

CHAPTER 12

ENERGY





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12.0 Energy

12.1 Introduction

The availability of energy is of critical importance to the continued development and expansion of employment in County Kerry. It is vital that Kerry has sufficient capacity to meet current and future needs. Kerry County Council recognises the essential requirement for energy production and distribution. It is the policy of the Council to support and provide for the sustainable development of indigenous energy resources, with an emphasis on renewable energy supplies, in the interests of economic progress and the proper planning and sustainable development of the county.

The development of secure and reliable electricity transmission infrastructure is also recognised as a key factor for supporting economic development and attracting investment to the County. The Council supports the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy.

In relation to power generation, Kerry is well placed to encourage and facilitate the sustainable development of power generation facilities in the county. The Council will continue to support the infrastructural renewal and sustainable development of electricity and gas networks. The County has, in terms of alternative energy, huge potential for the development of wind, solar, biomass, geothermal, hydro and wave energy. The wave and wind resources are among the richest in Europe.

The Council shall work in partnership with existing service providers to facilitate required enhancement and upgrading of existing infrastructure and networks (subject to appropriate environmental assessment and the planning process) and support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks. This will ensure that the energy needs of future population and economic expansion within designated growth areas and across the county can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs. In ensuring energy and growth are integrated, the Council will support the emerging climate action policy to align energy planning with spatial planning.

The Council supports the sustainable development of data centres which can be serviced with a renewable energy source (subject to appropriate environmental assessment and the planning process) at spatially suitable locations that make efficient use of the existing transmission network. The potential to recover waste heat from data centres to support potential decarbonisation projects such as district heating schemes will be supported. The council also supports strengthened and sustainable local community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid.

As regards protection of the environment including residential amenity, any plans, projects and activities requiring consent arising from the energy policy outlined in this chapter will be subject to the relevant environmental assessments including SEA, EIA and AA where appropriate.

Energy

It is an objective of the Council to:

- KCDP 12-1** Support and facilitate the sustainable provision of a reliable energy supply in the County, with emphasis on increasing energy supplies derived from renewable resources whilst seeking to protect and maintain biodiversity, archaeological and built heritage, the landscape and residential amenity and integration of spatial planning and energy planning in the county.



12.2 Gas Network

Gas Networks Ireland (GNI) operates, builds, and maintains the state-owned gas network (representing 30% of Ireland's primary energy). They aim to move to a "carbon neutral" gas network by 2050. Renewable gas is an extremely flexible and efficient fuel that can be fully accommodated into the existing gas network. The gas network also has the capacity to accommodate new loads as part of the Climate Change Adaptation Strategy. Increased use of the gas network can provide enhanced energy security at a relatively low cost.

There is significant demand for renewable gas¹ from industry as a heating and transport fuel. In addition, the circular economy benefits will also deliver a major decarbonisation benefit for agriculture and industry. There is significant potential for the Region to lead in the integration of the biogas sector and biogas production as a core element of sustainable agriculture.

The Council supports the strengthening of the gas network to sustainably service settlements and employment areas in the Region, and to progress development of infrastructure to enable strategic energy projects in the county, including the Tarbert/Ballylongford Landbank, and the extension of the Gas Network from Listowel into the Kerry Hub and Knowledge Triangle settlements of Tralee, Killarney and Killorglin.

Gas Network

It is an objective of the Council to:

- KCDP 12-2** Promote renewable gas leading to carbon emission reduction in agriculture, industry, heating and transport as well as sustainable local employment opportunities.
- KCDP 12-3** Facilitate the expansion of the gas network, including the facilitation of a gas importation facility in the Tarbert/Ballylongford Landbank, and the expansion of the network to the Kerry Hub and Knowledge Triangle settlements of Tralee, Killarney and Killorglin.
- KCDP 12-4** Support investment in sustainably developing renewable gas and provision of Compressed Natural Gas (CNG) refuelling infrastructure.
- KCDP 12-5** Consider the sustainable development of Data Centres at appropriate locations powered by renewable energy where it can be demonstrated that there will be no significant adverse impact on the built and natural environment, visual character of the landscape or on residential amenities. Seek opportunities to recover waste heat to support potential decarbonisation projects such as district heating schemes.

12.3 Transmission Grid

The development of secure and reliable electricity transmission infrastructure is recognised as a key factor for supporting economic development and attracting investment to the County.

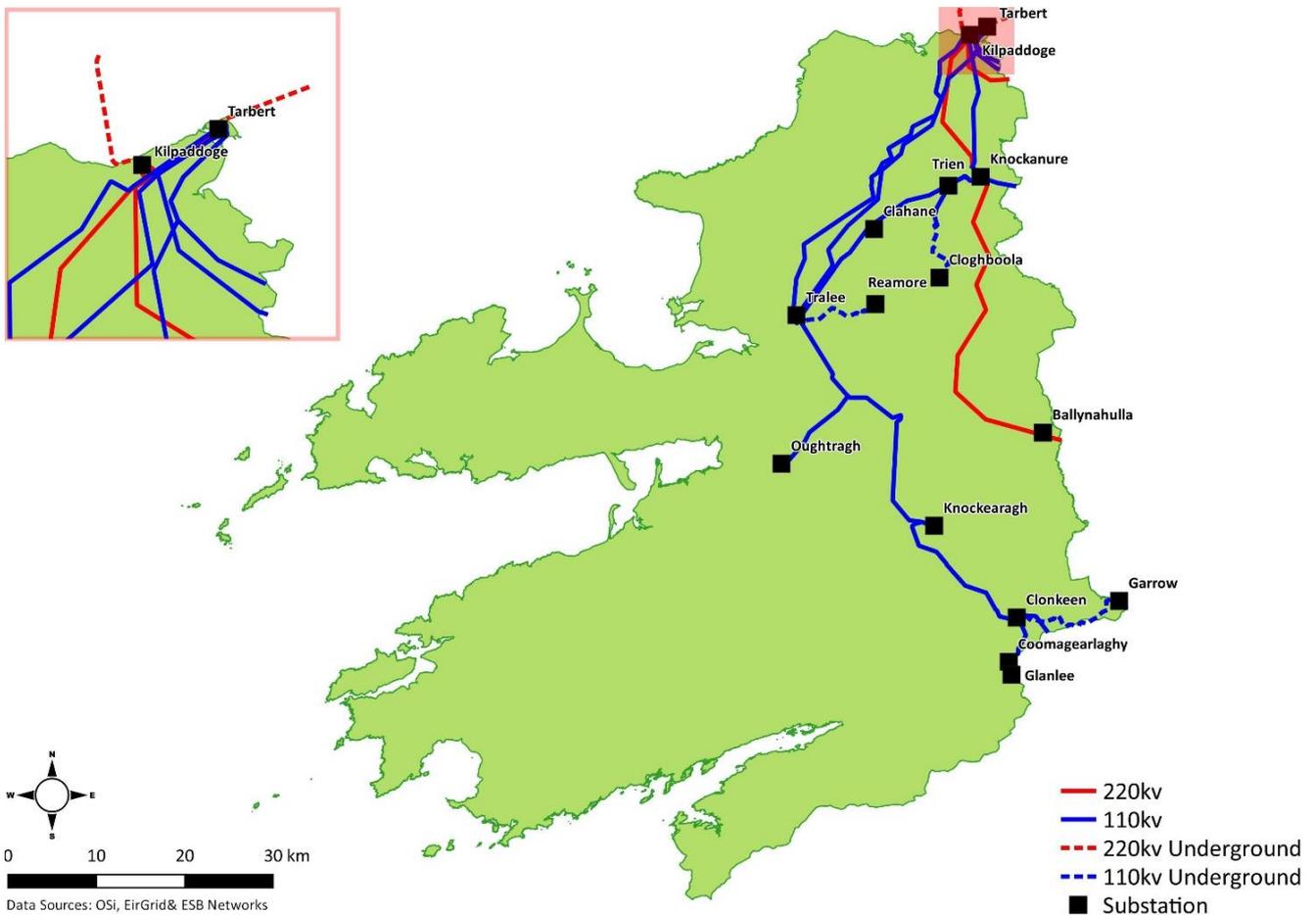
The supply of electricity has been opened up to increased competition and new generation plants may connect to the electricity network to transfer power from where it is produced to where there is a demand for it.

Kerry County Council supports the maintenance and upgrading of existing high voltage electrical infrastructure, and the provision of new high voltage transformer stations and new overhead transmission power lines subject to no significant adverse effects on the environment or Natura 2000 sites. Such

¹ Renewable Gas, often referred to as biomethane, is a clean, renewable and carbon neutral fuel. Its potential as a renewable fuel for heat, electricity and transport is well-recognised in response to the EU's commitment to becoming a highly energy-efficient, low carbon economy. Gas Networks Ireland recognises biomethane as a renewable fuel which can significantly improve the sustainability of the natural gas network and reduce dependency on imported natural gas.



infrastructure may be required for reinforcement of the transmission network, related to growing electricity demand from existing customers, as well as connection of new generation and large demand customers (i.e., industry).



Map 12.1: Transmission Network & Substations

Transmission Grid

It is an objective of the Council to:

- KCDP 12-6** Facilitate sustainable energy infrastructure provision, so as to provide for the further physical and economic development of the County.
- KCDP 12-7** Support and facilitate the sustainable development of enhanced electricity and gas supplies, additional electricity generation capacity, and associated networks, to serve the existing and future needs of the County.
- KCDP 12-8** Ensure that the siting of electricity power lines is managed in terms of the physical and visual impact of these lines on both the natural and built environment, the conservation value of Natura 2000 sites and especially in sensitive landscape areas. When considering the siting of powerlines in these areas, consideration will be given to undergrounding or the selection of alternative routes.



KCDP 12-9 Support the sustainable implementation of EirGrid’s Grid 25 Investment Programme (and successor programmes), subject to landscape, residential, amenity and environmental considerations.

12.4 Energy Conservation & Efficiency

Kerry County Council is committed to energy end use efficiency and increasing the use of renewable energy in all new building projects.

Energy Conservation & Efficiency

It is an objective of the Council to:

KCDP 12-10 Promote energy conservation and efficiency through reduced consumption and incorporating renewable energy technology into building design standards.

KCDP 12-11 Facilitate the sustainable provision of charging infrastructure for electric vehicles.

12.5 Renewable Energy

Access to secure, clean and affordable energy is essential for the future economic and social development of the county. The Council will continue to support and facilitate the sustainable development of the renewable energy sector in line with the strategic goals set out by the Department of Communications, Climate Action and the Environment whilst balancing the need for new development with the protection of the environmental, cultural and heritage assets of the county.

Renewable energy (RE) and associated technologies can, if not managed, impact negatively on the County’s natural and built heritage, and on the amenity of residents. For this reason, while the County Development Plan puts in place a framework within which objectives and policies will maximise the harvesting of renewable energy resources, the Plan also includes policies and objectives to protect the County’s heritage values and residential amenities. In this way a balance can be struck between the provision of renewable energy developments and the preservation and conservation of the natural and built environment.

Renewable Energy

It is an objective of the Council to:

KCDP 12-12 Maximise the development of all renewable energies at appropriate locations in a manner consistent with the proper planning and sustainable development of the County.

12.5.1 National Targets and Responding to Climate Change

The Climate Action Plan² published by the Government in 2019 is committed to achieving a net zero carbon energy systems objective for Irish society and in the process, create a resilient, vibrant and sustainable country. The Climate Action Plan 2019 puts in place a decarbonisation pathway to 2030 consistent with reaching the EU target of Net Zero emissions by 2050. To meet the required level of emissions reduction, by 2030 it seeks to:

² <https://www.dccae.gov.ie/en-ie/climate-action/publications/Pages/Climate-Action-Plan.aspx>



- Reduce CO₂ eq. emissions from the sector by 50–55% relative to 2030 Pre-NDP projections.
- Deliver an early and complete phase-out of coal- and peat-fired electricity generation.
- Increase electricity generated from renewable sources to 70%, indicatively comprised of:
 - at least 3.5 GW of offshore renewable energy, this was revised upwards to 5GW in the 2020 *Programme for Government*
 - up to 1.5 GW of grid-scale solar energy
 - up to 8.2 GW total of increased onshore wind capacity
- Meet 15% of electricity demand by renewable sources contracted under Corporate PPAs.

12.5.2 Policy Overview and Legislative Context

This chapter has been prepared after consideration of relevant European, national legislation, and local planning frameworks which provides the statutory basis for planning policy for the development and use of renewable energy resources and for the protection of the environment. This chapter presents a vision that supports and promotes the development of renewable energy developments in a balanced and sustainable manner.

International/European		
EU Renewable Energy Directive 2009/28/EC on the promotion of the use of energy from renewable resources	Kyoto Protocol & EU 2030 Framework for climate and energy policies	Paris Agreement
European Green Deal European Climate Law 2020		



National							
National Climate Plan 2019 & National Energy and Climate Plan (NECP) 2021-2030							
Strategy for Renewable Energy 2012-2020, (DCENR)	National Renewable Energy Action Plan (NREAP) 2017	National Energy Efficiency National Plan (NEENP) 2017-2020	White Paper on Energy Policy – Ireland’s Transition to a Low Carbon Energy Future 2015-2030 (DCENR)	Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and climate change (2017)	Draft Revised Wind Energy Development Guidelines (DHPLG 2019)	National Adaptation Plan 2018	Renewable Electricity Support Scheme (RESS)



County	
Kerry County Development Plan 2022-2028	Local Economic and Community Plan 2016-2022

Figure 12.1: Policy context for renewable energy policy



12.5.2.1 Regional Spatial & Economic Strategy Renewable Energy Policy

The Regional Spatial and Economic Strategy supports the research and development of renewable energy resources throughout the southern region. In particular, RPOs 95-104 support renewable energy generation (both onshore and offshore), the upgrading of the grid to integrate renewable energy resources, and innovation and research (including energy storage and carbon capture).

RPO 98 states that it is an objective to support the development of a Regional Renewable Energy Strategy. Having regards to the significant contribution that Kerry has made to date in relation to the realisation of wind energy targets, it is imperative that any Regional Strategy takes cognisance of this installed capacity including permitted but not yet constructed developments, when assessing other suitable locations in the wider region.

12.5.2.2 Methodology for Local Authority Renewable Energy Strategies (LARES), SEAI 2013

This methodology aims to facilitate consistency of approach in the preparation of a Local Authority Renewable Energy Strategy (LARES), and to assist local authorities in developing robust, co-ordinated and sustainable strategies in accordance with national and European obligations.

The key objectives of this methodology may be summarised as follows:

- to provide a structured approach to preparing a Local Authority Renewable Energy Strategy (LARES).
- to provide information and support to local authorities wishing to create a LARES.
- to facilitate consistency in the generation of local authority renewable energy strategies.
- to support local authorities in the development of specific policies and objectives in their development plans.
- to assist local authorities in providing transparent information to the public and prospective developers on the future development of renewable energy within a local authority area.
- to facilitate a consistent identification of key renewable energy resources and development areas by local authorities.

The LARES has informed the preparation of this chapter.

The *Draft Revised Wind Energy Development Guidelines 2019* (DHPLG) have been used to identify areas suitable for wind development and to inform wind energy policy.

12.5.3 Existing Renewable Energy Development

A significant number of projects have been permitted and constructed of varying types across the County including, wind, solar, hydro, and bioenergy developments. Wind energy is by far the largest form of renewable energy completed in the county.

12.5.3.1 The Current Status of Wind Energy Development

To date, a total of 362 wind turbines have been constructed in the County. Planning permission exists for the construction of 12 additional turbines (24 turbines are the subject of appeals to An Bord Pleanála, and a 12 turbine Strategic Infrastructure application is currently being considered), which potentially could result in a total of 374 wind turbines in the County³. Map 12.2 highlights the location and distribution of the permitted and constructed wind developments in the County.

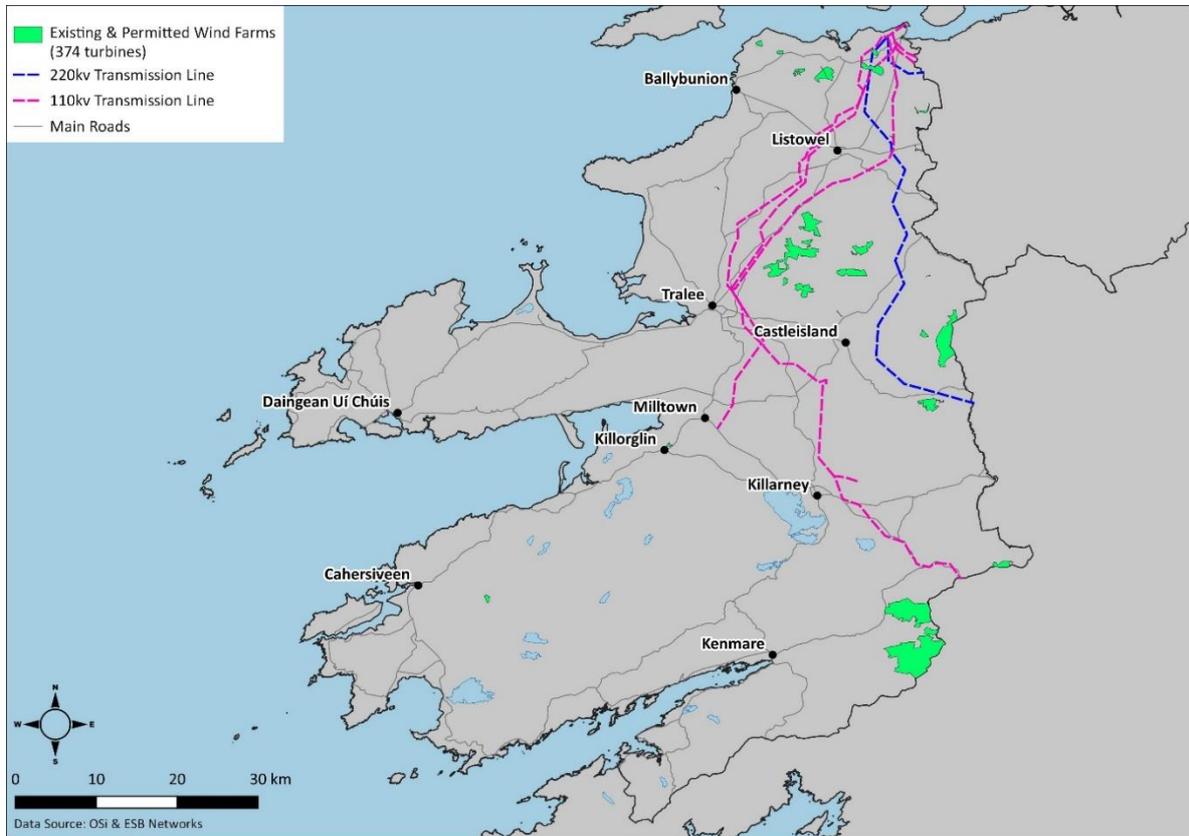
The 362 constructed wind turbines, made up of c.25 wind farms, can generate approximately 742MW of electricity, which equates to approximately 18% of the National wind generation total. County Kerry is making a substantial contribution towards meeting national renewable energy targets considering its land mass and population comprises 6.8% and 3.1% of the national totals respectively.

³ Position as of July 2021



No. of permitted wind turbines	374
No. of constructed wind turbines	362

Table 12.1: Wind turbine construction in County Kerry



Map 12.2: Existing/Permitted Wind Energy Developments

12.5.3.2 Kerry’s Contribution in a Regional Context

Table 12.2 indicates that the Southern Region⁴ is contributing nearly 60% of wind energy generating capacity nationally. Kerry is contributing 742MW or 30.2% of the Regional total, yet the county’s population amounts to 9.3% of the region and Kerry’s landmass is 16% of the region.

Region	MW	% of Total
Southern	2483.314	59.3%
Northern & Western	1496.232	35.7%
Eastern & Midland	211.1903	5.0%

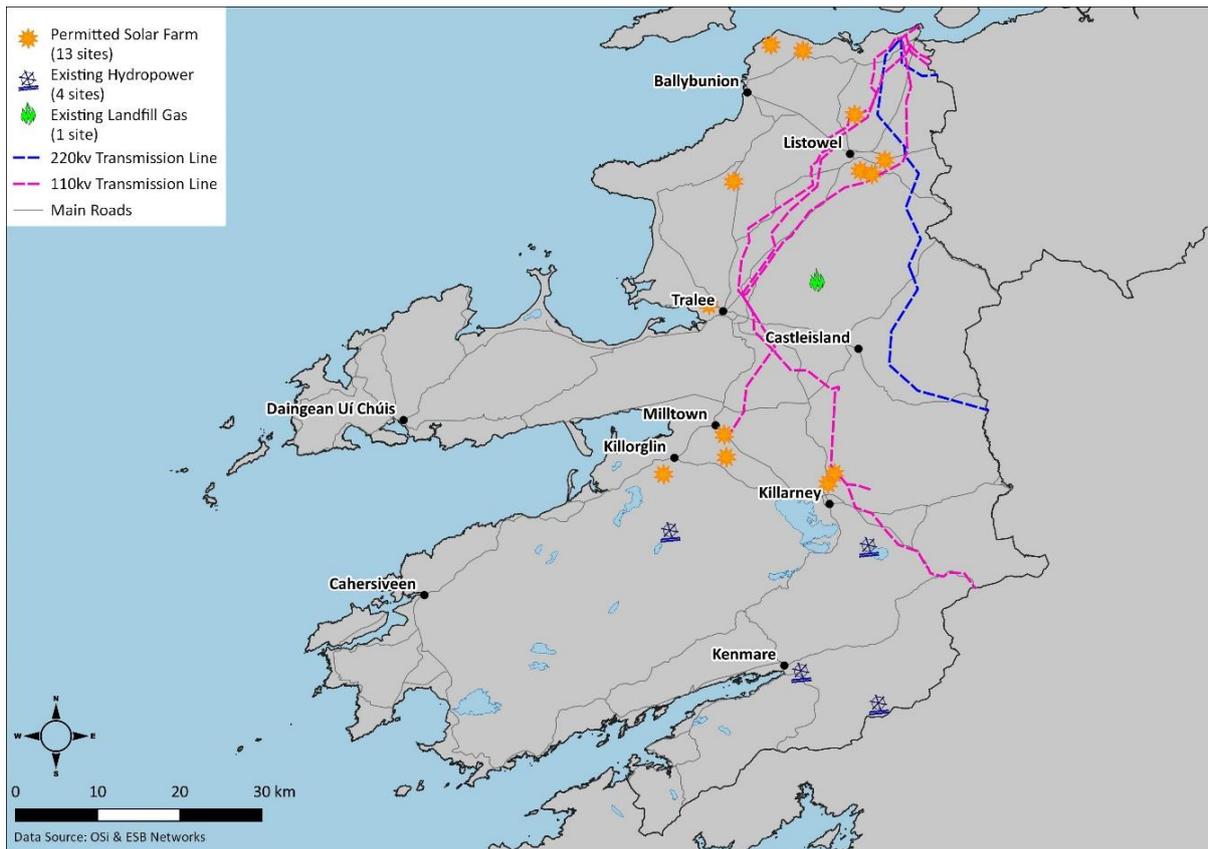
Table 12.2: Wind generation by Region (February 2021)

12.5.3.3 The Current Status of Solar Energy Development

To date, a total of 13 solar farms have been permitted in the County (1 application is currently being assessed). The location of these are shown on Map 12.3.

There is an increased number of a planning applications being made by homes, businesses and farms to install photovoltaic panels on roofs or within the curtilage of the premises. These will help meet their individual energy demands.

⁴ Consists of counties Carlow, Clare, Cork, Kerry, Kilkenny, Limerick Tipperary, Wexford & Waterford.



Map 12.3: Existing/Permitted Renewable Energy Developments

12.5.3.4 The Current Status of Hydropower Development

There are four hydro-electric schemes, small scale, in operation in the county, the locations of which are indicated on Map 12.3. Of these, three are connected to the national grid.

Name	River	MEC (mw)	Connected to Grid
Ashgrove Mill	Sheen	0.6	Yes
Trewell	Cottoners	1.2	Yes
Slaheny River Hydro	Slaheny	0.485	Yes
Kerry County Council	Lough Guitane	0.25	No

Table 12.3: Hydro Power in Kerry

12.5.3.5 The Current Status of Bioenergy Development

The North Kerry Landfill at Muingnaminane has a system which has the capacity to generate 0.33MW of electricity and is connected to the Grid. There is scope to increase the size of this system in the future.

12.5.4 Renewable Energy Policy

Kerry has seen significant development in terms of RE. With the resources that are available in the county, subject to the principles of proper planning and sustainable development, there is potential for additional development, but development is also subject to constraints. Policies have been developed accordingly, having regard to:

- Infrastructural Constraints
- Environmental Constraints
- Technological and Spatial Constraints
- Renewable Energy Potential within the Jurisdiction
- National Renewable Energy Policy Targets and Ability to Contribute



- Economic and Job Creation Objectives
- *Draft Revised Wind Energy Development Guidelines, 2019*
- *Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change, 2017*

12.5.4.1 Wind Energy

It is the policy of the Council to support, in principle and in appropriate locations, the sustainable development of wind energy resources in County Kerry. This policy document builds upon previous policies in place to develop an updated tool for identifying potentially suitable locations for wind energy development and to guide future assessment of wind energy planning applications in the County.

The Planning Authority is cognisant that renewable energy technology is constantly changing, and policy responses will need to adapt as necessary.

12.5.4.1.1 Draft Revised Wind Energy Development Guidelines 2019 (DHPLG)

These Guidelines apply to planning applications and considerations for future wind energy development proposals, including the repowering and renewal of existing wind energy developments. The 2006 Guidelines are being revised to take account of current national and EU renewable energy policy and targets and to provide greater consistency of approach in planning for onshore wind energy development, as well as providing greater certainty and clarity to the planning system, to the wind industry and to local communities.

It should, however, be noted that these guidelines relate solely to land use and environmental issues related to on-shore wind energy and do not deal with issues concerning purchasing agreements, matters relating to grid capacity or off-shore wind energy.

The Specific Planning Policy Requirements (SPPR) as set out in the *Draft Wind Energy Development Guidelines* have been reflected in the policies in this chapter in relation to wind energy development. SPPRs must be applied by planning authorities and An Bord Pleanála in the performance of their functions.

Wind

It is an objective of the Council to:

KCDP 12-13 Ensure that projects shall be designed and developed in line with the *Draft Revised Wind Energy Development Guidelines (DHPLG, 2019)* and any update of these guidelines in terms of siting, layout and environmental studies.

12.5.4.1.2 Identification of Wind Development Areas

In order to assist planning authorities to identify key areas where there are wind energy resources capable of exploitation in a manner consistent with proper planning and sustainable development, a step-by-step approach is proposed in the *Draft Revised Wind Energy Development Guidelines (DHPLG, 2019)*. This ordered approach involves a sieve mapping analysis of the key environmental, landscape and technical criteria which must be balanced in order to identify the most suitable location for wind energy development. Areas have therefore been derived following a comprehensive analysis, the details of which are included in Volume 1, Appendix 6 (*Wind Zoning Methodology*).

Impact on the landscape was considered as part of the *Wind Zoning Methodology* to determine the sensitivity and capacity of landscapes to absorb wind development without significantly undermining the quality and integrity of the landscape in question.



Based on the outcome of this analysis and assessment, areas that are open to consideration for wind energy developments have been identified, see Map 12.4.

12.5.4.1.3 Wind Energy Policy Areas

In line with national guidance, areas of the County have been designated as 'Open for Consideration'. 'Repower areas' have also been identified. The methodology for the designation of these areas is outlined in *Wind Zoning Methodology Volume 1, Appendix 6*.

Applications for windfarms in these areas will be assessed on a case-by-case basis, subject to viable wind speeds, environmental resources and constraints and cumulative impacts in compliance with Article 6 of the Habitats and EIA Directives.

Areas outside 'Areas Open to Consideration' and 'Repower areas' are not deemed suitable for commercial wind farm development because of their overall sensitivity arising from landscape, ecological, recreational and or cultural and built heritage resources.

12.5.4.1.4 Open-to-Consideration

Having regard to the:

- Assimilative capacity of the landscape to absorb wind energy developments
- Cumulative impact of existing wind energy developments and proposed wind energy developments
- Cumulative impact of other existing and proposed developments
- Impact on sensitive receptors in the environment and European/Natura 2000 sites

Wind energy development in areas 'open to consideration' may be appropriate, depending on the character of the landscape and the potential impact of the proposed development. The capacity of these areas has limits and the cumulative impact of wind development in these areas will be monitored. Any proposal will be subject to proper planning sustainable development and guidelines set out in this chapter.

It is the policy of the Council to:

- Ensure that applications for wind development are accompanied by a technical assessment in relation to the slope stability, landslide susceptibility of the development site and the proposed project.
- Ensure that all proposals for wind energy development (including the grid connection) have regard to the cumulative effect of the development on the environment in conjunction with the entire development and other existing/permitted developments in the area.
- Ensure that all proposals demonstrate conformity with existing and approved wind farms to avoid visual clutter and demonstrate how they had regard to potential cumulative effects, where appropriate.
- Ensure that all applications have regard to the impact on existing built environment, particularly neighbouring residential properties and other sensitive amenity areas.
- Ensure that the development of wind turbines comprise a setback distance as detailed in the Draft Wind Energy Development Guidelines 2019 (DHPLG).
- Ensure that noise restriction limits are consistent with those as included in the Draft Wind Energy Development Guidelines 2019 (DHPLG).
- Ensure that no neighbouring property experiences the occurrence of shadow flicker and in accordance with the Draft Wind Energy Development Guidelines 2019 (DHPLG).
- Ensure that all applications have regard to the impact of any proposal for wind energy development on surrounding tourism and recreational related activities.
- Ensure that all applications are in compliance with Article 6 Habitats Directive, EIA Directive and Water Framework Directive, where applicable this should be informed by at least 2 years of annual (breeding and wintering) bird survey undertaken to best practices guidelines.



- Ensure that, at a minimum, turbines shall be set-back a distance equalling the blade tip height of the turbine from national roads and railways. Set-back from other roads will be site specific and determined at application stage.

Wind Energy Development

It is an objective of the Council to:

KCDP 12-14 Facilitate the sustainable development of wind energy development within open-to-consideration areas at appropriate locations where it can be demonstrated to the satisfaction of the planning authority that there will be no significant adverse impact on residential amenity, on the built and natural environment, or on the visual character of the landscape.

12.5.4.1.5 Separation Distances

There are a significant number of one-off houses in all rural areas throughout the County. The only exception to this is on the higher reaches of mountainous areas. There are, therefore, of necessity, houses located in the areas open to consideration for wind energy. In identifying sites and in the disposition of turbines, development proposals must carefully consider potential impacts on residential amenity, and any minimum setbacks as specified in the wind energy guidelines.

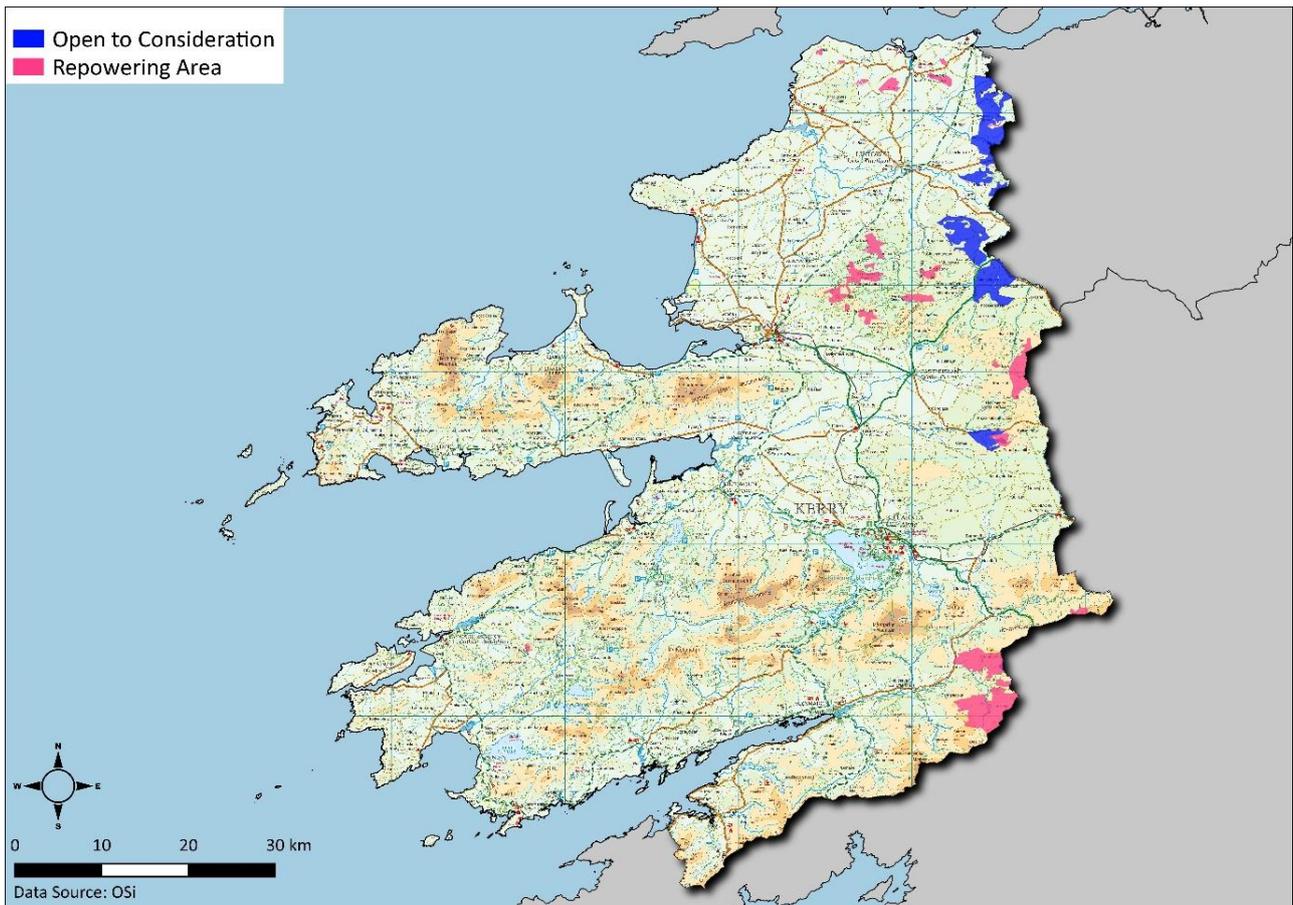
12.5.4.1.6 Unsuitable for Wind Development

These areas are not considered suitable for wind farm development due to visual, environmental or ecological sensitivities or the potential impact on recreational or cultural facilities or on sensitive receptors.

Wind Energy Projects

It is an objective of the Council to:

KCDP 12-15 Ensure that commercial wind energy projects will not be considered in areas outside of 'Open-to-Consideration' and 'Repower Areas'.



Map 12.4: Wind Energy Areas

12.5.4.1.7 Repower Areas

As wind turbine technology continues to advance, existing windfarms and sites developed today have the potential to greatly increase efficiency and capacity by upgrading older turbines with more efficient technology or their replacement with larger capacity turbines in the future. It is noted that in some cases the existing windfarms in the repower area predate the European Site designation.

Repowering of existing wind energy developments may be considered within or adjacent to European sites. These applications will be dealt with on a case-by-case basis in accordance with best practice environmental standards and compliance with Article 6 of the Habitats Directive.

Given the outcome of the European Union Court of Justice (CJEU) Case C-164/17, wind farms in/adjacent to SPAs designated for Breeding Hen Harrier, when applying for repowering will require the submission of a Natura Impact Statement (NIS) that is informed by this judgement. This will include upgrades, renewal, repowering or extension of existing planning permissions, for wind farms.

Repower Areas

It is an objective of the Council to:

- KCDP 12-16** (a) Facilitate the sustainable replacement of turbines or repower energy projects in areas shown as 'Repower areas' and areas 'Open-to-Consideration'.
- (b) Ensure that repowering proposals within or in proximity to SPAs designated for Breeding Hen Harrier shall not result in insufficient habitat for the Hen Harrier in line with the conservation objectives of the SPA. As part of this re-powering, proposals will not be permitted to result in the taking out of additional Hen Harrier foraging habitat within the SPA.



- (c) Ensure that all mitigation measures outlined in a Natura Impact Statement, submitted in support of Repowering proposals within or in proximity to SPAs designated for Breeding Hen Harrier shall be certain beyond all reasonable scientific doubt and shall be supported by robust evidence including at least 2 years of annual ornithological survey work.
- (d) Ensure that repowering proposals within or in proximity to SPAs designated for Breeding Hen Harrier do not constitute an unacceptable collision risk to Hen Harrier.

KCDP 12-17 Ensure that all applications are accompanied by a Natura Impact Statement under Article 6 of the Habitats Directive if the site is located within or within close proximity to a (candidate) Special Area of Conservation or Special Protection Area or if the site is within the catchment of a (candidate) Special Area of Conservation.

12.5.4.1.8 Extension to Existing Windfarms

In certain circumstances an extension to an existing wind farm may be considered subject to best practice environmental standards and where existing infrastructure can be used. Extension to existing windfarms will not be considered within Natura 2000 sites.

Extensions to Existing Wind Farms

It is an objective of the Council to:

KCDP 12-18 Consider extensions to an existing windfarm where it can be demonstrated to the satisfaction of the planning authority that there will be no significant adverse impact on residential amenity, the built and natural environment, or on the visual character of the landscape.

KCDP 12-19 Ensure that extensions to existing windfarm developments located within Natura 2000 designations, are not permitted.

12.5.4.1.9 Single User Turbines

It is the policy of the Council to facilitate, where appropriate, small scale wind energy development to serve a single use development such as a manufacturing plant or other commercial use, subject to the following criteria:

- The energy will be primarily generated for use on the site, with facility for export of excess generation to the National Electricity grid.
- The proposal shall not adversely impact on residential amenity/scenic views/tourist routes/architectural heritage, particularly as it relates to noise, shadow flicker and visual impacts.
- If located within or close to a SPA, SAC or NHA, a Habitats Directive Assessment and/or Environmental Impact Assessment may be required.

Single User Turbines

It is an objective of the Council to:

KCDP 12-20 Facilitate where appropriate a small-scale wind energy development to serve single use developments subject to compliance with the County Development Plan and best practice environmental standards.

12.5.4.2 Solar Energy

The most suitable sites for Utility Scale Solar Photo-voltaic (USSPV) schemes are flat areas or on lower slopes/within folds in gently undulating lowland landscapes rather than on prominent upland areas, highly visible slopes, or coastal headlands/areas. In addition, landscapes with a sense of enclosure (e.g., provided by woodland or high hedges) are better suited to solar PV development than open and unenclosed landscapes.



Solar technologies can in certain circumstances, have a negative impact on the visual amenity of rural and urban areas. The visual impacts on protected structures, architectural conservation areas and other historic properties and their curtilages also requires consideration. In considering proposals for solar developments applicants will be required to demonstrate that, within the constraints imposed by technical requirements, the proposed disposition of structures and panels minimises visual impacts. Designated amenity areas in the County will be protected from inappropriate development.

Section 9.7.6. of the County Development Plan supports sustainable agriculture and agricultural related development in County Kerry and seeks to strengthen the contribution that the agriculture and food sectors make to the local economy. This is further supported by Objective KCDP 9-52 and KCDP 9-53. The loss of high quality productive agricultural land in favour of solar farms would be at variance with these objectives and would therefore be resisted by the planning authority.

It is therefore the policy of the Planning Authority to ensure that planning applications for USSPV are accompanied by a detailed description of the application site lands including details of productivity, for the 10 years prior to the making of the planning application.

The Council will continue to support and facilitate the sustainable development of solar energy (USSPV) in appropriate locations, encourage passive solar design and solar water heating in new buildings and in retrofitting buildings, including agricultural buildings. In addition, where possible, the installation of solar power in public buildings, including schools will be encouraged.

Solar Energy

It is an objective of the Council to:

- | | |
|-------------------|--|
| KCDP 12-21 | Facilitate USSPV where it can be demonstrated to the satisfaction of the planning authority that there will be no significant adverse impact on the built and natural environment, the visual character of the landscape, or on residential amenity. |
| KCDP 12-22 | Prevent the loss of agriculturally productive land to Utility Scale Solar Photo-voltaic USSPV development. |

12.5.4.3 Hydropower

Hydroelectricity can be generated using the following methods, run-of-the-river, impoundment (dams) or pumped storage.

12.5.4.3.1 Environmental Impacts

Hydro power proposals must carefully consider visual impacts upon the landscape, geological impacts, impacts on ground water, impacts on terrestrial and freshwater ecology, the relevant River Basin Management Plan under the Water Framework Directive, and impacts from noise generated during construction and at the operational stage. Any proposals for hydro power generation sites will be required to address issues such as fish passage; fish protection / grating; retention of natural watercourse levels; and water quality. Applicants are advised to review IFI's *Guidelines on the Planning, Design, Construction & Operation of Small-Scale Hydro-Electric Schemes*.

12.5.4.3.2 Location

Small scale hydro schemes including pumped storage will not be permitted in Natura 2000 sites or within designated and proposed Natural Heritage Areas where they adversely affect the integrity of these sites. Furthermore, such schemes will not be considered ex situ of these ecologically sensitive areas where proposals will adversely affect the conservation objectives and qualifying interests of Natura 2000 sites, impact on the ecological integrity of NHA/pNHAs, protected habitats and/or species as designated under National and European legislation.



Hydropower

It is an objective of the Council to:

- KCDP 12-23** Support the sustainable development of small-scale hydro energy plants in appropriate waterbodies where proposals comply with the recommendations contained in the “Guidelines on the Planning, Design, Construction and Operation of Small-Scale Hydro-Electric schemes” published by the Central Regional Fisheries Boards.
- KCDP 12-24** (a) Not permit hydro power developments in Natura 2000 sites or within designated and proposed Natural Heritage Areas or, ex situ of these ecologically sensitive areas where proposals will adversely affect the integrity of Natura 2000 sites; impact on the ecological integrity of NHA/pNHAs, or the habitats of protected species (without appropriate licence) as designated under National and European legislation.
 (b) Not permit Hydro power developments in the following particularly sensitive water catchments:
- Lough Leane
 - Currane
 - Gearhameen
 - Kerry Blackwater
 - Caragh River
 - Owenmore
 - Munster Blackwater

12.5.4.4 Bioenergy & District Heating

Kerry, as in Ireland as a whole, has a significant bioenergy potential in the form of agricultural land, forestry, recycled waste from municipal and domestic treatment plants, agriculture and industrial sources. All of these sources can be used to generate electricity, refined into fuel for the transport sector, provide heating/cooling for the building sector or as a source for biochemical raw materials for Irish industry.

12.5.4.4.1 Location and Impacts

The generation of fuel from biomass, including anaerobic digestion, on a commercial scale is an industrial process potentially involving large structures and grid connections. Such plants should be located in brownfield sites, adjacent to industrial areas or co-located with other wood processing industries. Proposals for bioenergy plants will be considered on lands which are reserved for industrial uses. To minimise traffic impacts, locations should be close to the point of demand and be served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.

Traffic considerations arise as biomass fuel must be delivered from the point at which it is produced to the plant itself. There is a need to ensure that the distances involved are not so great that carbon dioxide emissions from transportation significantly reduce any carbon benefit derived from the use of biomass. Issues related to the generation of traffic and the protection of the carrying capacity of roads will be a material consideration in the assessment of an application.

Noise (engines, boilers, handling equipment and traffic) may in some cases be sufficiently loud to affect the amenity of adjacent users, particularly in residential areas. Biomass plants may also have an adverse impact on visual amenity. Bioenergy installations will not be permitted in areas which may affect residential or visual amenity.

Some types of biomass installations have the potential to generate odours and emissions to air. Proposals will be required to demonstrate that these factors have been considered and the scheme will not generate emissions and odours. Applicants are advised to consult with the Council’s Environment Department to identify and develop mitigation measures where they are deemed to be necessary.



Bioenergy & District Heating

It is an objective of the Council to:

- KCDP 12-25** Facilitate the sustainable development of bioenergy plants including anaerobic digestors, in compliance with the development management standards on appropriately zoned lands. Bioenergy installations shall not be permitted in areas where such developments may affect residential or visual amenity. They should be developed close to the point of demand and be served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.
- KCDP 12-26** Consider in rural areas proposals for small scale developments for bioenergy plants including anaerobic digestors, close to the source material and where roads have capacity to absorb increased traffic flows. Such plants should, where possible, be located in proximity to existing agricultural buildings. Bioenergy installations shall not be permitted in areas where such developments may affect residential or visual amenity.
- KCDP 12-27** Prohibit bioenergy developments in Natura 2000 sites or within designated and proposed Natural Heritage Areas or, ex situ of these ecologically sensitive areas where proposals will adversely affect: the integrity of Natura 2000 sites; impact on the ecological integrity of NHA/pNHAs; the habitats of protected species (without appropriate licence) as designated under National and European legislation.
- KCDP 12-28** Promote and facilitate the installation of district heating schemes powered by renewable fuel sources that are produced in a sustainable manner.

12.5.4.5 Ocean Energy

Ireland's maritime area extends to the edge of the continental shelf and covers almost 900,000km². The greatest proportion of this lies to the west of Ireland, which includes areas off the coast of County Kerry. The extraction of marine energy is still in the early stages of development although, as with onshore wind, offshore wind is likely to be developed and operational more quickly. It is the intention of government that marine energy will make a significant contribution to the supply of domestic electricity and will be developed for export to other countries.

As noted, the *Climate Action Plan 2019* initially had a target for 3.5GW of renewable energy from offshore wind. This was increased to 5GW in late 2020. As offshore technology advances, in particular floating offshore wind technology, it is likely that the Atlantic coast, including parts of Kerry, will become suitable for the technology. The possibility to combine offshore wind with other forms of supporting "green" technologies such as "green" hydrogen are undergoing rapid research and development. This is likely to advance over the lifetime of this Plan.

12.5.4.5.1 National Marine Planning Framework 2021

Ireland's ambitions for the offshore renewable energy sector are contingent on delivering a licensing and regulatory regime for offshore renewable energy. This will provide certainty to project promoters and provide a pathway to realising the necessary investment in offshore renewable energy. The framework sets out the Irish Government's long-term planning objectives and priorities for the management of our seas over a 20-year time frame. The framework sets out specific objectives and marine planning policies for all of the activities taking place in Ireland's seas, from aquaculture through to wastewater treatment. All of these activities are contextualised within the pillars of their economic, environmental and social considerations. The framework sets out the proposed future approach to the adoption of spatial designations for marine activities including offshore renewable energy development, or designated marine protected areas, taking account of the existing



network of designated European sites under the Birds and Habitat Directives by the Minister for Culture, Heritage and the Gaeltacht.

The National Marine Planning Framework in terms of RE will support offshore energy proposals that assist the state in meeting its target of achieving 5GW of capacity in offshore wind by 2030.

Ocean Energy

It is an objective of the Council to:

KCDP 12-29 Support the sustainable development of onshore infrastructure, including grid connections, to facilitate the development of offshore energy projects at appropriate locations and further to environmental assessments.

12.5.4.6 Battery Storage for Renewable Energy

Battery Energy Storage Systems (BESS) store energy from the grid or directly from source of generation. They contribute to the security and stability of the grid by storing electricity generated by intermittent renewable sources so that it can be released during times of heavy demand.

Battery Storage for Renewable Energy

It is an objective of the Council to:

KCDP 12-30 Facilitate the sustainable development of Battery Storage systems in appropriate locations at or adjacent to existing energy infrastructure, subject to requirements and considerations in relation to: residential amenity, landscape; cultural heritage; Natura 2000 sites and the Habitats & Birds Directive; the objectives of the Water Framework Directive; Flood Directive; electricity infrastructure; and health & safety.

12.5.5 Community Consultation, Community Benefit & Microgeneration/Community Projects

Communities are being designed into the fabric of the new Renewable Electricity Support Scheme (RESS). The RESS allows for increased community participation in, and ownership of, renewable electricity projects as part of the scheme. Policies and support measures are in place to ensure:

- a) Financial support for community-led projects across early phases of project development including feasibility and development studies
- b) Community Benefit and
- c) Fund and investment opportunities for communities and citizens in all RESS projects.

Kerry County Council acknowledges that a well-planned and facilitated community engagement process conducted with integrity and fairness can improve the likelihood of community acceptance of proposed renewable energy projects. It supports the principles of the *Just Transition* where no member of the community is left behind as we transition towards climate neutrality. The citizen as an active participant in our future energy systems is recognised in this plan and the council will seek to support such initiatives as Sustainable Energy Communities (SEC) as we transition to a low carbon society.

Acknowledging the huge contribution already being made by County Kerry to achieving the national targets for renewable-generated electricity, in this draft County Kerry Development Plan the Council strongly recommend and support the use of microgeneration and small-scale community-owned renewable energy generation (as specified in the Climate Action Plan 2021) as the optimum manner for achieving the overall targets for electricity generated from renewable energy required of Kerry County Council.

Microgeneration and small-scale generation have an important role to play in achieving National Climate Change targets. It also creates opportunities for domestic, community, farming, and small commercial customers to take the first steps towards investment in renewable technologies, which can play a role in shaping electricity demand and decarbonising homes and businesses. It is an Objective of this Plan to support



the sustainable development of micro generation schemes at appropriate locations. This will enable farmers, auto-generators and communities to maximise their participation in the energy transition.

In order to offset any potential impact of a renewable energy development on the community it is the policy of Kerry County Council to seek the developers to provide support to local communities by providing resources for Community Benefit Funds. It is considered reasonable that renewable energy developments contribute to the community within a 20km radius of the development site within the county, at a rate of €2/MWh.

It is the policy of the council to:

- Require that developers of proposed large-scale renewable energy projects carry out community consultation in accordance with best practice and to commence the consultation at the commencement of project planning.
- Ensure that all community benefits are distributed to projects in support of the community within a 20km radius, of the site, within the county only.
- Support sustainable community projects that apply to the Renewable Electricity Support Scheme and the National Microgeneration Support Scheme.

Community Consultation, Community Benefit & Community Projects

It is an objective of the Council to:

KCDP 12-31	Support the principles of a Just Transition as the community moves towards a climate neutral society and economy.
KCDP 12-32	Support the transition towards low carbon economy and circular economy through mechanisms such as the Climate Action Competitive Fund and/or <i>Just Transition</i> Funding.
KCDP 12-33	Ensure that community benefits are derived from all renewable energy development in the county.
KCDP 12-34	Facilitate suitably scaled community owned/led sustainable renewable energy projects in appropriate locations. This will include requirements and considerations in relation to: residential amenity, landscape; cultural heritage; Natura 2000 sites and the Habitats & Birds Directive; the objectives of the Water Framework Directive; Flood Directive; and electricity infrastructure.
KCDP 12-35	Support strengthened and sustainable local/community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid.
KCDP 12-36	Working with stakeholders, support and lead the community in becoming active participants in the county's future energy systems