

Mr. Simon Day  
Trading Development  
Manager  
Bioverda Ltd  
Burton Court  
Burton Hall Road  
Sandyford  
Dublin 18  
Ireland

Energy Green Paper Submissions  
Energy Planning Division  
Department of Communications, Marine and Natural Resources  
Adelaide Road  
Dublin 2

By email to [EnergyGreenPaper2006@dcmnr.ie](mailto:EnergyGreenPaper2006@dcmnr.ie)

1 December 2006

## **RE: Response to the Energy Green Paper Consultation**

Dear Sir or Madam,

Bioverda Ltd (Bioverda) is writing in response to the Energy Green Paper Consultation.

### **Bioverda Background**

Bioverda is a wholly owned subsidiary of NTR plc and specialises in the utilisation of sustainable and renewable sources of bioenergy. NTR is a leading Irish based private sector developer and operator of public infrastructure with businesses including National Toll Roads (toll roads operator), Greenstar (fully integrated waste management company operating in Ireland and the UK), Celtic Anglian Water (water services company), Irish Broadband (telecommunications) and Airtricity (Europe's largest independent wind farm developer).

Bioverda is a natural progression for NTR given its synergy with NTRs existing waste management and renewable energy businesses and Bioverda is focused on three key areas:

- Methane: Producing 135,000 MWh of electricity generated from landfill gas fuelled assets located on seven landfill sites in Ireland.
- Biogas: Planning 47 MW large scale waste to energy anaerobic digestion facilities in Ireland.
- Biofuels: Biodiesel and bioethanol. Bioverda is finalising construction of two fully integrated crushing and esterification biodiesel facilities located in Germany. When complete, these facilities will produce a combined total of approximately 250,000 tonnes (284,250,000 litres) of rape methyl ester per annum. In addition, Bioverda is developing large scale biodiesel facilities in Ireland, the UK and Spain. Bioverda is also developing large scale bioethanol facilities in the United States and assessing opportunities in the UK.

## Liquid Biofuels

As a result of direct operational experience in developing and implementing biodiesel facilities in Europe, Bioverda is firmly of the view that, given the level of competitive European biodiesel production capacity coming on line, coupled with future limitations in supply of appropriate vegetable oils, only those vegetable oil based biodiesel facilities developed at scale (>100,000 tonnes) will be able to compete successfully in the medium term.

The biofuels target set by Ireland has been too low to attract the development of large scale biofuels projects that will sell their product into the Irish market. The latest incentive scheme aims to provide a maximum of 2% biofuels by 2008. This target amounts to 163 million litres of biofuels or approximately 143,000 tonnes per annum of biofuels. This incentive volume is for the whole of the Republic of Ireland however Bioverda's Neubrandenburg plant alone would exceed this national target as it will produce 150,000 tonnes of high quality rape methylester biodiesel per annum. Although the Energy Green Paper indicates that the current Mineral Oil Tax relief scheme may be further increased to meet a 5.75% target by 2010, the current multi stage process results in a piecemeal incentive scheme that does not give any one company sufficient quantities of excise relief.

It should be noted that from the perspective of Bioverda, the Irish market is competing for a limited EU-wide supply of biofuels, and Bioverda as an operator has to assess into which market it should sell its product in order to secure maximum returns for its shareholders. In this context, from an Irish perspective, although biodiesel plants may be built in Ireland, only the portion of biodiesel receiving excise relief will actually be sold in Ireland. Bioverda's calculations indicate that if full excise duty (currently €0.368/litre) is

levied on any production, then that production would be more profitably sold into alternative destinations in the EU market. The implication of this is that Bioverda and other biofuels developers will sell volumes of biodiesel into the Irish market equivalent to the volume of excise duty relief awarded to them. However, unless Irish biofuel plants are producing product at a highly efficient and large scale, the portion of biofuel that is not awarded excise relief will not be able to compete effectively in a European context and those facilities will become uneconomical in the medium term.

It is Bioverda's opinion that the best way to effectively stimulate long term, sustainable and economic liquid biofuels use in Ireland is to place a mandatory requirement on hydrocarbon companies to provide a blend of 5.75% biofuels by 2009. In addition, the Government should provide agricultural incentives for increased cultivation of rape seed and feed wheat including a link to a CO<sub>2</sub> payment for contributions to the reduction of annual emissions.

## **Critical Energy Infrastructure Incentives**

If Ireland is going to successfully meet the targets of 15% of electricity production to be met by renewable energy sources by 2010 and 30% by 2020, a number of barriers will need to be overcome. These are barriers that Bioverda has direct experience in while trying to develop energy projects, particularly renewable energy projects in Ireland. Some of these barriers are outlined below:

As an example, Bioverda is currently engaged in the process of obtaining full planning permission for the development of a large scale centralised anaerobic digestion / combined waste and power facility in Co. Cork. Such a large scale facility would provide a piece of critical infrastructure in the form of greenhouse gas abatement, renewable energy generation and a large scale alternative and acceptable disposal route for liquid wastes.

Several independent assessments have concluded that large scale anaerobic digestion as a source of renewable energy is not a financially viable stand-alone project. In order to enable this type of project to become economic reality, and in recognition of the climate change and energy security benefits, it is vital that the Energy Green Paper recognises that in certain instances (such as large scale anaerobic digestion), certain projects need additional incentives under the Kyoto Flexible Mechanisms. These projects could easily be structured so that the credits are issued under the Unilateral Joint Implementation process whereby a portion of the credits are retained by the government and left within the 'budget of allowances'. This would reward both parties, stimulate an investment that would otherwise not necessarily have occurred and encourage a project that is additional to CO<sub>2</sub> abatement measures that would already have occurred.

## Planning

Bioverda's experience in developing the anaerobic digestion facility in County Cork has shown that the planning process in Ireland is heavily biased against similar projects that contribute to security of supply and carbon abatement, and could be considered critical infrastructure. Throughout the planning process, the emphasis has been placed on that of waste rather than energy. While Bioverda's point of view is that this project is a strategic renewable energy and GHG abatement facility with significant waste management benefits, the planners are currently forced to take the view that it is primarily a waste facility with some additional energy and environmental benefits.

The planning application system should allow for consultation of the full potential benefits that would be realised from such an energy project. As it currently stands in the planning process, there are no provisions to fully describe the positive effects of such a development. For example, any benefits that may be outlined in an Environmental Impact Statement are site specific and do not cater for the fact that the facility will result in increased security of supply as well as reduction of greenhouse gases.

As previously mentioned, there has been little or no acknowledgement in the planning process of the importance of infrastructure in terms of meeting Ireland's strategic energy requirements, climate change obligations or renewable energy requirements. The Energy Green Paper must take account of these planning matters where they relate to key infrastructure that contribute to energy infrastructure and climate change mitigation. As an example this issue may come under the auspices of the Ministerial Bioenergy Task Force.

## Government Supported Renewable Energy Projects

In the past the DCMNR has provided support, initially through the Alternative Energy Requirement (AER) schemes and more recently through the Renewable Energy Feed in Tariff (REFIT) programme. Whilst these mechanisms are to be welcomed by generators of renewable energy, Bioverda's view is that:

- i.) The 'Reference Prices' for the tariffs are too low to attract investment and should be increased to match those in other parts of the EU for energy generated from renewable sources.
- ii.) The process of assessing applications for inclusion in these schemes can be lengthy. The period of time from the point of the applicant's submission to the award of the support scheme and subsequently to the point where electricity is commercially exported onto the grid is protracted and requires shortening.

The above examples demonstrate that currently, it is difficult for a European operator to justify investing in such renewable energy projects in Ireland, as opposed to better



supported neighbouring countries in the EU as well as the US. As an Irish company, Bioverda is particularly keen to work with the Government to overcome these barriers in order to provide investment in renewable energy infrastructure in Ireland.

Yours faithfully,

Simon Day

Trading Development Manager  
Bioverda Ltd