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Low Carbon Road Map for the Built Environment Sector  
Department of the Environment, Community and Local Government  
Custom House,  
Dublin 1

lowcarbonroadmapforbuiltenvironment@environ.ie

20.05.14

**Re: Consultation on the Low Carbon Roadmap for the Built Environment Sector**

Sir/Madam,

An Taisce welcomes this consultation period on the Low Carbon Roadmap for the Built Environment Sector and the opportunity to make a submission with regard to same.

### **1.0 Scope of the Low Carbon Roadmap**

The proposed 'scope' is set out in Section 5 of the consultation document:

*"The Built Environment for the purposes of policy development can be divided into residential and non-residential buildings and further divided into existing and new buildings. The residential and non-residential sectors have different functions, occupancy patterns, energy uses and building services systems, which require different strategies and approaches to reducing energy use."*

The definition of the "Built Environment" and scope of the proposed roadmap are unfairly limited to considering energy use in particular categories of buildings. The scope of the roadmap needs significant revision.

The roadmap will need to adopt clear measures to meet European Union 2020 targets in the non European Union Emission Trading Scheme (ETS) sector and the much higher level of emissions cuts required in the 2020–2030 period. Furthermore, there it is fundamental that any roadmap would make reference and address the Intergovernmental Panel on Climate Change (IPCC) (2014) Fifth Assessment Report (AR5). The issue of climate science has not been addressed in the National Economic & Social Council (NESC) Secretariat Report (2013) on which the document excessively relies.

### **1.2 Redefining the Scope of the Low Carbon Roadmap**

It is instructive to examine the priorities emerging in EU funded research on the Built Environment. The 2005 report *Built Environment* by the Performance Based Building Thematic Network<sup>1</sup> contrasts sprawl with

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<sup>1</sup> [http://www.pebbu.nl/resources/allreports/downloads/08\\_D4\\_finalreport.pdf](http://www.pebbu.nl/resources/allreports/downloads/08_D4_finalreport.pdf)

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smart growth and in addition to energy places major emphasis on sustainable transport with an overall objective for the built environment defined as:

*“improving the design of the ‘whole’ in creating compact developments, with a mix of uses, with better integrated transport and an approach that provides safe communities”*

Current planning guidance by the United Kingdom and Scottish governments should be examined. This places strong emphasis on the role of the built environment in climate change.

- Town and Country Planning Association (2012) *Planning for Climate Change – Guidance for Local Authorities*.<sup>2</sup>
- Scottish Environmental Protection Agency (2009) *Interim Position Statement on Planning, Energy and Climate Change*.<sup>3</sup>
- Department for Communities and Local Government (2006) *Planning Policy Statement: Planning and Climate Change Supplement to Planning Policy Statement 1*.<sup>4</sup>

The 2005 report *Challenging and Changing Europe’s Built Environment* by the European Construction Technology Platform<sup>5</sup> states:

*“The construction sector accounts for an estimated 40% of resource consumption. We have a crucial role to play in achieving sustainability. Environmental issues that the sector faces on a daily basis include: reducing greenhouse gas, mitigating existing polluted areas, enhancing energy efficiency and conserving natural resources such as greenfield spaces, water, energy and balanced ecosystems. When it comes to the vital issue of energy, construction has an important role to play in reducing its use and finding alternative sources of generation.”*

### 1.3 Decarbonisation all aspects of the Built Environment

While the decarbonisation of energy use in building sector is a key and overriding requirement, this must be in parallel to a range of additional actions to address the carbon impacts of:

- building construction
- building maintenance and servicing; and equally,
- spatial planning and transport requirements (given emissions that come from transport demand/mode is largely a result of where the built environment is located).

Addressing the carbon impact of the built environment must also begin with the energy and resource impact of *construction* materials, logistics and transport, packaging, and waste management, among others aspects. This is the subject of a report by United Nations Environment Programme (UNEP) Sustainable Buildings and Climate Initiative *Greening the Building Supply Chain Action Framework*<sup>6</sup> report which summarises the issues:

*“As the building sector creates demand for construction materials, logistics and transport, packaging, and waste management, among others aspects, the sector and its supply chain contribute, at a large scale, to consumption and production patterns which impact on key environmental aspects such as carbon, energy, water and waste”.*

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<sup>2</sup> [http://www.tcpa.org.uk/data/files/PCC\\_Guide\\_April\\_2012.pdf](http://www.tcpa.org.uk/data/files/PCC_Guide_April_2012.pdf)

<sup>3</sup> [http://www.sepa.org.uk/planning/planning\\_and\\_climate\\_change.aspx](http://www.sepa.org.uk/planning/planning_and_climate_change.aspx)

<sup>4</sup> <http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/archived/publications/planningandbuilding/consultationplanningpolicy>

<sup>5</sup> <http://www.ectp.org/documentation/ECTP-Vision2030-25Feb2005.pdf>

<sup>6</sup> [http://www.unep.org/sbci/pdfs/task\\_force\\_action\\_framework.pdf](http://www.unep.org/sbci/pdfs/task_force_action_framework.pdf)

The report outlines the general benefit of reducing resource input consumption and waste at all levels.

## 2.0 Extending the Scope of the Low Carbon Roadmap

In considering the above reports, the scope of the proposed Built Environment Roadmap should be extended to add two major areas:

### 2.1 Reducing the Carbon Footprint of Building Construction and Servicing

This requires the adoption of an overriding principle to reduce the carbon and resource input into the continued maintenance, development and servicing of the built environment.

Specifically this means:

- increasing the use and range of construction materials which sequester carbon in building structures This includes increased use of sustainably sourced timber and biomass for construction and insulation.
- reducing the carbon input of construction materials and servicing of buildings. This means reducing levels of steel and concrete and hard surfaced areas servicing buildings, and using materials with lower carbon footprint.
- reducing long distance and in particular transcontinental transport of building materials

### 2.2 Integrating Low Carbon Spatial Planning and Transport

A low carbon built environment must address the transport impact as much as construction input and energy consumption in buildings. This requires new development and retro-fitting of the existing built environment to enhance access to local services, schools; employment and leisure by walking, cycling and public transport, and significantly reduce car dependence. This means effective national, regional and local spatial planning which has not been achieved under current structures.

The key principle set out in *National Spatial Strategy Ireland 2002-2020* in Section 1.1 (iv) on Planning has been breached systemically across the country:

*Ireland needs to renew, consolidate and develop its existing cities, towns and villages – i.e. keeping them as physically compact and public transport friendly as possible and minimising urban sprawl, while also achieving a high quality of design in new development and refurbishment. Urban land needs to be used carefully, sensitively and efficiently – with the aim of reducing dereliction and under-utilisation. Where greenfield development is necessary it should take place through the logical extension of existing cities, towns and villages.*

The Department for the Environment, Community and Local Government is currently preparing a new national policy framework to replace the existing National Spatial Strategy 2002-2020 which needs to address this policy failure of the last decade.

Furthermore, the following policies are crucial to the success of a decarbonisation of the built environment and will need to be reconciled with the roadmap:

- The *Retail Planning Guidelines 2012* have not protected urban centres from decline and need to be reviewed. Furthermore, the globalisation of retailing is itself fuelling unsustainable climate emissions, resource consumption and waste - which is unsustainable.

A national policy for reducing carbon emissions in transport and sustainable travel was published in 2009 by the Department of Transport under their policy: *Smarter Travel A New Transport Policy for Ireland 2009-*

2020. This has been most advanced policy document to date by the *government* which sets out a series of overriding policy objectives in Chapter 3, summarised as follows:

- *Future population employment growths will predominantly take place in sustainable compact forms which reduces the need to travel for employment and services;*
- *500,000 more people will take alternative means to commute to work to the extent that the total share of car commuting will drop from 65% to 45%;*
- *Alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work;*
- *The total kilometres travelled by the car fleet in 2020 will not increase significantly from current levels;*
- *A reduction will be achieved on the 2005 figure for Greenhouse gas emissions from the transport sector.*

Furthermore, in Chapter 4, it sets out a range of significant action of which it is pertinent that Action 2 be incorporated into any Built Environment Low Carbon Roadmap:

- *A general requirement that significant housing development in all cities and towns must have good public transport connections and safe routes for walking and cycling to access such connections and local amenities*
- *Integration of cycling and public transport*
- *Promotion of targets requiring a minimum percentage of new residential and mixed-use development to take place on brownfield/existing sites to consolidate urban growth and enable organic development of urban areas from the centre out*
- *Ensuring a general minimum housing density of between 35 and 50 dwellings per hectare in urban areas of suitable size and population and requiring substantially higher densities where local circumstances warrant, particularly in high capacity public transport corridors*
- *Specification of a maximum permitted level of car parking for commercial sites, which have suitable public transport facilities and are within walking/cycling distance to amenities*
- *A requirement that developments above a certain scale have viable travel plans in place*
- *A requirement that development in urban rail corridors be high density and appropriate for public transport use (e.g. not warehousing or other activities with low employment intensity)*
- *Guidance on the incorporation of cycling and walking policies in development plans*
- *A general restriction of the future development of out-of-town retail centres except in exceptional circumstances and consideration of a similar requirement that parking charges be introduced for most existing centres*
- *Encouragement of the use of local area plans and strategic development zones (SDZs) within major urban areas as a way of improving the land use-transport interface, particularly to ensure that employment and residential centres are co-located.*

Accordingly the scope of the proposed Low Carbon Roadmap for the Built Environment needs to be expanded to include the implementation of these objectives, as well as the specific inclusion of the Department of Transport and National Transport Authority in the proposed Built Environment Working Group.

In referring to the *Sustainable Rural Housing Guidelines for Planning Authorities 2005* it is correctly summarised in *Smarter Travel A New Transport Policy for Ireland 2009-2020*, the aim of the rural guidelines as being “to facilitate rural communities to meet their housing needs while avoiding suburbanisation of the countryside”. This objective has failed and the Guidelines need to be reviewed.

These objectives need to be fully implemented and integrated with planning and built environment policy.

## 2.3 Energy Use in Buildings

Significant additional consideration is required in the proposed brief and objectives in relation to energy use in buildings. The narrow focus on 2020 targets is not addressing the much greater energy efficiency and carbon reductions requirements which will be needed post 2020.

Section 10.1 of the consultation document refers to “*less carbon intensive sources such as gas...*”. This needs to be qualified by the department as an appropriate fuel in which to source. While there would be an immediate gain if a significant switch were made from coal, peat or oil to gas, it is considered locking into longer term dependence in gas is problematic, particularly if this leads to pressure to accommodate hydraulic fracking and other currently unconventional means of sourcing fuel.

Since this consultation document was published, the Government’s ‘Construction 2020’<sup>7</sup> strategy was launched on 12<sup>th</sup> May 2014. The main focus of the strategy is the accommodation of current and future housing demand, with a welcome emphasis on better strategic planning, the forthcoming new National Planning Policy Statement and the setting out of a timetable of measures including overdue legislation following recommendations from the Mahon tribunal.

However the strategy failed to address the scale of action needed to reduce Ireland’s climate emissions and 6.5 billion annual fossil fuel import bill. While the report refers to 2020 energy and climate targets, the scale of emission reductions required to meet this target is not addressed in the measures proposed, let alone the preparation needed post 2020.

Construction 2020 refers only to existing energy schemes supported by Sustainable Energy Authority Ireland. The scale of investment needed to achieve the 2020 targets and much higher targets required post 2020 is simply not provided in the strategy.

## 3.0 Conclusion

Accordingly, the scope of the roadmap needs to provide for the meeting of 2020 targets and the scale of measures required for a post 2020 period, informed by the Intergovernmental Panel on Climate Change (IPCC).

The meeting of these targets requires a combination of:

- direct grant support;
- targeting of households with fuel poverty;;
- tax relief measures; and
- financing structures using Government bonds or other mechanisms to support energy saving retrofitting, with repayment made in conjunction with reduced energy bills.

Furthermore, any roadmap will be unsuccessful without the incorporation of strategic and spatial planning measures which assist in the delivery of healthy and resilient rural and urban communities, which are increasingly informed by positive action on climate and reduced carbon production.

We attached submissions on two other roadmaps in relation to transport and energy sector. They are both considered relevant to a roadmap for the built environment.

Please acknowledge receipt of this submission and advise us further of any forthcoming consultations in relation to the above roadmap.

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<sup>7</sup> <http://www.taoiseach.gov.ie/eng/Publications/>

Yours sincerely,

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**Attached:**

1. Low Carbon Roadmap Transport Sector
2. Low Carbon Roadmap Electricity Generation Sector