Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil
Department of Communications,
Climate Action & Environment

Ministerial Brief

Climate and Environment

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Climate Action

Paris Agreement

Ireland is a party to the United Nations Framework Convention on Climate Change (UNFCCC), which seeks to establish the concentration of greenhouse gases in the atmosphere at a level at that will prevent dangerous climate change as well as the Paris Agreement, which was adopted at the UNFCCC Convention of the Parties (COP) 21 conference in 2015 and entered into force in 2016.

The Paris Agreement has three overarching goals:

- To hold the increase in global average temperature rise to well below 2^0C above pre-industrial levels, and to pursue efforts to restrict the temperature rise to 1.5^0C;
- To increase the ability to adapt to the impacts of climate change and to foster climate resilience and low GHG emissions development in a manner which does not threaten food production; and
- To make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development.

In order to achieve its goals, the Paris Agreement depends on two key mechanisms:

1. All Parties to the Agreement will submit Nationally Determined Contributions (NDCs), setting out ambitious climate actions to be undertaken, and which will increase in ambition over time. The first update of NDCs is due in 2020.
2. Additionally, every 5 years, starting in 2023, a Global Stocktake will assess the progress made towards the achievement of the goals of the Paris Agreement.

IPCC Special Report on the Impacts of Global Warming of 1.5^0C

The Intergovernmental Panel on Climate Change (IPCC) is the international body charged with assessing the science of climate change. Operating under the auspices of the United Nations, it reviews and assesses, on a comprehensive, objective, open and transparent basis, the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change, its potential impacts and options for adaptation and mitigation.

At COP 21 in 2015, the IPCC agreed to produce a Special Report on the Impacts of Global Warming of 1.5°C above pre-industrial levels (SR1.5), to be delivered ahead of COP 24 in 2018. This Report was

published in October 2018 and represents the input of more than 200 scientists from over 60 countries, and is based on some 6,000 publications prepared by 24,000 experts.

The Report provides detailed information on the impacts of global warming of 1.5°C and 2°C and on related global GHG emission pathways. The SR1.5 also provides information that is relevant for Parties to the UNFCCC, including the EU and its Member States, in the contexts of national climate policy debates and of strategy preparation. The SR1.5 has been a key scientific resource for climate negotiators and policy makers alike since its publication.

Key Messages From SR1.5

The Report confirms that human activities have caused global warming of approximately 1°C above pre-industrial levels in 2017. The Special Report also clearly demonstrates the impacts, vulnerabilities and risks of further global warming to human societies and natural systems, thereby strengthening the scientific underpinning of the objectives and long-term goals of the Paris Agreement.

The Report notes that scientific evidence of risks at 1.5^0C and 2^0C are worse than previously understood. Global mean temperature is currently increasing at about 0.2 °C per decade due to past and present emissions. If the current warming rate continues at the present rate, human-induced warming will exceed 1.5°C by around 2040

Fulfilling the current pledges under the Paris Agreement (Nationally-Determined Contributions or NDCs) will not be sufficient to limit global warming to 1.5°C, with emissions projected to amount to twice the amount in line with global warming of 1.5^0C. This would place the planet on a trajectory to warming in the region of 3^0C above pre-industrial levels by 2100.

Ireland's Emissions Profile - EU Emissions Trading System

The EU Emissions Trading System (ETS) is a cornerstone of EU policy on climate change mitigation promoting cost-effective emissions reduction in heavy industry and power-generation. It is the first and largest carbon market and works on the 'cap and trade' principle. A cap is set on the total amount of greenhouse gases that can be emitted by installations covered by the system. The cap is reduced over time so that total emissions fall. Within the cap, companies receive (for free) or buy emission allowances which they can trade with one another as needed. The limit on the total number of allowances available ensures that they have a value. After each year a company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed. If a company reduces its emissions, it can keep any spare allowances to cover its future needs or else sell these to another company that is short of allowances. Trading brings flexibility that ensures emissions are cut where it costs least to do so. A robust carbon price also promotes investment in clean, low-carbon technologies.

Table 1: ETS Price in €/tonne for the period 2014-2020

ETS prices have risen considerably since 2018, largely driven by changes to the supply of allowances. This price rise has reduced the role of coal in the electricity mix, as it is a carbon intensive source of electricity.

The ETS operates in 31 countries (all 28 EU countries plus Iceland, Liechtenstein and Norway)(see note on the UK position below). It limits emissions from more than 11,000 heavy energy-using

installations (power stations and large industrial plants) and airlines operating between these countries, and covers around 45% of the EU's greenhouse gas emissions. Some 102 stationary installations and 15 aircraft operators currently come within the system in Ireland. The ETS plays a lesser role in Ireland than the EU average due to a large agriculture sector and relatively small heavy industry.

Phase IV

The current phase (Phase III) of EU ETS runs from 2013 to 2020. Following agreement reached in late 2017, the revised ETS Directive (EU) 2018/410 sets out the arrangements for Phase IV (2021-2030), where the sectors covered by the ETS must reduce their emissions by 43% by 2030 compared to 2005 levels. The revised Directive is designed to increase the effectiveness of the ETS in helping industries to move towards a low carbon economy. Key elements include a tighter cap on emissions, a strengthening of the mechanism to remove the surplus of allowances from the market and changes to reduce the administrative burden on small industries.

Green New Deal

The proposal to increase the EU's emissions reduction target for 2030 to at least 50% and towards 55% compared with 1990 levels, an increase from the current binding target to cut emissions by at least 40% below 1990 levels, will also require revisions to both ETS and non-ETS targets and the respective legislation underpinning these targets. The Commission is to publish revisions to relevant legislative measures (including the ETS Directive) to deliver the increased climate ambition by an indicative date of June 2020. It is also proposed that the ETS could be extended to new sectors, including the maritime sector.

The UK will remain in the EU Emissions Trading System (ETS) until the end of 2020, beyond that, the UK's preferred option, and the option presented in *The Future Relationship with the EU* paper, is for *a link between any future UK ETS and the EU ETS (as Switzerland has done with its ETS)*. The EU mandate also seeks to consider this linkage of systems, on the basis that any linkage must ensure the integrity of the EU carbon market and maintain a level playing field and provide for the possibility to increase the level of ambition over time. Ireland supports efforts to achieve as much alignment and continuity between any future UK ETS and the EU ETS, in order to minimise the risk of any ETS carbon price differentials between the UK, Northern Ireland and Ireland.

The Northern Ireland protocol will mean power stations in Northern Ireland will remain in the ETS to ensure the functioning of the All-island Single Electricity Market.

ETS and Non-ETS

For EU compliance purposes, emissions are split into 2 sectors, the Emissions Trading System and Non-ETS.

The **ETS** sector accounts for around 26% of Ireland's emissions and is largely made up of the power generation sector and large energy intensive industry. In 2018, Ireland's ETS emissions totalled **15.53Mt.**

The **non-ETS** sector accounts for around 74% of total GHG emissions in Ireland and the State is accountable for reducing emissions in these parts of the economy. This includes emissions from agriculture, transport, buildings, waste etc. The target for our non-ETS sector is to reduce emissions by 20% on 2005 levels by 2020 and by 30% by 2030. In 2018, Ireland's non-ETS emissions totalled **45.404Mt.**

EU-wide, the ETS sector accounts for around 45% of overall emissions. Non-ETS emissions account for around 55% of total emissions across the EU.

Agriculture represents 34% of Ireland's national emissions, or 46% of emissions in our non-ETS sector, compared with 10% of EU 28 total emissions.

Agriculture and Transport together make up around 75% of Ireland's non-ETS sector emissions.

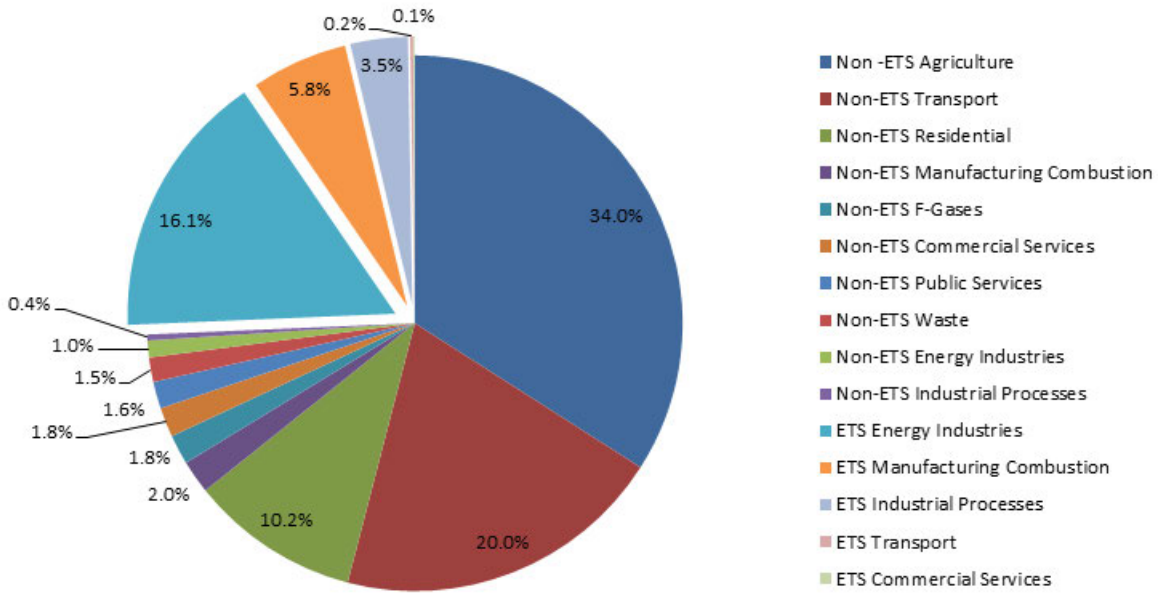


Figure 1: ETS and Non-ETS Sector by Sector split of Ireland's GHG emissions in 2018

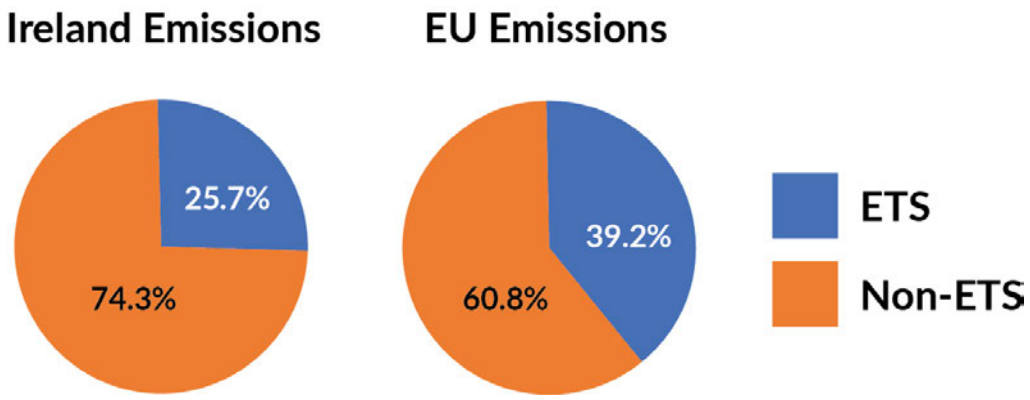


Figure 2: Ireland and EU Emissions profile

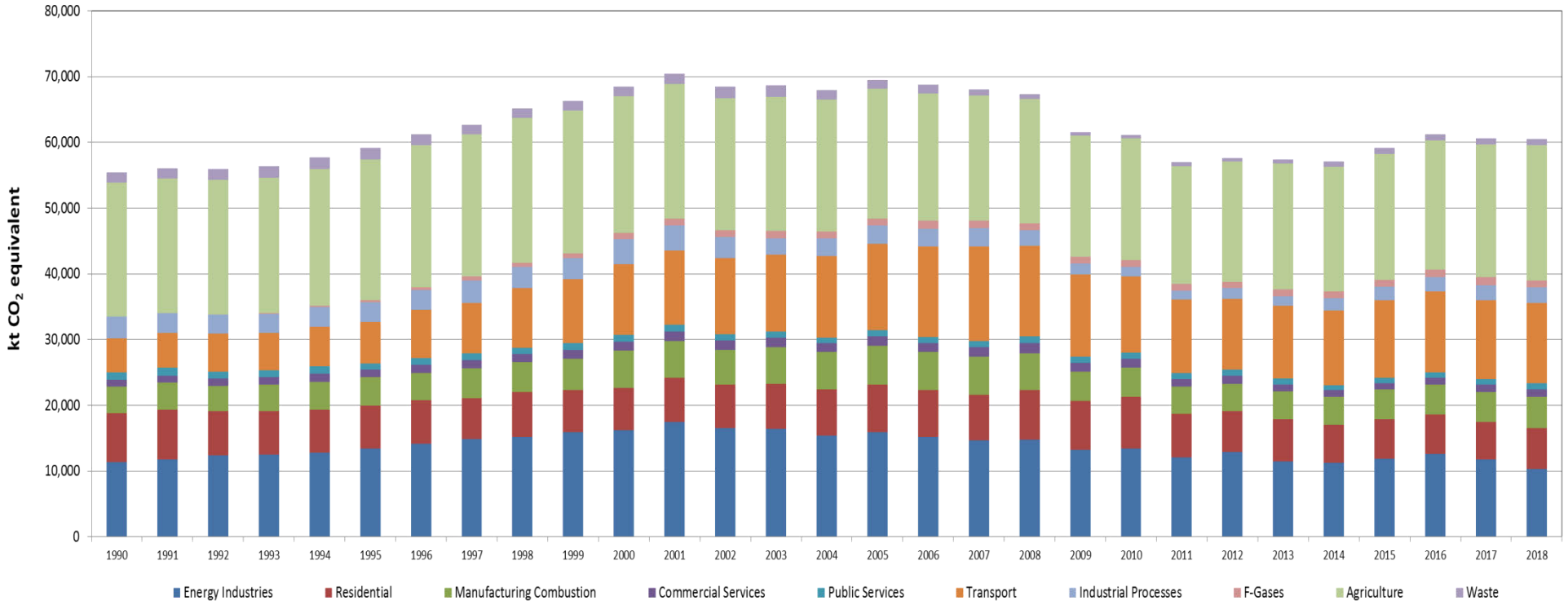


Figure 3: Ireland's total GHG emissions from 1990-2018

Effort Sharing Decision

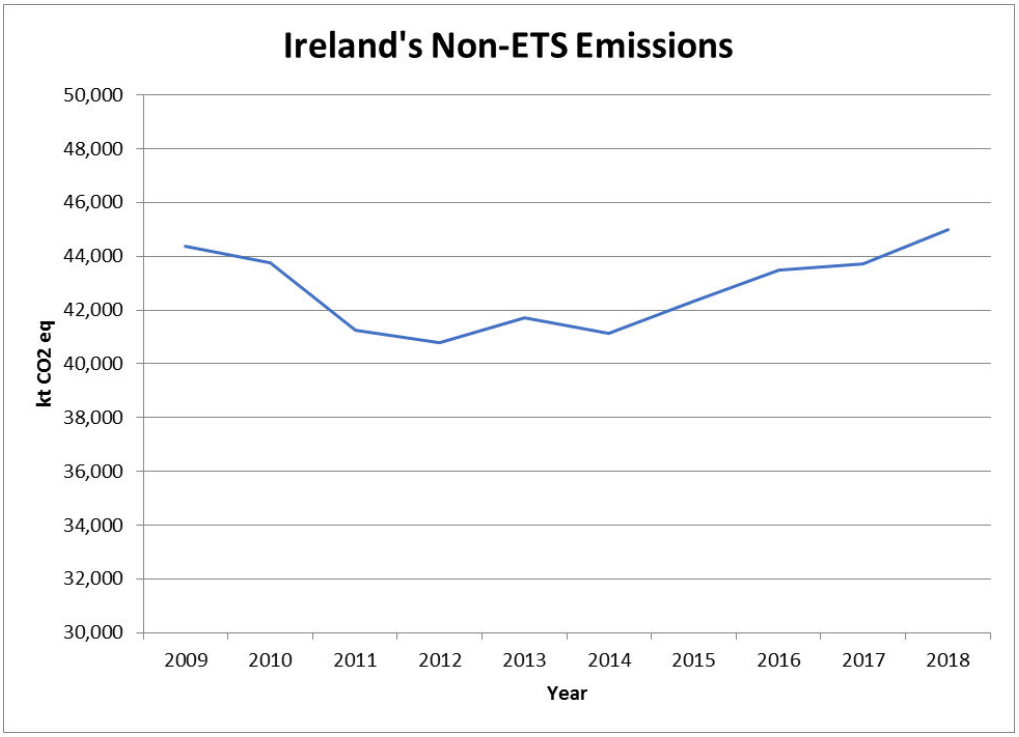
Ireland's commitments under the second period of the Kyoto Protocol, (2013-2020), are discharged via the 2009 EU Effort Sharing Decision 406/2009/EC (ESD). The ESD established annual emission limits for the period 2013 to 2020 for each EU Member State. These targets concern emissions from most sectors not included in the EU Emissions Trading System (EU ETS), such as transport, buildings, agriculture and waste.

For the year 2020 itself, the target set for Ireland is that emissions should be 20% below their value in 2005. This is jointly the most demanding 2020 reduction target allocated under the ESD, and one shared only by Denmark and Luxembourg. The latest projections of greenhouse gas emissions, published by the Environmental Protection Agency (EPA) in June 2019, indicate that emissions from those sectors of the economy covered by the ESD could be between 0% and 1% below 2005 levels by 2020.

The ESD allows Member States to meet their targets using unused emissions credits from earlier years or through purchasing credits from other Member States or on international markets. On 20 November 2018, the Government approved the following overall approach in order to ensure Ireland is in compliance with its targets under the EU Effort Sharing Decision:

- use existing surplus allowances banked from earlier compliance years;
- direct market purchase, by the NTMA, of credits on international carbon markets up to the allowed annual limits under the ESD; and
- purchase any outstanding compliance liability through an appropriate Government-to-Government arrangement with another EU Member State.

Ireland met its emissions targets from 2013-2015, and will meet its targets for 2016-2018 using banked allowances from earlier in the period. The graph below shows the trends in Irelands GHG emissions from 2009 to 2018. However, the latest projections indicate that Ireland will exceed the carbon budget implied by our 2020 targets by around 14-15Mt CO_2 equivalent and Ireland will need to purchase additional allowances to meet projected shortfalls in 2019 and 2020. DCCAE currently estimates the additional costs of this requirement to be in the region of €6 million to €13 million, depending on the price and final quantity of credits required.



This €6-13 million estimate is in addition to the costs already incurred from previous purchases and agreements entered into by the State, amounting to over €121 million in total since 2007, a proportion of which was used to meet Ireland's obligations under the first commitment period of the Kyoto Protocol in the period 2008-2012.

While the drop off in economic activity and travel from the COVID-19 pandemic will lead to reductions in both air pollutant and greenhouse gas emissions, the true emissions impact, including by sector will only be visible when the EPA publishes Ireland's 2020 Provisional Inventory figures in October 2021. In the meantime, however, work on projection scenarios is underway to better understand the potential impacts, including on emissions.

The EPA are examining indicator data that could provide some early insights into the impact of the pandemic on Ireland's emissions, using data sources that are available more frequently than annually such as the SEAI's monthly electricity and gas data. They are working closely with their regular data providers to gather such data. This will further inform the impact of COVID-19 on Ireland's compliance under the ESD.

Ireland's strategy to meet its targets under the Kyoto Protocol (2008-2012) included investments, between 2006 and 2007, in three multilateral funds: the Multilateral Carbon Credit Fund (MCCF) managed by the European Bank for Reconstruction and Development; and the Carbon Fund for Europe (CFE) and Bio-Carbon Fund (BioCF), both managed by the World Bank. In addition to the State's investments in these funds, during 2008 and 2009 the NTMA, on foot of its powers under the

Carbon Fund Act 2007, was directed by the then Minister to engage in a number of transactions for the purchase of carbon credits directly from the market in order to assist with compliance with Ireland's obligations under the first period. The table below details the level of expenditure on these funds and transactions in the period between 2006 and 2018. All amounts are in millions of euro.

Year	MCCF	CFE	BioCF	NTMA Market transactions	Total
2006	20				20
2007		2.2	1.5		3.7
2008				53	53
2009		1.9	0.4	33.8	36.1
2010			1.4	2.7	4.1
2011			1.9		1.9
2012			0.4		0.4
2013					
2014					
2015			0.4		0.4
2016					
2017			1.0		1.0
2018			0.6		0.6
	20	4.1	7.6	89.5	121.2

The Department is currently in discussions with the NTMA in relation to purchasing additional carbon credits from the market to make up this expected shortfall. In addition, the Department is exploring options to purchase credits directly from other EU Member States. The costs of any such transactions will arise when the transactions are entered into and credits may be held until required for compliance with each year's targets.

Climate Finance

A key element of the Paris Agreement as well as predecessor COP decisions is the provision of financial support by developed countries to developing countries. Developed country Parties to the UNFCCC committed in 2009 to a goal of mobilising jointly USD 100 billion a year by 2020, and a further commitment by 2025. Against this backdrop, the Government decided in January 2016 to scale up Ireland's climate finance support to €175 million from 2016 to 2020.

Ireland has already overachieved on this commitment, with financial support for international climate action totalling €197 million between 2016 to 2018. A new collective quantified goal is required for the next period, between 2020 to 2025, taking account of the needs and priorities of developing countries. This will be of further importance and scrutiny as we move to the implementation phase of the Paris Agreement against the backdrop of increasing public pressure to deliver on global climate objectives.

Effort Sharing Regulation

The ESD will finish in 2020, at which point it will be followed up by the Effort Sharing Regulation (ESR). This regulation sets out binding annual greenhouse gas emission targets in the non-ETS sector for Member States for the period 2021–2030. For the ESR, targets have been proposed for Member States based on GDP per capita and the cost-effectiveness of domestic emissions reductions within individual Member States. The final agreement sets Ireland a target of 30% reduction in greenhouse gas emissions by 2030 compared to 2005 levels.

Ireland's targets for this period will present an enormous challenge, particularly in light of the likely outcome in relation to Ireland's 2020 targets. It is important to note that unlike the ESD, international credits cannot be used for compliance under the ESR. In addition, while the flexibilities allowed under the current 2020 targets (borrowing and sale/ purchase of credits) are maintained for the 2020- 2030 period, allowances used for compliance for 2020 targets (ESD) will not be eligible for compliance with 2030 targets (ESR).

The Climate Action Plan provides a detailed framework identifying how Ireland will achieve its 2030 targets and puts Ireland on a trajectory which is consistent with achieving net zero emissions by 2050.

In addition to the emission reduction measures as set out in the Plan, Ireland may also need to avail of further mitigation options built into the ESR agreement. These will allow Ireland to transfer 4% of credits from the EU Emissions Trading System (ETS) to assist in the achievement of the ESR target,

plus an additional 26.8Mt CO_2eq attributable to sustainable land use, land-use change and forestry (LULUCF). This 26.8Mt can be achieved via offsetting emissions by sequestering CO_2 in trees and soils through land use management of forestry, grasslands, wetlands and croplands, and through land-use change (from cropland to forestry for instance).

The level of flexibilities are higher than those for other EU member states, as it was recognised that Ireland had two specific difficulties in reaching targets by emissions reduction alone:

- the ratio of Ireland's non-ETS:ETS emissions is higher than in most member states, and
- the unusually high proportion of agricultural emissions in total Irish GHG emissions.

Climate Action Plan Marginal Abatement Cost Curve

A Marginal Abatement Cost Curve (MACC) – a graph of the abatement potential of GHG mitigation measures, and the relative costs associated with each of these measures – provides a solid analytical foundation on the most cost-effective pathway to reduce GHG emissions. The Department of Communications, Climate Action and Environment commissioned McKinsey to prepare a MACC to 2030 as part of the 2019 Climate Action Plan and to prepare a MACC from 2030 to 2050 to inform Ireland's Long-term Climate Strategy. Both MACC's will be important in the context of Ireland's Climate Action Policy, with the 2050 MACC building on the measures identified in the 2030 MACC.

Ireland's MACC to 2030

Using Ireland's 2018 GHG Emission Projections 2017-2035,[1] associated projections of economic activity, and assessments of over 300 business cases for technology, the analysis identifies the technologies (including fuel switches), and associated levels of adoption, required to meet our 2030 target, of a 30% reduction in non-ETS GHG emissions by 2030 (relative to 2005 levels), in the most economical way.[2] Costs in the MACC focus on Total Cost of Ownership (TCO), which captures the merits of change over the lifetime of the technology.[3] It includes the cost of the initial investment and the costs of operation for the full lifetime of the technology.

[1] http://www.epa.ie/pubs/reports/air/airemissions/ghgprojections2017-2035/#d.en.64043

[2] The underpinning technology business cases are based on McKinsey's globally-sourced data on emissions mitigation technologies, which have been localised for Ireland based on extensive engagement with relevant Government departments, and agencies as part of the preparation of this Plan. Each case includes a perspective on technology evolution over the next 10 Years (e.g. on cost and efficiency improvements)

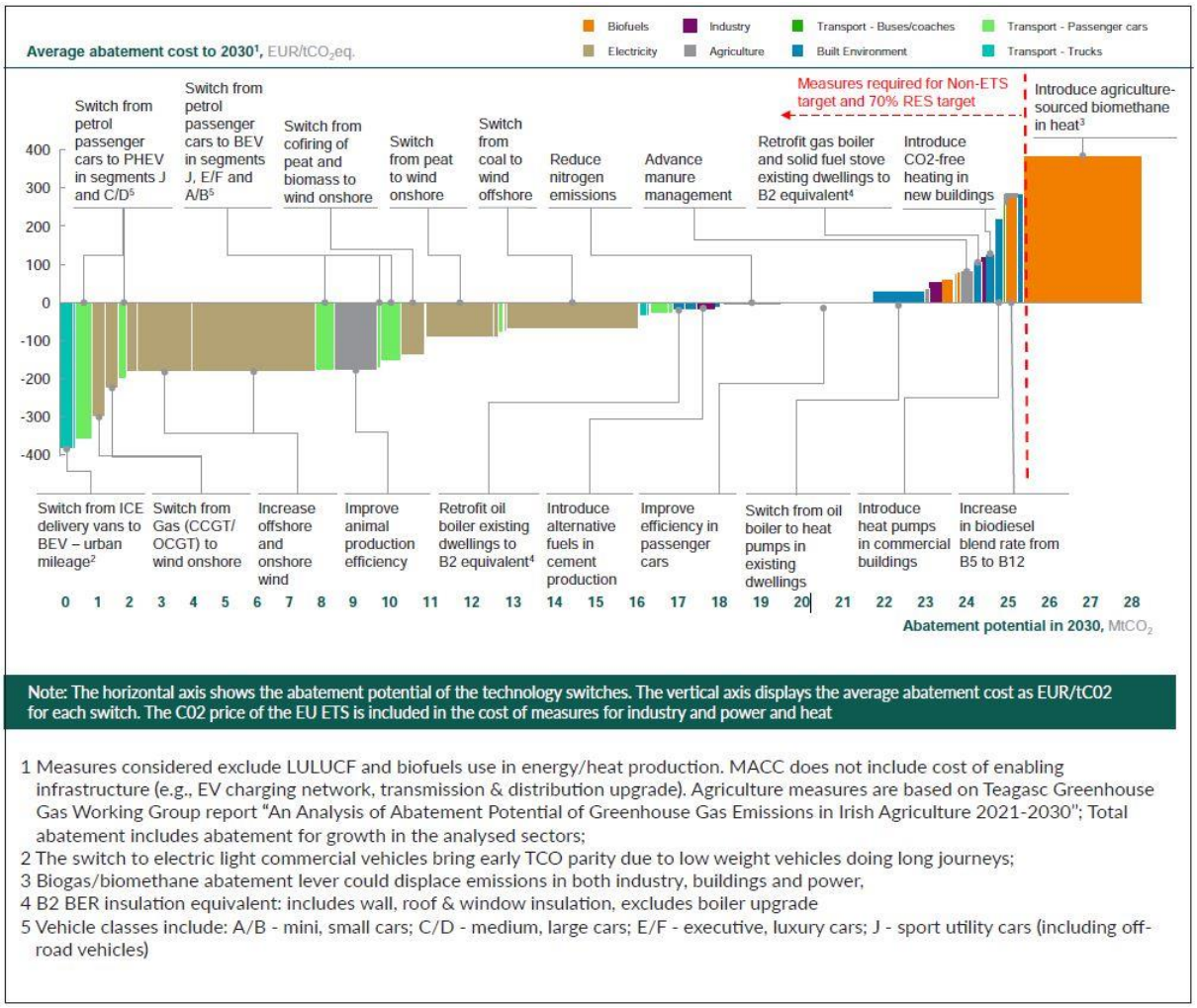
[3] The MACC excludes all taxes (including fuel taxes) and all subsidies, but takes account of commodity price changes. The weighted average cost of capital is set to 4% across all technologies as it takes a societal

The abatement technologies and fuels identified by the MACC are shown in the figure below. Each column represents a technology or fuel switch. The x-axis (i.e. the width of each column) shows the potential reduction of annual $MtCO_2eq.$ emissions in 2030 from the technology or fuel switch. The y-axis (i.e. the height of each column) shows the associated average cost of abating one tonne of $CO_2eq.$ over the 2021 to 2030 period. The columns are organised from the most economical (left side) to the most expensive technology (right side) in EUR/$tCO_2eq.$ The MACC includes measures across all sectors of the economy.[4]

Insights from the MACC are used to indicate the most cost-effective level of emissions reduction per sector to 2030. A decision to adopt a lower level of ambition in any one area of cost-effective abatement will require finding a more expensive alternative. By articulating an ambition range for each sector, the framework provided by the 2019 Climate Action Plan will enable each sector to gauge whether the most appropriate policy tools have been identified and are being correctly deployed, or whether there is a need to reconsider the policy and/or the ambition.

perspective. This means that individual sectors, consumers, businesses, etc. may face different cost levels in practice

[4] The agriculture measures are based on the Teagasc GHG Working Group report An Analysis of Abatement Potential of Greenhouse Gas Emissions in Irish Agriculture 2021–2030



Note: The horizontal axis shows the abatement potential of the technology switches. The vertical axis displays the average abatement cost as EUR/tC02 for each switch. The C02 price of the EU ETS is included in the cost of measures for industry and power and heat

1 Measures considered exclude LULUCF and biofuels use in energy/heat production. MACC does not include cost of enabling infrastructure (e.g., EV charging network, transmission & distribution upgrade). Agriculture measures are based on Teagasc Greenhouse Gas Working Group report "An Analysis of Abatement Potential of Greenhouse Gas Emissions in Irish Agriculture 2021-2030"; Total abatement includes abatement for growth in the analysed sectors;
2 The switch to electric light commercial vehicles bring early TCO parity due to low weight vehicles doing long journeys;
3 Biogas/biomethane abatement lever could displace emissions in both industry, buildings and power,
4 B2 BER insulation equivalent: includes wall, roof & window insulation, excludes boiler upgrade
5 Vehicle classes include: A/B - mini, small cars; C/D - medium, large cars; E/F - executive, luxury cars; J - sport utility cars (including off-road vehicles)

Key measures to achieve the required reduction in emissions in each sector as indicated by the MACC include, but are not limited to:

- Switching from Internal Combustion Engine (ICE) vehicles to Battery Electric Vehicles (BEVs)
- Replacing existing coal- and peat-fired plants
- Increasing onshore and offshore wind capacity
- Retrofitting homes with insulation to B2 equivalent Building Energy Rating (BER)
- Replacing oil/solid-fuel boilers with heat pumps
- Introducing zero carbon heating systems in new buildings
- Improving animal production efficiency
- Reducing nitrogen emissions through advanced manure management
- Introducing alternative fuels in key industry sectors

Although the majority of technologies and measures on the curve result in net lifetime cost savings to the economy as a whole, adopting these technologies and measures will still pose a considerable challenge for the whole of society. Even when the TCO becomes cheaper for a specific technology (e.g. when the lifetime cost of an EV becomes cheaper than that of an ICE vehicle), the upfront cost may still be higher for the Exchequer, for individuals or for companies. Furthermore, while the MACC clarifies the required level of technology adoption to deliver the decarbonisation target, it does not make any assumptions on the type and cost of policies to achieve this adoption. The initial policies and interventions, as well as the accompanying roadmap of actions, required to implement new policies and to accelerate the necessary technological and behavioural shifts are detailed within the 2019 Climate Action Plan.

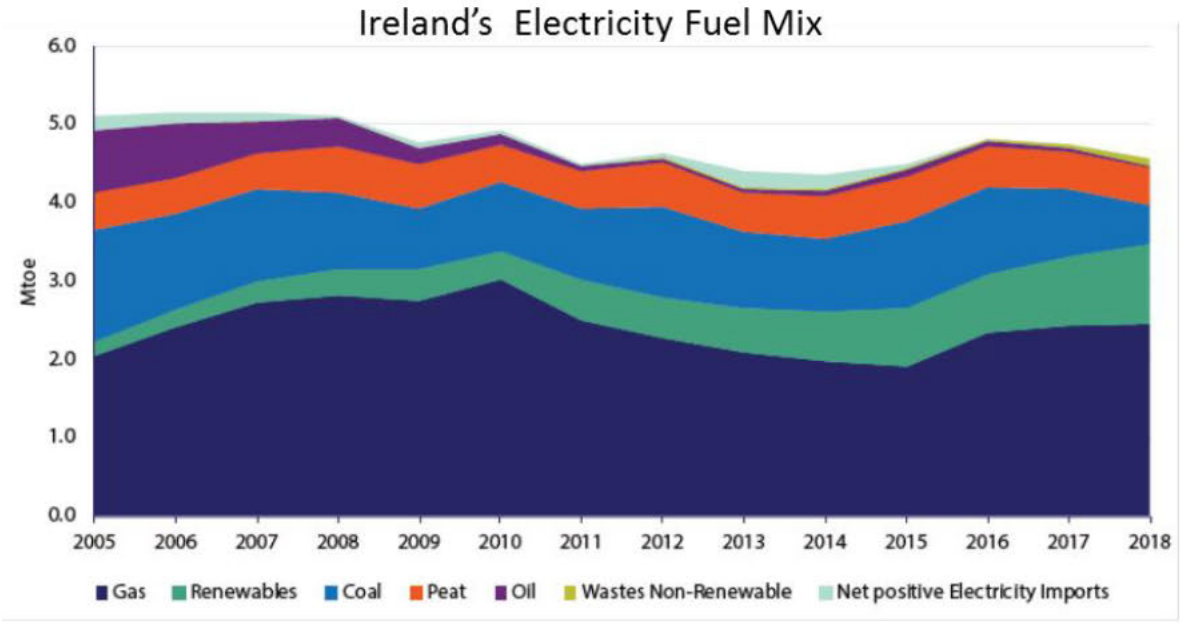
Climate Action Plan - Ireland's Climate Targets – 2020 and 2030

The Climate Action Plan 2019 To Tackle Climate Breakdown was published in June 2019. The Plan contains 183 actions, broken down into 619 individual measures, which Ireland needs to implement to meet our EU 2030 targets, and puts Ireland on a trajectory to achieve net zero emissions by 2050.

Electricity Generation

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	11.7	19.3%
2018	10.4	17.1%
2030 target	4-5	8-10%

The generation of electricity accounts for one third of Ireland's energy use and 17.1% of our greenhouse gas emissions (10.4 Mt CO_2eq). Approximately 66% of our electricity presently comes from fossil fuels (gas, peat and coal) which accounts for the greenhouse gas emissions of the sector. Electricity demand is expected to double by 2050 driven by electrification of heat and transport.



The carbon intensity of Ireland's electricity has reduced considerably in the last decades from 635 CO_2eq per kWh in 2005 to 375 CO_2eq per kWh in 2018, largely due to a shift away from oil and coal

generation and increased renewable energy. The renewable electricity sector has undergone a considerable transformation over the last 10 years, with the share of renewable electricity generation more than doubling to 30.1% in 2017

Climate Action Plan

The Climate Action Plan delivers a step-up in ambition to meet Ireland's 2030 targets and set us on course to decarbonise the electricity sector by 2050. Implementation of the Climate Action Plan will reduce annual emissions from 12 Mt CO_2eq in 2017 to 4-5 Mt CO_2eq in the year 2030. The plan commits to end the burning of coal in ESB's Moneypoint generation plant by 2025 and a transition away from peat generation by 2028. Since the plan was launched, ESB have announced that two of the countries three peat plants will cease production at the end of 2020.

The Plan sets a target of increasing the share of electricity generated from renewable sources to 70% by 2030, indicatively comprised as follows:

- at least 3.5 GW of offshore renewable energy
- up to 1.5 GW of grid-scale solar energy
- up to 8.2 GW total of increased onshore wind capacity (including 4GW already installed)

In order to meet the 70% RES-E target, major capital investment will be needed in new generation capacity, system service infrastructure and electricity transmission and distribution networks. A review will also be needed to the policy and regulatory framework to incentivise electricity storage infrastructure, which will be critical to absorbing higher levels of renewable generation on to the system. Progressing EirGrid's Delivering a Secure, Sustainable Electricity System (DS3) programme, as well efficient procurement of low carbon generation through the I-SEM capacity auctions, will be critical to delivering the system changes required to meet our 70% target.

In addition, increased interconnection (including to France and further interconnection to the UK) will be required to facilitate the large up-scaling in onshore and offshore wind required so that we can balance the grid and ensure supply security. In parallel, delivering an early and complete phase-out of coal- and peat-fired electricity generation will create space for the entry of new renewable energy assets into the market.

The new Renewable Electricity Support Scheme (RESS) is critical to meeting Ireland's contribution to the EU's 2030 renewable energy targets and is being designed to achieve its targets in a cost competitive way. Private sector funding through corporate contracting will also be essential for meeting higher levels of ambition to increase renewable energy supply and deliver on long term

decarbonisation of the electricity sector. This will also reduce consumer costs through a reduction in the Public Service Obligation levy.

Built Environment Sector

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	7.7	12.7%
2018	8.3	13.7%
2030 target	5-6	11-13%

The built environment (encompassing direct energy consumption in residential, commercial and public sector buildings) accounted for 13.7% of Ireland's greenhouse gas emissions in 2018. Ireland faces a number of challenges in reducing emissions from our buildings. Our homes use 7% more energy than the EU average and emit 58% more CO_2eq. Our buildings are 70% reliant on fossil fuels, including oil fired boilers; over 80% of our homes and other buildings assessed for their Building Energy Rating (BER) have a rating of C or worse; and the current annual retrofit activity for existing stock is far too limited (approximately 23,000, mainly shallow, retrofits).

Below: Typical shallow and deep retrofit interventions

Typical Measures	
Shallow (generally single discrete upgrades carried out in isolation)	One of: • attic insulation and ventilation • cavity wall insulation and ventilation • ventilation • heating controls • oil or gas boiler replacement • draught proofing • lagging jacket • energy efficient lighting
Deep (multiple upgrades in a whole house package approach)	Generally a package including two or more of: • attic insulation and ventilation • external or internal wall insulation and ventilation • window replacement • floor insulation • heat pump installation and associate pipework plumbing and electrical works) • oil or gas boiler installation with associated pipework and radiators (where no heating system or only solid fuel heating exists) • solar PV or solar thermal installation

The Climate Action Plan has committed to a set of output targets for the sector which, if delivered will, lead to a reduction of emissions from the sector by 40–45% in 2030 relative to pre-Climate Action Plan projections. These include:

- Sharply reduce fossil fuel use, given the current heavy reliance on gas, oil, coal and peat in the sector
- Complete 500,000 building retrofits to achieve a B2 BER /cost optimal equivalent or carbon equivalent
- Install 600,000 heat pumps (400,000 to be in existing buildings)
- Increase the number of Sustainable Energy Communities to 1,500
- Complete the rollout of the Support Scheme for Renewable Heat (SSRH), including support for biomass and anaerobic digestion heating systems
- Deliver two initiatives of municipal scale which have the potential to provide heat equivalent to the needs of about 50,000 homes

Policy responsibility for various elements of these commitments is shared between a number of Government Departments and responsibility for meeting these targets and associated actions is assigned, under the Climate Action Plan, primarily to DCCAE, DHPLG, DES, DCHG and their respective agencies.

Transport Sector

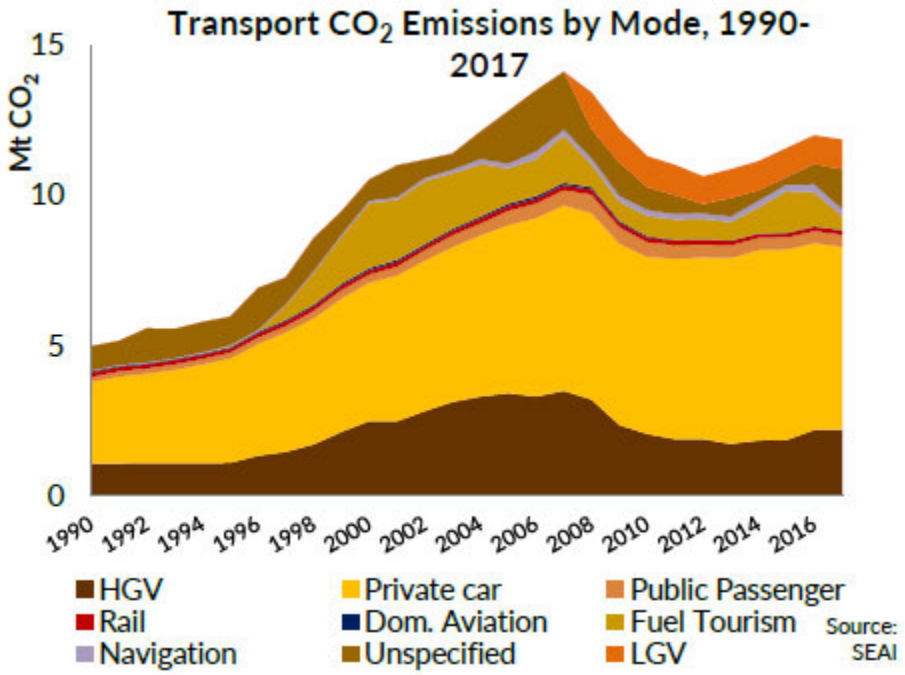
Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	11.7	19.3%
2018	10.4	20.2%
2030 target	7-8	16-17%

Transport accounted for 20.2% of Ireland's total greenhouse gas emissions in 2018. The sector includes emissions associated with road transport (private, commercial and public transport vehicles), rail, domestic aviation, and domestic navigation (inland waterways).

Private cars remain the largest source of GHG emissions in the transport sector accounting for 51.5% of total transport emissions. Heavy goods vehicles were responsible for a further 18.5% of emissions while light goods vehicles share of emissions was 8.4%

There was an obvious contraction in emissions following the economic downturn of 2008. However total emissions began to increase again from 2012 onwards reaching 12.3 megatons CO_2 equivalent

in 2016. This decreased slightly by 2.4% in 2017 to 12 megatons CO_2 equivalent. These decreases were mainly as a result of lower emissions from fuel tourism and private cars.



While emissions from international aviation and from shipping remain outside national emissions targets for EU Member States and are not covered by the Paris Agreement, Ireland is committed, by agreements under the International Civil Aviation Organisation and International Maritime Organisation respectively, to coordinated international action to reduce emissions from those sectors.

Historical trends in domestic transport emissions have been closely correlated with trends in overall activity within the economy, linked to population levels, as well as employment and associated commuting patterns, and to construction activity within the economy. Forecasted population growth of 1 million people by 2040, in line with National Planning Framework growth projections is expected to put further pressure on transport emissions, without significant policy intervention in the years ahead.

The Climate Action Plan commits to reducing transport emissions by 45–50% in 2030 relative to pre-Climate Action Plan projections. The key output targets to deliver this reduction are:

- Increase the number of EVs to 936,000, comprised of:

    - 840,000 passenger EVs
    - 95,000 electric vans and trucks
    - 1,200 electric buses
- Build the EV charging network to support the growth of EVs at the rate required, and develop our fast-charging infrastructure to stay ahead of demand
- Require at least one recharging point in new non-residential buildings with more than 10 parking spaces
- Raise the blend proportion of biofuels in road transport to 10% in petrol and 12% in diesel

In addition, the Climate Action Plan prioritises the role of modal shift in reducing transport emissions and the provision of good quality public transport, cycling and walking infrastructure is essential to reduce reliance on private car journeys. Investment in these modes already foreseen under the NDP is forecast to deliver an additional 500,000 public transport and active travel journeys daily by 2035.

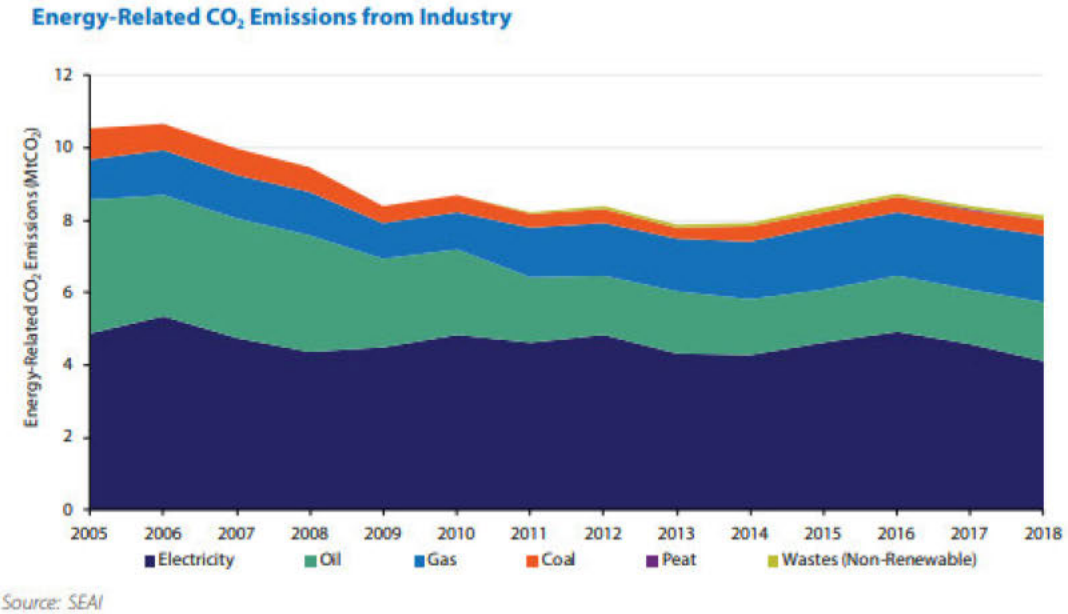
While primary policy responsibility for the above objective rests with the Department of Transport, Tourism and Sport, this Department has a key role in the provision of grant support, to subsidise the deployment of electric vehicle charging infrastructure and, through SEAI, to subsidise the purchase of electric vehicles. This Department also has responsibility on the use of biofuels with respect to increasing the amount of renewable energy in support of decarbonising the transport sector. The Climate Action Plan also recognises the role of incentives and regulation as key influencers of vehicle purchase and usage behaviour and the taxation system is therefore a key lever in delivering the objectives set out above. The implementation of the National Planning Framework will also impact on Ireland's transport emissions by driving changes in future settlement, employment and commuting patterns.

Industry

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	8.0	13.4%
2018	8.1	13.4%
2030 target	7.5-8	18-20%

Industry is responsible for 13% of Irelands' greenhouse gas emissions, emitting ~8 Mt CO_2eq per annum. The majority share of emissions comes from the manufacturing sector, mostly chemicals, food processing, beverages and cement. Industry emissions are highly correlated with economic activity and have been rising in recent years, following a fall in the years beforehand, as a result of the economic downturn.

Over 5.5 Mt CO_2eq of the emissions in the industrial sector fall under the ETS. Industrial emissions in Ireland outside of the ETS are highly diverse, with a large proportion arising from Small Medium Enterprises (SMEs), especially those working with industrial gases (also known as fluorinated gases or F-gases). These are gases with high global warming potential used in refrigeration, air conditioning and semiconductor manufacturing. According to the CSO, the total population of enterprises in Ireland was approximately 250,000 in 2016, with SMEs accounting for 99.8% of the total.



Source: SEAI

Fossil fuels account for approximately 50% of energy-Related CO2 Emissions from Industry. The need in some cases for high temperature heat can make this area challenging to decarbonise, through switching to electricity.

The sustainability of operations in this sector is likely to become an increasingly important source of comparative advantage in the future due to stronger environmental consumer awareness. There is a growing number of companies declaring emissions reduction targets.

The Climate Action Plan sets out a list of measures to reduce emissions in the Industry sector in order to meet Ireland's 2030 emissions reduction target. Implementation of the measures in the Climate Action Plan will reduce Ireland's emissions by 5-10% by 2030 despite increasing production. The main measures in the plan include the use of alternative fuels, the wide-scale application of heat pumps for low-temperatures uses (<100°C) and the increased use of solid biomass. The Climate Action plan sets out specific targets for the sector:

- Reduce Ireland's ETS industry emissions by 10-15% by 2030, relative to 2030 projections
- Enterprise must contribute to the more ambitious targets for buildings (20-25%) and transport (45-50%)
- Expand the EXEED programme to influence and deliver new best practices in energy efficient design management in at least 80 companies in 2019

The plan notes that Ireland will continue to work proactively with Ireland's EU partners, including considering the need for further reforms to the ETS to ensure it can effectively deliver reductions in greenhouse gas emissions, while addressing the challenges faced by sectors most exposed to international competition. The Climate Action plan identifies potential for significant cost-effective abatement in the cement sector in particular from substituting fossil fuels in combustion for non-fossil fuel alternatives and commits that Government will work with the relevant sectors to identify any measures in addition to the ETS that could help achieve this abatement.

Carbon pricing for those sectors outside the ETS will also provide an incentive to decarbonise operations and this tax was increased in Budget 2020 announced in October 2019.

Actions and measures in the Climate Action Plan which develop our energy system will directly impact the decarbonisation of our enterprise sector, including the target for 70% renewable electricity by 2030. These actions will also present new areas of opportunity for industry, such as the development of offshore renewables and introduction of new technologies.

The plan includes a set of actions to ensure our enterprise agencies prioritise decarbonisation as part of their strategies. It also includes actions to ensure the agencies play a key role in the development of sectoral networks in key industry sectors needed to drive the decarbonisation of our society and economy.

The Climate Action Fund will support initiatives that contribute to the achievement of Ireland's climate and energy targets and a call for expressions of interest from the fund closed on 6 March 2020.

The Sustainable Authority of Ireland (SEAI) also provides a range of measures, supported by Government to encourage, facilitate and enable businesses to make savings and reduce their energy use and emissions:

- The Excellence in Energy Efficient Design programme is an asset certification scheme addressing lifecycle energy and carbon performance.
- The SME Programme provides a variety of training offerings, supported by mentoring as well as a wider range of supporting tools and case studies.
- The Support Scheme for Renewable Heat (SSRH) provides an incentive to increase the level of renewable energy in the heat sector.
- SEAI provide a range of supports to companies in the Large Industry Energy Network (LIEN) to achieve energy savings and associated reduction in CO_2 emissions.
- The Community Grant Scheme funds community-based partnerships to improve the energy efficiency of the building stock in their area. Upgrades can take place across all building types – homes, community facilities and businesses.

The Accelerated Capital Allowance Scheme – operated by the Revenue Commissioners enables companies to write down the capital cost of certain energy efficient plant and machinery in the year of purchase.

Agriculture, Forestry and Land Use

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	20.2	33.3%
2018	20.6	34.0%
2030 target	17.5-19	41-43%

In 2018 agriculture emissions were 20.6 Mt CO_2eq, with over 65% of this associated with livestock production, driven by enteric fermentation and manure management in the beef and dairy sectors.

Full implementation of the Climate Action Plan will deliver an emissions reduction from 20.6 Mt CO_2eq in 2018 to 17.5-19.0 Mt CO_2eq in 2030. Key measures included in the Climate Action Plan to reduce on-farm emissions include increased efficiency of fertiliser application; improving slurry management; and establishment of feed modification programmes.

A key element of the policy framework and much of the resources that will enable abatement measures will flow from the successful design and implementation of the next CAP at EU level, which will operate in the period post 2020. Forty percent of the overall budget of the new CAP at EU level will contribute to environmental or climate action. In addition, the Department of Agriculture has issued an 'Ag Climatise' policy to enable its delivery of the 2030 targets in the Climate Action Plan.

Under the EU Effort Sharing Regulation, Ireland can account for 2.68 Mt CO2 of carbon sink credits per annum during 2021-2030 from forestry already planted.

Waste and Circular Economy

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	0.916	1.5%
2018	0.891	1.5%
2030 target	0.45	<1%

Emissions from the Waste sector decreased by 2.8% or 0.03 Mt CO_2eq in 2018. While the emissions from the waste sector reported appear relatively low compared to other sectors, this is because these figures only include the direct emissions from enterprises handling waste. However, an OECD study has indicated that greenhouse gas emissions arising from material management account for between 55% and 65% of national emissions. Therefore, maximising the efficiency of our material usage could deliver significant savings in greenhouse gas emissions throughout the supply chain. Irish and regional waste policy is based on a waste hierarchy: waste prevention; preparing for reuse; recycling; and energy recovery; with disposal, namely landfill, being the least desirable option. Ireland has scope for major progress in all of the key areas of the waste hierarchy.

The Climate Action Plan sets out a range of targets for the sector on landfill reliance, recycling rates, food waste levels and in respect of the use if single use plastics.

Landfill Reliance Target

- Limit diversion of biodegradable municipal waste to landfill to maximum limit of 427k tonnes by 2020 and for every year after
- 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
- 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

- Ensure all plastic packaging is reusable or recyclable by 2030

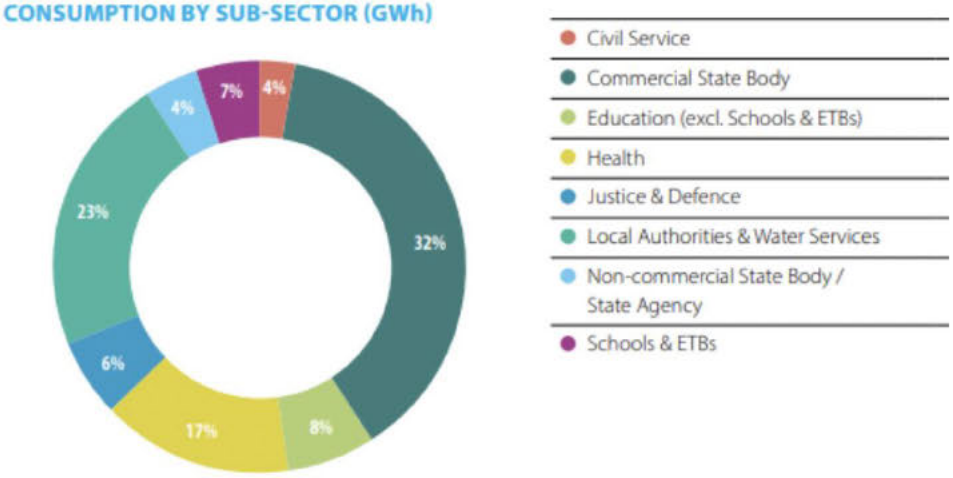
Public Sector Leading by Example

Year	Emission, Mt CO_2eq	Share of Total Emissions
2017	0.906	1.5%
2018	0.980	1.6%
2030 target	0.6	~1%

The public sector achieved 27% of its 33% energy efficiency target by the end of 2018 – with 2 consecutive years of sustained progress since the Public Sector Energy Efficiency Strategy was introduced in 2017 – as a result the public sector overall is again on the trajectory to achieve its 33% target.

The Climate Action Plan states the leadership role public bodies can play in taking early action on climate is fundamental to achieving our decarbonisation goals – public bodies must act as exemplars of best practice in taking climate action across all sectors and use their capacities to lead a wider transition. Emissions from the Public Sector are spread across a variety of departments, agencies, semi-state bodies and schools. Energy use is the primary source of emissions and this is currently subject to an energy efficiency target.

FIG. 4: BREAKDOWN OF TOTAL ENERGY CONSUMPTION BY SUB-SECTOR (GWh)



The Climate Action Plan sets more ambitious targets for energy efficiency and emissions reduction, mandating climate action in all public bodies, committing to greater transparency on our emissions

and to more comprehensive sustainability reporting, catalysing markets through green public procurement, working with the financial sector to drive investment and innovation towards low-carbon practices and services, and supporting Local Authority leadership. For 2030 the plan establishes specific targets:

- Reduce CO2 eq. from the sector by 30%
- Improve the energy efficiency of public sector buildings by 50%
- Set a target to demonstrate leadership in the adoption of low emission transport options
- Have a Climate Mandate adopted by every Public Body, making the sector a catalyst for climate action
- Agree a Climate Action Charter with Local Authorities
- All Public Buildings to reach BER 'B' Rating

A Climate Action Charter has been put in place with the Local Authorities, which will lead to several actions that will ensure that they play a key leadership role locally and nationally in delivering effective climate action. Among other commitments, all local authorities will:

- Put in place a process for carbon proofing major decisions, programmes and projects on a systematic basis, including investments in transport and energy infrastructure
- Deliver a 50% improvement in energy efficiency by 2030
- Ensure all suppliers provide information on their carbon footprint and steps they plan to reduce its impact
- Build local citizen engagement, particularly with young people
- Partner & collaborate on climate action initiatives with local community groups, local enterprise and local schools and higher level institutions
- Monitor, evaluate and report annually on the implementation of activities under the Charter.

The Department is currently finalising a Public Sector Mandate with the assistance of the SEAI and EPA which will establish a new greenhouse gas reduction target across the public sector and put in place a list of requirements for each public body to carry out in order to show leadership in climate action. The architecture that is established will allow further developments and enhancement be made over time across the public sector.

Governance of the Climate Challenge

One of the key governance measures established under the Climate Action Plan to drive delivery of the actions include the establishment of a Climate Action Delivery Board within the Department of An Taoiseach (DoT) co-chaired by the Secretary General to the Government and the Secretary General of the Department of Communications, Climate Action and Environment. The Board will hold designated bodies to account. In support of the Delivery Board, a new Climate Action Unit has also been established in DoT to monitor and drive implementation and assist with the preparation of the quarterly progress report.

Each Department is required to report regularly on the status of its actions to the DoT to service ongoing Senior Officials Group meetings, the Climate Action Delivery Board and the Environment Cabinet Committee in advance of the publication of quarterly progress reports.

As DCCAE and its agencies are responsible for over 50% of all actions and measures for delivery, the overall progress of each quarterly report is principally determined by the DCCAE delivery rate. As a consequence, maintaining focused and continual delivery of the Department's actions will be critical for the overall delivery of the Plan objectives and requires considerable tracking and engagement across the Department through its own internal governance arrangements.

Carbon Pricing

The Climate Action Plan commits to progressively increasing the rate of carbon tax to €80 per tonne by 2030. Budget 2020 increased the rate from €20/tonne to €26/tonne. By agreeing to ring-fencing the additional revenues raised for expenditure on a range of climate action-related programmes, Budget 2020 sought to explicitly link the related objectives of appropriately pricing greenhouse gas emissions and the need to fund the decarbonisation required under the Climate Acton Plan, to protect those vulnerable to fuel poverty, and to support communities directly affected by the cessation of peat extraction and power generation in the Midlands (see also Just Transition section below).

Climate Action (Amendment) Bill 2019

The objective of the Climate Action (Amendment) Bill is to build on the existing 2015 Act and provide for a significantly strengthened statutory framework for governance of the climate challenge and to ensure continual long-term planning for the realisation of Ireland's 2050 vision, enforcing climate targets and reporting progress on the way.

The General Scheme of the Climate Action (Amendment) Bill 2019 was approved by Government on 17 December 2019 and submitted to the Office of the Parliamentary Counsel for priority drafting.

Some of the key changes provided in the Bill include:

- Establishing a 2050 emissions reduction target in law;
- Establishing the Climate Action Council as a successor organisation to the Climate Change Advisory Council with implications for revised governance and remit, including advising on carbon budgets;
- Making the adoption of carbon budgets a legal requirement;
- Requiring the Government to set a decarbonisation target range for each sector. The Minister with primary responsibility for each sector will be accountable for delivering the relevant actions to meet the sectoral target and for reporting annually on the delivery of their actions and the achievement of sectoral emission targets;
- Giving the Oireachtas a central role in the setting of the carbon budget and overseeing progress to delivery;
- Establishing that the Climate Action Plan shall be updated annually, with actions in every sector;
- Establishing that a Long-Term Climate Strategy, to match the period covered by three five year carbon budgets, shall be published;
- Ensuring that the proposed governance arrangements retain sufficient flexibility to allow necessary reorientation of policy in the light of changing technologies, circumstances, challenges and opportunities over the period to 2030 and beyond; and
- Banning the sale of fossil fuel cars by 2030 and to stop the granting of NCTs from 2045.

As provided in the General Scheme, some provisions are still being refined in terms of ensuring clear drafting instructions. These include the inclusion of a net zero target for 2050, flexibility between

each carbon budget and the sale of Internal Combustion Engine (ICE) Vehicles. There is concerted effort to return to Government as soon as possible with revised Heads on these outstanding policy matters for inclusion in the final text of the Bill. In parallel to this work, the Department continues to engage with the Office of the Parliamentary Counsel on the drafting of the Bill.

European Green Deal

In December 2019 the European Commission published a communication on a new European Green Deal, the centre-piece of the new Commission's increased ambition on climate action.

Underpinned by the objective of the EU becoming the world's first climate neutral continent by 2050, the Communication sets out the policy and legislative agenda for climate and environment in the new Commission's term and is framed as a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050, and where economic growth is decoupled from resource use.

The Communication presents a roadmap and overall policy agenda, setting out a schedule for delivery of key commitments over the course of 2020–2021. Recognising the cross-cutting nature of the climate change challenge, the Communication emphasises that the delivery of the Green Deal requires the EU to rethink policies for clean energy supply across the economy, industry, production and consumption, large-scale infrastructure, transport, food and agriculture, construction, taxation and social benefits.

As well as setting out policy and legislative programme for all key economic sectors in order to deliver on the EU's climate ambition, the Communication also addresses the EU's overall ambition on climate targets, including increasing the EU's emissions reduction targets for 2030 to at least 50% and towards 55% compared with 1990 levels.

The Communication also addresses environmental challenges beyond climate, including in relation to protection of biodiversity, strategy on chemicals and policies addressing pollution to air, water and soils.

The mainstreaming of sustainability will be pursued through measures to support just transition, action on sustainable finance, strengthening non-financial reporting for companies, integration of the Sustainable Development Goals into the European Semester process, and review of relevant state aid guidelines. Proposals for a Just Transition Fund and a Sustainable Europe Investment Plan were published by the Commission in January 2020.

Finally, the Green Deal Communication reaffirms EU commitment to a leadership role in international climate diplomacy, to use of instruments such as trade policy to promote adherence to Paris Agreement, and to integration of climate agenda into EU Neighbourhood Policy.

Effectively inputting into the policy and legislative programme presented as part of the Communication will require a whole-of-Government engagement to ensure Ireland's specific national circumstances are sufficiently considered, while ensuring our strong support for EU climate ambition remains undisputed. This will be of critical importance in the preparatory phases at official level and through the political negotiations at Council. Key proposals for consideration include:

A: Increasing the EU's Climate Ambition for 2030

The proposal to increase the EU's emissions reduction target for 2030 to at least 50% and towards 55% compared with 1990 levels, an increase from the current binding target to cut emissions by at least 40% below 1990 levels, will also require revisions to the ETS and non-ETS targets and the respective legislation underpinning these targets.

The Commission have committed to presenting a comprehensive impact assessment by H2 2020 on plans to increase emissions targets for 2030.

By June 2021 the Commission is also to publish revisions to relevant legislative measures (including the Emissions Trading System Directive, the Effort Sharing Regulation, and the LULUCF Regulation) to deliver the increased climate ambition. On the former, it is proposed that the ETS could be extended to new sectors, whereas revision to the ESR could see an increase in individual MS targets.

B: Proposal on a European Climate Law Enshrining the 2050 Climate Neutrality Objective

To ensure delivery of the climate neutrality objective agreed at December's European Council, the Commission published, in March 2020, a proposed the first European 'Climate Law' . The key objective of the Climate Law proposal will be to ensure that all EU policies contribute to the climate neutrality objective and that all sectors play their part.

The proposal seeks to write into law the goal set out in the European Green Deal by cutting emissions and increasing the removals of greenhouse gases from the atmosphere to reach net-zero emissions. It also sets out the framework to achieve EU climate neutrality and aims to enhance efforts on adaptation to climate change.

Key elements in the proposal include:

- Setting a pathway to the climate neutrality for the Union and providing certainty and confidence for businesses, workers, investors, and consumers about the EU's commitment;
- Setting out conditions for a trajectory for the EU to achieve climate neutrality by 2050;
- Providing for regular assessment of progress towards the climate neutrality objective and the level of ambition in the trajectory identified;

- Providing for mechanisms in case of insufficient progress or inconsistencies with the climate neutrality objective – the European Commission may make recommendations to Member States;
- Providing for more ambitious action on climate adaptation including by strengthening efforts in relation to climate proofing, resilience building, and prevention and preparedness;
- Providing that the European Commission should review existing Union policies and legislation in view of their consistency with the climate neutrality objective as well as the trajectory identified to achieve that objective;
- Providing that the European Commission should assess and make proposals to increase the EU's greenhouse gas emissions reduction target under any existing policy instruments which have a 2030 perspective so that the reduction target is consistent with the 2050 climate neutrality objective; and
- Also providing that, following presentation (by September 2020) of an impact assessed plan to increase the EU's GHG emission reduction target for 2030 to at least 50% and towards 55%, the European Commission will amend this Regulation accordingly and by June 2021, will review and propose where to revise where necessary, all relevant related policy instruments. The European Parliament may push for an even more ambitious target of 65% emissions reduction.

In its 2018 Communication, 'A Clean Planet for all: A European Strategic long-term vision for a prosperous modern, competitive and climate-neutral economy,' the Commission has already set out its vision of how the EU could achieve climate neutrality by 2050. This, together with the guidelines agreed by the December European Council, will now inform the preparation EU Long Term Strategy which the EU will submit to the UNFCCC during 2020.

Ireland welcomes the publication of the European Climate Law proposal and is, in principle, supportive of the development of a European Climate Law. It is consistent with the national approach as Ireland is currently preparing a Climate Action Bill which will enshrine a national 2050 emissions reduction target into law. Regarding 2030 targets, it is important that any increase in EU ambition is achieved in the most cost-effective manner possible balancing considerations of fairness, cost effectiveness and solidarity.

Climate Adaptation

The 2018 IPCC Special Report on Global Warming of 1.5°C states that the impacts of human-induced global warming of 1°C are already being felt in the intensity and frequency of some climate and weather extremes. Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C, and will increase further if warming reaches 2°C. The high-level synthesis report prepared for the UN Climate Summit in New York in September 2019 highlighted that the rate of climate change is increasing. The most immediate risks to Ireland are predominantly those associated with changes in extremes, such as floods, precipitation and storms.

Ireland's first statutory National Adaptation Framework (NAF) was prepared under the 2015 Climate Act and published in January 2018. It provides a framework to ensure local authorities, regions, and key sectors can assess the key risks and vulnerabilities of climate change, implement climate resilience actions, and ensure climate adaptation considerations are mainstreamed into all local, regional, and national policy.

Under the NAF, seven Government Departments with responsibility for priority sectors were required to prepare sectoral adaptation plans in line with the requirements of the Climate Act. These plans were approved by Government in October 2019:

- Seafood, Agriculture, and Forestry – Department of Agriculture, Food and the Marine
- Biodiversity – Department of Culture, Heritage and the Gaeltacht
- Built and Archaeological Heritage – Department of Culture, Heritage and the Gaeltacht
- Transport Infrastructure – Department of Transport, Tourism and Sport
- Electricity and Gas Networks – DCCAE
- Communications Networks – DCCAE
- Flood Risk Management – Office of Public Works
- Water Quality and Water Services Infrastructure – Department of Housing, Planning and Local Government
- Health – Department of Health

The National Adaptation Steering Committee, chaired by DCCAE, monitors implementation of these plans.

In recognition of the obligation placed on local government to develop and implement climate action, in 2018 DCCAE entered into a five year financial commitment of €10 million to establish four Climate Action Regional Offices (CAROs): Atlantic Seaboard North, Atlantic Seaboard South, Dublin Metropolitan Region, and Eastern and Midlands. These are operated by a lead local authority in each region (Mayo County Council, Cork County Council, Dublin City Council, and Kildare County Council, respectively), and focus on the predominant risks in each geographical area. The CAROs play an important role in ensuring that cross-sectoral issues are identified and addressed, and in community engagement. Their role has expanded to include facilitating local authorities in meeting both mitigation and adaptation commitments under the Climate Action Plan 2019. DCCAE maintains oversight of the CARO work programme, and is represented on the County and City Management Association climate action steering group.

Under the NAF, each local authority developed its own adaptation strategy**.** These local authority adaptation strategies were approved by their Councils in 2019.

To further enhance local authority response to climate change and facilitate the local authorities in fulfilling their commitments under the Climate Action Plan, DCCAE has allocated €600,000 to local authority climate change training during 2020.

The provision of accurate and authoritative information and expertise is a crucial element in ensuring that Government, local authorities, communities and the private sector can plan ahead and respond effectively to the challenges of climate change. Ireland's Climate Information Platform, 'Climate Ireland', was developed by the MaREI (marine and renewable energy) Centre, University College Cork, under the EPA Research Programme, to provide a central source of climate data for Ireland, combining authoritative information from a variety of sources such as Met Éireann, OPW, EPA, the European Environmental Agency and the Intergovernmental Panel on Climate Change, to assist stakeholders in planning ahead for the likely impacts of climate change. Currently in receipt of interim funding from the EPA, both the NAF and Climate Action Plan include actions to put in place arrangements to ensure that Climate Ireland is developed to its full potential as a permanent platform. To this end, a business case recommending transition of Climate Ireland into the EPA was developed.

DCCAE currently chairs the climate adaptation sub-group of the Environment working group of the British Irish Council (BIC), and in this capacity planned to host a symposium on climate resilient infrastructure on 22nd April 2020. This was postponed due to COVID-19 to 20th October 2020. An introduction by the Minister is highly recommended.

In addition to involvement in the BIC, the Department contributes to international cooperation on climate adaptation through the EU's Working Group on Adaptation, the European Environment Agency's Climate Change Impacts, Vulnerability and Adaptation group, and the OECD's Task Force on Climate Change Adaptation. The Department is closely following, and contributing to, the development of the new EU Adaptation Strategy, which will be launched in Q1 2021. This new Strategy will impact on reporting, the use of indicators, and the provision of information across Member States, and the next iteration of the National Adaptation Framework will be heavily influenced by the Strategy.

Integrating climate adaptation into key national plans and policies is a priority under the NAF. An Inter Department Group on Coastal Change, chaired by DHPLG and the OPW, will require input from DCCAE during 2020. DCCAE is also required in 2020 to develop guidelines on climate adaptation for Strategic Emergency Management.

National Dialogue on Climate Action

The National Dialogue on Climate Action (NDCA) was established in 2017.

The EPA has been working closely with the Department in delivery of the NDCA Work Programme, including delivery of regional gatherings and local events, as well as further rollout of existing EPA initiatives included under the umbrella of the NDCA. Regional and local gatherings with participants from the general public, civil society organisations, schools and local government have taken place in Athlone, Kildare, Tralee and Dublin.

A 15-member Advisory Group to the NDCA was established by the Minister for Communications, Climate Action and Environment in July 2017 with a two-year mandate. Representatives from local government, IBEC, ICTU, IFA and civil society were included on the Advisory Group, which was chaired by Elaine Nevin of Eco-UNESCO. In addition to these Regional and Local gatherings, the NDCA has also delivered a number of outcomes:

National Climate Change Action and Awareness Programme (NCCAAP): is being delivered, under a grant agreement with the Department, by the An Taisce Environmental Education Unit as part of its Green Schools programme. A proposal for enhanced revised (in the context of COVID-19) 2020 NCCAAP is currently being considered by the Department. To date, the overall programme has included:

- The **Climate Ambassador Programme**, which has selected and trained participants each year in 2018 and 2019 (over 100 per year) nationwide in schools, campuses and the community to work as ambassadors for climate change, to increase awareness of the causes and outcomes of climate change, and undertake actions in their schools, campus or community. Ambassadors have also assisted in the pilot Regional Gathering.
- **Climate Change Expo** 'Green Schools Climate Action Expo' RDS 22nd February 2018 with over 5,000, mainly students, in attendance
- **Green schools Climate Action Week**, which took place in October 2017, 2018 and 2019
- Teacher training and secondary and primary **schools resources packs**
- **Tidy Towns special awards:** DCCAE sponsors three **Tidy Towns** special awards, 'Our Community Climate Action award', 'Air Quality award' and a 'Sustainable Development Award', with a total of €13,000 prize fund. The 2020 awards have been cancelled due to COVID-19

- **EPA climate lecture series:** The EPA's Climate Change lecture series has been running since late 2007, bringing a range of Irish and international speakers to update Irish audiences on the science of climate change, and possible responses to it. Lectures are free to attend, are streamed live online, and recordings are subsequently made available through the EPA and DCCAE websites. The most recent lecture *The European Green Deal – Towards a climate neutral EU by 2050* took place on 6 February 2020. EPA is planning the next lecture in Autumn 2020.
- **Support for independently-produced media content:** The EPA also supports independent media content and most recently (21 Jan 2020) an Eco-eye programme focused on the generation of renewable energy in Ireland. EPA will continue in 2020 to provide support for the development of relevant content, including in the independent production sector, to be delivered through established programmes such as EcoEye, Ten Things to Know About, Ear to the Ground and Nationwide, but also through other new and innovative independent productions that link to the work of the NDCA. Consideration will be given to providing further support for media content development in line with the above, through NDCA resources, including where appropriate on a possible competitive basis.

NDCA Report

The work of the NDCA in its initial 2 years, and the work of the Advisory Group, is captured in a draft Report entitled *NDCA Review of Activities March 2017 - July 2019*, which is pending approval for publication. The report sets out the activities of the NDCA over the first two years of activities and sets out a number of recommendations for further development of the Dialogue into the future. The Department is currently preparing, in collaboration with the EPA, a strategy for a new localised citizen engagement model drawing inspiration from the Citizens Assembly model and the report of the Joint Oireachtas Committee.

National Dialogue on Climate Action in 2020

Drafting of a new localised citizen engagement model through the NDCA is at an advanced stage and the Department will work with the EPA to finalise this model. Linkages between DCCAE and DCRD in relation to the Tidy Towns Climate Action and Air Quality special awards have been postponed to 2021.

An important element of this community engagement will be through the Youth sector and the Department is working with *An Taisce* to deliver a virtual (in the context of COVID-19) schools' National Climate Change Action and Awareness Programme. In addition, to further engage the youth

sector, the Department will work closely with DYCA on developing the proposed Youth Climate Council, which has been delayed due to COVID-19. DCCAE will also work with DCHG on engaging the creative sector in Climate Action. A workshop is planned for September 2020.

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Carbon Tax

What Changes Does Budget 2020 Make to Carbon Tax?

The Carbon Tax will be increased from €20 per tonne of CO_2 to €26 per tonne of CO_2. This change will apply to petrol and diesel with effect from midnight on Budget night and to all other fuels from 1st May 2020.

The 2018 Citizen's Assembly on climate change gave unequivocal support to the implementation of a gradually rising carbon tax, with 80% of participants willing to pay higher taxes on carbon intensive activities. This view was endorsed by the Climate Change Advisory Council, who have called a rising carbon tax an *"essential component of achieving decarbonisation."*

In their consideration of the matter, the Joint Oireachtas Committee on Climate Action also recommended that a carbon tax trajectory be set that reaches €80 a tonne by 2030, in line with the views of the Citizen's Assembly and the Climate Change Advisory Council.

Across a series of studies dating back to 1992, independent modelling undertaken by the **ESRI has confirmed that a rising carbon tax is likely to be the single most effective climate policy that can be pursued by Government**. It is by no means the only solution that should be pursued and its effectiveness will increase if complemented by other measures.

Getting carbon pricing right encourages businesses and people to do what is right for the environment while leaving the choice of how they do so up to them. It makes each of us responsible for our share of the problem and rewards those that pollute the least. It is not and will not ever be, the only or even primary, Government response to fighting climate change but it is a vital part of a package of policies and measures, each of which will make some contribution towards our climate targets.

Certain sectors which do not pay carbon tax such as those involved in electricity generation, aviation and certain energy intensive industry such as steelworks, cement etc come under the scope of the EU Emissions Trading System (ETS) and therefore carbon pricing is incorporated into these industries separately from the carbon tax. The current price of EU carbon allowance permits is approximately €25 per tonne of CO_2.

What the Budget 2020 Increase Will be Spent On

The Government has committed that all of funds raised by increases in the carbon tax will be ring-fenced to protect those most exposed to higher fuel and energy costs, to support a just transition for displaced workers and to invest in new climate action.

The €6 increase in carbon tax will raise €90 million in 2020. The budget papers setting out tax policy changes indicate a full-year additional yield of €130 million arising from the €6 increase.

Additional carbon tax revenues are provided to new schemes or increases to the budgets of existing schemes that are focused on climate change. These are increases that would not have taken place in the absence of an increase to the carbon tax and the increased funding is additional to that provided by the National Development Plan.

Table 1: Disbursement of Additional Carbon Tax Receipts in 2020

Increased Carbon Tax Spending – 2020			
	€ m 2020	€ m 2020	Department
Revenue Raised from a €6 carbon tax increase in 2020	90		
Protecting the Vulnerable			
1. Fuel Allowance		21	DEASP
2. Energy Poverty Efficiency Upgrades		13	DCCAE
A Just Transition			
3. Aggregated Housing Upgrade Scheme		20	DHPLG
4. Peatlands Rehabilitation		5	DCHG
5. Just Transition Fund		6	DCCAE
Investing in the Low Carbon Transition			
6. Greenways/Urban Cycling		9	DTTAS
7. Continuation of Electric Vehicle Grants		8	DCCAE
8. Further Investment in EV Charging Infrastructure		3	DCCAE/DTTAS
9. ODA - Green Climate Fund		2	DCCAE
10. Green Agricultural Pilots		3	DAFM
Total Expenditure		**90**	

Protecting the Vulnerable

ESRI research demonstrates that the impact of small increases in the carbon tax on household costs is extremely limited. However the burden falls unequally. Since their income is lower, energy costs typically represent a higher proportion of overall household costs for the less well-off in society. In addition, low income households are far more likely to live in a home with poor energy efficiency. This suggests that increasing the carbon tax without taking any compensatory measures is likely to be regressive because it imposes a greater burden (relative to resources) on lower income households.

To counteract this, more than one third of the funds raised by the increased carbon tax will be devoted to ensuring that the least well off in society are protected from the increase. This will be achieved through the following schemes

- Increasing the fuel allowance by €2 per week - €21 million

This will increase the income of households who get the fuel allowance by €2 per week, which means an annual increase of €56. According to ESRI data, this will leave these households better off than before the increase in the carbon tax. This ensures that the most vulnerable in society are protected from the increased carbon tax.

- Free energy efficiency upgrades - €13 million

The SEAI-run Warmer Homes scheme provides free energy efficiency upgrades to households deemed to be in or at risk of energy poverty. This reduces the energy required to adequately heat a home, thus reducing a household's exposure to increases in energy costs. This will be more effective in the long run at reducing heating costs than increases in the fuel allowance. €13 million in extra funds will be provided for this scheme in 2020.

A Just Transition

Decarbonising our economy means our air will be cleaner, our homes warmer and more comfortable, we will have secure energy supplies and there will be new jobs in sustainable industries. It will however, mean disruption in the short term and it is the Government's duty to ensure that no one cohort of citizens, workers, communities or enterprises is disproportionately impacted by this. We can achieve this by building a just transition that leaves no worker or community behind.

This involves creating new schemes which can target interventions at areas of the country that are at risk of disruption and job losses as a result of this changing economy. The first area where this is being experienced in Ireland is the midlands, where job losses are already taking place due to reductions in peat harvesting. The schemes that will be targeted at supporting a just transition for the midlands in 2020 are:

- New Aggregated Housing Upgrade Scheme - €20 million

€20m will be dedicated to the creation of a new energy efficiency scheme as committed to in the Climate Action Plan. This scheme will upgrade the energy efficiency of the social housing stock in the Midlands. But it will do so in a different way than has been done before. It will focus on upgrading much larger batches of homes in distinct, compact geographical areas and allow private

homeowners to opt-in. This will determine the savings that can be achieved through a larger scale and more structured approach to the renovation of our housing stock. It will also create new, sustainable employment in the region. The specific design of the project will be driven by the Retrofit Taskforce which has been established by the Minister for Communications, Climate Action & Environment.

- Peatlands Rehabilitation - €5 million

The rehabilitation of former peat production areas has a range of environmental benefits including the sequestration of greenhouse gas emissions and a much greater level of bio-diversity through the restoration of heathland, grassland and woodland habitats to areas previously harvested for peat. This funding will triple the budget allocated for peatland rehabilitation, supporting at least 70-120 new full-time environmentally sustainable jobs in these areas. There will even be benefits to eco-tourism as some of the peatlands rehabilitated to date have already been turned into successful tourist attractions.

- Just Transition Fund - €6 million

Creating a just transition will require the active participation of those local communities affected. Government is determined to give them a vehicle to make their voice heard. This can be supports for local enterprise, training courses for the new employment opportunities that will be available in the low carbon transition or other innovative ideas like linking greenways in the region. €6m will be available for this Just Transition Fund in 2020.

Investing in the Low Carbon Transition

The remainder of the funds raised by the increased carbon tax will go towards programmes than can help all citizens to reduce their carbon footprint. Unlike 2009, when the carbon tax was introduced, there are now a range of Government supports available to householders and businesses who want to reduce their emissions and hence their exposure to the carbon tax. These programmes will be boosted in 2020 by the additional carbon tax revenues.

- Greenways & Urban Cycling - €9 million

Greenways provide mixed-use trails for walkers, cyclists and other non-motorised transport. They provide climate friendly amenities to local communities and can often boost local eco-tourism. An additional €4.5 million will be provided for new greenway projects in 2020.

An additional €4.5 million will also be made available for new urban cycling investments. This increased funding will provide for new pedestrian protection measures in Dublin and further funding for active travel in regional cities, including projects in Waterford and Limerick

- Continuation of Electric Vehicle Grants - €8 million

€8 million will be allocated to maintain grants at their current level for individuals purchasing electric cars. Spend on electric vehicle grants has more than doubled in each of the last two years.

- Extra investment in Electric Vehicle Charging Infrastructure - €3 million

A further €3million will be provided for new Electric Vehicle Infrastructure. This is in addition to €10m support to develop the public charging network from the Climate Action Fund and the €1m already announced this year to support the development of on-street charge points. This funding will double the number of Local Authority on-street charge points planned for 2020 from 200 to 400, it will also provide for a new scheme to support the installation of charge points at apartment blocks and will roll-out fast chargers to taxi ranks at transport hubs around the country.

- Doubling Ireland's Contribution to the Green Climate Fund - €2 million

Ireland is committed to delivering a just global transition. In recognition of this Ireland will double its annual contribution to the Green Climate Fund. This fund provides much needed financial support to reduce greenhouse gas emissions in developing countries, and helps vulnerable societies adapt to the unavoidable impacts of climate change.

- Green Agricultural Pilots - €3 million

As part of the Government's Climate Action Plan a number of ambitious new measures have been put forward to reduce greenhouse gas emissions from the agricultural sector. Along with improvements in farming practice, the development of new sustainable business models for lower carbon intensity farming is required. This will also enhance the protection of bio-diversity and water quality. €3 million will be allocated to pilot new agri-environmental schemes to support these objectives in 2020.

Measures to Protect Those Vulnerable to Fuel Poverty

In order to minimise the impact of the increase on heating costs, the increase on home heating fuels was delayed until 1st May 2020. The overall impact of a €6 increase in the carbon tax on household costs is extremely small. However the burden of the increased carbon tax falls unequally. Since their income is lower, energy costs typically represent a higher proportion of overall household costs for

the less well-off in society. In addition, low income households are far more likely to live in a home with poor energy efficiency. This means that increasing the carbon tax without taking any compensatory measures is likely to be regressive because it imposes a greater burden, relative to resources, on these lower income households.

To counteract this, more than one third of the funds raised by the increased carbon tax will be devoted to ensuring that the least well off in society are protected from the increase in carbon tax.

Budget 2020 address this through:

- increasing the fuel allowance by €2 per week. This increase applies from the first of January and means an annual benefit of €56. This will leave the 22% of households who are in receipt of the fuel allowance better off than before the increase in the carbon tax. This ensures that the most vulnerable in society are protected from the increased carbon tax.
- providing increases to programmes that help to address the causes of fuel poverty. The Warmer Homes scheme provides free energy efficiency upgrades to households deemed to be in or at risk of energy poverty. This reduces the energy required to adequately heat a home, thus reducing a household's exposure to increases in energy costs. This will be more effective in the long run at reducing heating costs than increases in the fuel allowance. An extra €13 million will be provided for this scheme in 2020, bringing its total budget allocation for the year to over €50 million.

Yield to Date From Carbon Tax and Long-Term Trajectory

The table below sets out the annual intake of Carbon Tax revenue by year and commodity.

Year	Auto Diesel	Petrol	Kerosene	Marked Gas Oil	Natural Gas	Solid Fuel	Other Fuels	Total Net Receipts
2010	€98m	€65m	€17m	€27m	€11m	-	€4m	€222m
2011	€98m	€60m	€41m	€49m	€43m	-	€8m	€299m
2012	€131m	€75m	€40m	€55m	€45m	-	€9m	€355m
2013	€137m	€70m	€47m	€60m	€57m	€7m	€10m	€388m
2014	€145m	€66m	€42m	€54m	€52m	€17m	€9m	€385m
2015	€158m	€62m	€53m	€55m	€57m	€23m	€11m	€419m
2016	€171m	€59m	€53m	€56m	€56m	€24.4m	€11m	€430m
2017	€180m	€54m	€52m	€49m	€54m	€19m	€12m	€420m
2018	€183m	€48m	€59m	€54m	€50m	€25m	€12m	€431m

Climate Action Fund

In 2018 the Climate Action Fund (CAF) was created to support the funding of initiatives, by public and private bodies, which contribute to the achievement of Ireland's climate and energy targets in a cost effective manner. The National Development Plan sets out an allocation of at least €500 million for the CAF over the period to 2027, which will come from the NORA levy.

The CAF seeks to support projects that would not otherwise be developed and seeks to facilitate projects that as well as having a climate impact will also contribute to other Government policy priorities. These include: supporting innovation and capacity building towards the development of climate change solutions capable of being scaled and delivering benefits beyond a once off impact; to promote Just Transition; generate wider socio-economic benefits such as job creation, air quality improvements, reduction in fuel poverty, bio-diversity and community resilience and development; and leverage non-exchequer sourced investment.

The Department is progressing the National Oil Reserves Agency (Amendment) and Provision of Central Treasury Services Bill. This Bill will provide for:

- the establishment of the Climate Action Fund on a statutory basis; and
- amendments to the National Oil Reserves Agency Act 2007, in order to facilitate the provision of NORA levy monies for the Climate Action Fund.

The current and initial budget envelope for the CAF stands at €21 million, which is provided from the Energy Efficiency National Fund.

This budget envelope will not be increased until the NORA legislation is passed and revenues from the NORA levy are transferred to the CAF. In the absence of the NORA legislation, and the NORA levy payments to the CAF, it will not be possible to fully meet the existing commitments from the first round of funding nor will it be possible to progress the next round of funding.

In late 2018 seven projects from the first call for funding requests were successful in their applications for CAF support. Up to €77 million of support will be provided to these projects and this should leverage a total of €300 million investment. 2019 saw all the seven projects moving into the validation stage, during which projects have to meet certain criteria related to financial, environmental and legal requirements and commitments.

One project, ESB e-cars has moved to delivery stage with the CAF committing up to €10 million. This project will install new, modern electric vehicle chargers across the country as well as upgrade the

existing charging network. In February 2020 the validation stage process for the €4.47 million support for the South Dublin County Council Tallaght District Heating Scheme was approved and the projected moved to delivery. This project, the first of its kind in Ireland, will see waste heat from a Data Centre used to heat surrounding buildings, including Tallaght IT and other civic buildings. In Q1 2020 a project from Irish Rail is expected to complete validation, with formal approval being provided to proceed to delivery. The Department will continue to progress the validation process on the remaining 4 projects and the complete list of the 7 projects initially approved CAF projects are in the Annex to this note.

At the end of December 2019, DCCAE issued a call for Expressions of Interest in the next round of the CAF; this call is to help inform the design of the next round of funding. In February, over 350 people, from approx. 240 organisations, took part in information sessions with DCCAE officials. This process is designed as a market sounding exercise only, and is open to any type of organisation or project to take part.

Just Transition

The Climate Action Plan commits to delivering a just transition recognising the significant level of change required and that burdens borne must be seen to be fair. Developing the opportunities in a decarbonising economy is recognised as a key pillar to the Climate Action Plan and in this regard the Plan envisages that existing initiatives and structures will be mobilised to maximise enterprise opportunities.

This specifically includes support for the work underway in the Midlands to deal with the challenges facing Bord na Móna, its employees and various contractors and businesses including local services which depend on the current business model. Early and complete phase-out of peat and coal for electricity generation will have a significant impact on the workers, their families and the Midlands Region as a whole. In this context, a whole-of-Government approach to addressing this challenge is being implemented working with local stakeholders to ensure that people impacted can be best supported.

An interdepartmental group led by Department of An Taoiseach has been established to develop and oversee the implementation of a just transition plan for the Midlands. This work cuts across a number of Government Departments, including Communications, Climate Action, and Environment; Public Expenditure and Reform; Housing, Planning, and Local Government; Business, Enterprise, and Innovation; Culture, Heritage, and the Gaeltacht; Education and Skills; Employment Affairs and Social Protection; Transport, Tourism, and Sport; Agriculture, Food, and the Marine; and Rural and Community Development.

Just Transition Commissioner

The Minister for Communications, Climate Action and Environment appointed Kieran Mulvey as Just Transition Commissioner in November 2019 to engage with relevant stakeholders in the Midlands region and to recommend the essential elements of a just transition for workers and communities in the Midlands, including through:

- Delivery of the just transition measures provided for in Budget 2020, in particular an operating model for the new Just Transition Fund (further details below);
- Implementation of other actions underway, or planned, by Government Departments, agencies, and companies, including the four competitive funds under Project Ireland 2040;
- Any additional actions\measures deemed appropriate; and

- Optimal structures or processes to support co-ordinated and effective delivery of a Just Transition in the Midlands, including developing liaison channels between institutions in the region and central government.

Since his appointment, Mr Mulvey has had extensive interaction with stakeholders in the region including the Bord na Móna, ESB, worker representatives, the Midlands Regional Transition Team, Local Authorities and the enterprise agencies. Engagement has also taken place with relevant Government Departments through the Department of the Taoiseach inter-departmental working group, as well as with representatives of the EU Coal Regions in Transition Platform.

Mr Mulvey's first progress report was submitted to the Minister in April 2020 and approved by the Government for publication on 22 May, together with an initial Government response to the report's recommendations.

The report sets out a number of initial recommendations on the following matters: the role and composition of the Midlands Regional Transition Team; the resourcing and future work of the Just Transition Commissioner; the allocation of the Just Transition Fund; and the co-ordination and integration of current and future funded programmes; and the proposed establishment of a Centre for Climate Change and Just Transition by Bord na Móna. The report also addresses the potential application of future carbon tax revenues to just transition-related initiatives and identifies the loss of rates income as an issue facing Offaly and Longford County Councils arising from reduced ESB and Bord na Móna activities.

In respect of the report's recommendations on coordination and integration, a number of areas are identified for priority consideration for a more coordinated approach by local authorities and other relevant public bodies including: funding for infrastructure investment; access to land and facilities of relevant state agencies for enterprise development purposes; investments in the tourism, heritage, leisure and sport sectors; the planning/licensing and regulation process; incentives for green enterprises to invest in the Midlands region; and investment in renewable energy and in electric vehicle charging infrastructure.

On foot of the Government Decision to publish the report, DCCAE will coordinate the broader Government response to the recommendations in the report through the preparation the detailed implementation plan, in consultation with other relevant Departments, and facilitated by the Interdepartmental Working Group on Just Transition, chaired by the Department of the Taoiseach. More generally, some of the recommendations in relation to an Enterprise Package for the Midlands, infrastructure needs, proposals for incentives for the region, and future allocations from

the Just Transition Fund, will require consideration by the relevant Departments and raise issues can only be decided as part of the annual Budget and Estimates process.

Funding for Just Transition Measures in Budget 2020

Budget 2020 prioritised funding, ring-fenced from additional revenue raised by increasing the carbon tax from €20 to €26 per tonne of CO_2, for a number of initiatives including:

- Just Transition Fund – €6 million

The Just Transition Fund will be initially targeted at the Midlands in 2020. The fund will, inter alia, support:

- retraining and reskilling workers to assist local communities and businesses in the Midlands to adjust to the low carbon transition;
- proactive communications with affected communities and other stakeholders in the region and between local communities and the relevant national institutions;
- best practice sharing networks and frameworks;
- the early development of local transition plans, with local communities at the core of plan development, based on economic analysis and local scoping of transition impacts and the opportunities it presents, acknowledging that the needs of individual areas across the Midlands will differ;
- innovation and investment proposals to generate sustainable employment in green enterprise that do not come within the ambit of the four Project Ireland 2040 Funds or the State's other investment programmes.

In recognition of their longstanding relationship with communities in the Midlands, the ESB has agreed to contribute an additional €5 million to this fund bringing its total value to **€11 million**.

The first stage in a call for applications for 2020 funding from the Just Transition Fund was launched by the Midlands Regional Transition Team on 22 May. The second stage in this process will be managed by DCCAE which will oversee an evaluations process for project proposals for approval by the Minister and manage the disbursement of funding to successful applications. The second stage launched on 19 June 2020.

- National Parks and Wildlife Service bog restoration and rehabilitation programme - €5 million

The €5 million scheme approved by Government in Budget 2020 for bog rehabilitation has been rolled out by the National Parks and Wildlife Service of the Department of Culture, Heritage and the Gaeltacht. This scheme will rehabilitate 1,800 hectares on 9 raised bog protected sites across 7 counties in the Midlands. Restoration works will be carried out by Bord na Móna, following a public procurement process to project manage the implementation of this latest element of the Department's national protected raised bog restoration programme in 2020, to provide other necessary professional services and to undertake the restoration measures on over 1800 hectares of raised bogs. This work will commence as soon as public health advice allows in 2020.

The Department of Communications, Climate Action and Environment and Bord na Móna are progressing the necessary measures to facilitate a substantial additional bog rehabilitation programme on 33,000 hectares of Bord na Móna bogs, commencing this year.

- Midlands Retrofit Scheme – €20 million

€20 million has been allocated to the Department of Housing, Planning and Local Government to support a new energy efficiency scheme as committed to in the Climate Action Plan. The scheme will upgrade the energy efficiency of the social housing stock in the Midlands but will do so in a different way than has been done before. It will focus on upgrading larger batches of homes in distinct, compact geographical areas. Private homeowners will be encouraged to participate through the availability of SEAI grants. Other key priorities for the Scheme are: full spend of allocation in 2020; and retrofitting to B2/cost optimal level with heat pumps where appropriate.

The scheme design has been completed and final survey work and procurement of the build programme will commence when public health advice permits. The scheme will provide valuable inputs to the National Retrofit Programme currently under development within DCCAE.

EU Platform for Coal Regions in Transition

In July 2019, the European Commission confirmed its agreement to the inclusion of the Midlands region in the Platform for Coal Regions in Transition. Membership of the Platform enables the Midlands region to avail of the support of a dedicated Country Team, comprised of Commission experts, to assist with the development of strategies and projects for the region, focusing in particular on the employment challenges faced by workers affected by decarbonisation.[6]

[6] Under the Commission's EU Green Deal proposals, the EU Platform for Coal Regions in Transition will become a Just Transition Platform. The proposed Country Team approach to support regions participating in the Platform is currently under review within the European Commission in light of the proposal, published in January 2020, for a new EU Just Transition Fund.

The Midlands Regional Transition Team (MRTT), through Offaly County Council, has agreed a programme of technical assistance support through the Secretariat Technical Assistance for Regions in Transition (START) facility. This technical assistance programme will prioritise work on the following activities between April and October 2020:

- **Project identification and assessment**: START will assist MRTT in the development of a prioritised project inventory, focusing on identifying key, credible, considered projects to facilitate change. Registration of project proposals is the first stage in the call for applications to the Just Transition Fund for 2020.
- **Community resilience and gain**: START will provide support to MRTT for community capacity building, including through co-hosting community workshops, and preparation of guidance and support materials as tools for communities to develop their own development strategies or plans.
- **Transition Plan formulation**: START will work with the MRTT to identify actions and projects in the short, medium and longer term to facilitate transition within the region. This will in turn inform the Government's Implementation Plan in response to the first report of the Just Transition Commissioner.

EU Just Transition Fund

The Just Transition Fund (JTF), part of the *Sustainable Europe Investment Plan* tabled by the European Commission on 14 January 2020, aims to contribute to the objective of 'enabling regions and people to address the social, economic and environmental impacts of the transition towards a climate-neutral economy'. The JTF will provide grants to affected regions in all Member States of the EU.

The funding will be used to alleviate the socio-economic impacts of the low carbon transition in the most affected regions across the EU, by for example supporting the re-skilling of workers, helping SMEs to create new economic opportunities, and overall diversifying economic activity, investing in the future of the most affected regions.

Under the European Commission's Next Generation EU package, published on 28 May, it is proposed that the budget for the EU Just Transition Fund would increase from €7.5 billion to €40 billion over the period 2021-2027. The proposed allocations to all Member States would increase as a result, with that for Ireland increasing from €29.9 million to €176 million.

The JTF is part of a wider Just Transition Mechanism of at least €150 billion of investments to support and finance regions and sectors that are most affected by the transition given their dependence on fossil fuels, including coal, **peat** and oil shale or greenhouse gas-intensive industrial processes most exposed to transition challenges in all Member States. Resources will be leveraged through the three pillars of the mechanism: (i) a Just Transition Fund implemented under shared management; (ii) a dedicated scheme under InvestEU; (iii) and a new public sector loan facility implemented together with the European Investment Bank, to mobilise investments benefiting the most affected regions.

EU negotiations on this proposal are continuing and are expected to take a number of months to conclude. The overall financial resources that will ultimately be made available under the Just Transition Fund will also be subject to the outcome of separate negotiations on the EU Multiannual Financial Framework for 2021-2027.

Under the proposals as published, Ireland will be required to develop a Territorial Just Transition Plan, for approval by the European Commission, to provide a framework for the programming of EU and national co-funding in the relevant regions over a seven-year period.

NESC Just Transition Review Group

In addition to the specific interventions for the Midlands outlined above, the Climate Action Plan provides that a Just Transition Review Group will be established within the National Economic and Social Council (NESC) as part of NESC working group structures. Through this Group, NESC will review the ongoing transition and identify specific transition needs among cohorts of workers, enterprises, communities, and specific groups of people.

It is intended that the Just Transition Review Group will be established for an initial period of 12 months and will provide strategic advice on the key elements of a just transition, drawing on national and international expertise. The advice will also consider the governance and deliberative structures and mechanisms needed to progress and review a just transition going forward. The work will involve dialogue and a participative process to review Ireland's progress to date and to identify specific needs and challenges for citizens, communities, enterprises and sectors. It will identify and make recommendations on the policy measures, institutional mechanisms and governance necessary for an effective just transition approach; and identify existing data and indicators to inform the Review Group. It is proposed that the Group will provide a report and recommendations to Government through the Climate Action Delivery Board.

Air Quality

The National Emissions Ceilings Directive sets limits on national emissions of 5 key pollutants - Nitrogen Oxides; Sulphur Oxides; Non Methane Volatile Organic Compounds; Fine Particulate Matter and Ammonia. The main pollutants of concern from an emissions perspective are ammonia, Nitrogen Oxides and Non Methane Volatile Organic Compounds.

The Clean Air for Europe Directive sets maximum concentration thresholds in ambient air for a range of priority pollutants that impact on human health. It also sets minimum assessment and measurement requirements. Monitoring for the purposes of CAFE compliance is carried out by the Environmental Protection Agency.

The main piece of domestic primary legislation governing ambient air quality in Ireland is the Air Pollution Act, 1987 (amended). The Act empowers the Minister to make regulations in relation to fuel, for the preventing or limiting of air pollution, but is over 30 years old and in need of updating.

The main ambient pollutants of concern are fine particulate matter arising from the burning of residential solid fuel, and nitrogen dioxide (NO_2) from transport emissions in urban areas. Levels of fine particulate matter, which account for the majority of the 1,180 premature mortalities from poor air quality, arise from the combustion of solid fuels.

Domestic Solid Fuel/Smoky Coal Ban

In response to ongoing serious smog problems in Dublin, a ban on the sale, marketing and distribution of bituminous coal (the “smoky coal ban”) was first introduced in Dublin in September 1990.

The ban proved very successful in reducing air pollution in Dublin, with research indicating it has resulted in up to 350 fewer annual premature mortalities in the capital. Following the success of the ban in Dublin, it was first extended to Cork (1995), and subsequently extended to cover a total of 26 urban areas nationwide, as per the table below. Generally speaking, these areas are the major cities, and towns/conurbations with populations in excess of 15,000.

In light of the health benefits of the smoky coal ban, and of information from EPA monitoring suggesting that air quality in smaller towns and villages outside the ban areas was worse than air quality in larger towns and cities, it was intended to extend the ban nationwide from 2015.

Draft Regulations were prepared to give effect to this extension and, along with a policy analysis statement, were uploaded to the EU’s Technical Regulation Information System (TRIS) in August

2017. No adverse views or comments on Ireland's proposal were returned from the Commission or other MSs.

However, in May 2018, three non-ROI based coal companies represented by Matheson Solicitors indicated that if the smoky coal ban is extended, they will challenge both the new ban and the existing ban, on the basis that the State should also have to ban the burning of other fossil fuels, including wood and peat products. In response, the Department sought the advice of the Attorney General. External Counsel was engaged, and advised that:

Extension of the Existing Ban from 1 September 2020

In December 2019 the extension of the existing smoky coal ban was announced **with effect from 1 September 2020** to thirteen additional towns with populations of between 10,000 and 15,000.

The towns, in the following counties, are as follows:

County	Town

County Cavan	Cavan Town
County Cork	Cobh, Midleton and Mallow
County Kerry	Killarney
County Longford	Longford Town
County Mayo	Castlebar and Ballina
County Meath	Ashbourne and Laytown-Bettystown
County Offaly	Tullamore
County Waterford	Tramore
County Wexford	Enniscorthy

In three of the above towns – Cobh, Enniscorthy and Castlebar - recent EPA monitoring indicated exceedances of the World Health Organisation (WHO) air quality standard limits. It is considered a reasonable inference that the other urban areas to be included in the ban, having similar populations, would also have exceedances of the WHO standards. This is consistent with the evidence presented more widely by the EPA from the air quality monitoring stations and from their research programme. The recently announced extension of the ban is effectively extending the existing ban to **all** conurbations with a population in excess of 10,000.

The lead in period is intended to allow coal distributors to deplete stocks of applicable fuels ordered last year for the current heating season, and also a reasonable lead-in period to deplete existing stocks and order appropriate fuel types for the next season.

The Department is currently liaising with all 9 relevant Local Authorities in order to define the precise additional geographic areas which are to be included in the new Low Smoke Zones (ban areas). Some of the Local Authorities involved have already supplied maps and/or lists of townlands/Electoral Districts of areas where the ban is likely to be implemented.

The process of drafting the necessary Regulations is currently under way in consultation with the relevant Local Authorities. In three of the above towns – Cobh, Enniscorthy and Castlebar - recent EPA monitoring indicated exceedances of the World Health Organisation (WHO) air quality standard limits. It is considered a reasonable inference that the other urban areas to be included in the ban,

having similar populations, would also have exceedances of the WHO standards. This is consistent with the evidence presented more widely by the EPA from the air quality monitoring stations and from their research programme.

In advance of the Government decision to extend the ban to the additional 13 towns, the Irish Times ran a story indicating this was in the offing (9 December 2019). [redacted]

[redacted]

That is the only response from the coal industry to the extension of the ban. No legal proceedings have been initiated to date.

A draft public consultation paper has been prepared for submission to the incoming Government in relation to the proposed extension of the existing ban to include other smoky fuels (such as peat and wet wood).

Impact of Other Fossil Fuels On Air Quality

The contribution of peat and wood to air pollution is understood to be significant particularly in areas such as the midlands where peat extraction occurs. Source apportionment of particulate matter, which is to say the analysis of where particles originate (from coal, peat, wood or other source) is the subject of an EPA-funded research project which is close to completion

As peat and wood are not as uniform fuels as coal, (peat can be sod turf or briquettes, wood can be green or dried), the identification of how much these fuels contribute to air pollution is more complex.

A number of recent developments in relation to peat harvesting have implications for the future viability and availability of this fuel. [redacted]

The Department is currently engaging with the wood fuel sector with a view to introducing fuel quality standards for wood.

Clean Air Strategy (CAS)

The Department is currently working to finalise Ireland's first National Clean Air Strategy (NCAS) which is expected to be completed by Q3 2020. This will be a strategic policy framework which will recognise the positive impact of existing Government plans but also look to identify and promote additional integrated measures to reduce air pollution and promote cleaner air.

Tackling the sources and causes of air pollution is a significant challenge as it involves emissions from transport, industry, agriculture, shipping and the use of solid fuels in homes. Given the wide range of pollutant sources, it is important that action is coordinated across various sectors. There are a number of national policy frameworks already in place which will are expected to reduce pollutant emissions and improve air quality such as the Climate Action Plan, the National Air Pollution Control Programme, and the National Energy and Climate Plan. It is important that synergies are maximised between these plans and the NCAS, with a view to achieving lasting reductions in the health and environmental impacts of air pollution in the most efficient manner.

The strategy is currently being reviewed to take into account the most up to date report on Irish air quality and the output of statistical modelling which will demonstrate the influence of recent cross government policy developments. This will enable us to determine the most effective policy programmes and measures which should be perused to achieve the maximum benefits to society. While implementation of the Strategy and air quality measures in general may incur some costs, these must be weighed against the significant ongoing health and economic cost of air pollution.

National Air Pollution Control Programme (NAPCP)

The NAPCP sets out Ireland's proposed pathway to meeting its 2020 and 2030 emissions targets under the National Emissions Ceilings Directive. The NAPCP sets out Ireland's proposed pathway to meeting its 2020 and 2030 emissions targets under the NEC Directive. A draft NAPCP was submitted to CION in April 2019, and the final version was submitted in February this year. As EPA projections indicate that Ireland is not on course to meet its 2020 and 2030 obligations for a number of target pollutants (ammonia, NOx and NMVOCs), a second NAPCP will be need to be submitted by September 15th 2020. Of these pollutants, ammonia is of greatest concern. 99% of Ireland's ammonia emissions come from agriculture.

Circular Economy

Single Use Plastics Directive

The European Commission published a Directive in June 2019 which aims to deal with the 10 single use plastic items identified by them as causing 70% of marine litter. This is the first legislative measure arising from the EU Plastic Strategy, which was published in January 2018.

The following is a summary of the provisions contained in the new Directive, which must be transposed by 3 July 2021:

1. A **ban** on the following products from July 2021
    - plastic cotton buds
    - cutlery
    - plates
    - straws
    - drink stirrers
    - sticks for balloons
    - expanded polystyrene cups and food container
    - all oxo-degradable plastic products.
2. **Consumption reduction:** Member States will have to take measures to significantly reduce the use of plastic food containers and drinks cups.
3. **Obligations for producers**: Producers will help cover the costs of waste management, clean up, and awareness raising for plastic single use food containers, packets and wrappers (such as for crisps and sweets), drinks containers and cups, tobacco products with filters (such as cigarette butts), wet wipes, balloons, and lightweight plastic bags.
4. **Collection targets**: Member States will be obliged to collect 90% of single-use plastic drinks bottles by 2029, for example through deposit refund schemes and/or extended producer responsibility schemes (77% target to be met by 2025).
5. **Recycled content in plastic bottles**: Single-use plastic drinks bottles placed on the market must, by 2030, contain at least 30% recycled content (25% by 2025).

6. **Labelling Requirements:** Certain products will require a clear and standardised labelling which indicates how waste should be disposed, the negative environmental impact of the product, and the presence of plastics in the products. This will apply to sanitary towels, wet wipes and balloons;
7. **Awareness-raising measures:** Member States will be obliged to raise consumers' awareness about the negative impact of littering of single-use plastics and fishing gear as well as about the available re-use systems and waste management options for all these products.
8. For **fishing gear**, which accounts for 27% of all beach litter, the Commission aims to complete the existing policy framework with producer responsibility schemes for fishing gear containing plastic. Producers of plastic fishing gear will be required to cover the costs of waste collection from port reception facilities and its transport and treatment.

Proposal by EU for a Plastic Tax

One of the funding options currently being considered by the EU is an Own Resource tax based on plastic packaging. This contribution will be based on our packaging data which the EPA supply annually to Eurostat and will be applied on the amount of plastic packaging that is not recycled by a Member State. The call rate currently being looked at is €0.80 per kg of unrecycled plastic packaging. Based on our most recent packaging stats this would amount to a contribution from Ireland in the region of €150m. Ireland (along with Estonia) has been identified as the highest generator of plastic packaging in the EU. We believe this is due to the fact that we (along with Estonia) use waste analysis data in our computation while the majority of other MS use placed on the market data. There is an acknowledgement from the Commission and Eurostat that our figures are comparatively high. Given the likely introduction of this new Own Resource, the Department has been engaging with the Commission with a view to ensuring a level playing field for all MS.

EU Circular Economy Directives Transposition

A number of directives, collectively referred to as the Circular Economy Waste Package, set new waste/recycling targets for Ireland for 2025, 2030 and 2035.

The Directives will need to be translated into Irish law by 5 July 2020. A public consultation on the transposition procedure opened on 30 December 2019 and closed on 21 February 2020. Transposition will take place via amending regulations to the Waste Management Act and the Packaging Regulations.

Circular Economy

The Circular Economy aims to reduce waste at all stages of the economic cycle and ensure materials are used as efficiently as possible.

Strategies to further transition Europe's economy towards a more circular model play a significant role in the EU Commission's European Green Deal. Ireland has supported the development of a revised EU Circular Economy Action Plan and the continuation of an integrated and ambitious EU approach in moving towards the Circular Economy. The individual components of the revised action plan will need to be analysed in full on publication, particularly how the new proposals interact with recently agreed legislation

The 2019 Climate Action Plan recognises the need to design out waste in a transition to sustainable production and consumption made possible by a Circular Economy.

To date, the EPA's National Waste Prevention Programme (NWPP) has been to the forefront of Ireland's efforts to progress our transition to a Circular Economy. It provides the tools and information to businesses, households and the public sector to influence behavioural change and support sustainable choices. The programme targets:

- Food Waste
- Construction and Demolition Waste
- Plastics
- Agriculture
- Resources and Raw Materials
- Local Waste Prevention

The following actions on the Circular Economy are to be delivered this year:

1. Establishment of a Circular Economy Advisory and Implementation Group.
2. Continued support for EPA NWPP 'Preventing Waste, Driving the Circular Economy' including design of a new NWPP for 2021-2027.
3. Development of a national Circular Economy strategy for Ireland – building on OECD project **'The economics and governance of the circular economy in Ireland'** which started in March and involving a targeted consultation with stakeholders across Government, industry and communities.

4. Assessment and implementation of EU new Circular Economy Action Plan proposed under the European Green Deal – with a focus on textiles, construction, electronics and plastics.

Green Public Procurement (GPP)

Green Public Procurement ensures goods and services are procured in the most sustainable way; protecting the environment and ensuring best value for money in the long run. The Department provides policy and technical support to the Office of Government Procurement (OGP) and public bodies in applying GPP principles. GPP is regarded as a key policy intervention in achieving public sector environmental objectives. Both the Local Authority Climate Charter and the Public Bodies' Mandate on Climate include commitments to apply GPP. The new EU Circular Economy Action Plan is understood to require further and deeper commitments to GPP by Member States. The following actions on GPP are to be delivered this year:

1. Updated GPP guidance for the public sector;
2. Develop training for GPP;
3. Support greening of OGP frameworks
4. Rollout first phase of monitoring and reporting of GPP by government departments collaborating with SEAI and EPA.

Green Government

Government Departments and public bodies are required to show leadership in combating waste of all types (and specifically certain single use plastics) and GPP. The Green Government initiative was developed to communicate the decision and support departments and bodies in giving it effect. Collaborating with SEAI and EPA, the initiative has resulted in all departments preparing a first Resource Efficiency Action Plan for their organisation plus all public bodies preparing first statements on sustainability. The Climate Action Plan 2019 requires this initiative to be extended in 2020. The Department is working with the SEAI and NWPP to explore how the programme can be taken forward with the greatest impact.

Producer Responsibility Initiatives

Ireland uses the Extended Producer Responsibility (EPR) model for dealing with waste. Producer Responsibility Initiatives (PRIs) have been developed for a number of waste streams, based on the producer pays principle. The main areas are packaging, end-of-life vehicles (ELVs), waste electrical and electronic equipment (WEEE), batteries, tyres and farm plastics. To date Ireland's schemes have operated very successfully and have enabled Ireland to reach our domestic and EU recycling targets.

The European Commission has recognised that EPR can act as a major policy tool for accelerating the circular economy, and EPR requirements for Member States have been strengthened in the Circular Economy Legislative Package. The aim is to promote the EPR model and make it more effective through minimum common requirements, based on existing best practice. Ireland's PRI schemes will need to meet these general minimum requirements.

Tyres

New structures for tyres and waste tyres were introduced in 2017 to address the chronic problem of waste tyres in Ireland. To build on the significant progress made to date in the environmentally sound management of end-of-life car tyres the intention is to extend the EPR scheme to Truck, Agricultural and Industrial tyres.

Waste Capacity and Contingency for MSW and C&D Waste

Waste management planning, including with regard to infrastructure provision, is the responsibility of Local Authorities under the Waste Management Act 1996, as amended, and is set out in regional waste management plans.

Ireland's waste management system and infrastructure is essentially privately operated and subject to regulation by the relevant Local Authority and the Environmental Protection Agency. Within that policy and industry context, it is important to ensure that the waste management system adequately manages the household and commercial waste that arises in a manner that is consistent with our policy, meets environmental standards and prevents risks to public health. Therefore, it is important to ensure that adequate processing capacity is available to manage variations in waste generation or the occurrence of an unexpected event.

Arising in part from capacity issues which arose in 2016 the three Regional Waste Management Planning Offices prepared a *National Waste Contingency Strategy* in 2018 to examine the ability of the local authority sector to provide contingency capacity and set out what level of contingent capacity they felt was required for a number of waste streams, including MSW and C & D waste.

Since the above report issued the Department has continued to engage with relevant local authorities in an effort to secure the required level of contingent capacity. In addition in 2019 Waste Policy and Resource Efficiency Division commenced a process of engagement with industry in an effort to establish if the private sector can provide some or all of the required contingent capacity.

The Local Authority sector, through the Environment Committee of the County & City Management Association, has now agreed that the sector needs to put a solution in place. A formal proposal for developing contingency is expected in the latter half of 2020.

Sustainable Development Goals

In September 2015, 193 UN Member States, including Ireland, adopted the Sustainable Development Goals (SDGs) to 'end poverty, protect the planet and ensure prosperity for all' as part of the new 2030 Agenda for Sustainable Development – Transforming our World.

The SDGs cover the three dimensions of sustainable development; economic growth, social inclusion and the protection of the environment. They aim to address inequalities, economic growth, decent jobs, cities and human settlements, industrialization, oceans, ecosystems, energy, climate change, sustainable consumption and production, peace and justice.

There are 17 SDGs, with each goal having a number of sub-targets for a total of 169 targets across the 17 goals. The targets are to be achieved by 2030.

Although the 2030 Agenda is a voluntary agreement, and therefore not legally binding, it does represent the most ambitious and wide-ranging international commitment ever agreed at the UN level.

The onus is on individual countries to take ownership of the SDGs and to establish national frameworks to progress implementation of the goals. Countries also have the primary responsibility for follow-up and review of the progress made in implementing the Goals at the national and international levels.

The High-Level Political Forum (HLPF) on Sustainable Development is the central UN platform for implementation of the SDGs. The HLPF convenes once per year and is attended at Ministerial level. UN Member States have agreed that every four years the HLPF will also meet at Head of State or Government (HOSG) level. The first meeting of the HLPF at HOSG level took place in 2019. Member States including Ireland are expected to report, at Ministerial level, on implementation on a voluntary basis at the HLPF more than once in the period to 2030.

Ireland presented its first SDG implementation report, referred to as a Voluntary National Review (VNR), at the HLPF in July 2018.

National Implementation

The 2030 Agenda encourages countries to develop ambitious national responses to the SDGs and to incorporate them into national planning and policy. In May 2017, a Government decision was taken to the effect that national implementation of the SDGs would be subject to overall political oversight through the Cabinet system and, where necessary and appropriate, at Government.

The Minister for Communications, Climate Action and Environment has lead responsibility for promoting and overseeing the coherent implementation of the SDGs on a whole-of-Government basis, and for the establishment of a robust SDG implementation and reporting framework.

All Ministers retain responsibility for implementing the individual SDGs relating to issues under their aegis. As such, the Minister has lead responsibility for achieving a number of the Goals and targets (e.g. Goal 13 on Climate Action), in addition to their implementation oversight role.

This approach is intended to allow for coherent, joined-up implementation across Government while ensuring that individual Departments take ownership of those SDGs most relevant to them.

A Senior Officials Group (SOG) convened by the Department of the Taoiseach provides strategic oversight of SDG implementation. In addition, an Interdepartmental Working Group, chaired by the Department of Communications, Climate Action and Environment , supports the work of the SOG on an ongoing basis.

The first SDG National Implementation Plan, for the period 2018-2020, was prepared by DCCAE, with contributions from all Government Departments, and was formally launched in April 2018.

SDG National Implementation Plan 2018 - 2020

Ireland's first SDG National Implementation Plan sets out the role of Government in implementing the SDGs here at home and supporting countries around the world to do the same, particularly through the work of *Irish Aid*, Ireland's programme for overseas development.

Both Ireland's aid programme and the SDG National Implementation Plan provide a commitment to protect the most vulnerable in society and support the underlying principle of the SDGs to 'leave no one behind' and to 'reach the furthest behind first'.

The SDG National Implementation Plan identifies **four Strategic Priorities**:

- **Awareness:** raise public awareness of the SDGs;
- **Participation**: provide stakeholders opportunities to engage and contribute to follow-up and review processes, and further develop national implementation of the Goals;
- **Support:** encourage and support efforts of communities and organisations to contribute towards meeting the SDGs, and foster public participation; and
- **Policy alignment**: develop alignment of national policy with the SDGs and identify opportunities for policy coherence.

A significant element of the Plan involved establishing appropriate ownership and accountability for each of the targets across Government and also how Departments, through existing national policies, are already contributing to the SDGs.

Stakeholder and Community Engagement

Ireland strongly supports the role of stakeholders in the SDG process and, as it did during the SDG negotiations, will support efforts at both the national and global level to make sure that civil society voices continue to be heard in the implementation of the SDGs. One of the Actions of the Plan is to establish a '**SDG Stakeholder Forum'**. Given the comprehensiveness of the 2030 Agenda, ensuring all relevant sectors in particular the most marginalised are represented will be both a challenge and an opportunity to foster more innovative ways of working together. The Stakeholder Forum has met on a roughly quarterly basis since mid-2018.

The SDG National Implementation Plan also provided for the establishment of an **SDG Champions** programme to support raising national awareness of the SDGs through the example of high-profile national organisations' engagement with sustainable development initiatives.

A total of 76 organisations applied to become Ireland's first National SDG Champions in 2019 and the first tranche of Champions were appointed in September 2019 for a period of 12 months.

The Champions for the 2019/2020 SDG Champions Programme are: An Post, BIM, Carlow County Council, ECO UNESCO, GAA, Irish Congress of Trade Unions, Men's Sheds, Musgraves, National Women's Council of Ireland, Smart Farming, Union of Students in Ireland and Vodafone.

Data and Monitoring

A set of global SDG indicators has been developed by the UN Statistical Commission to measure progress towards achieving the Goals. Ireland is engaged with the UN statistical process through the work of the Central Statistics Office (CSO).

The CSO has established a new dedicated SDG unit and, working in cooperation with Ordinance Survey Ireland (OSI), took part in a UN pilot project in 2017, involving geospatial mapping of SDG-related data. This project resulted in the launch of an Irish SDG data platform by the CSO/OSI in November 2017. The platform continues to be developed with input from DCCAE and other Departments, and the CSO and OSI will continue to work with the UN Statistical Commission to provide the benefit of their experience to other UN Member States.

In preparing its first progress report to the UN, the VNR, Ireland reported progress primarily using the EU SDG indicator set. This ensured that Ireland's reporting was both comprehensive and relevant to its national circumstances and level of development. It also allowed for comparison of Ireland's performance against that of its EU peers.

National Progress Towards Achieving the SDGs

Ireland is committed to producing national reports on its implementation of the SDGs every two years, and to reporting progress to the UN through VNRs every four years, with both reporting cycles starting in 2018. For those years in which Ireland has committed to presenting a VNR to the HLPF, a single report will be presented at both the national and UN level.

In July 2018, at the UN HLPF, Ireland presented its VNR on the implementation of the SDGs to the international community.

The Review addressed all 17 Goals and sub-targets, and confirmed that Ireland performed particularly well in relation to those SDGs related to the economy but that further progress was required in terms of achieving the broader goals of sustainable development.

Specifically, the VNR identified Ireland's strengths in relation to education, health, economic growth, innovation, some environmental issues such as air quality, and a peaceful and safe society.

However, we also faced challenges in many areas, including addressing high levels of obesity, meeting our own national poverty targets, achieving sustainable consumption and production, protecting our marine and terrestrial habitats, and achieving full gender equality in Irish society.

The VNR specifically identified housing and climate action as two major challenges for Ireland in 2018, and addressed both in some detail.

Ireland's next SDG progress report, to be delivered at national level, is due for publication by end-2020 and its next VNR is scheduled to be presented to the UN at the 2022 HLPF.

EU Developments

The appointment of the new Commission has seen an increased emphasis by the Commission on the SDGs as a guide for EU policy. The Goals have now been integrated into the EU's 'European Semester' process, which provides a framework for the coordination of economic policies across the Union.

The SDGs will also be referenced in both negotiations on the European Green Deal and the Commission's upcoming proposals for an 8th Environmental Action Programme (8TH EAP), which will set out the Union's medium and long-term environmental policy priorities.

There may be proposals, from either the Commission or Member States, for the EAP process to include a formal SDG monitoring framework for Member State progress towards achieving the environmental SDG goals and targets. The establishment of such a framework, with or without reporting requirements for Member States, would likely be subject to significant debate among Member States given the non-binding nature of the Goals.

Next Steps

The current National Implementation Plan expires at end-2020. The development of a successor policy and the closing-off of actions under the current Plan will be among the main SDG priorities for 2020.

In addition, as mentioned above, Ireland's next SDG progress report, to be delivered at national level, is also due for publication by end-2020. DCCAE will again prepare this report with input from all Departments and relevant agencies and other public bodies.

Funding

Environment Fund

The Environment Fund was established by the Waste Management Act, 1996 as amended, to provide a hypothecated fund to support environmental initiatives including in relation to waste prevention, sustainability, community environmental protection initiatives and environmental awareness and education initiatives. The fund was established with effect from 2001 with its revenues derived from the Plastic Bag and Landfill Levies.

- In excess of €845M has been raised through environmental levies from their inception to the end of 2019.
- The successful outcomes produced by this funding are clearly shown, for example, in the significant increase in the level of waste being recycled, the significant reduction in litter recorded by the National Litter Pollution Monitoring System and the ongoing support for environmental awareness initiatives through Green Schools, the Community Environment Action Fund and supporting the work of environmental NGOs.
- Revenue from the fund peaked at €65.7million in 2012 but has been trending downwards since (with an anomaly in 2016 due to waste landfill capacity issues). Revenue was €49.9m in 2017 but fell (by almost 50%) to €25.4m in 2018. By 2019 revenue had fallen to €18.5m.

EF Allocations 2019 and 2020

The revenue forecast for 2020 is €12.6m (€7.5m Landfill Levy and €5.1m Plastic Bag Levy). Combined with an opening balance of €10.9m, the maximum amount which can be allocated for 2020 is in the order of €23.5m. [redacted]

New Environmental Levies

Review of the Environment Fund

A Review of the Environment Fund was completed in November 2019. In the context of the development of a Circular Economy Strategy, a public consultation was initiated in November 2019 on a three-phased programme of actions relating to proposals to introduce new environmental levies.

A targeted consultation with key stakeholders in relation to the proposals on coffee cup and plastic bag levies was also initiated in November 2019. Both consultations are now closed. Over 120 submissions were received.

These submissions, currently being analysed, will be considered in the further development of the levies during 2020. Separate Regulatory Impact Assessments (RIAs) on both the Plastic Bag Levy changes and the proposed introduction of a new Coffee Cup Levy are also currently being prepared. It is proposed to proceed with changes to the Plastic Bag Levy in the first instance.

Overview of Proposed Levies

Following the review of the Environment Fund, a three-phased programme of actions was announced in November 2019:

Phase 1: Timeframe – 2020-2021

A. Increase plastic bag levy from the current rate of 22c to 25c

B. Remove the current exemption from plastic bag levy enjoyed by medium weight plastic bags (True 'bag for life' bags will remain exempt)

C. Introduce a Waste Recovery Levy of €5 per tonne. This would apply to recovery operations at Municipal Solid Waste (MSW) Landfills, Waste to Energy Plants and Co-Incineration Plants and the Export of MSW.

D. Increase the Landfill Levy by €5 to €80 per tonne

E. Introduce a levy on disposable cups ('Coffee Cup Levy')

Phase 2: Timeframe – 2022-2023

A. Develop proposals for the introduction of a levy on take away food containers – ('Takeaway Levy')

B. Review the operation of the Phase 1 levies and make adjustments as necessary

Phase 3: Timeframe – To be determined having regard to developments at EU level in relation to plastic packaging.

A. Develop proposals for the introduction of a levy on food packaging in retail outlets including for bakery items, fruit, vegetables etc.

B. Review the operation of the Phase 1 and 2 levies and make adjustments as necessary

C. Develop proposals for further levies for introduction, as appropriate

Other Areas

Bioeconomy

The bioeconomy relates to the production of renewable biological resources and the conversion of these resources and waste streams into value added products.

The National Policy Statement on Bioeconomy (March 2018) sets out the vision, common principles, strategic objectives, and a framework for implementation to develop the bioeconomy in Ireland.

Since the launch of the National Policy Statement, the bioeconomy has become integrated in national policy development across a range of areas. Research and education structures have developed a bioeconomy focus (including the country's first Postgraduate course on the bioeconomy). The bioeconomy has become embedded in national policies including the Climate Action Plan and Future Jobs Ireland, and financial structures to support the bioeconomy have also been developed.

The Bioeconomy Implementation Group (BIG), jointly chaired by DCCAE/DAFM manages the coherent engagement by the State in the development of the bioeconomy.

It will be supported by the Bioeconomy Forum which will comprise membership by the bioeconomy industry, academia, the NGO and community sector and sectors generating bio-resources.

The Forum will provide expert guidance to inform national policy development and will build and broaden awareness of bioeconomy issues and best practice.

The Irish Bioeconomy Foundation, based at the country's first biorefinery in Lisheen, Co. Tipperary, has, since 2018, developed a hub of 25 bioeconomy stakeholders and plans to scale up its operations significantly to a fully-fledged National Bioeconomy Campus to assist companies in trialling and scaling up bioeconomy projects.

A coordinated approach to project development has seen Ireland's access to EU-based bioeconomy funding through programmes such as the LIFE Programme significantly scaled up, while relevant Departments and Agencies are engaging with the European Investment Bank and Commission on the development of a European Circular Bioeconomy Fund. This will support the development of greater coherence between Irish financial services and bioeconomy sectors.

[redacted]

Environmental Radiation

On nuclear related matters the Department's objective is to achieve a high quality environment through effective nuclear safety and environment (radiation) protection including transposition of relevant Directives.

Ireland's Nuclear Policy

The framework legislation governing the nuclear and radiation protection sectors in Ireland is the Radiological Protection Act, 1991, as amended.

Ireland has no nuclear power stations, no defence reactors for research or other purposes, no spent nuclear reactor fuel in storage or awaiting treatment and no associated spent fuel reprocessing facilities of any sort, no trans-boundary movement of spent nuclear fuel from other countries across its territory or through its territorial waters.

Ireland currently meets its electricity requirements from a combination of thermal and renewable energy sources. While Ireland has chosen not to develop a nuclear power industry and the Government has no plans for a change of policy in this respect, we acknowledge the right of States to determine their own energy mix and that where a State chooses to develop a nuclear power industry, this will be done in line with the highest international standards with respect to safety and environmental protection.

Ireland is a member of the International Atomic Energy Agency (IAEA) is a United Nations intergovernmental organisation based in Vienna, for cooperation in civil nuclear applications, energy, science and technology. The capacity membership provides for cooperation with other Member States in areas of mutual concern such as emergency planning is particularly useful. Ireland contributed €1.2million to the IAEA regular budget for 2019.

Euratom

The peaceful use of nuclear energy **within the EU** is governed by the 1957 Euratom Treaty, which established the European Atomic Energy Community (Euratom). While Euratom is a separate legal entity from the EU, it is governed by the EU's institutions.

The European Commission deals with nuclear activities from three angles:

- nuclear safety is about the safe operation of nuclear installations. It is complemented by radiation protection and radioactive waste management

- nuclear safeguards are measures to ensure that nuclear materials are used only for the purposes declared by the users
- nuclear security relates to the physical protection of nuclear material and installations against intentional malicious acts.

As a member of Euratom, Ireland is required to meet its legislative and reporting requirements including through the transposition into nation law of various Directives on nuclear safety, radioactive waste management etc. The Euratom Directive on Basis Safety Standards (BSS) was transposed on 4 February 2019.

Relationship with the UK on Radiological Matters

The UK has formally exited from the terms of the Euratom Treaty in addition to the European Union. The UK and the UK nuclear industry remain subject to oversight by the EU institutions, during the transition phase.

However, post-Brexit, the UK will, like Ireland, continue to be a member of the International Atomic Energy Agency (IAEA) which establishes and monitors adherence to standards on nuclear safety, security and safeguards. Through the various conventions, partnerships, agreements and inter-governmental Treaties under the auspices of the IAEA, Ireland will continue to play a role in directly analysing and peer-reviewing UK nuclear safety procedures to ensure that the UK meets its international obligations. Participation by Ireland at the IAEA and at other international fora will become increasingly important post-Brexit.

The UK-Ireland Contact Group on Radiological Matters, comprising officials from UK and Irish government departments and scientific agencies responsible for ensuring radiological safety, will continue to meet biannually to discuss matters of interest to both parties; including existing and planning nuclear installations, transport of radiological materials and long-term strategies to safety store radiological and nuclear waste. The Group last met in London on 20 November 2019; the next meeting was scheduled for 15 April 2020 but did not take place due to COVID-19 restrictions, although ongoing communication on matters of interest to Ireland continues.

It had also been agreed with the UK that an Irish delegation, comprising representatives from DCCAE and the EPA, will visit the Sellafield complex this year to assess progress in the decommissioning of the facility. This visit will be rescheduled once COVID-19 travel restrictions have been lifted.

UK New Nuclear Build

Eight proposed sites for new nuclear power plants have been identified by the UK Government. The Government asked the Radiological Protection Institute of Ireland (RPII), now merged with Environmental Protection Agency, to prepare a report on the potential radiological implications for Ireland from the proposed new nuclear power plants in the United Kingdom.

A principal finding of the report, published in May 2013, is **that the routine operation of the proposed nuclear power plants will have no measurable radiological impact on Ireland or the Irish marine environment**. This report continues to inform Irish engagement on the UK new nuclear build programme.

Radon and the National Radon Control Strategy

Radon gas is linked to approximately 300 lung cancer deaths in Ireland each year, and is responsible for more lung cancer cases than any other factor except smoking. Efforts to promote radon testing in homes and businesses, and to carry out remediation works where necessary, are ongoing.

A four-year National Radon Control Strategy (NCRS) was published in 2014. It contained 30 recommended actions, while another was subsequently added. The Strategy had a four-year timeframe, from April 2014 to April 2018.

The second phase of the NRCS, covering the period 2019 t0 2024, contains the following themes:

1. Radon prevention in new buildings
2. Use of property transactions to drive action
3. Communications and advocacy
4. Promoting confidence in radon services
5. Radon in workplaces and public buildings

The **priorities** under Phase 2, currently being rolled out, are as follows:

1. 1. Translating awareness into action
2. 2. Supporting householders financially
3. 3. Government regulation
4. 4. Passive Prevention Systems

Non Ionising Radiation

Non-Ionising Radiation (NIR) refers to an electromagnetic radiation emitted in the part of the electromagnetic spectrum where there is insufficient energy to cause ionisation. It includes electric and magnetic fields, radio waves, microwaves, infrared, ultraviolet and visible radiation.

The International Commission on Non-ionising Radiation Commission (ICNIRP) provides internationally accepted guidelines on exposure limits recommended by the European Commission to its Member States.

The Government commissioned a report entitled 'Electromagnetic Fields in the Irish Context' in 2016 to examine the most up to date, peer reviewed research on the possible health effects of exposure to electromagnetic fields. These include the 5G spectrum where rollout has been impacted in some locations as a result of an anti-5G social media campaign.

The Report concluded that there is insufficient evidence to establish a causal relationship between exposure to EMFs and cancers. This is in line with the conclusions of EU Scientific Committee on Emerging and Newly Identified Health Risks in its 2015 Opinion and it reaffirms the overall conclusions of the 2007 Report of the Expert Group on the Health Effects of Electromagnetic Fields.

The Environmental Protection Agency is Ireland's Competent Authority in relation to non-ionising radiation, and publishes accurate scientific information on their website for the information of the public.

Soils, GMOs and Chemicals

DCCAE is the lead Department in Ireland for policy development in these areas. International chemicals policy, specifically policy relating to the Stockholm Convention, the Minamata Convention the Rotterdam Convention and Strategic Approach to International Chemicals Management (SAICM) falls under the Department.

The Stockholm Convention on Persistent Organic Pollutants (POPs) is a global treaty to protect human health and the environment from persistent organic pollutants. These are toxic organic chemicals which persist in the environment, impact human health and biodiversity and are of global concern. In 2020 the Division published new national legislation relating to the regulation of persistent organic pollutants (SI 146 of 2020) and is continuing to liaise with the European Commission on new substances added to the list of banned substances.

The *Minamata Convention on Mercury* is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals.

Strategic Approach to International Chemicals Management, SAICM, is a voluntary international policy framework which fosters the sound management of chemicals worldwide and supports multi-sectoral, multi-stakeholder efforts toward the goal that, by the year 2020, chemicals are produced and used in ways that minimises significant adverse impacts on the environment and human health. In 2021 the outcome of a process to develop recommendations on the sound management of chemicals and waste beyond 2020 will be discussed by all parties.

DCCAE is also the lead Department for environmental genetically modified organism (GMO) policy, specifically policy relating to the Cartagena Protocol on Biosafety. The protocol is an international treaty governing the movements of living modified organisms (LMOs) from one country to another. The treaty is an agreement under the Convention on Biological Diversity, which is the main international instrument for addressing biodiversity issues. It provides a comprehensive and holistic approach to the conservation of biological diversity, the sustainable use of natural resources and the fair and equitable sharing of benefits deriving from the use of genetic resources. In 2020 the Division finalised new legislation to give effect to EU Directive 2015/412. This provides Ireland with the right

to prohibit or restrict the cultivation of Genetically Modified Organisms (GMOs) on a wide variety of policy grounds including on the basis of socio-economic considerations (SECs).

DCCAE is also responsible for ensuring the environmental integrity of soil at a national level. The Environment Policy Division also maintains a watching brief on this issue and participates at an EU and national level.

In 2021 the Department will be attending: The tenth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP 10), May 2021, TBD, The Fifth International Conference on Chemicals Management (ICCM5) Provisional date July 5-9, Meetings of the Conferences of the Parties (COP) to the Basel, Rotterdam and Stockholm conventions on 19 to 30 July 2021 (TBC), and the Meeting of the Minamata Convention on 30 October – 5 November 2021. In the run up to these meetings Department staff will be attending an increased number of national and EU meetings.

Appendix 1: CAF Round 1 Projects

- **ESB eCars** Up to €10 million is being provided to develop a nationwide, state-of-the-art electric vehicle charging network capable of facilitating large-scale electric vehicle uptake over the next decade.
- **Irish Rail: Hybrid Drive for Inter City Railcar fleet** Up to €15 million is being invested to design new hybrid power-packs for intercity railcars to reduce diesel use and greenhouse gas emissions. Following the proof of concept in one three car train, the hybrid power-packs will be implemented across the wider fleet.
- **South Dublin County Council: The South Dublin County Council Tallaght District Heating Scheme**. Up to €4.5 million is being provided to establish a sustainable district heating solution in the Tallaght area to provide low carbon heat to public sector, residential and commercial customers.
- **Gas Networks Ireland: GRAZE Gas - Green Renewable Agricultural Zero Emissions Gas** Up to €8.5 million is being provided to support the installation of the first transmission connected Central Grid Injection (CGI) facility for renewable gas and a grant scheme to support circa 74 compressed natural gas vehicles.
- **Dublin City Council: Dublin District Heating System** Up to €20 million is being invested to capture waste heat generated at industrial facilities, in particular, the Dublin Waste to Energy Plant in Ringsend and piping it into homes and businesses in the Poolbeg, Ringsend and Docklands areas of Dublin city.
- **Road Management Office: Local Authority Public Lighting Energy Efficiency Project** Up to €17.5 million will be invested to retrofit all remaining 326,000 non-LED Local Authority public lights to high efficiency LED Lanterns. Public Lighting accounts for approx. 50% of total energy use and based on the application, the project could deliver emission reduction of over 40,000 tonnes of CO2 from electricity generation per annum.
- **3 Counties Energy Agency: Driving HGV Efficiently into Brexit** Up to €1.4 million will be provided to support the transport sector in reducing reduce fuel consumption and emissions from vehicles by being smarter about transport use and by embracing new technologies. Over a two-year period telematic equipment will be installed in over 1,000 vehicles and appropriate training for the drivers will be provided. Through continuous monitoring and

positive reinforcement of driving behaviour performance, the overall fuel efficiency is expected to increase by 10%.