

DUBLIN
REGIONAL
AUTHORITY



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RÉIGIÚNDA
ÁTHA CLIATH

Dublin Regional Authority

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13th November, 2006

**Mr. Noel Dempsey, T.D.,
Minister for Communications, Marine and Natural Resources,
29-31 Adelaide Road,
Dublin 2**

Re: Green Paper on Energy

Dear Minister Dempsey,

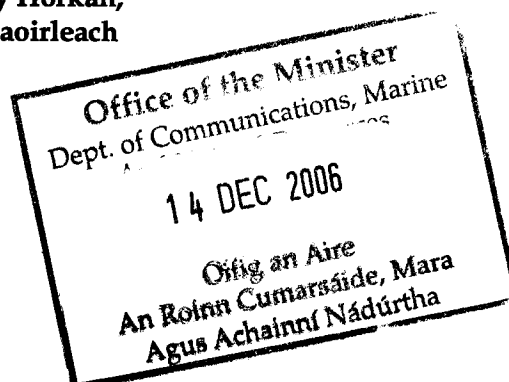
The Dublin Regional Authority at its meeting on 12th December, 2005 adopted the attached submission to the Government's Green Paper on Energy.

I should be obliged if you would give these comments every consideration.

Yours sincerely,

**Gerry Horkan,
Cathaoirleach**

FAO BT, SW, UNGC, TH
For Observations _____
For Action _____
For Follow Up _____
For Information _____
C.C. _____
Date 14.12.2006





Department of Communications,
Marine and Natural Resources

*An Roinn Cumarsáide,
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14 December 2006

Mr Gerry Horkan
Cathaoirleach
Dublin Regional Authority
11 Parnell Square
Dublin 1

Re: Green Paper on Energy

Dear Mr Horkan

On behalf of Mr. Noel Dempsey T.D., Minister for Communications, Marine and Natural Resources, I wish to acknowledge receipt of your correspondence dated 13 November 2006, the contents of which will be brought to the Minister's attention.

Yours sincerely

Carina O'Donoghue
Private Secretary to the
Minister for Communications, Marine and Natural Resources

Communications

Broadcasting

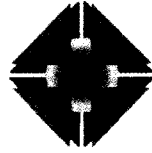
Energy

Marine

Natural Resources

Dublin Regional Authority

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TOWARDS A SUSTAINABLE ENERGY FUTURE FOR IRELAND

Submission to the Department of Communications, Marine and
Natural Resources

December, 2006

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PREAMBLE

The Minister for Communications, Marine and Natural Resources, Mr. Noel Dempsey, T.D., launched the Government's Green Paper on Energy - Towards a sustainable energy future for Ireland - and invited comments from interested parties on the themes and issues raised in the Paper.

The Green Paper outlines the options for the future direction of energy policy based on three pillars -

- Security of supply
- Environmental sustainability and;
- Economic competitiveness

The Dublin Regional Authority, having discussed the contents of the Government's Green Paper, herein submits the comments and recommendations of its members to be considered as part of the development of sustainable energy future for Ireland.

Gerry Horkan

Councillor Gerry Horkan,
Cathaoirleach

1. GENERAL COMMENTS

The Green Paper on Energy discusses the challenges in balancing the three key principles of energy policy in an Irish context: security of supply; environmental sustainability; and maintain economic competitiveness.

The Dublin Regional Authority in considering energy policy directions for Ireland acknowledges that Ireland shares many of the same challenges on this issue as other countries in the EU and globally. However, the Authority also recognises that in addressing these challenges, the Government should take due cognisance of the specific characteristics of the Irish situation and ensure that any future policies should have distinct regard to the fact that -

- the Irish energy market is small and geographically peripheral;
- Ireland is heavily dependent on imported energy. Ireland spends over €7 billion per year on energy. 87% of this is currently imported, significantly higher than the EU average of 50% and this percentage is rising as the contribution from natural gas declines;
- Ireland is experiencing continued high levels of demand growth (in the order of 4% p.a.) in line with buoyant economic growth;
- there has been limited new entry/competition into the generation/supply sectors;
- there are low levels of international physical interconnection to wider markets, unlike our European counterparts;
- there has been an historic under-investment in energy networks;
- energy consumption in the transport sector has increased significantly in recent years (151% between 1990 and 2005), and is almost totally reliant on imported oil;
- overall energy and electricity costs in particular, have risen sharply since 2000; and
- the Government's commitment to avoid the development of nuclear power.

The Dublin Regional Authority further acknowledges that Ireland must take account of its commitments under the Kyoto protocol, which will come into operation in 2008.

In October 2000, the Government published its National Climate Change Strategy (NCCS), which is currently under review. This Strategy sets out a ten-year policy framework for achieving the necessary reductions to meet Ireland's target of limiting its greenhouse gas emissions to 13% above 1990 levels by the first commitment period 2008-2012 (as its contribution to the overall EU target).

Ireland ratified the Kyoto Protocol on 31 May 2002, along with the EU and its Member States, and is now internationally legally bound to meet this greenhouse gas emissions reduction target.

2. ENERGY TARGETS

The Dublin Regional Authority recommends that, as a fundamental part of its Energy Strategy, Ireland must make efforts to meet the EU targets for renewable energy and energy efficiency, for example -

EU Targets for Renewable Energy and Energy Efficiency	Ireland's Targets for Renewable Energy and Energy Efficiency
<u>Total renewable energy</u> : 12% of energy consumption by 2010 (from 6% in 2001. It is proposed that this target will be increased to 15% by 2015)	
<u>Renewable electricity</u> : 21% of electricity consumption by 2010 (from 13.9% in 1997 and 15.2% in 2001)	<u>Renewable electricity</u> : 15% of electricity consumption by 2010
<u>Biofuels</u> : 2.0% of transport fuel mix by 2005 (the actual result was 1.4%) and 5.75% by 2010 (it is proposed that this target will rise to 8% by 2015)	<u>Biofuels</u> : 0.13% of total transport fuel mix by the end of 2006. A target of 2.2% has since been set for 2008
<u>Energy efficiency</u> : an overall saving of 9% of final energy consumption over 9 years until 2017 (in the context of an overall target of 20% by 2020)	<u>Energy efficiency</u> : 1% energy saving each year over 9 years (from 2008 to 2017)

3. IRELAND'S ENERGY CHALLENGES

The challenge for Ireland is to meet its commitments and targets arising from existing EU legislation on renewables, energy efficiency and climate change. In this regard, Ireland must decide which sectors (wind, biomass, wave, etc..) to prioritise and the instruments to use to promote these sectors. Ireland should make every effort to go beyond its commitments at EU level and to set more ambitious targets on the basis of national policy priorities.

4. SOURCES OF RENEWABLE ENERGY

The Dublin Regional Authority sets out hereunder the various renewable sources of energy which should be addressed by Government within its energy policy:-

4.1 Wind energy

Ireland has one of the best wind resources in the world. The European Wind Atlas shows almost the entire country of Ireland as having either an excellent or very good wind resource and in recent years efforts to exploit this resource have begun to gather pace. In 2004, the installed capacity of wind farms in Ireland reached 339MW, up from 167MW in 2003. By the end of 2005 this had risen a further 46% to 496MW. By the end of 2006 it is expected to reach 736MW (enough electricity to supply around 400,000 homes). In the longer term it is considered feasible that up to 50% of Ireland's total electricity consumption could come from wind energy. By March 2006 there was a total of 50 wind farms in Ireland. The largest onshore wind farm in Ireland is located at Meentycat, Co. Donegal. The project was completed in 2004 and has an installed capacity of 72.4 MW (38 turbines). There is currently one offshore wind farm in Ireland, situated 10 km off the coast of Arklow. The project began operation in 2004 and has an installed capacity of 25.2MW.

The Dublin Regional Authority considers that wind power will make the most significant contribution to the achievement of national targets for green electricity, due to its environmental benefits and increasing competitiveness.

Europe is currently the world leader in wind power, responsible for around 75% of the world's production of wind-generated electricity and 90% of the market for wind energy equipment. Current constraints in the development of the wind sector include the insufficient supply of turbines (due to the huge increase in demand in the US and Europe) and delays in grid access, which is a particular issue in Ireland.

Recent developments in wind turbine design and engineering have greatly enhanced the competitiveness of the wind energy sector and have also helped to overcome some concerns in relation to the environmental impact of wind farms (noise, visual impact, landslide, impact on wildlife, etc.). However, because the best sites for wind farms are often also high amenity areas, this remains an important consideration for national environmental policy developments in Ireland.

4.2 Hydroelectricity

Hydroelectricity is Ireland's second most important source of renewable electricity, after wind. The bulk of the large-scale resource (over 10 MW) has already been developed and is operated by the ESB (220MW in total). The technology is mature and reliable and further technical improvements in hydro plant are likely to be limited. The main scope for hydroelectricity development, therefore, lies in the capability to install further small-scale systems.

The Dublin Regional Authority recommends the further development of small scale hydroelectricity systems within the energy strategy.

4.3 Waste Biomass

Energy from waste biomass encompasses the production of heat, fuels and/or electricity from agriculture and municipal wastes. Seven landfill gas projects (totalling 21.48 MW) have so far reached commercial operation in Ireland. Technologies to produce electricity and heat from landfill gas are now well established and environmental legislation, which requires the collection of methane at landfill sites, is being widely introduced. Department of the Environment, Heritage and Local Government has estimated that approximately 70 MW of electrical energy can be generated annually from municipal solid waste.

The Dublin Regional Authority recommends that the Department of the Environment, Heritage and Local Government provide financial resources to the development of further sites for waste biomass as a priority.

4.4 Biomass - Energy Crops and Forestry Residues

Biomass is the oldest of the renewable energy sources. In Ireland, its main use is as fuel-wood for domestic and process heating, which amounts for just under 1% of total primary energy demand. There is an established market for Combined Heat & Power (CHP) generation using straightforward biomass. However, further R&D and demonstration is needed for gasification technologies. The Department of Agriculture and Food is currently finalising plans for a scheme to support the purchase of specialised wood biomass harvesting and processing equipment and a support scheme for the planting of short-rotation willow coppice as a source of energy.

The Dublin Regional Authority supports this initiative and recommends the further development of this process as a part of the energy strategy.

4.5 Ocean energy (covering both wave and tidal energy)

Ireland possesses some of the greatest potential wave power resources in Europe, with a potential wave energy resource at least as large as that for offshore wind energy. In theory, wave energy could provide Ireland's entire electricity demand, though of course this is subject to practical and economic limits. Tidal energy could supply an estimated

