

ENERGY GREEN PAPER



SUBMISSION FROM THE WEST REGIONAL AUTHORITY

November 2006

The West Regional Authority supports and welcomes the Green Paper on Energy produced by the DCMNR, and having considered it in detail, wish to make the following responses.

Ensuring the Security of Energy Supply

In addition to enhancing the contribution of renewable energy, what actions could be taken to further diversify the fuel mix for electricity generation and reduce dependence on oil and gas?

Hydrogen and waste to energy are two options which could be considered.

How can generation and transmission adequacy in the electricity sector be improved?

- *Improved forecasting to deal with wind energy.*
- *Further investment in the grid with a long term vision 50 years and beyond.*
- *Implement transparent liberalization in ESB structures, particularly in relation to grid access for Independent Electricity Producers, Auto-Producers and Micro-Generators.*
- *Improvement of generation technology.*
- *Development of storage facilities to deal with wind energy production.*

What are the challenges to greater participation by new players in the development and operation of power generation plant - and how should they be addressed?

- *Improved competitiveness*
- *All price increases should be based on the generation proportion of the final unit cost of electricity to facilitate improved efficient plants being more competitive. Currently prices are based on standing charges, tariff structure items, etc, where all suppliers are obliged to charge same to end customer – all such charges should be standardised and reviewed by the CER only.*
- *Reduce and cap ESB generation share to an appropriate level.*
- *Improved Standards in grid access, connection and codes.*
- *Regulator to address and focus its overall obligations to the customer, not to the technical requirements of the system (as advised by ESB).*
- *Fair access to all citizens of Ireland, with fair payment for product produced and transferred over the grid to final customers.*
- *Improved Capacity Resources to CER.*
- *Strengthen and support the operations and activities of the CER, with defined responsibilities to the customers of the Irish Electricity System*
- *Engage an additional Head of Section at CER, with responsibilities to the promotion and development of the Renewable Energy sector only.*
- *Improve access points to Grid*
- *Investigate decentralised grid network with regional ownership to assist and enable commercial/industrial and economic growth to all regions.*
- *Opportunities for purchase of older plant/sites for development of new generation*

plant.

How, and over what timeframe, should Ireland pursue greater electricity interconnection with Europe?

Ireland should pursue an interconnection with Europe within the next 5 years. 'Mainland' Europe with its greater integration provides a more stable electricity environment, although it is acknowledged that there are still some problems with this wider network. The considerations for a super grid linked to offshore wind should be given further independent consideration.

What measures could be taken to encourage the exploration and production of indigenous energy resources?

A review of supports for exploration should be completed with a view to balancing the need to encourage investment with return to the State. Future use should include specific requirements for producers to provide support to local communities affected by new developments.

Given the existing level of dependence on imported fossil fuels, what needs to be done to enhance contingency measures?

Further agreements are required with other EU member states to ensure that adequate supply is provided at times of need. This should be linked to further increases in storage capacity beyond the current level of 90 days. A target of achieving supply of 180 days within 5 years should be set.

Does the Green Paper generally set out the right policy directions for security of energy supply?

Yes, but only as a starting point to developing a National Energy Policy in general, but an even more ambitious vision is required e.g. Swedish Vision of 100% energy from renewables by 2020 (excluding transport).

Promoting the Sustainability Of Energy Supply

What can be done to improve the pace and range of development of renewable energy resources for electricity generation on a sustainable basis?

The development of renewable energy for electricity production to date has primarily focused on large-scale wind energy. Alternative Energy Requirement (AER) process is considered to be unsuccessful and it is hoped that the ReFIT programme will improve developments.

There is a strong need to increase the contribution of other renewables, in conjunction with large-scale wind.

The other main options for electricity production from renewables include bioenergy, tidal and ocean/wave energy.

- *A more comprehensive support programme is required for anaerobic digestion projects*

i.e. beyond the current ReFIT supports, to address its additional environmental benefits (waste management, agricultural etc.).

- *A strong need to address how the target of 30% co-firing target can be met with a suitable fuel supply system. It is now necessary to move beyond demonstrations of technology and to facilitate the development of such supply chains in a real manner. Targets for co-firing should include CHP technology for improved efficiency and sustainability of wood as a valuable indigenous resource.*
- *The development of a comprehensive support programme for energy crops is vital and an immediate requirement. There has been considerable delay in delivering a pilot support programme and this is proving frustrating for the sector.*
- *Specific support programmes for wood gasification and pyrolysis projects*
- *Specific support programmes for micro renewable electricity systems*
- *Revision of the ReFIT programme with a longer term Programme i.e. 10 year programme with specific targets for renewable energy sectors and annual review of price supports.*
- *Develop a specific CHP programme for the Public Sector with the Local Authority sector .*
- *Support for Auto-production projects and addressing administrative and other barriers to such developments*
- *Electricity generation from landfill gas to be separated from the REFIT Programme. This category should not be included within the competitive process of REFIT, it should be administered by the DCMNR/CER on a project by project basis, with a standard plant construction, grid connect obligation and Design, Build, Operate (DBO) by the respective Local Authority. This would support generation of local revenue income. (Methane gas emissions abatement should take priority over displacement of carbon dioxide). There are a number of landfill sites ready for take-off if this process is simplified – e.g. Galway City, Limerick, Kerry, etc).*
- *More interconnection, with mainland Europe, to stabilise network.*
- *Immediate Research and Development of Smart/net metering technology.*

In addition to electricity generation, what actions should be taken to develop renewable energy usage in the transport and heat sectors?

The West Regional Authority welcomes the recent launch and introduction by the Minister of the Greener Homes Scheme, BioHeat and Biofuels Excise (MOTR) Programme. The following additional recommendations are made:

Heat Sector

- *A further target for renewable energy heat should be set for 2020 of 25%.*
- *Support the development and implementation of a Renewable Energy Heat Promotion campaign that can be delivered at a local level through supported actions of Local Energy Agencies.*
- *Establish Regional Bioenergy Groups to maximise local/regional opportunities and coordinate actions .*
- *Support and facilitate the development of manufacturing of renewable energy heat plant and appliances – reduce export of investment and capital.*
- *Establish procedures for implementation of EU standards for wood fuels through the NSAI.*

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- *Establish testing procedures for renewable energy heating technologies to ensure quality equipment is delivered to the market.*
- *Establish quality assurance standards for installers and providers of renewable energy heating technologies.*
- *Implement the Inspection and Verification and Technical Assessment Procedures under the Greener Homes Scheme.*
- *Roll out of Community Energy Initiative as piloted in Meath/Cavan/Monaghan/Louth area by Meath and Cavan/Monaghan Leader and Meath and Carlow/Kilkenny Energy Agencies and DKIT.*
- *Introduce a programme and target date for all Public Buildings to use biomass as a base load for heating buildings, swimming pools, etc – National and Local Authority leadership.*

Transport

- *Supports to be provided to Local Authorities to address the fuel supply issues in relation to bio-fuels – enhancing existing LA schemes (e.g. Cork City Council, Galway City Council, Mayo County Council, North Tipperary County Council, Carlow Co Co and others) and facilitating other LA initiatives for demonstration and awareness at the local level.*
- *Full implementation of MOTR Programme and development of future programme to ensure sustainability of existing and future projects.*
- *Introduce a National Policy for LA procurement of vehicles – with high (50%) bio-fuel blends or conversion technology engine capabilities*
- *Training programme on bio-fuels to be delivered to relevant Local Authority staff.*

What significant new initiatives could be taken to increase energy efficiency across the economy and in particular in households, businesses, the public sector, the transport sector and the built environment?

Support general awareness campaigns but also support implementation of relevant programmes e.g. Greener Homes Scheme, BioHeat etc.

Business Sector

- *Specific programmes to target the SME sector who have had limited or no support in relation to energy (e.g. TEA Energy Check in Craft SME Project)*
- *Expand Energy MAP programme with practical delivery of education and training to commercial sectors.*
- *A modification of the Greener Homes Scheme for SMEs*

Public Sector

- *All relevant Government Departments to set energy efficiency measures to feed down to a local level – implementation of the EU Services Directive*
- *All relevant Government Department funding programmes to be reviewed for inclusion of/increased supports for energy efficiency measures e.g. Dept of Education Capital Grant Aid Summer Work Scheme, OPW buildings and facilities for the decentralization programme, DoEHLG Central Heating Programme, etc*
- *Improve all LA buildings and housing, new build and existing to achieve a A-B Energy Rating, as part of the implementation of the EU Energy in Buildings Directive*
- *Increased promotion and development of PPP for renewable energy power and heat*

production at LA level, e.g. wind auto-production for water/sewage plants, biomass/solar heating to leisure facilities, etc

Built Environment

- *Modification of Social Housing Funding to allow for continued and increased use of the current House of Tomorrow Programme Funding*
- *Immediate research into energy use and demand within the Commercial building sector to allow for energy efficiency measures to be targeted*
- *Introduction of energy efficiency retrofit programme for existing houses and commercial buildings (rented, owner occupied etc.) to bring all buildings prior to 2002 regulations up to current regulations.*
- *Revision of the SEI Public Sector Building Programme to an Open Call rather than on a limited restricted basis*

Transport Sector

- *Support of Walking Bus Campaigns via the Green Schools Programme.*
- *Implementation of National Spatial Strategy to reduce transport energy demand reduce commuting distances and increase access to public transport.*
- *Development of Rural Bus Schemes .*
- *Development of safer cycle tracks around large regional towns and provision of secure bicycle parking facilities.*
- *Support of integrated analysis using GIS and other methodologies to support modal shifts .*

What additional policy measures should be introduced to significantly expand energy RTDI and what are the priority areas of research, which need to be targeted?

Use of Tax Breaks should be considered.

In light of the Government's Science, Technology and Innovation Strategy, what needs to be done to radically expand the national energy research capacity?

The following additional proposals are made

- *National support and facilitation of joint EU Projects and Research*
- *National funding to adequately disseminate results of all Research projects*
- *Support Energy Research Centres, in conjunction with National Universities and Institutes of Technology*
- *In conjunction with National Universities and Institutes of Technology fund and develop an Energy Engineering Discipline at Degree Level, leading to Masters and PhD level research programmes.*

What are the key supply and demand questions to be addressed to underpin a fully cohesive National BioEnergy Strategy?

In contrast to wind and other renewable energy technologies many bioenergy projects are small scale and focused on the domestic and commercial sector. This creates significant local opportunities for job creation and diversification, in addition to reducing expenditure on imported fuels.

What is needed are specific actions which will increase capacity. There are a number of key issues that need to be addressed for bioenergy to expand on its current position as the primary renewable energy contributor to Ireland TPER.

Supply Chains and Regional Development

A key problem for all bioenergy projects is ensuring that the raw material (fuel) can be delivered to the point of use in the right quantities, quality and at an affordable price. None of the current supports (BioHeat Programme, Excise Programme etc.) adequately address this issue at present. Short supply chains reduce complexity and maximise local benefits. The WRA would recommend the following actions in this regard:

- Development of Clare Wood Energy Project to extend to cover all other relevant regions by 2008 - typical investment of €250,000 per region per annum to support roll out. This project is all about linking the fuel supply to demand and is exactly what is needed to make things happen with private forestry. This model can be applied to other sectors of wood fuel also.*
- Fuel Production: Grant support for wood chip, wood briquette and wood pellet production at a local scale to include purchase of chippers, briquetting/pelleting equipment and other materials e.g. Galway (Kilconly) Wood Pelleting Project*
- Development of Community Bioenergy Heating Projects : Roll out of Community Energy Initiative as piloted in Meath/Cavan/Monaghan/Louth area by Meath and Cavan/Monaghan Leader and Meath and Carlow/Kilkenny Energy Agencies and DKIT. Regional Development can be very effective for bioenergy.*

Local Awareness and Promotion

- Support for Local Energy Agencies to work on delivery of information and promotion campaign for private forestry owners, farmers, general public and others on wood heating and bioenergy systems - estimate €50,000 per LEA.*

Public Buildings

- Specific targets and supports for all OPW Buildings e.g. target of 10 OPW buildings with wood heating systems for 2007 with increased targets for each year from 2008 onwards*
- Specific targets and supports for 10 new LA buildings with wood heating systems for 2007 with increased targets for each year from 2008 onwards.*

Quality Control

- Establish procedures for implementation of EU standards for wood fuels through the NSAI.*
- Establish testing procedures for biomass heating technologies to ensure quality equipment is delivered to the market.*
- Establish quality assurance standards for installers and providers of renewable energy heating technologies.*

Energy Supply Company (ESCO) development

A common barrier to the development of bioenergy projects relates to the capital investment.

In some situations grant aid will not overcome this. Energy Supply Contracts/Third Party Financing/ESCOs provide an opportunity to overcome this in an innovative manner. The WRA strongly recommends that a support programme for the development of such projects be implemented immediately. This could include:

- Development of ESCO models (legal, financial and other issues) and case studies*

using international expertise.

- Information programme to promote ESCO models across relevant sectors.
- Specific targets and supports for Public buildings based on ESCO models in 2007 with increased targets for each year from 2008 onwards.

Liquid Biofuels

- Supports to be provided to Local Authorities to address the fuel supply issues in relation to bio-fuels – enhancing existing LA schemes (e.g. Cork City Council, Galway City Council, Mayo County Council, North Tipperary County Council, Carlow Co Co and others) and facilitating other LA initiatives for demonstration and awareness at the local level.
- Full implementation of MOTR Programme and development of future programme to ensure sustainability of existing and future projects.
- Introduce a National Policy for LA procurement of vehicles – with high (50%) bio-fuel blends or conversion technology engine capabilities
- Training programme on bio-fuels to be delivered to relevant Local Authority staff.
- Support to promote biofuel availability on forecourts
- R&D and Investment support for the manufacture and installation of biofuel conversion kits
- Enhanced support for flexi-fuel vehicles
- Implement of quality standard for PPO such as V DIN 51 605
- Streamlining of reporting measures for Biofuel producers, who currently must report to at least 4 different government Agencies and Departments.

Anaerobic Digestion

- Capital support and tax incentives for agricultural waste management systems, integrated with LA biodegradable wastes Energy Crops.
- Education and training on energy crop production and harvesting
- Grant programme for 500ha establishment programme to be expanded to 5000ha and implemented immediately.
- Grant support for harvesting and production equipment
- Assist and facilitate in the development of cost-effective supply chains and networks.
- Immediate increase of subsidy for energy crops from €45/ha to €150/ha.

Do we need to choose between mandatory targets and better incentives for renewable energy and energy efficiency - or is a mix of both the best way forward?
The AIEA recommends that a mix of both measures will compliment the national targets for abatement of emissions.

Does the Green Paper generally set the right policy directions for energy sustainability?

Yes but it is not ambitious enough.

Enhancing the Competitiveness of Energy Supply

In the context of liberalisation of the Irish energy market, what further actions should be taken to develop more fully competitive electricity and gas markets and what specific barriers need to be overcome?

Electricity

- *Improve and strengthen grid on a strategic and geographical basis.*
- *Standardise and cost-effective grid connections for all large-scale renewable energy generators – Wind energy is currently the cheapest form of electricity production in Ireland*
- *National Obligation to grid connections for all renewable energy generators under 5MW*
- *Support and facilitate fair grid access for embedded RE generation*

- *Fair and transparent Grid access to all citizens – implement CER “Arrangements for Micro-Generation” CER/06/190 and DoEHLG “Planning Regulations for Micro Renewables”*
- *Reduce ESB electricity generation to 35% total capacity*
- *Reduce electricity prices as gas/oil market prices fall (realistic settlements), introduce monthly price tariffs for electricity*

Gas

- *Reduce dependence on Gas unless additional discoveries of indigenous resources and replace with strategic targets for renewable energy*
- *Introduce additional gas suppliers to the Irish Gas Supply Industry through Virtual Marketplace arrangements.*

Barriers

- *Lack of Government awareness of need for real change in the energy sector*
- *Monopoly and Dominance of ESB and Board Gais in marketplace*
- *Inadequate capacity and availability of electricity grid*
- *Limited resources at CER - introduce additional Renewable Energy Regulator position within current structure, with a responsibility to promote and develop Ireland’s renewable energy targets and plan.*

While a significant proportion of our energy prices are determined by international oil and gas prices, what actions should be taken domestically to reduce the cost of electricity and gas to consumers?

- *Investigate Ireland’s potential for 100% renewable energy supply, electricity and heat.*

What further action should be taken to alleviate fuel poverty?

- *Agree, with adequate funding from Government and LA to improve energy ratings from poor (F-G) to an improved A-B rating. Low cost measures to be implemented through the LA maintenance programme, medium cost measures (insulation, heating systems, windows) to be based on an extended Capital Refurbishment Programme.*
- *In collaboration with DoEHLG, secure adequate Capital Programme funding such that all new LA social housing units are built to an A2 energy rating.*
- *Installation of renewable energy heating systems as standard, in particular solar panels – reducing heating costs, improving comfort and providing additional disposal income.*
- *Capital grant schemes for micro renewable electricity systems for LA housing, stabilise rising costs of electricity.*

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- *Assist and facilitate in the develop of community and district heating networks to improve efficiency of heat supply, reducing standing charges and unit heat prices.*

Does the Green Paper generally set the right policy directions for enhancing the competitiveness of the Irish energy sector?

No, it is not clear how the Green Paper will improve competitiveness.

END
