Chapter 31.
Energy and telecommunications

Ireland's energy sector must undergo radical transformation in order to mitigate the effects of climate change by switching from fossil fuels to renewable energy. This will have a bearing on all aspects of local development, and supportive planning policies are needed during this energy transition. Being rich in renewable energy resources, County Sligo is well-placed to lay solid foundations for a sustainable energy future while boosting investment, business development, job creation, and contributing to greater energy security.

Sligo County Council will promote and support the development and diversification of the local energy sector in accordance with EU, national and regional policy.

31.1 National policy on energy

According to the Department of the Environment, Climate and Communications, the government aims to meet the following targets by 2030:

- 80% renewable electricity **[PA-160]**
- 30% reduction in CO2 emissions
- 32.5% improvement in energy efficiency

There is a wide range of government policies, supports, strategies, and plans relating to energy. For the purpose of this Development Plan, the most relevant documents are the National Planning Framework (2018) and the **Climate Action Plan 2023.**

31.1.1 National Planning Framework

The National Planning Framework recognises the importance of renewable energy in transitioning to a low-carbon and climate-resilient society, which represents the National Strategic Outcome 8.

The NPF envisages "diversification of energy production systems away from fossil fuels and towards green energy such as wind, wave, solar and biomass, together with smart energy systems and the conversion of the built environment into both generator/consumer of energy and the electrification of transport fleets".

National Policy Objectives (NPOs) support offshore renewable energy development (NPO 42), strengthening all-island energy infrastructure (NPO 47), promoting renewable energy use and generation at appropriate locations (NPO 55) and energy-efficient buildings (NPO 64).

31.1.2 Climate Action Plan 2023

The Climate Action Plan 2023 (CAP23) indicates that the electricity sector faces an immense challenge to meet its emissions ceilings, and will also play an important role in the decarbonisation of other sectors, such as transport, heating and industry.

Among the CAP's most important measures to increase the proportion of renewable electricity to 80% by 2030 are the targets of 9 GW from onshore wind (6 GW by 2025), 8 GW from solar source (5 GW by 2025), at least 5 GW of offshore wind energy and at least 500 MW of community-based renewable energy projects. It is noted that CAP24 (published in January 2024), includes at least 2 GW from new flexible gas plant. **[PA-161]**

Section 12.1.4 of the CAP23 requires an alignment of the planning system with the permitting system, in order to support accelerated renewable energy development. It provides for *"national policy and associated methodologies to inform regional and local planning policies, noting that Development Plans are obliged to set out objectives to facilitate energy infrastructure"*.

CAP23 also indicates that following publication of a Regional Roadmap, Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, identifying areas suitable for renewable electricity deployment at regional **and county level.**

A revised ***Methodology for Local Authority Renewable Energy Strategies*** and a revised draft of the ***Wind Energy Development Guidelines*** are expected to be issued during the life of this Development Plan.

31.2 Regional and local energy policy

The **Regional Spatial and Economic Strategy** of the Northern and Western Regional Assembly, and the **Sligo 2030: One Voice, One Vision/Local Economic and Community Plan** are the main sub-national level documents that have informed Development Plan policy relating to energy infrastructure.

31.2.1 Regional Spatial and Economic Strategy (RSES)

The RSES recognises the Region's huge potential for growth in renewables and sets out a number of relevant Regional Policy Objectives.

RPO 4.16 states the NWRA's commitment to the identification of potential renewable energy sites of scale in collaboration with local authorities and other stakeholders. RPOs 4.17 to 4.22 and 8.1 to 8.4 support a wide range of measures relating to renewable energy production, distribution, storage, energy efficiency and conservation.

RPO 9.4 aims to create resilient places and low carbon infrastructure by promoting renewable energy and developing the North-West as a centre for excellence for renewable energy and innovation.

31.2.2 Sligo 2030 – Local Economic and Community Plan (LECP)

Sustainability is interwoven throughout the LECP, which identifies the local production and use of green energy, and the development of offshore renewable energy infrastructure as opportunities for County Sligo.

Under the High-Level Goal 3, which addresses climate action, **Objective 3.1** seeks a reduction in emissions by at least 51% by 2030, in line with CAP23. A Key Desired Outcome under Goal 3 is "*to position County Sligo as a leader in retrofitting and alternative energy development"*.

Action 28 under Goal 3/Objective 3.1 commits Sligo County Council to the development of a **Renewable Energy Strategy** for Sligo.

Action 6 under Goal 1/Objective 1.1 aims to "Complete a biomethane feasibility study to support the development of a local gas network in Sligo from renewable energy sources", led by a newly-established Sligo-Leitrim Energy Agency and the Sligo Sustainable Energy Community.

31.3 Renewable energy

Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed. Wind power, solar power, hydroelectric power, ocean energy, geothermal energy, biomass and biofuels are alternatives to fossil fuels that contribute to reducing greenhouse gas emissions, diversifying energy supply and reducing dependence on unreliable and volatile fossil fuel markets, in particular oil and gas.

In County Sligo, the principal renewable energy sources are wind and micro-renewables (such as small-scale hydro plants and domestic solar panels). There are opportunities for other sources, such as green hydrogen and biomethane.

It must be recognised that gas, particularly renewable and indigenous gas, will continue to have a role to play in the transition to a low carbon economy. As such, renewable energy developments may require support from such sources in times of high energy demand. **[PA-159]**

31.3.1 Wind energy

Sligo's mountainous landscape and exposed location on the western seaboard combine to create good conditions for the generation of wind power. According to the Sustainable Energy Association Ireland (SEAI), the wind farm capacity available in the County in 2023 was 96 MW, produced by seven wind farms located at Kings Mountain, Dunneill, Carran Hill, Geevagh, Blacklough, Derrysallagh and Lackan.

The wind energy potential available in the County is indicated in the *Wind Atlas,* a digital map providing details on wind speeds, current windfarms etc, maintained on the website of the Sustainable Energy Authority of Ireland (SEAI) to support potential developers and community groups in the initial planning stages.

Pressure for future wind farm development is likely to be concentrated in upland and coastal areas, particularly where energy providers can access the national electricity grid. The siting of wind turbines requires careful consideration. While turbines located on elevated sites tend to have a higher output, they also have a significant visual impact. Visual obtrusiveness depends on the location, layout, size, number, design and colour of the turbines, as well as the subjective perceptions of the viewer.

It is a challenge for the Council to achieve a reasonable balance between: (a) responding to government policy on renewable energy; and (b) enabling the wind energy resources of the County to be harnessed in an environmentally sustainable manner.

Draft Wind Energy Development Guidelines 2019

The Draft Wind Energy Development Guidelines 2019 contain a specific planning policy requirement (SPPR 1), requiring the Planning Authority to:

- ensure that national policy on renewable energy is acknowledged in the development plan, referring to the *National Energy and Climate Plan 2021-2030* and the *Climate Action Plan 2019*.
- indicate how the implementation of the development plan will contribute to realising the national targets on renewable energy, in particular wind energy (in megawatts);
- demonstrate compliance with Section 3.4 of the Draft Guidelines, e.g. by setting objectives and identifying suitable areas for wind energy production, among other items.

At the time of writing (2024), the final Wind Energy Development Guidelines had not yet been issued under Section 28 of the Planning and Development Act 2000 (as amended).

Furthermore, the national renewable energy target set in the CAP 2019 (70% of total electricity, including up to 8.2 GW increased onshore wind capacity) has been superseded by the CAP23.

The revised targets require up to 80% of electricity to be produced from renewable sources by 2030, including 9 GW from onshore wind and at least 5 GW from offshore wind.

The CAP23 also contains three relevant Actions (EL/23/2, EL/23/3 and EL23/4) providing for the preparation of:

- A Renewable Electricity Spatial Policy Framework;
- A Roadmap for the development and implementation of Regional Renewable Electricity Strategies;
- new Draft Wind Energy Development Guidelines for onshore renewables.

Sligo County Council will prepare a Renewable Energy Strategy in accordance with the forthcoming Regional Renewable Electricity Strategy and the revised Methodology for Local Authority Renewable Energy Strategies (a measure contained in Section 12.3.1 of CAP23), when published.

In the interim period, the Planning Authority will continue to assess all wind energy development proposal using the criteria set out in the DECLG's Wind Energy Guidelines (2006).

31.3.2 Offshore wind, wave and tidal energy

In February 2023, the Department of Environment, Climate and Communications (DECC) published the Draft *Offshore Renewable Energy Development Plan II– A Framework for the Sustainable Development of Ireland's Offshore Renewable Energy Resource (OREDP II).*

The *OREDP II* focuses on the spatial strategy, "proposing how the State will identify the areas best suited for ORE, in line with the principles of good maritime spatial planning". The Plan sets out the principles that will be used to underpin the statutory planning process for offshore renewable energy (ORE).

The implementation of the *OREDP II* will involve, among other actions, the selection of *Broad Areas of Interest* and the designation of areas suitable for ORE. The selection will be based on the resource potential for floating wind, wave, and tidal energy, but also on the proximity to onshore infrastructure such as ports, proximity to demand centres, especially large industry.

The North-West (off the coast of Sligo and Donegal) is one of three identified *Broad Areas of Interest* for floating wind, along with the Celtic Sea and the Mid-West. Further analysis of the Broad Areas will allow for more detailed consideration of individual spatial opportunities and constraints (specific issues analysis) at a regional and local level.

Sligo County Council, as a local-level stakeholder, will provide input, as required, at the appropriate stages in the *OREDP II* completion and implementation.

31.3.3 Hydroelectric power

Hydroelectricity is derived from the power harnessed from turbines driven by the flow of falling water, typically from fast-flowing streams and rivers. Presently about 2.5% of Ireland's electricity generating capacity is in the form of hydropower.

County Sligo has an installed capacity of 2.7 MW in two hydroelectric power stations operating at Ballysadare (2.2 MW) and Collooney (0.5 MW) both of which are owned and run by private operators. The SEAI Hydro-Power Map identifies numerous other potential hydro-power sources in County Sligo.

Hydro-power developments have the potential for significant impact on the aquatic resource and it is essential that where such schemes are permitted, the fisheries resource is adequately protected, without interference to fish movement, habitat or water quality.

31.3.4 Bioenergy

Bioenergy is produced from biomass, i.e. purpose-grown energy crops, forestry residues, agricultural residues and waste (e.g. farm waste, hydrotreated vegetable oil / HVO). Bioenergy can be used for heating, especially district heating. The cultivation of bioenergy crops may contribute to rural diversification and income generation, while increasing biodiversity and energy security.

Biomass fuels must undergo processing before they can generate energy:

- Wood refineries produce solid fuel (pellets, chips etc).
- Biofuel refineries make liquid fuels for transport.
- Anaerobic digestors and other gas facilities produce biogas, which can be upgraded to biomethane and distributed through a gas grid.

Sligo is not served by gas infrastructure at present. Large energy users, across all sectors, are currently reliant on carbon-intensive Oil and LPG for energy demand.

To ensure that Sligo has an efficient and cost-effective distribution of energy based on renewable energy sources, the Sligo 2030 Strategy (LECP) supports the development of a Local Gas Network using biomethane.

The Sligo Local Gas Network proposal, supported by ATU, Sligo Sustainable Energy Communities and the SEAI, would address the existing regional disparity in terms of access to natural gas, potentially leading to the uptake of Combined Heat and Power (CHP) technology.

Sligo County Council recognises the potential of bioenergy and will support its development. Individual proposals for bioenergy-related developments will be considered on their merits, subject to proper planning and environmental considerations.

31.3.5 Solar energy

There are two broad groups of technologies which generate electricity from light. Concentrated Solar Power (CSP) technologies produce electricity by focussing sunlight to produce heat and drive an engine connected to an electrical generator.

Solar photovoltaics (solar PV) are the most common solar technologies worldwide, and are best suited for use in Ireland. However, the number of large commercial solar farms is expected to increase, with consequences for land-use.

Solar farms are normally built on agricultural land and leave room for dual land use so that farm practices, such as grazing, can co-exist with the solar panels. Farmers and small rural communities will be encouraged to produce their own solar energy, both for self-supply and for selling to the grid.

31.3.6 Geothermal energy

Geothermal energy is heat stored beneath the earth's surface. It is a secure, reliable and renewable form of energy that can be used for heating, cooling, electricity production, or for combined heat and power generation.

Geothermal energy can be harnessed by a range of different technologies, depending on the nature of the resource, the intended use and the amount of heat required. Ireland's geothermal energy resources are currently under-utilised and mostly used for small-scale, individual heating projects (e.g. for single domestic dwellings or industrial heating applications).

31.3.7 Electricity transmission

The transmission network forms the backbone of power supply. Its development is critical to ensuring that County Sligo has the necessary infrastructure and capacity to attract business and accommodate the future development of the local economy.

The **Eirgrid Transmission Development Plan 2021-2030 (TDP**) indicates that the existing transmission network in the North-West area is relatively isolated from the 220 kV network and comprises 110-kV grid, mostly long lines. The area is characterised by a strong wind resource and a low electricity demand. Development of this network is mainly required to connect a high-level of renewable generation.

To cater for high levels of renewable generation, network reinforcement is necessary. This will enable the efficient export of generation from the North-West towards areas with high load, such as the East.

For County Sligo, Eirgrid's TDP 2021-2030 lists two projects:

- the Srananagh 220-110 kV Protection Upgrade project, which involves replacement of aged protection equipment in Sligo 110 kV and Srananagh 220 kV stations, to ensure optimal system performance;
- Flagford–Sligo 110 kV Line Conflict (N4 Road Realignment) and Station End Works (refurbishment/replacement).

31.3.8 Energy storage

Energy storage systems such as batteries and green hydrogen storage, along with grid stability services, are some of the technologies that will be essential to smoothing out the natural variability that occurs in renewable energy sources and to provide electricity at times of peak demand.

Utility-scale battery storage systems enable more efficient use of renewable energy. "Green hydrogen", which is produced from renewable energy sources, offers potential for large-scale, seasonal storage of variable renewable energy. This enables zero-carbon backup to the power system when intermittent renewables such as wind and solar power are not available. **[PA-156]**

31.3.9 Hybrid renewables

"Hybrid renewables" consist of two or more renewable energy sources used together to provide increased system efficiency, as well as greater balance in energy supply, whilst optimising use of existing infrastructure.

By developing hybrid renewables, plant consisting of wind, solar and battery exporting from common points of connection, but at different times, the need for transmission infrastructure is minimised and grid stability can be improved. [**PA-158** – inserted as a separate subsection instead of a paragraph under the Section headline]

31.4 Energy efficiency

Ireland's homes are responsible for one quarter of overall energy use and 10% of greenhouse gas (GHG) emissions. Reducing the amount of energy and fossil fuels is an important part of CAP23, which sets actions across various sectors. A few examples are listed below:

- All new dwellings to be built to NZEB (Nearly Zero Energy Buildings) standard after 1 November 2019, and all new buildings other than dwellings to be are built to NZEB standard after 1 January 2019;
- 600,000 heat pumps to be installed by 2030;
- Phase 2 of the social housing retrofit programme to bring dwellings more than 40 years old (30% of the social housing stock) to a B2 equivalent BER.

Ireland also has targets under EU legislation to improve energy efficiency by 2030. These targets are set out in the *National Energy and Climate Plan 2021-2030* and in the *Long Term Renovation Strategy* (LTRS). For 2030, the targets include:

- 500,000 homes retrofitted to a B2 BER;
- public sector buildings to have a B BER;
- one third of commercial buildings to have a B BER.

The retrofitting of the older building stock in terms of energy efficiency will be actively promoted by Sligo County Council. This is supported centrally through a variety of schemes such as the Community Energy Grant Scheme and various SEAI home energy upgrade grants.

The Planning Authority will facilitate the retrofitting of protected structures, structures located within ACAs and in historic streetscapes, where it is shown that the proposed works will not negatively impact upon the character of the structure or streetscape.

Energy policies

It is the policy of Sligo County Council to:

P-EN-1 Support the sustainable development, upgrading and maintenance of energy generation, transmission, storage and distribution infrastructure, to ensure the security of energy supply and provide for future needs, as well as protection of the landscape, natural, archaeological and built heritage, and residential amenity.

P-EN-2 Facilitate the production of energy from renewable sources and secure the maximum potential from wind energy resources within County Sligo, including the augmentation, upgrading and improvements to existing wind farms, subject to strict location, siting and design criteria. **[PA-150]**

All such development proposals will be assessed for their potential impact on urban and rural communities, Natura 2000 sites, designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes and scenic views, and all other normal planning considerations.

Energy policies

P-EN-3 Support the development of energy from biomass, such as solid fuels (e.g. wood pellets), liquid fuels or biogas (e.g. biomethane), including the cultivation, processing and conversion of energy crops.

P-EN-4 Support existing and new enterprises that wish to use renewable energy to serve their own needs by on-site energy production, as well as farm diversification into solar energy production for own use or selling to the grid, subject to normal planning considerations. **[PA-151]**

P-EN-5 Collaborate with urban and rural communities in the development of community-level energy efficiency and renewable energy projects, including solar energy developments where suitable, subject to visual, landscape, heritage, environmental and amenity considerations. **[PA-152]**

P-EN-6 Support the ocean energy research, development and demonstration pathway for emerging marine technologies (wave, tidal, floating wind, other types of marine energy developments) and facilitate the provision of associated test infrastructure. **[PA-153]**

P-EN-7 Facilitate proposals for secure, appropriately scaled energy storage infrastructure, including green hydrogen gas storage, which support energy efficiency and reusable energy systems, subject to assessment of their potential impact on communities, environmental assessments and normal planning considerations. **[PA-154]**

P-EN-8 Support proposals for hybrid energy systems and co-location of renewable energy infrastructure where it can be demonstrated that such developments will not have adverse impacts on the surrounding environment. **[PA-155]**

Renewable energy objectives

It is an objective of Sligo County Council to:

O-REN-1 Prepare a Renewable Energy Strategy for County Sligo within one year of the publication of the Regional Renewable Electricity Strategy (NWRA) or the revised Methodology for Local Authority Renewable Energy Strategies (SEAI), as provided for in the Climate Action Plan 2024, whichever occurs first. **[PA-157]**

O-REN-2 Seek the progression of the Sligo Local Gas Network project in co-operation with ATU, Sligo Sustainable Energy Communities, the SEAI and all other relevant stakeholders.

Energy efficiency policies

It is the policy of Sligo County Council to:

P-ENE-1 Encourage the use of renewable energy sources in buildings and the retrofitting of buildings for higher energy efficiency in line with national retrofitting goals.

The retrofitting of protected structures and buildings located within ACAs or in historic streetscapes will be facilitated where it is shown that the proposed works will not negatively impact upon the character of the structure or streetscape.

P-ENE-2 Promote the incorporation of energy-efficiency measures in the design of new buildings, such as passive solar design, natural ventilation, and vegetation (e.g. green roofs), as well as other design solutions that make effective and sustainable use of water, aggregates and other resources.

The proposed energy-efficiency measures or design solutions should be included as part of the documentation submitted at planning application stage.

31.5 Telecommunications

31.5.1 Broadband

The National Broadband Plan (NBP) is the government's initiative to deliver high speed broadband services to all premises in Ireland, through investment by commercial enterprises coupled with intervention by the State in those parts of the country where private companies do not invest.

Investment in high-speed digital and internet services can realise benefits in relation to investment by boosting the attractiveness of locations outside of the urban centres, facilitating remote working from small villages and rural areas and thus contributing to the vitality and resilience of rural communities.

Sligo County Council fully supports the implementation of the National Broadband Plan and any similar subsequent plans.

31.5.2 Mobile telecommunications infrastructure

Sligo County Council recognises the importance of high-quality telecommunication infrastructure as a prerequisite for a successful economy. It is the aim of the Council to achieve a balance between facilitating the provision of telecommunications services in the interests of social and economic progress and protecting residential amenity and environmental quality.

Due to their design and large scale, telecommunication structures can have a significant visual impact on the landscape, both urban and rural. To avoid duplication or excessive numbers of masts within any given area, shared use of existing structures will be necessary.

The Council will ensure that all new support structures meet the co-location or clustering requirements of the most up-to-date ministerial guidelines (at the time of writing, in 2023, these were the *Telecommunications Antennae and Support Structures, 1996,* and the *Circular Letter PL07/12*)

Refer to **Section 33.11.3 (Development management standards)** for details relating to the siting and design of telecommunication infrastructure.

Telecommunications policies

It is the policy of Sligo County Council to:

P-TEL-1 Ensure that telecommunications infrastructure is adequately screened, integrated and/or landscaped, so as to minimise any adverse visual impacts on the County's natural or cultural (historic, archaeological) landscapes.

P-TEL-2 Support the implementation of the *National Broadband Plan for Ireland* and any related programmes aiming to provide high-speed broadband in County Sligo.

P-TEL-3 Where appropriate, require (by planning condition if necessary) the installation of underground telecommunications infrastructure associated with road, commercial and residential schemes.