



## **Towards a Sustainable Energy Future for Ireland: Green Paper on Energy**

Views of the

### **Western Development Commission**

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## ***Introduction***

The Western Development Commission (WDC) was set up by government to promote, foster and encourage economic and social development in the Western Region<sup>1</sup>. It was established on a statutory basis in February 1999 following the enactment of the Western Development Commission Bill, 1998. One of the main functions of the WDC is regional policy development. In doing this, the WDC seeks to ensure that government policy reflects the needs of the Region across such areas as infrastructure, natural resources, industrial and rural development. It also tracks the implementation of policies and recommends adjustments as appropriate.

As part of its role in monitoring government policy and ensuring that it reflects the needs of the Western Region, the WDC regards the provision of quality energy infrastructure as an important element of the essential infrastructure required to underpin the economic development of the region. The WDC also views renewable energy as a sector with considerable potential for development in rural areas.

In this submission, following a summary of the key points made, we make general comments about the Green Paper in relation to **regional energy infrastructure** and government policy, and then in relation to the development of renewable energy (with particular emphasis on **biomass** and the potential for **community involvement** in the sector). We also consider some of the individual points made in the Green Paper and then address some relevant questions provided as part of the consultation process.

### *Regional Energy Infrastructure*

- There needs to be commitment in the White Paper to ensuring that energy infrastructure supports employment, the competitiveness of local industry and the attraction of new industry and services into the regions and into areas of low population density.
- Energy policy must be able to address the infrastructural needs of less developed regions and the commitment to this and the mechanisms for it are not considered in the Green Paper; these should be *made explicit* in the White Paper.
- Policies for using these infrastructures to aid economic and social development throughout the country must not be subservient to those for market development and regulation.

### *Regional Energy Infrastructure and the NSS*

- The significance of energy infrastructure, as outlined in the National Spatial Strategy 2002-2020 (NSS), is noted in paragraph 1.1.15 of the Green Paper which recognizes that “certain energy infrastructure priorities are addressed in the NDP 2000-2006 and the National Spatial Strategy”. The Green Paper does not commit to addressing these priorities, but the forthcoming White Paper must do so.

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<sup>1</sup> Counties Donegal, Sligo, Leitrim, Roscommon, Mayo, Galway and Clare.

- The WDC would like to emphasise that the provision of infrastructure *in advance of actual need* is a key part of policies promoting regional development. Any changes to institutional arrangements, market structures or policies for the sector *must be able to take this into account* so that they may be given due consideration in planning and decisions

#### *Regional energy infrastructure and the development of renewable generation*

- The parts of Ireland with the greatest potential for renewable generation of electricity tend to be those with the weakest transmission infrastructure. Electricity transmission infrastructure is important for bringing power into the Region and supplying the needs of commercial and other enterprises, and is also important for the transfer of renewable power from the Region.

#### *Biomass*

- The Green Paper is heavily focussed on the electricity market. The way targets in this area might be achieved are dealt with in some detail relative to the other two main energy markets of heat and transport.
- A key issue with the Green Paper is that it appears that challenging near term targets for heat and transport markets are proposed with insufficient details on how these might be achieved.

#### *Community involvement in the development of renewables*

- There is a need for the fiscal, regulatory and infrastructural policy framework in Ireland to support the renewable energy projects which provide opportunity for community investment, local involvement and thus rural development. The Green paper does not address this but the White Paper on Energy provides an excellent opportunity to develop the necessary supportive policy framework for community involvement the renewable energy sector.
- The WDC believes that renewable energy projects which incorporate a substantial element of community ownership should be able to access specific supports not only to expand the renewable energy sector but also as a means of promoting rural development. The new White Paper on Energy should contain a clear commitment to supporting community involvement in of renewable energy.

#### *Implementation*

- There needs to be clear definition of the roles of the various departments and agencies and the regulator which have responsibilities in relation to energy. These need to be visible to all in the energy sector. The responsibilities of different agencies in terms of implementation need to be made explicit.

### ***The Green Paper on Energy— General comments***

The Green Paper on energy, and the planned White Paper will be the key energy policy documents for the short to medium term. It is important that these documents provide clear policy direction and indication of the way policy will be implemented. The WDC is concerned that government policy on balanced regional development is reflected in these policy papers.

### *Regional Energy Infrastructure*

In the NDP (2000-2006) it is acknowledged that the investment in electricity infrastructure and supply will not be directly controlled by the government but the importance of energy for regional development is also recognized:

The vast bulk of capital investment in the energy sector over the period to 2006 will take place outside of the provisions provided for in the Plan. The importance of the energy transmission network to the promotion of regional development is recognised. The Government will be concerned, in the context of a more competitive environment for energy supplies, to ensure that energy capacity *does not act as a constraint on regional development*. (NDP, 2000, p67 (italics added))

A similar commitment needs to be made in energy policy in the Green Paper and the following White Paper. The WDC is concerned that the government should specifically consider investment in energy infrastructure in less developed parts of Ireland to allow them to participate more fully in economic development. **There needs to be commitment in the White Paper to ensuring that energy infrastructure supports employment, the competitiveness of local industry and the attraction of new industry and services into the regions and into areas of low population density.** The responsibilities for decisions in relation to such infrastructure should be clearly defined among the Department of Communications, Marine and Natural Resources (DCMNR), the Commission for Energy Regulation (CER) and the Transmission Systems Operator (TSO) and Bord Gáis Éireann (BGÉ).

The WDC recommends that institutional structures and market arrangements take account of government policies and objectives such as balanced regional development. Currently the CER is obliged to take account of government policy, such as that on balanced regional development, but in doing this the implications for regional development should be explicitly considered in relation to any decision regarding planning and development in the sector. **Energy policy must be able to address the infrastructural needs of less developed regions and the commitment to this and the mechanisms for it are not considered in the Green paper; these should be *made explicit* in the White Paper.**

There is precedent for the development of energy infrastructure in line with government objectives, (e.g. security of supply) rather than on a purely market basis. This precedent should also apply to regional development priorities and the requirement for enhanced energy infrastructure.

In relation to investment in infrastructure, the state can afford to take a longer view than more commercial operations and can take account of the benefits of the investment over the full life time of the asset, including the long term regional benefits.

**The criteria for making decisions about energy infrastructure projects** are very important. Energy infrastructure is usually provided at arms length from the government, (by BGÉ, ESB Networks or ESB NG), which are commercial State bodies, operating in markets regulated by the CER. Transmission and distribution systems for both gas and electricity are important public infrastructures. **Policies for using these infrastructures to aid economic and social development throughout the country must not be subservient to those for market development and regulation.** It is essential that during the process of deregulation, and the development of competitive market electricity and gas markets, it is recognized that

quality energy infrastructure is necessary for regional development. **Regional development is primarily a policy issue, but one which must influence regulation.**

The WDC believes that there needs to be **coordinated planning of energy infrastructure development** so that energy needs are met using appropriate infrastructures and technologies. Energy policy needs to allow **for integrated planning in relation to energy infrastructure for electricity, natural gas and renewables** which in turn allows the development of the most efficient configuration of solutions. In such planning there should be a formal structure for consulting with groups with particular needs or understanding of the issues (for example power users or small scale generators). This will aid efficient infrastructure development.

### *Regional Energy Infrastructure and the NSS*

The significance of energy infrastructure, as outlined in the National Spatial Strategy 2002-2020 (NSS), is noted in paragraph 1.1.15 which recognizes that “certain energy infrastructure priorities are addressed in the NDP 2000-2006 and the National Spatial Strategy”. **The Green Paper does not commit to addressing these priorities, but the forthcoming White Paper must do so.**

The NSS emphasises that:

Reliable and effective energy systems, such as gas and electricity to power industry and services, are key prerequisites for effective regional development. (NSS, 2002, p64)

It goes on to suggest that:

Prime considerations in terms of spatial policies relating to energy include:

- Developing energy infrastructure on an all-island basis to the practical and mutual benefit of both the Republic and Northern Ireland
- Strengthening energy networks in the West, North West, Border and North Eastern Areas in particular
- Enhancing both robustness and choice of energy supplies across the regions, through improvements to the national grids for electricity and gas (NSS, 2002, p64)

This policy is not reflected in the Green Paper but should be made very clear in the forthcoming White Paper.

The WDC would like to emphasise that **the provision of infrastructure *in advance of actual need* is a key part of policies promoting regional development. Any changes to institutional arrangements, market structures or policies for the sector must be able to take this into account** so that they may be given due consideration in planning and decisions of the Commission for Energy Regulation (CER), the Transmission Asset Owner (TAO) and Transmission System Operator (TSO) and the Distribution System Operator (DSO), Bord Gáis Éireann (BGÉ) and other relevant state bodies.

In relation to electricity the NSS notes

A particular emphasis is being placed on the reinforcement of the grid in western counties. Accelerated growth in the Border, Midlands and West (BMW) region also suggests ... the above programme, power corridors will need to be considered to augment the capacity of the grid in Galway/Mayo/Sligo and also along a corridor from Dublin to Dundalk. (NSS, 2002, p64)

In relation to gas the NSS clearly envisages the extension of the gas network to the Gateways as it notes

The government also decided in 2001 that in principle, and subject to a more detailed analysis, the gas network should be extended to Letterkenny from Derry... (NSS, 2002, p65)

and in regard to this extension to Letterkenny and the others envisaged (including that to Sligo) it notes that

The net effect of these planned and envisaged developments is that the spatial framework of gateways, hubs and other elements of the urban-rural structure ... will broadly speaking, benefit from an extensive gas pipeline network interconnected with both domestic and international gas supplies (NSS, 2002, p69)

Although it was decided in 2005 that a transmission pipeline would not be extended from Derry to Letterkenny, the feasibility and CBA for the pipeline to Sligo and Donegal Town is underway. The decision in regard to the pipeline must be guided by the NSS, and also by the necessity for the development of gas infrastructure in the North West. Figure 5 of the Green Paper clearly illustrates the lack of gas transmission infrastructure in the North West.

*Regional Energy infrastructure and security of supply.*

While the main concern of the WDC in relation to energy infrastructure is its contribution to regional development, **the development of regional infrastructure can also contribute to security of supply.** Developments in gas infrastructure in the North West (from the Mayo Galway pipeline to Donegal town, which is currently being considered) and then onward to Letterkenny with a connection to Derry would provide a 'ringmain' in the northern part of the island providing enhanced security of supply for the northern part of the network, as well as contributing to the economic growth of the least developed region. **It should be possible to take account of different policy goals (such as security of supply and regional development) when planning network solutions.**

Similarly in the context of electricity, there is potential for the enhancement of the interconnectors with the western part of Northern Ireland (at Strabane/Letterkenny and Enniskillen/Coraclassy). This is likely to form part of transmission planning in relation to the Single Electricity Market, but should be a consideration even before the full establishment of the market and joint transmission planning.

*Regional energy infrastructure and the development of renewables*

The Green Paper rightly puts considerable emphasis on the development of renewable energy. The development electricity infrastructure also has an important role to play in this. **The parts of Ireland with the greatest potential for renewable development tend to be those with the weakest transmission infrastructure.**

Electricity transmission infrastructure is important for bringing power into the Region and supplying the needs of commercial and other enterprises, and is also important for the transfer of renewable power from the Region. In addition to providing regional employment opportunities, the development of renewable electricity generation in remoter regions can also support both the electricity grid and the distribution network in the regions (although intermittent sources such as wind power will not necessarily provide this function). Once again the achievement of a number of government goals simultaneously, needs to be considered.

## ***The development of renewable energy in the Western Region***

The WDC's involvement in the renewable energy sector emerged from our rural development mandate. Our main interests are in promoting community involvement in renewable projects (which will not only increase the generation of green energy but will also assist in creating greater public acceptance of renewable projects ) and also more recently in the development of wood biomass in the region. Comments below relate to the biomass sector and also community involvement.

### *Biomass*

The Green Paper is designed to set the scene for a national energy strategy for Ireland through to 2020. It offers an insight into the approach that Government is likely to take and seeks a productive consultation process. There are a number of policy areas and themes within the Green Paper that impinge upon the WDC's intentions to develop and help deliver a regional biomass strategy.

**The Green Paper is heavily focussed on the electricity market.** There is a target of having 15% of electricity consumed from renewable sources by 2010, rising to 30% by 2020. **The means whereby this might be achieved are dealt with in some detail relative to the other two main energy markets of heat and transport.**

In Ireland the relative sizes of the markets are indicated as below:

- Heat Market – approx 37% of primary energy demand.
- Transport Market – approx 33% of primary energy demand.
- Electricity Market – approx 30% of primary energy demand.

This illustrates that in our view a **much greater focus should be placed upon the heat and transport markets** than the Green Paper currently has.

However the Green Paper does contain proposed targets for heat and transport:

- 5% renewable provision by 2010 in the heat market, and
- 5.75% biofuels penetration by 2010.

It also notes the creation of Ministerial Task force on Bio-energy that will set targets for 2020. The outcome of these targets is that the smaller percentage targets for heat and transport by 2010 would, if achieved, result in almost the same contributions of renewables as the 15% renewable electricity target (if achieved) set for the same date.

In summary a key issue with the Green Paper is that **it appears that challenging near term targets for heat and transport markets are proposed with insufficient details on how these might be achieved.**

Our thinking on the bio-energy sector is being developed through a current and on-going research contract. This will report in the early part of 2007, but the research is starting to provide some useful data that we wish to feed into the 'Questions for Consultation' process.

Our research has already established that **across the EU:**

Renewable energy contributes about 8% of our energy needs

**Three quarters** of renewable energy is from biomass and most of this is wood biomass<sup>2</sup>

- 96% of the EU's renewable heat comes from biomass
- 10% of the EU's total heat needs are met with biomass

The fastest growing renewable is biomass

These figures illustrate the simple reality that the **renewable energy market in the EU is dominated by wood biomass technologies supplying heat**. We believe that Irish energy policy should learn from this and develop policy that helps us to develop the renewables market in line with that in the rest of the EU.

### *Community Wind Ownership*

In 2004 we published *To Catch the Wind: The Potential for Community Ownership of Wind Farms in Ireland* which included a number of recommendations for policy change that would facilitate greater community involvement in the sector.

In general terms, **there is a need for the fiscal, regulatory and infrastructural policy framework in Ireland to support the renewable energy projects which provide opportunity for community investment, local involvement and thus rural development**. These benefit the rural economy and the community where the primary resources are located. **The Green Paper does not address this but the White Paper on Energy provides an excellent opportunity to develop the necessary supportive policy framework for community involvement the renewable energy sector**.

The Green Paper on Sustainable Energy (1999) gave a strong endorsement to community ownership of wind farms:

The ability to produce electricity from renewable energy sources to meet one's own needs... opens the opportunity for local involvement in renewable energy projects. Local co-operatives, representative organizations and other local interests will be encouraged to develop projects in order to offset their own electricity bills. (Green Paper on Sustainable Energy, 1999 )

Community and local involvement is not addressed in the Green Paper and needs to be considered in the forthcoming White Paper, in relation to all renewable projects, not just for electricity.

The WDC believes that renewable energy projects which incorporate a substantial element of community ownership should be able to access specific supports not only to expand the RE sector but also as a means of promoting rural development. **The new White Paper on Energy should contain a clear commitment to supporting community involvement in of renewable energy**.

The WDC is currently supporting a pilot project on community ownership is currently underway in Killala, Co. Mayo.

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<sup>2</sup> 51% of the EU RES is wood biomass



The aim of Killala Community Wind Farm (KCWF) Ltd is to establish a community based wind farm using the model as proposed in *To Catch the Wind*. This guide on community ownership of wind projects published in 2004 by the Renewable Energy Partnership<sup>3</sup>, established that, given the risky and uncertain market conditions currently in the wind sector, communities are likely to run into difficulties if they attempt to develop 100% community-owned wind energy projects. Therefore, **the report advised that the most promising option for groups was to co-invest with commercial developers.**

The project partners for the feasibility phase of the wind farm are KCWF Ltd, Killala Community Council (KCC) and the Western Development Commission (WDC). KCWF Ltd is the lead private developer (a limited company of 17 shareholders set-up in March 2002 by the local farmers and landowners) and KCC is the community group that will act as the conduit for community investment in the proposed wind farm (KCC is a registered charity who manages a number of community enterprises including a community day centre and community transport scheme). The WDC plays a co-ordination and facilitation role within the partnership and will continue to do so for the duration of this feasibility phase. Under its rural development remit, the WDC facilitates the development of strategic initiatives in the region.

The partners wish to establish Ireland's first wind farm incorporating a community investment vehicle. The current project is at the pre-planning stage with the KCWF structured as a 'narrowly-based' community group. The aim is to evolve into a more 'broadly-based' group incorporating the wider community, with KCC acting as the conduit for the community investment vehicle. This will take place when the key risks have been minimised. This feasibility project will help progress a model for community investment in renewable energy projects and have the potential to be replicated in other communities.

The feasibility phase was approved for grant support under the Sustainable Energy Ireland (SEI) Renewable Energy Research, Development and Demonstration Programme. A case study report will be published on the project. This will identify the conditions which allow community projects to develop and the requirements for supporting community investment in practice.

### ***Comments on specific paragraphs***

In this section the points in individual paragraphs are considered.

1.1.16 This paragraph notes that policy direction is also provided by the Green Paper on Sustainable Energy (1999). The White Paper needs to update and incorporate this Green Paper as an essential part of the future development of the sector and to ensure that the detail of the direction for sustainable energy is clear.

1.2.18 This paragraph, which covers gas transmission and distribution, does not address the lack of natural gas infrastructure in the North West of Ireland. As highlighted earlier in this submission the provision of natural gas to gateways (Letterkenny and Sligo), as expected in the NSS, is necessary for the development of the region. This paragraph also states that "BGE is currently completing the Mayo-

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<sup>3</sup> Western Development Commission (WDC), Brí Nua Community Wind Energy Group (Inishowen) and Mayo Community Wind Energy (South West Mayo)

Galway pipeline to deliver gas from the Corrib gas field" It should be noted that the pipeline is to both deliver gas into the current network and to bring natural gas to adjacent towns in the west.

1.1.20 One of the main uses of oil is in the area of transport. In order to reduce oil dependence there needs to be greater emphasis on public transport (including rail) and also better planning of housing and enterprise location to reduce dependence on car transport.

## Chapter2: The Policy Framework

2.1 Security of Supply: The dimensions of policy in this area are noted in bullet points. While we agree with these including the "delivery of electricity and gas to homes and business over the networks which are adequate and secure" and also "Creating an attractive environment to encourage investment in energy infrastructure" There is little detail in the White Paper as to how this can be achieved.

2.1.9 As noted above, the development of gas infrastructure in the North West can contribute to security of supply.

2.1.23: "Oil consumption accounts for a 56% share of the country's primary energy requirement in Ireland, driven largely by the transport sector" The large scale daily commuting to the capital (and weekend commuting from the west/south) are testament to the imbalance in regional development. This commuting contributes to high oil (petrol/diesel) consumption. Greater emphasis on regional development outside of east coast can help correct this.

Summary Policy Targets, P.59: "Delivery of current network development programmes in electricity and gas on schedule" Delivery of these programmes should prioritise the West and North West where electricity and gas infrastructure is significantly behind those in most other regions

2.1.27: "Ireland's economic and population growth is driving the need to substantially extend and upgrade the electricity and gas network infrastructure" This is a chicken and egg situation. It is arguable that electricity and gas network infrastructure can be a major driver of economic and population growth. The IDA has identified infrastructure (energy, communication and transport) as crucial in attracting new investment to regions outside of the capital.

2.1.28 The commitment to supporting the ongoing development of the gas network is welcome. Once again we highlight the lack of gas infrastructure in the North West and hope that the cost benefit analysis of the potential pipeline to Sligo and Donegal Town can take full account of the benefits that such infrastructure can bring.

2.2.40 We welcome the commitment to the NSS in the Green Paper but the energy priorities (as outlined above) should become part of the White Paper.

2.3.5 We appreciate the commitment to the development of the natural gas market for the benefit of consumer, enterprise and the economy. The recognition that this is also important for regional development is welcome.

2.3.8 We agree that the energy sector is a vital strategic sector and part of the national infrastructure. In addition to recognising that energy policy must be focused on contributing to enhanced productivity, national competitiveness and maintaining a

strong economy, it is also essential that balanced regional development is a part of this focus.

### ***Implementing the Green Paper/White Paper***

**There needs to be clear definition of the roles of the various departments and agencies and the regulator which have responsibilities in relation to energy. These need to be visible to all in the energy sector. The responsibilities of different agencies in terms of implementation need to be made explicit.**

The National Bioenergy Action Plan should become part of the White Paper in the future, making explicit the requirements for development of the sector.

### ***Responses to consultation questions.***

We comment on two of the questions below:

*Q. 3.2.10 In addition to electricity generation, what actions should be taken to develop renewable energy usage in the transport and heat sectors?*

As noted, most renewable energy is wood biomass in the heat market, and so we think much more effort, resource and policy support should be directed to this sector. Our research has highlighted the fact that there are no fundamental technical, commercial or resource based constraints to market growth in the wood heat sector. However there are clearly market problems, which can be characterized as follows:

1. Undeveloped and immature markets
2. Complex and confused policy context with partial and fragmented public sector support
3. Lack of awareness and understanding amongst energy users and specifiers
4. Lack of industry standards (trade associations)
5. Lack of access to clear impartial advice on the performance of the equipment.
6. Lack of technical expertise to design, supply, and install and maintain equipment
7. Access to finance and understanding of economics and accepted means of procurement.

Actions may include:

1. Publish a national strategy for wood fuel or renewable heating
2. Establish realistic staged targets for renewable heat energy
3. Resource a mechanism to co-ordinate and support the wood fuel heating market
4. Provide skills and training to grow design and installation capacity

Although we are supportive of the proposed 5% renewable heat target, our initial research findings show this cannot be achieved by 2010 in the Western Region and a much more realistic and longer term target should be adopted to bring Ireland into line with other EU energy markets. Our research shows that market growth will be constrained by lack of capacity to design and install biomass technology and that even the most optimistic scenarios on the ability of the sector to grow cannot service 5% market share in such short timescales. We would expect this constraint to be reflected across Ireland.

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

Although our research is indicating that market growth to the EU norm is achievable with current biomass resources we think this needs to be tested with a national evaluation of market growth and resource availability. This would create market confidence and stimulate investment.

### **Conclusion**

The WDC believes that quality energy is vital to the development of the Western Region and has committed to understanding the issues and to highlighting areas of concern. The WDC is happy to discuss any of the points raised in this paper in more detail or to provide further information or examples in relation to the issues discussed.

Western Development Commission

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