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Review of County Development Plan,  
Forward Planning Department,  
Offaly County Council,  
Áras an Chontae,  
Charleville Road,  
Tullamore,  
Co. Offaly.

25th September 2019

**Re: Submission to the Review of the Offaly County Development Plan 2014-2020**

Dear Sir/Madam,

EirGrid Group welcomes the opportunity to make a submission to the review of the *Offaly County Development Plan* and requests that this submission is taken into consideration in the drafting of the new plan.

EirGrid is a prescribed authority for the purposes of Section 11 (2) of the *Planning and Development Act 2000, as amended* and has been involved in the making of *Project Ireland 2040 (National Planning Framework)* and the *Eastern and Midlands Regional Spatial and Economic Strategy* in which the strategic issue of the future development of Ireland's electricity transmission grid was highlighted and extensively addressed. It is requested the future development plan is in so far as is practicable be consistent with such national plans, policies or strategies as the Minister determines relate to proper planning and sustainable development.

#### **EirGrid's Function**

EirGrid is responsible for the safe, secure and reliable transmission of electricity – now and in the future. EirGrid develops, manages and operates the electricity transmission grid. This brings power from where it is generated to where it is needed throughout Ireland. The grid also supplies power to industry and businesses that use large amounts of electricity and powers the distribution network. The

distribution network in turn supplies electricity to homes, businesses, schools, hospitals, and farms.

EirGrid's function as the national electricity Transmission System Operator (TSO) is set out in the *European Communities (Internal Market in Energy) Regulations, 2000 - SI 445/2000*. Article 8(1) (a) gives EirGrid as TSO, the exclusive statutory function:

*"To operate and ensure the maintenance of and, if necessary, develop a safe, secure, reliable, economical, and efficient electricity transmission system, and to explore and develop opportunities for interconnection of its system with other systems, in all cases with a view to ensuring that all reasonable demands for electricity are met having due regard for the environment."*

The transmission system on the island of Ireland refers to the higher capacity electricity network and primarily comprises substations and circuits at 400 kV (i.e. 400,000 Volts), 220 kV, and 110 kV (in Northern Ireland, transmission infrastructure also occurs at 275 kV). EirGrid's (2016) Transmission System Map (ENCL1) is enclosed.

The midlands regional transmission network is pivotal in transporting power over considerable distances to a widely dispersed range of demand centres. The region has dispersed generation, mainly composed of peat-burning power stations at Lanesboro, Shannonbridge and Cushaling stations, and renewable energy. The existing Midlands transmission network is comprised of 400 kV, 220 kV and 110 kV infrastructure. In Co. Offaly specifically there is significant transmission infrastructure in the county given its central location on the island.

The regional demand centres (i.e. Tullamore) and generation sources (e.g. Mount Lucas Wind Farm) are mainly served by the widely dispersed 110 kV meshed network, with the high capacity 400 kV and 220 kV circuits mainly transferring power through the region. This 400kV network includes both the Oldstreet – Woodland 400kV Overhead Line, which runs through much of the county and Moneypoint – Dunstown 400kV Overhead Line which travels for a short period through the southern tip of the county, near Moneygall. The 400kV network is a critical piece of infrastructure which transmits electricity from Moneypoint in Co. Clare to the midlands and east of the island.

The 220kV network is focused mainly on the thermal facility at Shannonbridge in the west of the county. The Killonan – Shannonbridge 220kV Overhead Line runs from Shannonbridge to a station outside Limerick City. The Maynooth – Shannonbridge 220kV Overhead Line runs to Maynooth, Co. Kildare.

EirGrid has constructed two new 110 kV circuits in the region, namely Cushaling (Edenderry) –

Thornsberry (Tullamore) and Kinnegad – Mullingar. These projects have strengthened the region's transmission network by improving security and quality of supply and ensuring there is the potential for demand growth in a number of gateway towns including Mullingar and Tullamore.

### **Policy-Led Plan**

The electricity transmission grid's importance in supporting our society and economy should not be understated in the forthcoming draft. EirGrid notes and welcomes reference and emphasis placed on climate action and energy in the issues paper. EirGrid considers that policies and objectives which support a safe, secure and reliable supply of electricity need to be explicit in the draft in order to assist EirGrid in the successful implementation of its Grid Development Strategy - Your Grid, Your Tomorrow (2017) (ENCL2). This is imperative to meeting national targets for electricity generation, climate change targets, and security of energy supplies.

In this context the policies and objectives in the adopted Regional Spatial and Economic Strategy should be reviewed and considered as an example of robust and sustainable policies and objectives. The planning authority may consider these adequate for inclusion in the forthcoming draft. An extract of the relevant sections of the Regional Spatial and Economic Strategy is attached for convenience.

EirGrid also requests the draft be explicit as to how the various Government (and State Agency) policy documents have been considered in the preparation of the draft, and how they have informed the policy and objectives. A section should be included in the draft setting out how these policy documents have been considered in a holistic and integrated way to inform subsequent plan policy. This gives a clear policy-led foundation to the plan, which will prove invaluable as it subsequently informs the strategies, policies and objectives of local authority plans and public and private projects.

In terms of electricity transmission there are a number of important Government Policy documents namely:

- Department of Communications, Energy and Natural Resources (2015) White Paper On Energy: Ireland's Transition to a Low Carbon Energy Future 2015-2030;
- Department of Communications, Energy and Natural Resources (2019) Climate Action Plan;
- EirGrid's (2017) Grid Development Strategy - Your Grid, Your Tomorrow;
- EirGrid (2017) Tomorrow's Energy Scenarios 2017: Planning our Energy Future.

In this regard, the Department of Communications, Energy and Natural Resources (2015) White Paper on Energy titled Ireland's Transition to a Low Carbon Energy Future 2015-2030 reaffirms the

Government's position on energy matters and should be relied upon as a source for policy formulation for energy in the draft. The White Paper acknowledges that developing, maintaining, and upgrading the grid is essential to meeting its short, medium and longer-term objectives. It also has considerable regard to wider emerging EU Policy which promotes smart low-carbon economies centred on energy efficiency. This policy in turn acknowledges the role of sustainable development of individual country's transmission grids to assist in their delivery.

The Climate Action Plan 2019, published on June 17th, 2019 by the Department of Communications, Climate Action and Environment, sets out a 'roadmap' to achieve a net zero carbon energy system by 2050. This Plan builds on the policy framework, measures and actions set out in the National Mitigation Plan, Project Ireland 2040 and the draft National Energy and Climate Plan in order to create a resilient, vibrant and sustainable country. The plan acknowledges that Ireland has to date been very successful in deploying renewable electricity with 30.1% of electricity produced from renewable sources in 2017. As of the 28th of March, 2019, the Irish government has confirmed that Ireland will now aim for at least 70% of Ireland's electricity supply to be generated from renewables by 2030. This aim is increased from the current target for 2030 which was 55% (RES-E) in Project Ireland 2040.

The plan notes that demand for electricity is forecasted to increase by 50% above existing capacity in the next decade. Therefore, in order to achieve the target of 70% in the context of rising energy demand, significant progress in renewable electricity deployment will need to continue, with an increased deployment rate of all renewable electricity technologies.

- At least 3.5 GW of offshore renewable energy;
- Up to 1.5 GW of grid-scale solar energy; and
- Up to 8.2 GW total of increased onshore wind capacity

The Climate Action Plan states that increased levels of renewable generation will require very substantial new infrastructure, including grid infrastructure.

EirGrid's (2017) Grid Development Strategy - Your Grid, Your Tomorrow is consistent with the Government White Paper on Energy and Climate Action 2019 and should also be incorporated/referenced in the plan. The Grid Development Strategy is also set in the context of Government Policy, in particular the Department of Business, Enterprise and Innovations (2017) Action Plan for Jobs 2017 and the Irish Development Authority's (IDA) (2015) strategy, Winning: Foreign Direct Investment 2015-2019. The Grid Development Strategy acknowledges the need to achieve a balance between social, environmental and economic factors. On the basis of this need the Grid Development Strategy is underpinned by three Statements as follows:

## Strategy Statements

### Strategy Statement 1

**Inclusive consultation with local communities and stakeholders will be central to our approach.**

### Strategy Statement 2

**We will consider all practical technology options.**

### Strategy Statement 3

**We will optimise the existing grid to minimise the need for new infrastructure.**

Figure 1: Strategy Statements of EirGrid's (2017) Grid Development Strategy - Your Grid, Your Tomorrow

it is important that the draft plan reflects EirGrid's need for robust policies to develop the electricity grid in a safe and secure way. This is necessary to meet projected demand levels; to meet Government Policy; and to ensure a long-term, sustainable and competitive energy future for Ireland. The draft plan should facilitate the development of grid reinforcements including grid connections and a transboundary network into and through the county and between all adjacent counties and to support the development of international connections.

An increased strategic spatial focus will be of the utmost benefit in facilitating EirGrid to successfully plan for the future transmission network and is of particular importance in EirGrid's (2017), recently published, Tomorrow's Energy Scenarios 2017: Planning our Energy Future (ENCL4) which brings together a wide range of factors which can influence the evolution of the electricity sector. One of EirGrid's roles is to plan the development of the electricity transmission grid to meet the future needs of society. The key to this process is considering the range of possible ways that energy usage may change in the future through scenario planning.

The increased spatial focus in the draft plan and the identification of suitable locations at a regional level for larger generation (i.e. renewable energy) and demand centres (i.e. data centres) is a key consideration and importance in formulating energy scenarios into the future and in identifying the optimum grid development solutions. It should be the intention of the draft plan to have this level of spatial focus and that an appropriate context is set in the draft plan to ensure that such development is directed to spatially suitable locations (e.g. a larger demand centre such as data centres should be directed to spatially suitable locations to ensure efficient use of the existing transmission network).



## **Conclusion**

The development of the transmission grid as summarised above and outlined in detail in EirGrid's Grid Development Strategy - Your Grid, Your Tomorrow (2017) and associated Technical Report (2017) (ENCL3), is of critical importance to support the economy and society, as well as to realise the transformation of Ireland's energy system to meet climate change and energy obligations. Electricity infrastructure is critical for regional and local economic and spatial development.

To ensure Ireland's sustainable development and growth, EirGrid requires appropriate and robust policy and objectives for planning the national grid infrastructure and prioritising it appropriately in order to deliver national, regional and local benefit. In this regard, EirGrid requests that the importance of the grid is acknowledged as a strategic issue.

EirGrid is available to collaborate with the planning authority and to provide expert and focused input into the preparation of the draft plan, particularly from a strategic energy policy perspective. Should you have any comments in regard of this submission please contact the undersigned. EirGrid once more welcomes the opportunity to participate in the making of the plan and looks forward to further engagement.

Yours sincerely,

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**Senior Lead Planner**  
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## Enclosures (links to website)

ENCL 1: [Transmission System Map](#);

ENCL 2: [Grid Development Strategy - Your Grid, Your Tomorrow](#)

ENCL 3: [Grid Development Strategy - Your Grid, Your Tomorrow – Technical Report](#)

ENCL 4: [Tomorrow's Energy Scenarios 2017: Planning our Energy Future](#)

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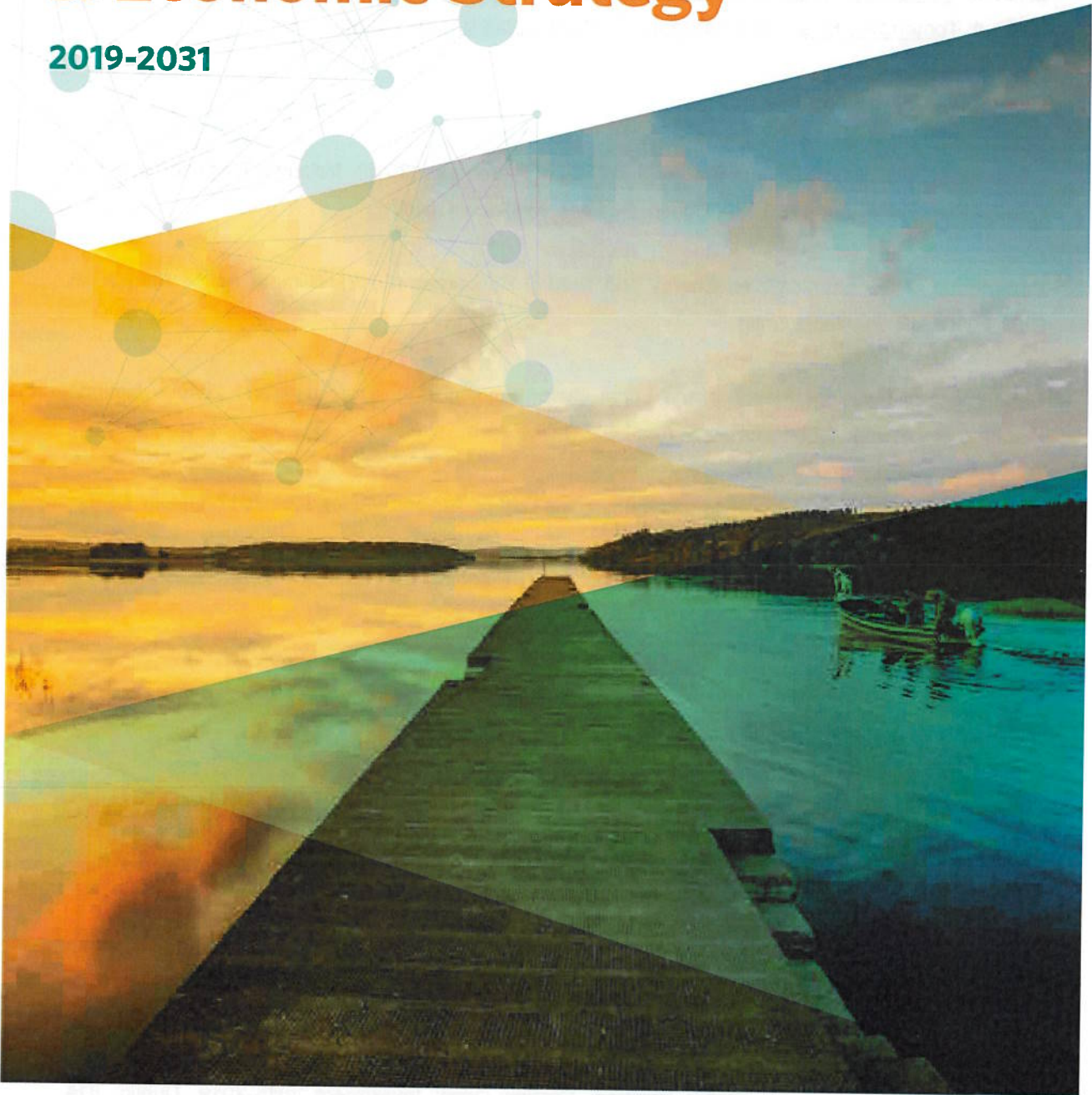
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OUR DREAM

**Eastern & Midland Regional Assembly**

# **Regional Spatial & Economic Strategy**

**2019-2031**



Tionscadal Éireann  
Project Ireland  
**2040**



Tionól Reigiúnach Oirthir agus Lar-Tír  
Eastern and Midland Regional Assembly



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### Decarbonising the Energy Sector

The Region will need to shift from its reliance on using fossil fuels and natural gas as its main energy source to a more diverse range of low and zero-carbon sources, including renewable energy and secondary heat sources. Decentralised energy will be critical to the Region's energy supply and will ensure that the Region can become more self-sufficient in relation to its energy needs.

#### Generating electricity supply from indigenous renewable sources requires:

- facilitating the provision of appropriate renewable energy infrastructure and technologies and deeper cooperation with Northern Ireland and the EU
- expansion and upgrading of the grid with the aim of increasing the share of variable renewable electricity that the all-island system can accommodate
- Onshore wind, bioenergy, solar and offshore energy
- Effective community engagement including support for micro generation
- Moving from carbon intense fossil fuel generation to lower emissions fuels
- Increasing the use of electricity and bioenergy to heat our homes and fuel our transport
- The need to ensure sufficient electricity to meet increased demand

The Strategy supports an increase in the amount of new renewable energy sources in the Region. This includes the use of wind energy – both onshore and offshore, biomass, and solar photovoltaics and solar thermal, both on buildings and at a larger scale on appropriate sites in accordance with National policy and the Regional Policy Objectives outlined in this Strategy.

It is necessary to establish a consistency of approach by planning authorities, both in identifying areas suitable for renewable energy development and having regard to potential impacts, inter alia on biodiversity, landscape and heritage. It is also necessary to reflect the advancements in technology, and reflect the need to engage with, and be responsive to the needs of communities asked to host renewable energy infrastructure.

The need for early stakeholder engagement in relation to renewable energy generation projects is critical. Effective community engagement is essential for building public confidence and to help Ireland achieve a transition to renewable energy. An increase in community participation in renewable energy projects such as community ownership models should be supported in this regard. Optimisation of community benefit from renewable energy projects also needs to be ensured.

The Sustainable Energy Community Network is a programme established by Sustainable Energy Authority of Ireland (SEAI) supporting communities in which everyone works together to develop sustainable energy systems. 200 no. communities across Ireland are now part of the Sustainable Energy Communities network, a rapidly expanding national movement towards a cleaner energy future. This programme has been particularly successful in the Region.

#### CASE STUDY:

##### Dunleer Sustainable Energy Community



In 2015 the Dunleer Sustainable Energy Community (SEC) was established with the vision of providing leadership to the community of Dunleer County Louth and other communities across Ireland on addressing the challenge of climate change. The objectives of the group are:

- Education; through the 'energy ambassadors' community education programme to advise people on everyday steps to reduce energy use
- Retrofit of homes; leading to a 30% reduction in energy use in 200 homes throughout County Louth
- Community energy generation; partnering with the Centre for Renewable Energy at Dundalk IT, Louth County Council and the Alheim region in Germany to develop knowledge and best practice

District heating offers an efficient and cost-effective heating option using networks from a variety of potential technologies and renewable energy sources, such as combined heat and power (CHP), biomass energy, geothermal or energy from waste. The use of renewable energy solutions to provide heating and hot water to houses and businesses contributes to sustainability as it reduces demand for and consumption of energy while using a renewable form of fuel.

Waste heat presents a huge indigenous resource. Waste heat is the single largest available low-carbon source of energy available in the Region that is not being used. In Dublin City alone, there is enough waste heat to meet the heating demands of nearly half of the city's buildings. These sources of heat are typically used in District Heating systems. Sources of waste heat include data centres. Waste heat is a resource which is too often overlooked and can meet a large proportion of the Region's heat demands indigenously and without fossil fuels. In response, the Strategy seeks to support the micro-generation, geothermal energy, district heating, storage of heat and energy and the role of the electricity transmission and distribution network.

#### CASE STUDY:

##### HeatNet

South Dublin County Council has an established track record in participating in European projects, with a focus on Spatial Planning and Energy for Communities in partnership with other local authorities across Europe and the Covenant of Mayors initiative. In partnership with City of Dublin Energy Management Agency (CODEMA), the Council is now leading a project to develop Dublin city's first public district-heating network.

With partners across 5 EU states, the 'heatNet' project will link Tallaght Hospital to the County Hall complex to form the core of a district-heating network which when operational is expected to save the Council almost 1,900 tonnes per year after 5 years. Heatnet will run until 2020 and will receive European Regional Development Funding through the INTERREG North West Europe programme.

Local authorities should harness the potential of renewable energy in the Region across the technological spectrum from wind and solar to biomass and, where applicable, wave energy, focusing in particular on the extensive tracts of publicly owned peat extraction areas in order to enable a managed transition of the local economies of such areas in gaining the economic benefits of greener energy.

The provision of infrastructure should be supported in order to facilitate a more distributed, renewables-focused energy generation system, harnessing both on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting sites of optimal energy production to the major sources of demand.

#### REGIONAL POLICY OBJECTIVES:

##### Decarbonising the Energy Sector

RPO 7.35: EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings, and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy could be developed to support delivery of projects within the Strategic Energy Zones.

RPO 7.36: Planning policy at local authority level shall reflect and adhere to the principles and planning guidance set out in Department of Housing, Planning and Local Government publications relating to 'Wind Energy Development' and the DCCAE Code of Practice for Wind Energy Development in Ireland on Guidelines for Community Engagement and any other relevant guidance which may be issued in relation to sustainable energy provisions.

RPO 7.37: A bioeconomy plan for the Region should be developed that outlines the capacity of the Region to supply the range of bioenergy resources required for the fuel mix as well as the current and projected consumption requirements for growth in this market.

RPO 7.38: Local authorities shall consider the use of heat mapping to support developments which deliver energy efficiency and the recovery of energy that would otherwise be wasted. A feasibility assessment for district heating in local authority areas shall be carried out and statutory planning documents shall identify local waste heat sources.

### 10.3 Energy

A secure and resilient supply of energy is critical to a well-functioning region, being relied upon for heating, cooling, and to fuel transport, power industry, and generate electricity. With projected increases in population and economic growth, the demand for energy is set to increase in the coming years.

In the context of a move towards a more energy-efficient society and an increase in renewable sources of energy, there is a need to set a policy approach which will address an increased demand for indigenous resources and increased security of supply. Overreliance on non-indigenous supplies of energy is still a major issue for the Region. To meet our energy targets, we need to better leverage natural resources to increase our share of renewable energy. There is an established tradition of energy production in the Midland counties by state agencies, however national environmental policies are dictating the wind down of traditional fossil fuel powered stations, such as peak fired power plants in these counties. (Refer to Chapter 7 Environment & Climate in relation to renewable energy).

The main energy networks serving the Region are electricity and gas. Having regard to projected population growth and economic growth in the Region it is important that the existing electricity and gas networks can be upgraded to provide appropriate capacity to facilitate development of the Region. Improving energy efficiency is vital in order to reduce energy consumption while improving economic growth. The roll-out of Smart Grids to support Smart Cities development is supported to advance this sector. Increased connectivity with other grids is also needed and projects such as the North South interconnector are of great importance for the Region. See relevant policy supports in relation to Smart technologies in Chapter 6 Economy and Employment and Chapter 7 Environment.

The diversification of our 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 will require the progressive and strategic development of a different form of energy grid. The development of onshore and offshore renewable energy is critically dependent on the development of enabling infrastructure including grid facilities to bring the energy ashore and connect to major sources of energy demand. It is also necessary to ensure more geographically focused renewables investment to minimise the amount of additional grid investment required, for example through co-location of renewables and associated grid connections.

The Dublin Region is the major load centre on the Irish electricity transmission system. Approximately one third of total demand is located here, similarly the Eastern Region is a major load centre on the Irish transmission system. The main urban demand centres are composed of a mix of residential, commercial and industrial demand, which is expected to grow up to 2025 and beyond. Developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewable generation and also to facilitate future growth in electricity demand. These developments will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the Region is to attract high technology industries that depend on a reliable, high quality, electricity supply.

#### CASE STUDY:

##### CODEMA

Codema is Dublin's Energy Agency, providing advice and support for the four local authorities in the Dublin Region in ensuring their own sustainable energy use. Codema is also engaging with EU and SEAI funded energy programmes to promote innovation in the region. An increasingly important role is to increase energy awareness among citizens and energy stakeholders, thus providing a comprehensive local and regional service for energy and climate change. Examples of Codema's work include Climate Change action planning, district heating system planning, energy performance contracting, management of European projects, energy saving behavioural campaigns, and detailed energy reviews.

### Future Electricity and Gas Supply and Demand

Support for the development of a safe, secure and reliable supply of electricity and the development of enhanced electricity networks as well as new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy will serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity.

#### GUIDING PRINCIPLES

Local authority development plans shall facilitate the provision of energy networks in principle based on the following guiding principles, and considerations:

- The development is required in order to facilitate the provision or retention of significant economic or social infrastructure.
- The route proposed has been identified with due consideration for social, environmental and cultural impacts and address issues of climate resilience, biodiversity, impact on soils and water quality.
- The design is such that it will achieve least environmental impact.
- Where impacts are inevitable mitigation features have been included.
- Where it can be shown that the proposed development is consistent with international best practice with regard to materials and technologies and that it will ensure a safe, secure, reliable, economic and efficient high-quality network.
- In considering facilities of this nature that traverse a number of counties or that traverse one county in order to serve another, planning authorities should consider the proposal in light of the criteria outlined above. It is important that planning authorities are engaged in early consultation and discussion with the relevant Transmission System Operator.
- Corridors for energy transmission or pipelines should avoid creating sterile lands proximate to key public transport corridors, particularly rail routes, and in built up urban areas.
- Regard for any National or Regional Landscape/Seascape Character Assessment.



The following Regional Policy Objectives are outlined to ensure the development of the energy networks in a safe and secure way to meet projected demand levels, to meet Government Policy, to ensure a long-term, sustainable and competitive energy future for Ireland and enable energy service providers to deliver their statutory function.

#### REGIONAL POLICY OBJECTIVES:

##### Energy Infrastructure

RPO 10.19: Support rollout of the Smart Grids and Smart Cities Action Plan enabling new connectors, grid balancing, energy management and micro grid development.

RPO 10.20: Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new Transmission Infrastructure projects that might be brought forward in the lifetime of this Strategy. Including the delivery of the necessary integration of Transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.

RPO 10.21: Support an Integrated Single Electricity Market (I-SEM) as a key priority for Ireland.

RPO 10.22: Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people, including:

- Facilitating interconnection to Europe, particularly the 'Celtic Interconnector' to France and further interconnection to Europe/the UK in the longer term
- Facilitating interconnection to Northern Ireland, particularly the 'North-South Interconnector' and further co-operation with relevant departments in Northern Ireland to enhance interconnection across the island in the longer term
- Facilitating transboundary networks into and through the Region and between all adjacent Regions to ensure the RSES can be delivered in a sustainable and timely manner and that capacity is available at local, regional and national scale to meet future needs
- Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner
- support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks.

RPO 10.23: Support EirGrid's Implementation Plan 2017 - 2022 and Transmission Development Plan (TDP) 2016 and any subsequent plans prepared during the lifetime of the RSES that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process, in particular:

- Support reinforcement of the Greater Dublin Area between Dunstown and Woodland 400 kV substation to increase the capacity of the often congested and highly loaded Dublin transmission network to enable the transmission system to safely accommodate more diverse power flows and also facilitate future load growth in the area
- Support the installation of additional transformer capacity and increased circuit capacity to meet Dublin demand growth to strengthen the network for all electricity users and improve the security and quality of supply
- Support the Laois-Kilkenny Reinforcement Project to strengthen the network in large parts of the Midlands and provide additional capacity for potential demand growth in the wider region and strengthen the Region's transmission network by improving security and quality of supply and ensuring there is the potential for demand growth.

RPO 10.24: Support the sustainable development of Ireland's offshore renewable energy resources in accordance with the Department of Communications, Energy and Natural Resources 'Offshore Renewable Energy Development Plan' and any successor thereof including any associated domestic and international grid connection enhancements.

## 10.4 Waste Management

Waste Management Policy for the Region is contained in the Eastern and Midlands Region Waste Management Plan 2015 - 2021. The overall vision of the Regional Waste Management Plan is to rethink the approach taken towards managing waste and that waste should be seen as a valuable material resource. The Plan, through this section and Chapter 7 Environment & Climate, also supports a move towards achieving a circular economy which is essential if the Region is to make better use of resources and become more resource efficient.

Waste is defined as anything that is discarded. A circular economy is one where materials are retained in use at their highest value for as long as possible and are then re-used or recycled, leaving a minimum of residual waste. This Strategy supports the move to a more circular economy as this will save resources, increase resource efficiency, and help to reduce carbon emissions. The successful implementation of circular economy principles will help to reduce the volume of waste that the Region produces and has to manage and will assist in delivering the resource efficiency ambition of the Europe 2020 Strategy.

Local authorities should achieve waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal. This can be achieved by complying with the strategic objectives, targets and goals set out in the Eastern - Midlands Region Waste Management Plan 2015 - 2021 and any subsequent waste management plans and promoting a more circular economy that improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible. Waste minimisation and waste avoidance can be encouraged through the reuse of materials and using fewer resources in the production and distribution of products.

#### REGIONAL POLICY OBJECTIVES:

##### Waste Management

RPO 10.25: Development plans shall identify how waste will be reduced, in line with the principles of the circular economy, facilitating the use of materials at their highest value for as long as possible and how remaining quantities of waste will be managed and shall promote the inclusion in developments of adequate and easily accessible storage space that supports the separate collection of dry recyclables and food and shall take account of the requirements of the Eastern and Midlands Region Waste Management Plan.