

**COMHAIRLE CHONTAE NA GAILLIMHE  
GALWAY COUNTY COUNCIL**



# **CLIMATE ACTION PLAN SUMMARY REPORT**

## **PRE-DRAFT PUBLIC ENGAGEMENT**

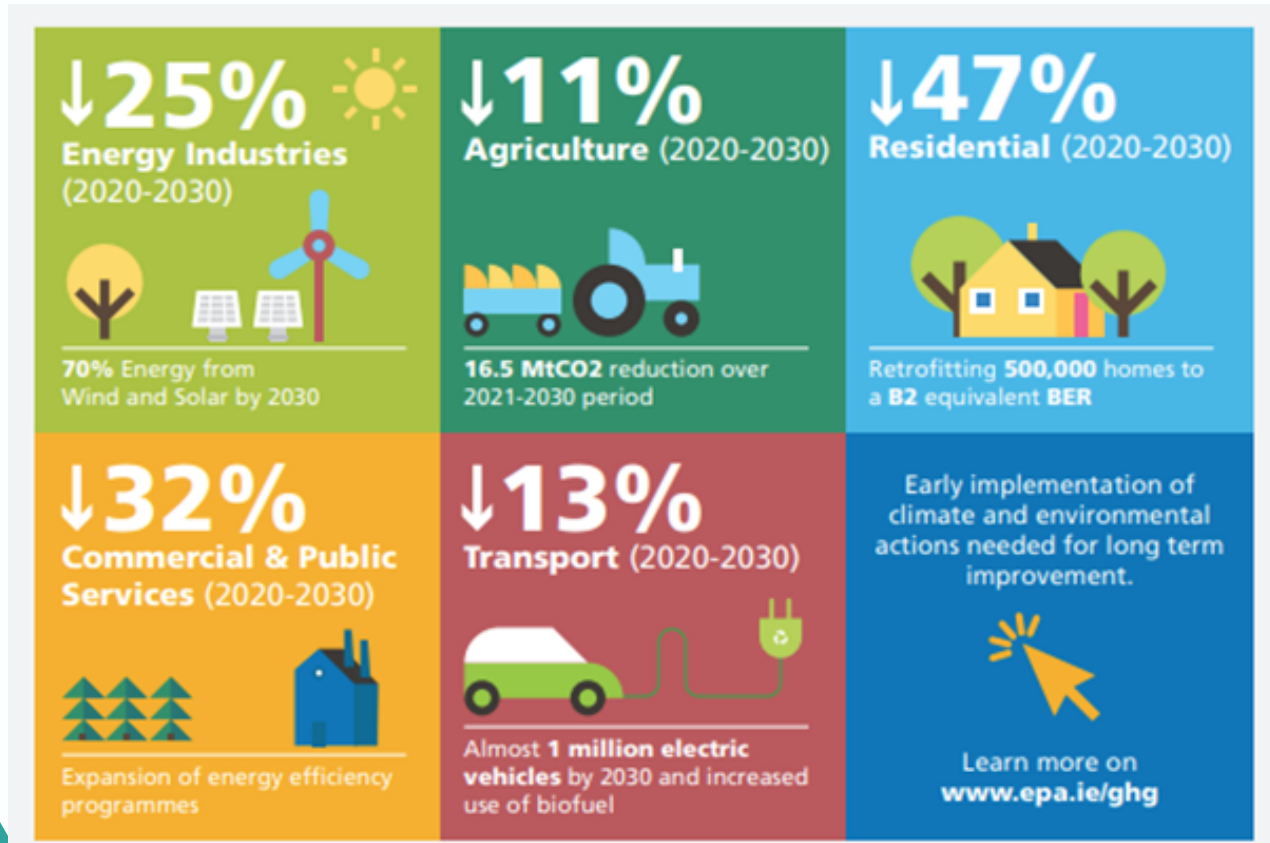


# 1. INTRODUCTION

Climate Change is one of the most pressing global public policy challenges. Under the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland is now on a legally binding path to a 51% reduction in emissions by 2030 and net-zero emissions no later than 2050. The Act provides the framework for Ireland to meet its international and EU climate commitments and to become a leader in addressing climate change.

In July 2023, the Irish Government set maximum limits on greenhouse gas emissions for each sector of the Irish economy up to 2030.

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



2030 Sectoral Emission Targets relative to 2018 levels

## 1.1 Local Authority Climate Action Plans (LA-CAP)



image courtesy of Declan Surpless

Local Authorities will have a particularly important role in the delivery of both climate mitigation and adaptation. This is reflected in the provisions of the 2021 Act, which requires each Local Authority to prepare an LA-CAP, specifying the mitigation and adaptation measures to be adopted by the Local Authority. As required by the 2021 Act, Galway County Council is preparing their first LA-CAP which must be adopted by the Elected Members before **23rd February 2024**.

Local authorities are key drivers in advancing climate policy at the local level and our LA-CAP aims to strengthen the alignment between national climate policy and local circumstances with the prioritisation and acceleration of evidence-based measures, to assist in the delivery of the climate neutrality objective for County Galway. Galway County Council is taking a range of actions across all functions and services to tackle climate change and is uniquely positioned to provide robust leadership in climate action.

In order to ensure that our LA-CAP is centred around a strong understanding of the role and remit of Galway County Council on climate action, the Plan is being developed through the following framework.

- **Full accountability:** Targeted actions related to our own operations.
- **Influence:** Through the functions and services we provide, we will seek to influence businesses, communities, and individuals to deliver local climate action.

- **Coordinate:** We will develop actions to support the coordination and facilitation of local and community action, bringing together stakeholders to achieve climate action-related projects.
- **Advocate:** We will look to promote climate action through raising awareness, communicating, informing, and engaging with citizens.

While the Climate Action Plan will be ambitious to reflect the leadership role of Galway County Council on climate action, it will not include actions which fall outside our role, remit, and governance.



**GLOSSARY OF TERMS**  
**MORE INFORMATION IN RELATION TO COMMONLY USED CLIMATE ACTION TERMS IS AVAILABLE [HERE](#).**

## CONSULTATION DURING THE PLAN-MAKING PHASE.

Galway County Council want to develop the plan in partnership with the citizens of the county. We are looking for your input to help us shape actions that will facilitate and enable effective climate action at a local and community level.

This report has been developed to open stakeholder dialogue and discussions on the development of the plan and provides a summary of the evidence that will be used to inform plan development.

Submissions can be made online or by post. All submissions must be received by the **25th August 2023**. Everyone is welcome to make a submission.

- To make a submission online, please go to: [Pre-draft Survey](#).
- You can also post a written submission to:

**Climate Action Unit,  
Environment Section,  
Galway County Council,  
Áras an Chontae,  
Prospect Hill,  
Galway  
H91 H6kx.**

The content of the submissions may be published as part of the plan-making process. At all times, Galway County Council will comply with [GDPR Guidelines](#).

You can keep up to date on the progress of our Climate Action Plan through the [Climate Change](#) section of our website. Please [register here](#) if you would like to receive updates in relation to Climate Action and other community initiatives in County Galway.

## 2. OUR VISION AND MISSION STATEMENTS

Our Plan will have a Vision and Mission Statement to unite all key stakeholders and inspire action.

A Vision Statement sets out where we are going and what it will look like when we get there. A Mission Statement is action focused and sets out how we will deliver this Vision.

Proposed **Vision Statement:**

**By 2050, Galway County will be Climate Resilient, Biodiversity Rich, Environmentally Sustainable and Carbon Neutral.**

Proposed **Mission Statement:**

**To deliver transformative change and measurable climate action across our county and within our own organisation, and ensure a just transition.**

Galway County Council recognises its pivotal position in delivering national policy at community level. The Vision is therefore supported by a number of key strategic goals:

### **Strategic Goal 1:**

Fostering Governance, Leadership and Partnership for Climate Action

### **Strategic Goal 2:**

Achieve Carbon Emission and Energy Efficiency Targets for 2030 and 2050

### **Strategic Goal 3:**

Deliver on Climate Adaptation and Climate Resilience

### **Strategic Goal 4:**

Mobilise Climate Action in Local Communities

### **Strategic Goal 5:**

Mobilise Climate Action in Enterprise and support Transition to an Inclusive, Net Zero and Circular Economy

### **Strategic Goal 6:**

Achieve a 'Just Transition' particularly for Communities that may be Economically Disadvantaged by Decarbonising Projects



## 3. THE CHALLENGE

### 3.1 Climate Change

Our climate is changing in line with global trends. We are experiencing warmer temperatures, with the past 8 years the hottest on record. As a result of higher average temperatures, we are also experiencing more intense weather events, including droughts, storms, heavy rainfall, and stronger winds, resulting in higher vulnerability and risk from the impacts of climate change within Galway County.

To tackle climate change, the level of greenhouse gases entering and already in our atmosphere need to be reduced and removed. In addition, we must further increase our resilience to current and future climate change impacts. As part of global and national efforts, we must meet the National Climate Objective to half our emissions by 2030 and achieve net zero by 2050.

Our Climate Action Plan will set out how Galway County Council aims to achieve its role within the National Climate Objective over the next 5 years and beyond toward 2050. It will act as a key instrument that strengthens the links between national and international climate policy and the delivery of effective climate action at local and community levels, through place-based climate action.

Galway County Council are very active in adapting and building resilience to the impacts of climate change, i.e. through flood defence schemes, planning, risk assessment, and maintenance and strengthening of infrastructure. To increase resilience, Galway County Council will need to proactively plan for and work with our communities and government agencies to adapt to the current and future climate change risks identified.



image courtesy of Declan Surpluss

## 3.2 Climate Action: Understanding the Risk

Climate adaptation involves taking action to prepare for and adjust to the current and future impacts of climate change. Understanding the risks posed by climate is an essential first step for Galway County Council to develop effective and efficient adaptation actions in response to current and projected climate change. Climate change risk assessments identify the likelihood of future climate hazards and their potential impacts. This is fundamental for informing the prioritisation of climate action and investment in climate action. As part of the Building the Evidence Phase, a baseline Climate Risk Assessment was carried out to assess the current and future climate risks for the County of Galway.

In line with global trends, the frequency and intensity of some hazards (e.g. coastal, river and pluvial flooding, coastal erosion, heatwaves and drought) will increase while others will remain the same (e.g. severe windstorms). These changes are projected to continue and intensify with a wide range of impacts for Galway County Council. Galway will also change in terms of its population and developments which will potentially affect the exposure and vulnerability of people and assets within the county.

The Risk Assessment was developed on the basis of the most-up-to-date climate projection data available at the time of writing. The underlying models are updated on a regular basis and the level of risk may increase as a result. In addition, feedback loops, which would likely make the effects more impactful, could not be considered, due to a lack of local modelling. Other indirect risks, while not part of this Risk Assessment, should be noted, such as forced migration of populations, increases in vector-borne disease and disruption of supply chains. The Climate Risk Assessment Report can be viewed [here](#).

### Highlights of Observed Climate Change for Ireland and County Galway

#### Droughts



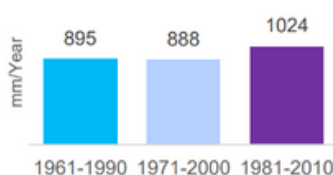
During the 2018 Drought, summer precipitation levels were 43.3% below average across all weather stations when compared to the 1961-1990 baseline\*\*



Highest temperature on record recorded on July 18<sup>th</sup> 2022 at Athenry

#### Rainfall

Average annual rainfall across 4 aggregated stations increased by 14% for the most recent period (1981-2010) compared to their 1961-1990 baseline.\*\*



# 0.52°C

Average temperature increase for the 1981-2010 when compared to the 1961-1990 baseline.\*\*\*

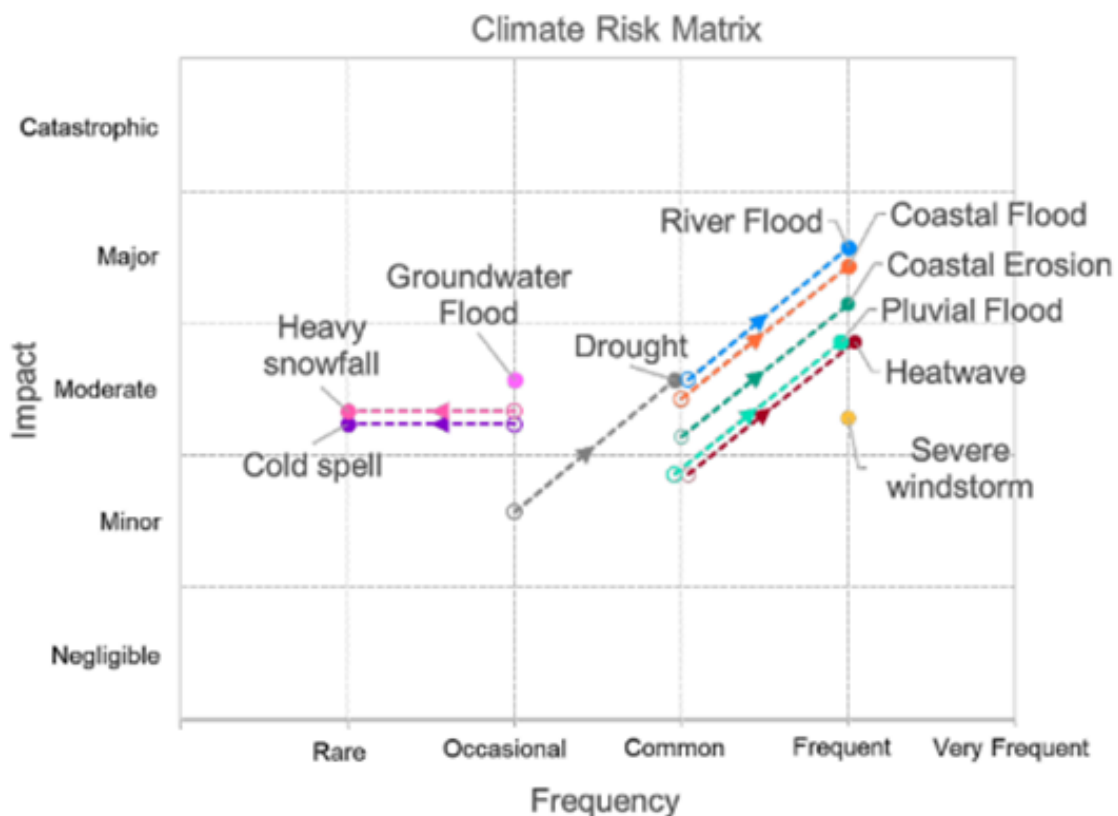
2022 Was the wettest year across the county with average precipitation levels 105% above the 1961-1990 baseline



Groundwater flooding during Dec 2015/Jan 2016 in Gort inundated 24 km<sup>2</sup> of land, causing damage to farmland and continued disruption for 6 months



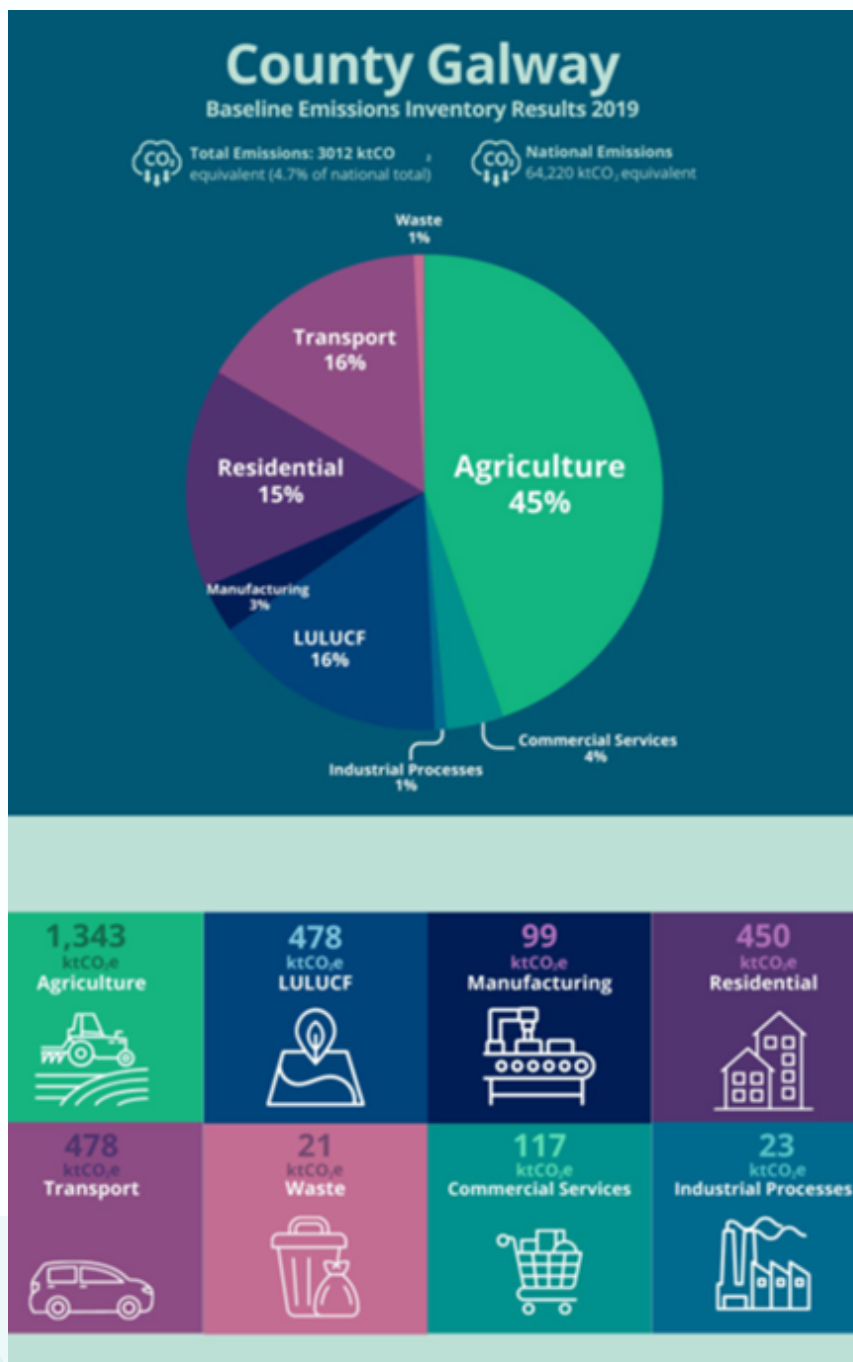
- Recent experiences of cold spells and heavy snowfall events in 2018 and 2022, demonstrated the wide range of impacts for Galway County. Projected increases in average temperature and decreases in the frequency of snowfall will result in a decrease in the frequency of cold spells, heavy snowfall, and their associated impacts.
- Galway County also experienced river and pluvial flooding events in 2020 and 2021. Impacts included damage to residential properties, closure of businesses, disruption to public services and closure of transport networks. Projected increases in the frequency of extreme precipitation events will result in increased surface
- County Galway regularly experiences coastal erosion and coastal flooding events, with recent events in 2021 and 2022 resulting in disruption of transport networks and damage to coastal habitats. Projected sea level rise will increase the frequency of coastal inundation and erosion events and associated impacts.
- Heatwaves and droughts have contributed to restrictions on water supplies, damage to road surfaces and have placed an increased demand on recreational areas.



Climate risk matrix showing the current and future change in risk

### 3.3 Local Greenhouse Gas Emissions (GHG)

Understanding where our GHG emissions are coming from at a local level provides an evidence base for developing our Climate Action Plan and appropriate actions that is meaningful for the local context. We have prepared a Baseline Emission Inventory Report based on local and national data from 2019, considering energy production and consumption and other GHG emissions in County Galway, including insights into Galway County Council's own emissions. The summary findings of the report are presented in the figure below with more detail available in the report, accessible [here](#)



Baseline Emission Inventory for County Galway

# 4. CLIMATE ACTION

## 4.1 Climate Action: Galway County Council

Galway County Council has for some time been actively implementing a range of actions across a range of various functions and services to tackle climate change. This is in addition to the many and important climate actions led by local communities and businesses throughout the county. Such actions include:

- Active Travel includes walking, cycling and wheeling, and represents a significant opportunity to advance sustainable modes of transport and reduce the associated GHG emissions. Multiple Active Travel projects have been implemented in the County of Galway to date.
- Retrofitting our own public buildings and social housing stock, including the removal of fossil fuel systems and installation of renewable energy systems.
- Supporting communities through various funding programmes and partnerships. This will be expanded through the Community Action Fund (approx €750,000 for communities over the next 18 months).

## 4.2. Climate Action: Our Homes and Buildings

Residential emissions includes GHG emissions from space and water heating, as well as from electricity consumption. Non-energy emissions, such as from food, waste, shopping and other household-related emissions are not included in this category.

At a national level, the residential sector accounts for about 5 tCO<sub>2</sub> per annum.

At a local level, the energy and emissions from the Residential sector in County Galway has been calculated to be 450 ktCO<sub>2</sub>e, which equates to 15% of the total GHG emissions for the county. Heating accounted for 76% of emissions, while electricity consumption accounted for 24%. Residential heating in Galway County comes primarily from fossil fuels such as oil (58%) and peat (23%).

Oil	Natural gas	Electricity	Coal	Peat	LPG	Wood	Other
36,322	2,512	3,365	1,527	14,360	634	1,320	726

Central Heating Fuel in Occupied Private Households (Census 2016) for County Galway



The Climate Action Plan 2023 targets a 40% reduction in GHG emissions from the Residential sector and a 75% reduction in emissions from electricity production by 2030. The generation of renewable energy and retrofitting of our buildings, including our homes, will significantly contribute to these reduction targets.

Key measures identified in the National Climate Action Plan 2023 to meet these targets include:

- Increasing the energy efficiency of existing buildings and putting in place policies to deliver zero-emission new builds and continue to ramp up our retrofitting programme.
- Retrofitting up to 120,000 dwellings to BER B2 by 2025 and up to 500,000 by 2030.
- Putting heat pumps into 45,000 existing and 170,000 new dwellings by 2025 and up to 400,000 existing and 280,000 new dwellings by 2030.
- Introducing a new tax incentive to encourage small-scale landlords to undertake retrofitting works while tenants remain in situ. Generating up to 0.8 TWh of district heating by 2025 and up to 2.5 TWh by 2030.
- Accelerating the delivery of onshore wind, offshore wind, and solar.
- Supporting at least 500 MW of local community-based renewable energy projects and increased levels of new micro-generation and small-scale generation.
- Phasing out and ending the use of coal and peat in electricity generation.
- Developing a Green Electricity Tariff by 2025 to allow people to use lower cost renewable electricity at times of high wind and solar generation.

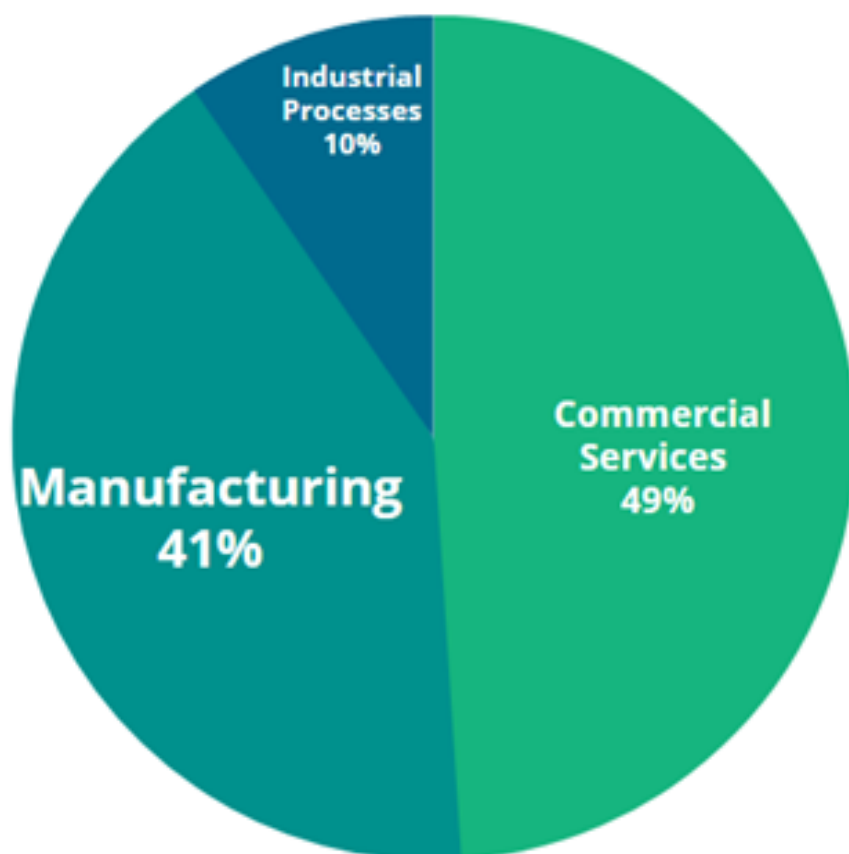
### 4.3 Climate Action: Our Communities and Businesses

Within the Non-residential emissions sector, there are three main categories, each of which encompasses a unique set of activities and processes that contribute to greenhouse gas emissions. These categories are:

- **Commercial Sector:** commercial entities such as businesses, offices, and industrial complexes require a lot of energy to operate, which often comes from fossil fuels. Energy consumption is largely driven by activities such as heating, cooling, ventilation, lighting, cooking, and refrigeration.
- **Manufacturing Sector:** manufacturing combustion processes involve a range of activities, such as heating, cooling, and processing materials, and often require the use of large machinery and equipment, particularly in industries such as iron and steel, non-ferrous metals, and chemicals.
- **Industrial Sector:** industrial processes include, but are not limited to, cement production, lime production, ceramics, solvent use, as well as the food and beverage industry.

At a national level, this non-residential sector accounts for about 20% (13,622ktCO<sub>2</sub>e). At a local level, the energy and emissions from the non-residential sector in County Galway has been calculated to be 239 ktCO<sub>2</sub>e, which equates to 8.3% of the total greenhouse gas emissions for the county.

Sectors	ktCO <sub>2</sub> e
Commercial Services	117
Manufacturing Combustion	99
Industrial Processes	23
<b>Total</b>	<b>239</b>



The national Climate Action Plan 2023 targets a 35% reduction in emissions by 2030 through changing how we produce, consume, and design our goods and services, by breaking the link between fossil fuels and economic progress. Decarbonising industry and enterprise is key to Ireland's economy and future competitiveness, and can be achieved by:

- Decreasing embodied carbon in construction materials produced and used in Ireland by at least 30%.
- Reducing fossil fuel use from 64% of final consumption (2021) to 45% by 2025 and further by 2030.
- Increasing total share of carbon-neutral heating to 50-55% by 2025, up to 70-75% by 2030.
- Significantly growing the circular economy and bioeconomy.

Galway County Council will actively support our communities and businesses to implement climate action (mitigation and adaptation) and avail of economic opportunities, which the transition to a low carbon and resilient society can bring.



Bia Innovator Campus  
image courtesy of agriland.ie

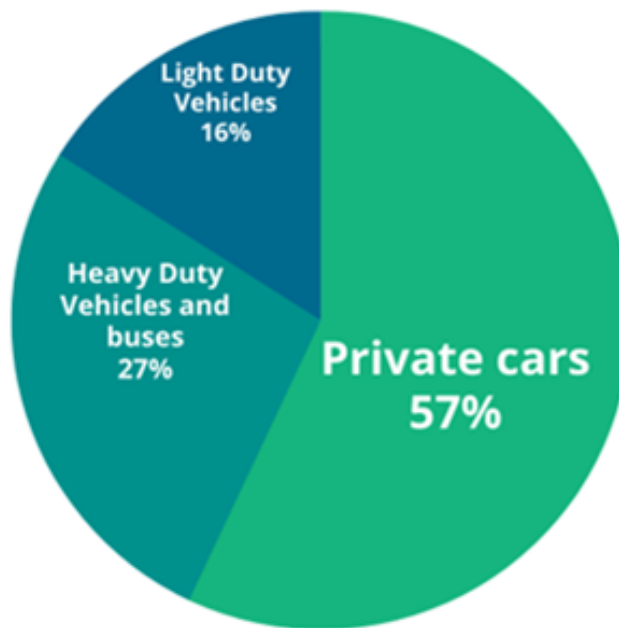


## 4.4 Climate Action: Transport

Emissions from transport covers the combustion of fuel for all transport activity, including domestic aviation, road, railway, water-borne navigation and other transportation. International aviation and maritime navigation are not counted as part of Ireland's national total emissions, but are reported by Ireland to the UNFCCC and EU for information purposes.

At a national level, Transport accounted for approximately 19% of Ireland's GHG emissions in 2019 (11 MtCO<sub>2</sub>e), with road transport responsible for 94% of those emissions. Addressing transport emissions is an essential element of our transition to a low carbon county.

At a local level, emissions from transport has been calculated to be 78 ktCO<sub>2</sub>eq, which equates to 15% of our emissions



Breakdown of Road Transport per type of vehicle

The dominance of private cars as the primary mode of transport in County Galway is reflected in the results, accounting for 56% of the total transport emissions, with 267.6 ktCO<sub>2</sub>e emitted in 2019. Heavy-Duty vehicles and buses account for 27%. These emissions, which are primarily from the burning of diesel and petrol in combustion engines, are also responsible for a range of air pollutants that negatively impact both human health and the environment.

The National Climate Action Plan 2023 sets out an ambitious target of 50% reduction in Transport emissions by 2030. This will require a significant change in the way we move around our county.

One of the best ways to plan for reducing emissions from travel is to use the 'Avoid, Shift, Improve' (ASI) framework, which is shorthand for

- Avoiding or reducing the need for travel,
- Shifting to public transport, walking and cycling and
- Improving the energy efficiency of vehicles we do use.

It is acknowledged that Galway is a rural county with a dispersed population, which presents additional challenges when adopting this approach but there are significant opportunities for improvement.

Key measures identified in the National Climate Action Plan 2023 to meet our targets include:

- Improving our town and rural planning, and adopting the Avoid-Shift-Improve approach.
- Changing the way we use our road space and increasing walking and cycling networks.
- Reducing the total distance driven across all car journeys by 20% and progressing towards 1 in 3 electric private cars.
- Using walking, cycling and public transport to account for 50% of our journeys.
- Providing 70% of people in rural Ireland with buses that cater for at least 3 trips to the nearby town daily by 2030.

There will also be wider benefits to making these changes including in the areas of health, air quality, reduced noise pollution, and improved place-making.

Galway County Council are already very active in reducing transport emission, such as through the role out of Active Travel Projects, incorporating compact growth and sustainable transport into the planning process, collaborations with public transport and EV charging providers, transitioning and management of our own fleet, and parking and traffic policies.

## 4.4 Climate Action: Agriculture and Land Use

Agriculture emissions are GHGs released into the atmosphere during farming activities, including livestock rearing and crop production. These emissions are primarily composed of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), which have significantly higher global warming potentials than carbon dioxide (CO<sub>2</sub>).

The primary source of agricultural emissions in Ireland is methane from livestock. Livestock such as cows, sheep, and pigs produce methane through enteric fermentation, a digestive process that breaks down feed in their stomachs, leading to the production of methane gas. The use of nitrogen fertilizers and manure management is another significant source of agriculture GHG emissions in Ireland.

Land Use, Land Use Change and Forestry (LULUCF) includes forest land, cropland, grassland, wetlands, settlements and other land types, as well as the harvesting of wood products. Depending on its use, land can either be an emitter of GHGs, or it can sequester or absorb GHGs.

Ireland has significant and healthy biosystems, including grassland, hedgerows and forests, which can sequester or absorb carbon dioxide (CO<sub>2</sub>) and the use and management of the land has a key role in the response to climate change.

At a national level, agriculture accounted for 34% (22,134 ktCO<sub>2</sub> equivalent) and LULUCF accounted for 11% (6,899 ktCO<sub>2</sub>e: 9,979 ktCO<sub>2</sub> equivalent emitted less 3,073 ktCO<sub>2</sub> equivalent removed) of total emissions. What sets Ireland apart from its EU counterparts is the scale of our beef and dairy primary production industries relative to our population and land size, and the lack of heavy industry in Ireland's economic make-up.

At a local level, emissions from agriculture in the County of Galway has been calculated to be 1,343 ktCO<sub>2</sub>e, which equates to 44.7% of the total GHGs. This is reflective of the cultural importance and vital role agriculture plays in underpinning our rural economy relative to other industries.

The primary source of emissions is methane from livestock, which accounts for about 62% of the total agriculture emissions within the county, with the use of nitrogen fertilizers and manure management being other significant sources (6% and 7% respectively). Emissions from farm vehicles and machinery accounts for 6% of the total emissions from this sector.



For County Galway, the emissions from LULUCF has been calculated to be 478 ktCO<sub>2</sub>e, which equates to 16% of the total greenhouse gas emissions. Cropland, Forestland and Harvested Wood Product serve as a store of carbon and were responsible for the sequestration of 420 ktCO<sub>2</sub> equivalents of emissions, whilst the areas Grassland, Settlements, Wetlands and Other Land were responsible for emitting 900 ktCO<sub>2</sub> equivalents of emissions.

The National Climate Action Plan 2023 sets out an ambitious target of 25% reduction in Agriculture GHG emissions by 2030. Sectoral targets for LULUCF GHG emission reduction are yet to be confirmed and will coincide with the completion of a Land-use Review.

The agriculture sector is undergoing a significant transformation to deliver the reduction in GHG emissions and key measures identified in the National Climate Action Plan 2023 to meet our targets include:

- Changing how we fertilise our land and reducing the use of chemical Nitrogen
- Improving the efficiency of our animals, including the earlier finishing of beef cattle, reducing age of first calving for suckler beef cows, improved animal feeding, and a focus on low methane traits in breeding programmes.
- Expanding our organic sector

- Providing land use diversification options for livestock farmers
- Increasing our annual afforestation rates and promote forest management initiatives in both public and private forests
- Improved management of grasslands on mineral soils for carbon sequestration
- Rehabilitation of our peatlands

Galway is a rural county where our farmers are recognised for their excellent food production and their economic and social importance in our communities. Climate change is already impacting farming practices and reducing GHG emissions will be challenging but achievable. Many farmers across the county have already commenced the journey of reducing emissions from farming and land use activities and are engaging positively with new guidance on farmer practices and environmental programmes.

While Galway County Council does not have a direct influence over agriculture, we will continue to engage with farmers and landowners through environmental programmes and community and business supports.

## 5. DECARBONISATION ZONE

Aran Islands has been designated as the Decarbonisation Zone (DZ) for Galway County Council. A DZ is a spatial area identified by the Local Authority, in which a range of climate mitigation, adaptation and biodiversity measures are identified to address local low carbon energy, GHG emissions and climate needs to contribute to the national climate action targets. The Aran Islands comprise of three islands - Árainn, Inis Meáin and Inis Oírr - located at the mouth of Galway Bay. The permanent population of the islands is 1,300, rising to a peak during the summer months to 3,900 (a 200% increase).

The islands are well-served by ferries (to and from Rossaveel and Galway City) and an airstrip. The area's socioeconomic and physical environmental characteristics have been reviewed and is considered an appropriate demonstration area and testbed for decarbonisation measures to be adopted in other rural areas as well as scaled up across Galway County. CLIMATE ACTION IN PRACTICE: The Aran Islands has already been a source of innovative climate action initiatives. The electricity supply to the islands is interconnected with mainland via an undersea cable. In recent years, there have been measured losses of over 50% of electricity. As a Sustainable Energy Community, the islands are already very involved in creating their own sustainable future.



Image courtesy of Chris Hill

# THANK YOU

In order to ensure that local-based information is included, Galway County Council are inviting observations and recommendations for consideration in the drafting of our Climate Action Plan.

Submissions will be accepted until Friday 25th August 2023

**Have your say on the development of the Galway County Council Climate Action Plan by scanning the QR code**



**or visit:**

**<https://galway.ie/ClimateAction-Heritage-BioDiversity-Survey-2023>**



Galway County Council

**CLIMATE ACTION**

**GNÍOMHÚ AR SON NA HAERÁIDE**

Chomhairle Chontae na Gaillimhe