Response: Ireland 2040 Our Plan Draft National Planning Framework

Status: FINAL

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[Submission: **By email to npf@housing.gov.ie** **]**

With reference to consultation documents issued by DHPLG available at www.npf.ie

About Irish Solar Energy Association

The ISEA was founded in May 2013 and is the solar industry representative body for the island of Ireland. With over 100 members, the ISEA is committed to bringing attention to the value of the potential for solar energy's contribution to Ireland's economic and environmental future. The ISEA is committed to contributing to the development of viable renewable energy policies that support the development of solar in Ireland via research, consultation, conferences and other forums that bring key stakeholders together to shape policy.

Introduction

The National Planning Framework (NPF) consultation is an important opportunity to set out and improve on environmental commitments and national climate change actions over the coming decades.

About the Irish Solar Energy Association

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Detailed information and current news is available on www.irishsolarenergy.org .

Benefits of Solar Energy

A substantial decline in the cost of solar PV power plants has greatly improved solar PV's competitiveness, enabling solar to compete with other power generating options. The key advantages of solar PV are:

- Solar PV is now the cheapest form of renewable generation in Ireland after on-shore wind;
- The development of solar technology in Ireland will support economic activity and jobs;
- Solar PV can increase Ireland's energy security and reduce dependency on foreign energy supply;
- Solar PV can empower Irish citizens and communities to take control of the production and composition of energy;
- Solar PV has no moving parts, has little visual impact, has no emissions and does not generate noise.

Most significantly, the deployment of renewable energy such as solar PV reduces greenhouse gas emissions and prevents depletion of natural resources, thereby contributing to future climate stability.

Employment and Economic Benefit

Ireland's commitment to renewable energy in meeting our demands, and the need for energy security, is an opportunity not only for innovation but also for employment.

Within the renewable energy sector there are several types of employment opportunities:

- Direct employment: Jobs provided by companies directly involved in the core activities pertaining to PV such as production of PV products and completion of projects;
- Indirect employment: Jobs provided by companies that support the core activities of primary companies;

- Induced employment: Employment generated because the jobs created by the sector increase purchasing power of people involved in it;
- Long-term employment: Jobs that are maintained for several years, i.e., operations and management;
- Short-term employment: Temporary jobs that are generated for specific aspects of the implementation

of PV projects, namely, manufacturing, construction and installation.

In 2016 KPMG produced a report which estimated that:

- 3.7GW of solar could be deployed by 2030 with an annual support equivalent to a 1% increase in domestic electricity bills;
- Solar industry will support around €2bn of gross value added in Ireland between 2017 and 2030; and around 1bn in direct taxes;
- The solar industry will support up to 7,300 jobs per year over the same period.

In April 2017, the SEAI (Sustainable Energy Authority of Ireland) published a report entitled Ireland's Solar Value Chain Opportunity. Ireland's value chain strengths and opportunities are in: Research and development; Building materials; Systems integration and optimisation; ICT systems and analytics; Process engineering; High value manufacturing base and Education.

Energy and Climate Policy in the NPF

ISEA wish to ensure that the policy initiatives at EU and national level, as well as commitments in the Energy Policy White Paper, the commitments on Climate Action and the many benefits from solar energy are acknowledged and integrated within the NPF.

The outcomes around a transition to sustainable energy are very encouraging, in particular the following:

- Deliver 40% of our electricity needs from renewable sources by 2020 with a strategic aim of in excess of 50% by 2030 and more by 2040 and beyond using wind, wave, solar, biomass and hydro sources.
  ISEA note that further ambition can be demonstrated through presently available technologies and a smart grid strategy. The current DS3 programme aims for example to accept 75% renewable electricity on the grid.
  This ambition also needs to be under-pinned by joined up policy across government and state agencies, in particular DCCAE, Eirgrid, ESB Networks and the CRU, which is supportive of renewable electricity deployment.
- Reinforce the transmission network to facilitate planned growth and the transfer of renewable energy generated to the major demand centres.
- Strengthen energy security and resilience to support an island population of 8 million people through effective north-south electricity grid interconnection as well as exploring other interconnection options in the longer term to 2040 such as the 'Celtic Interconnector' with France.

- Roll out of the National Smart Grid Plan enabling new connections, grid balancing, energy management and micro grid development.

The National Policy Position[1] on Climate Action and Low Carbon Development in 2014 set an objective to deliver "an aggregate reduction in CO2 emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors".

ISEA wish to see solar energy recognised as a central part of this CO_2 emissions reduction objective.

Supporting Inward Investment

Ireland is an attractive place for foreign direct investment and maintaining this status is a key concern.

Sustainability and environmental concerns are now a key corporate consideration in making an investment in the Irish economy, or elsewhere as the case may be.

Ireland is at a competitive disadvantage when it comes to the key metrics of CO_2 emissions and absolute cost of electricity. We note in particular that other EU member states actively highlight their advantage in this regard using the example of a 10MW data centre (See figure below promoting Sweden as a destination).

The statements in the NPF around a strong digital economy are noted:

"Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. This sector underpins Ireland's international position as a location for ICT and creates added benefits in relation to establishing a threshold of demand for sustained development of renewable energy sources."

This will only remain the case with committed policy supports for the delivery and facilitation of renewable energy on the Irish electrical system.

[1]2014, Department of Communications, Climate Action and Environment. National Policy Position on Climate Action and Low Carbon Development;

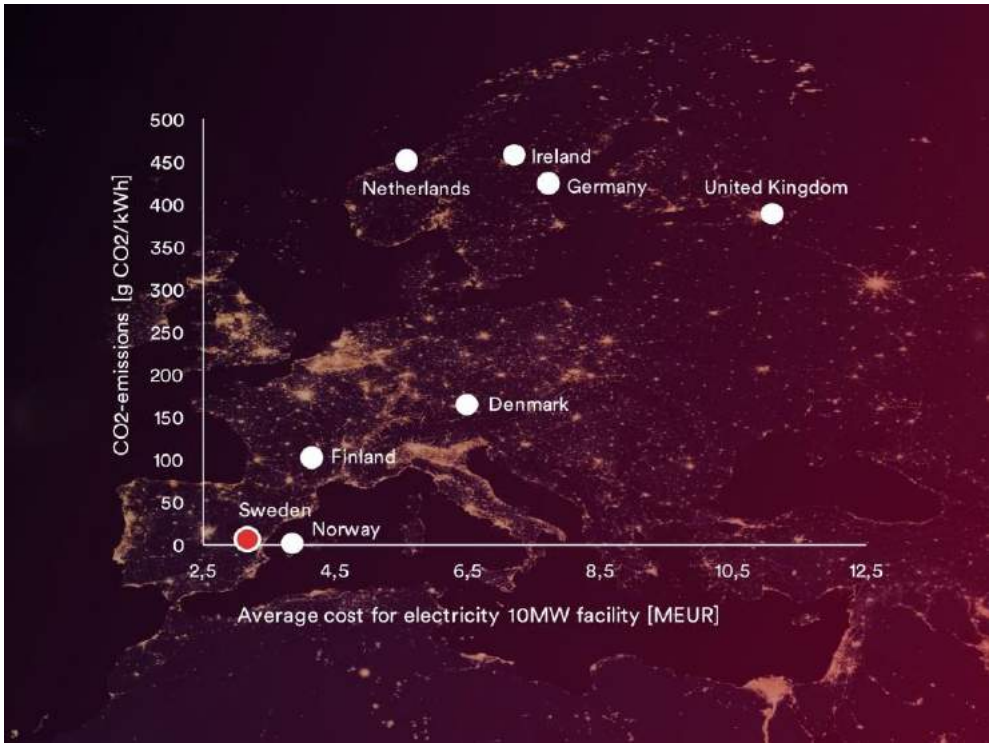

Figure 1: CO_2 and Cost Comparisons for Attracting Data Centre Investment (Node Pole)

Planning Guidance - Ground Mount Solar

As a responsible representative industry body, The Irish Solar Energy Association (ISEA) wants to ensure that development of utility scale, ground mounted solar is carried out in line with international best practice. Further to this, ISEA acknowledges the growing number of planning applications to local authorities for ground-mounted solar photovoltaic (solar PV) developments in Ireland, and in the absence of guidance, the ISEA has set out what it believes is the appropriate level of best practice development.

The considerations put forward in the document are based on the experience of ISEA members in Ireland, the United Kingdom, France, Germany and the United States in the development of solar projects. These have been adapted to comply with Ireland's regulations in relation to planning, environmental protection and agriculture.

The publication will shortly be available on www.irishsolarenergy.org

Spatial Strategy – Agriculture and Solar

There is no Irish national planning policy that specifically excludes development on agricultural land. The overarching objective of planning legislation is to seek to ensure, in the interests of the common good, the proper planning and sustainable development of both urban and rural areas.

Specific land use zoning objectives are not specified for the majority of rural areas in Ireland. However, policies contained within County Development Plans and Renewable Energy Strategies (where they exist) do guide development within rural areas.

As such, determination of land suitability is based on visual assessments and performance of arable or grazing yields by farmers who own or lease lands. In all cases, the social, economic and environmental merits of farm diversification should be explored to inform the planning policy justification for development.

In many cases the dual use of the land can be considered. In particular, some solar sites may be suitable for grazing sheep and this has proven to be a successful tried and tested dual use of the land for agriculture.

Figure 2: Sheep Grazing Around Solar Panels (Lightsource Renewables)

Rooftop Solar – Distributed Generation and Empowerment

There has been a modest level of deployment to-date of residential rooftop due to the Part L building regulations requirements.

Some commercial rooftop development has taken place, primarily on the back of grant support under SEAI's Sustainable Energy Communities programme, or through corporate social responsibility (CSR) investment.

The current planning exemptions (S.I. No. 235/2008 - Planning and Development Regulations 2008) are extremely restrictive, with solar panels above 50 m^2 requiring planning permission. ISEA recommends a planning exemption up to 500kW which would facilitate the majority of consumers with the opportunity to self-produce electricity, such as the example of Butlers Chocolates who use onsite their own solar energy production.

Figure 3: 420kW Rooftop Installation for Self-Supply at Butlers Chocolates (Gaelectric)

It is important that local distributed generation and self-supply is encouraged. This has significant benefits environmentally and from a system efficiency perspective.

It is also a recognised priority of energy policy. The ambition of the Energy White Paper is to place citizens at the centre of energy policy. The most obvious way to engage energy consumers, is to enable local users such as schools, homes and businesses to become energy producers, consuming the majority on-site but also exporting electricity to the grid.

At the moment a generator is prevented under the 1999 Electricity Act from supplying an adjacent power consumer via direct line (also known as "Private wire"). Allowing direct access between a generator and a dedicated localised end-user provides for an efficient direct line supply of electricity without losses. It also reduces the need for expensive network reinforcements to carry electricity via long-range transmission lines.

The obligation on EU member state governments to allow energy generators to directly supply end users is outlined in the 2009 Internal Market in Electricity Directive[2]:

[2] Internal Electrricy Market Directive 2009/72/EC

"Member States shall take the measures necessary to enable: all electricity producers and electricity supply undertakings established within their territory to supply their own premises, subsidiaries and eligible customers through a directline"

It is recommended that the government include this sensible "direct line" opportunity as a planning principle within the NPF to support sustainable local energy generation.