Rialtas na hÉireann
Government of Ireland

Call for Expert Evidence

Climate Action Plan 2023

Prepared by the Department of
the Environment, Climate & Communications
gov.ie/DECC

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Introduction

This decade will be critical if we are to address the climate and biodiversity crisis threatening our safe future on this planet. The Programme for Government commits to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade), and to achieving net zero emissions by 2050.

These targets have been made legally binding by the Climate Action and Low Carbon Development (Amendment) Act 2021. The first two Carbon Budgets were adopted by the Oireachtas and came into effect on April 6th 2022, setting us on a path to achieving our required emission reduction target.

On 28th of July, the Irish Government approved Sectoral Emission Ceilings which set maximum limits on greenhouse gas emissions for each sector of the Irish economy to the end of the decade. These ceilings will operate within the parameters of Ireland's Carbon Budgets, setting out a pathway for Ireland to meet its 2030 and 2050 emission targets.

Achieving these targets will be challenging and will require fundamental changes in many parts of Irish life. In rising to the challenge, we will be able to improve the health, welfare and security of all our people, while also protecting our environment and delivering new opportunities in terms of employment and competitiveness.

As required by the 2021 Act, the Government is now beginning to prepare the next Climate Action Plan, which will set out actions that must be taken in order to ensure we achieve our legally binding 2030 targets, prepare for climate neutrality no later than 2050, and make Ireland a leader in responding to climate change.

As with the Climate Action Plan 2021, the new Climate Action Plan will have a strong focus on implementation, including actions with specific timelines and steps needed to achieve each action, assigning clear lines of responsibility for delivery. It will be informed by successful approaches in other countries, where such approaches could be adapted for implementation in Ireland.

As part of this consultation, you are invited to consider the cross-sectoral and sector-specific implications of the overall increase in climate ambition set out above, and to set out proposals for additional policies and measures across sectoral areas, including estimations of the associated greenhouse gas emissions reductions and/or increased resilience to the locked-in climate change impacts.

In order to allow a consistent approach to be taken across all sectors, the development of the new Plan is being addressed through the following broad framework:

- regulatory framework
- adoption of known technologies
- addressing market failure
- driving change in business models
- the public sector leading by example
- harnessing the citizen and community effort

In addition to completing our consultation questionnaire, we would also like to hear your evidence-based views grounded in a comprehensive cross-sectoral perspective on the changes required to meet Ireland's 2030 and 2050 climate ambition, including in relation to key systemic choices.

This consultation is open until 17:30 on 20 September 2022 and submissions can be made online through our consultation platform. If you have difficulties submitting a response online, or would like to make a submission by post, email or through Irish please email us at CallforEvidence@decc.gov.ie

Please note that responses to this consultation are subject to the provisions of the Freedom of Information Act 2014 (FOI), Access to Information on the Environment Regulations 2007-2014 (AIE) and the Data Protection Act 2018.

The Department may publish the contents of all submissions received to this consultation on its website, the Department will redact personal data prior to publication. In responding to this consultation, parties should clearly indicate where their responses contain personal information, commercially sensitive information or confidential information which they would not wish to be released under FOI, AIE or otherwise published.

We would like to draw your attention to the Department's Data Privacy Notice which explains how and when we collect personal data, why we do so and how we treat this information. It also explains your rights in relation to the collection of personal information and how you can exercise those rights.

In order to allow a consistent approach to be taken across all sectors, the development of the new Plan is being addressed through a broad framework. When answering the series of questions set out in each section, submissions should consider where we can find the necessary step changes across each of the following six areas of policy initiative:

Regulatory Framework

- Revision in Regulations
- Mandates for Public Bodies/Carbon Proofing Exercise
- Integrated Planning Methods (SDZ etc.)
- Risk Frameworks for Investments and Asset Ratings (e.g. factoring in mitigation of flood risk)

Adoption of known Technologies

- Rolling out enabling smart infrastructure
- Technical support to adoption
- Access to finance for green investments
- Novel contracts, developing templates and supply chains
- Incentive windows and calls
- Producer pledges and inspection

Addressing Market Failure

- Price of carbon
- Other Sectoral price signals
- Information and Audit Services
- Initiatives when assets transfer (e.g. when new mortgage created)
- Innovation calls

Driving change in Business Models

- Switching opportunities and barriers
- Management support programmes to build capacity to lead change to a low carbon business model
- Promoting Innovation and enterprise hubs
- Tradable quotas outside the ETS sector

Public Sector leading by example

- Investment Prioritisation
- Procurement Practices
- Role of regional climate offices
- Programme review
- Exemplars

Engaging citizens and communities

- Community Based Initiatives
- Motivation of the Power of One
- Information Initiatives
- Just transition

Sectoral Emission Ceilings

Introduction

On 28th of July, the Irish Government approved Sectoral Emission Ceilings which set maximum limits on greenhouse gas emissions for each sector of the Irish economy to the end of the decade.

These ceilings will operate within the parameters of Ireland's carbon budgets, which set out a pathway for Ireland to meet its 2030 target of reducing emissions by 51%, relative to 2018 levels, and becoming net zero by no later than 2050.

The ceilings have been set for sectors such as Agriculture, Built Environment (Commercial & Public, and Residential), Electricity, Industry and Transport. The below table lists these sectors and the emissions reductions required out to 2030 to meet their respective ceilings.

Sector	Reduction	2018*	2030 ceiling*
Electricity	75%	10.5 MtCO2eq	3 MtCO2eq
Transport	50%	12 MtCO2eq	6 MtCO2eq
Buildings (Commercial & Public)	45%	2 MtCO2eq	1 MtCO2eq
Buildings (Residential)	40%	7 MtCO2eq	4 MtCO2eq
Industry	35%	7 MtCO2eq	4 MtCO2eq
Agriculture	25%	23 MtCO2eq	17.25 MtCO2eq
Other**	50%	2 MtCO2eq	1 MtCO2eq

*** = Figures for MtCO2eq for 2018 and 2030 have been rounded. This may lead to some discrepancies.**

**** = F-gases, Petroleum Refining and Waste**

Finalising the Sectoral Emissions Ceiling for the Land-Use, Land-Use Change and Forestry (LULUCF) sector has been deferred for 18 months to allow for the completion of the Land-Use Strategy.

Consultation Questions

1. What do you view as the key actions required to ensure the emission reduction targets set out in the Sectoral Emission Ceilings are met?
2. What do you view as the main challenges/obstacles to the Sectoral Emission Ceilings being met?

Carbon Pricing and Cross-Cutting Issues

Introduction

The society-wide change that is required to reach our 2030 ambition and net zero by no later than 2050 can only be achieved if it is fully supported by a broader supportive national policy framework, including our fiscal policies, sustainable finance, spatial policy, and the national and EU research ecosystem. While these policies may not have an immediate or direct emissions mitigation impact, they act as foundations that will support change, and create the environment that will allow for the successful implementation of other initiatives. It is essential, therefore, that they remain coherent with Ireland's climate action policies.

Carbon pricing and cross-cutting policies in the 2021 Climate Action Plan

The actions associated with the carbon pricing and cross-cutting policies emphasise the importance of these policies as enables of effective climate action. Key cross-cutting policies identified in the 2021 Plan include:

- Taxation policies, such as carbon tax and taxation of motor vehicles;
- Implementation of the National Planning Framework;
- Reform of the Public Spending Code to ensure that the shadow price of carbon in public sector project appraisal appropriately reflects Ireland's climate ambitions;
- Development of a sustainable finance sector in Ireland.
- Promotion of digital transformation, including through the National Broadband Plan establishment of remote working hubs; and
- Research, development and innovation in climate action.

2023 Climate Action Plan

The 2023 Climate Action Plan will sustain our high level of climate ambition, as Ireland continues to strive for carbon neutrality by 2050. The actions identified in the 2023 Climate Action Plan can only be successfully implemented if the necessary cross-cutting and taxation supports are in place.

Consultation Questions

1. Are there any unintended barriers within the planning system that should be addressed at national policy level in order to deliver our climate ambitions?

2. What further opportunities exist within our taxation system, beyond measures already implemented and planned, to promote emissions reductions, either on an economy-wide basis, or in specific sectors?

3. Further to recent reforms to Ireland's green budgeting and public procurement policies, are there any additional measures that could be taken to integrate climate considerations into these policy frameworks?

4. Are there any significant cross-cutting gaps not previously discussed in Climate Action Plan 21 that need to be addressed?

5. Are there any other cross-cutting issues that should be considered in the development of the 2023 Climate Action Pan?

Electricity

Introduction

Emissions from the electricity sector remained relatively static between the period 2010 to 2016 as a rising demand for power offset the increase in generation from renewables. Emissions from electricity have fallen annually from 2017, with further increases in the level of renewable generation. The Climate Action Plan 2021 recognises the importance of decarbonising the electricity sector by taking advantage of our significant renewable energy resources. The Climate Action Plan sets a target for 80% renewable electricity by 2030. The Sustainable Energy Authority Ireland (SEAI) published their Energy in Ireland report in December 2020. The report shows that the share of electricity generated by renewables was 39.1% in 2020, up from 37.6% in 2019. 86% of all renewable electricity came from wind, with the remaining 14% evenly split across hydroelectricity and bioenergy sources.

Under the Climate Action Plan 2021, the following targets were set for the electricity sector by 2030:

- Reduce CO_2eq. emissions from the sector to a range of 2 to 4 MtCO_2 eq by 2030
- Carry out a work programme to identify a route to deliver 1-3 TWh of zero emissions gas (including green hydrogen) by 2030, potentially equivalent to 0.2-0.4 MtCO2eq abatement.
- Our climate targets will be delivered through a set of enabling targets by 2030:
- Increasing the share of electricity demand generated from renewable sources to up to 80% where achievable and cost effective, without compromising security of electricity supply
- At least 500 MW of these renewables will be delivered through local community-based projects, subject to competition as appropriate
- Deliver circa 2 GW of new flexible gas-fired power stations in support of a high variable renewable electricity system
- Delivery of three new transmission grid connections or interconnectors to Northern Ireland, Great Britain, and the EU
- Explore further interconnection, including hybrid interconnectors (combined cross border transmission network with offshore renewable generation), to other countries

- Expand and reinforce the grid – through the addition of lines, substations, and new technologies
- Complete the phase-out of coal and peat-fired electricity generation
- Ensure that 20-30% of system demand is flexible by 2030

Carbon Budgets and Sectoral Ceilings

Following the adoption of the carbon budgets, sectoral emission ceilings, prepared by the Minister within the limits of the carbon budget, have been approved by the Government. These sectoral ceilings determine the maximum amount of greenhouse gas emissions that are permitted in different sectors of the economy during a carbon budget period.

The agreed sectoral emission ceiling for the Electricity sector is a 75% reduction by 2030, relative to 2018 levels.

Consultation Questions

1. What options are available to increase the penetration of renewable electricity beyond the up to 80% committed to in Climate Action Plan 2023?
2. What can be done to accelerate/facilitate the delivery/deployment of offshore wind and solar PV in particular, in the context of Climate Action Plan 2021 and the REPowerEU ambition?
3. What role does renewable gas have in the power generation sector?
4. What role could carbon, capture and storage have in decarbonising our power sector?
5. What other opportunities exist to support the decarbonisation of the electricity sector?
6. What measures might be taken to improve the resilience of the electricity system to the impacts of climate change?
7. What role do you see for electricity storage and demand-side response in providing flexibility to a system comprised of high renewable penetration and in supporting the decarbonisation of the electricity sector?
8. What financial incentives are needed to increase renewable generation capacity?
9. To incentivise commercial scale production.
10. To incentivise microgeneration.
11. What are the regulatory challenges for reaching the renewable energy share targets?

Enterprise

Introduction

Enterprise will play a pivotal role in our ability to meet our 2030 and 2050 targets. It shapes the way materials are managed, from raw states to final consumption and disposal.

Enterprise will play a pivotal role in our ability to meet our 2030 and 2050 targets. Beyond the emissions from its primary operating activities, it can also influence the wider economy as It shapes the way materials are managed, manages large transport flows, builds and uses a large share of our buildings and it influences a vast supply chain by the priorities it sets. Emissions from the enterprise sector reduced by approximately one third between 2005 and 2011. However, they rebounded by over 25% up to 2018, with a slight reduction seen in 2019. This demonstrates how correlated emissions in this sector are to economic growth. While the economic recovery did see some switch to renewable energy sources, the increase in emissions has shown that the link between emissions and economic growth has not been broken.

GHG emissions increased by 0.9% in Manufacturing Combustion in 2021 while the industrial processes sector was responsible for 4.0% and F-Gases 1.2% of Ireland's total greenhouse gas (GHG) emissions in 2021.

There were decreases in combustion emissions from major sub sectors including chemical and the food processing, beverages and tobacco sector, i.e. 3.2% and 4.4% respectively. However, combustion emissions from non-metallic minerals (including cement) increased significantly by 10.5% and 0.12 Mt CO2eq.

Emissions from the industrial processes sector increased by 16.8% (0.35 Mt CO_2eq) in 2021 when compared to 2020. Total process emissions from the mineral products subsector (including cement) increased by 18.1% in 2021 compared to 2020 emissions.

Enterprise targets set in the 2019 Climate Action Plan

Under the Climate Action Plan 2021, the following targets were set to reduce emissions by 2030 in the enterprise sector:

- Improve the energy efficient of processes, buildings and transport
- Replacing fossils fuels with renewables in their processes, buildings and transport
- Improving the way in which resources are used in their supply chain to reduce emissions and conform to circular economy principles

- Being innovative across production, distribution, and marketing to realise the opportunities arising
- Developing new skills and techniques as necessary

Sectoral Emission Ceiling

The Enterprise sector's sectoral emission ceiling is a 35% reduction relative to 2018 levels.

2023 Climate Action Plan

Climate Action Plan 2023 represents a sustained high-level of ambition, as Ireland continues to strive for carbon neutrality by 2050. Ireland must now focus on the implementation of direct emission reduction actions and consider what efficiency and decarbonisation can be made by our Enterprise sector. DECC has carried out some research on how the new target could be met and listed below are some questions that have arisen out of that research. The following consultation questions relate to areas that the DECC is considering as it identifies actions that will form part of the forthcoming Climate Action Plan 2023.

Consultation Questions

1. What measures can be taken to accelerate the uptake of carbon-neutral low temperature heating in manufacturing?
2. What measures can be taken to decarbonise high temperature heating in industry?
3. What measures can be introduced to reduce to F-Gases in the Enterprise sector?
4. How can we encourage the diversification away from products with high levels of embodied carbon, such as traditional cement in construction to lower carbon alternatives?
5. What role could Carbon Capture and Storage (CCS) have in industry, and what steps would encourage its deployment?
6. What other opportunities exist to drive the decarbonisation of the enterprise sector?
7. What measures should be taken to address the risks that climate change poses for enterprise?
8. Are the measures that can be taken to assist businesses sustain the additional operating costs associated with moving to new, low-carbon technology?

Built Environment

Introduction

Preliminary emissions data published by the EPA in July 2022 indicate that emissions from the residential sector decreased by almost 5% in 2021. The annual decrease in emissions is primarily a result of a reduction in remote working, a mild 2021 winter and increased fuel prices. However, this reduction in emissions remains greater than pre-Covid (i.e. 2019) data. Therefore, it is important that we continue to improve the energy efficiency and construction quality of our buildings. This will improve our living standards by making our buildings more comfortable, healthier, safer and less costly to heat.

2021 Climate Action Plan

The 2021 Climate Action Plan included 48 actions across both the Built Environment and National Retrofit Plan chapters that would reduce emissions from the sector by 44-56%. These actions included:

- Phase out fossil fuels for space and water heating in new and existing homes;
- Deployment of zero-carbon heating to 50,000 commercial buildings;
- Development of district heating with initial capacity of 2.7TWh;
- Installation of 600,000 heat pumps;
- Development of the low carbon calculation framework and databases to enhance performance standards;
- 500,000 residential building retrofits to a BER B2; and
- Explore programmes to develop retrofit skills among contractors and other construction professionals.

A full list of the actions and details on progress to date in achieving them can be found online.

Sectoral Emission Ceiling

Emissions from the Built Environment have been sub-divided into two categories from a sectoral ceilings perspective. These categories are Residential, and Commercial and Public. The agreed reduction in emissions by 2030 for the two categories ceilings have been set out below.

Residential: 40%

Commercial and Public: 45%

The actions that applied to these categories were contained in three chapters of the 2021 Climate Action Plan: Public Sector Leading by Example, Built Environment and National Retrofit Plan.

National Heat Policy Statement

Following from the publication of the SEAI's National Heat Study in February 2022, work on the development of a National Heat Policy statement has begun. Response 16 of the National Energy Security Framework (NESF) also outlines that a National Policy Statement on Heat will be developed, a key focus of which will be the decarbonisation of our building stock and the development of district heating. A Steering Group has been set up to oversee the development of district heating, which was identified in the National Heat Study as a key enabler to reach net zero by 2050.

Built Environment/Heat Delivery Taskforce

A new Delivery Taskforce is also being set up to focus on the heat sector. Its aim is to accelerate and drive delivery in:

- Retrofitting;
- Renewable Heat;
- District Heating; and,
- Decarbonisation of Ireland's building stock.

2023 Climate Action Plan

The forthcoming Climate Action Plan will sustain our high of ambition for reducing greenhouse gas emissions from the built environment, as Ireland seeks to implement our ambition to achieve an overall 51% reduction in greenhouse gas emissions by 2030 continues to strive for carbon neutrality by 2050. Ireland must now focus on the

implementation of our emission reduction polices and consider what further improvements can be made to our measures already in place.

The following consultation questions relate to areas that the Department of the Environment, Climate and Communications is considering for the development of actions for the forthcoming Climate Action Plan 2023.

1. Currently SEAI provides approx. 50% of the grant of retrofit to Landlords, Housing for All commits to introducing a minimum BER for rented properties from 2025 onwards. What further supports can be put in place to address the split incentive when retrofitting rental properties (residential and commercial)?
2. How can we encourage SMEs to upgrade the energy efficiency of the buildings they own?
3. What immediate actions can we take to address the skills shortage in the construction sector, to facilitate meeting our annual retrofitting targets?
4. How can we ensure that necessary skills will be available to support district heating projects?
5. Housing for All Commits to 100% funding to retrofit 40% of local authority housing stock to B2 by 2030 at a cost of 1.4 billion euro. How can we further support local authorities to help them deliver on social housing retrofit targets?
6. In addition to the existing financial supports and policy measures, are there any other incentives/assistance needed to help homeowners upgrade the energy efficiency of their homes?
7. How could the roll-out of district heating be accelerated and what needs to be done to expand its coverage in Ireland?
8. Are there any specific obstacles in the planning system that is impeding the rollout of district heating and the national retrofit plan? How can we overcome these barriers?
9. What policy levers are needed to encourage and support the retrofitting of shared properties e.g. apartments?
10. Further to the existing supports financed by carbon tax revenues, how can we protect those who are currently experiencing fuel poverty and those who are at risk?
11. What specific measures can be implemented to improve the efficiency of rolling out the National Retrofit Programme?

12. Further to those technologies identified in previous iterations of the Climate Action Plan, what other additional measures could be used to reach our emission reduction target in this sector?

13. What specific measures would incentivise a greater rate of oil boiler replacement?

14. What is the next step for geothermal energy application to the built environment?

Transport

Introduction

The transport sector accounted for 17.8% of greenhouse gas emissions in 2020.

Emissions from the transport sector decreased by 15.77% in 2020, due to the impact of the Government's public health restrictions aimed at addressing the COVID-19 pandemic which led to restrictions on passenger car and public transport journeys. Transport-related emissions are, therefore, anticipated to have strongly rebounded since those restrictions ended.

Cyclical increases in economic activity have always been reflected in a growth in demand for transport. When this historical trend is coupled with our projected population growth, to 5.7 million by 2040, it is vital to consider how we can provide a sustainable transport system that can meet that anticipated demand. We need to consider how shifting from private passenger cars to sustainable modes of transport can be achieved; in particular, how can walking, cycling and other forms of active mobility be part of our daily lives whether that be for commuting or leisure purposes.

Transport targets set in the 2021 Climate Action Plan

The Climate Action Plan 2021 identified 74 actions that would reduce emissions from the sector by 40-50%, relative to 2018. Key targets include:

- Promoting sustainable transport journeys and implementing demand measurement measures with the aim of incentivising 500,000 additional public transport and active travel journeys per day and reducing Internal Combustion engine (ICE) car kilometres by c.10%;
- Increasing the number of Electric Vehicles (EVs) and low emission vehicles on the Irish market by 2030, including:
    - 845,000 passenger EVs – with a focus on BEVs;
    - 95,000 low emission vans – with a stronger focus on BEVs;
    - 3,500 low emission HGVs; and
    - 1,500 electric buses.
- Continued support for the expansion of the EV charging network, along with public investment to drive consumer confidence in the availability and reliability of public charging infrastructure;

- Reviewing and updating VRT and other fiscal and regulatory incentives in the EV sector, as well as considering fiscal and regulatory disincentives for ICE vehicles;
- Committing to transitioning the public transport fleet to low emission alternatives;
- Making conversion of fleets to EVs a central element of the mandate for all public bodies; and
- Raising the blend proportion of biofuels in road transport to 10% in petrol (bioethanol – B10) and 20% in diesel (biodiesel – B20).

Sectoral Emission Ceiling

The Transport sector's sectoral emission ceiling is a 50% reduction in its emissions by 2030, relative to 2018 levels.

Consultation Questions

Sustainable Mobility and Demand Management

1. What obstacles exist in the planning system that may prevent greater modal shift from being achieved? Are there specific measures that can be implemented to avoid further forced car dependency or lock-in of unsustainable practices?
2. What changes should be considered in relation to the management of Ireland's road network (e.g. reducing speed limits, parking policy, road user/congestion charging) to reduce congestion and support the prioritisation of more sustainable modes?
3. What additional measures should be considered to improve the quality or attractiveness of public transport or active mobility solutions as an alternative to private car use? (e.g. dedicated lanes, secure bike parking, rest areas).
4. What policies or measures can be considered to further incentivise the use of more sustainable modes of transport for education and leisure-related journeys?
5. What potential do blended working policies or remote working hubs have to help reduce commuting travel and volume of transport emissions?
6. Is the level of transformation required of our transport behaviour patterns well understood and what more can be done to demonstrate the benefits of modal shift? How can the overall impact of wider decarbonisation measures be measured most effectively (e.g. capturing wellbeing impacts, health impacts, liveability, permeability, etc.)?

Electrification

1. How can EV and other transport grants/supports be more targeted (spatially, demographically) to deliver additional emissions reduction or address distributional impacts in a more equitable manner?
2. What specific actions can government take to help create a robust second-hand market for electric vehicles?
3. What specific actions can government take to help accelerate or achieve parity in the total cost of ownership between electric vehicles and ICE vehicles?
4. What specific policies can assist in reducing the overall volume of ICE vehicle kilometres driven? Is there further scope to effect a change in the composition of the private car fleet to shift the vehicle mix away from higher emitting classes?

Freight / Commercial Sector

1. What specific measures can be applied in the commercial transport sector to encourage or accelerate a change to EVs or to other zero carbon alternatives?
2. What potential do digitalization, innovation and efficiency improvements in the commercial sector (including, e.g., establishing logistics hubs) have to deliver emissions abatement? What are the barriers to delivery of each?
3. How can the climate costs of home delivery services be mitigated? Should there be a surcharge - depending on the mode of delivery, with cargo bikes and EVs exempt. If this was to be considered, how would transparency around this charging be affected?
4. As a transitionary fuel to help decarbonise the road haulage sector, what obstacles to you foresee in raising the blend proportion of biofuels in road transport to 10% bioethanol (E10), and 20% biodiesel (B20) by 2030? Is there potential for greater ambition?

Rural Transport

1. What expectation or level of public transport service is appropriate in rural communities and what other key measures can support a transition to sustainable modes?
2. What infrastructure or further measures are required to help improve the safety of rural roads and further incentivise the use of walking and cycling for shorter journeys in rural areas?

Just Transition & Communication

1. What are the key elements of a just transition in transport? Are there certain cohorts that should be given exemptions / insulated from potential increased costs?
2. What platforms or mechanisms can best facilitate the sharing of data, transport modelling and research findings with policy makers, local authorities, research groups, local communities and the wider public?

Open

1. What other opportunities exist to support the decarbonisation of the Transport sector?

Agriculture, Land Use and Forestry

Introduction

Greenhouse gas emissions from the agriculture sector increased by 1.2% to 21.41 Mt CO_2 eq in 2020 over 2019. Irish agriculture has a positive international reputation in terms of producing high quality, sustainable produce. The long-term challenge for the sector is to meet the national policy objective of climate neutrality, while not compromising our capacity for sustainable food production. The Government is committed to finding the balance between environmental, climate and biodiversity needs, and supports for farmers.

Climate Action Plan 2021 includes measures to meet our existing targets. This is underpinned by actions aimed at: reducing emissions on our farms by vigorously adopting the abatement opportunities identified by Teagasc; promoting diversification of land use as part of a gradual transition; harnessing opportunities in the bioeconomy; realising the potential of sustainable bioenergy supply opportunities; better management of our peatlands and soils; and developing clusters of exemplar practice.

Agriculture targets set in the 2021 Climate Action Plan

The following targets were set for the sector by 2030:

To meet the required level of emissions reduction, by 2030 we will:

- Deliver 16.5 to 18.5 $MtCO_2eq$. cumulative abatement;
- Achieve a 37-58% reduction in emissions by 2030 in the Land Use, Land-use Change and Forestry (LULUCF) sector, with target emissions of 2.3 $MtCO_2eq$ by 2030, through LULUCF actions comprised of:
    - **Forest Land:** an average of 8,000 ha per annum of newly planted forest (direct savings of 0.8 $MtCO_2eq$ in 2030) and forward accounting for afforestation with removals realised post 2030 (direct savings of 2.1 $MtCO_2eq$ in 2030).
    - **Cropland:** increased use of cover crops (direct savings of 0.03 $MtCO_2eq$ in 2030) and incorporation of straw into tillage (direct savings of 0.04 $MtCO_2eq$ in 2030).
    - **Grassland:** improved management of grassland on mineral soils (direct savings of 0.26 $MtCO_2eq$ in 2030) and at least 80,000 ha per annum of reduced management intensity of grasslands on drained organic soils (direct savings of 0.88 $MtCO_2eq$ in 2030).

- **Wetlands:** rehabilitation of 45,000 ha of BnM and LIFE Peatlands (direct savings of 0.30 $MtCO_2eq$ in 2030) and a further 20,000 ha of peatlands (direct savings of 0.20 $MtCO_2eq$ in 2030); and

- Set a target for the level of energy to be supplied by indigenous biomethane injection in 2030, taking account of the domestic supplies of sustainable feedstock and consider how the supports necessary to reach such a target would be funded.

Sectoral Emission Ceiling

The Agriculture sector's sectoral emission ceiling is a 25% reduction in its emissions by 2030, relative to 2018 levels.

Consultation Questions

1. What are the opportunities to increase take-up of measures identified in AgClimatise and encourage adoption of other practices which reduce emissions?
2. What policies and measures would be needed to support farmers diversify their farm activities to include opportunities such as bioenergy, vegetable growth, forestry, organic farming, etc.?
3. What can be done to maximise the use of manure and silage as feedstock for biomethane generation in closed digesters and inject into the gas grid to offset natural gas?
4. What can be done to increase sequestration through forestry (afforestation, extended rotations, and improved forest management)?
5. What opportunities are there to rehabilitate our peatlands and wetlands, and what can be done to realise these opportunities?
6. What measures would support increased sustainable management of grasslands, including those areas on drained organic soils?
7. What opportunities exist for increased use of cover crops, incorporating straw into tillage and for the application of regenerative agriculture practices? How can farmers be supported to take up these practices?
8. What sort of role could Ireland's marine environment (lakes, seas) have in delivering climate mitigation? What are the building blocks that need to be put in place to support the role of the marine environment in climate mitigation (e.g. a regulatory framework, measurement and accounting rules)?

9. What other opportunities exist to support the decarbonisation of the agriculture, land-use and marine sectors?

10. What specific measures can be taken in agriculture, forestry and land use to adapt to climate change?

Waste and the Circular Economy

Introduction

Climate Action Plan 2019 notes that an OECD study of four countries' greenhouse gas emissions found emissions arising from material management accounted for between 55% and 65% of national emissions. Ireland's material consumption is well above the EU average and continues to rise. This indicates that there is scope for savings in greenhouse gas emissions through maximising the efficiency of our material usage.

Ireland's National Waste Action Plan for a Circular Economy 2020 – 2025 is a roadmap for Ireland to embrace the opportunities in becoming a circular economy in the decade ahead. Ireland is now implementing the Action Plan and has banned a range of single-use plastic items in July 2021, and introduced the regulatory framework for a deposit and return scheme (DRS) in November 2021. DRS will enter its operational phase in Q4 2022. Work is also ongoing on mapping post-consumer textile material flows.

A whole-of-Government Circular Economy Strategy was published in December 2021, which commits to Ireland being in having a circularity rate above the EU average by 2030. This first version of the Strategy is a high-level document setting out Ireland's strategic vision for the circular transition.

The Circular Economy and Miscellaneous Provisions Bill 2022 was passed by the Oireachtas in July 2022 and provides a statutory basis for many actions under the Waste Action Plan, including environmental levies, and bans, on certain single-use disposable items, a waste recovery levy, streamlined End-of-Waste and By-Product decision making processes which will support increased use of secondary raw materials, and mandatory waste segregation and incentivised pricing in the Commercial sector. An environmental levy on single-use disposable hot beverage cups ('the coffee cup levy') will be introduced in Q4 2022. The Bill also provides a statutory basis for future versions of the Circular Economy Strategy and requires the Minister to set sectoral targets in relation to the circular transition.

The first National Food Waste Prevention Roadmap, setting out how Ireland will reduce its food waste by 50% by 2030, will be published in Q3 2022.

Waste and Circular Economy targets set in the 2019 Climate Action Plan

Landfill Reliance Target:

- Limit diversion of biodegradable municipal waste to landfill to maximum limit of 427k tonnes by 2020 and for every year after; and
- Reduce diversion of municipal waste to 10% by 2035.

Recycling:

- Recycle 65% of municipal waste by 2035;
- Recycle 70% of packaging waste by 2030;
- Recycle 55% of plastic packaging waste by 2030; and
- Separate collection obligations extended to include hazardous household waste (by end 2022), bio-waste (by end 2023), and textiles (by end 2025).

Food Waste:

- Reduce food waste by 50% by 2030.

Plastic Single-Use Items:

- Ban specific single-use plastic convenience items including polystyrene food containers, cups and drinks containers in line with Single Use Plastics Directive;
- Provide for 90% collection of plastic drinks containers by 2029;
- Determine and introduce reduction targets and measures no later than 2022 to be achieved no later than 2026; and
- Ensure all plastic packaging is reusable or recyclable by 2030.

Consultation Questions

1. What are the main barriers to consumers embracing the Circular Economy, e.g. lack of awareness, increased costs compared to disposable products, lack of access to circular goods and services?
2. What other opportunities exist to support decarbonisation through the acceleration of a transition to the circular economy?

Public Sector Leading by Example

Introduction

Engaged and empowered public bodies can achieve more than just reduce their own emissions; they can stimulate and inspire action across wider society. The leadership role public bodies can play in taking early action on climate change is fundamental to achieving our decarbonisation goals. To demonstrate leadership, inspire innovation, stimulate supply chains, and showcase practical applications, it is essential that the public sector leads by example in the transition to a climate neutral economy and society. This includes practical emissions reduction, by retrofitting public buildings and electrifying public sector fleets, as well as embedding climate considerations in all public sector decision-making, particularly in relation to investment.

Public Sector targets under Climate Action Plan 2021

The Climate Action Plan 2021 committed to:

- Reduce CO_2eq. from the sector by 51%;
- Increase the improvement in energy efficiency in the public sector from the 33% target in 2020 to 50% by 2030
- Mandate public sector employers, colleges, and other public sector bodies to move to 20% home and remote working
- Introduce a Sustainable Mobility Policy in the public sector
- Replace all buses with electric vehicles nationally by 2035
- Triple the length of electrified rail on the network by 2030

Consultation Questions

1. What opportunities exist for the public sector to step up its climate ambition?
2. What sort of practical changes would you expect the public sector to make in leading and delivering Ireland's climate ambition?
3. How can the public sector lead wider society to change? In the short-term, medium-term, long-term?
4. What are the biggest barriers (**resourcing / tech gaps / funding / policy gaps / etc.**) for the public sector in reducing greenhouse gas emissions and how can they be overcome?

5. What other opportunities exist to support the decarbonisation of the public sector?
6. What practical steps should the public sector take to adapt to climate change?
7. What is your vision for the public sector in 2050 in a climate neutral Ireland?
8. Where can the most optimum investment be made by the public sector in climate action?
9. What should be prioritised / where should actions be prioritised for the public sector to realise its climate vision?
10. What would be an appropriate level of ambition/targets/challenge for public sector climate action?

Just Transition

Introduction

Climate Action Plan 21 identifies that delivering a just transition is based on recognising the transformational level of change required to meet these targets and having a shared understanding that the transition is fair, just, and that the costs are shared equitably. Our climate policies should, therefore, seek to protect the most vulnerable.

The Climate Action and Low Carbon Development (Amendment) Act 2021 situates a just transition to a climate neutral economy as a process, within the wider statutory framework of climate action, which endeavours, in so far as is practicable, to maximise employment opportunities, and support persons and communities that may be negatively affected by the transition.

Climate Action Plan 2021 sets out a Just Transition Framework to guide our approach to implementing climate action policies. The framework consists of four principles:

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.
4. Social dialogue to ensure impacted citizens and communities are empowered and are core to the transition process.'

The instruments, policies and regulations deployed in the delivery of our climate policy will need to align with these four principles, and ensure they are taken into account in their design and implementation. Ministers and Departments will therefore be asked to ensure consideration is given to this Just Transition Framework in the development of proposed actions for inclusion in Climate Action Plan 2023.

The Government has also committed, through Climate Action Plan 2021, to the establishment of a Just Transition Commission to support policy development in this area and to ensure that there is an integrated approach that fully embeds the just transition principles into the delivery of climate policy.

It is proposed that Commission be tasked with four related functions: considering the key elements of the Just Transition framework set out in Climate Action Plan 2021:

- Monitoring progress in relation to the implementation of the just transition framework and preparing reports and recommendations to Government and the Oireachtas.
- Commissioning research, and identifying research needs in relation to a just transition to facilitate evidence-based decision making across Government regarding a just transition.
- Providing advice and support to the Minister and Government in relation to stakeholder participation and dialogue in a manner which effectively integrate just transition considerations.
- Examining specific just transition issues, as directed by the Minister, and to provide a report and recommendations to Government on potential solutions to mitigate against these challenges.

Consultation Questions

1. What types of supporting interventions should be considered by the Government to address the four principles of our Just Transition Framework within individual sectors?
2. Are there any emerging skills gaps that need to be addressed that haven't already been identified by the Expert Group on Future Skills Needs in its *Skills for Zero Carbon* report?
3. What additional targeted supports should be considered to minimise the impact of our climate policies to those on low income or households that are most at risk from fuel poverty (including transport and heating)?
4. Are there are any emerging areas of vulnerability in specific sectors of the economy as a direct result of the implementation of Ireland's climate action policies?
5. How should Local Authorities seek to integrate just transition considerations into the preparation of their statutory Climate Action Plans?
6. What other issues should be considered by the Government to inform just transition policy in the 2023 Climate Action Plan?
7. Should the proposed Just Transition Commission have any other functions in addition to those described above?
8. What mixtures of skills and expertise are required on the Just Transition Commission?

Research and Innovation

Introduction

Research and Innovation are important enablers in meeting our goals. High-quality research is vital in providing a robust, timely and effective evidence-base for policy across all activities and in providing the basis for the product, process, behavioural change and organisational innovation required in the transformation to a climate neutral and sustainable Ireland. Addressing climate change is a fundamental, complex and multi-faceted issue for society. It is intrinsically linked to a range of environmental and sustainability challenges and commitments including transforming our energy and food systems, creating a circular economy and bioeconomy, ensuring we have clean air, water and soils, protecting and restoring our biodiversity and adapting our society and infrastructure to climate change impacts. Research and Innovation will also be a key element across all sectors and disciplines in identifying solutions to climate change and wider environment and sustainability challenges.

Research targets set in the 2021 Climate Action Plan

In the Climate Action Plan 2021, the following actions (82-85) were set for Research, Development, and Innovation and Digital Transformation:

- Strengthen our delivery of public funding for basic and applied research to meet climate action objectives
- Support climate and biodiversity progress through relevant strategic advice to enhance evidence-based decision-making
- Continue to provide research funding and to co-ordinate national initiatives for the delivery and continuous improvement of national predictive capability and capacity in the areas of weather, climate and hydrology
- Implement and monitor the National Remote Work Strategy to ensure optimal alignment with climate action objectives

2023 Climate Action Plan

The Climate Action Plan 2023 will set out a comprehensive and ambitious whole-of-Government agenda. Climate, together with other related environmental and sustainability challenges, requires research and innovation spanning a wide range of areas including climate and biodiversity, sustainable forestry and food systems, marine research,

decarbonisation of energy systems and renewable sources, sustainable transport, housing and industry and the transition to a zero-pollution environment, circular economy and bioeconomy. It is important to ensure that the best scientific evidence and advice is available to underpin Government policy and action, including commitments in the *Climate Action Plan*. In doing so, the collective impact of research and innovation in meeting climate targets needs to be maximised. The following consultation questions relate to areas that the Department of the Environment, Climate and Communications is considering as it identifies actions that will form part of the forthcoming Climate Action Plan 2023.

Consultation Questions

1. Are the required research and innovation programmes and structures in place to support our climate ambitions; including the provision of the evidence needed to underpin policy in a timely manner?
2. Have you identified any research and innovation gaps which need to be addressed? If so, how can these gaps best be addressed?
3. Are there important areas of research and innovation, where Ireland currently does not have sufficient capability, that need to be developed? If so, what are these areas?
4. Is the research and innovation system developing and retaining the skills needed to deliver on our climate ambitions?