

Chapter 8: Climate Action

Strategic Aim:

Enhance climate adaptation and mitigation, and accelerate a transition to a low carbon, climate resilient and environmentally sustainable economy in Birr.

8.1 Introduction

Climate Action is covered in Chapter 3 of Volume 1 of the Offaly County Development Plan 2021-2027 and is also embedded through cross cutting themes of other chapters of the Plan.

The key focus of Objective 10(2)(n) of the Planning and Development Act 2000, as amended, is to promote sustainable settlement and transportation strategies in urban and rural areas, in particular in relation to the location, layout and design of development. This objective also requires that these strategies should include measures to reduce energy demand, to reduce anthropogenic greenhouse gas emissions and to address the need to adapt to climate change. These strategies and measures, formulated in the development plan, will equate to a significant element of the local authority's overall climate action response, and will, over time, result in meaningful change to the current trajectory of Ireland's contribution to and ability to deal with the effects of climate change.

In the context of planning for the mobilisation of mitigation and adaptation efforts at local level in Birr and Crinkill, this Plan recognises the multi-faceted impact of the climate challenge and the need for the integration and co-ordination of relevant 'climate proofed' policies and investment decisions for the delivery of key projects and infrastructure at appropriate locations. While it is acknowledged that wider sectors are directly outside the scope of this Local Area Plan, this Plan integrates national policies on climate action by incorporating a series of measures by promoting compact growth, sustainable mobility and other adaptation/mitigation measures. Such measures strive to adhere to the provisions of the Climate Action and Low Carbon (Amendment) Act 2021 which sets binding targets for greenhouse gas emissions reduction and for the delivery of renewable electricity.

The Plan through its policies, objectives and decarbonisation actions and projects supports the National Climate Objective from the Climate Action and Low Carbon Development Act 2015 which states; *"The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy (in this Act referred to as the 'national climate objective')"* (Government of Ireland, 2015).

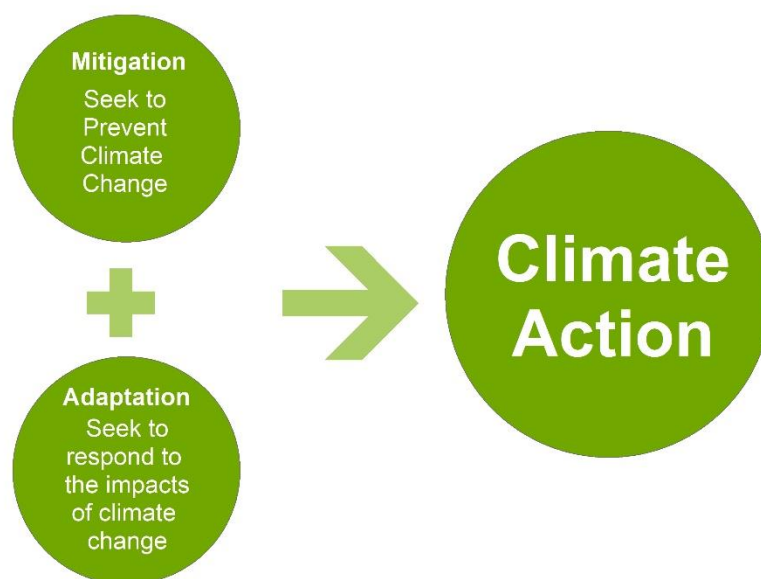


Figure 8.1 Climate Mitigation and Climate Adaptation

8.2 Integration of land use planning and sustainable mobility

The National Climate Action Plan 2021 states that transport accounts for almost 20% of Ireland's greenhouse gas emissions and that road transport is responsible for 96% of those GHG emissions. It is therefore clear that changing the way in which we move around to more sustainable modes including walking, cycling and public transport has significant potential to help us tackle climate change by reducing emissions from transport.

This Plan aims to:

- Integrate land use and transportation in order to reduce travel demand;
- Reduce Birr's local carbon footprint caused by transport emissions by prioritising sustainable mobility routes and connectivity and permeability to key destinations within the town;
- Support the growth of Electric Vehicles, E-Bikes, Fuel Cell Vehicles and Autonomous Vehicles, through a roll-out of additional electric charging points and refuelling infrastructure in collaboration with relevant agencies; and
- Make more provision for secure cycle parking facilities.

A Local Transport Plan for Birr was made in conjunction with this LAP in the interests of integrating transportation and spatial land use planning. This is further addressed in Chapter 9 Critical Infrastructure and Appendix 1.

8.3 Compact Growth and Regeneration

It is generally accepted that promoting compact settlement patterns can lead to shorter trips to employment, education, shops, social contacts and activities, creating more possibilities for active and sustainable travel and indeed low carbon district heating. The National Planning Framework requires a shift in settlement patterns to provide a more compact form of growth changing the prevailing pattern of dispersed development and the resultant inefficient and carbon heavy commuting patterns. The policies, objectives and land use decisions contained in this Local Area Plan support the '10 minute' settlement concept¹. In essence, this concept centres on the premise that people should be able to meet most of their needs within a short walking or cycling distance of their homes.

This Plan seeks to achieve more compact and sustainable growth through consolidating a greater share of future development; new homes, businesses and amenities, within Birr and Crinkill's existing built-up footprint.

This approach to zoning combined with tailored policies and objectives relating to compact growth, sequential development and regeneration of the existing urban area, allows for people to live close to employment, recreational opportunities and other services, reducing dependence on car based transport, the extent of greenfield land consumption and costly and inefficient infrastructure provision.

This Plan through specific measures in Chapter 3 and local actions in Table 8.1 Decarbonisation Actions and Projects below encourages infill development, regeneration of brownfield/underutilised sites, the reuse of existing vacant/derelict buildings and remote working/co-working hubs, which support the achievement of a compact and consolidated pattern of development for Birr and Crinkill.

The Irish Heritage School renovation and reuse of St. Johns Hall, the old Town Council Offices and ancillary buildings, all previously vacant, as educational and community buildings are examples of finding new uses for existing buildings in this regard. The school now provides teaching in the fields of environmental science, landscape studies and biodiversity and conservation and cultural heritage programmes in the newly renovated old Town Council buildings whilst the main John's Hall building itself is now used as a lecturing and exhibition space, with significant scope to develop this iconic building as a tourism space in future years.

¹ As advocated on page 187 of the Regional Spatial and Economic Strategy for the Eastern and Midland Regional Assembly 2019-2031.



Figure 8.2 Irish Heritage School (Old Town Council Office) and St. Johns Hall

8.4 Nature-based Solutions

8.4.1 Green Infrastructure

Birr and Crinkill's extensive green infrastructure, as detailed in Chapter 6 of this Local Area Plan, are vital tools at a local level, in adapting to climate change in the following ways;

- acting as carbon pools or sinks which absorb emissions;
- creating a more diverse habitat, which has a positive impact on biodiversity and related ecosystem services such as pollination and natural pest control;
- managing high temperatures, particularly in urban areas, through trees providing evaporative cooling and shading; and
- providing a flood prevention and storage capacity function by green areas and wetlands reducing and slowing down peak flows, thereby helping to alleviate flooding. In addition, these areas reduce the rate and volume of water entering the drains by intercepting it, providing temporary and permanent storage areas, and allowing water to infiltrate into the ground rather than being directed to drains.

8.4.2 Flood Risk Management

The Council recognises that climate change will have significant impacts on flooding, flood risk and flood risk management. This Local Area Plan, informed by a Strategic Flood Risk Assessment (SFRA) and which complies with OPW Guidance on climate change avoids zoning land for development at inappropriate locations through designating these flood prone lands (see Figure 8.3 below) as 'Constrained Land Use'.

Flood Risk Assessments shall apply the precautionary approach recommended in the Guidelines and shall be informed by the advice on the expected impacts of climate change and the allowances to be provided for future flood risk management provided in the OPW's (2019) Flood Risk Management Climate Change Sectoral Adaptation Plan.

New developments will be required to ensure that access is preserved for the maintenance of the Drainage District. Applications for development on land identified as benefiting land may be prone to flooding, and as such site-specific flood risk assessments may be required in these areas.

Development Management Standard 106 from Chapter 13 Development Management Standards of the Offaly County Development Plan 2021-2027 shall apply to proposals located on lands designated Constrained Land Use in the Local Plan Area.

All flood zones are subject to FRA of flood hazards from other sources, which should assess all potential sources of flooding that may affect the site – from rivers, streams, surface water run-off, sewers, groundwater, reservoirs, canals and other artificial sources or any combination of these.

reduce the rate and volume of water entering drains by intercepting it, providing temporary and permanent storage areas, and allowing water to infiltrate into the ground rather than being directed to drains, which improves water quality and contributes to local amenities. This Plan supports the provision of the positive role that both Sustainable Drainage Systems and Constructed Wetlands make in climate mitigation and adaptation and includes in Figure 6.13 in Chapter 6 of the Plan potential locations that both systems could be provided in Birr and Crinkill in the life of the Plan.

8.5 Energy Efficiency

8.5.1 Energy Storage

The Council recognises the importance of energy storage in allowing for the storage of electrical energy from renewables for later use, and helping to balance grid load thereby guaranteeing reliable supply for users. There are a number of energy storage systems that provide this function, including pumped hydroelectric energy storage (PHES) and thermal storage in addition to newer technologies such as liquid storage.

8.5.2 Energy Efficiency – Homes and Public Buildings

Improving the energy efficiency of our homes and public buildings is a critical climate priority and a major focus of the funding provided in the National Development Plan 2018-2031. This will deliver wider benefits than just a reduction in greenhouse gas emissions. An energy efficient home is a home that is warmer, more comfortable and much cheaper to heat. This leads to improved health outcomes, higher disposable incomes and reduced poverty, as well as the creation of new employment.

In line with the Offaly County Development Plan 2021-2027, this Local Area Plan;

- recognises that the design, construction and operation of new buildings, have a significant role to play in reducing energy demand and increasing energy efficiency into the future;
- promotes energy efficient design through careful site selection, building shape/design, structural materials (that have low to zero embodied energy and CO2 emissions) and orientation so as to maximise solar gain;
- recognises the potential of green roofs and green walls to greatly reduce the amount of energy needed to keep the temperature of a building comfortable all year round by insulating against extensive heat loss in the winter and heat absorption in the summer;
- promotes the retrofitting of existing buildings to reduce energy demands and promotes the principles of Energy Efficient Design (EED) to minimise the energy consumption of buildings through their lifecycle. The Council is continually upgrading its social housing units in the town to bring dwellings to a minimum BER level of B2 and also supports the sensitive proposals to improve the thermal performance of or insert renewable energy technologies into historic buildings subject to the works not causing damage to the structure, requiring the removal of historic fabric such as original windows, doors and floors, or have a detrimental visual impact;
- supports the use of smart city technologies in Birr to assist in energy reduction through integrating public lighting infrastructure with EV charging points and also providing real time

data on street lighting energy usage, atmospheric pressure, CO2 emissions and average noise pollution levels.

8.5.3 Low Carbon District Heating

District Heating is a method of delivering thermal energy in the form of hot water through a network of highly insulated pipelines. District heating systems have the ability to distribute heat from many different sources, including heat sources that are typically seen as a by-product and usually go to waste, like the waste heat from electricity production, industry and data centres. This Plan recognises the potential of District Heating Systems, where technically feasible and cost effective, to provide heating and hot water to houses and businesses at appropriate locations, where feasible, to assist in meeting renewable heat targets and reduce Irelands GHG emissions, reducing our dependency on fossil fuels and our carbon emissions as well as providing better air quality. Heat mapping can be considered to support development, which would deliver energy efficiency and the recovery of energy that would otherwise be wasted.

8.5.4 Public Lighting

Public lighting is widely accepted to be a significant user of energy and generator of CO2 emissions. As part of the 2020 Public Sector Energy Efficiency Target Reduction of 33%, the Council supports the upgrading and retrofitting of non LED Local Authority lighting in Birr to high efficiency LED lanterns to contribute to meeting statutory energy efficiency targets, significantly reduce emissions and achieving cost savings with energy and maintenance efficiencies.

8.6 Circular Economy

In a circular economy, resources are kept in use for as long as possible, the maximum value is extracted from them, and at the end of their life cycle they are recovered to regenerate new products and materials. These processes involve sharing, reusing and reinventing materials, and using fewer material resources to sustain our communities, homes and economy. This Local Area Plan fully supports a transition to a circular economy, and embraces the opportunities that it can bring to Birr. A local company, Irish Recycled Products, is noteworthy in this regard, as it produces eco-friendly outdoor furniture and gardening products from recycled plastic.

8.7 Climate Action, Business and Community

Decarbonising the economy will open up new employment and enterprise opportunities. This will mean new jobs, new skills, new investment opportunities and a chance to create a more productive and resilient economy. Grant Engineering Ltd, who have been significant employers in the town for generations, are a fine example of a local business who uncovered opportunities in responding to climate change, developing in recent years products such as hybrid heating pumps and biofuel compatible oil boilers which offer significant potential to reduce carbon emissions with existing and new building stock.

There are several impressive initiatives in the town that directly / indirectly can contribute to climate action that are community based from food production, waste management, wild planting to micro-

hydro energy production. These need to be supported and provided with an opportunity to cross-fertilise with the more traditional and mainstream aspects of Birr community development. This new type of ‘conversation’ and relationship building will be vital on the ground as Birr progresses.

8.8 Decarbonisation Actions and Projects

Table 8.1 below lists actions and specific local projects that that can be progressed in Birr and Crinkill in the lifetime of this Local Area Plan to help achieve a low carbon, climate resilient and environmentally sustainable economy.

Table 8.1: Decarbonisation Actions and Projects

Aim	Actions	Potential Projects
Promote Compact Growth	Reduce urban sprawl, encourage higher densities, reuse buildings.	<ol style="list-style-type: none"> 1. Specific projects which may arise from development of Opportunity Sites as identified in Section 3.3 of the Plan relating to Opportunity Sites. 2. Provision of community and enterprise space for meetings, digital hub, creative spaces, exhibition spaces and study spaces in specific objectives in Chapter 3 of this Plan. 3. Re-use of Birr Courthouse.
	Integrate transportation and landuse planning.	
	Reduce the need to travel and move towards self-sustaining rather than commuter driven activity.	
	Support car free developments in suitable locations.	
	Provide mixed-use developments and support the close location of jobs / shops / services / education and homes to minimise the need for the most common travel patterns.	
	Promote the repair and reuse of existing buildings including underutilised upper floors in Birr town centre and Crinkill village centre.	
	Reduce vacancy and dereliction.	
	Strengthen public transport linkages and encourage their use.	

Sustainability Mobility	Development of pedestrian routes, cycleways, permeability, connectivity to facilities and amenities and public transport provision.	<ol style="list-style-type: none"> 1. Identify and provide suitable sites for secure and appropriately located bicycle parking in Birr and Crinkill. 2. Improve cycling infrastructure including dedicated cycle lanes and footpath connections in Birr and Crinkill as outlined in specific objectives of this Plan. 3. Provision of an Eco-Friendly Walkway or Nature Trail along Camcor River from Elmgrove Bridge to Springfield Bridge. 4. Continue to improve the existing walkway along Camcor River from Mill Island to Elmgrove Bridge. 5. Implement recommendations of Birr Local Transport Plan.
	Electric vehicle recharging infrastructure.	Provision of EV recharging points throughout Birr Town.
Transition to a Low Carbon and Climate Resilient Society	Create or enhance delivery of carbon sinks, for example, wetlands, bogs, forestry, mini woodlands/stepping stone forests, permanent grassland in conjunction with other climate mitigation actions.	Provision of wetland and swales at locations shown on Figure 6.13 of this Plan.
	Flood risk management, avoid development on flood plains and only facilitate the appropriate management and sustainable use of flood risk areas, and support the delivery of the Birr Flood Relief Scheme and the enhancement of flood resilience of buildings.	
	Renewable and low carbon energy, Circular Bio-Economy.	Ongoing programme of upgrading public lighting to LEDs.

	Promote linkages and synergies between new developments and renewable energy resources, for instance by sourcing energy on-site renewably or from low carbon fuel sources.	
	Green Technology and Jobs.	
	Green Infrastructure, for example, green walls, green roofs, parks, waterways, wetlands, greenways, peatways, woodlands, plant drought-resistant plants / trees in public amenity areas to provide shade.	Progression of Green Infrastructure as outlined in specific objectives in this Plan.
	Promote nature-based sustainable urban drainage systems (SuDs).	
	Energy efficient building design.	Continue providing energy efficiency upgrades amongst social housing in Birr under the Midlands and National Retrofit Scheme.
	Support efforts to maximise water conservation and support grey-water recycling schemes.	
	Abatement of Greenhouse gas emissions in the agricultural sector.	
	Implementation of Offaly Climate Change Adaptation Strategy 2019-2024 and future editions.	Applicable projects as outlined in Chapter 5 of the Climate Change Adaptation Strategy: Adaptation Goals, Objectives and Actions.
	Climate proof major projects.	
	Sustainable food production.	

8.9 Climate Action as a Cross-Cutting Theme

Climate Action is a cross cutting theme and one of the main components of this Plan with every chapter of the Plan contributing to the overall effort to adapt to and mitigate the impacts of climate change. The summary table below provides a brief overview of the principal ways that each relevant chapter in the Plan contributes to climate adaptation and mitigation and how in broad terms, it supports the overall strategic aim and policies from this chapter.

Table 8.2 Contribution of Chapters to Climate Adaptation and Mitigation

<p>Chapter 1 – Introduction and Context</p> <ul style="list-style-type: none"> Climate is a core consideration in international, European, national, regional and county policy and legislation in addition to Ministerial Guidelines/policy Directives, which this Plan has taken account of in its preparation.
<p>Chapter 2 – Economic Development Strategy</p> <ul style="list-style-type: none"> Supports and promotes the development of economic and enterprise development and activity in a manner, which contributes to the transition to a low carbon, climate resilient and environmentally sustainable settlement. Promotes transformative projects with the support of Government funding streams for low-carbon focused projects.
<p>Chapter 3 – Town Centre and Regeneration</p> <ul style="list-style-type: none"> Supports the development of sustainable low-carbon climate resilient communities and encourages a climate adaptation and mitigation approach to developments, which enable regeneration. Promotes the concept of compact growth through the reuse / renewal of vacant, derelict or underutilised buildings in the Town Centre.
<p>Chapter 4 – Built Heritage</p> <ul style="list-style-type: none"> Encourages the rehabilitation, renovation, climate-proofing and re-use of existing historic structures, where appropriate, over the demolition of same and new-build on-site. Encourages the rehabilitation, renovation, climate-proofing and re-use of existing vernacular structures that are not listed on the Record of Protected Structures, over the demolition of same and new-build on-site.
<p>Chapter 5 - Residential</p> <ul style="list-style-type: none"> Ensures that Birr, a Self-Sustaining Growth Town, continues to grow at a sustainable level and at a commensurate scale in accordance with the Core Strategy Table in an effort to become more self-sustaining. Encourages the compact growth of Birr Town and Crinkle village and the appropriate redevelopment of brownfield and infill sites for residential and mixed uses within the existing built-up footprint of Birr Town and Crinkle village. Promotes growth in a sustainable and sequential manner, characterised by a compact, consolidated and permeable pattern of development linked by sustainable modes of transport including a robust network of pedestrian and cycle routes, enabling more people to be closer to employment, recreational and sustainable transport opportunities. Ensures resilience is built into the housing stock in Birr through: reuse, energy efficiency, lifetime adaptability, universal design, sustainable accessibility, and integration to ensure vibrant sustainable communities.
<p>Chapter 6 – Biodiversity and Green Infrastructure</p> <ul style="list-style-type: none"> Includes multiple policies and objectives that promotes the protection and enhancement of the green infrastructure network of the town, thereby providing important amenity and recreational spaces for communities but also economically viable and effective tools to combat the impacts of climate change. Benefits of Green Infrastructure measures as outlined in this chapter include flood prevention, CO2 storage, filtration of pollutants, providing connectivity for migrating species and lowering building energy demands.
<p>Chapter 7 - Community</p> <ul style="list-style-type: none"> The promotion of best practice measures to ensure that social and community facilities should be within walking distance of the town centre, housing and public transportation, which will help reduce greenhouse gas emissions by allowing people to travel to these

facilities by sustainable transport modes, and also by making provision for the sharing of the facilities.
Chapter 9 – Critical Infrastructure
<ul style="list-style-type: none">• Policies are included which improve accessibility and movement within Birr, reduce dependency on private car transport, increase permeability in the town, and encourage the use of energy efficient forms of transport through the promotion of walking, cycling, public transport and electric vehicles.• Requires that all developments provide appropriate Sustainable Urban Drainage Systems (SuDS) and other nature-based solutions and that flood risk in Birr is managed in conjunction with the Office of Public Works and in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and circular PL02/2014 (August 2014).
Chapter 10 – Infrastructural and Planning Assessment
<ul style="list-style-type: none">• In accordance with National Policy Objective 72a of Project Ireland 2040: The National Planning Framework, the Planning Authority has taken a standardised, tiered approach to differentiate between; i) zoned land that is serviced and ii) zoned land that is serviceable within the life of the plan to ensure co-ordination between land use zoning, infrastructure and services. This assessment supports the National Planning Framework and its National Strategic Outcomes and Priorities of the National Development Plan.
Chapter 11 – Land Use Zoning Objectives
<ul style="list-style-type: none">• Seeks adherence to the land use zoning objectives in the interests of orderly development by integrating land use and transportation.
Chapter 12 – Implementation and Monitoring
<ul style="list-style-type: none">• Requires new development to be phased to ensure that it occurs in a sequential and efficient manner and in tandem with the delivery of supporting physical and social infrastructure ensuring development proceeds in a sustainable and co-ordinated manner ensuring sustainable use of natural resources.

8.10 Climate Action Policies

It is Council policy to:

Climate Change Adaptation and Mitigation

CAP-01 Support the transition of Birr to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050, by way of reducing greenhouse gases, increasing renewable energy, and improving energy efficiency.

CAP-02 Promote and encourage positive community and/or co-operative led climate action initiatives and projects in Birr that seek to reduce carbon emissions, improve energy efficiency, enhance green infrastructure and encourage awareness on climate change issues.

CAP-03 Encourage innovation and facilitate the development of pilot schemes in Birr that support climate change mitigation and adaptation measures.

CAP-04 Support the implementation of the Offaly County Climate Change Adaptation Strategy and promote Birr as a key driver of the transition to a low carbon economy within the south-west of the county.

CAP-05 Support the National Climate Objective from the Climate Action and Low Carbon Development Act 2015 which states; *“The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy (in this Act referred to as the ‘national climate objective’)” (Government of Ireland, 2015).*

Compact Growth

CAP-06 Support the effective and efficient use of land in Birr, prioritising compact growth through the development of brownfield/infill land in the built-up footprint of the town in preference to greenfield land.

Green Infrastructure

CAP-07 Maintain existing green infrastructure in Birr and encourage and facilitate, in consultation with relevant stakeholders, the development of green infrastructure that recognises the synergies that can be achieved with regard to the following:

- Provision of open space amenities;
- Sustainable management of water;
- Protection and management of biodiversity;
- Protection of cultural heritage; and
- Protection of protected landscape sensitivities.

CAP-08 Require, where the presence of invasive species is identified at the site of proposed development in Birr, to detail how it is proposed to be managed and controlled.

Sustainable Urban Drainage Systems

CAP-09 Incorporate Sustainable Urban Drainage Systems and other nature-based surface water drainage solutions as part of all proposed developments.

Energy Efficiency

CAP-10 Encourage development proposals that are low carbon, well adapted to the impacts of climate change, include mitigation measures and, maximise energy efficiency through renewable energy sources, water conservation, siting, layout and design.

CAP-11 Promote the use of district heating systems as a decarbonising technology for the built environment powered by renewable fuel sources and/or waste heat in new residential and commercial developments where such development does not have a negative impact on the surrounding environment, landscape, biodiversity or local amenities.

CAP-12 Promote the use of efficient energy storage systems and infrastructure that support energy efficiency and reusable energy system optimisation, subject to compliance with proper planning and environmental considerations.

Electric Vehicles, Fuel Cell Vehicles and Autonomous Vehicles

CAP-13 Support the growth of Electric Vehicles, E-Bikes, Fuel Cell Vehicles and Autonomous Vehicles through a roll-out of additional electric charging points and refuelling infrastructure in collaboration with relevant agencies and in accordance with the siting criteria set out in the National Policy Framework Alternative Fuels Infrastructure for Transport in Ireland 2017-2030, and the Electric Vehicle Charging Infrastructure Strategy 2022-2025 (and any subsequent editions).

Smart City Technologies

CAP-14 Support the use of smart city technologies in Birr and Crinkill to assist in energy reduction through integrating public lighting infrastructure with EV charging points and also providing real time data on street lighting energy usage, atmospheric pressure, CO2 emissions and average noise pollution levels.

Decarbonisation Projects

CAP-15 Support the implementation and provision of the decarbonisation projects listed in Table 8.1 in Birr and Crinkill during the lifetime of this Plan.

8.11 Climate Action Objectives

It is an objective of the Council to:

CAO-01 Consider a variation of the development plan within a reasonable period of time, or to include such other mechanism, as may be appropriate, to ensure that the development plan will be consistent with the approach to climate action recommended in the revised Local Area Plan Guidelines when adopted or any other relevant guidelines.

Climate Change Adaptation and Mitigation

CAO-02 Source E.U. and national funding for projects that support Climate Change Adaptation and Mitigation.

CAO-03 Provide LED lighting in all new lighting and retrofit of existing lighting throughout the town.

CAO-04 Identify appropriate locations in conjunction with key stakeholders for the provision of battery charging infrastructure for electric vehicles in Birr.

CAO-05 Co-operate with the Office of Public Works (OPW) in the delivery of the Birr Flood Relief Scheme that may be brought forward in the lifetime of this Plan.

CAO-06 Seek to improve and promote looped walks along the Camcor River in conjunction with all stakeholders recognising them as important health and recreation infrastructure within the town.

CAO-07 Ensure that all development within Birr allows for connectivity (pedestrian, cyclist and vehicular) to adjacent lands in accordance with the National Transport Authority's Permeability Best Practice Guide (2015), or any updated version of same.

CAO-08 Provide the network of walking and cycling infrastructure in the Plan area as detailed in Figure 6.14 Potential Green Infrastructure Projects, subject to funding and resources.