



Tionól Reigiúnach Oirthir agus Lár-Tíre Eastern and Midland Regional Assembly

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Eirgrid Public Consultation: Shaping our Electricity Future

The Assembly welcomes this consultation by Eirgrid, which aims to identify the best way for Ireland to move from our reliance on fossil fuels and to reach the Government's 2030 renewable electricity target - of at least 70% of Ireland's electricity coming from renewable sources by 2030. This will require significant investment in, and transformation of Ireland's energy grid to transport renewables.

The EMRA's Regional Spatial and Economic Strategy (RSES) outlines the spatial, economic and climate policies for the Eastern and Midland Region within the context of an investment framework, and as such is stated to be of critical importance to the 'Shaping our Electricity Future' strategy, which seeks to significantly invest in and transform Ireland's energy networks.

The following submission is structured to include an overall context, detailing the role and function of the Regional Assembly and the importance of the RSES including the relevant Climate Action Policies and Strategic Investment Priorities of the Eastern and Midland Region as they relate to energy infrastructure for the Region.

This submission was approved by the members of the Eastern and Midland Regional Assembly at the Assembly meeting on June 11, 2021.

1.0 Policy Context

1.1 Role and Function of the Regional Assembly

The EMRA is part of the regional tier of governance in Ireland. It is primarily focused on driving regional development through the formulation, adoption, and implementation of the Regional Spatial and Economic Strategy (RSES), oversight and coordination of County Development Plans and Local Economic and Community Plans, management of EU Operational Programs, EU project participation, implementation of national economic policy, and additional functions working with the National Oversight and Audit Commission.

Along with the three-fold ambition for the Region as stated in the Regional Spatial and Economic Strategy (RSES) of healthy placemaking, economic opportunities and climate action, EMRA will also work towards the strategic goals in our Corporate Plan to grow the profile of the Region and to drive the regional agenda at home and abroad, working with our stakeholders to shape policy making including the next round of EU 2021-2027 programmes and to enhance local, regional, national and EU co-ordination.

EMRA has statutory functions in providing policy consistency between the RSES and Local Authority Development Plans and this also extends to policy consistency between the RSES and sectoral plans.

1.2 The Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region

The RSES for the Eastern and Midland Region was made in June 2019. The overall vision of the Strategy is to create a sustainable and competitive Region that supports the health and wellbeing of our people and places, from urban to rural, with access to quality housing, travel, and employment opportunity for all. The vision is supported by 16 Regional Strategic Outcomes (RSOs) that are framed around three key principles of Healthy Placemaking, Climate Action and Economic Opportunity.

A primary statutory objective of the Regional Spatial and Economic Strategy (RSES) is to support the implementation of Project Ireland 2040 - National Planning Framework (NPF) and the National Development Plan (NDP), which sets out a ten-year plan for capital investment. To support delivery of Project Ireland 2040 and the RSES, it is essential that investment decisions are aligned to the spatial planning and investment priorities for the Region, which are set out in the RSES.

1.2.1 Ensuring Spatial Alignment

The RSES presents a Spatial Strategy informed by a complementary Economic Strategy, which provides a framework for future growth, ensuring the delivery of effective regional development through the realisation of the potential of places across the Region. This includes championing the capital city of Dublin as a smart, climate resilient and global city region; securing Athlone, Drogheda and Dundalk as Regional Growth Centres, acting as regional economic drivers and supports for their wider catchment areas; and promoting a network of large economically active Key Towns¹ that provide employment and services to their surrounding areas. All of this is supported by a network of Self-Sustaining Growth Towns, Self-Sustaining Towns and multifaceted Rural Places.

The sustainable growth of the Region outlined in the RSES requires the investment and provision of services and infrastructure, including energy networks in a plan led manner to ensure that there is adequate capacity to support future development and targeted growth.

1.2.2 Electricity Demand – Population forecasts

In terms of forecasting future energy demand over the next decade, Eirgrid's attention is drawn to the National and Regional Population Projections for each local authority level as set out in the NPF and further elaborated in Appendix B of the RSES (SPA and County Population Tables). These provide the context for the Region to grow up to a population of around 2.74 million, and for the Dublin Metropolitan Area to grow to a population of 1.65 million by 2031 and should be the primary source of population growth to inform the spatial distribution of future energy demand.

2.0 Planning for a Low Carbon Energy Future

The RSES is a strategic plan and investment framework to shape the future development of our region to 2031 and beyond. It includes a Climate Strategy that sets out a holistic approach to accelerate climate action in our Region by driving more sustainable development and travel patterns, protection of biodiversity and natural resources and a transition to clean energy, a low carbon/ circular and climate resilient economy and society.

¹ Swords, Maynooth, Bray, Navan, Naas, Wicklow, Longford, Mullingar, Tullamore and Portlaoise.

EMRA will work closely with key stakeholders including the Climate Action Regional Offices (CAROs), local authorities and infrastructure providers to ensure a strong and coherent approach on climate action responses.

A key element of the Climate Strategy in the RSES is the need to achieve national EU commitments to reduce GHG emissions by 40%. EMRA also supports more ambitious interim targets in the Programme for Government of a 7% reduction per annum and onwards to a zero-carbon society by 2050. EMRA is committed to monitor progress towards achieving emissions reductions targets and is leading an ESPON EU research programme (QGasSP) to identify a robust method for quantifying the relative GHG impacts of spatial planning policies.

Reducing the reliance of the energy system on fossil fuels is a key pillar of achieving our decarbonisation goals and EMRA welcomes the preparation of Eirgrid's 'Shaping our Energy Future' roadmap towards the target of at least 70% of electricity coming from renewable sources by 2030. The Assembly notes the following four approaches that have been outlined by Eirgrid to help achieve the green transition in the energy system.

1. Generation-Led: Plan for electricity generation at the most suitable locations
2. Developer-Led: Continue to develop the grid on a project-by-project basis in any location
3. Technology-Led: Change the technology used for the grid infrastructure
4. Demand-Led: The location of large energy users is decided by government policy

The Assembly further notes there are some foundation projects that are common to all four approaches and the final plan is likely to include elements of all approaches, strongly led by one of them.

This sections below out key policies in the RSES for the decarbonisation of energy, building and transport sectors and refer to key energy infrastructure projects, which will ensure a secure resilient and clean supply of energy that meets the needs of Ireland's fastest growing Region.

2.1 Strategic Energy Infrastructure in the Eastern Midland Region

The Dublin Region is the major load centre on the Irish electricity transmission system with approximately one third of total demand, similarly the Eastern Region is another major load centre. There is an established tradition of energy production in the Midlands by state agencies, but this is being wound down due to national environment and climate policies.

Developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewables, to facilitate future growth in demand and improve the security of supply. This is important if the Region is to attract high technology industries that depend on a reliable, high quality, electricity supply.

To ensure the future development of the energy networks in a safe and secure way to meet projected demand levels and to meet national climate and renewable energy commitments. RSES Chapter 10 – Infrastructure sets out the following relevant **Regional Policy Objectives (RPO's) for strategic energy infrastructure investment** for the Eastern and Midland Region.

- 10.19 *Support roll-out of the Smart Grids and Smart Cities Action Plan enabling new connections, grid balancing, energy management and micro grid development.*

- 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. This includes 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.*
- 10.21 *Support an Integrated Single Electricity Market (I-SEM) as a key priority for Ireland.*
- 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.*
- 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 substations 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.*
- 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.*

Further to the above the RSES sets out **Guiding Principles for Energy Networks** which seek to establish a consistency of approach by planning authorities, both in identifying areas suitable for renewable energy development and having regard to potential environmental impacts, to reflect the advancements in technology, and the need to engage with, and be responsive to the needs of communities asked to host renewable energy infrastructure. Early stakeholder engagement and community participation is supported such as community ownership models, optimisation of community benefit from renewable projects and developing Sustainable Energy Communities.

Also, of relevance are RSES **Guiding Principles for Enterprise Development**, which require local authorities to align to national strategy and approach for large-scale energy users such as data centres to ensure the right location for use and energy demand. Waste heat from data centres is also recognised as a resource that can be captured to meet a large proportion of the Region's heat demands indigenously and without fossil fuels.

2.2 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 its energy needs. Eirgrid is directed to Chapter 7 – Climate and **RPOs 7.35 to 7.38 for Decarbonising the Energy Sector**.

Potential renewable energy sources in the Region include wind energy – both onshore and offshore, biomass, geothermal, solar photovoltaics and solar thermal, both on buildings and at a larger scale on appropriate sites. The RSES supports micro-generation, storage of heat and energy and development of smart grids to accommodate more diverse power flows from renewables harnessing on-shore and off-shore potential and connecting the richest sources of energy to major demand centres. Reducing energy emissions will require transition from fossil fuels (including peat-fired stations in the Midlands) and the RSES supports a 'just transition' in the Midlands and the development of Decarbonising Zones.

The RSES supports the **generation of electricity from indigenous renewable sources and increased security of supply**, which 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 decarbonisation of the built environment is linked to the decarbonisation of energy, having regard to the need to shift to low energy and energy efficient buildings in planning for future growth. The use of renewable energy 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. District heating offers an efficient 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. Eirgrid is directed to **RPOs 7.39 to 7.41 for Low Energy Buildings**.

The decarbonisation of transport and energy sectors are also linked having regard to the planned transition to electric and low emissions vehicles in line with the National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland. This will result in a significant increase in electricity demand over the next decade and a shift to cleaner and renewable fuel sources will be needed to be factored in if Ireland is to achieve its emissions reductions targets. **RPO 7.42 Decarbonising Transport** requires local authorities to facilitate the roll out of EV infrastructure to shift to clean mobility.

2.3 Resilience of Critical Infrastructure

As both natural, including extreme weather events, and man-made disaster and crises situations become more common, there is a need to ensure the resilience of Critical Infrastructure, which includes energy networks, that it is capable of withstanding, adapting, and recovering from adverse events.

Incorporating renewable energy within Ireland's energy supply may improve the resilience of energy infrastructure as reliance on energy imports and the associated concentrated infrastructure is reduced. Distributed renewable energy sources can contribute to local energy system resilience. For example, during both Storm Ophelia and Storm Emma, when the operation of many of Ireland's infrastructures was challenged, wind energy maintained output throughout the adverse conditions and contributed to maintaining local supply and post event recovery to normal operation.

RPO 7.43 Resilience of Critical Infrastructure highlights that Climate Action Regional Offices and local authorities should identify critical infrastructure within their functional areas, particularly the interdependencies between different types of sectoral infrastructure, as a first step in 'future proofing' services and to help to inform longer-term adaptation planning and investment priorities. The RSES promotes best practice in resilience in critical infrastructure, including implementation of emerging European best practice and the identification of risks and vulnerabilities to key infrastructure to build organisational capacity and structures that can respond and adapt to external shocks.

3.0 Conclusion

EMRA welcomes the opportunity to participate in the 'Shaping our Energy Future' consultation to set an approach for the transformative change that is needed towards meeting our national climate and renewable energy commitments.

As set out above, RSES policies support different elements of the approaches outlined – from the protection and enhancement of transmission and distribution networks making better use of the existing grid, as well as new energy infrastructure projects and strengthened interconnection to other grids and smart grids to serve existing and future needs in the Region, including a significant increase in renewable energy. This RSES also sets out Guiding Principles to promote better alignment in the location of future population and economic growth, and for the location of large-scale energy users and infrastructure projects in appropriate locations, in line with relevant EU, National and Regional Policy, and to meet our national climate and energy commitments.

A key priority will be to ensure a safe secure and reliable supply of electricity in the face of a significant anticipated increase in energy demand in the Region resulting not only from increased population and economic development but also resulting from a shift to electric mobility in the transport sector. It will be necessary to address this increased demand for electricity in such a way as to strike a balance between addressing the need for a significant shift to renewable energy and enabling resources to be harnessed in a manner consistent with the principles of proper planning and sustainable development.

The Assembly look forward to continued engagement with Eirgrid in the preparation of the 'Shaping our Future' Plan and in the planning and development of key energy infrastructure projects to support the green transition of energy networks in our Region.

Regards,

A handwritten signature in black ink, appearing to be 'Jim Conway', written in a cursive style.

Jim Conway
Director
Eastern and Midland Regional Assembly
June 11th, 2021