Union and Climate Action ((EU) 2018/1999) requires biennial reporting on current and projected emissions, the EPA produces annual reports to meet national stakeholder needs.[3]

1 Under the ESR, there will be two compliance checks. The first check will be carried out in 2027 and cover emissions from the period 2021– 2025. The second check will be completed in 2032 covering 2026 – 2030. The final position will not be confirmed until 2032.

2 A colossal missed opportunity report — Ireland's climate action and the potential costs of missing targets.

3 Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

12.40 The Department of Climate, Energy and the Environment is the lead department for achieving carbon neutrality in Ireland — responsibility for driving its delivery spans several ministerial departments. In 2022, Government agreed the initial allocation of ministerial responsibility for sectoral emissions ceilings (see Figure 12.9).

Figure 12.9 Ministerial responsibilities per sectoral emissions ceiling

Sectors	Minister for Climate, Energy and the Environment	Minister for Transport	Minister for Enterprise, Tourism and Employment	Minister for Agriculture, Food, and the Marine	Minister for Housing, Local Government and Heritage	Minister for Public Expenditure, Infrastructure, Public Service Reform and Digitalisation
Electricity	●					
Transport		●				
Residential buildings	●					
Industry			●			
Commercial buildings			●			
Agriculture				●		
LULCUF				●	●	
Public sector[a]	●					●
Other (F-gases, waste & petroleum refining)	●					

Source: Department of Climate, Energy and the Environment

Note: a Joint departmental role across various departments (hospitals — Minister for Health; schools — Minister for Education).

Monitoring outcomes

12.41 The role of the EPA's inventory and projections in assessing progress/projected progress towards target achievement is set out in the Climate Act. The EPA monitors progress towards overall and sectoral targets in its annual GHG emissions inventory and projection reports. These reports, along with the Climate Change Advisory Council's annual report, inform monitoring of compliance within Ireland's carbon budget programme and sectoral emission ceilings.

Carbon budgets

12.42 The Climate Act requires that five-yearly carbon budgets should be set to further the achievement of the national climate objective. It also states that the first two carbon budgets should provide for a reduction in GHG emissions of 51% by 2030. The legislation also requires that any carbon budget 'deficits' are carried forward to the next budget period.

12.43 The first carbon budget allowed for 295 Mt CO_2eq over the period 2021 – 2025. By the end of 2023, 63% of the carbon budget allowance had been used. The EPA predicts that the first carbon budget will be exceeded. In accordance with legislation, the second carbon budget (currently set at 200 Mt CO_2eq) will be reduced by the amount carried forward. This will ultimately make it more challenging to stay within the second and subsequent carbon budget allocations.

Climate Action Plan

12.44 The Climate Action Plan (CAP) is the key strategic document in place to inform Ireland's approach to achieving its national climate objective.[1] The CAP sets out strategic themes, alongside performance metrics and underlying actions. The metrics and actions are assigned to lead government departments to manage out to 2025 initially and then to 2030.

12.45 The metrics and actions are underpinned through key strategies in place within each sector.[2] The key metrics, and potential abatement (reduction in emissions) for themes associated with the agriculture sector are set out in Annex 12A by way of example.

Monitoring progress of delivery of the Climate Action Plan

12.46 The Department of the Taoiseach oversees and monitors progress made against the actions and associated measures listed in the CAP. It publishes a quarterly progress report which is submitted to Government prior to being published.[3]

12.47 The progress reports focus on the actions that were due for completion in the year, as well as 'high-impact legacy actions' that were delayed and carried forward from previous climate action plans. The progress report for CAP 2024 states that an overall 64% implementation rate was achieved i.e. 80 of the 125 planned actions have been completed.

12.48 The progress reports also include a high-level overview of GHG emissions and potential abatement for each key sector alongside some key performance measures. However, as the CAP is subject to frequent review (each year) and actions can be revised or changed, it is difficult to track year-on-year progress or to assess the rate of progress made.

12.49 The examination team reviewed the way in which the key performance metrics for the climate action agriculture measures were reported in the CAP 2024 progress report to assess their utility.[4] In general, it was unclear from the information included in the report what the starting point was for each measure. For this reason, the extent of progress made, or the rate at which progress towards the target is being achieved, cannot easily be determined (see Figure 12.10).

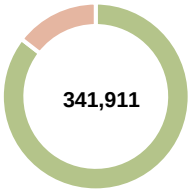
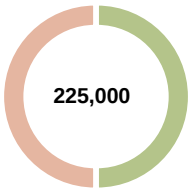
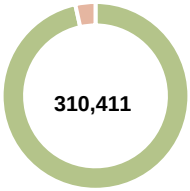
1 Ireland's first Climate Action Plan was developed in 2019. To date there were four updates to the CAP in 2021, 2023, 2024 and 2025.

2 For example, agriculture sector strategies include CAP Strategic Plan, Nitrates Action Programme 2022 – 2025, draft Biomethane Strategy, Tillage Incentive Scheme and Organic Farming Scheme.

3 Climate Action Plan Progress Reports.

4 The CAP progress report also includes performance metrics for the transport, electricity, buildings, industry and LULUCF sectors. The performance metrics for agriculture were selected for the purpose of this examination as the agriculture sector is responsible for the highest percentage of national emissions.

Figure 12.10 Example: Agriculture — key performance measures, Climate Action Plan Q4 2024 progress report

Key performance indicators and 2030 targets	Observation
 400,000 ha for tillage by 2030	• The starting point is not stated, so the reader is unable to determine progress made to date. • The lack of comparative information over time means that the reader is unable to determine the rate at which progress is being made. • A total of 348,000 hectares was reported in the 2023 progress report, indicating that some progress made in earlier periods has been reversed in 2024.
 450,000 ha for organic farming by 2030	• The starting point is not stated, so the reader is unable to determine progress made to date. • The lack of comparative information over time means that the reader is unable to determine the rate at which progress is being made. • A target of 350,000 hectares was first introduced in CAP21 and later increased to 450,000 in CAP23 indicating more ambitious targets for this metric.
 Fertiliser use reduced to max 300,000 tonnes by 2030	• The starting point is unclear, so the reader is unable to determine progress made to date or the rate at which progress is being made. • The chart used does not clearly highlight that the per annum target was exceeded by 10,411 tonnes in 2024. • A total of 399,000 tonnes was reported in the 2023 progress report, indicating that fertiliser use has decreased by around 22% by end 2024.

Source: Department of the Taoiseach, Climate Action Plan progress reports. Analysis by the Office of the Comptroller and Auditor General.

12.50 Performance information can play an important role in allowing stakeholders to understand what is (or is not) being achieved and to drive improvement. However, for performance metrics to be effective, they should be clearly stated, easy to understand, and capable of being measured. It is also important that the timeframe of the performance metric is clearly set out.

12.51 In response to the examination, the Department of Taoiseach stated that it would endeavour to incorporate additional clarity and alternative methods of depicting progress in future reports.

Green budgeting and performance reporting

12.52 Since 2019, the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation (Department of Public Expenditure) has tracked and reported on 'climate-favourable' expenditure and included this information in an Appendix to the *Revised Estimates* volume. Annex 12B reproduces the climate-favourable expenditure and related performance metrics for Vote 30 Agriculture, Food and the Marine for 2024.[1]

12.53 The performance results, published by the Department of Public Expenditure in the annual *Public Service Performance Report*, measure delivery against target performance metrics. However, to date, performance reports have mainly focused on how funding is spent and the target number of recipients for climate-favourable schemes. The metrics convey little information about the outcome achieved from the spending.

12.54 There is scope to further align the performance metrics set out in the revised estimates with the performance metrics included in CAP progress reports. This would allow for the financial investment in climate actions to be linked to measurable progress and climate action outcomes. It could also help to focus financial investment decisions on the longer-term strategic objectives of the CAP.

12.55 The most recent *Public Service Performance Report*, for 2024, includes an overview of the green budgeting framework and a commitment to integrate reporting of climate and environmental expenditure metrics into the public service performance reports.[2]

12.56 The Department of Public Expenditure stated that strengthening the link between public spending, policy goals and the outcomes achieved will be a focus of its work in the coming years.

Conclusions

12.57 Ireland has made progress in reducing GHG emissions, but the rate of reduction remains insufficient to meet the targets established. Current projections by the EPA indicate that, even with the implementation of planned additional measures, emissions are expected to exceed the national target in 2030.

12.58 If Ireland fails to meet its national emissions reduction targets, the consequences will be significant, affecting the State legally, financially, economically, environmentally, and politically.

12.59 EU targets for GHG emissions set out in the Emissions Trading System and Effort Sharing Regulation are legally binding. Current projections from the EPA indicate that even if all the measures set out in the *Climate Action Plan* are implemented, Ireland's emissions will still exceed the binding target set in the Effort Sharing Regulation. By 2030, Ireland is likely to need to purchase substantial emissions allocations from other EU member states which will result in significant financial liabilities and compliance-related costs to the Exchequer.

12.60 There is significant uncertainty around the value of compliance costs Ireland could face, with estimates ranging from €3 billion to €26 billion. However, investment in initiatives that offer the highest potential for reducing GHG emissions in future years could mitigate the liabilities.

1 Climate-favourable expenditure is described as expenditure which promotes, in whole or in part, directly or indirectly, Ireland's transition to a low-carbon, climate-resilient and environmentally sustainable economy.

2 The most recently published *Public Service Performance Report* (for 2024) is available here.

12.61 The contingent liability associated with Ireland failing to meet GHG emissions reduction targets is acknowledged in Vote 29 Environment, Climate and Communications. However, as set out in the sectoral emissions ceiling, responsibility for delivering the national climate objective spans several departments of government. It is, so far, unclear which government department(s) will ultimately bear the costs of failing to deliver on agreed climate actions.

12.62 The *Climate Action Plan* is the key strategic document setting out a roadmap for the achievement of the national climate objective. It is frequently reviewed and updated, and progress on achieving key performance measures is reported quarterly.

12.63 However, the current approach to monitoring progress lacks clarity and does not effectively demonstrate year-on-year progress (or lack of progress) or ensure sustained focus on longer-term targets. There is a disconnect between monitoring the financial investment in climate favourable expenditure (through the green budgeting framework) and monitoring progress of the actions in the *Climate Action Plan*. This may hinder prioritisation of investments in those measures likely to deliver most in respect of Ireland's climate objectives.

Annex 12A Example: Agriculture — Climate Action Plan themes and metric

Theme	Metric	Potential abatement to 2025
Inputs and additives Reduce chemical nitrogen use and use of low emission chemical fertilisers	Reduce chemical nitrogen use to a maximum of 330,000 tonnes Target 80 – 90% uptake of protected urea on grassland farms	0.75 – 0.9 Mt CO_2eq
Husbandry practices Reduce GHG emissions from the bovine herd	Target finishing age of 24 – 25 months Reduce age of first calving suckler beef cows	0.68 Mt CO_2eq
Diversification Expand the indigenous bio-methane sector through anaerobic digestion, increasing the area under tillage and increasing the level of organic farming	Production of 1 TWh of bio-methane by 2025 Construction of up to 20 anaerobic digestion plants of scale Target up to 360,000 hectares tillage 250,000 hectares of organic farming	1.4 Mt CO_2eq

Source: Climate Action Plan 2024

Annex 12B Example: Agriculture — climate-favourable expenditure and performance metrics

Output metrics

Subhead	Public service activities (output metric)	2024 target	2024 Estimate
			€000
B.3 Agri-environmental schemes	No. of applicants to pay under the Organic Farming scheme	5,000 applicants	92,499
	Organic Farming scheme hectares	218,000 hectares	
B.4 Areas of Natural Constraint	No. of participants in the Areas of Natural Constraint scheme	99,000 participants	247,000
B.10 Forestry and bio-energy	No. of hectares of new forestry planted	8,000 hectares	97,000
B.14 Agri-Climate Rural Environment Scheme	No. of applicants to pay under ACRES (the agri-environmental scheme)	28,200 applicants	200,000
B.15 Organic Farming Scheme	No. of applicants to pay under the Organic Farming scheme	5,000 applicants	47,000
	Organic Farming scheme hectares	218,000 hectares	
B.13 Carbon Tax Measures	—	—	3,850
D.4 Marine Institute Grant	—	—	43,377
Total			**730,726**

Public policy impact (outcome) indicators

Subhead and public policy impact (outcome)	2020	2021	2022
B.3 and B.15 Area of land farmed organically	72,000	90,000	110,000
B.3 Change in absolute agricultural GHG emissions from 2005 baseline of 20.847 Mt CO_2eq	+1.02	+1.12	Not available
B.10 Increase in areas under forestry (and % change over previous year)	2,434 (+0.31)	Not available	Not available
B.10 Total area of land under forestry	780,029	Not available	Not available

Source: Revised Estimates 2024, Vote 30 Agriculture, Food and the Marine