

3

Climate Action



Art work by Leja Matiykaite,
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Houses with solar panels in Honeypark ack Imageworks Photography on behalf of Cosgrave Group

3.1 Introduction

Climate change is the greatest global challenge of our time. It is experienced as increasing global temperatures, extreme weather events, rising sea levels, impact on air quality and air pollution, flooding and impacts on biodiversity. It is essential that greenhouse gas (GHG) emissions are cut to meet with the climate commitments at national and EU level. Making this happen depends on the co-operation of a wide range of stakeholders and significant behavioural changes.

Whilst the challenge of climate change and the realisation that our planet has a finite resource capacity has come to prominence in the last 20 to 30 years, land use planning has since its inception played a key role in balancing development with the protection of the environment. The role of land use planning is principally in influencing the reduction in GHG by providing for growth to be compact, mixed use, well connected and sustainable.

The core strategy sets out how development in DLR will be concentrated in the built up footprint of the County in order to achieve compact growth. This will be in the form of higher residential densities. Growth will be concentrated in urban infill and brownfield sites and along public transport corridors. This increases efficiencies as travel distances between home, work, education and services are reduced and hence active modal share, which is zero carbon can be increased.

DLR is committed to playing its role in transitioning to a climate resilient low carbon County to 2030, 2050 and beyond. In May 2019, the Council adopted the Dún Laoghaire Rathdown Climate Change Action Plan 2019 – 2024 (DLR CCAP). The Action Plan is the climate adaptation and mitigation strategy for

the County. Included in the actions set out in the DLR CCAP is the requirement to prepare a climate change Chapter in the County Development Plan.

The creation of a climate resilient County is an overarching strategic outcome of this Plan, and as such, whilst this is a standalone Chapter, the theme permeates the entire plan with a selection of policy objectives in other Sections all contributing to aid in the transition of the County to a climate resilient low carbon society.

The all of Government 'Climate Action Plan 2021 Securing Our Future' commits to delivering a 'just transition', recognising the significant level of change required and that burdens borne must be seen to be fair across society and the most vulnerable of our citizens. Relevant Council policy will evolve to reflect this emerging policy area. The Council will endeavor to ensure that low income families are protected from fuel poverty as Climate Change actions are rolled out across Dún Laoghaire-Rathdown.

After addressing relevant international, national and regional policy relating to climate change action, the Chapter will address four key issues, namely:

- Energy Efficiency in Buildings;
- Renewable Energy;
- Decarbonising Motorised Transport;
- Urban Greening.

These issues have been identified as being of particular significance in helping to achieve sustainable planning outcomes which will ultimately help to deliver a low carbon and a climate resilient County.



3.2 International, National and Regional Policy

In 2020, the European Commission presented proposals to enshrine in legislation the European Union's political commitment to be climate neutral by 2050, titled The European Climate Law. These proposals have influenced Ireland's energy and emission targets and other national targets set out in the Government's 'Climate Action Plan 2021 Securing Our Future' and will influence any future National Mitigation Plan and the National Energy and Climate Plan (NECP).

3.2.1 Policy Objective CA1: National Climate Action Policy

It is a Policy Objective to support the implementation of International and National objectives on climate change including the 'Climate Action Plan 2021 Securing Our Future', the 'National Adaptation Framework' 2018, the 'National Energy and Climate Plan 2021-2030', and take account of the 'Climate Action and Low Carbon Development (Amendment) Act 2021', and subsequent updates, other relevant policy, guidelines and legislation, that support the climate action policies included in the County Development Plan.

At a national level, progress has been made in the evolution of climate change policy in Ireland. Climate Action is an evolving policy area. The Climate Action and Low Carbon Development (Amendment) Act 2021, updates the 'Climate Action and Low Carbon Development Act, 2015' by enshrining in law a commitment for net-zero greenhouse gas emissions by 2050, through establishing a 'National 2050 Climate Objective' that the State will pursue and achieve the transition to a 'climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy' by the end of the year 2050 and thereby promote climate justice. The Act set out the role of the Local Authority to prepare climate action plans with both mitigation and adaptation measures. It also provides that local authorities shall, when making development plans, take account of their climate action plans and for that purpose the Planning and Development Act is amended. It also provides for carbon budgets and a sectoral emissions ceiling to apply to different sectors of the economy. The first two carbon budgets ending in 2030 shall provide for a 51 percent reduction in the total amount of greenhouse gas emissions.

The Department of Communications, Climate Action and Environment (DCCA) published Ireland's first 'National Adaptation Framework' (NAF) in 2018. Then in 2019, the Government published the 'Climate Action Plan 2019 To Tackle Climate Breakdown'

with the 'National Energy and Climate Plan 2021-2030' published in September 2020. In 2021 an updated national Climate Action Plan was published - 'Climate Action Plan 2021 Securing Our Future'.

The Government's national 'Climate Action Plan 2021 Securing Our Future', is a detailed national plan, which will be updated annually, for taking action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and to set a path to reach net-zero emissions by 2050. The Plan lists 475 actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It also reiterates Ireland's commitment to the UN Sustainable Development Goals.

The Climate Action Plan is also closely linked to the Government's Project Ireland 2040 initiative in that it restates the importance of ensuring "compact, connected and sustainable development". The [National Planning Framework \(NPF\)](#), which is a central element of Project Ireland 2040, emphasises the role of spatial planning policy in achieving climate change mitigation and adaptation in how it influences where we live and work and how we travel. The transition to a low carbon and a climate resilient society is outlined in NPF National Strategic Outcome (NSO) 8.

The National Energy and Climate Plan (NECP) sets out the energy and climate policies of the Government in accordance with EU legislation. Ireland is committed to achieving GHG reductions in excess of those set out in the NECP 2021-2030 and currently new policies, legislation and measures are being developed to reflect this.

3.2.2 Policy Objective CA2: Regional Climate Action

It is a Policy Objective to work closely with the Eastern Midland Regional Authority (EMRA) the Dublin Metropolitan Climate Action Regional Office (Dublin CARO), City of Dublin Energy Management Agency (Codema) and the Sustainable Energy Authority of Ireland (SEAI) to achieve the climate action policies and objectives set out in the Eastern and Midland Region Spatial and Economic Strategy (consistent with RPO 3.1, 3.6, 7.4, 7.30, 7.31, 7.32, 7.33, 7.35, 7.38, 7.40, 7.42, 7.43, 7.7 of the RSES).

Climate action and the need to transition to a low carbon society is one of three key principles of the [Regional Spatial and Economic Strategy \(RSES\)](#) for the Eastern and Midlands Region. The RSES contains

a number of detailed Regional Policy Objectives (RPOs) relating to climate action and outlines the role planning and the Development Plan can play in achieving these objectives.

The need to enhance climate resilience and to accelerate a transition to a low carbon society is emphasised in the RSES. The role of natural capital and ecosystem services in achieving this aim is recognised and this is reflected in numerous RPOs including those which focus on: compact growth; the integration of land use and transport; infrastructure development; energy; green infrastructure; flooding; and ecosystem services.

The Dublin Climate Action Regional Office (CARO) is one of four such offices set up with funding from DCCA to drive climate action at a local and regional level. CAROs provide expertise in the area of climate action and assist in the development of policy and the collaborative approach to transitioning to a low carbon and climate resilient future by aligning the work of the local authorities and the sectoral adaptation plans of the various Government departments.

The Dublin CARO and the City of Dublin Energy Management Agency (Codema) have worked with DLR and the other Dublin Authorities in preparing Climate Change Action Plans. It is Codema's role to accelerate Dublin's low-carbon transition through innovative, local-level energy and climate change research, planning, engagement and project delivery, in order to mitigate the effects of climate change and improve the lives of citizens.

Codema acts as DLR County Council's energy and climate mitigation advisors and has prepared the 'Dún Laoghaire-Rathdown Baseline Emissions Report' (2016). Codema has also provided information which has informed a number of the specific policy objectives contained in this Chapter.

Codema has been tasked with preparing the 'Dublin Region Energy Master Plan' which will provide an evidence base to support and inform policy making in the areas of heat, electricity and transport. The Masterplan will develop suggested pathways for Dublin to achieve its carbon emission reduction targets considering local spatial, social and economic factors.

This ongoing work will also help the Dublin Local Authorities to identify Strategic Energy Zones, which are areas suitable for larger energy generating projects and consider the role of community and micro energy production (consistent with RPO 7.35 of the RSES). It will also assist in the identification of district heating opportunity areas (as required under RPO 7.38 of the RSES) along with other areas of heat and transport policy.

3.2.3 Policy Objective CA3: Guidelines on Climate Action and Measuring Greenhouse Gas Impacts

It is a Policy Objective that spatial and infrastructure planning are consistent with climate mitigation and adaptation objectives. When it is available, the Council will be informed by the work led by the Eastern and Midland Regional Assembly to develop a methodology for quantifying the GHG impacts of spatial planning policies, (QGasSP, an ESPON EU research programme) and the forthcoming Development Plan Guidelines or other national guidance as appropriate. The Council will quantify the GHG impacts for this County Development Plan when EMRA guidelines become available and also ensure the Development Plan is consistent with the approach to climate action recommended in any forthcoming revised Section 28 Development Plan Guidelines or other relevant guidelines and if necessary, vary the development plan (Consistent with NPO 54 of the NPF and RPO 3.6 of the RSES).

RPO 3.6 of the RSES requires County Development Plans to undergo assessment of their impact on carbon reduction targets. It should be noted however that while Actions 15 and 65 of the Government's 2019 Climate Action Plan refers to a range of methodologies, guidance, toolkits and audit frameworks for measuring GHG impacts, at present there is no agreed methodology for measuring GHG impacts of spatial planning nor the integration of climate change issues into the Development Plan process.

In this regard, it should also be noted that Section 28 Guidelines are in preparation by the Department of Housing, Local Government and Heritage (DHLGH) which are intended to provide clarification around the area of Climate Action in the context of the Development Plan including a suitable methodology for measuring carbon emissions.

However, the 'Dún Laoghaire-Rathdown Baseline Emissions Report' prepared by Codema does provide an emission baseline of carbon and GHG emissions on a County basis and EMRA is currently leading on a research project on Greenhouse Gas Impact Assessment Method for Spatial Planning Policy titled 'Quantitative Greenhouse Gas Impact Assessment Method for Spatial Planning Policy (QGasSP)' as part of the EU ESPON (European Spatial Planning Observation Network) research programme.

In combination these evolving Guidelines and research should clarify the role of the County Development Plan in achieving the climate targets of 2030 and 2050 in due course.

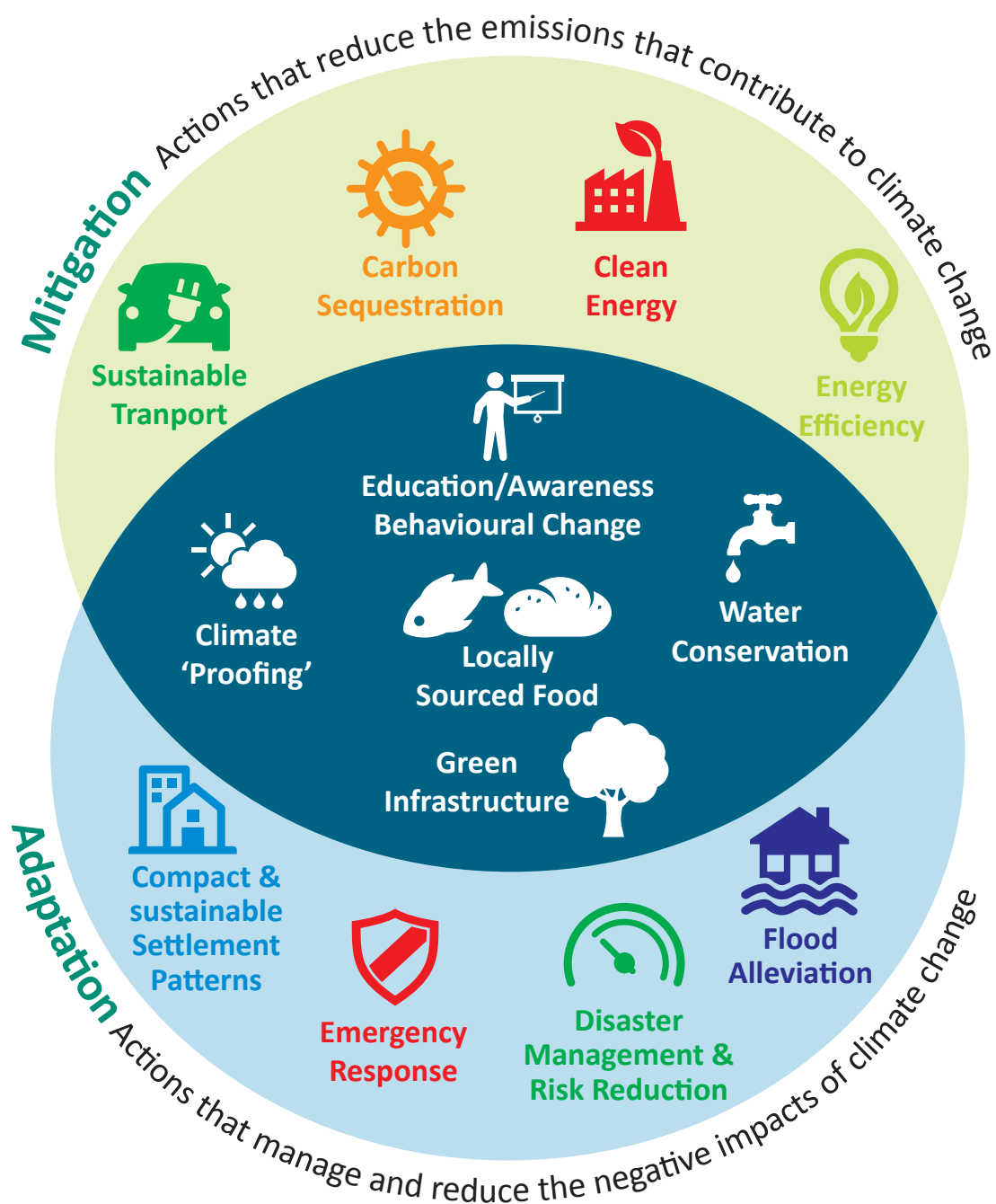
3.3 Local Climate Change Action Policy

RPO 7.32 of the RSES requires that Local Authorities develop, adopt and implement local climate mitigation and adaptation strategies. Measures to deal with climate change can be defined as either mitigation measures or adaptation measures and some measures incorporate element of each.

According to a 2014 report from the Intergovernmental Panel on Climate Change (IPCC) climate change mitigation is defined as “a human

intervention to reduce the sources or enhance the sinks of greenhouse gases” while climate change adaptation is defined as “the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects”.

Figure 3.1: Climate Action: Mitigation and Adaptation



In accordance with this approach, the DLR CCAP, sets out the baseline climate adaptation and mitigation assessment risk and vulnerability assessment and ambitious target actions for the Council's activities under five headings, namely: Energy and Buildings, Transport, Flood Resilience, Nature Based Solutions and Resource Management. For each action area the DLR CCAP sets out actions and targets to be achieved along with the lead agency and/or Council Department.

3.3.1 Policy Objective CA4: Dún Laoghaire Rathdown County Council Climate Change Action Plan 2019-2024 (DLR CCAP)

It is a Policy Objective to implement and take account of the Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019 - 2024 (DLR CCAP), to take account of the 'Climate Action and Low Carbon Development (Amendment) Act 2021', and subsequent updates of both and to transition to a climate resilient low carbon County. (Consistent with SO8 of the NPF, RPO 7.32, 7.33 of the RSES).

Planning and the Development Plan already plays a role in each of the key areas identified in the DLR CCAP. Having regard to the headings set out in the DLR CCAP, this Development Plan contains a range of policy objectives which aim to mitigate and adapt to climate change.

In addition to the specific policies contained in this Chapter, many other Chapters also address the DLR CCAP headings listed above:

- The issue of Energy and Buildings is addressed in Chapter 11 'Heritage' in relation to energy efficiency and protected structures and Chapter 12 'Principles of Development' in relation to standards for new buildings.
- The issue of 'Transport' is dealt with in detail in Chapter 5 'Transport and Mobility' which sets out the overall policy approach which is very much focused on achieving a modal shift to more sustainable modes of transport, while this Chapter includes policy objectives on low emission vehicles.
- The issues of 'Flood Resilience' and 'Resource Management' in relation to waste and water are covered in Chapter 10 'Environmental Infrastructure'.
- The issue of Nature Based Solutions (NBS) is addressed in Chapter 8; Green Infrastructure and Biodiversity which includes a new policy objective which relates directly to NBS.

Table 3.1 sets out in summary how Chapters 1 – 11 of this Plan contribute to climate change adaptation or mitigation measures. The remaining Chapters in the plan are supporting Chapters and hence are not included.



Table 3.1: How Chapters contribute to Climate Change Adaptation or Mitigation

Chapter	How Chapters contribute to Climate Change Adaptation or Mitigation
1. Introduction, Vision and Context	Identifies the creation of a climate resilient County as an overarching strategic outcome of the Plan
2. Core Strategy	Supports the compact urban development approach with development focused on transportation corridors and minimisation of travel
	Supports the development of brownfield sites/windfall and regeneration
3. Climate Action	Supports the implementation of the DLR CCAP
	Supports Government and sectoral plans
	Supports the work of EMRA, Dublin CARO and Codema on climate action and takes on board research project to monitor progress regarding GHG emissions
	Promotes high levels of energy conservation, energy efficiency and the use of renewable energy sources in existing buildings
	Supports and promotes the use of structural materials that have low to zero embodied energy and CO2 emissions
	Supports renewable energy
	Supports district heating and the development of County wide policy
	Supports the decarbonising of motorised transport including public EV charging network
	Supports an urban greening approach
4. Neighbourhood - People, Homes and Place	Supports the provision of residential development in tandem with public transport, sustainable neighbourhood infrastructure, quality open space, recreation and employment opportunities
	Supports the 10 minute settlement approach and sustainable urban villages
	Supports healthy placemaking
	Places an emphasis on adaptability of social and community facilities and new homes
5. Transport and Mobility	Supports the Avoid-Shift-Improve approach. Emphasis is on the pedestrian and cyclist and access to public transport and services
	Supports car and bike sharing
	Introduces new car parking standards
	Integrates land use and transport policies
	Encourages the replacement of sodium bulbs with low energy LEDs for public lighting
6. Enterprise and Employment	Supports the transition to a low carbon economy
	Supports employment concentrated on public transport corridors and the proposed intensification and redevelopment of existing strategic employment areas
	Supports home and e-working.
	Supports new employment which is aligned with climate action and the circular economy
	Supports a sustainable maritime economy
7. Towns, Villages, and Retail Development	Places an emphasis on the multi-functional role of village/town centres to provide a wide range of services to reduce the need to travel
	Increases emphasis on placemaking - enhanced public realm, including improved accessibility for sustainable transport modes
	Supports casual trading, organic foods, producer only products, seasonal and craft markets

Chapter	How Chapters contribute to Climate Change Adaptation or Mitigation
8. Green Infrastructure and Biodiversity	Supports Green Infrastructure and ecosystems services approach
	Supports the actions of the DLR County Biodiversity Action Plan 2021-2026 (including the County Wildlife Corridors) and the DLR Ecological Network.
	Supports the All Ireland Pollinator Plan 2020-2025
	Supports the increased use of nature-based solutions
	Supports the National Marine Planning Framework and the preparation of Local Seascape Character Assessment
	Supports the Dublin Bay Biosphere and the Dublin Mountains Strategic Plan
9. Open Space, Parks and Recreation	Supports locally grown foods – community gardens and allotments
	Supports greenways and blueways network
	Supports an updated more holistic trees, woodlands and forestry policy as an ‘urban forest’ and aligned to the role of trees in Climate Mitigation and Climate Adaptation
	Supports Nature Based Play
10. Environmental Infrastructure	Supports the matching of enabling water and waste water infrastructure with provision of development
	Supports the circular economy with respect to waste
	Supports Sustainable Urban Drainage Systems (SuDS)
	Supports Strategic Flood Risk Assessment and Management
	Supports the Coastal Defence policy and the Coastal Monitoring Survey Programme
11. Heritage and Conservation	Emphasises protection and reuse of building stock where appropriate
	Supports appropriate energy efficient upgrades to protected structures which respect the built fabric

Mews in Sallynoggin



3.4 Achieving Sustainable Planning Outcomes

As outlined above, four significant issues were identified which are considered as of particular significance in helping to achieve sustainable planning outcomes which will ultimately help to deliver a low carbon and a climate resilient County namely:

- Energy Efficiency in Buildings;
- Renewable Energy;
- Decarbonising Motorised Transport;
- Urban Greening.

3.4.1 Energy Efficiency in Buildings

Energy and buildings are one of the key target areas of the DLR CCAP 2019 – 2024. A series of ambitious targets to be delivered by the DLR Energy team, SEAI and others are set out in the DLR CCAP. DLR's social housing stock promotes high quality energy efficiency in new build and has a programme of energy upgrade supported by other stakeholders. The Development Plan can play a role in supporting and encouraging energy efficiency in the built environment.

According to the 'Dún Laoghaire-Rathdown Baseline Emissions Report' it was estimated that buildings equated to 63.7% of the total carbon emissions within DLR.

3.4.1.1 Policy Objective CA5: Energy Performance in Buildings

It is a Policy Objective to support high levels of energy conservation, energy efficiency and the use of renewable energy sources in existing and new buildings, including retro fitting of energy efficiency measures in the existing building stock.

The Planning Authority will support the actions of the DLR CCAP and overall energy conservation and energy efficiency in new and existing buildings. Design of both new and existing buildings should consider orientation, energy conservation and energy efficiency so as to promote the transition to net zero carbon. It is noted that under the current building regulations and in line with the Energy Performance of Building Directive (EPBD), all new buildings within the County are required to achieve the nearly Zero energy Buildings (NZEB) standard (consistent with RPO 7.40 of the RSES).

With regard to Protected Structures and buildings in Architectural Conservation Areas (ACAs) Policy Objective HER11: Energy Conservation in Protected Structures should be referred to (see Section 11.4.1.5).

3.4.1.2 Policy Objective CA6: Retrofit and Reuse of Buildings

It is a Policy Objective to require the retrofitting and reuse of existing buildings rather than their demolition and reconstruction where possible recognising the embodied energy in existing buildings and thereby reducing the overall embodied energy in construction as set out in the Urban Design Manual (Department of Environment Heritage and Local Government, 2009). (Consistent with RPO 7.40 and 7.41 of the RSES).

With 30% of construction related emissions locked into the completed building as 'embodied carbon' priority should be given to repairing and re-using existing buildings in preference to demolition and new-build. This policy objective is again in line with the targets of the DLR CCAP. For new build and repair or retrofit, the Planning Authority will support the use of materials that are sustainably sourced and the reuse and recycling of existing materials wherever possible.

Where an existing building cannot be incorporated into a new layout and the development facilitates a significant increase in density, demolition may be considered to be acceptable to the Planning Authority (See also Section 12.3.9. Demolition and Replacement Dwellings).

3.4.1.3 Policy Objective CA7: Construction Materials

It is a Policy Objective to support the use of structural materials in the construction industry that have low to zero embodied energy and CO2 emissions. (Consistent with the RPO 7.41 of the RSES)

Action 191 of the National 'Climate Action Plan 2021 Securing Our Future' is to "Work with industry stakeholders to increase the use of low carbon materials, taking into account international best practice".

3.4.1.4 Policy Objective CA8: Sustainability in Adaptable Design

It is a Policy Objective to promote sustainable approaches to the improvement of standards for habitable accommodation, by allowing dwellings to be flexible, accessible and adaptable in their spatial layout and design.

It is important that the design of individual buildings facilitate a good quality of life for residents and secures long-term sustainability of the overall



*Monna Smart Bench Dún Laoghaire
(temporary location)*

development. The design of new residential developments should consider not just the immediate needs of the prospective occupants, but also their possible changing needs over the life of the building. (See also Policy Objective PHP19: Existing Housing Stock - Adaptation, Section 4.3.1.2)

The Planning Authority will also support developments that manage the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure.

3.4.1.5 Policy Objective CA9: Radon Gas

It is a Policy Objective, in partnership with other relevant agencies, to promote best practice in the implementation of radon prevention measures.

3.4.2 Renewable Energy

Renewable energies will play an increasing role in the future in the drive to reduce GHG emission and transition to a low carbon society. DLR offers a range of opportunities for renewable energy.

3.4.2.1 Policy Objective CA10: Renewable Energy

It is a Policy Objective to support County, Regional, National and International initiatives and pilot schemes to encourage the development and use of renewable energy sources, including the SEAI Sustainable Energy Community initiatives, as a means of transitioning to a low carbon climate resilient County in line with national renewable energy targets.

DLR supports the increase in use of renewable energy and low carbon resources, namely solar photovoltaic, geothermal, heat pumps, district heating, solar thermal, hydro, tidal power, offshore wind, small-scale onshore wind and biomass. These sources offer alternatives to fossil fuels, which help reduce carbon emissions and reliance on imported fossil fuels. They can also support local economic development and employment.



Solar farm with sheep

The 'Dún Laoghaire-Rathdown Baseline Emissions Report' estimated that energy from renewables only contributed 1% to the total fuel mix in DLR. This renewable energy mainly came from biomass energy, at 0.7%.

DLR encourages and supports the SEAI Sustainable Energy Communities initiatives which involves the participation of local communities in developing a sustainable energy system for the benefit of the community to be energy efficient, using renewable energy where feasible and adopting smart energy solutions.

3.4.2.2 Policy Objective CA11: Onshore and Offshore Wind Energy and Wave Energy

It is a Policy Objective to support in conjunction with other relevant agencies, wind energy initiatives, both on-shore and offshore, wave energy, onshore grid connections and reinforcements to facilitate offshore renewable energy development when these are undertaken in an environmentally acceptable manner. (Consistent with NSO 8 and NPO 42 of the NPF and RPO 7.36 and 10.24 of the RSES).

It is acknowledged that wind and wave energy as renewable energy sources have an important role to play in achieving national targets in relation to reductions in fossil fuel dependency and, greenhouse gas emissions as well as contributing to the decarbonising of the County.

The 'Wind Energy Development Guidelines for Planning Authorities' (2006) sets out a detailed methodology to help identify optimum locations for the development of commercial wind generating facilities. The Planning Authority has also had regard to the 'Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change' (2017) in the preparation of this Plan (see Appendix 10 for further details).

The national Climate Action Plan 2021 states that one of the most important measures to bring about a reduction in carbon emissions is to increase the proportion of renewable electricity to 80% by 2030, including an increased target of up to 5 Gigawatts of offshore wind energy. The Plan also highlights the economic opportunities which will arise from offshore wind.

Appendix 10 of this Plan includes an analysis of wind speeds and the sensitive landscapes of the County at a broad level. It is concluded that there is no realistic or practical potential for economic on-shore wind farm development in the County without significant and overriding adverse visual and environmental impacts. Appendix 10 highlights the strong wind resource located off Ireland's east coast and notes that this offers the greatest

contribution that the County is likely to make in terms of large scale renewable energy development in the form of offshore wind farm development and/or associated hybrid technologies.

The role of DLR in the promotion of measures to reduce GHG emissions, in terms of offshore wind and wave relates to promoting enabling infrastructure such as grid facilities on the land side of any renewable energy proposals of the offshore wind resource.

The Council supports the 'Offshore Renewable Energy Development Plan' (OREDPP) published in 2014 by the Department of Communications Energy and Natural Resources, in the progressive development of Ireland's offshore renewable energy potential and will cooperate with state and semi-state agencies in relation to the implementation of projects in the Irish Sea. The Council supports the "National Marine Planning Framework" (2021, DHLGH). See also Section 8.5.1 Policy Objective GIB7: National Marine Planning Framework.

3.4.2.3 Policy Objective CA12: Small-Scale Wind Energy Schemes

It is a Policy Objective to encourage small-scale wind energy developments and support small community-based proposals provided they do not negatively impact upon the environmental quality or amenity of the area, as a renewable energy resource which can contribute to the transition to a low carbon climate resilient County.

Central Government support to such small-scale renewable residential energy projects is implicit in the various planning exemptions provided for under the Planning and Development Regulations 2001, as amended.

DLR County Council will encourage domestic households and commercial premises in appropriate locations to install micro wind energy units.

3.4.2.4 Policy Objective CA13: Solar Energy Infrastructure

It is a Policy Objective to encourage and support the development of solar energy infrastructure, including photo voltaic (PV) and solar thermal and seasonal storage facilities infrastructure in appropriate locations, as a renewable energy resource which can contribute to the transition to a low carbon climate resilient County. It is also a policy objective to support Ireland's renewable energy commitments by facilitating utility scale PV installations for the production of electricity provided they do not negatively impact upon the environmental quality, amenity or heritage of the area.

Solar PV converts the sun's radiation into electricity to help move away from carbon based electricity generation and Solar thermal converts the sun's radiation into heat, to use for residential and commercial space heating and hot water.

The Plan supports the growth in solar photovoltaics and solar thermal use in the County. Roof space that is free from shading, roof mounted plant and flat or in the case of a pitched roof has a general southerly orientation (within 90° of due south) would be suitable for solar. Planning exemptions are set out in the Planning and Development Regulations 2001, as amended for small scale solar thermal and PV.

Utility scale solar usually consist of ground mounted solar panels and supplies the electricity grid directly. Locations that may be suitable for these uses include lands zoned with the Land Use Zoning Objective, "B: to protect and improve rural amenity and provide for the development of agriculture" and "GB: to protect and enhance the open nature of lands between urban areas".

3.4.2.5 Policy Objective CA14: Energy Storage Systems

It is Policy Objective to support the use of efficient energy storage systems and infrastructure that supports energy efficiency and reusable energy system optimization, in accordance with proper planning and sustainable development when these are undertaken in an environmentally acceptable manner.

The Government's national 'Climate Action Plan 2021 Securing Our Future' notes that "A range of supporting measures will also be needed to enable this transformation of the electricity generation sector. These will include providing the conventional capacity that will be essential to ensure the security of the system, grid investments, interconnectors, and storage facilities" (page 97).."

3.4.2.6 Policy Objective CA15: District Heating

It is a Policy Objective to support the development of district heat networks and the utilisation of waste heat recovery in the County as a renewable or low energy resource which can contribute to the transition to a low carbon climate resilient County. The Planning Authority will support the development of a Council wide District Heat policy following on from the forthcoming National Policy Framework for District Heat. (Consistent with RPO 7.38 of the RSES)

A district heating scheme consists of an insulated pipe network, which allows heat generated from a single or several larger centralised source(s) (energy

centres) to be delivered to multiple buildings to provide space heating and hot water.

District heating is independent of the heat source and has the inherent flexibility to utilise multiple, diverse, locally available, renewable and low-carbon heat sources. District heating can also allow waste heat (e.g. from electricity generation, industrial processes, hospitals etc.) which is often lost, to be captured and used to supply heat to homes and businesses, reducing the need to consume further fuel and significantly reducing carbon emissions and the cost of heat.

The Council will seek to support the advancement of district heating within the County.

The ‘National Climate Action Plan 2019’ refers to the following actions being taken to further the uptake of district heating in the Country:

- “Develop a national policy framework for district heating, which covers the key areas of regulation, planning, financing and research;
- Use the two district heating pilot schemes to develop experience and knowledge that can promote and inform further schemes nationwide to facilitate greater uptake of district heating through self-financed heat networks;
- Ensure the potential of district heating is considered in all new developments and in particular in SDZs;
- Identify a set of potential early mover projects beyond the first two pilot schemes”.

RPO 7.38 of the RSES requests that Local Authorities consider the issue of heat mapping to support

development which can deliver energy efficiency and recovery of energy, carry out a feasibility assessment for district heat and identify local waste heat sources.

Codema has carried out a feasibility assessment for district heating to identify local waste heat sources in the County which indicates that several areas have potential. Following the development of a formal National Policy Framework for district heating, which will be informed by the lessons learned from the two ongoing national pilot schemes, further work will be required at a Council wide level to develop a comprehensive district heating policy.

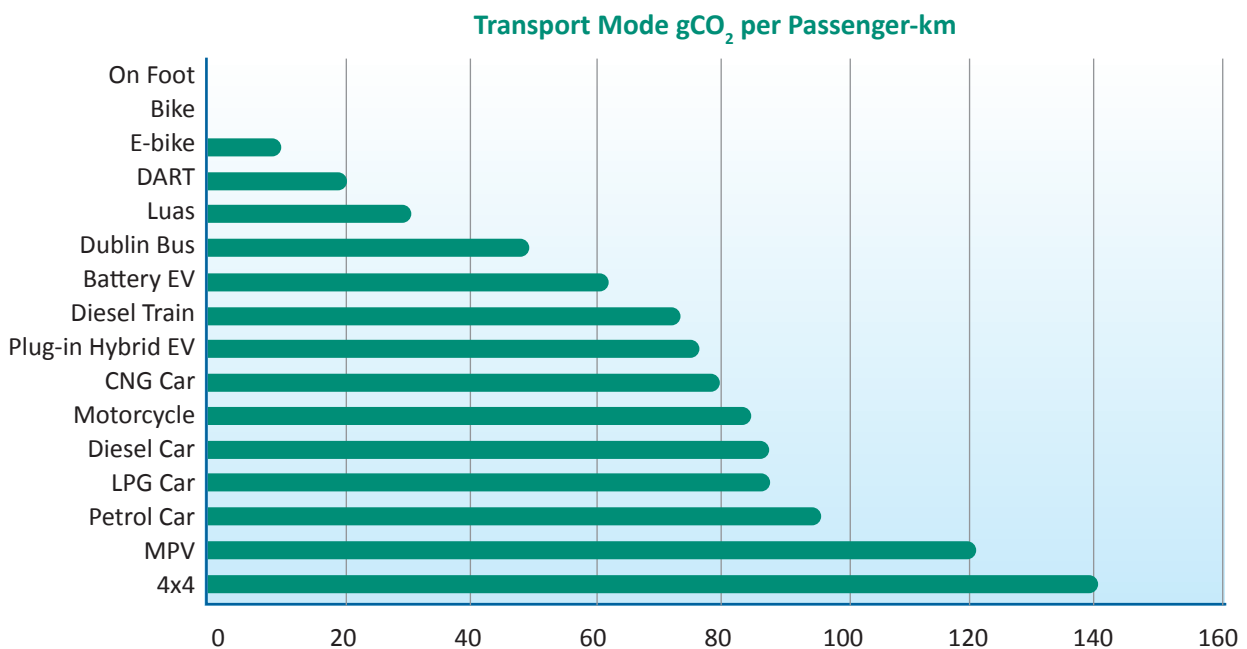
3.4.3 Decarbonising Motorised Transport

Decarbonising motorised transport is one of the ways DLR as a County can move towards an overall sustainable transport strategy. Transport is another key area of the DLR CCAP. Actions which are set out in the CCAP include increasing the number of electric vehicles along with the promotion of active travel and behavioural change.

The ‘DLR Baseline Emissions Report’ reported that transports accounts for 33.2 % of GHG emissions in DLR.

Whilst it is acknowledged that Low Emission Vehicles (LEVs) and Electric Vehicles (EVs) are not the modes of transportation with the lowest emission levels, the Planning Authority are supportive of the transition away from the dependence on fossil fuel propelled vehicles to LEVs and EVs. Policy with regard to the other transport modes is set out in Chapter 5. The ‘avoid-shift-improve’ policy approach is adopted in Chapter

Figure 3.2: Passenger Transport Mode Hierarchy for Dublin



Source: Codema 2020



Art work by Kim Doyeon, St Andrew's Junior School

5, which has the aim to reduce congestion, create more liveable cities and reduce greenhouse gas (GHG) emissions.

3.4.3.1 Policy Objective CA16: Low Emission Vehicles

It is a Policy Objective to support and facilitate the rollout of alternative low emission fuel infrastructure through the Development Management process, prioritising electric vehicle infrastructure.

The National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030 sets a target that by 2030 all new cars and vans sold in Ireland will be zero emissions (or zero emissions capable).

A Low Emissions Vehicles (LEV) Taskforce has been established to assess the range of measures and options available to Government to help accelerate the deployment of alternative technologies, focusing first on electric vehicles.

Developing and expanding the infrastructure for alternatively fuelled vehicles will be a vital step in encouraging consumers to make more environmentally friendly transport choices. Consideration should be given to the need for low emission fuel infrastructure in development proposals for new and or refurbished service stations. (See also Section 12.6.7 Service Stations).

3.4.3.2 Policy Objective CA17: Electric Vehicles

It is a Policy Objective to support, the Government's Electric Transport Programme by progressively electrifying our mobility systems by facilitating the rollout of Electric Powered Vehicle Recharging Parking Bays across the County and on public roads and other suitable location. The provision of e-bike chargers will be supported subject to the availability of Funding. (Consistent with NSO 4 of the NPF and RPO 7.42 of RSES)

The national 'Climate Action Plan 2021 Securing Our Future' has ambitious targets for the uptake of electric vehicles (EVs), with a target of having 945,000 EVs on the road by 2030, including 845,000 cars, 95,000 electric vans, 3,500 low emitting trucks and 1,500 electric buses.

Electric vehicles (EVs) offer an increasingly realistic solution to the challenge of reducing the transport sector's GHGs, increasing the use of renewable energy in transport and reducing reliance on imported fossil fuels.

Since the adoption of the 2016 County Development Plan, DLR has been trialling electric charging points on street lamps. It is Council policy to expand the network of public EV charging points, through the use of the public lighting network, where feasible, and at other on-street or public parking locations subject to the availability of funding.

DLR in conjunction with other Local Authorities in the Dublin Region are developing a strategy to provide for public electric vehicle charging infrastructure at on-street locations, in support of the Government Strategy on electric vehicles and use of alternative fuels – National Policy Framework on Alternative Fuels Infrastructure for Transport for Ireland 2017 to 2030 (See also Section 12.4.11 Electrically Operated Vehicles).

The growth of E-bikes is recognised as an important means of encouraging alternatives to the private car, increasing journey length by bike and reducing GHG emissions. E-bikes are also opening up cycling as a transport mode for the disabled, elderly and families. E-cargo bikes also have a role to play in reducing commercial vehicles in the County.

3.4.4 Urban Greening

Urban greening is the provision of planting, including trees, in urban areas and can include small pocket parks in between buildings, living/green walls and green roofs. Urban greening creates mutually beneficial relationships between the population and the environment.

3.4.4.1 Policy Objective CA18: Urban Greening

It is a Policy Objective to retain and promote urban greening - as an essential accompanying policy to compact growth - which supports the health and wellbeing of the living and working population, building resilience to climate change whilst ensuring healthy placemaking. Significant developments shall include urban greening as a fundamental element of the site and building design incorporating measures such as high quality biodiverse landscaping (including tree planting), nature based solutions to SUDS and providing attractive routes and facilities for the pedestrian and cyclist (Consistent with RPO 7.6, 7.22, 7.23, 9.10 of the RSES).

The ecosystem services from urban greening include the direct and indirect contributions to human well-being. A key action of the 'EU Biodiversity Strategy for 2030' recognises that:

"Green urban spaces, from parks and gardens to green roofs and urban farms, provide a wide range of benefits for people. They also provide opportunities for businesses and a refuge for nature. They reduce air, water and noise pollution, provide protection from flooding, droughts and heat waves, and maintain a connection between humans and nature".

The EU strategy also emphasises that investing in nature protection and restoration will also be critical for Europe's economic recovery from the COVID-19 pandemic.

Increasing green infrastructure can help to off-set the GHGs from new development and act as carbon sinks. There is a need to balance compact growth with a greener public realm and the greening of buildings (such as living/green roofs and living/green walls). This will reduce the heat island effect in the built up parts of the County and provide some of the benefits of traditional parks and open spaces outside of parks. (See also policy objectives in Chapter 8).

The Council supports the expansion of urban meadows within the County, in accordance with the approach set out in the All Ireland Pollinator Plans.

The approach to green infrastructure and nature based solutions is evolving in terms of both policy and practise, one example of such is the use of Biotope Area Factor (BAF) or Green Factor Method. This type of approach is used in a number of cities such as Berlin, Seattle, Toronto, Malmö, Southampton and Helsinki and more recently in the Draft Greater London Area Plan (referred to as the

urban greening factor). The goal of this approach is to mitigate the effects of construction by maintaining sufficient levels of green infrastructure while enhancing the quality of the remaining vegetation. This method provides a means to assess and develop ways to build an ecological, climate-resistant and dense city in which the social values of urban greening are a priority.

The 'Green Factor Approach' can be considered to be an extension of the Sustainable Drainage Systems approach. This type of approach is compatible with the approach set out in Policy Objective E16: Sustainable Drainage Systems and Appendix 7 Sustainable Drainage Systems with the objective of minimising flows to the public drainage system and maximise local infiltration to them. There are additional co-benefits consistent with the ecosystems services approach urban greening and numerous Policy Objectives in Chapters 8, 9, 12, and Appendix 14: Green Infrastructure Strategy.

It is considered appropriate during the plan period to investigate developing a green factor method through a multi-disciplinary approach, subject to the availability of resources. Data on surface cover types can be collected from the storm water audit process (see 7.1.5 Storm Water Audit Procedure Appendix 7: Sustainable Drainage Systems).

Section 3.4.4.2 Policy Objective CA19: Community Woodlands

It is a policy objective to promote and support Community Woodland Schemes in line with government policy.



Tree in South County Business Park