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# Submission to the Public Consultation on the Eastern & Midland Regional Assembly Draft Regional Spatial & Economic Strategy

Report prepared by Codema - Dublin's Energy Agency

January 2019

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# Background

Codema is Dublin's Energy Agency and was founded in 1997 as a not-for-profit limited company. We are the energy adviser to the Local Authorities in Dublin; our role is defined around the core function of supporting the local authorities in their own sustainable energy use. A second role is engaging with EU and nationally funded energy programmes to bring innovation to the Dublin region. A third and increasingly important role is to increase energy awareness among the citizens and energy stakeholders in Dublin. Over the years, these three strands have become increasingly intertwined and integrated into a comprehensive local and regional service for energy and climate change. Examples of Codema's work include district heating system analysis, energy performance contracting, management of European projects, energy saving behavioral campaigns, detailed energy reviews and energy masterplanning. Codema is well networked in Europe and has been very successful in bringing European projects to Dublin with a local implementation for the Local Authorities.

## Context

Codema welcomes the opportunity to make a submission to this consultation process. Codema's interest in the Regional Spatial & Economic Strategy stems from our ongoing analysis of energy use and climate change in the Dublin region, our experience in reducing energy, fossil fuel use and associated costs, and particularly our work on Spatial Energy Demand Analysis and climate change mitigation and adaptation planning. We have 20 years' experience in the climate change and energy sector, specifically in how EU and national legislation will affect the DLAs activities and how they can future proof their areas of governance to both mitigate and adapt to the effects of climate change. Codema is currently in the process of finalising Climate Change Adaptation and Mitigation Action Plans for each DLA and creating the first regional Energy Masterplan in Ireland for the Dublin Region.

## Response to Consultation

Codema's response to this consultation will concentrate on our areas of expertise in energy and climate change, and therefore a response to every section or every topic is not intended.

## General Comments

We would like to congratulate the EMRA on the production of this strategy, which seeks to link climate change and energy system planning with the more traditional planning practices, which is a vital area that Ireland has yet to embrace to the level of some of our European counterparts. The introduction of policies on regional emission targets, waste heat mapping and Strategic Energy Zones are particularly encouraging and will greatly support the work that Codema and Dublin Local Authorities have been pioneering in this area, and we thank the EMRA for their support through the introduction of these policies. These policies will help the Region to become a leader in energy and climate change planning in Ireland, and builds upon best practice found at a European level.

## Chapter 7: Environment

**General comments on structure of Chapter 7:**

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As Climate change represents the biggest threat to the natural and built environment of the EMR, ideally the Climate Change section would be introduced earlier on in the environment chapter, given that it affects most other areas discussed in this chapter, i.e. coastal dynamics, fisheries and aquaculture, air and water quality, flood risk management, biodiversity and natural heritage, landscape, green and blue infrastructure.

While there is a description and introduction of the term 'adaptation', there is no explanation of 'mitigation', even though mitigation actions are described. We have found that it is useful to include for clarity on the terminology used when speaking of Climate Change actions and planning.

**Section 7.1 Introduction p.111:**

*'Climate change is already affecting the terrestrial and marine environment due to rising sea levels, increased sea temperatures..'* This should also include the increase in air temperature (increased air and sea temperatures), as terrestrial environments will be more likely to be affected by rising air temperatures, such as the urban heat island effect.

**Section 7.3 Water Quality p.116:**

*'Loss of wetlands, discharge of silt, drainage, run-off from farming, septic tanks, peat extraction, hedge removal and land improvements can all be significant to water and aquatic habitat quality.'* It is also useful to note that run-off from the built environment also affects water quality, especially in heavily urbanised areas, run-off would include pollutants from transportation, construction and commercial industries.

**Figure 7.4 p.131:**

The figure does not include a comprehensive list of all the observed and projected changes, and a good example is Climate Ireland's Essential Climate Information, which would include a more exhaustive list than the National Adaptation Framework, this can be found in the link below: <https://www.climateireland.ie/#!/tools/climateInformation/essentialClimateInformation>

**'Current Situation' p.132:**

*"The main emissions sources which are relevant to the EMRA Region include electricity, built environment, the transport sector and agriculture. In terms of energy the largest source of emissions is fossil fuel generating stations."* - It is important here to distinguish between EU-ETS and non-ETS emissions when talking about emission levels and EU targets to 2020 and 2030, which are distinctly different for ETS and non-ETS sectors. Emissions from power generation fall under the EU-ETS.

This section also refers to the CARO's *"regional climate change adaptation plans"* – please note the Dublin CARO are developing climate change adaptation **and mitigation** Action Plans, in line with National policy and European best practice. As this section concentrates on emissions, it seems logical to include mitigation planning as the main focus.

**'Support transition to a low carbon, circular & climate resilient Region' p.133:**

*"In order to address this, it is necessary to reduce the effects of climate change through settlement and travel patterns, energy use, waste and protection of green infrastructure."* – We would suggest to include 'enhancing' as well as protecting green infrastructure, as additional green infrastructure will be required.

This section highlights the role and importance of transport, electricity and bioenergy, but fails to mention heat. This is particularly important as heat is one of the largest energy sectors in urban areas within the Region, it is almost fully reliant of fossil fuel, and utilising 'waste heat' is a key part of the

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circular economy. The Region has some of the best waste (industrial/power generation) and renewable (geothermal) heat resources in the country, which are lower carbon and cheaper than bioenergy production.

**'Regional Policy Objectives; Climate Change', p.134 :**

- **RPO 7.28** – The NTA already have a significant and detailed model for assessing and forecasting transport emissions, and should be consulted.
- **RPO 7.29** – There are two comments; Firstly, local or regional annual emission inventories are not possible to complete under current methodologies developed and adopted by Codema, and endorsed by the SEAI, because these methodologies draw on small-area Census data, which is compiled only every 5 years. If local and regional annual emissions inventories are required, the EMRA will need to develop a methodology for CARO's to follow. Secondly; the Dublin Region Energy Masterplan, currently being developed by Codema, funded by SEAI and committed to by the Dublin LAs, will include evidence base and costed pathways to reach national level targets on a Dublin region basis. Work on the masterplan has just started and the main findings are planned for late 2020. It is important that this work will align with any 'Regional Decarbonisation Plan' developed by the EMRA, but it is not clear as to how the proposed Regional Decarbonisation Plan is to be developed.
- **RPO 7.30** – Developing realistic and the most beneficial energy sectoral targets requires detailed energy system modelling of the interactions between all energy sectors. This will be a main output of the Dublin Region Energy Masterplan. Overall emission reduction targets of at least 40% by 2030 have already been committed to by the Dublin LAs/CARO through the Covenant of Mayors and the agreement at council. The EMRA need to consult and work with the local authorities that are leading in this area and already have plans and targets in place, to ensure continuity between regional and local policy.

**'Decarbonising Electricity Generation' p.135:**

This section headline is *Electricity Generation* but includes many references to and paragraphs on the heating sector. The title of this section therefore needs to be changed to *Decarbonising the Energy Sector* or *Decarbonising Electricity and Heat*.

There are some typos in the paragraphs on District Heating and Waste Heat; "*energy from waste*" should be changed to "industrial waste heat"; "*renewable energy solutions*" should change to "renewable and low-carbon energy solutions"; "*Sources of waste heat include data centres*" should change to "...include data centres, thermal power production and many large manufacturing facilities such as bakeries and cement production".

"*In response the draft Strategy seeks to support the micro-generation and storage of heat and energy*"- District heating is not micro-generation and is not only about the storage of heat. A better way to phrase this might be: "In response the draft Strategy seeks to support the use of District Heating systems to recycle and reuse waste heat resources in the Region".

**Regional Policy Objectives: Decarbonising Electricity Generation p.136:**

Again, the title of this section needs to change to reflect the policies unrelated to or not restricted to electricity, that are outlined in this section.

We particularly welcome the inclusion of progressive and best practice policies RPO 7.34 and 7.37 which will greatly support the roll-out of sustainable energy planning practices in the Region.

**Building Standards Energy Performance p.137:**

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- **RPO 7.38:** This is already a national level requirement and is already carried out annually by all LAs in the Region.

#### **Decarbonising Transport p.138:**

Choices proposed for new transport systems or changes to existing transport systems, be it roads and/or public transport, need to include the level of emissions generated by each option as a fundamental part of the options evaluation process. The lifecycle emissions generated by each option should be costed and added to the capital costs of each option to evaluate based on the true cost to society.

The Dublin region has a large taxi fleet, which adds to the emission levels in dense urban areas where there is already high levels of traffic. Incentives and awareness specifically aimed at taxis to switch to EV/hybrids is required.

We would encourage the inclusion of more policy objectives on decarbonising transport, as currently the focus seems to only be on the switch to EVs.

#### **'Resilience of critical infrastructure' p. 139:**

The example used for energy infrastructure resilience (2<sup>nd</sup> paragraph p.139) is a little confusing; although wind energy was still produced during the storms mentioned, the infrastructure to deliver that electricity, the electricity network, was badly damaged, and so the energy itself couldn't be delivered to many areas. While local wind energy production would help maintain power in local area nodes, the same argument could be made for non-renewable local power plants, which were also unaffected by the storms and are arguably more resilient to storms than wind energy. The electricity distribution system as a whole is not very resilient; if the local grid is damaged, it does not matter how much renewable electricity can be produced. Maybe a better example to use for local renewable energy resilience would be rooftop solar PV, as when the grid is down during storms, rooftop solar can still deliver electricity to the building. It is not very common for buildings to be directly connected to or have the space for an on-site wind turbine.

## Chapter 10: Infrastructure

#### **'Regional Policy Objectives: Energy Infrastructure' p.180:**

**RPO 10.14:** "A Smart Grids and Smart Cities Action Plan" is mentioned, could you please introduce or include some more information on who is responsible for the roll-out of this plan? Is this a plan being developed by the EMRA?

#### **'Regional Policy Objectives: Energy' Infrastructure p.181:**

Although this section is called 'Energy Infrastructure', it only outlines policies for electricity infrastructure. Other energy infrastructure policies should also be considered here, including supporting the roll-out of essential district heating networks to facilitate the use of low-carbon heat resources in the Region which increases energy security and resilience.

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